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The Future of International Protection in the EU+ in the Next 10 Years

Comprehensive Report

EUAA
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Scenario Analysis for the Future of International Protection in the EU+ in the Next 10 Years

Comprehensive Report

December 2022

Disclaimer

The report has been developed in the frame of the project "The Future of International Protection in the EU+ in the Next 10 Years". It describes the development of four different scenarios presenting alternative possible futures for international protection in the EU+. These scenarios were developed through a multi-phase process integrating expert advice on a number of factors.

Scenarios are narrative representations of possible futures, but they are not meant to be accurate predictions of what will happen. Rather, these scenarios are written to help readers explore plausible and coherent images of the future in order to reflect upon our present actions and decisions as well as to develop a more anticipatory approach.

The output expressed **does not imply a policy position** of the European Union Agency for Asylum. Neither the European Union Agency for Asylum nor any person acting on behalf of the European Union Agency for Asylum is responsible for the use that might be made of this report.

The images used for the scenario personas are not real people. Any resemblance to persons living or dead is purely coincidental.

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List of abbreviations

Term	Definition
AI	Artificial intelligence
APD (recast)	Asylum procedures directive — Directive 2013/32/EU of the European Parliament and of the Council of 26 June 2013 on common procedures for granting and withdrawing international protection (recast)
CEAS	Common European Asylum System
COI	Country of origin information
EUAA	European Union Agency for Asylum
EU	European Union
EU+ countries	Member States of the European Union (27 countries) and associated countries Norway and Switzerland
Refugee Convention	The 1951 Convention relating to the status of refugees and its 1967 Protocol (referred to in EU asylum legislation and by the CJEU as the Geneva Convention)
UNHCR	United Nations High Commissioner for Refugees

Executive Summary

This report is the final output of a multi-phase foresight project undertaken by the European Union Agency for Asylum (EUAA) to better understand the complex interactions that could shape the future of international protection in the European Union (EU). We present four scenarios that portray alternative images of plausible futures in 2032. This set of scenario narratives accounts for divergent developments of key factors that are together shaping the outlook on international protection for the next 10 years. These scenarios are particularly concerned with the development of key factors *external* to the EU, including armed conflicts, climate change, food insecurity, water scarcity, and rapidly evolving information ecosystems and digital technologies. Each scenario narrative outlines how these factors develop and interact with each other to create new global conditions.

The four scenarios presented in this report encompass a broad range of possible futures concerning global trends and their impact on the stakeholders and institutions related to international protection. One scenario is more optimistic, whereby extensive economic development funding, international cooperation on bolstering human rights and technological solutions are used to improve living conditions in many regions of the world, thus improving factors that have in the past increased the number of persons with protection needs. Two of the scenarios present different configurations of geopolitical power that might emerge and alternative types of technological, economic and political competition that can impact international protection operations and policy. In one of these scenarios, a more multi-polar geo-political landscape emerges, with private and public investment in key transit countries redirecting flows of potential asylum seekers. In the other scenario, a new global cold war between superpowers hardens borders and leads to newly defined political stakes for those seeking and administrating international protection. The final scenario explores how the interaction of extreme weather events and other effects of climate change, combined with military conflicts and the use of digital surveillance technologies, leads to a surge in the number of people in need of international protection and endangers asylum seekers in transit.

Given that the scenarios were written to convey changing global conditions that depart from our present day perspective, some sensitive and controversial aspects of the scenario narratives were evaluated by experts who participated in a Delphi survey. The results of this survey revealed a number of useful insights regarding the futures of international protection. Of particular interest, the wide-ranging disagreement among the respondents regarding the statements' possibility clearly underscores the role of uncertainty in future developments. These results support the view that any one of the scenarios (or parts thereof) may yet become reality, and point to the need for a more robust strategic approach to institutional development. Results also provide some insight into the cognitive biases at play when regarding the futures of international protection. In particular, a strong status quo bias emerged, i.e. the view that very little will change within the given time horizon. As a bias often observed within future-oriented projects and in conjunction with the acknowledgement of high degrees of uncertainty outlined above the status quo bias signals the need for more comprehensive responses to perceived future challenges. Nevertheless, the expert assessment tended to stress more pessimistic views regarding the futures and there was

support to proactively prepare for the future. To support this, the analysis concludes with specific challenges that emerge under the scenario's unique future conditions, resulting in three major challenge areas for institutional planning and long-term strategic thinking.

Geopolitical tensions and other aspects of international relations is a key challenge area which should be monitored and integrated into preparedness activities, especially given the rapidity with which conflicts can emerge and escalate. Additionally, the changing relationships (i.e., economic development and funding programmes) between traditional destinations (for applying) for international protection and countries en route from the countries of origin affects expectations for stakeholders in international protection.

At the same time, rapid technological developments in *Digitalisation and Datafication* often appear to harbour opportunities for efficiency gains in arenas like the processing of international protection applications, remote interviews, translation assistants and decision support with artificial intelligence (AI). However, there are strong challenges for the adoption of such technologies. The tasks of developing cross-institutional standards or protocols and ensuring their being adhered to are resource-intensive and create new burdens for technological experts (data analysts, IT security, etc.), administrative teams and institutional stakeholders across the field. These activities may require investments in expertise and skills that are not traditionally associated with international protection, and may therefore not be recognised as high priority issues. For example, safeguarding data integrity and ensuring cyber security are both crucial considerations that emerge from the scenario analysis, though these might not have been considered top priority budget items in the past.

Finally, a number of challenges arise alongside intensifying effects of *Climate Change and Resource Scarcity* with critical resources crashing into cycles of low availability and predictability. While current international interpretation of the Refugee Convention does not include 'climate refugees', changing weather patterns could alter traditional regional agricultural capacities through drought, desertification, flooding and extreme weather events. Some of these effects may be temporary, such as displaced populations placing short-term strains on systems and resources in a new region. Other effects might take longer to realise but have much more lasting effects, like refugee populations providing much needed demographic relief with younger, capable contributors to a region. The uncertainty surrounding geographical location of climate change effects and those effects' collective impacts on social, economic, and political factors sets the stage for a number of disruptions that can lead to increased flows of asylum seekers. At the same time, global supply chain fragility, particularly for nutrition and food, could set up conditions for the emergence of new types of protection needs, especially when this fragility is amplified via new restrictions or sanctions, geopolitical tensions and conflict, or damage to infrastructure.

While some of these challenge areas are beyond the control of institutions like the EUAA, the scenarios and accompanying analyses outline specific challenges that organisations can begin to prepare for in terms of, for example, staff, training, strategic plans, building robust networks and forward thinking policy adjustments.

Project Approach

There exists no singular future that we are capable of knowing. As such, the practice of strategic foresight acknowledges that preparing for a variety of futures means creating a sense of familiarity with the scope of future possibilities. This project aims to provide the EUAA and its partners with future-oriented assets and skills to better prepare for and fulfil their mission within a dynamic, rapidly changing world. This project draws on the expertise of EUAA staff and external stakeholders to understand the key factors that are driving change in conditions external to the EU and are influencing international protection. Through this project's multiple phases (see Figure 1) teams consisting of mainly asylum and migration experts from the EUAA, asylum authorities of several EU+ countries (Belgium, Finland, France, Germany, Italy, Malta, the Netherlands, Norway and Slovenia), the European Commission (DG HOME, Joint Research Centre), Frontex, Europol, UNHCR, ICMPD and Fraunhofer ISI created a set of coherent future scenarios – narratives that enable policy and decision makers to better perceive and respond to the complexity and uncertainty of possible futures. The scenarios were used to identify critical challenges which can serve as a starting point in strategic planning and preparedness initiatives.

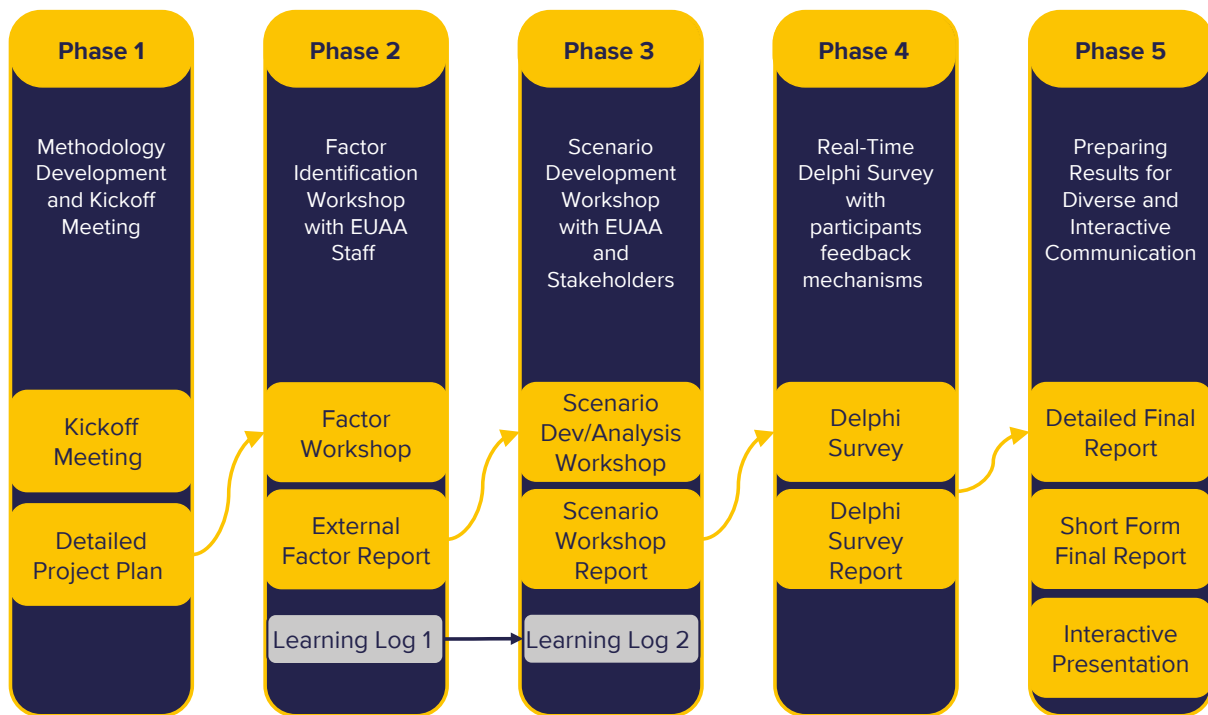| Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Methodology Development and Kickoff Meeting	Factor Identification Workshop with EUAA Staff	Scenario Development Workshop with EUAA and Stakeholders	Real-Time Delphi Survey with participants feedback mechanisms	Preparing Results for Diverse and Interactive Communication
Kickoff Meeting	Factor Workshop	Scenario Dev/Analysis Workshop	Delphi Survey	Detailed Final Report
Detailed Project Plan	External Factor Report	Scenario Workshop Report	Delphi Survey Report	Short Form Final Report
	Learning Log 1	Learning Log 2		Interactive Presentation

Figure 1: Project process

Introduction and Overview of the Four Scenarios

The scenario development process began with the identification of a number of factors that were both external to the EU+ countries and driving change in international protection. Based on them, the process of scenario development followed during three workshops with EUAA staff, representatives of national asylum authorities and partner EU institutions. At the end, four unique and viable future scenarios were refined. Each of them centres around three of the most impactful and uncertain factors and details how developments among those key factors infer coinciding and coherent developments in the other factors.

