

Strategic Risk Analysis

2020

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Plac Europejski 6, 00-844 Warsaw, Poland

T +48 22 205 95 00

F +48 22 205 95 01

frontex@frontex.europa.eu

www.frontex.europa.eu

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Risk Analysis Unit

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Foreword

I am delighted to present our first Strategic Risk Analysis, which serves as the basis for the multi-annual strategic policy cycle for European integrated border management (IBM).

This analysis, and the multi-annual strategic policy cycle it supports, are part of the new European Border and Coast Guard Regulation (EBCG 2.0) that entered into force in December 2019.¹ The Regulation brings a further extension of our mandate and provides new tools that will help Frontex meet its strategic objectives.

In an increasingly complex and volatile world where old certainties are failing to hold true, this analysis aims to provide policy makers with the foresight that they need. The COVID-19 pandemic exemplifies the uncertain times in which we live. It poses border management challenges now, and we can be certain that we will face new and different challenges when it is over.

Our future efforts in the field of risk analysis will centre on reinforcing our products, putting particular emphasis on forecasting and futures thinking. We will be able to not only react effectively to critical situations at the EU's external borders, but also prevent or at least anticipate events by providing early warnings, reducing IBM vulnerabilities and strengthening resilience. In so doing, we will assist national authorities in effective border and migration management.

This Strategic Risk Analysis therefore reflects major international issues that require our full attention now and in the future. It is in line with EU policies and the priorities of the EU Commission's working programme. Put simply, European integrated border management must take account of EU policies, global megatrends and future threats to assess how they will affect the functioning of EU's external border as well as impacting internal security.

¹ Regulation (EU) 2019/1896 of the European Parliament and of the Council of 13 November 2019 on the European Border and Coast Guard.

List of abbreviations and acronyms used

ABC	Automated Border Control	n.a.	not available
AFSJ	Area of Freedom, Security and Justice	NGO	non-governmental organisation
BCP	border-crossing point	OECD	Organization for Economic Cooperation and Development
BRI	China's Belt & Road Initiative	Q/Qtr	quarter of the year
CIRCA	Communication and Information Resource Centre Administrator	RAU	Frontex Risk Analysis Unit
CTA	Common Travel Area (a travel zone without regular border controls between Ireland, the UK, the Isle of Man, and the Channel Islands)	RE	rare earth elements
EDF	European Union Document Fraud	SAC	Schengen Associated Countries (Liechtenstein, Norway, Iceland and Switzerland)
EDF-RAN	European Union Document Fraud Risk Analysis Network	SBC	Schengen Borders Code
EES	Entry-Exit System	SDG	Sustainable Development Goals
ESP	European Search Portal	SIS	Schengen Information System
ETIAS	Electronic Travel Information and Authorisation System	SRA	Strategic Risk Analysis
EU	European Union	UK	United Kingdom of Great Britain and Northern Ireland
EUR	Euro	UN	United Nations
FDI	Foreign Direct Investment	UNCTAD	United Nations Conference on Trade and Development
FRAN	Frontex Risk Analysis Network	UNDP	United Nations Development Programme
Frontex	European Border and Coast Guard Agency	UNESCO	United Nations Educational, Scientific and Cultural Organization
GDP	Gross Domestic Product	UNHCR	United Nations High Commissioner for Refugees
GNP	Gross National Product	UNSCR	United Nations Security Council Resolution
IBM	Integrated Border Management	US	United States of America
ICJ	International Court of Justice	USD	United States Dollar
ICONET	Information and Coordination Network for Member States' Migration Management Services	VIS	Visa Information System
ID	identification document	VUCA	volatile, uncertain, complex, ambiguous
IOM	International Organization for Migration	WB	Western Balkans
JHA	Justice and Home Affairs	WB-RAN	Western Balkans – Risk Analysis Network
JO	Joint Operation	WCO	World Customs Organization
MENA	Middle East and North Africa	WHO	World Health Organization
		WTO	World Trade Organization

Executive Summary

This first Strategic Risk Analysis (SRA) report marks the initial step in the new multi-annual strategic policy cycle for European integrated border management (IBM). As a future-oriented product, this report assesses the threats and challenges in relation to European IBM in the decade up to 2030. Its purpose is to inform the European Parliament, the Council and the Commission about strategic risks related to the EU's external borders. The SRA comprises a **megatrend implication assessment and thematic risk assessments**. Furthermore, the analytical steps and findings are the basis for **three scenarios**, which allow assumptions to be made on the implications the predicted future developments might have on European IBM.

The SRA's **methodology** encompassed a combination of a broad literature review, megatrends implications assessment² and scenario development. This qualitative work relied significantly on the expert judgement of border management practitioners of EU Member States. A series of workshops, meetings and discussions facilitated the consultation process with Member State experts. Some experts also provided written input on specific themes of interest (e.g. threats of a hybrid nature).

The assessment of megatrends (see Chapter 2) found that global forces – either independently or in combination – will have far-reaching effects across the world, affecting passenger flows, transportation of goods, international migration and cross-border crime. The **COVID-19 pandemic** has impacted the

development of megatrends and implies the need for close monitoring of the evolution of the different megatrends and the specific regions. This outstanding global event calls for further regular risk analysis from the strategic perspective.

Pandemics like COVID-19 have significant effects on public health and life. They show the importance of border management's role in preventing the spread of disease. In order to do this effectively, border guards must have the means to detect and quarantine potentially infected people, while ensuring that they themselves are protected. Cooperation mechanisms with Member States, EU Agencies (foremost ECDC), DGs and countries of origin and transit must be in place so that infections can be tracked and traced.

The strategic role of **international trade corridors**, gateways and inland infrastructure will increase considerably in the next 10 years. Huge infrastructural investments in Asia and Europe will not only significantly change the socio-economic landscape, but will also have border security implications. Major changes in international and European air, land and maritime mobility and trade and transportation infrastructure networks will most likely increase the pressures of illegal migration, cross-border crime and terrorism on the EU's external borders. Expanded critical infrastructure will provide more targets for hybrid attacks from state and non-state actors. The impact of a successful hybrid attack might increase because of the complexity of transport systems, supply chains and digitalisation.

Migration will not only remain a key issue in the EU, but its importance will most likely grow significantly. Our

assessment foresees a step change in migration over the next decade as the net effect of the interplay of megatrends and other significant developments in international foreign policy and the global security environment. The expected change will likely be comparable with the development of migration within the EU over the last 15-20 years. The EU has already experienced the 2015 migration crisis, which was a turning point for EU migration governance. By 2030, the EU will most likely have experienced another migration crisis that will be similar to or exceed the volume and intensity of the 2015 crisis. Disproportionate migration flows will most likely originate from Southeast Asia, Africa and/or MENA countries. Analysis suggests that in the next decade African migration might be more pronounced than ever before.

Effective **returns** are of paramount importance for the overall efficiency of border and migration management. Returns need to be a key focus of internal capacity development and the EU's external policies on cooperation with Third Countries, linked as far as possible to development aid, trade agreements or visa policies.

The assessment also foresees an intensification of illicit smuggling flows affecting the internal and external security of the EU. **International smuggling activities** will become more sophisticated and entrenched under the cover of legal business structures and facilitated by white-collar crime and cybercrime. Illicit smuggling will most likely be pursued by new poly-criminal networks and highly specialised criminal actors. The *modus operandi* and sophistication of criminal operations will increasingly blur

² See https://ec.europa.eu/knowledge4policy/foresight/megatrends-implications-assessment-tool_en

the distinction between legal and illegal activities.

Cybercrime in all its forms is expected to increase in significance, necessitating authorities, including border management, to develop effective protections against it. The growth in international trade and the security weaknesses of global supply chains, transportation/logistics systems and especially the shipping industry and seaports will be exploited to facilitate all types of illicit trade. The corporate veil, in particular, will provide the pretext of legitimacy as well as numerous ways to promote criminal activities and manage profits. Cybercrime will also impact upon travel through document fraud and potential attacks on security systems, including biometric.

Hybrid interference will be constant throughout the next decade, with attempts made to destabilise whole countries and regions as well as influence global governance (e.g. disputes over political/economic issues, trade wars, economic sanctions). Political, military, economic and technological dominance will be utilised for hybrid influencing purposes. As long as the big problems of the world remain largely unresolved and major political conflicts between

countries continue to exist, negative pressures will be channelled:

- **in the public domain** – into activism, civil unrest and social resistance movements, and

- **in the foreign and security policy domain** – into hybrid interference, terrorism and low-intensity actions.

In this context, the instrumentalisation of migration, crime (including cybercrime) and terrorism will likely be used as hybrid methods. On the flip side, terrorists themselves are likely to employ hybrid methods and cyberterrorism.

Overall, the outlook regarding the security situation and its practical implications for EU border management will exist alongside global transformations, positive developments and progress. The scenarios developed for this analysis all envisage major disrupting change over the next 10 years. The course of future events will be determined by a complex interplay of megatrends and a ‘tug of war’ between competing forces at national, regional and international level. Events and circumstances that have hitherto been considered unthinkable will become normal. Thus, the scenarios outlined in this report emphasise the importance of ongoing situational assessment and crisis-preparedness both at policy

level and in the field. They also stress the word ‘integrated’ in European integrated border management. It is vital that EU and national border management strategies are aligned, responsibilities are shared and a unified approach is taken vis-à-vis Third Countries. If this is done successfully, pessimistic scenarios should be prevented from materialising.

In conclusion, the world, and the EU in particular, will have to weather ‘stormy conditions’ between now and 2030. Taken together, the interplay of megatrends, migration, cross-border crime and hybrid threats might be more than sufficient to cause **a step change and crisis in external border security by 2030**.

Either way, there will be new challenges and threats at the EU’s external border. Regardless of what scenario materialises, over the next 10 years the EU’s external border will face greater challenges than currently. The next decade will see increased legal passenger and cargo flows and increased illegal flows and cross-border crime. The proportions of each depend on the outcome of the interplay of megatrends.

1. Introduction

The European Integrated Border Management (EIBM) is established through an integrated strategic process. Under the new EBCG Regulation, Frontex, in close cooperation with EU Member States and the Commission, has prepared a Strategic Risk Analysis (SRA) for EIBM in order to prepare and submit to the European Parliament, to the Council and to the Commission a strategic risk analysis for European integrated border management. According to the regulation (Art. 9) such strategic risk analyses shall be taken into account for the preparation of the multiannual strategic policy cycle for European integrated border management.

The European Border and Coast Guard shall implement European integrated border management (EIBM) as a shared responsibility of the Agency and the national authorities responsible for border management, including coast guards to the extent that they carry out maritime border surveillance operations and any other border control tasks. The objective in the field of external border management is to develop and implement EIBM at national and EU level as a necessary corollary to the area of free movement – the Schengen area – and as a fundamental component of an area of freedom, security and justice. To ensure a high level of internal security within the Union, the crossing of external borders must be effectively managed. At the same time, migratory challenges, serious cross-border crime and potential future threats must be tackled at those borders, while acting in full respect for fundamental rights and in a manner that safeguards free movement rights within the EU. The technical and operational strategy for EIBM (TO EIBM)

ensures EIBM will be effectively implemented by the European Border and Coast Guard. The three strategic objectives of the TO strategy EIBM functioned as a framework while assessing the implications of this strategic analysis on IBM. In this regard this report takes all aspects relevant for IBM into consideration and presents thematic analyses, three different scenarios and related findings.

The SRA is a strategic foresight report that attempts to foresee possible developments and identify threats in the field of integrated border management and return over the next 10 years. Foresight and scenario development are highly complex tasks, yet they are crucial tools for strategic planning and capability development in a volatile, uncertain, complex and ambiguous (VUCA) environment.

This report provides a compendious summary of the key findings of a thorough strategic risk analysis, and is designed to support high-level decision-making in the EU policy fields of border management and return. A SRA will be prepared every two years, in close consultation with Member States, and submitted to the European Parliament, the Council and the European Commission (art.29 EBCG). The scope of the SRA comprises all aspects relevant for IBM, analysing threats and future challenges. As such, this analysis covers the legal framework of the EBCG 2.0 and known security issues at the EU's external border as references and projects them against the expected global developments assessed in the analysis of megatrends.

Each thematic area and its development was assessed regarding any implications on EIBM. The outlook in scenario

form not only gives a picture of possible futures of IBM, but also reflects on the possible implications and challenges for EIBM.

The 2020 SRA report is the outcome of close cooperation between Frontex and its stakeholders, who played a pivotal role, not only in providing essential input, but also in helping to determine the best way forward (art.29 EBCG). With this inclusive and participative approach, the SRA 2020 follows the modern understanding of strategy-finding processes.

Methodology

The work conducted to prepare the Strategic Risk Analysis report employed the following analytical techniques:

- Literature review
- Expert judgement (incl. workshops and consultations)
- Megatrends implications assessment
- Scenario development

The **literature review** ran throughout the research process and concurrently with other techniques and expert workshops. It aimed at understanding the broader context of IBM and identifying clusters of risk indicators for effective monitoring of future developments. The extensive review covered the most relevant aspects of megatrends, future challenges at the EU external borders, crime and security issues and their implications for EU border management.

The **expert group** provided essential input to help prioritise megatrends, assess their relevance and implications for border management and return, develop future scenarios and validate findings.

A **megatrends implications assessment** was conducted with a view

to better understand the global context and future challenges. While this method is an essential step in a foresight study that relies to a higher degree on expert judgment, it nevertheless poses particular challenges. This is because it necessitates looking into diverse areas of knowledge beyond the policy field of border management and return to determine the relevance of megatrends and their implications.

Scenario development employed a combination of expert judgement, forecasting and ‘backcasting’. The latter involves working backwards from an identified future. In order to do this, three future statuses were initially envisioned within the 10-year horizon. That is, a baseline scenario (expected future

or status quo), a pessimistic scenario, and an optimistic scenario. Each scenario was carefully explored by the experts who tried to identify not only the possible developments that might connect the present to the future, but also considered other somewhat less ominous or promising gradations (i.e. different scenario variants). The overall goal, of course, was not to predict the future with a high degree of accuracy (that is impossible), but to ‘sense’ how the future might play out by outlining probable and plausible future directions, identifying future threats, opportunities and challenges, and assessing their implications for European IBM over the next 10 years.

This methodology was employed systematically with the purpose of managing the analysis process as efficiently as possible and delivering a well-thought out and reliable product on time. Close cooperation between Frontex and Member State experts in the form of meetings, workshops and consultations helped determine the best way forward. Two expert workshops with Member States were organised in October and November 2019, and two Plenary Meetings in December 2019 and February 2020.

2. Megatrends and their implications

The European Commission Megatrends Hub³ is a dynamic collective intelligence system continuously drawing on the vast knowledge available in the European Commission and beyond. It is a curated repository of information structured around 14 Global Megatrends⁴ relevant for the future of the world, with a focus on Europe, and provides knowledge for policy. The SRA mainly uses these megatrends and other sources for analysis of interdependencies and for foresight as well as an outlook regarding EIBM.

Population growth and subsequent future **demographic imbalances** in Third Countries of origin relevant for migration towards the EU may well become the most important megatrend of this century due to their magnitude, interplay with and effects on almost all other megatrends. By 2100 the world population is set to increase by 42%, potentially reaching 11 billion people. The growth pattern will be quite uneven, largely concentrating around some of the least developed regions (see Figure 1). Africa (the continent with the youngest population), and in particular sub-Saharan Africa, is expected to experience the largest increase, accounting for half of worldwide demographic growth between 2020 and 2050. Western Asian countries will also play an important role, as their populations are expected to increase considerably over the next decades. Population growth in low-income countries, in combination with their low per capita GDP, will likely compound **inequality**, and

further widen the gap between developed and developing nations, and between rich and poor. This in turn, could lead to a rise in the numbers of the very poor in places such as sub-Saharan Africa, which already hosts more than half of the world's population living in extreme poverty.

Another important challenge is **education and learning** for a growing and increasingly unequal population. Despite the progress made so far, the sustainable development goal to 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' will most likely not be met by 2030. But insufficient expansion of education opportunities in line with expected demographic growth could lead to a rise in underdeveloped human capital. Particularly in parts of Africa and Asia young people might have the ambition to access quality education and employment elsewhere.