Given the explicit focus of the project to identify and analyse the potential development of factors influencing the future of international protection that are external to the EU (Annex 2a), the scenarios are presented as descriptive narratives of global changes. Where appropriate, the scenarios attempt to explain how each of the central factors has influenced the world at large and what changes the EUAA must be able to account for in developing future strategies – for example, investing in both technological systems and human resources or working with EU+ countries to develop guidance and anticipatory policy.

The final mode of scenario analysis was a Delphi-style survey developed to help gather insights into the likelihood and time-scale for critical aspects of each scenario. Through this method, respondent assessments of scenario-derived statements (included in the scenario overview below) provided quantitative and qualitative feedback on the content of the scenarios with respect to expert knowledge and opinion. The statements were derived from aspects of the scenarios that were particularly controversial during the workshop discussions and clearly differentiated between the scenario world of the future and our present situation. While the Delphi statements from different scenarios may involve the same key factors, they are created to accentuate how slight differences in factor developments can have large impacts on defining new scenario conditions. The Delphi method allows a deeper examination of proposed factor developments, by gathering diverse expert assessments on the likelihood of each statement, supporting arguments for each assessment and estimates on when (if ever) such a statement might become reality. These data can then be used to engage the wider community in dialogue regarding complex relationships of change and might provide insights to international protection stakeholders in the EU+ as they derive options for action from the scenarios.

Below is a brief overview of each of the four final scenarios and the three statements that were used in the Delphi survey. It is important to recall that each scenario is created as *a plausible sketch of a future world* and not meant as a prediction of truth.
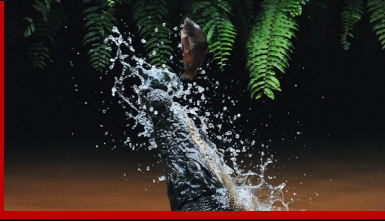
1.1. Scenario Overview

Humming Bees on the Global Meadows	Circling Sharks and Orcas
By 2032, the number and intensity of armed conflicts have decreased. Economic development in countries of origin and transit countries[1] can be observed. Human rights, and minority rights in particular, are increasingly recognised globally. Growing environmental awareness and the use of technology to protect people from the effects of natural disasters are accompanied by successful court cases regarding the recognition of climate change-induced displacement. Asylum application processes are digitalised to a large extent and make use of the improved data provision of digital networks and platforms.	By 2032, a new cold war between the global superpowers makes them determined to maintain the status quo. The threat of a large-scale armed conflict is omnipresent and dominates the action. The global superpowers put pressure on countries to avoid regime change and provide support for regional solutions mitigating the climate change effects. Many authoritarian governments use new technologies for surveillance purposes and to pacify their populations. The asylum application processes have become largely automatised and remote application processes are mainly initiated in transit countries since territorialisation is hardened.
Delphi Statements **1**: Asylum applications in the EU+ can be lodged and processed digitally from anywhere in the world, backed by a standardised artificial intelligence system used to authenticate personalised data. **2**: A tool for country of origin information is in place that provides frequent updates for each village around the world concerning climate change induced effects on local living conditions. **3**: Minority rights are recognised and protected in an overwhelming majority of countries, and minority group members receive legal and financial support from well-funded civil society organisations, which reduces the need to seek asylum abroad.	**Delphi Statements** **1**: In order to maintain stability between the blocs of global superpowers, EU+ countries have introduced asylum quotas (similar to resettlement quotas) that are set artificially low. **2**: Tightly enforced network firewalls are in place, limiting access to remote application lodging from many countries of origin. Therefore, most of the asylum applications in the EU+ are lodged while the applicants are physically present in transit countries. **3**: Many EU+ countries are using non-standardised, artificial intelligence systems (for example, comparing the presented documents with external sources) and extensive decision-making support functions for the assessment of asylum applications.

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[1] In this scenario development activity, transit countries are understood as countries in the route between countries of origin and EU+ countries, whereby the latter are the supposed countries of destination.

Sleeping Leopard in a Paper Cage	Caimans and Piranhas in a Drying Pond
By 2032, global power centres have unofficially divided the world into spheres of influence and increasingly acknowledge the special importance of transit countries for maintaining boundaries. Economic development in transit countries is therefore supported by major power blocs with a focus on developing job opportunities and the living conditions of migrants in these countries. The relationship between people, their data and social institutions has shifted with the aim to give individuals control over their personal data. This development enhances the possibilities of data use in remote asylum application processing, but flawed algorithms and systemic exploits remain problematic. The increasing threat to livelihoods due to climate change remains unresolved.	By 2032, numerous disruptions to global agriculture and food supply systems caused by the effects of climate change have led to conflicts and spiralling civil unrest in the global South. Territorial boundaries have become hardened with infrastructure build-outs. There is a discrepancy between the legal frameworks of international protection and actual practices applied at the state borders. The failed attempt to automate asylum application processes goes back to unreliable databases and leads to a more restrictive interpretation of international protection in many countries. Asylum seekers are negatively affected by unregulated social media.

Delphi Statements

1: Transit countries become the focus of investment from the major global powers, as a way to maintain internal stability by limiting incoming migration (including asylum-related migration) to the EU+ and other countries.

2: In the EU+, automated systems are used to present potential migrants a variety of legal pathways based on their digital profiles (demographics, skills, education, etc.). Systems can present potential migrants with likelihood measures for different legal statuses (refugee, worker visas, etc.) and match them to sponsorship programmes and areas with skill deficits.

3: Food and water shortages, caused by worsening climate change effects, continue to contribute to increased migration and remain intractable problems despite investment in technological solutions.

Delphi Statements

1: Due to food and water shortages, migration becomes unmanageable in many regions around the world.

2: Border areas have been increasingly securitised (including those of EU+ countries) making illegal border-crossing harder.

3: Due to easily corruptible data profiles emerging from unregulated communications networks, the use of artificial intelligence systems in processing asylum applications has been largely restricted to translation and biometric scanning during interviews.
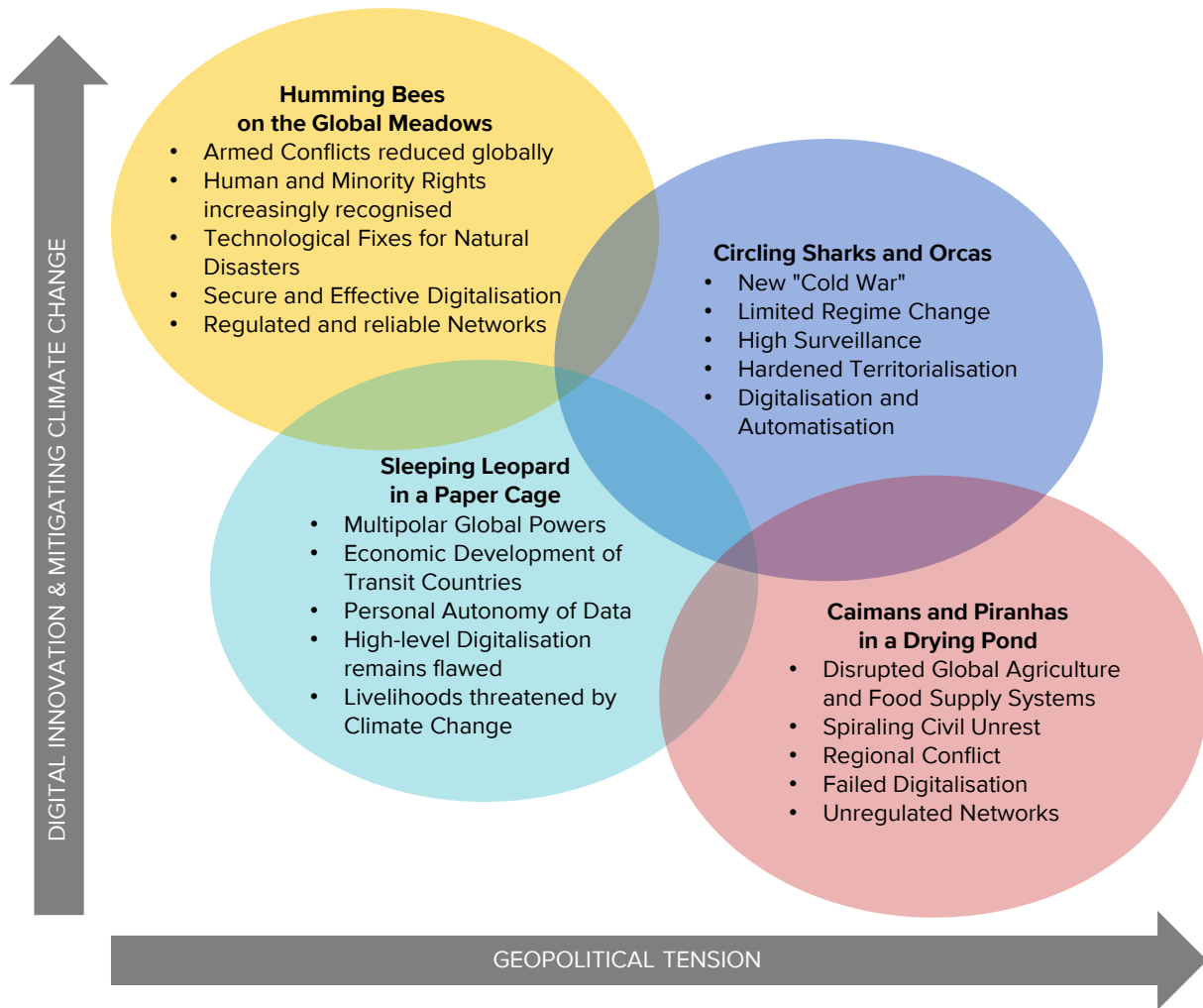
**Humming Bees
on the Global Meadows**
- Armed Conflicts reduced globally
- Human and Minority Rights
  increasingly recognised
- Technological Fixes for Natural
  Disasters
- Secure and Effective Digitalisation
- Regulated and reliable Networks

Circling Sharks and Orcas
- New "Cold War"
- Limited Regime Change
- High Surveillance
- Hardened Territorialisation
- Digitalisation and
  Automatisation

**Sleeping Leopard
in a Paper Cage**
- Multipolar Global Powers
- Economic Development of
  Transit Countries
- Personal Autonomy of Data
- High-level Digitalisation
  remains flawed
- Livelihoods threatened by
  Climate Change

**Caimans and Piranhas
in a Drying Pond**
- Disrupted Global Agriculture
  and Food Supply Systems
- Spiraling Civil Unrest
- Regional Conflict
- Failed Digitalisation
- Unregulated Networks

DIGITAL INNOVATION & MITIGATING CLIMATE CHANGE

GEOPOLITICAL TENSION

Figure 2: Overview of the four scenarios for the future of international protection in 2032

Taken individually, each scenario can offer insights into future challenges and opportunities that today's institutions can use in an anticipatory manner – for instance by creating preparedness plans for certain situations or establishing monitoring programmes. However, when examined as a collection of 'images of the future' for international protection, the scenarios present new perspectives on drivers of change shaping possible developments. Figure 2 portrays the scenarios as overlapping narratives positioned along two perpendicular axes: geopolitical tension, and digitalisation and climate change. Further analysis allows us to define some critical challenges that cut across the scenarios and outline common areas in which effective action can be taken in anticipation of any scenario.

That comparative view of the scenario narratives is further complimented by data gathered from the Delphi survey that pointed to a few key takeaways under aggregate analysis. Firstly, the Delphi survey reveals wide-ranging **disagreement** among the respondents regarding the possibility for most of the statements – clearly underscoring the role of **uncertainty** in future developments and the possibility that any of the scenarios may yet become reality. Second, given the above point, the **core strategic challenges** (presented in the final chapter of this report) that help prepare the EUAA and its partners for all scenarios can be considered priority items and can be the focus of ongoing organisational assessment and planning activities. Lastly, expert assessment tended to favour the **more pessimistic views** regarding the futures

of international protection and support a more proactive stance towards **institutional preparedness** as well as the further development of EUAA communications with both national governments and other EU bodies.

Figure 3 illustrates the aggregate Delphi results with respect to the key issues addressed within the scenario statements. Statements assessed as more likely to occur within a shorter time frame (e.g., unreliable data limits AI use) can guide institutional planning activities in the short term. However, if we follow the other scenario statements regarding digitalisation of different aspects of the international protection and asylum systems, an improved overall picture of these key factors emerges that longer-term planning should account for (e.g., AI decisions support for the assessment of asylum applications and automated analysis of digital profiles). In this way we can begin to see how the overlapping narratives illustrated in Figure 2, can be useful in outlining more robust policies for specific key factor developments as included in the Delphi survey.
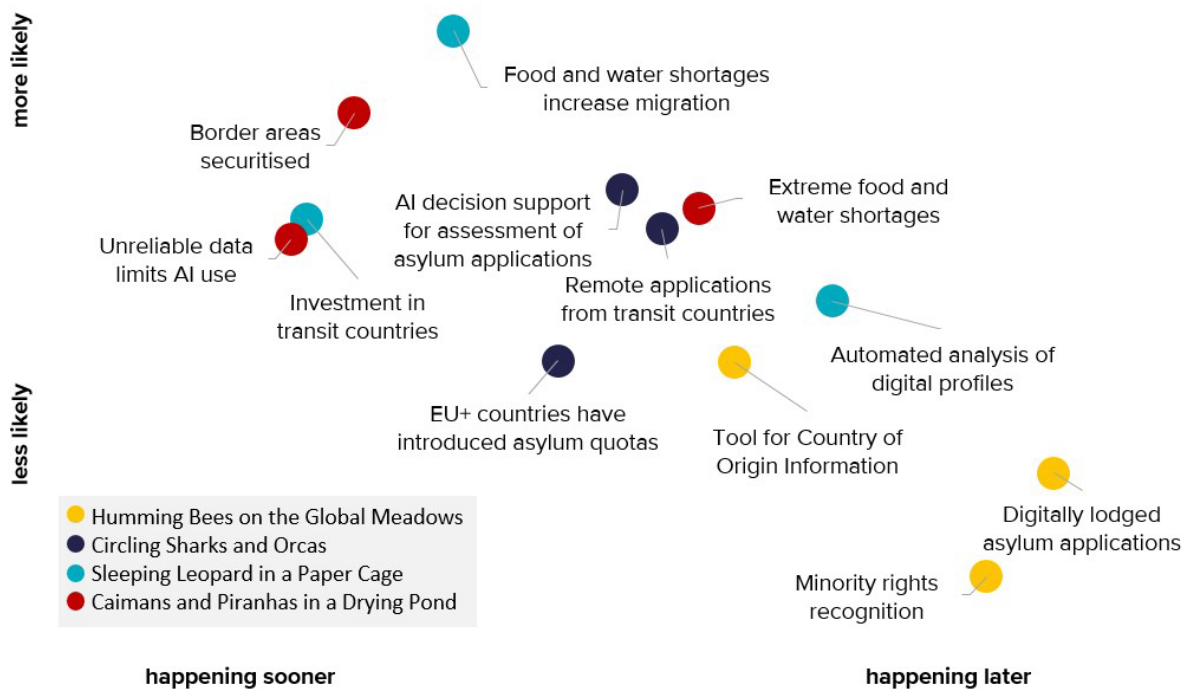
Figure 3: Aggregate Delphi results demonstrating scenario statement assessments in terms of degree of likelihood and time for actualisation

The next chapters present each of the scenarios in a uniform structure allowing for a more streamlined comparison. First, the extended version of each narrative scenario and the accompanying results from creative and analytical scenario exercises are presented. This is followed by 'scenario personas' that tell more detailed stories about what daily life might be like for asylum seekers or individuals considering applying for international protection within specific scenario conditions. Additionally, results from an early stage 'wildcard' assessment are included, outlining the associations between each scenario and low-probability, high-impact events. This is followed by a summary of the Delphi results for each scenario statement reflecting expert opinion regarding overall likelihood of occurrence. Finally, challenges that emerge from each of the scenarios are discussed with a view to help actors in the field of international protection take an anticipatory stance.

Detailed Description of the Scenarios

In the following section, we present the developed scenarios and the corresponding data and insights that each helped provide during the scenario analysis activities. The full text of each scenario narrative is followed by a summary text for each scenario's personas, associated wildcards, and scenario-specific challenges for international protection and the corresponding results of the expert evaluation of the scenario via the Delphi survey.

2.1. Scenario Humming Bees on the Global Meadows

2.1.1. Scenario Narrative

More democracy and economic progress

By 2032, the **number and intensity of armed conflicts** have **decreased** in the last decade as peaceful solutions are successfully pursued at the international level through a multi-faceted approach. **The international community** is **taking responsibility for conflicts** that stem from remnants of colonial history and, in some territories, solutions are being successfully found **through international mediation**. Countering the previous wave of undemocratic power shifts, many state governments around the world have been strengthening democratic institutions and procedures – moving higher up the scale of democracy – and regime violence is diminishing in many regions as a result.

Economic development in third countries and global initiatives to reduce financial inequality (e.g. conditional debt cancellation) reduce the proportion of economic migrants within the flows of migration. In addition to further economic development, third countries now face **lower wealth inequality and less poverty, while having better living standards and better access to health care**. In transit countries, the economic situation and political stability improve and, as a result, part of the migrants decide to stay in these countries instead of continuing their travel to initially intended destination countries in Europe (or elsewhere). At the same time, **regional solutions to improve economic and social conditions in countries or territories of origin** reduce the overall pressure on transit countries.

Rising transparency and awareness for human rights

Supported by international jurisprudence, **respect for human rights improves and minority rights are increasingly recognised globally**. There are transnational (and properly enforceable) regulations to protect vulnerable groups, accompanied by technological and social developments that increase minorities' awareness of their rights. **Strong international civil society organisations** collaborate to provide networks for minority groups and potential asylum seekers to report human rights violations and educate on international protection rights. Through the use of new technologies, **oppression of minority groups is monitored and**

made transparent and is gradually receding from previous years. Mechanisms and technological infrastructure are in place to allow oppressed and vulnerable people to apply for international protection without increasing the risk of retaliatory punishment or forcing them to cross borders.

Consequences of climate change are recognised and addressed

Worsening climate impacts increase **displacement** and insecurity. In third countries, urbanisation is intensifying as – due to climate impacts – there is less arable land and opportunities for traditional farming, while greater urban economic capacities are driving population movements.

Increasing environmental awareness is contributing to innovative approaches to irrigation and food distribution, including the improvement of regional structures to strengthen nutritional security. Climate change promotes a discussion that land and its use are inextricably linked to people's identity and well-being; international regulations to reduce conflicts related to land appropriation follow. Technology reduces resource scarcity by improving the production and distribution of various goods, including food and water.

International non-governmental organisations are pioneering a **possible revision of international legal standards with regard to climate migrants** fleeing countries with unsustainable living conditions. At the international level, there are more and more **successful court cases regarding the recognition of climate change-induced displacement** as a criterion for protection. A coalition of countries seeking regional cooperation is supporting climate change-induced refugees. **Technology is used to protect people from the effects of natural disasters** (e.g., predicting floods, droughts, etc.). Expanded fair trade campaigns have proven increasingly popular and new global regulatory frameworks are paying off, each helping to level the playing field for small agribusinesses in developing countries.

Digitalised asylum procedures

In 2032, a number of operational changes and supportive policies are shifting the approach to upholding international protection commitments. For example, **asylum applications are often fully processed electronically and remotely (e.g. by conducting interviews online)**. For asylum seekers with a positive asylum decision, safe pathways to the country of destination are ensured. These operational changes greatly speed up asylum procedures and result in fewer people engaging in irregular migration.

Comprehensive information sharing between governments, agencies and some private actors enables **improved services for asylum seekers, caseworkers and managers.** If necessary, **blockchain technology** is used to prove identity and increase data protection. Occasional database inconsistencies and algorithm errors may lead to miscalculations and **disruptive cyberattacks** sometimes cause service outages. However, these are limited in number and scope. User-controlled private data enable **reliable and faster AI-assisted application processing**. Organisations working in the field co-operate better with each other and provide information to speed up the processes of identity validation and travel history verification. In addition, biometric systems (facial, iris, voice and gait recognition) have become

much more reliable as well as more portable and therefore more widely used in the identity verification process.

New opportunities for digital networks and platforms

Asylum seekers and other migrant groups are using digital technologies in a number of innovative ways. Regulated, mediated and trusted social media provide reliable information for various types of migrants and asylum seekers while **respecting privacy** by default. Protection of minority groups has been reinforced through successful **social media** campaigns, strategies and technologies that exist to **debunk fake news** and curb hate speech. At the same time, decentralised finance applications enable secure, global access to their own financial resources for migrants and asylum seekers.

Virtual spaces blur the line between physical and digital life in the social and cultural spheres and enable families to live on a transnational basis. **Many education and employment opportunities** can be pursued from almost anywhere. **Catching up on missed vocational training** (during transit or due to conflict) is possible (in conjunction with open online courses) and has been broadly adopted among migrant communities.