The increase in world population will also result in rising levels of **urbanisation**. Over the coming decades the world's urban population, which currently stands at 4.2 billion people, is expected to grow, as increasing numbers of people move from rural areas to cities. This trend will be most pronounced in Africa and Asia. Rapid urban growth in the poorest countries will present opportunities for development but also pose challenges for the provision of basic services to citizens. In consequence it could lead to informal dwellings and slums and a host of social problems (e.g. pollution, environmental degradation, epidemics and crime). The COVID-19 pandemic has demonstrated how fast health risks can spread exponentially in densely populated areas and become a global health risk.

A bigger global population will also translate into a larger middle class – expected to grow to 5.3 billion people in 2030 – and consequently changing lifestyles and increasing **consumerism, cargo and international travel**. This will be accompanied by major changes in (largely unsustainable) consumption patterns that will put natural resources under considerable strain. The resulting **resource scarcity and environmental degradation** will have far-reaching worldwide effects that could prove disastrous for the poorest regions, many of which are important places for the extraction of minerals. It can be expected that there will be more conflicts about natural resources all over the globe, which will increase the number of internally displaced persons and refugees.

Specifically, the middle-class expansion in Asian countries – which will account for 88% of the total projected growth – will be a catalyst for further economic development in China and Southeast Asia. The rise of the global middle class, alongside the enlargement of business markets and technological advances, and the transition of traditionally agricultural economies into industrialised and knowledge-based ones will lead to the **expanding influence of the global east and south**. Important economic opportunities will be derived from increasing cross-border trade between the EU and emerging market economies in this region. However, the associated security risks will need to be simultaneously addressed.

Similar to world population growth and aggravated resource scarcity, **climate change** is one of the defining challenges of the 21st century. This megatrend

3 See: https://ec.europa.eu/knowledge4policy/foresight/about_en

4 See 14 megatrends at https://ec.europa.eu/knowledge4policy/foresight_en

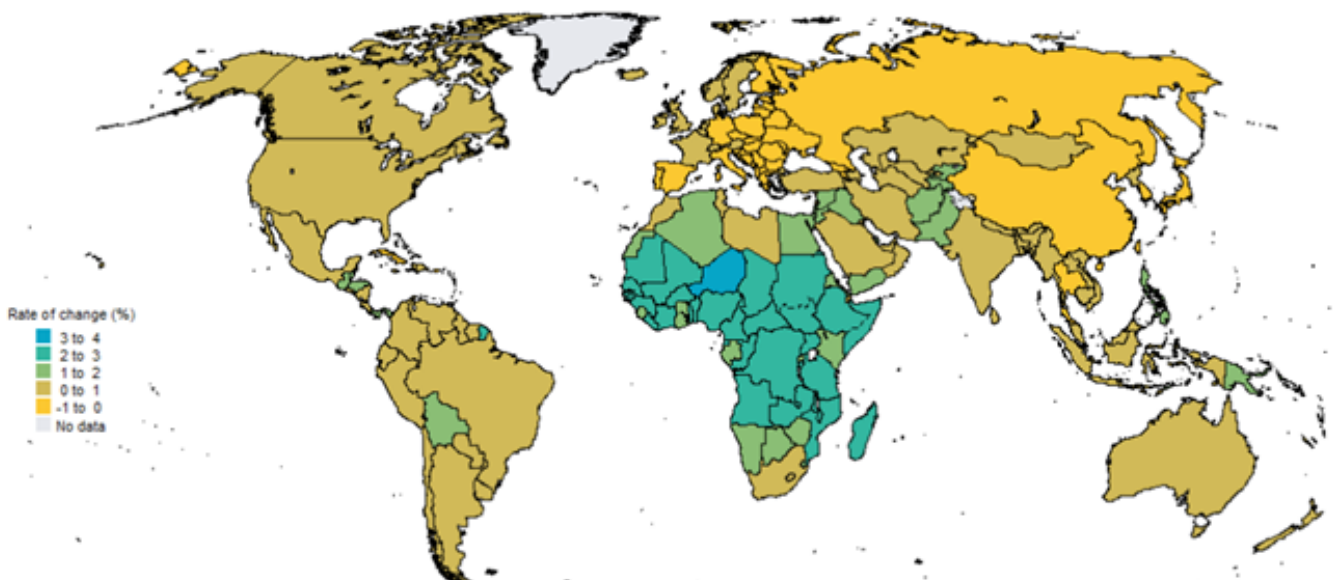


Figure 1 Population growth rate between 2030 and 2035

represents a major threat to equality, having already created a per capita income gap between developed and developing nations that is 25% larger than it otherwise would have been (Diffenbaugh & Burke, 2019). Though the world is already grappling with the effects of global warming, the next decade may see a growing incidence of extreme weather events that can cause higher levels of desertification, soil degradation, food insecurity and biodiversity collapse across various regions. This may further threaten communities that are already vulnerable and deprived.

Despite significant advances in medicine and technology, the world is still far from achieving the sustainable development goal of universal health coverage by the year 2030. In lower-income countries millions of people still lack access to basic healthcare. The emergence of novel and highly contagious diseases for which no vaccines or medical treatments are available exacerbates the vulnerability of such populations to health emergencies. However, COVID-19 has shown that a pandemic can pose an unprecedented challenge to all countries, irrespective of how developed, effective and resilient their healthcare systems are. Less developed countries' with less resilient healthcare systems and economies are likely to suffer significantly more, and it is difficult to predict when and if such countries will recover. Poverty migration could be the result.

Within the technological domain, the rapid development of **new technologies** such as artificial intelligence, robotics, nanotechnology and biotechnology will revolutionise the way people live and work. While the added-value of new technologies is unquestionable, the transition to an AI-based economy is not without challenges. It carries significant investment costs that might be unfeasible for low-income countries, thus potentially widening the digital divide and causing higher levels of inequality between developed and developing nations. The acquisition of AI-powered surveillance systems by countries with poor human rights records also poses significant concerns due to their potential to exacerbate the repression and persecution of communities and societal groups. This may result in increased numbers of refugees.

New technologies will also have important implications for the **nature of work**. Lower-skilled jobs will be automated and replaced with new ones that call for specific knowledge and qualifications. Holders of low-skilled jobs will have to acquire higher-level skills if they are to find work, and new education and training schemes will need to be created to enable the transition. This, however, is likely to happen first and foremost in countries with more advanced economies, leaving low-income, high-population countries with an even greater challenge to create strong and dynamic

job markets and sustainable economic growth.

Implications for border management

Comprising some of the richest nations and neighbouring some of the most volatile and least developed regions in the world, the EU is a major destination for many of the world's poor and persecuted, as well as a vast market for illegal commodities. The evolution of megatrends over the next decade is thus of utmost importance for the future of the EU, and poses significant challenges for EU border management. The megatrends will influence legal and illegal migration (push- and pull-factors), international passenger traffic, transportation of goods, as well as situations exploited by organised criminal gangs (international and serious cross-border crime) and terrorists.

In the coming years, the world is likely to experience unprecedented population growth in sub-Saharan Africa and Western Asia. This will have important implications for EU border management, as the two regions encompass important source countries for irregular migrants. Over the next decade, the level of migration to the EU will depend to a large extent on whether the conditions in origin countries and regions encourage would-be migrants to either remain at home or migrate within the region.

At present, domestic and intra-regional migration accounts for the bulk of population movements in e.g. Africa. If, however, this changes for any reason, many more migrants may head for the EU. It is likely that stabilisation efforts and economic growth in parts of sub-Saharan Africa and Western Asia will not keep pace with demographic pressures, and that the EU will increasingly be a recipient of large flows of international migration. Moreover, if the underlying factors behind migration (e.g. protracted conflicts, high levels of poverty, inequality, crime, illiteracy and diseases) are not addressed, more people will be on the move. The population flows will comprise not only migrants and asylum seekers in search of better conditions away from home, but also forcibly displaced persons currently hosted by developing nations, some of which are close to the EU, where support systems are already straining under enormous pressures. This situation could pose serious challenges to EU border management in terms of handling disproportionate flows at the external borders, saving lives at sea and identifying vulnerable groups.

Push factors for irregular migration may also broaden in the next decade. An important force behind possible future movements that should not be ignored is climate change. The most adverse effects of global climate change will likely be experienced more intensely in the poorer and least developed regions of the world, which are already grappling with an array of socio-economic issues. But its effects could also extend to other regions, changing the profile of origin and transit countries, creating greater variation in migratory routes, *modi operandi* and more diverse flows of migrants at the EU's external borders (i.e. differences in age range, gender balance, and the proportion of accompanied/unaccompanied minors). The implications of more diversified flows would not only have a significant impact on EU border

management, but also on other migration-related aspects, including reception, asylum, integration and returns.

Migration routes towards the EU from countries of origin may also change and follow new migration policies or avoid transit countries with strengthened border management. Therefore, a wide set of strategic partnerships with Third Countries and especially neighbouring countries, including deployed Frontex, Member State and network liaison officers, will allow for a flexible operational response to such changes. Furthermore, the interplay of EU policies and international relations will become more important for EIBM.

The evolution of megatrends may also pose border management challenges in relation to cross-border crime. Changes in consumption patterns could lead to a proliferation of fake products which, supported by major infrastructural and transportation developments such as China's Belt and Road Initiative (BRI), China-Russia trade and the Arctic passage could more easily find their way to European markets. However, these developments will also bring the EU closer to Asian markets, creating greater economic opportunities and interdependencies between them. Significantly, they will also create new routes for the smuggling of illegal commodities that will sustain various criminal markets and activities (e.g. drug smuggling, trafficking of persons, wildlife and scarce natural resources, corruption and violence) and facilitate illegal migration. Cooperation with EU, national and international law enforcement authorities will increase, as EBCG Joint Operations in Third Countries and detections at the EU's external border (filter function of the border) support cross-border and international police cooperation. At the same time - and according to the EBCG Regulation - the EBCG needs to prepare itself to e.g. deploy the Standing Corps to Third Countries for border management support. In

the long term the EBCG Standing Corps might support investigations of serious cross-border crime by using the law enforcement background of Standing Corps Border Guards.

While it is impossible to predict the developments of the next 10 years with absolute accuracy, it is certain that the EU will be a key destination for economic migrants and asylum seekers. To address this, the EU needs to adapt and strengthen its border management capabilities. Human and technical capacity will need to be increased, border and coast guards will need continuous training and awareness programmes, new technologies will be required to expedite processes at the borders, while reaction capability and crisis-preparedness can be improved. Border management takes a forward-looking approach, relying on the regular monitoring of risk indicators and empirical research about the impact of key megatrends on migration and cross-border crime. These help to improve intelligence gathering and enable a more thorough assessment of risks in the pre-frontier area, which will allow for timely preparedness and the adoption of tailored responses.

Away from the borders, the EBCG will continue developing strong external relations, in the form of renewed efforts to work with origin and transit countries in order to prevent large migratory flows and ensure the return of those who do not meet the conditions of stay in the EU.

Finally, future border management efforts could also focus on strengthening network governance and cooperation at EU level, reflecting the views and concerns of all stakeholders. In this way, unilateral solutions (e.g. intensification of SAR operations by NGOs, facilitation of illegal border-crossings by migrants and refugees and the staging of anti-migration policy protests) will be effectively managed reducing their potential to further polarise an already complex and multifaceted global issue.

3. Pandemics as a key challenge for IBM

The COVID-19 crisis reignited the debate about the vulnerability of modern societies. The world has seen a number of major health crises in the 20th and 21st centuries, including Zika in 2015, Ebola in 2014, MERS in 2012, and SARS in 2003. The recent outbreak and subsequent transmission of a novel coronavirus has severely tested national healthcare systems, societies and economies all over the world.

Besides the major impact on public health, the COVID-19 crisis has also affected socioeconomic life worldwide. The world is therefore having to manage two crises simultaneously: public health and the economy. From the border management perspective, borders provide the geographic expanse to filter movements and to contribute in suppressing epidemics. Thus, they play an integral part in protecting public health. However, in order for border control authorities to take the necessary actions, global pandemic surveillance needs to feed into regional and national protection mechanisms.

To counter the uncontrolled life-threatening spread of the coronavirus, restrictions of movement were imposed across the world, gradually creating smaller and smaller cells of free movement. The Schengen area was one of the first zones of free movement to be affected by re-introduced border controls, travel restrictions and the closure of borders. It became obvious that the COVID-19 health risk can only be effectively mitigated by drastic measures. However, these measures have had a serious impact – economic regression and the still stand of public life. Migration, including illegal migration, is almost frozen until borders reopen. Economic

recovery requires the borders to reopen, so when they do European Integrated Border Management must be prepared for a potential second wave of COVID-19 or new pandemics.

The European Commission has established a coronavirus response team at political level and developed a pandemic response and recovery plan to coordinate national efforts.⁵ The unprecedented EUR 2.4 trillion recovery plan is aimed at protecting the EU's achievements and enabling future growth by using the EU budget to the fullest. Also, the adjusted Commission Work Programme 2020 will support further progress through major investments in a European Green Deal, the digital economy as well as various recovery and resilience initiatives.⁶ The European Commission's response involves action on different fronts (i.e. public health, travel and transportation, economy, digital, research and innovation, crisis management, emergency support, and fighting disinformation).⁷ Moreover, its 'Coronavirus Global Response' campaign has raised almost EUR 10 billion to allow for universal access to affordable coronavirus vaccination, treatments and testing.⁸

The pandemic will have an impact on all the megatrends. Some developments might slow down while others

might speed up. Therefore, the continuous monitoring of the megatrends, and any impacts they have, as well as future health risks is more important than ever.

Implications for border management

The Schengen Borders Code defines 'threat to public health' as 'any disease with epidemic potential as defined by the International Health Regulations of the World Health Organization and other infectious diseases or contagious parasitic diseases if they are the subject of protection provisions applying to nationals of the Member States'. The main consequences of a pandemic like COVID-19 on border management are in the health and safety plus public health and security domains. The external and internal dimensions of a pandemic necessitate that complementary prevention and reactive measures are employed at both the external borders of the EU and in non-EU countries.

First-line border guards interact with travellers and handle luggage and cargo, which could lead to exposure to toxins, pathogens and more. Authorities will need to assess the risks and immediately provide the right personal protective equipment and risk mitigation measures to ensure that staff are safe and can fulfil their duties.

From a health and safety point of view, border control authorities will have to go beyond promoting and facilitating healthy lifestyles and personal hygiene. Tailored immunisation programmes will have to be reviewed, vaccinations administered and screening plus monitoring programmes revamped.

5 See https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response_en

6 See https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe_en

7 See https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/overview-commissions-response_en

8 See https://global-response.europa.eu/index_en

Security by design will have to embrace health and safety by design. Border control authorities will need to apply solutions that ease the cleaning and decontamination of surfaces, especially in areas with significant movements of people. Office and work setups will have to enable physical distancing; facilities used by multiple agencies will have to apply the same standards and quarantine areas identified and setup.

To prevent an isolated incident from becoming an outbreak, the right knowledge and awareness is essential, reinforced by training and equipment that enables first responders to act. Border control authorities will have to work with the relevant bodies, and employ specialists to elaborate, validate and review protocols in relation to health and safety, such as using hazmat and decontamination gear, plus medical guidance procedures on detection, tracing and containment. They will have to be part of crisis management processes. Concomitantly, they will act as sentinels to detect threats and trigger contingency plans.

The potential deterioration of health metrics in source and transit countries of migration and the subsequent interplay between health and other megatrends could also become drivers for international migration. From the border

management perspective, the potential spread of diseases through population movements across borders will likely become an increasingly important consideration, requiring border and coast guards to swiftly identify and address issues that can have a detrimental effect on public health, while ensuring that bona fide travellers continue to enjoy their right to free and uninterrupted movement.