2.1.2. Scenario Personas

Persona A

Ahn is a 22-year-old female, currently living in Hong Kong. Her main motivation for seeking international protection is to pursue better economic opportunities, but she has proof of being persecuted for online activities in support of political protests. She has extensive experience in IT, having worked as a developer of academic software and she has personal savings denominated in several Bitcoins. She has all of the relevant documentation she might need stored on a verifiable blockchain and she is aware of most application procedures through knowledge gained from internet research. Her only concerns are that her digital identification documents might not be accurately interpreted during application assessment and that her family might have to join her if they are persecuted for her behaviour and her seeking asylum.

Persona B

Nage, a 25-year-old female from a small village in Ethiopia, is now located in Turkey and is considering applying for international protection. Her village became uninhabitable due to climate change and the money she earned as a farmer was no longer sufficient. She obtained only primary level education and can perform very little outside of agricultural work. She has been told to trust in the goodness of people during the asylum application process and that her story will be enough to convince any case worker of her need for international protection. She has a letter from her village chief attesting to her identity and she has multiple members of her family with her in Turkey who will also be applying for asylum. She has gained most of her knowledge about the process from her personal social media groups. Her biggest fear is that they will send her back and she is already feeling quite sick and weak.
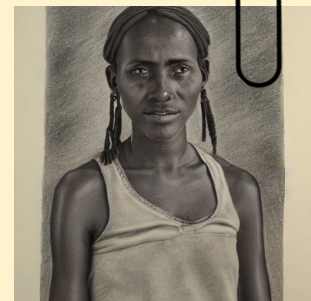
2.1.3.   Wildcards Linked to the Scenario

During the workshop series, participants associated a number of the presented wildcard options with the Humming Bees on the Global Meadows scenario. A number of climate- and environment-related wildcards were seen as having the potential to push this scenario closer to reality, providing the impetus for the changes in international relations and types of investment that are central to this scenario. A **prolonged drought**, or a **breakthrough in potable water technology** are examples of such wildcards that can shift global conditions, possibly towards increased cooperation and compromise. At the same time, other wildcards were assessed to have the potential to rapidly destabilise the scenario world. **Major cyberattacks or digital exploits** could, for instance, undermine the digital systems vital to the EUAA's operations in the scenario.

2.1.4.   Delphi Results for the Scenario

The Delphi statements are derived from aspects of the scenarios that were particularly controversial during the scenario analysis discussions. The Delphi results show that the statements linked to this scenario are predicted to take place further into the future than the statements linked to other scenarios. The participants see few problems with the technological possibilities presented in this scenario. They emphasise that the situations described do not reflect current development trends and therefore seemed possible over a longer-term time horizon (10+ year) rather than as a shorter-term future (1-10 years).

Statement 1: Asylum applications in the EU+ can be lodged and processed digitally from anywhere in the world, backed by a standardised AI system used to authenticate personalised data.

There is a lot of scepticism towards this statement but the reasons behind it are very diverse. Only a few participants doubt the technological feasibility of the first statement, but there are great doubts about the political will to support such a development, since on the one hand, harmonisation within the EU is judged critically and, on the other hand, the possibly much larger number of applications might not be socio-politically acceptable. Plus, a perceived variation of the statement implies assessing asylum application while the applicant is still in country of origin or within his/her habitual residence – such development would require the change in the current international definition of a "refugee", hence the respondents' scepticism about the statement's likelihood and viability.

Statement 2: A tool for country of origin information is in place that provides frequent updates for each village around the world concerning climate change induced effects on local living conditions.

While there seems to be an agreement that this is technologically feasible, the statement's overall possibility is doubted. Many argue that the granularity of the data implied in the statement is impractical and/or unnecessary and that current data at a more regional scale would suffice to create a bridge to COI. That said, many respondents mentioned the lack of political will and funding to create such a data bridge and questioned this action as climate refugees are not (and should not) be treated under international protection.

Statement 3: Minority rights are recognised and protected in an overwhelming majority of countries, and minority group members receive legal and financial support from well-funded civil society organisations, which reduces the need to seek asylum abroad.

This statement was viewed as overly optimistic for a number of reasons, but most importantly, because it goes against all current trends regarding violations of minority rights. In the minds of most respondents, the increasing trends in authoritarian regimes, ongoing conflicts and rights restrictions seem to undermine this statement's premise and overall plausibility. While some respondents left room for the 'possibility' of such a development, these opinions often placed important limiting caveats on the statement and pushed that possibility toward a much longer time horizon.

For this scenario, the survey responses demonstrated no clear agreement between experts regarding the effect of the scenario conditions on the number of asylum applications lodged. The participants weigh different effects against each other, and it seems **largely unclear how the number of lodged applications would develop under these conditions**. Despite the improved situation with regard to armed conflicts, this development could be overshadowed by the number of persons displaced due to climate change. It is also pointed out, that despite the somewhat improved situation in many countries, the difference in living standards and the growing population will continue to lead to migration movements towards the EU+ and that a slightly improved economic situation in some countries could initially lead to an increase in migration. Furthermore, it should be taken into account that new communication technologies and the much easier access to lodging an application in this scenario might even lead to a strongly increasing number of applications.
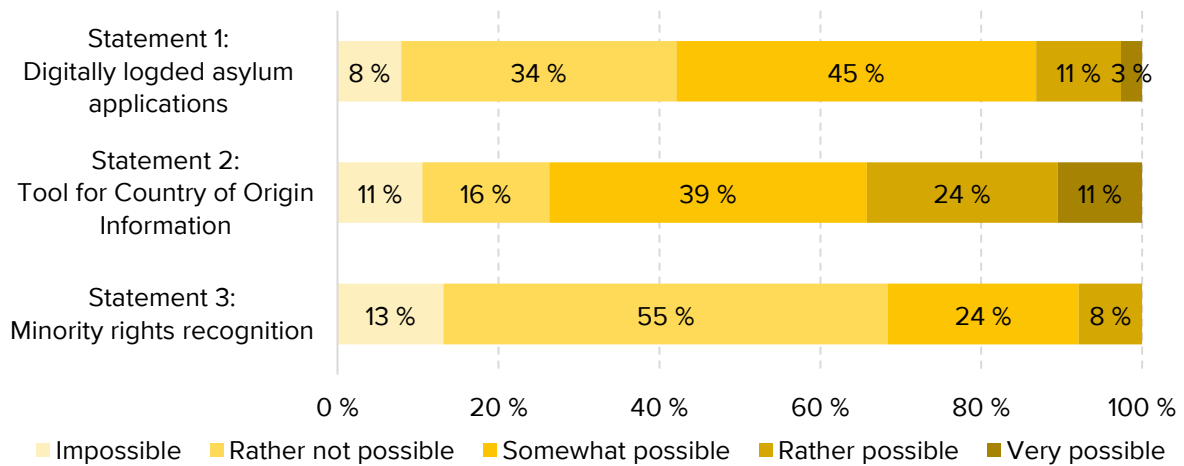
Figure 4. Statement assessment in scenario Humming Bees on the Global Meadows (n=28)

In the scenario Humming Bees on the Global Meadows, the **potential for an adjustment of the definition of international protection** is seen. Almost two thirds of the participants expect an expansion in the definition under these conditions. Climate change is seen as the only possible reason for this, but the exact form of these changes is unclear. Some participants expect that only conflicts or exceptionally large migration movements due to climate change will be taken into account, while other participants expect a more comprehensive recognition. Even under the conditions of this scenario, about a third of the participants do not expect the

definition to be adjusted. These participants expect that climate change-induced resettlement will be regulated outside of international protection.

2.1.5. Scenario Challenges

Geo-Political Challenges

- Disagreement on the adoption of conventions regarding the acceptance and treatment of 'climate refugees' complicates relations between countries on opposing sides of such a stance. In this scenario, cooperation without such conventions may imply complex legal arrangements that would affect authorities in the field of international protection.
- The economic development of traditional transit countries has a complicated impact on general and asylum-related migration of foreigners temporary residing in such transit countries. At the same time, we might observe increases in international protection applications in traditional destinations, such as the EU+ (with more wealth enabling more families to afford the journey) and less economic migration as greater wealth lowers incentives to migrate.
- Legal and cultural differences as well as non-complimentary socio-political goals make global cooperation very difficult and hinder the development of binding agreements within global governance institutions like the United Nations.
- The new types of cooperation on international protection outlined in this scenario are intentionally vague, as details concerning bilateral or multilateral agreements are too specific for the scenario. This ambiguity does not erase the fact that any efforts between countries will remain burdened by unaddressed challenges (e.g. resettlement, aid, lodging and caretaking, security screening, etc.).

Digitalisation and Datafication Challenges

- The use of AI and automated systems imply a major shift in application processing operations (electronic processing, remote interviews, etc.). Additionally, this scenario calls for human oversight of automated systems, implying additional training and skills are needed to understand and properly assess automated system results.
- This scenario implies that various online platforms and technologies will be used to assist in verification of asylum applicant identities and outlines present day challenges that would have to be addressed for this scenario to be realised:
    - Establishing information sharing agreements between governments and their entities;
    - Regulating social media to ensure information is trustworthy;
    - Securing private data and guarding against future cybersecurity failures and attacks.

Climate Change Challenges

- Since international organisations and some countries are expected to begin including climate change as a legitimate reason for granting international protection, this creates

challenges with respect to requiring additional climate-related information due to altering the criteria for assessing asylum applications.

- Additionally, if such an approach to 'climate refugees' is not universally approved (via a UN resolution for instance) and implemented, then the asylum procedures may become complicated by unequal approaches.
- While this scenario presents a world in which there are concerted international efforts to confront climate change, it acknowledges that climate change effects are still developing and causing disruption and displacement in many places.

2.2. Scenario Circling Sharks and Orcas

2.2.1. Scenario Narrative

Tense but stable geopolitical situation

The tension between the geopolitical blocs has led all sides to seek stabilisation. To maintain the *status quo*, they aim to avoid regime changes and large-scale migration in all parts of the world. The support for the economic development in the global South is an important part of this effort and it includes technological as well as financial aid. Many **authoritarian governments** profit from this support. They **use new technologies to pacify their populations** by providing cheap food, minor economic development and escape from everyday life via digital entertainment.

Misuse and benefit of new digital possibilities

In countries of origin, **surveillance technologies** (including the use of social media and mobile telephones) are used by governments to target dissident individuals. "The surveillance state" across several countries allows for more targeted, keyhole identification of dissidents and/or minorities and subsequent **persecution of certain groups**. Authoritarian/totalitarian regimes increasingly target IT systems to identify oppositional movements and minorities for monitoring and persecution. Additional digital tactics include the manipulation of narratives on social media to hinder the communication between the suppressed groups, as well as interventions to frustrate the efforts of the opposition to organise and mobilise.

At the same time, ultra-secure databases for migration and automated monitoring systems are provided in receiving and transit countries. This situation reflects the **digital technology competition between the global superpowers**. Where access to uncensored sources of information is possible, it allows **minorities' awareness of their rights** and international solidarity. **Strong international civil society organisations** provide networks for minority groups in order to educate minorities on human rights and report human rights violations.

The geospatially restricted social media landscape enables state-backed misinformation campaigns and societal surveillance, while simultaneously allowing for greater capacities to improve **networking and digital literacy for the suppressed groups and asylum seekers**. Given the capacities for regimes to censor and manipulate messages within their territorialised networks, **decentralised social media and other next generation web applications use blockchain technologies to help migrants and asylum seekers identify legitimate information** on their rights and available resources and to facilitate other aspects of the asylum seeking.

Remote asylum procedures

The launch of automated immigration processing support systems is intended to control modes of asylum seeking and several countries have mandated **remote asylum application lodging and processing** as the sole mode. Embassies and consulates, using their sovereign territory, are to some extent able to provide safe and secure space and infrastructure for the lodging of asylum applications. Those applications are then sent to the central services of the national asylum authorities, which issue a decision based on the application and interviewing done online.

The **widespread adoption of AI-based analytical technologies** – both for asylum application processing and monitoring of asylum seekers' environments and contextual conditions – facilitates more timely asylum application procedures and helps provide greater *in situ* safety for migrants. This includes the broad deployment of secure, accurate biometric systems (facial/iris/voice- and gait-recognition) to identify and track both migrants and the individuals in their vicinity.

Sponsorship programmes that use remote procedures to pair asylum seekers with hosts successfully operate in some key transit countries. Even though international refugee law remains in force, **many countries** are opting out and are **refusing to host or allow entrance to asylum seekers**. **Bilateral agreements with transit countries addressing refugee support responsibilities and safety measures** are blossoming.

Innovative solutions to cope with climate change

Droughts are more frequent, widespread and longer lasting, adversely affecting crop yields and livelihoods. However, the adoption of **new nutrition sources, new irrigation technologies** and the reduction of food waste are mitigating many of these effects. Insects have become a regular part of human food intake, especially those that thrive in dry areas. Genetically modified food technology, aquaponics and saline farms enable concentrated, **regionally adapted agriculture**. International financial support allows localised rebuilding and resettling to mitigate disaster and climate change-induced displacement. However, the extensive use of new technologies goes hand in hand with the problem that in some regions **educationally disadvantaged people**, in particular, are **left behind** as their home countries modernise.

Digitally savvy asylum seekers

Extensive international efforts aimed at avoiding regime change and **improving the economic situation in the global South** to stabilise the situation are proving somewhat successful and are to some extent narrowing the economic migration. **Mixed migration has therefore become less diverse with respect to migrants' countries of origin and educational background**. **Digital literacy has become a crucial prerequisite skill** for navigating the international protection procedures.

2.2.2. Scenario Personas

Persona A

Tadesse is from Tigray in Ethiopia, wherein the national government continues to persecute and evict people from their tribal lands. He is 18 years old (though he is claiming to be 16 in the asylum application process) and he is currently in Sudan having arrived as a part of a caravan that cost him all of his money. The human traffickers that helped him get to Sudan insist that he still owes money and that he can only pay his debts if he assists them in further human trafficking activities. He wants to escape to Europe and has started taking up as much work as he can find (e.g. construction, courier, cleaning). He has some level of schooling, though he was forced to drop out when his father was killed as a member of the Tigray People's Liberation Front. He inherited the family farm but was evicted through persecution and official corruption. He is travelling alone and has many fears of being killed or imprisoned if caught by police or soldiers, but he is confident that the story of his tribe's persecution is so well-known (through non-governmental organisation (NGO) reports and social media news) that his application will be accepted. As his official passport and national ID card were lost during the journey, he has facial biometrics and fluency in his native language as primary ID documents (though he does have digital pictures of those documents on a Chinese social media platform). He wants to go to Europe, where many other Ethiopians on social media have assured him that he will receive good social benefits as a minor. He is concerned that invasive medical procedures will unveil his true age, that he will not be welcomed in his destination country and that he will be returned to Ethiopia even as he waits on his application. However, if he is forced to go back, he will be able to protect his younger brothers and seek revenge for the killing of his father.
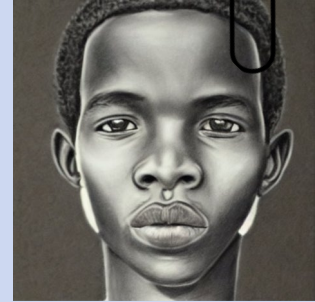
Persona B

Hajar lives in the town of Ashgabat in Turkmenistan (Baloch). She is 37 years old and is being evicted from her home by the pressures of a foreign mining company. To fight against this eviction and for worker rights in general, she has become very politically active and is now being persecuted for her activism. She has a university degree and used to work for a mining company as an administrative assistant at the company's headquarters in the capital. She has gathered supporters from the mining company's home nation, secured the legal assistance of an NGO and has evidence of the violence she faces in her current location. As a single mother who is also pregnant, she has some anxieties regarding the international protection journey and process, but the father of her children is currently working in Europe where she will be applying for international protection. She speaks Russian and English and would like to find employment that matches her qualifications, so as to continue to climb in her career.
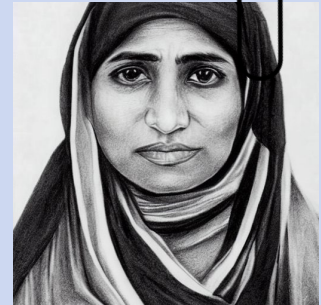
2.2.3.   Wildcards Linked to the Scenario

The precarious stability that defines this scenario could be quickly undermined by the emergence of a **major international war**. For some workshop participants, the Russia invasion of Ukraine has been a pertinent example for such a destabilisation. The threat of a **major cyberattack** or disruption to digital services, and the emergence of **large communities of anonymous digital assailants**, are also viewed as the type of wildcard that could radically shift this scenario world into a different state. In what was viewed positively by participants, this scenario was also seen as providing the right type of global conditions to set the '**global regulation of social media**' wildcard into motion or the rise of a **legitimate digital state**.

2.2.4.   Delphi Results for the Scenario

In the evaluation of the three statements associated with this scenario, the average ratings are in the middle range, both in terms of timing and in terms of realisation possibilities. However, a closer look at the data reveals large differences between the participants. The ratings for all statements range from "impossible" (between 3 % and 9 %) to "very possible" (between 8 % and 18 %). The introduction of asylum quotas is particularly viewed with scepticism.

Statements 1: In order to maintain stability between the blocs of global superpowers, EU+ countries have introduced asylum quotas (similar to resettlement quotas) that are set artificially low.

Respondent assessments of this statement were focused on three different categories, with well-crafted arguments being presented for every position. This type of distribution indicates that the issue of "asylum quotas," particularly as a lever for geopolitical tensions, remains highly contested. For those arguing that the statement is impossible or rather not possible, asylum quotas are of questionable legality and may undermine the Geneva Convention and EU values. Many note that asylum quotas may be quite ineffective in addressing irregular arrivals. Other respondents viewed this statement as quite possible.

Statement 2: Tightly enforced network firewalls are in place, limiting access to remote application lodging from many countries of origin. Therefore, most of the asylum applications in the EU+ are lodged while the applicants are physically present in transit countries.

This statement was generally considered to be within the realms of possibility, for a variety of reasons. One main point of contention with the statement revolves around the shifting policies that enable application lodging from transit countries. Respondents point out that there are many strong social and political factors that favour application lodging from transit countries, particularly if that means asylum seekers will stay in those countries while awaiting a decision. The statement's implication about cybersecurity was also underscored in the arguments – with many respondents seeing cyberdefence, and its geopolitical role in this scenario, as an important rationale driving the development and implementation of such an application system.

Statement 3: Many EU+ countries are using non-standardised AI systems (for example, comparing the presented documents with external sources) and extensive decision-making support functions for the assessment of asylum applications.

This statement was also regarded by the majority of respondents as decisively within the realm of possible future developments. Many respondents stated that the technologies are already mature and will find support if the systems a) are limited to helping human decision making, b) can be de-biased to a degree of social and political acceptability and c) remain compatible with international law. Some respondents stated that such systems are already deployed for certain tasks (i.e. translation), though opinions were split on the effect of various economic drivers (system cost, labour cost and turnover) on the speed and breadth of further implementation. The statement's assertion that AI/machine learning systems remain non-standardised across the EU+ was widely agreed upon for issues of sovereignty, differences in standards and affordability. Those assessing this statement as rather not possible see shortcomings in the capabilities of AI systems, particularly if the systems are granted decision-making capabilities outside of human oversight.

For this scenario, half of the participants expect the number of lodged applications to have strongly or slightly increased compared to 2021. At first glance, the assessment of this scenario looks quite similar to scenario Humming Bees on the Global Meadow, but the justifications show clear differences between them. An important reason for a reduced number of applications lodged in this scenario is the fact that the superpowers in this situation of a cold war have a great interest in suppressing instabilities and therefore **larger refugee movements are expected to be oppressed**. In addition, the digital and automated form of applications could also be associated with risks and therefore not be used as extensively despite the initially seemingly easier access. The participants of the survey emphasise that the **number of applications could remain unchanged, only slightly increase or decrease although the actual need for international protection increases significantly** in this scenario.
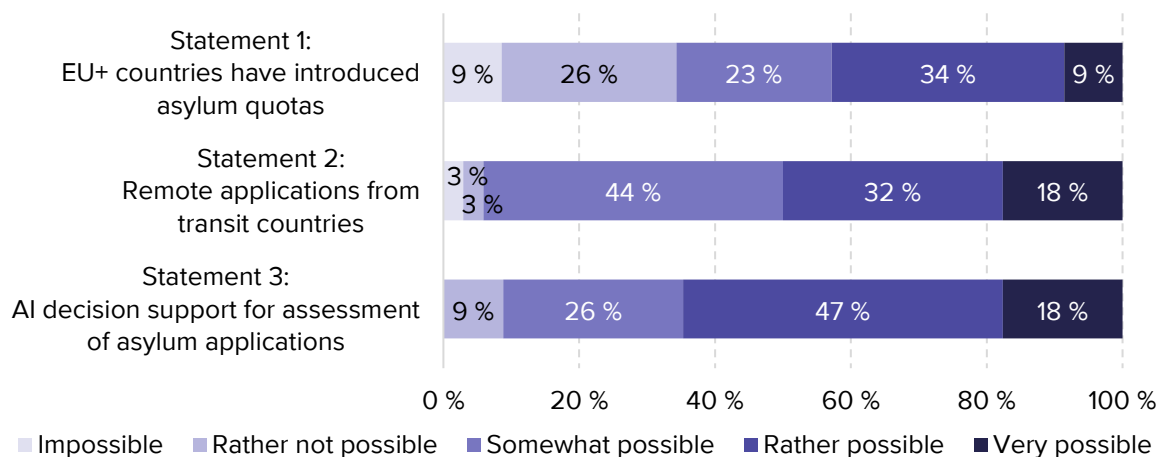
Figure 5. Statement assessment in scenario Circling Sharks and Orcas (n=35)

In this scenario, two thirds of the participants expect **no change in the definition of international protection**. Most participants consider the current definition to cover the most important aspects. Some expect the definition to be narrowed under these circumstances since the neighbouring countries will be expected to uptake those fleeing from direct bodily harm as a result of armed conflicts and climate change-induced migration.