Authorities responsible for border management will have to develop or increase their operational capabilities to detect and contain pathogens and other toxins. COVID-19 has already led to thermal cameras being deployed in many border-crossing points and places of work. Albeit not fool proof, body temperature screening could become a permanent measure. Threats to the aviation industry led to the introduction of explosive trace detector equipment being deployed to security screening areas. COVID-19 will see border control authorities investing in bioassay equipment, which can screen and detect pathogens and toxins on the spot. This will allow first-liners to analyse samples and take immediate action.

In the decade to come, border control authorities will need to acquire field-deployable solutions for the rapid detection and identification of pathogens.

Such solutions are needed to implement Schengen Borders Code Article 6, which permits refusals of entry to Third Country nationals that are considered a threat to public health, and Article 8, which permits border checks for similar threats from those who enjoy the right of free movement under EU law.

In the field of health risks, comprehensive cooperation between EU Agencies and EU COM will enable the establishment of a pre-warning mechanism and adapted operational and strategic response. As a first step the risk analysis units of ECDC and EBCG could develop information channels allowing them to assess health risks and initiate adapted responses while also assessing existing vulnerabilities and capacity-building needs.

The COVID-19 pandemic provides an extreme example of consequences resulting from insufficiently homogenous EU external border management: the disruption of the smooth free movement of people and goods within the European Area of Freedom, Security and Justice entailing a threat to the EU internal market. Against that background, investing in European border management capabilities and the EBCG Standing Corps goes far beyond migration and security issues, but safeguards the economic conditions for EU prosperity.

4. Future challenges at the EU's external borders

Passenger flows and cargo transport

The megatrend assessment reflected on global events and developments. These will affect transnational and international trade and passenger flows. However, the changes within the EU regarding Brexit and new partnerships with or memberships of Western Balkan countries will also have an impact on traffic routes and border crossings. The date of potential exits from the EU or accessions of new members is difficult to predict. However, the high likelihood of such events happening within

the next 10 years will have an impact on cross-border transport.

Maritime transportation

Maritime transport is the backbone of global trade and supply chain systems – more than four-fifths of the world's trade by volume (and three-fifths by value) is carried by sea. Seaborne trade is now the predominant mode of transportation among developing countries and for low-volume intraregional trade.

A number of major developments such as emerging market economies and new transport routes like China's Belt & Road

Initiative (BRI), as well as environmental protection measures, will have an impact on international trade and maritime freight transportation, as shown in Figure 2 below. Climate change will also affect international trade and transport, opening a new maritime route through the Arctic Ocean that will shorten the distance between Asian and European economies. Several key technological developments, including digitalisation, AI applications (route planning optimisation, cargo and shipment tracking), autonomous vessels, smart ships, intelligent automation and robotics, will likewise significantly change international

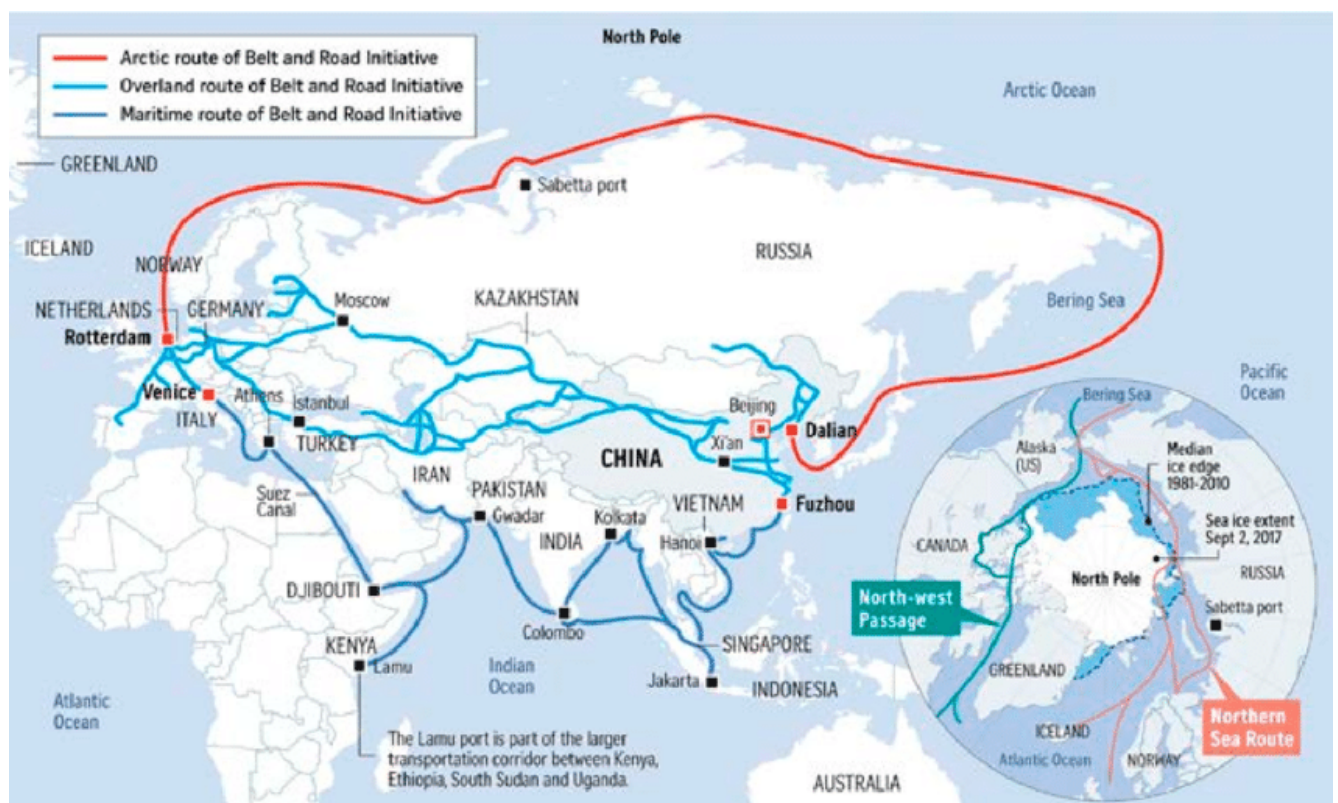


Figure 2 BRI map of land and maritime corridors (Duchâtel & Sheldon-Duplaix, 2018; Oziewicz & Bednarz, 2019)

trade and the shipping industry, in particular by reducing trade and transportation costs. The COVID-19 crisis might act as a catalyst to boost the use of new technologies for maritime transport.

According to the International Transport Forum (ITF), global demand for passenger and freight transportation will continue to rise over the next three decades, with freight expected to triple, and most of it going by ship. Similarly, container-handling operations at seaports worldwide could quadruple by 2030. Major infrastructures such as ports and key inland (i.e. road and rail) routes will thus become increasingly important for the world's economies. The impact of COVID-19 on global transport has led to a huge decrease in carried tonnage. However, emergency financial programmes being put in place by governments all over the world and the gradual lifting of travel restrictions might lead to a quick resumption of global trade. Debts incurred to deal with the crisis will require strong economic growth in order to avoid a persistent and deep recession.

Besides freight, maritime borders facilitate the movement of millions of passengers annually. Based on Frontex data, in 2018 approximately 24 million regular passengers (entry/exit flows) crossed the EU's external maritime borders. Although representing only 4% of all arrivals in the EU in 2016, travel by sea is likely to grow during the next decade, as international arrivals in the EU are estimated to increase by on average nine million passengers (or 1.9%) annually through 2030.

The cruise sector is growing dynamically, even though it represents only 2% of the international tourism industry. In 2018, the Cruise Lines International Association (CLIA) reported a 7% increase on 2017, with a total of 28.5 million passengers. The pre-COVID-19 forecast of 32 million in 2020 shows an overall increase of 56% in the past decade. The projection for the next decade was for similar exponential growth, increasing both the volume of cruise passengers and the overall fleet. However, the pandemic has hit the

cruise sector hard, and how long it will take for a return to normality is unclear.

Implications for border management

While global transport and supply chains are optimised to manage the huge volumes of international trade and mobility, the effective management of maritime security risks remains something of a secondary consideration. In general, the lower level of maritime crisis preparedness might be exploited by state and non-state actors to launch sophisticated cyber and terrorist attacks against international/domestic passengers, vessels, dangerous cargo and critical maritime infrastructure, or use a combination of hybrid methods.

The complexity and vastness of the maritime environment not only gives such actors numerous opportunities for action, it also poses major operational challenges. At border management level, there will thus be a greater need to address vulnerabilities at the external maritime borders as well as further develop the capability to identify, detect and respond to security threats swiftly and effectively.

The introduction of bigger cargo vessels to reduce transport costs will lead to an extension of deep sea ports functioning as maritime cargo hubs. Logistic needs and the use of AI will increase, at the same time increasing the vulnerability of ports to cyber and terror attacks. As time pressures to unload freight will increase, appropriate new security measures will need to be adopted. The development of advanced risk profiles and surveillance at sea are key requirements for border management in future. Therefore, the cooperation with EMSA, EFCA and other maritime security authorities as well as customs will be of great importance. Furthermore, border control capacities at sea ports besides the coast guard function will increase.

Land transportation

In the coming decades, three mega-projects will shape the transportation landscape: the EU Trans-European Transport Network (TEN-T), the 4th Railway Package (4RP) and China's Belt & Road Initiative (BRI) for both maritime and land transport.

The TEN-T encompasses the development of Europe-wide rail lines, roads, inland waterways, maritime routes, ports, and airports, as shown in Figure 3 below. The core network and the comprehensive network covering all EU regions will be completed by 2030 and 2050 respectively. The 4RP is a set of legislative texts aimed at creating a Single European Railway Area (SERA) and improving the rail sector's competitiveness and efficiency vis-à-vis other modes of transport. China's BRI aims at connecting Asia with Africa and Europe via land and maritime infrastructural networks (see Figure 2 above). Naturally, the aforementioned transportation-related improvements will facilitate trade and economic activities further.

By 2040, BRI rail transport is forecast to carry three million TEUs of freight from China through the Kazakhstan-Russia-Belarus corridor to northern Europe. The capacity of the EU's TEN-T to meet BRI-related rail demand seems to be sufficient until 2030, but more clarity is needed about future BRI plans to assess rail traffic/infrastructure implications. Obviously, the freight transport plans through Asia to Europe will change existing modal patterns, affecting logistics chains and transport network infrastructure significantly.

In 2017, road transport (73%) was the main mode of land freight transport, followed by rail (17%) and inland waterways (6%). Car travel was the main mode of passenger transport, representing over 70% of the total. Rail passenger travel (incl. high-speed rail) accounted for 7% of transport.

According to Frontex data, in 2018, over 300 million regular passengers passed through the external land borders

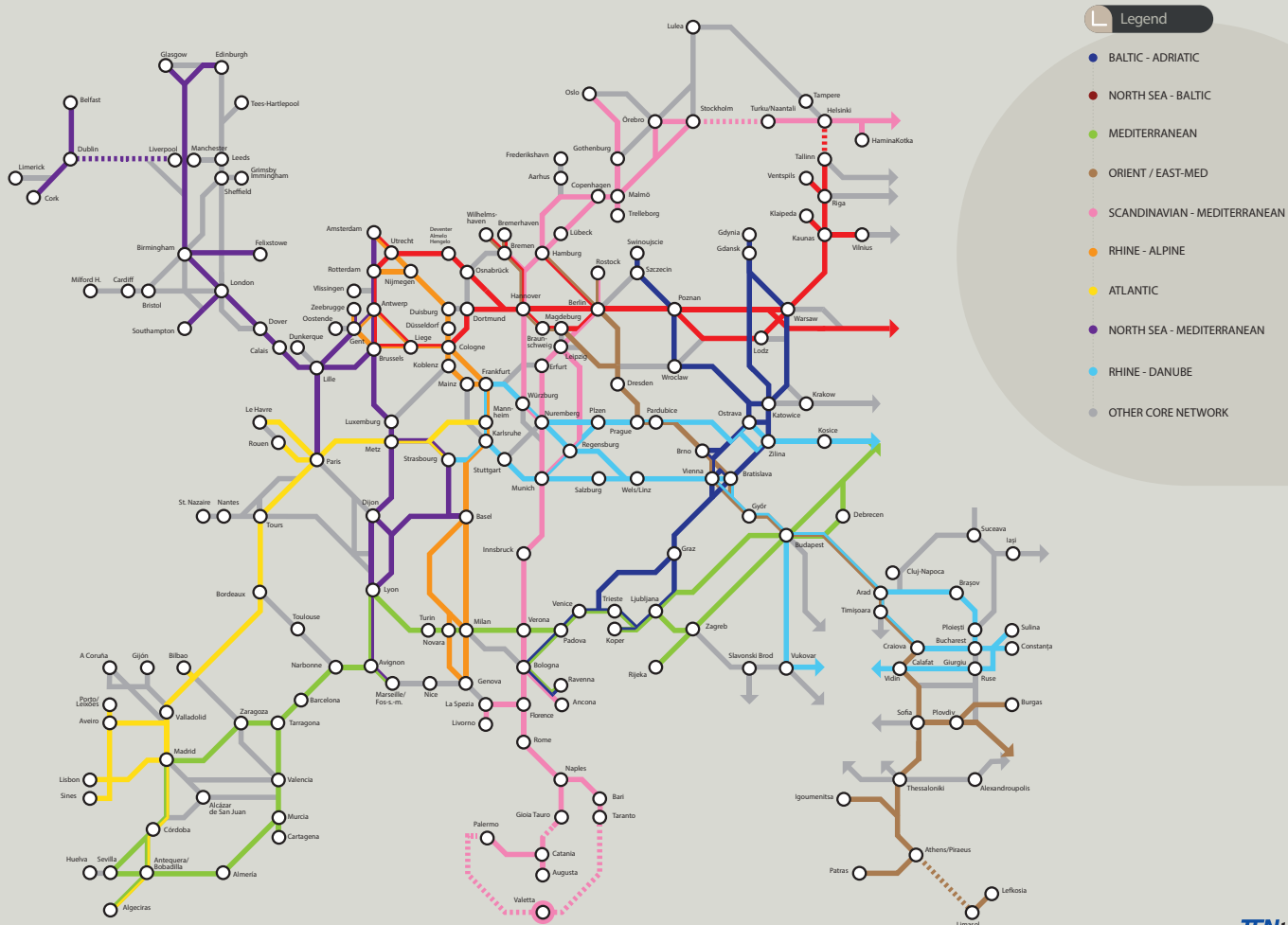


Figure 3 Trans-European Transport Network, TEN-T core network corridors

(entry/exit flows). As regards illegal migration, in 2019, 34 000 illegal border-crossings were reported at the EU’s external land borders (BCPs and green borders).

Implications for border management

In the years ahead, Europe’s transport infrastructure will be shaped by international economic developments, major transport investments and mega-projects such as the TEN-T and BRI. Besides the positive effects of infrastructural development, it is expected that improved land transport networks will also be used to facilitate international migration, secondary (intra-EU) migratory movements and cross-border smuggling activities. Moreover, given its crucial importance for the EU’s economy, surface transport infrastructure could become the target for hybrid interference by state and non-state actors. To respond to these

security challenges, there will be a need to enhance cooperation between border guards, customs and police authorities over the next decade. Cooperation with the EU Agency for Railways will be useful to better assess the security risks for cross-border crime of this mode of transport.

Air transportation

According to EUROCONTROL, by 2040 there will be 16.2 million flights in Europe (53% more than in 2017) – an average growth of 1.9% per year. In terms of infrastructure, growth is forecast as high as 16% per year at most main EU airports (top 111 airports). Current developments in new and expanded air infrastructure, in building aeroplanes with higher capacities, and in research and innovation, are positive developments that need to continue in order to respond to the estimated growth in flights.

Nevertheless, EUROCONTROL foresees that flight demand will be higher than supply, resulting in capacity gaps of about 8% of total demand (equivalent to 160 million people or 1.5 million flights). This increase can be attributed to the tourism market, whose potential for growth in the coming decades remains significant. The Mobility and Transport section of the European Commission suggests that from 2020 to 2030 there will be a global increase in flights of 5% per year. Using national and Eurostat data, and the 5% expansion figure, it is estimated that the total entry and exit traffic at all borders in 2030 will be approximately two billion passengers, of which some 972 million will need to pass through EU passport controls, compared to some 608 million at present. These figures are based on pre-COVID-19 global predictions; the pandemic has since brought flight traffic down to a minimum. However, under intense pressure,

the air travel industry and airlines are developing concepts that will allow secured flight travel. First routings have started to operate again and it is foreseeable that air traffic will resume quickly as traditional tourist countries start lifting COVID-19 restrictions just as the holiday season starts.