2.2.5.   Scenario Challenges

Geo-Political Challenges

- The quota system regarding the total number of asylum seekers allowed to apply for international protection creates a significant challenge for institutions to navigate. As this represents a fundamental shift in the legal basis for international protection, such a move would require new approaches to pre-assessing potential applicants.
- The quota system might lead to a situation where people have been granted international protection status, but access to the receiving country is delayed because the quota is already filled. In these cases, the complicated task of safeguarding refugees may become a new obligation.
- Similarly, the scenario postulates that some refugees might be denied access to transit countries, even if their applications have been remotely processed and granted protection. This again sets up the question of responsibility for the care-taking of refugees pre-arrival.

Digitalisation and Datafication Challenges

- This scenario emphasises the challenges that impoverished and/or undereducated applicants may face with regard to applying for international protection. This includes the digital divide as it affects technological literacy for using remote application platforms and inequality in resources available for undertaking the migration journey.
- The broad adoption of technologies for state surveillance activities creates new challenges for international protection particularly as surveillance enables persecution of state targeted groups and will require a profound understanding of these technologies at international protection authorities as well.
- The technological competition between super blocs implies little interoperability between technologies from different blocs. This could entail different types of database organisation or encryption, different communication standards, interfaces, etc. Thus, using information technologies from different blocs – for identity confirmation or other assessment measures – would require specialist knowledge and capabilities.
- Digital capabilities presented in this scenario are a challenge for international protection authorities in terms of acquiring and maintaining the IT infrastructures that underline remote application lodging.
- The scenario implies that automated immigration processing support is increasingly ubiquitous, and thus plays an important role in international protection. This points to the following challenges:
  - The development and use of standards for AI across the different institutions for international protection; and
  - The development of explainable AI to provide transparency in the quality assessment of system results.

Climate Change Challenges

- This scenario implies that each super bloc is taking steps to alleviate effects of climate change within their respective territory, but that this uncoordinated approach is having unintended environmental consequences. It also produces new types of migrants due to environmental pressures and resource scarcity. A good example here might be water management, if one block uses techniques (cloud-seeding, damming waterways, etc.) that adversely affect and displace populations in other blocs.
- Technological approaches to alleviate the effects of climate change are dominant in this scenario, but some technologies (e.g., biotechnological mitigation or geo-engineering) might lead to unintended effects in the long run and in other parts of the world. For example, overutilisation of fertiliser might alleviate short-term food shortages but cause irreversible soil damage and water pollution (aquifers) in the long run or in other regions, hence triggering resource shortages and displaced populations.

2.3. Scenario A Sleeping Leopard in a Paper Cage
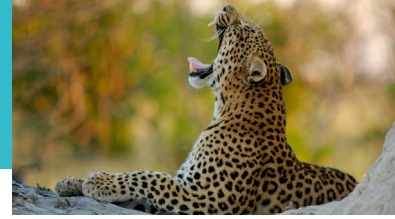
2.3.1. Scenario Narrative

Unofficial agreement of international zones of influence

The geopolitical world of 2032 has settled into an **uneasy stability**, with major world powers having reached an unofficial agreement to solidify their respective zones of influence around the world. This has led to less sabre rattling and has **reduced** the **threat of large-scale armed conflict. Economic development programmes are launched in transit countries** where an increasing number of asylum seekers have been blocked on their way to preferred destinations. While the multipolar geopolitical world has matured and hardened its 'borders', it has also realised the necessity for transit countries to have and maintain social and political stability. This has led to **recognition by global power centres that transit countries' burdens should be widely shared** and that efforts should be made to ensure the viability of certain regions.

Focus on economic development in transit countries

The economic development of transit countries, particularly along borders and within migrant and refugee communities, has been the focus of many intra-governmental initiatives and public-private partnerships. These developments have a **mixed track record regarding the treatment of employees**, the safety of their working conditions and links to crime and corruption. At the same time, new community economic opportunities, education systems and collaboration between local and migrant populations have emerged in more successful instances. Migrants and asylum seekers in economically developing transit countries have found opportunities to participate **in many economic sectors – characterised by both unskilled labour force and educated workforce using skill-intensive technologies** – including various types of telework.

Increased control over personal data and remote asylum procedures

Remote asylum procedures as a supplement to the established procedures have done much to **expedite decisions** on asylum applications. However, the imperfect analysis algorithms used to speed up application processing are known to demonstrate **biased evaluations** unable to appropriately account for unique applicant circumstances. Digital operations rely on secure, user-controlled profiles that asylum seekers create and utilise to access various services, including aid in the form of restricted-use, government-backed digital currencies.

Individual digital autonomy and control over personal data have increasingly become foundational digital governance policy in a number of economically powerful nations. This shift has begun reshaping the relationship between people, their data and social institutions through the rise of decentralised autonomous organisations and next-generation internet

technologies. As these projects tend to be open source, the technologies that ensure security and autonomy of personal data are replicable, while the **asylum seekers' profile and identity systems** have proven reliable and **robust against digital attacks**. Furthermore, the ability to collect and monitor anonymised data enables large-scale analysis and monitoring of individual contexts and environments to keep people more safe and secure, regardless of their status as a citizen or asylum seeker. In some cases, intelligent systems have been employed to use digital profiles to better match asylum seeker skills, training and experience with **sponsorship opportunities** in asylum granting states.

However, the emphasis on user control and data sovereignty has not removed the concern regarding abuses of digital surveillance. Though intra-governmental and/or international organisations attempt to transparently regulate the use of data for surveillance activities, not all countries comply with these efforts and there remain many organisations (public and private as well as criminal) that continue to conduct both **mass and targeted surveillance**.

Expansion of 'dark web' in response to digital surveillance of oppressed minorities

One arena in which digital surveillance practice remains particularly divisive is the issue of respecting and protecting minority groups. Minority rights have been increasingly recognised and protected in some geopolitical regions, particularly those in which democratic governing principles are being strengthened and supported. However, **minority-group protection policies are by no means universal**, particularly in those regions where democracy is withering and more authoritarian governance systems are being reinforced. There is strong evidence that despite protective policy meant to regulate digital networks and technologies, both state and criminal actors have been using digital surveillance to target and actively harass minority groups within some regions. Thus, despite the regulatory and mediating actions that have been taken to create a safer and more reliable social media landscape, the **'dark web'** of anonymous and uncensored networks has only **expanded and increased its capabilities**. While criminal elements drive the development of these decentralised, untraceable, encrypted social media, it has become an essential communication tool for oppressed people living under regimes of constant digital surveillance and physical threat.

Intensified environmentally-rooted migration

Food and water shortages are becoming more habitual, of longer duration and creating more intense scarcity. Despite the deployment of numerous technologies to mitigate **climate change-induced extremes** – heat, drought, desertification, typhoons/hurricanes, floods, etc. – the unpredictability of when, where and at what intensity the effects of climate change may manifest dampens the efficacy of technological solutions. In some areas, where strong support for third countries exists, financial aid and transparent land ownership policies are tied to and allow for localised rebuilding and resettling. However, outside of these supportive conditions, there are many regions where the **migration drivers rooted in environmental changes** are becoming more intense. In these situations, many migrant groups become subjected to forced displacement, targeted oppression and civil conflicts that evolve as a result of ecological disruptions.

2.3.2. Scenario Personas

Persona A

Amadou is 45 years old and he thinks he is getting too old for this. He had been part of the middle class back in Mali but was forced to flee that life after climate changes increased violent land grabbing by the local authorities. At first, he thought his move would be temporary and that he would be able to make a living working in a neighbouring country. After all, his higher education and experience as a manager had brought him a good living income in Mali. However, after years of working informally and slowly draining his savings, he believes that he will never be able to return, nor make a decent livelihood in his home region. He trusts that the international protection system will "protect" those who cannot live in dignity and have been victims of past persecution. He is confident that his land property certificates and his wedding certificate will be enough to prove his identity and that of his family. He has learned much from migrants in resettlement camps, through social media groups and from acquaintances who are already in Europe. He was identified by an AI data processor as having a high likelihood of success, but he is afraid that he will not be able to reach a safe place to lodge the final application.
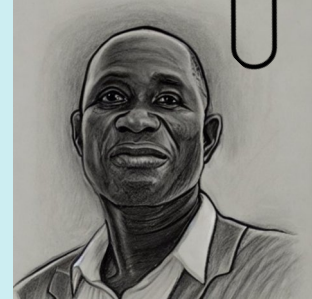
Persona B

Zin is 35 years old, hailing from Myanmar. The continuing persecution of individuals who are associated with anti-government protests seems to be getting worse for people like Zin. As a highly educated and technically skilled worker, she has assisted digital operations of civil organisations as a volunteer for many years. Now she is starting to fear for her life and livelihood, as her online identities were recently de-anonymised in a database breach orchestrated by the government. She has an ID card and a decent digital record of her accounts, posts and pictures. She has been assured that the AI-enabled application assistants can put the pieces together for her, if only she can gain access to the system. The government restrictions on digital access have only been tightened since the database breach and her digital skills might only get her so far in accessing the open internet for long enough. She is very concerned about the exposure of more of her private data, particularly to a system that is hosted in a foreign land with no obligations to help – even if her application was accepted.
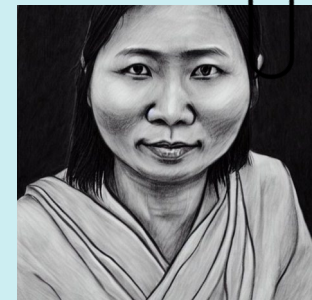
2.3.3. Wildcards Linked to the Scenario

Given the global conditions laid out in the Sleeping Leopard in a Paper Cage scenario, many participants thought that a **civil war or regime change within a transit country close to the EU** would become more likely to occur. Additionally, the climate change conditions sketched in this scenario were thought to increase the probability of **severe environmental events, widespread prolonged drought**, and even a **resource crisis within the EU**. Participants also thought that one positive wildcard could develop from the scenario – the **creation of in-country 'safe zones' by the United Nations**.

2.3.4.   Delphi Results for the Scenario

Overall, participants evaluated the statements for the scenario Sleeping Leopard in a Paper Cage and displayed strong divergence of opinions. Statement 3, which describes the unsolved problems caused by climate change, is rated as very possible well before 10 years. In contrast, some critical points are emphasised in the discussion on automated analysis of digital profiles (Statement 2), so that the realisation is located later. Extensive investment in transit countries (Statement 1) is assessed as possible quite within the next 10 years, but the effectiveness of this measure is discussed very controversially.