The effect of a 50% increase in passenger traffic over 10 years and the prospect of having to clear almost a billion passengers through controls in 2030 will of course have major implications for border guard activity.

Some of this increase will be concentrated in main hubs. These airports have limited physical expansion capabilities, but there are alternative airports in the countries that could probably quite easily accommodate increased passenger flows without any major disruption to the operation of air traffic. Moreover, central and eastern European Member States are looking for increased connectivity and airport capacity in terms of route networks. Generally speaking, passenger traffic can be accommodated partially if not fully in this region. But the construction of new airports is a lengthy and costly process. Therefore, it can be expected that only a few new EU airports will open in the next decade. However, every airport infrastructure project has an impact on the needs and the scope of integrated border management at the external air border.

Passengers will probably continue to place a premium on low-cost flights. This might encourage the growth of budget carriers or the budget airline model being further adopted by carriers, not just on short and medium haul, but also on longer haul flights. This model has

already been seen to impact the ability of some EU airports to cope with related border management and immigration issues. Regional EU airports will gain relevance for low-budget carriers. Consequently, the border management capacities at these airports must follow the development and proportional increases and investment should be planned in terms of enhancing air border security (i.e. human resources, infrastructure and technology).

Beside the regional aspect of air travel, it must be highlighted that passenger flow varies during the year and is seasonal. In summer tourist flights create a peak, requiring additional deployments of border guards. The EBCG Standing Corps provides the necessary flexibility to deploy short-term team members for such occasions.

Implications for EU border management

The strategic role of international trade corridors, gateways and inland infrastructure will increase considerably in the future, partly fuelled by a rise in the middle-class and along with it, consumption patterns, as explained in Chapter 2. Huge infrastructural investments in Asia and Europe will have border-security implications. Significant changes in international and European air, land and maritime mobility, and trade and transportation infrastructure will most likely increase the pressure on the EU's external border security through illegal migration, cross-border crime, terrorism and threats of a hybrid nature. Finally, as discussed in Chapter 2, the deterioration of health indicators in

certain parts of the world and the threat posed by the spread of epidemics across borders could have severe border-security implications in the context of increasing movements of people by air, land and sea.

EU policies on legal migration and visa requirements will affect the flow of international passengers travelling to and from the EU. Also, passenger and cargo flows should be seen through the prism of technological advances. In particular, digitalisation and large-scale IT systems (e.g. EES, ETIAS, SIS II, VIS) will change the EU border management and security landscape significantly. Throughout the next decade the ongoing development of digital ('smart') borders will pose challenges as well as opportunities for information exchange, cooperation and interoperability between all stakeholders (border management, law enforcement, customs).

As the functioning of the EU's external borders will face serious challenges from the expected increases in passenger and cargo flows, there will be a need to:

- (i) improve data collection on these flows and cross-border services to build a better picture of the security risk environment;
- (ii) develop sets of key indicators for effective risk monitoring and assessment;
- (iii) identify and reduce vulnerabilities at the external borders;
- (iv) ensure IT systems are interoperable; and
- (v) engage in strategic planning to effectively manage future threats and challenges on the EU's external borders.

5. Migration and Returns

Migration

The events of 2015 were a turning point for EU migration governance. In the course of that year, more than 850 000 migrants and refugees moved through Turkey to Greece and then to other EU Member States. The defining characteristics of the migration crisis were the perilous Aegean and Central Mediterranean sea crossings. Migrant smuggling across the Mediterranean has claimed more than 19 000 lives since 2014, according to IOM⁹. These events proved that a migration crisis can erupt and escalate uncontrollably before being contained through special measures. Moreover, it made clear that disproportionate migratory pressures can be experienced again, as the insecurities that led to the 2015 crisis have not gone away. In order to make better predictions, the decisive factors must be defined by scenarios and monitored continuously.

Since 2015, the EU has been improving its migration governance and crisis-preparedness mechanisms. As southern EU Member States are most affected by migratory flows, Member States agreed on measures to tighten the EU's external borders and reinforce border and coast guard capacities, including procedures at hotspots to effectively identify, register, accommodate and return irregular migrants. Measures included financial support to Third Countries, to curb movements of migrants towards the EU. The efforts to improve migration governance and crisis-preparedness have also culminated in the EBCG 2.0 Regulation and the further strengthening of Frontex,

creating the Standing Corps of 10 000 border and coast guards by 2027.

Another key observation is the enormous capacity of the migrant smuggling business in the Central and Eastern Mediterranean. In recent years, hundreds of thousands of economic migrants and refugees have been smuggled into Italy and Greece. Also, the instrumentalisation of migration (migration blackmail) by certain Third Countries has emerged as a hybrid method.

This situation affects not only the southern EU Member States, which are at the forefront of external border surveillance and control operations, but eventually reflects onto all Member States, through secondary movements. Migrants, including asylum seekers and refugees, travel to other Member States within the EU for a wide variety of reasons (e.g. legal requirements for entry, exit and transit, individual migrant abilities and decisions, criminal facilitation, future opportunities and chance events). These secondary movements pose formidable challenges to the EU's internal security and ultimately risk the free movement of people and goods within the Schengen area.

The large capacity of smuggling networks as well as secondary movements across the EU carry implications for policy formulation and implementation in the sphere of conventional border control and law enforcement as well as in relation to hybrid threats. Specifically, this hybrid threat entails using migrants and/or refugees as an instrument to destabilise an adversary. This scenario does not seem far-fetched anymore given certain countries' willingness to use migration overtly and covertly to pursue their geopolitical goals. The crisis in February

2020 on the Greek-Turkish land border is a case in point.

Implications for border management

Migration has become one of the most heavily contested and politically loaded topics in recent years, with differing views on migration policies and attitudes towards economic migrants, refugees and asylum seekers. Polarised positions emerged as some voices advocate a humanitarian openness to migration while others support restrictive policies as a pragmatic approach to security concerns.

To avoid a situation in the future where single Member States or border sections are overwhelmed by extraordinary migration pressure, all components of integrated border management need to be in place. The EBCG Regulation allows the EBCG to take, under particular conditions, action in countries of origin, transit countries and pre-frontier areas. This is the first line of interference to support border management of partner countries through technical and operational assistance. Status agreements and working arrangements with relevant Third Countries in accordance with art.73 ff EBCG allow the flexibility needed for quick and appropriate action.

If measures in the pre-frontier area are not successful in reducing migration flow towards the impacted EU border section, that border needs to be strengthened rapidly. This is the second component of flexible and responsive integrated border management. As the experiences in Idomeni and Edirne (knock-on effect) have shown, migrants may look for other opportunities and other routes to enter into the EU illegally. So integrated border management must

⁹ See: <https://missingmigrants.iom.int/region/mediterranean>

also be flexible in reacting to evasive movements. In summary, integrated border management should be flexible in three directions: the pre-frontier area, increasing capacity at impacted border sections, and reacting to evasive movements. The successful implementation of these measures will also have an impact on secondary movements.

Security measures at the external border and within the Schengen area need to be balanced with unimpeded passenger flow. Therefore, registrations and checks before the start of travel, the developments of risk profiles, border control along the border continuum, interoperability of databases and the use of new processes and technologies will gain importance in the next decade. Future border control and traveller management will comprise a person-centric data management concept including a multiple identity detector. As indicated in Chapter 4 above, the enormous number of travellers will produce a vast amount of personal data, which must be effectively processed and made searchable by new IT and AI solutions. In doing so the protection of personal data, the respect of fundamental rights and IT-security will have a key role. Furthermore, European Border and Coast Guards must be trained to operate new border control systems.

Return

With international migration expected to increase, exerting constant pressure on the EU's management of migration, asylum and return over the next decade, cooperation with Third Countries will play a key role. The migration crisis

in 2015 and more recent geopolitical developments in the EU neighbourhood, the Middle East, Asia and Africa indicate the paramount importance of permanent and sustainable cooperation with Third Countries to ensure comprehensive, lasting and efficient migration management.

The European Council has repeatedly called upon the EU to create and apply 'the necessary leverage, by using all relevant EU policies, instruments and tools, including development, trade and visa, to achieve measurable results in terms of preventing illegal migration and returning irregular migrants'.¹⁰ This requires a **coherent, integrated and coordinated approach** to EU-Third Country cooperation.

Implications for border management

In the future, **returns will become a more prominent part of EU border management**, as the mixed migratory flows since 2015 have made it clear that migration management can be effective only in tandem with effective return practices. Bolstering the EU's capacity and crisis preparedness for returns will facilitate the work of numerous stakeholders. Developments in this area will also involve legal and technological changes (e.g. digitalisation). Returns and readmissions shall be carried out in a fast, orderly, humane and dignified manner.

In the framework of this integrated approach, the **new EBCG Regulation**

¹⁰ European Council conclusions 31/16 of 21 October 2016, 14/17 of 19 October 2017 and 18 October 2018.

provides for a wider operational response. Frontex will increase effective returns to support Member States' efforts. Through enhanced coordination, and the availability of additional resources, Frontex will become a key player facilitating the majority of returns (both forced and voluntary ones). Member States' cooperation with Frontex will provide reliable near real-time situational awareness and improve their return systems and processes. The expanding scope of returns will encompass both charter and scheduled flights.

Reintegration support by Frontex will increase, and procedures will be streamlined allowing for diverse reintegration packages in terms of type and value. Reintegration will promote cooperation with Third Countries and consolidate Frontex as a key player in the area of return.

Unprecedented EU financial support and increased cooperation with **Third Countries** on return will likely gain significant importance in the upcoming years with new bilateral, regional and multilateral cooperation frameworks and agreements.

Promoting a more holistic approach to EU migration management, Frontex return activities will compliment other areas of cooperation with Third Countries (e.g. technical and operational assistance, border control support, capacity building, and training).

The **legal framework** on returns will evolve to establish safe and legal pathways as well as capabilities for legal and orderly migration (e.g. resettlement). Agreement on the Common European Asylum System (CEAS) and the Return Directive could create a legal basis for

the faster processing of international protection applications and efficient return procedures for higher numbers of returnees. The question whether an EU regulation would offer a more homogeneous legal framework to set up an effective European return policy should be assessed in due time. It would also enable increased cooperation between Frontex and EASO.

Return systems and processes will benefit from **digitalisation**. Data

collection mechanisms, central repositories of information, return case management systems and online communication tools will allow efficiency gains and give more accurate statistics. Frontex will become a central hub for research and innovation, setting common standards and requirements for ICT systems, both within and outside the EU, promoting the optimisation of return processes. Digitalisation will also help Third Countries manage returns.

The performance of national return systems will increasingly depend upon their digital transformation. Despite wide recognition of the importance of digitalisation, the challenges of harmonisation, integration and interoperability will likely persist in the future due to the different technologies used by national return systems. Increased digitalisation will also raise data protection concerns.

6. Cross-border crime and Cybercrime

Cross-border crime

Under the EBCG 2.0 Regulation, Frontex has a stronger legal basis to contribute, in cooperation with other EU bodies, to the prevention, detection and response to cross-border crime¹¹ such as migrant smuggling, trafficking in human beings and terrorism.

Behind all cross-border crime (CBC) there is a criminal para-economy driven by supply and demand and social tolerance for crimes such as narcotics smuggling, counterfeit goods, cigarette smuggling, trafficking in human beings for sexual or labour exploitation and corruption. Criminal networks form 'business' contacts spanning both local and global settings, taking advantage of legal business structures, technological advances, the internet and social media.

Migrant smuggling is one of the main types of cross-border and international crime. A UNODC estimate on migrant smuggling routes from Africa to Europe and South to North America, suggests that they generate around USD 7 billion per year. Global profits may thus be several times higher. A wide variety of criminal organisations are involved in migrant smuggling, from individuals or small groups providing basic services, to large, sophisticated international networks. Depending on their finances, migrants can choose from an array of services, from the rudimentary and cheap to the complex and expensive, to reach their destinations. Still, success is never

guaranteed, and migrants often expose themselves to risks and abuses on their journeys.

Trafficking in human beings is another multi-billion criminal business that involves various forms of abuse, namely sexual and labour exploitation, as well as domestic servitude, begging, pickpocketing and organ trafficking. UNODC (2010) estimates that criminal groups around the world victimise 40 million people for massive profits (e.g. 140 000 trafficked persons in Europe alone are thought to generate USD 3 billion a year). Over 79% of the total number of victims – usually women and girls – are sexually exploited (UNODC, 2018). Traffickers often move their victims within and across borders, giving

human trafficking national, regional and international dimensions.

Drug trafficking is the most profitable crime with estimates placing its value between USD 320 and 652 billion. **Cannabis** is the most popular drug, with an estimated 25 million users and a minimum retail market value of EUR 11.6 billion. The herbal product is sourced in the Balkans (Albania) and resin in West Africa (Morocco) or the Middle East (Lebanon) while local cultivation capabilities also exist. **Cocaine** comes in second, with four million users and a market value of EUR 9.1 billion. Large volumes of cocaine especially from South America are smuggled into Europe by sea hidden in containerised cargo and secret compartments on various types of vessel.

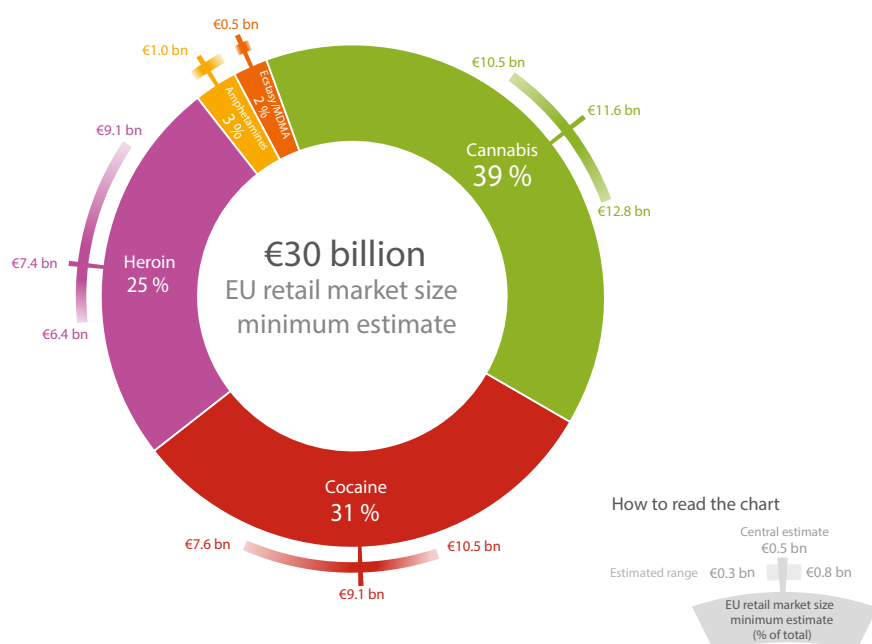


Figure 4 Estimated retail value of the illicit drug market in the EU (EMCDDA, 2018; EMCDDA & Europol, 2019)

11 According to art. 2 of EBCG Regulation 2019/1896, 'cross-border crime' is defined as: "any serious crime with a cross-border dimension that is committed or attempted at, along or in the proximity of the external borders".