Statement 1: Transit countries become the focus of investment from the major global powers, as a way to maintain internal stability by limiting incoming migration (including asylum-related migration) to the EU+ and other countries.

This statement produced some rather stark differences between respondents. For those assessing this statement as more unlikely, respondents often cited historical failures of such investments to live up to their stated goals and the lack of control over investment funds once they have been given to receiving nations. It was frequently mentioned that this type of investment might not be desirable from the perspective of transit countries, which may then become de facto destination countries, placing pressure on their own assets and resources. However, a slight majority of respondents saw this development as both possible and, in many cases, already underway (EU-Turkey and the UK/Rwanda). These respondents found the scaling up of these types of initiatives to be likely, but selectively (from an EU perspective), targeting some transit countries (North African nations) while ignoring others (Belarus).

Statement 2: In the EU+, automated systems are used to present potential migrants a variety of legal pathways based on their digital profiles (demographics, skills, education, etc.). Systems can present potential migrants with likelihood measures for different legal statuses (refugee, worker visas, etc.) and match them to sponsorship programmes and areas with skill deficits.

This statement was widely regarded as a possible development, with a number of caveats and addendums. As with other statements that address AI systems, respondents were consistent in pointing out the technological and political differences between the EU+ countries and the need for human oversight as important issues that would need to be acknowledged or addressed if the statement is assumed possible. However, perhaps the most important aspect of this statement revealed in the respondent arguments is the link between this proposed automation system's ability to differentiate between different types of migrants and its distinct role in addressing the needs of those seeking international protection. While many respondents cited ongoing experiments and rudimentary systems that demonstrate the feasibility of such a system, many suggested that these systems address labour markets but leave concerning questions about how asylum seekers are treated as separate from economic migrants.

Statement 3: Food and water shortages, caused by worsening climate change effects, continue to contribute to increased migration and remain intractable problems despite investment in technological solutions.

Many respondents viewed the food and water shortages aspects of climate change as strong drivers of migration. There was consensus regarding the inability of technological solutions to address climate change in a timely manner, if at all, and that climate change effects, in general, will create more migrants. Whether or not the migrants will have the resources and legal framework considering climate change related reasons to legally lodge applications for international protection remain important factors for estimating this statement's influence on the international protection situation in the EU.

In this scenario, almost half of the respondents expect **a slightly increasing number of applications,** but a quarter expect the **number to remain the same compared to today**. This rather stable situation is mainly related to the assumption that the situation in the transit countries will improve and that these countries will be strongly supported by the major power blocs. Participants disagree on the possible impact of these improvements in transit countries on the number of applications lodged in the EU+. Some point out that the situation in transit countries is likely to be unstable and that climate change could hit these countries hard. Food and water shortages could become a problem in transit countries as well and threaten the fragile situation.

Parallels to the current situation are made, with ongoing debate on the efficacy of support for transit countries on the reduction or stabilisation of the overall number of applicants. In addition, the improved economic situation in the transit countries could lead to a temporary increase in the number of asylum seekers, as already explained in the scenario Humming Bees on a Global Meadow. Analogous to the argumentation in the previous two scenarios, here it is also expected that the simplification of the application process will lead to an increasing number of applications.
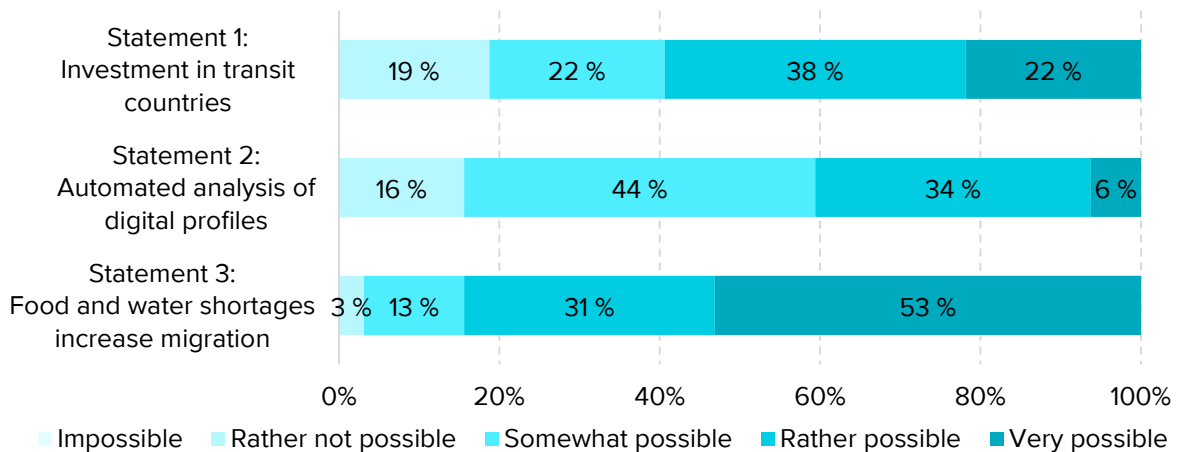
Figure 6. Statement assessment in scenario Sleeping Leopard in a Paper Cage (n=30)

In this scenario, two thirds of the participants expect **no change in the definition of international protection** compared to today. No sufficient reason is seen to change the existing definition, so that the tendency to persist is dominant. The trigger for a change in this scenario could be climate change. One participant expects that in the future the group of

individually persecuted persons will be more strongly differentiated from large groups of refugees due to climate change and armed conflicts.

2.3.5.   Scenario Challenges:

Geo-Political Challenges

- In this scenario, the stimulation of economic development of 'transit' countries seeks to entice migrants and refugees to abandon countries of origin and original destination countries. The scenario implies that this tactic is partially successful in 'containing' migrant flows but has also created situations for increased exploitation of migrants, corruption of local institutions and impoverished living conditions.
- The uneasy geopolitical stability of this scenario implies that cooperation between countries in different spheres of influence is limited, highly differentiated and inconsistent. These conditions are challenging for communication and information exchange between governments and their respective international protection authorities.

Digitalisation and Datafication Challenges

- In this scenario, the rise of the 'dark web' – anonymised, uncensored networks – as a response to digital surveillance and persecution creates important challenges for safeguarding international protection applicants, and later verifying their identity and claims. These networks also harbour criminal organisations that might seek to further exploit refugees and state actors that seek to continue surveillance and modes of targeted persecution.
- The broad deployment of AI as a support system for human decision making implies certain challenges with regard to training systems, assessing their outputs and ensuring that humans interfacing with these systems have sufficient training to utilise the results.
- Ownership of personal data and responsibility over the management of access to these data have been increasingly shifted towards individuals. This creates a digital divide because some people are able to handle the new responsibility, while others are not.

Climate Change Challenges

- Climate change and extreme weather are a major driver of migration in this scenario, as they have disrupted food and water supplies around the world. This is a major challenge for international protection as the number of people in need because of resource scarcity might be extremely high but a large share of these people might not have the resources to flee.
- The failure of localised climate mitigation strategies (technological deployment to effected areas, etc.) continues to displace populations who then find themselves facing new types of persecution as they attempt to settle.
- In this scenario, continued investment in transit countries (economic development, aid, resources, etc.) creates risks and challenges since the impact of these investments

might not be very effective and the political system in many of these countries will not be stable. This situation might escalate when transit countries are also hit by extreme weather events and economic shocks.

2.4.   Scenario Piranhas and Caimans in a Drying Pond

2.4.1.   Scenario Narrative

Disruptions to food supply systems triggered by extreme weather events

The effects of climate change and environmental deterioration on human societies have been rapidly getting worse. In addition to sea-level rise and other macro-environmental impacts, more localised effects – in particular extreme weather events (heatwaves, droughts, floods) as well as shifts in rainfall locations – have caused **numerous disruptions to global agriculture and food supply systems**. Declining or collapsing agricultural regions have seen a notable **rise in regime evictions and state abuse of expropriation practices.** While in some cases food and water scarcity could be mitigated by the adoption of new nutrition sources and reduction of food waste, in most cases the situation leads to forced displacement and loss of livelihood.

Increasing number of localised conflicts and global wealth inequalities

A global eruption of **localised conflicts and spiralling civil unrest** is observed, with national forces often fighting urban battles against armed and loosely organised protestors. In addition to the disruptions to food and water systems, the **proliferation of inexpensive, 3D-printed firearms** have quickly transformed popular unrest into deadly conflicts. These conditions have, in some territories, rapidly led to the **targeted oppression of minority groups and marginalised segments of society**. While wealthier nations have not escaped these events, they are able to deploy more resources to peaceably settle such situations. However, poorer and deeply indebted nations are unable to provide timely and adequate relief. **Growing global wealth inequalities** have made wealthy nations and regions all the more desirable in the eyes of the displaced.

Discrepancy between legal frameworks of international protection and practices

The worldwide number of asylum seekers continues to rise, but previous disagreements between major world economic powers have become **untenable geopolitical fractures** given the increases in systemic disruption and violence. Despite intensified pressures, **attempts at global migration reform have failed** to find agreement. There is a growing divergence between existing agreements and the actual practices applied by states' border security forces, further eroding trust in legal frameworks. In many cases, **countries instrumentalise migrants** to simultaneously alleviate internal pressures and maintain current borders and powers. **Territorial boundaries have become hardened** with infrastructure build-outs (walls and digital monitoring systems), public budgets for enforcement (border patrols, detention centres and deportation systems) are increased and vigilant "border security" is also on the rise. **Widespread discrimination of migrants within local communities** – often manifesting as

resource hoarding or outright violence – is neither condoned nor condemned in both transit and destination countries.

Failed attempt to automate asylum procedures

Initially, some wealthy nations attempted to find technological solutions to the influx of mixed migration. **Attempts were made to create databases using blockchain technologies**, so as to digitalise and automate procedures to differentiate between asylum seekers, economic migrants and other groups massing at borders. However, without a unified agreement on which technologies to use and how to securely deploy these systems, **these technologies were difficult to navigate** for all users (both migrants and caseworkers), **incompatible with one another** and **proved susceptible to different forms of digital attack and corruption**. This only increased frustrations and led many **countries to become more restrictive in their interpretation of international protection**, so as to drastically limit the number of people being granted asylum. Further increasing the difficulties faced by migrants of all kinds, **a more fragmented Internet** became a less reliable source of legitimate information.

Negative consequences of deregulated social media for asylum seekers

In many territories, the broader Internet is severely restricted, making information outside state-sanctioned portals – including official documents on human rights and legal pathways – nearly impossible to access. These issues are only compounded by the **complete deregulation and fast pace of social media** that has occurred **in other regions** – redoubling the amount of **disinformation and exploitation** of desperate asylum seekers on the one hand and **negatively impacting public perception in receiving countries** on the other hand.