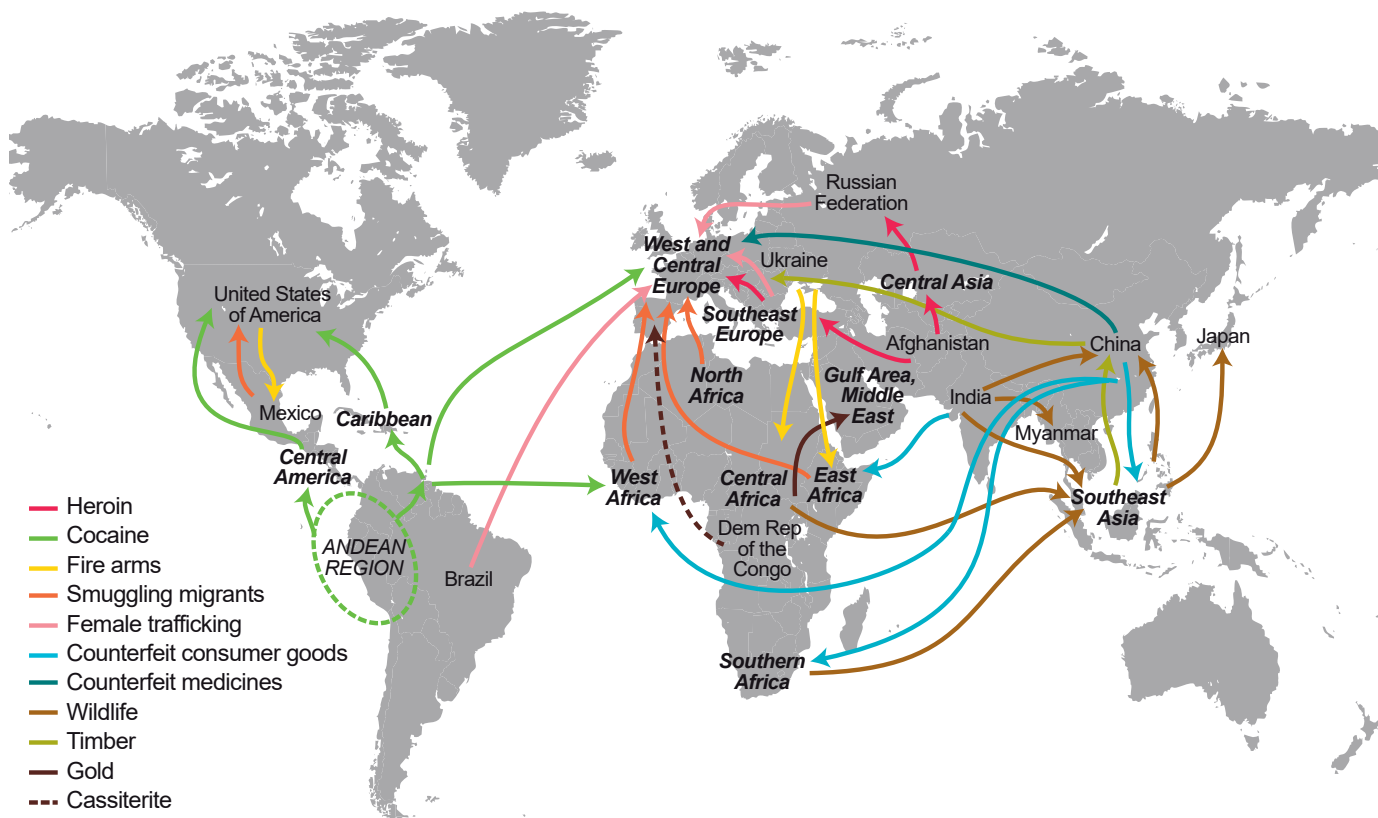


Figure 5 A simplified map of global illicit trade flows (UNODC, 2010; WWF, 2018, p. 13)

Heroin has the third largest market share in Europe, with 1.3 million users and a value of EUR 7.4 billion. Heroin is brought from Afghanistan to Europe via the Balkans or the southern route. The **synthetic drugs (stimulant)** market – amphetamines, MDMA and methamphetamine – is estimated at EUR 1.5 billion. Synthetic drugs are sourced in various European countries with precursor chemicals and substances brought from Asia. Certain European countries are major producers of synthetic drugs for the EU, Turkey, the Middle East, Asia and Australia. Large-scale synthetic drug production – amphetamines and captagon tablets – also takes place in Syria, Lebanon and Jordan, servicing consumers in this region. New psychoactive substances (NPS) sourced in China, India and certain EU countries are also a growing health problem linked to the fake medicines market, servicing consumers in this region.

UNODC (2015) estimates that **firearms trafficking** (incl. parts, ammunition, explosives) generates USD 170 to 329 million per year. Domestically, the use of firearms mainly relates to violent crimes and intimidation by which criminal groups assert dominance, but in the

international dimension firearms are instrumental in armed conflicts (Middle East, Africa). UNODC thus indicates that the scope of cross-border trafficking in firearms ranges from small to multi-ton shipments of arms and ammunition, including the illicit diversion of firearms. Firearms from past armed conflicts (e.g. Western Balkans, West and Central Africa) are not only used in new conflicts but also become a source for criminal and terrorist groups.

Smuggling of excise products – tobacco, alcohol and mineral oils – is a lucrative and relatively low-risk business. Criminal groups exploit tax differentials across jurisdictions and commit excise tax fraud for profit. KPMG (2018) estimates that the consumption of counterfeit and contraband cigarettes in the EU in 2017 was 44.7 billion pieces (8.7% of total consumption), causing tax revenue losses of EUR 10 billion. This money is used to finance other crimes, including terrorism.

According to the OECD and EUIPO, **the international counterfeit and pirated goods market** is estimated to be worth USD 509 billion (3.3% of world trade). Counterfeit products include multiple types of goods – from clothing,

electronics and luxury products, to food, drinks and medicines – which pose serious health and safety risks to consumers. Counterfeit products originate in China, Hong Kong, United Arab Emirates, Turkey, Singapore, Thailand, India and Malaysia (OECD & EUIPO, 2019) and are usually shipped together with legitimate trade flows, as criminals exploit weaknesses in global supply chains to hinder detection. They are traded globally by both traditional and online methods. Revenue can be used to finance other criminal activities.

Environmental crimes – including trafficking in wildlife and timber, mining and irregular, unreported and unregulated (IUU) fishing – are estimated to generate between USD 84.5 and 264.4 billion per year.

Vehicle crime involves the theft and trafficking of vehicles (incl. heavy machinery) and the illicit trade in spare parts, which is facilitated by internet-based markets. Car theft and trafficking has been linked to the funding and execution of various criminal activities and international terrorism. Improved vehicle security with central locking, alarms and immobilisers seems to have reduced such crime by 29% between

2008 and 2017. Vehicle crime nonetheless persists, as shown by Eurostat data, Europol-supported cases and Frontex activities at the external borders. Demand in emerging economies and new transport routes could pose additional challenges in the future.

Illicit financial flows (IFF) are defined as “money that is illegally earned, used or moved and which crosses an international border” (GFI, 2019). Obscure beneficial ownership of corporate entities and misuse of legal business structures (infiltrated by OCGs) help in managing the profits from organised, white-collar and corporate crimes under the pretext of legality while enabling IFF through various means, for example trade misinvoicing, bank transactions of offshore companies or cash transfers across borders.

Among other **facilitating factors**, criminals and terrorists are enabled by the global hyperconnectivity and digital revolution megatrend. The internet, social media, mobile communication technologies and the dark web are routinely used for multiple purposes such as the sale of contraband, drug and other illicit commodities as well as for funding, spreading propaganda and recruiting members (especially by terrorist groups). Criminals also use corruption and bribery to further their illicit business, and extend their reach to frail countries that can serve as safe havens, logistical bases or transit hubs.

Implications for border management

The current severity and scope of cross-border crime suggests that we are experiencing a global ‘**criminality crisis**’, which also affects the EU’s external borders. Maritime cross-border crime, for example, has a major impact on the EU’s external and internal security due to the fact that 90% of the world’s trade is transported by sea, which allows for massive-scale illicit goods flows to Europe. International shipping, ports, logistics and supply chains are of fundamental importance in the security risk environment due to the trend to transport

containerised cargo in ever larger volumes. Border control capacities in ports and passenger terminals must increase accordingly.

The global cross-border crime landscape will change over the next 10 years under the influence of megatrends, as discussed in Chapter 2. Major socio-economic and technological transformations will create criminogenic conditions providing numerous business opportunities to existing and new criminal groups. The increased sophistication and scope of illicit smuggling activities, with the use of legal business entities and domain specialists, will likely present detection problems to the authorities. Border and coast guards, however, can play a key role in tackling illicit flows of people, money and commodities by more effective targeting, controls and investigations and reducing the permeability of the EU’s external borders.

In a fast-evolving and internationally-connected organised crime environment, the authorities need more effective assessment, detection, reaction and investigation capabilities. Better strategic/operational reporting and intelligence sharing, as well as the availability of advanced detection equipment, are essential to countering smuggling of illicit commodities and other serious crimes. Systematic border checks, with access to international databases, and use of specialised identification techniques (e.g. risk profiling, interviewing) are needed to deal with THB and migrant smuggling.

The COVID-19 pandemic and closed borders have led to an increase in various cybercrime activities (e.g. through the dark web and social media). However, the establishment of counter measures and crime prevention in the virtual world could force organised criminal gangs to return to traditional cross-border crime – but with more advanced and experienced cybercrime capabilities.

Cybercrime

Since the advent of the internet era, a great number of legitimate businesses and private activities have moved to the virtual world, resulting in extraordinary socio-economic advances worldwide. In parallel, a whole range of crimes benefited from online sophistication, facilitation and anonymity, distancing the perpetrators from the criminal act and shielding them from law enforcement. The importance of cybercrime and cybersecurity has grown tremendously over the years, requiring tailored policy responses¹² and regular assessments to monitor threat evolution¹³. Maintaining a sufficient level of cybersecurity is key to protecting critical infrastructure and fighting cybercrime. Cybercrime is currently among the top priorities of the EU Policy Cycle against serious international and organised crime for the period 2018-2021 (e.g. attacks against information systems, child sexual abuse and exploitation, fraud and counterfeiting of non-cash means of payment).¹⁴

New technologies, legislation and criminal innovation will impact the evolution of cybercrime over the next decade. However, in order to analyse future threats and challenges, historical patterns and trends should be considered. Cybercriminals continuously demonstrate their flexibility and resilience, but they also tend to **incorporate the same core elements into their criminal activities**. The majority of attacks rely on existing *modi operandi* and target

12 See EU Cybersecurity Strategy <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013JCo001&from=EN> and Joint Communication (2017)450 at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017JCo450&from=EN>

13 See ENISA and EUROPOL Threat Assessments <https://www.enisa.europa.eu/publications/enisa-threat-landscape-report-2018> and <https://www.europol.europa.eu/activities-services/main-reports/internet-organised-crime-threat-assessment-iocta-2018>

14 <https://www.europol.europa.eu/empact>

known vulnerabilities. Criminals launch tried and tested forms of cyberattacks on new victims. With more individuals and organisations conducting their activities online due to the strict containment measures resulting from the COVID-19 pandemic, cybercriminals have recently had a plethora of opportunities to exploit victims who may be less aware and protected against known threats. It is likely that this **massive shift of previously offline activities to the online environment** will have serious cybercrime and cybersecurity implications at a global scale.

Typically, online criminals **adapt their *modi operandi* to reflect current opportunities**. This tactic is expected to continue as the current pandemic provides an ideal environment for success. This is especially the case with social engineering attacks, where an unsuspecting victim opens a message, clicks on a link, and/or downloads an attachment, thus allowing a cybercriminal to infect their computer and steal data and information.

Europol's IOCTA 2019 stressed the fact that **cyberattacks focus on data**.¹⁵ All governments, business sectors, critical infrastructure facilities and individuals depend on various types of data to perform their activities. Oftentimes, criminals exploit vulnerabilities since great volumes of data are accessible through internet-connected devices. Depending on criminal intentions, subsequent infiltration into victims' systems can result in data exposure, alteration or removal, affecting critical business functions and/or the integrity and confidentiality of the data. In this context, high-value data stored in the cloud and major data centres (governmental and private) will be prime targets.

With respect to remote access, the growth in **teleworking** is another development associated with the pandemic that can provide opportunities for cyberattacks. Teleworking means

organisations have less control over data flows and need to approach cybersecurity from a different perspective. This is because their usual indicators for threat monitoring and detection may no longer offer adequate protection in a work environment characterised by, for example, shift rotation of employees (i.e. in office/teleworking shifts).

Communication networks between Member States and the Agency could be a potential target for cyberattack. Therefore, secured communication networks are of utmost importance to protect sensitive information.

The potential pool of victims of cybercrime will likely become considerably larger as a result of the continued growth of online activities and the Internet of Things (IoT). An increased number of internet-connected devices can broaden the scope of existing forms of criminal activities. Moreover, these devices themselves can also become targets of choice for criminals, as they can be manipulated remotely. If any IoT devices are part of critical infrastructure, then their potential compromise will have significant consequences.

With more devices connected to the internet and the arrival of 5G and 6G wireless capabilities, online criminals will have additional attack vectors. Part of the future challenge is that **the security of newly commercialised cyber-applications is not sufficiently considered** during manufacturing or configuration processes. This exposes the vulnerabilities of devices and increases their susceptibility to compromise. Other major technological developments, such as machine learning and artificial intelligence, will likely have a significant effect on the threat landscape by **increasing criminal capabilities and capacities** through the automation of cyberattacks and broadening the scope of illicit activities.¹⁶ The detection and identification of cybercriminals, operating in a

boundary-free virtual environment, will be fraught with difficulties due to their evolving sophistication and ongoing adaptation to countermeasures.

Implications for border management

Cybercrime is not limited by national boundaries and can exploit opportunities anywhere in the world. It can be used to pursue the licit and illicit activities of individuals and legal businesses, affording great advantages to criminal groups. Cybercrime can simultaneously affect the EU's internal and external security. Its 'glocal' (i.e. both global and local) nature allows it to exploit major transformations resulting from megatrends (e.g. technology, security, education, health, urbanisation, influence of global east and south) as discussed in Chapter 2.

Technological advances, such as AI, will allow border management to automate and improve certain systems. However, the new technologies will also give new opportunities to tech-savvy criminals. Among other things, they will increase the risk that criminal groups may launch cyberattacks to compromise border control systems. Cyberattacks are a powerful tool for hybrid interference by state actors who, for example, may wish to promote their interests by attacking another country's critical infrastructure (e.g. airports and seaports¹⁷).

With the expected increase in passenger flows in the coming years, as discussed in Chapter 4, large IT systems and databases that facilitate cross-border movements of people and transportation companies (e.g. airline, bus and train) must protect passenger data from hacking attempts. An example of what could become a more frequent occurrence is a recent cybersecurity incident whereby an airline company's systems were affected by a "highly sophisticated

15 See IOCTA 2019 report <https://www.europol.europa.eu/iocta-report>

16 See e.g. <https://www.weforum.org/agenda/2019/03/here-are-the-biggest-cybercrime-trends-of-2019/>

17 See e.g. <https://www.enisa.europa.eu/publications/port-cybersecurity-good-practices-for-cybersecurity-in-the-maritime-sector>

cyberattack”, resulting in the theft of the names, email addresses, travel and payment card details of nine million passengers.¹⁸

Internet access and the use of smartphones is now widespread around the world. The level of digital communication and connectedness is unprecedented. Irregular migrants and asylum seekers use phones and online applications (e.g. maps, social media) to guide them on their journeys and communicate with their families and facilitators. The smartphone’s importance as a crime-enabling device has long been recognised by criminals including people smugglers (some refer to them as their ‘office’). In the coming years, the development of more powerful mobile phones and applications (e.g. encrypted messaging apps, offline apps) could make them even more useful for criminal activities. Special applications for facilitators might be developed to organise the illegal journeys of higher numbers of tech-savvy migrants more effectively, while distancing or concealing them from the illicit activity and thus limiting the risk of detection.

The internet and smartphones, social media and software tools enable a host of other cross-border crimes (e.g. drug trafficking, weapons trafficking, commodities smuggling, fraudulent documents). Although cybercrime is seen as

a specialised crime area and a crime enabler, it is multi-faceted, highly profitable and exploits criminal opportunities across national borders. This global trend is expected to increase over the next decade.

Another problem experienced by societies worldwide is the circulation of online fake news and disinformation (cyber propaganda) across news outlets and social media platforms. False online narratives can harness the power of social networks and span the virtual and physical world, stirring emotions, shaping and forming public opinion as well as triggering migration decisions and putting people on the move, as already witnessed during the ‘Caravan of Hope’ in Turkey in 2019. Again, state and non-state actors could be behind the diffusion of fake news about the situation at particular sections of the EU’s external borders, through which they could encourage or direct mass movements of people.

Cybercrime has an extremely broad scope and can be linked to all the security threats and challenges discussed in this report (e.g. migration, cross-border crime, hybrid threats, terrorism). Cybercrime can facilitate white-collar crime and various smuggling activities as well as compromise the security of global supply chains, border-crossing points and critical infrastructure (e.g. ports, ships, offshore facilities). For this reason, EBCG experts should consider in

detail how cybercrime could affect their activities and impact EU border and migration management and try to identify effective operational responses.

The scope of cybercrime threats to integrated border management is vast and dynamically evolving. It calls for a systematic exploration of the cybercrime dimension, especially in conjunction with situational ‘cyber’-awareness and risk analysis (e.g. social media monitoring and observation of the dark web).

In conclusion, cybersecurity and the protection against cybercrime are crucial considerations for all organisations, which will become increasingly important over the next decade. The EBCG should consider the development of cybercrime and cybersecurity capabilities as a matter of priority, in cooperation with Europol, ENISA, CERT-EU and eu-LISA, to prepare for future cyber-threats that might affect border management, as well as contribute to the detection and suppression of cybercrimes that relate to external border security. Since cybercriminals can also act from outside the EU, cooperation will be necessary with Third Countries and international law enforcement organisations to counter hacking attacks against EU platforms and IT systems as well as to investigate criminal activities. At the same time, the EBCG can mitigate the risks by protecting critically important border management systems and strengthening border-control responses.

¹⁸ <https://www.bbc.com/news/technology-52722626>

7. Terrorism and Hybrid Threats

Terrorism

As one of the building blocks of European Integrated Border Management (EIBM), border control consists of “*measures related to the prevention and detection of cross-border crime at the external borders, in particular migrant smuggling, trafficking in human beings, and terrorism*” (art.3 EBCC). Thus, the new EBCC Regulation establishes the legal basis for the supporting role of Frontex in counter-terrorism efforts within the border dimension. Furthermore, the EU Directive on combating terrorism sets minimum rules concerning the definition of criminal offences and sanctions regarding terrorist offences, including border-related offences, such as ‘travelling for the purpose of terrorism’ and ‘organising or otherwise facilitating travelling for the purpose of terrorism’.¹⁹ Against this background, this section assesses the implications of possible terrorism trends for EU border management over the next decade.

Europol’s annual EU Terrorism Situation and Trend Report (TE-SAT) categorises terrorist organisations by their broad source of motivation, namely Islamist extremism, right-wing extremism, left-wing and anarchist terrorism, ethno-nationalism and separatism, and single-issue extremism.²⁰ The motivations that drive non-state, state actors and/or proxies to inflict harm are dynamic and will diversify over time.

19 Directive (EU) 2017/541 of the European Parliament and of the Council of 15 March 2017 on combating terrorism, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017L0541>

20 See: <https://www.europol.europa.eu/tesat-report>

Right-wing and environmental extremism are emerging as future concerns. The *operandi* of terrorists will also change and so will the counter tactics and procedures that state actors employ to contain, manage and defeat such threats. Also, debates will continue as to whether an act of violence should be labelled as terrorism, insurgency, conflict, war or crime. Regardless of whether grievances are real or perceived, violence will continue to be used by different actors to attain a political goal.

Terrorism goes through generational cycles of violence that impact upon human rights and social cohesion. Over the past decades, terrorist groups and individuals have skilfully emulated each other, demonstrating their resilience and innovation. While terrorists’ intentions might not change dramatically, their capabilities will improve in the next decade – arguably without posing an existential threat. Accessible dual-use goods and affordable technologies will have a ‘democratisation of destruction’ effect, thus increasing the damaging power of terrorist groups. The barriers to perpetrate mayhem, to instil fear and terrorise the general public will probably lower even further.

The internet, the dark web, social media, encrypted messaging applications, smartphones and cryptocurrencies will be more accessible and even more misused by terrorists, propagandists and their sympathisers to radicalise, inspire and recruit future cadres. The dark web, for example, offers terrorists an opportunity to obtain weapons and equipment from outside the EU.

Terrorists will use medium-impact, high-likelihood incidents (e.g. vehicle-ramming, stabbing attacks) and

high-impact, medium-likelihood incidents (e.g. marauding attacks, improvised explosive devices [IEDs]) with relative ease. More ambitious terrorist groups will also be interested in launching high-impact, low-likelihood attacks against critical infrastructure as well as chemical, biological, radiological and nuclear (CBRN) attacks.

Unmanned aerial vehicles (UAVs) have been used in conflict zones for reconnaissance missions, but also to attack targets using grenades, mortar shells and IEDs. Terrorist use of UAVs has been restricted, but their operational capabilities will improve in this area. UAVs’ swarming attacks against critical infrastructure or the airline industry will likely continue to appeal to those terrorists wanting to harm their enemies while seeking media attention.

The more technologically adept terrorist groups will also turn to cybercrime for funding purposes as well as cyberterrorism. Leaks of US government and private company hacking tools have shown how the same computer coding was weaponised by other state actors and misused by extortionists through ransomware. Also, terrorists lacking access to small arms will try to make their own weapons using easily accessible 3D printing technologies.

Unless they are identified, de-radicalised and reintegrated back into society, foreign terrorist fighters will likely continue to present a threat in conflict zones and/or at home. The reintegration of disillusioned fighters alienated by the extremists’ brutality will require support in order to avoid the negative effects of societal marginalisation. Hundreds of radicalised individuals will be released from prisons in the months and

years to come, but not all of them will put aside their grievances and extreme ideologies. Extremists with longer sentences, and those held preventively in some conflict zones, will pursue a 'break the wall' strategy, inciting prison riots and escapes.

The relationship between terrorism and other megatrends should not be overlooked. Major environmental changes, desertification, droughts, pandemics, extreme weather phenomena, famine, urbanisation and socioeconomic inequalities, among other things, will continue to affect low-income countries, limiting their abilities to provide for the basic needs of their citizens. Terrorist groups will benefit from such transformations directly and indirectly. For example, Boko Haram and the Islamic State in West Africa have exploited the devastating effects of Lake Chad's loss of water on lakeside communities in Chad, Niger, Nigeria and Cameroon. Over time, these pressures combined with other factors will trigger social unrest, criminality, migration and terrorism. In addition, ethnic and religious divides will likely continue to fuel mistrust, resulting in radicalisation and flare-ups of violence and conflict.

Implications for border management

Borders provide challenges but also opportunities to counter terror as they offer a geographical area where the authorities can enforce executive, prosecutorial or judicial actions. Member States, with the support of JHA agencies, aim to deter, disrupt and detect terrorist-related movements and detain those involved in terrorist activities. Amendments to the Schengen Borders Code (SBC) and the provision to allow Team Members' access to the Schengen Information System (SIS), the forthcoming introduction of the Entry-Exit System (EES), the Electronic Travel Information and Authorisation (ETIAS), and the interoperability between EU information systems and the European Search Portal (ESP) are all aimed at improving such checks.

The implementation of these systems by Member States and EU agencies will be a key development in the decade to come. These systems aim to secure borders, enhance internal security and terrorist mobility. This necessitates that all the relevant databases are populated with the right actionable information. More specifically, military to law enforcement exchange (MILEX) should become a normal operating procedure. In the next decade, a paradigm shift is needed whereby border control authorities become an integral part of counter-terrorism strategies. Likewise, they need to be kept informed about the evolution of a threat.

The utilisation of automated border control (ABC) solutions will help manage increasing passenger flows at the external borders by facilitating the smooth movement of bona fide travellers and identifying travellers that may pose a security threat. Enhanced security features in travel documents will deter fraudulent use, but the increasing sophistication of document fraud (e.g. morphing) will require more advanced detection technologies.

Many questions about future threats and the imaginative application of new technologies by terrorists must be considered with a view to putting in place effective counter-measures. How will scanning technologies detect the small parts of 3D printed plastic guns? How will border control authorities detect and deal with UAVs crossing borders illegally?

Besides the re-escalation of violence, the global effects of the COVID-19 pandemic will have been noted by terrorists, and they might consider using pathogens and highly contagious diseases to further their aims. Within the next decade, the effective mitigation of evolving terrorist threats will require new operational measures – with significant budgetary implications – to reinforce the EU's external border security.

Migratory flows, including sudden and large movements of people, will continue. So, border control authorities have to make best use of non-intrusive

identification technologies (e.g. fingerprints, facial recognition). Access to such information will need to be via handheld equipment to maximise database consultations and security checks.

Terrorism is a resilient method of politically and religiously motivated violence, and will persist for the foreseeable future. Different terrorist groups will evolve in response to security measures by increasing their operational and logistical capabilities in innovative ways. They will exploit vulnerabilities and opportunities for action and harness the power of technological advances. Frontex and Member States' border control authorities should augment their knowledge and preparedness to combat terrorist threats. They should become stakeholders in counter-terrorism strategies with the aim of enhancing border security, thus contributing to a high level of internal security within the Union. With the Standing Corps and border control/surveillance technology, Frontex could increasingly support Member States' counter-terrorism activities within the border dimension.

Hybrid threats

Based on its own research and on information provided by Member States, Frontex should provide adequate information covering all aspects relevant to European Integrated Border Management, including threats of a hybrid nature.²¹

Hybrid threats have become a permanent part of our security environment. Due to increased opportunities for hybrid influencing via the internet, this challenge will grow. Relatively low costs and plausible deniability are major advantages. State and non-state actors are challenging countries and institutions they see as a threat, opponent or competitor to their interests and goals. The term 'hybrid warfare' became popular following a series of unconventional and

21 See recital (40) Regulation (EU) 2019/1896 of the European Parliament and of the Council of 13 November 2019.

irregular activities that led to the seizure of Crimea and eastern Ukraine by the Russian Federation (Banasik, 2016). Hybrid war is not new, and the use of elements that fit into this concept has been recorded since ancient times. The term refers to:

- ‘Hybrid threats combine military and non-military as well as covert and overt means, including disinformation, cyber-attacks, economic pressure, deployment of irregular armed groups and use of regular forces. Hybrid methods are used to blur the lines between war and peace, and attempt to sow doubt in the minds of target populations’ – NATO definition.
- ‘A mixture of coercive and subversive activities, conventional and unconventional methods (i.e. diplomatic, military, economic, technological), which can be used in a coordinated manner by state or non-state actors to achieve specific objectives while remaining below the threshold of formally declared warfare’ – European Commission definition.

Finland’s 2019 Presidency of the Council of the EU stressed the importance of raising awareness of hybrid threats, and encouraged the EU and Member States to strengthen their capacities to prevent and respond to them. Internal and external security are closely linked since an effective response requires a comprehensive level of preparedness from all societal actors. Although Member States themselves bear prime responsibility for countering hybrid threats, many of them face common threats that can be addressed more effectively through coordinated action at EU or international (e.g. NATO) level.

Implications for border management

Targeting borders to achieve and promote a state’s foreign and security policy

interests is one area of hybrid influencing. For example, a Third Country with an EU border can suddenly cease preventing people from exiting to the EU. This can result in increasing numbers of migrants heading for the affected BCPs.

Such hybrid activities against an EU Member State may be a continuation of a political or economic dispute. The aim might be to destabilise a border by, for example:

- inspiring or organising protests leading to blockades of border crossings and spreading disinformation on, for example, social media;
- disturbing public order in border-crossing areas or roads leading to them (e.g. through hooligan antics, thefts, robberies and racketeering);
- controlling border traffic and limiting the movement of people and goods (e.g. through announcements on planned changes in transportation rules, increasing customs rates);
- launching cyber-attacks against IT systems used for border-control processes.

Professional or institutional hybrid actors will use an extensive catalogue of hybrid activities to achieve their aims and objectives. However, if those aims are not achieved, it is possible to escalate to quasi-military operations in border regions.

Besides hybrid warfare, ‘hybrid interference’ through covert diplomacy, geo-economics and disinformation campaigns can have serious consequences. Hybrid interference is not limited to neighbouring states, but can have potentially global reach and implications. States can offer political or material support to civil resistance movements in other countries to achieve regime overthrow and a host of other foreign policy objectives.

A hybrid actor can use offline and online communication, propaganda,

changes in visa policy, and changes in internal migration policy as well as organised crime groups to facilitate migration. This would result in increased migrant flows, more dangerous goods entering a country (narcotics, weapons and ammunition) and infiltration of terrorists. Also, numerous scenarios can be realised in the maritime domain (seaports, territorial waters, exclusive economic zones and on the high seas).

In the future, the EU’s external borders could be increasingly affected by hybrid operations aimed to further the foreign and security policy agenda of certain Third Countries in the EU’s neighbourhood and beyond. Hybrid threats (incl. migration blackmail) may be the strategy of choice for Third Countries to push through their strategic objectives, as in purely conventional terms (economic or military) they would be no match for the EU. This could be done by employing irregular migration against an EU committed to international law. In recent years, this trend has been increasingly observed on the EU’s southern external (land and maritime) borders.

For European Integrated Border Management, threats of a hybrid nature entail the need to engage in cooperation and information exchange (inter-agency, with Member States and with EU institutions and bodies) in order to identify hybrid threats in several domains – and their strategic intent – early on. Pre-frontier surveillance and social media monitoring may support this. If mass migration is instrumentalised by a hybrid actor, in principle the same border control measures apply as for any mass migration event. However, the hybrid actor may employ violent elements (as seen in the example mentioned above), lend support beyond the means of people smugglers or attack border infrastructure including IT systems.

8. Future scenarios

To complement the assessment of megatrends, cross-border crime and other border management challenges discussed in previous chapters, experts from Frontex and Member States created **general scenarios** concerning the spectrum of possible future developments by 2030.

Scenario-building is an essential practice in contemporary organisations. Scenarios provide strategic foresight that informs strategy and policy, decision-making, capability/capacity planning and the implementation of business activities in general. Scenarios are alternative stories, mainly formulated through expert judgement, that help all types of organisations prepare for largely unpredictable futures. The proactive management of future threats and challenges through scenario-building and planning has become a crucial aspect of strategic management because it increases the chances of achieving organisational aims, goals and objectives and eventually arriving at a desired future state.

All events and outcomes within the global risk environment are determined by **the interplay of myriad variables**. By definition, this defies any attempts to simplify matters in a search for explanations about cause-effect mechanisms and relationships behind highly complex phenomena. Obviously, one has to draw conclusions based on limited knowledge and consideration of differing views about the meaning of past and current events, as well as how things will play out in the future and how to best prepare. In view of these fundamental limitations, Frontex has developed three alternative scenarios, as summarised below, through the use of structured analytical methodologies and extensive deliberations with Member States' experts.

Baseline scenario

Global trends are broadly positive for European integrated border management. However, these positive effects will only begin to cohere from about 2030. Until then, these megatrends will appear largely negative and confusing.

Internal and external effects of megatrends for the EU

In the long-term economic growth will be seen in Asia, Africa and the Americas. There will be integration of regional markets, and countries of these regions will show more interest in migration and border control.

Developments in the Global South and East will be broadly positive and complement each other. There will be growth of sophisticated technology-driven societies in Asia and a population boom in Africa. India will spur the next African resource super cycle when its technologically savvy economy reaches maturity. India's economic boom will coincide with the beginning of Africa's 'demographic dividend', creating jobs for young African workers.

Societies everywhere will be primarily urban – including in less developed regions, Africa and Asia. Families there will increasingly conform to the small nuclear pattern familiar in Europe. Cross-border flows will be more concentrated around urban hubs such as airports and sea ports, making choices about infrastructure investments easier. As population centres become denser, moreover, there will be new opportunities to rethink international governance and focus on protecting certain spaces: urban space, critical infrastructure, airspace.

The global economy will cease to be driven by consumption and pressure to maximise economic growth. Indicators such as popular consumer satisfaction

will become more important. Less emphasis will be placed on equality, more on sufficiency: the sharing economy will deepen. African and Asian economies will lose their aspiration to become like North America or Europe, and different regions will develop distinctive economic models.

Europe's cities and regions will play a part in EU foreign policy – usually the prerogative of national governance. European mayors will cooperate with their counterparts in Africa and Asia on urban planning, waste management or the internet of things. This decentralisation will help defuse big geopolitical tensions and also create new partnerships with fragile states surrounding the EU.

All these positive trends will be visible beyond 2030, but in the short to medium term they will cause the EU many problems. Together with economic development in African and Asian countries we will see a 'migration hump', i.e. as per-capita income improves in these countries more irregular migrants will be able to afford to travel to the EU. This will exacerbate tensions between countries of destination and origin.

The creation of African and American free trade and movement zones will likely lead to an increase in the flow of counterfeit goods, radical ideas and small arms.

Before the sharing economy becomes widespread, consumerism and a desire for growth will continue to be the defining features of the global economy. China will continue to be active in the Global South, engaging in exhaustive resource extraction. Poorer economies in Africa will increasingly become dumping grounds for waste from wealthy Asian societies, leading to a growth in maritime pollution and the smuggling of unsafe goods. As a consequence, the EU will face conflicts in nearby northern Africa and Central Asia, more migratory pressure at its borders, as well as an increase in environmental crime and pollution in its neighbourhood.

As other parts of the world become richer, the EU may go from a market for

designer drugs and criminal services to a producer zone. In 10 years from now the quantity of organic drugs imported to Europe might be smaller than the quantity of synthetic drugs exported.

The sheer speed of urbanisation will become a source of global instability, as bad urban planning induces physical, food and resource insecurity. Urbanisation will also trigger a global economic downturn which will hit the weakest economies, as people will move from productive agricultural work and efficient manufacturing jobs to precarious urban services. In the next 10 years, these young cities with their precarious economies and insecure jobs will also be incubators for radical and criminal ways of living, as some people will be unable to escape urban vulnerabilities or environmental strain. These 'trapped populations' will prove susceptible to radical ideas and violence.

Changing EU in a changing world

Europe will be seen as a safe and prosperous area to live by many Third Country nationals. Latin Americans, in particular, will increasingly wish to migrate to specific EU countries due to pre-existing cultural ties and diaspora presence. This trend will intensify in the future as no European regulation prohibits it.

Third Countries will perceive and develop their relationships with the EU differently. Certain states will seek to strengthen their economic and political ties with the EU, perceiving it as a reliable trade partner and major actor in international affairs, whilst others will perceive the EU primarily as an adversary within an environment of intensifying geo-political and geo-economic competition. Since the EU's free market is strong, certain Third Countries will opt for trade protection measures favouring their domestic industries.

The EU's cohesion will remain strong regardless, but certain geo-political and geo-economic developments will test its unity and resolve, as the EU will be grappling with the twin pressures of

centralisation and fragmentation. In view of the real or perceived fragmentation (or indecision), certain Third Countries will attempt to play divide-and-rule in Europe. Among others, they will try to exploit the migration situation in Europe and undermine the EU's unity by influencing the political positions of individual Member States.

Population trends in fast-growing and ageing societies will be exacerbated by a shared pessimism about the future. In the West, green-minded societies will have fewer children; in Africa, by contrast, large families will continue to be seen as a survival strategy. This will make it harder for the ageing EU to cooperate with countries with young populations. Europeans will view growing African populations as unmanageable. The focus will be on the rising number of Africans born in poverty, and not on the falling proportion of poor. Governments will cite demographic and resource pressures to pursue retrograde geopolitics (e.g. the creation of 'buffer zones').

However, at the same time rural regions in the EU will be making their voices heard, including with regard to depopulation. Since southern Member States currently bear the brunt of immigration from Africa, this could give rise to new kinds of migration partnerships.

Demographic decline in the EU will make it harder to recruit public servants. This will leave some Member States facing a dilemma over whether they should rely on new Asian technologies for law enforcement and border management or if they should outsource duties to private security companies based on a business model of employing cheap foreign recruits from the Global South.

The first signs of global climate change in Europe will be irregular migration from the Global South and East. This will lead to pressure on the EU to pull up the drawbridge and to focus on migration control abroad. If the international community fails to deal with 'trapped populations', it will lead to mass movements as a third- or fourth-order effect of climate change.

During 2020–2030, there will be further escalation of humanitarian problems in the Mediterranean. The EU will also face scrutiny from a much wider range of countries. More Third Countries from Asia, Eastern Europe and the Middle East will point to EU naval actions in the Mediterranean and Aegean as a precedent for their own geostrategic manoeuvres. This politicisation of SAR by outside countries will make it harder to deal with tensions inside the EU. This includes disputes over the extent of SAR zones, over the financial benefits which come from taxing overflights, and from the humanitarian obligations which arise from international law. The conflict over depleting mineral and natural resources in the Mediterranean and Aegean remain unsolved and continue to affect regional growth.

Optimistic scenario

The interplay of megatrends will have a positive effect for European integrated border management. Many smaller changes will materialise within the next few years, while bigger changes will be evident by 2030 and will continue into the 2030s.

International community actions

In this scenario the international community will reach a global climate deal by 2030. All advanced economies will adopt a Green New Deal, and these green and blue economies will mitigate the effects of climate change. Governments will successfully achieve emissions reductions and implement geo-engineering techniques.

Following economic development in many countries of the Global South and East, many of them will ratify the United Nations Convention relating to the Status of Refugees. The International Convention on Maritime Search and Rescue will be changed so that the obligations and rights of non-state operators performing SAR activities in areas where people smugglers operate are clearly defined.

Stable EU neighbourhood

In this scenario the political situation around the European Union is stable. The United Kingdom will be outside the European Union, but mutually beneficial trade and security agreements will be in place.

As an offset to the UK leaving the EU, new Member States will join the European Union in the mid-2020s. Other candidate countries in the EU neighbourhood will make significant progress in accession negotiations and will be invited to participate fully in migration and security cooperation. A similar invitation addressed to the Schengen Associated Countries will be accepted, allowing common security and migration measures to be implemented in all EU, SAC and candidate countries. The Schengen area itself will expand to all current EU Member States, with new Member States ready to fully implement the Schengen *acquis* by 2030.

The situation in Syria will be stable; over four million refugees will go back and start working on reconstructing the country. The conflict in Donbass in Ukraine will remain frozen like the situation in South Ossetia and Abkhazia. The EU will enhance border management cooperation with Ukraine, which will take part in Frontex joint operations.

The EU will increase cooperation with Turkey on matters related to migration, security and justice. EU law-enforcement agencies together with their Turkish counterparts will invest more effort in fighting cross-border crime, with a special focus on drug trafficking along the southern and Balkan routes. This will go hand in hand with increased trade between Turkey and the EU as well as a visa-free regime for Turkish citizens.

By 2030 all Maghreb countries will maintain a good level of border control. Cooperation between the EU and Maghreb countries will enter a new level, with the coast guards of Morocco, Algeria, Tunisia and Libya participating in Frontex joint operations and exchanging information over the EUROSUR system.

The efforts of the UN Support Mission in Libya will finally have borne fruit. The consensual government of one undivided state of Libya, capable of incorporating militias into the new state security structures will close the negotiations on the new constitution, which will be approved by Libyan citizens in a referendum. Libya will send a signal to all troubled countries showing that where there's a will, there's a way. As a show of unity and the prosperity of the country, all tribes will jointly open the last arm of the GMMR (Great Man-Made River) – the largest irrigation project in the world.

Implementation of measures under Agenda 2063 – a master plan for transforming Africa into the global powerhouse of the future – and the acceleration of economic growth related to the demographic dividend will make the movement of people inside and out of Africa an important issue for the African Union. This will stimulate closer cooperation on migration with the EU. The EU will be successfully implementing the External Investment Plan as well as direct aid projects supporting training and education for 'trapped populations' in Africa and Asia.

Readmission agreements between countries of transit and origin in Africa and Asia will be stronger as regional free-trade agreements will have gained greater weight by 2030. Greater trade will enhance consular cooperation, thus facilitating returns between the countries but also indirectly between the EU and transit countries.

A permanent military presence by the EU (incl. civilian EU missions) and other international partners in key areas in the Sahel-Sahara will hamper the expansion of smuggling, kidnapping and racketeering activities in the region.

Positive change of dynamics

Within the next 10 years, people wishing to migrate to the EU will be choosing between illegal border-crossing and new legal ways of working and studying.

Many young Africans will use a wide array of Erasmus-like education and training programmes rather than put their lives in the hands of smuggling rings.

Special programmes for high-potential workers will make recognition of their professional education seamless, thus giving migrants more opportunities to legally reach the EU. Ageing EU societies will open doors to cater for the needs of the elderly-care market. With this move the EU will help Africa manage its 'demographic dividend'.

By 2030, effective border control measures will be in place in the EU Member States, and 99% of people that try to cross the border illegally will be apprehended at the border itself. Efficient screening processes will allow for quick identification of asylum seekers and vulnerable individuals, while others will be immediately screened out and returned to their home country or the transit country from which they entered the EU.

So-called 'secondary' and 'tertiary' movements of immigrants and asylum seekers trying to exploit differences in social benefits and income will be in decline, as by 2030 inequalities between the Member States will be much lower.

After 10 years of a cat-and-mouse game of deception and detection, EU citizens and law-enforcement authorities will understand much better how to separate the factual from the fake and how to prevent hybrid threats. By 2030 EU law enforcement will have developed extensive capabilities to fight cross-border cyber-crime, tracing all illicit transactions on the dark web as well as closed social media and messaging apps groups.

Within the timeframe of this scenario, smugglers – after a few years of successful operations across the borders at the beginning of 2020's – will be prevented from using unmanned aerial, land and maritime vehicles in the border zones, as border authorities will be equipped to neutralise them when crossing the border.

By 2030, as a response to new threats and *modi operandi* of criminal groups, border authorities will be using a wide range

of measures (including satellite imagery, aerostats, RPAS, sonar sensors, magnetic anomaly detectors and radars) to detect aerial, surface and underwater vehicles crossing EU borders illegally or heading towards the EU undeclared or with suspicious cargo. These extensive surveillance activities will be performed in close cooperation with the navy and coast guard. Surveillance will also encompass the virtual world. Social media monitoring will aid the tracking and pre-empting of migratory movements, and information about criminal activities will be obtained by observation of the dark web.

Closer cooperation between different maritime authorities will have an impact on search and rescue (SAR) practices in the EU, creating space for joint European SAR capabilities. An effective European return policy would certainly be a powerful precondition for heading in this direction.

Illegal migration pressure will decrease as a consequence of new legal migration options offered by the EU. The situation in the EU's neighbourhood will be more stable, and less people will be forced to flee their countries in search of international protection. Secondary movements will be much lower; good cooperation with countries of origin and transit will allow for quick returns of people that have entered or are staying irregularly.

Pessimistic scenario

Megatrends casting shadows over positive development indicators

The overall positive developments in the Global South and East will not materialise quickly. Over the next 10 years China will remain active in the Global South, engaging in exhaustive resource extraction, supporting Africa's 'stabilocrats' and continuing to send in 'surplus' Chinese workers to carry out infrastructure jobs.

Poorer economies in Africa will increasingly become dumping grounds

for waste from rich Western and emerging economies, leading to a growth in maritime pollution and the smuggling of unsafe goods, which will have a direct impact on the EU.

Apart from environmental issues and the increased migratory flow of people escaping polluted regions, in the mid-term perspective China's Belt & Road Initiative will increase the level of contraband coming to the EU, from drugs, precursors and pre-precursors, to counterfeit products.

The effect of global warming will be visible in global trade with the intensification of shipping traffic along Russia's Arctic coastline. The increase in the annual number of navigation days along the Northern Sea Route (NSR) coupled with Russian investments in nuclear icebreakers will open a fully-fledged trading route between Asia and Europe with all its benefits and border security risks.

Increasing urbanisation will have triggered a global economic downturn by 2030, hitting the weakest economies: in poor African, Asian and Latin American countries, people will move from productive agricultural work and efficient manufacturing jobs to precarious urban services. Many of them will be living in megapolises – cities with a population of more than 10 million people. These mega-cities will consume massive amounts of high-carbon energy contributing to pollution and greenhouse emissions.

By 2030 many warehouses in industrial areas in the developed world will have replaced human workers with automated robots. The resultant loss to the labour force could be in the millions, creating a new unemployed generation.

The changing security situation will create new organised crime groups (OCGs) from new regions of origin. Creeping conflicts in Syria, Libya and Mali will become important sources of illegal firearms for the European black market.

3D printing will fuel a new wave of counterfeiting and arms smuggling, and moral standards will slip as people

consume fake goods and home-made pharmaceuticals, putting the desire for cheap goods ahead of state customs revenue or even personal health.

The effects of climate change will cause mass migration in vulnerable geographical areas. Millions of Africans and Arabs will be born in non-places, such as refugee camps, where they will have no prospects of regularising their status or nationality. This will lead to a lost generation, susceptible to radicalisation and influenced by religious extremists who paint climate change as divine punishment. The EU will be living under an ever-present threat of massive health hazards such as highly contagious diseases and airborne pathogens (e.g. coronaviruses, synthetic smallpox virus or super-flu deployed by bioterrorists).

The upcoming generational shift amongst political leaders, particularly in the Middle East, will also be negative – or at least will not create a clean break with today's autocrats. It will bring in leaders who may be new but who were formed in the bloody upheavals of the last two decades.

Increased migratory pressure at the EU's external borders

In this scenario EU MSs/SACs will be faced with unprecedented migration flows from Africa and Asia. As the economic situation improves in African countries, more and more people will be able to afford to pay smugglers to cross the EU's border illegally. This will exacerbate tensions between countries of destination, transit and origin.

Over the next 10 years, climate change will have an increased impact on global food production. While in general there will be no food shortages, the situation will be very specific in the Middle East which relies heavily on external food supplies. Soaring prices for agricultural commodities will push many people into poverty and in the longer-term create social unrest, as was the case during the Arab Spring in 2011 when food prices spiked again after an enormous

increase in 2007–2008. This development will push many young people out of their countries. One of the nearest and obvious destinations will be the affluent EU Member States that offer decent social benefits.

Tensions between the EU and its neighbours will grow over the next ten years, with relations becoming increasingly problematic with Turkey and Russia. Both countries will try to use the flow of migrants as leverage in political negotiations.

Due to growing social pressures in Russia, notwithstanding the fertility rate being below replacement level, the country will decide to expel most non-CIS migrants (over two million people), thereby creating unusual pressure at the borders of neighbouring EU Member States. The usual strict border control applied by Russian border authorities will be applied only on entry from the EU; all migrants leaving Russia with the intention of misusing EU Member States' asylum systems will be allowed to cross the border unhindered. Specialised state entities will create fake news and social-media buzz to confuse non-CIS migrants and support mass flows of them leaving for the EU.

These and other similar activities of neighbouring countries will put European IBM to the test. Unfortunately, a lack of trust between Member States combined with the necessity to reform migration and asylum policies will lead to gridlock at EU level. A rise in extremism and populism in a number of EU Member States will block any wider political agreement.

Over the next decade and beyond, this malaise will put the Schengen zone at great risk, as some Member States will decide to deepen the integration process in parallel to the EU legal framework, while others will choose splendid isolation and reinstatement of internal border controls for long periods.

Implications of the scenarios for border management

Under the **baseline scenario**, the interplay of megatrends will cause significant global changes and in turn lead to a transformation of European integrated border management by 2030. In this complex interplay process, both positive and negative trends – in the sense of higher security and more intensified threats – will affect the EU's external border.

In general, the interplay of megatrends will lead to stronger global growth and wider disparities at the same time. Increased mobility and exchanges, technological advances and the growth of the global middle class will result in much-needed progress, but will also cause major negative changes, worsening the climate crisis and enlarging structural inequalities worldwide. The growing global middle class will influence lifestyle, production and consumption patterns that will increase competition for scarce resources, as well as pollution and smuggling. Urbanisation will provide a better life for millions of people, but will also create disillusioned 'trapped populations', which may try to escape poverty and deprivation through migration and crime. Taken together, the combined effects of all megatrends will broaden and deepen the chasm between richer and lower-income countries. Besides positive transformations, the world will also be shaken by geo-political and geo-economic tensions, problematic international cooperation and socio-economic challenges. Diverging interests, lack of cooperation and arguments between competing countries will have numerous knock-on effects (e.g. multipolarity, trade wars and economic sanctions, hybrid threats and security conflicts). The mixed effects of megatrends (e.g. influence of global east and south, climate change, demographics, health, technology, economy, urbanisation, and environmental degradation) will be particularly felt in Asia and Africa, worsening the circumstances of

already impoverished populations or slightly improving the economic prospects of others and providing them with financial means to migrate.

All these changes will force increasing numbers of people around the world to move, resulting in domestic, intra-regional and international migration. The latter will grow significantly in comparison with domestic and intra-regional migration. The EU will become a more attractive destination for people seeking a better life and will experience increased migration. Migratory surges will expose various vulnerabilities. The increasing numbers of migrant journeys and deaths in the Mediterranean Sea caused by mass migration from Asia and Africa will reveal the need for enhanced capacity and responses from the EBCG, surveillance and SAR operations. Increased influxes of migrants will put high pressure on frontline Member State border sections. Problematic cooperation with Third Countries in the field of migration and return will lead to low numbers of returns, which would make the creation of joint European SAR capabilities more difficult. Effective international cooperation is also essential for saving lives. The practical limitations of smart border technologies and large-scale IT systems in handling larger volumes of *bona fide* travellers and detecting security threats will also become apparent. Cyber-criminals will try to exploit the security vulnerabilities of smart borders and cyber-infrastructure. Also, increased digitalisation and access to centralised databases will require specialised training for border control staff to meet interoperability and performance expectations. Hybrid influencing and interference by certain neighbouring countries will involve the instrumentalisation of migration and international human rights obligations to promote their national interests. Moreover, migratory pressures at the external borders and secondary movements of migrants into the Schengen area will trigger socio-political tensions and debates in the EU about the effective protection of external borders. Solidarity

and burden-sharing will be a major part of European integrated border management in line with EU policies. However, European integrated border management will be mainly responsive to security threats and new developments.

The **optimistic scenario** suggests that EU border management will deal with future challenges effectively. Illegal migration will be less attractive for would-be migrants due to the availability of legal migration channels. As more people will be travelling legally, and those trying to cross the border irregularly will use more sophisticated methods, border authorities will need to shift resources from border surveillance and registration/identification of migrants to border control and detection of cross-border crime.

The exchange of information, joint patrolling and active border management depend significantly on the level of cooperation with neighbouring countries. Good cooperation may create new opportunities allowing for the seamless transportation of passengers and goods across the external borders.

Increased flow of passengers and cargo will require making border management smarter with the use of integrated, interoperable databases (SIS, VIS, EES, ETIAS, FADO, EUROSUR, Eurodac, Prüm databases, TFTP and others), risk analysis, profiling, new generation travel documents and ABC solutions.

Management of maritime borders (suspected vessels, containers) and airports (including business aviation in small airports) will make greater use of risk analysis supported by artificial intelligence. The physical border will be the last point of control focused on high-risk persons and goods, while *bona fide* travelers and legitimate cargo will see no interruption related to border checks. The future externalisation strategy regarding border management includes passengers and cargo transport. The border control of goods starts with departure from Third Countries; digitalisation allows central border management units to follow the routes and to work out when goods will

arrive at ports and BCP. Digitalisation enables the EBCG to implement advanced operational management for border controls, complementing the use of high-quality screening rules.

Reliance on electronic, intelligent solutions will require border authorities to recruit IT talents to maintain the services, support risk analysis and assist investigators in collecting evidence of cross-border crime.

A new SAR legal framework and disembarkation scheme and the possibility to build a joint European SAR capability will limit the involvement of volunteer organisations in SAR operations in the Central Mediterranean.

New readmission agreements signed between the EU and African and Asian countries will increase the number of effective returns and thus offer space for a more consensual move towards joint European SAR capabilities. These agreements will make it possible for Frontex to take its coordination role to the next level, and nearly all or a majority of voluntary and forced return operations will be organised by the agency. This increased number of operations will also require the enhanced presence of Frontex in Third Countries – to facilitate return operations and to monitor migrants' reintegration programmes.

Key considerations here are the efficient screening process and quick identification of people illegally crossing the EU's external border as well as the permanent deployment of highly-skilled screeners and debriefers. The referral process for individuals in need of protection (asylum seekers, THB victims, minors etc.) would need to be properly defined and accessible in every region with high irregular migration pressure.

The use of sophisticated technological solutions by smugglers will expose any gaps in technology and cooperation of border authorities. This will shift the EBCG's attention to technological innovations and closer cooperation with customs, navies and air forces, as well as the cybercrime units of police and internal security agencies.

European integrated border management across all four tiers of the IBM access control model will lead to more security, enhanced cooperation with all partners, use of new technologies for SAR and passenger/cargo flows as well as a timely and tailored response to emerging threats through a wide international border management network.

Under the **pessimistic scenario** the development and interplay of megatrends over the next decade will exacerbate the conditions foreseen in the baseline scenario, which will compound existing geopolitical tensions and socio-economic issues around the globe, ultimately exposing border management to unparalleled mass migration and a higher degree of cross-border criminality.

The deterioration of living conditions in developing regions, driven by the accelerated and uncontrolled growth of urban areas, and the worsening of environmental conditions, particularly in areas that are already vulnerable and impoverished, will trigger higher levels of instability, crime, violence and the spread of radical ideas. Epidemic threats and other health challenges will worsen the socio-economic conditions and deepen structural inequalities in lower-income countries. In parts of Africa and the Middle East, a new generation of disenfranchised young people, born from displaced parents in refugee camps will emerge, deprived of an identity, future prospects or a country to return to. These people will provide a breeding ground for criminals and terrorist organisations to recruit new members and spread radical and extremist ideas. The negative global trends, particularly in regions neighbouring the EU, will encourage an unprecedented exodus of people (including larger numbers of separated and unaccompanied children) towards the EU, where large diaspora communities already exist and many migrants have relatives and friends. The large flows will also enable a newly radicalised youth to move undetected among asylum seekers and irregular migrants.

The increasing number of migrant crossings of the Mediterranean Sea and resulting deaths will stretch border management, surveillance and SAR capacities, leading to growing involvement of non-state actors and private individuals in rescue activities, as well as increasing criticism over the handling of migration flows and concerns over the safeguarding of migrants' fundamental rights. Simultaneous security threats at all EU external borders will exceed border control capacity, resulting in closures of borders and uncontrolled entries/border crossings causing high security risks. Overburdened frontline countries will ask for more solidarity from other Member States and the EU. On the face of mounting pressure, pro-migration groups will call for the complete opening of external borders, while Third Countries will take advantage of the presence of large migrant populations in their territories to further advance their political interests, causing further rifts with the EU.

Asian states seeking hegemonic dominance, coupled with increasing navigation and trade opportunities along the Northern Sea Route, will provide important economic benefits for both the EU

and Asia, but will also carry a range of border security implications. In particular, the opening of new routes, enabled by the Belt & Road Initiative, will create new challenges for border guards. These include higher flows of dangerous and illicit commodities, as well as cheap, unsafe and substandard goods, and new forms of smuggling and trafficking, which will require more training and demand better sharing of intelligence and cooperation between national authorities in an increasingly fragmented EU.

The pessimistic scenario suggests that better responses to new border challenges and threats and the robustness of border management, depend to some extent on the improvement of knowledge of the pre-frontier area via the establishment of an early warning mechanism and regular evidence-, risk- and intelligence-based assessments, as stipulated in the EBCG Regulation. These should be further supported by strategic scenario and contingency planning to mitigate vulnerabilities at the external borders and ensure appropriate response capacity.

Overall, the future megatrend transformations, border threats and challenges

indicate a need to avoid strategic surprises through more nuanced understanding of the global risk environment. Strategic foresight and early warning as well as preparedness and responsiveness are essential for the formulation of effective policies on migration and other security threats. Systematic futures thinking would provide essential input for EBCG planning with the purpose of developing border capabilities/capacities and improving operational responses.

Finally, the difference between the baseline and pessimistic scenarios is primarily a matter of degree (intensity and scope of triggering events). Complex and unforeseen developments might exacerbate the international risk environment and worsen the situation on the EU's external borders. The optimistic scenario will materialise if more favourable conditions arise out of the major transformations the world will experience by 2030 and if border management policies and operational responses cope sufficiently with the scope of future threats and challenges.

9. Conclusion

The analysis of megatrends and thematic areas led to the following conclusions regarding the implications for European IBM. Strategic thinking will gain importance in the border management. It should assess the interplay of global megatrends and perceive EU external and internal security issues in a unified manner. The expertise and insights of all security actors is necessary to develop an integrated understanding of the global risk and intelligence environment.

Megatrends

Broad strategic and regular assessment of the global megatrend landscape is crucial to identify important changes. Relevant risk indicators for each megatrend would be useful tools for strategic risk analysis and foresight purposes.²² Systematic assessment of these indicators would improve our knowledge of the global risk environment and detect future threats and challenges as well as opportunities for action. Multidisciplinary research would also help identify patterns and trends that explain different effects of migration and cross-border crime.

The assessment of megatrend implications suggests a need for ongoing monitoring of migration and crime-related factors and other negative developments in Third Countries that may trigger irregular migration towards the EU.

External border challenges

The EU's transportation network will likely be more affected by illegal migration, cross-border crime and cybercrime

as well as terrorist and hybrid threats. Large-scale IT systems (e.g. EES, ETIAS, SIS II, VIS) along with the development of digital ('smart') borders will change EU border management, posing challenges and providing opportunities for information exchange, cooperation and interoperability between border management, law enforcement, and customs authorities. The management of regular passenger and cargo flows to/from the EU will be influenced by these technological changes in combination with EU policies on legal migration and visa requirements.

Given the importance of global infrastructural developments and passenger and cargo flows, there will be a need to constantly improve our understanding of key associated risks at the EU's external borders. Based on lessons learned from the COVID-19 pandemic, border management will need to encompass special measures to increase preparedness for future pandemics. Health emergencies represent yet another external border challenge that requires careful planning and preparation, centralised coordination and cooperation mechanisms with Third Countries.

Migration and return

Migration will not only remain a key issue in the EU, but its importance will most likely grow significantly. Our assessment foresees a step change in migration over the next 10 years as the net effect of the interplay of megatrends and other developments. The expected change will likely be comparable to the development of migration to the EU over the last 15-20 years. The EU has already experienced the 2015 migration crisis, which was a turning point for EU migration governance. By 2030, the EU will most likely have experienced another migration crisis that will be similar to

or exceed the volume and intensity of the 2015 crisis. The disproportionate migration flows will most likely originate from Southeast Asia, Africa and/or MENA countries. The analysis suggests that African migration might be more pronounced than ever in the next decade.

However, migration aspirations and the ability to migrate do not always match. This means that even though all the right conditions for international migration are in place, it might not necessarily result in migration. But, in a highly volatile and unpredictable environment, even minor events could dramatically change the situation on the ground, triggering massive movements of people.

Future migratory developments will carry important implications for return. Progress in this area will mainly depend on resource allocation and budget availability to enable Frontex to perform return activities effectively. Key considerations in the field of return are the following:

- a comprehensive EU approach to cooperation with Third Countries of origin/transit;
- the improvement of Member States' return capacity and complementarity between national policies and bilateral cooperation with Third Countries, on the one hand, and the EU approach to return and readmission, on the other;
- the mutual recognition of return decisions by Member States based on a robust EU legal framework.

Increased digitalisation will require the effective integration and interoperability of different technologies employed by national return systems. Also, the EU legal framework on return should ensure greater harmonisation, addressing any gaps and incoherence that may limit the effective implementation of return policies.

²² See, for example, the World Development Indicators (WDI) at <http://datatopics.worldbank.org/world-development-indicators/user-guide.html> and <https://data.worldbank.org/indicator?tab=featured>

Cross-border crime and cybercrime

Our assessment foresees an intensification of illicit smuggling flows affecting the internal and external security of the EU. International smuggling activities will become more sophisticated and entrenched under the cover of legal business structures and facilitated by white-collar crimes and cybercrime. Illicit smuggling will most likely be pursued by poly-criminal networks and highly-specialised criminal actors. The *modi operandi* and sophistication of criminal operations will increasingly blur the distinction between legal and illegal activities. This change will see greater involvement of practitioners and domain experts. The growth in international trade and the security weaknesses of global supply chains, transportation/logistics systems and especially the expanding shipping industry and seaports will be exploited to facilitate all types of illicit trade. Various corporate entities will provide the pretext of legitimacy, helping promote criminal activities and manage profits. European IBM is an important part of the international security architecture which will protect against such criminal activities.

Cybercriminals will continuously demonstrate their flexibility and resilience, but they will also rely on existing *modi operandi* targeting known vulnerabilities and new victims. They will try to benefit from the massive shift of previously offline activities to the online environment, as experienced with the COVID-19 pandemic.

Cybersecurity and the detection of as well as the protection against cybercrime will become increasingly important considerations over the next decade. The development of specialised cybercapabilities, in cooperation with Europol, ENISA, CERT-EU and eu-LISA, is of particular relevance to EU border management. Social media monitoring and observation of the dark web, for instance, would enhance situational

awareness and risk analysis. This will allow the EBCG to prepare for any cyber-threats that might affect border management as well as contribute to the detection and suppression of cybercrimes that relate to external border security.

Since cyber threats can originate outside the EU, cooperation with Third Countries and law enforcement organisations will be imperative to counter hacking attacks against EU platforms and IT systems as well as to investigate criminal activities.

Terrorism and hybrid threats

Within the next decade, the EBCG will face evolving terrorist tactics and capabilities and the imaginative application of new technologies (e.g. 3D printing, UAVs, biological agents) that will pose new challenges for border control and will require a coordinated and cooperative response from Frontex and Member States' border management as well as law enforcement and counter-terrorism authorities.

Hybrid interference will be constant throughout the next decade, with the potential to destabilise whole countries and regions as well as influence global governance. At opportune times, major actors are likely to escalate hybrid interference to warfare and thus achieve their aims and objectives through strategic surprise. Political, military, economic and technological dominance, and related competitive advantages, will be employed for hybrid influencing purposes.

As long as big global problems remain largely unresolved, in the public domain negative pressures will be channelled into activism, civil unrest and social resistance movements, while in the foreign and security policy domain, into hybrid interference and low-intensity actions. In this context, the instrumentalisation of migration and human rights, crime and terrorism will likely be used as hybrid methods.

Future scenarios

Future events will be determined by the complex interplay of megatrends and a lack of cooperation between competing forces at national, regional and international level, alongside significant global transformations, positive developments and progress. This report offers three general scenarios to highlight a non-exhaustive list of future threats and challenges. These scenarios and their implications emphasise the importance of European IBM, the further development of EBCG capabilities/capacities and preparing for negative events. The materialisation of the report's scenarios will challenge EBCG strategy and operational activities, requiring effective adjustments under crisis conditions.

In conclusion, the interplay of megatrends and threats to the security of the EU will be more than sufficient to cause a step change and crisis in external border security before 2030. Regardless of optimistic or pessimistic views, this analysis foresees rough times ahead that should be managed and endured through better operational responses and general crisis-preparedness both at policy level and in the field.

In a world where growing security threats and hybrid interference will be the new normal, Frontex and national border/coast guard authorities will be the first to deal with migration, cross-border crime and hybrid threats. Hence, Frontex, with its Standing Corps, and its partners in the Member States will need to function as reliable and effective organisations to protect the EU's external and internal security. Equally, their functioning must reflect the EU's democratic values and norms.

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Plac Europejski 6
00-844 Warsaw, Poland

T +48 22 205 95 00
F +48 22 205 95 01

frontex@frontex.europa.eu
www.frontex.europa.eu

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