2.4.2. Scenario Personas

Persona A

Adana is a 25-year-old Nigerian who has been a vocal leader for human rights activism both in her local community and online. Once she began receiving threats on social media for her work against evictions and exploitative human trafficking, she fled and is currently living in Morocco. She has access to funds and knowledge thanks to her digital literacy skills developed in attaining her university degree in communications. She has been a primary school teacher as well as a successful blogger and non-governmental organisation collaborator, but in Morocco, she has been mainly forced into irregular domestic work and translation. She has an extensive portfolio of digital evidence proving the threats she has received and she has confidence that her persecution for being a defender of human rights will work in her favour. For identification, she has biometric information, access to her digital wallets, her university degree and her passport. She has the added responsibility of guiding her younger siblings through the process and the fear of being returned by Moroccan authorities, but she believes that safety and security for herself and her family are close. Just across the waters, in Spain, she can access her network of European allies and assistants and start a new life.

Persona B

Mayara is a 22-year-old human-rights activist from Brazil, where she has been supporting indigenous peoples in the Amazon fight to protect their ancestral lands. She has been arrested and jailed, following her post on social media criticising the government's response to climate change and deforestation. As both an activist and a member of the LGBTQ community, she faces persecution at home in Brazil, but she is currently in Portugal on a temporary visa. Her trip was financed by her university friends and she has no personal funds, having lived mostly from her academic scholarship which was cut off after her arrest. She has her passport and some access to digital copies of her university records to help prove her identity, though her most important links are to her social media accounts wherein she also stores the evidence of death threats received by herself and her family. Unfortunately, some of her blog posts have begun disappearing and while she has digital copies of many pieces of evidence, online versions are becoming scarce. She is afraid that she will be sent back from Portugal and that her family and friends in Brazil will be persecuted for her actions. She knows that she has a right to seek asylum, but she has heard many stories of long waiting times and rejected applications.
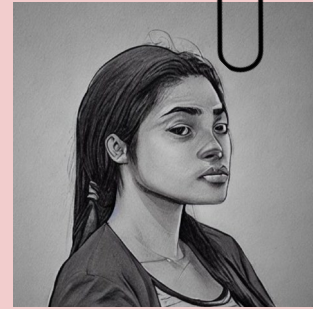
2.4.3. Wildcards Linked to the Scenario

Given the severity of conditions that this scenario describes, participants found many associations to the presented wildcards, particularly those that dealt with changes in international relations and governance. Unique to this scenario, the **dissolution of NATO** was a significant wildcard and was accompanied by **major international war(s), civil wars and violent regime changes**, and **widespread cyberattacks**. Each of these wildcards was viewed as viable given the world of the Caiman and Piranhas in a Drying Pond scenario – especially given the resource scarcity that develops from a rapidly changing climate. On a more positive note, some participants imagined that this resource scarcity could provoke **innovations in potable water technology.** A quite extreme wild card, that was also discussed in the context, was the genetic modification of humans to consume less.

2.4.4. Delphi Results for the Scenario

A majority of Delphi respondents assessed this as "rather possible", though many of the presented arguments point to rather divergent opinions regarding how this scenario could come to be reality. As can be gleaned from the below data, there is particular disagreement regarding elements of this scenarios presentation of database integrity and abandonment of some digital technologies., and the majority of respondents do not expect extreme shortages of food and water until eight to 10 years from now.

Statement 1: Due to food and water shortages migration becomes unmanageable in many regions around the world.

This statement highlighted a rather clear difference in respondents regarding the length of time required for food and water shortages to drive mass migration. A large number of respondents questioned the viability of the intensity needed to drive the migration to develop

in the 10-year time frame presented in the scenario. While most respondents seemed to think that food and water shortages are currently driving migration, they expect internal dislocation to be the dominant type of migration and thus not critical to international protection. Some respondents stated that even prolonged internal dislocation can escalate social pressures to the point that conflict and discrimination become intense enough that international protection might be claimed. The term 'unmanageable' seems to require some clarifying discussion, as some respondents viewed even mass migration as 'manageable' while others saw the term as indicating stronger border fortifications and pushbacks.

Statement 2: Border areas have been increasingly securitised (including those of EU+ countries) making illegal border-crossing harder.

That borders could become increasingly fortified and securitised is generally viewed as possible, particularly in states that have the resources for such projects, though many respondents point out that this development would not be an effective type of migration management. Many pointed out that there seems to be political will and operational preparedness already in place within some EU Member States (demonstrated by COVID-19 restrictions). A number of respondents pointed out that technologies create a new kind of border regime focused on surveillance and monitoring, as opposed to physical deterrence.

Statement 3: Due to easily corruptible data profiles emerging from unregulated communications networks, the use of AI systems in processing asylum applications has been largely restricted to translation and biometric scanning during interviews.

This statement also seemed to generate a rather polarised view among respondents. On the one hand, many respondents who said that the statement was less possible, often cited knowledge that the technologies under question – AI, data security, biometrics – are rapidly developing and would remain viable given their economic implications (labour and other costs saved). On the other hand, many respondents seemed confident that cybersecurity risks are already outpacing technological developments and that only limited uses of technologies would be both safe from attack and helpful. Respondents on both sides repeated the questionability of AI without human oversight or making (even minor) decisions regarding sensitive issues.

Overall, conflicts are seen as the main driver for an increased demand for international protection in this scenario. All participants expect more people in need of protection but there is disagreement if this will lead to **slightly** (around 40 % of respondents) **or strongly** (around 30 %) **increased numbers of applications**. Only a minority of around 15 % expect a decreasing number of applications despite a rising number of people in need.

Under this scenario, it is argued that the conditions for refugees in the receiving countries will deteriorate significantly. On the one hand, this could lead to the **interpretation of international protection becoming much more restrictive and limited**, the recognition rate being significantly lower and thus the motivation to apply decreasing. Other participants, however, expect the opposite development. They assume that the demand will be so great that these changed framework conditions will not be of any significance and that the state measures to limit migration cannot be successfully implemented.
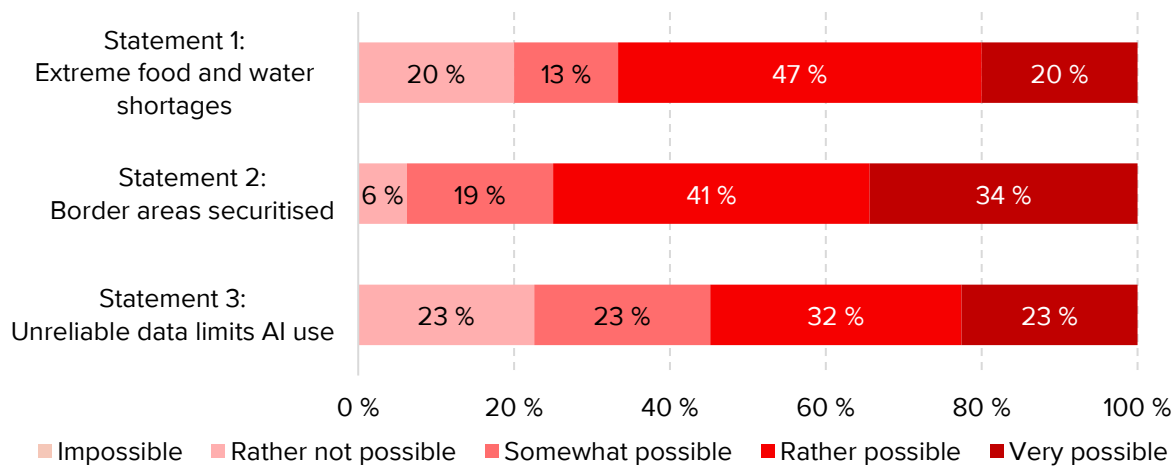
Figure 7. Statement assessment in scenario Piranhas and Caimans in a Drying Pond (n=32)

Over two thirds of the respondents do not expect any change in the **definition of international protection** under the conditions of this scenario. However, changes in the interpretation of the definition are expected. Almost all participants expect **a more restrictive interpretation** than today. Many can imagine a discrepancy between the legal framework and the interpretation. This difference could lead to an adjustment of the definition in the longer term.

2.4.5. Scenario Challenges

Geo-political Challenges

- In this scenario, armed conflicts are on the rise in number, size and intensity – creating additional refugees and limiting the possibilities of actors in the field of international protection and cooperation between institutions situated in conflicting regions. Hardened territorialisation has made international travel increasingly difficult and established additional obstacles for asylum seekers.
- The number of people in need of international protection is extremely high in this scenario, but the limited resourced of these people and the hardened territorialisation might limit the number of applications in Europe. This could create a social dilemma for EU and other developed countries: to enlarge resettlement quotas or remain ignorant.
- Socio-political disruptions from a variety of causes have undermined democratic systems and led to more authoritarian governance regimes. These regimes tend to persecute their opposition and create large numbers of people in need of international protection.
- States have turned more inward and are less inclined to work toward finding mutually beneficial solutions to migration, trade, etc. This increase in isolationism further challenges the status of international protection as governing institutions like the United Nations become less relevant.
- Migrants, asylum seekers and refugees have become increasingly instrumentalised by various political actors.

Digitalisation and Datafication Challenges

- In this scenario, cyberattacks on digital infrastructure have rendered many services and databases suspect or completely unusable. Given international protection status hinges on the data that is presented by applicants, the degradation of digital technologies presents the challenge of having limited access to files, and longer processing times (even as the number of applicants is on the rise).
- Increasingly widespread digital surveillance leads to a significant rise in targeted persecution, but also makes applying for international protection more dangerous and difficult. This impacts minority groups, political activists and other individuals and groups which oppose ruling regimes.
- Automated systems for decision support and data analysis cannot be used due to the prevalence of suspicious or corrupted data sources due to elevated intensity of cyber warfare tactics.
- Some digital platforms are geospatially restricted, meaning that access to data, photos, and social networks may not be transferable or useable outside of specific locations. This also creates challenges for asylum applicants and authorities.
- Organisations are faced with the challenge of building, maintaining and securing databases and digital tools that are decoupled from the wider Internet and are encrypted to safeguard data.

Climate Change Challenges

- Long-term shifts in rainfall (droughts and floods) have a major impact on food and water supply, which drives displacement of large numbers of people. At first the displacement may be internal but increasing pressure on resources in new settlements quickly leads to persecution and violence, which urges new movements and increases the number of asylum seekers.
- Extreme weather events might also displace large populations (initially internally), but in this scenario these events become more regular and foreclose on the possibility of return for an increasing number of people. These internal migrants then become part of the cycle described above and eventually become international protection applicants.
- In this scenario, multiple crises are causing high numbers of asylum seekers making it difficult to distinguish between the reasons/motivations driving migration. As little reliable data are available, assessing claims for international protection becomes increasingly difficult.

Critical Challenges Facing International Protection Actors

While outlining challenges for any given scenario is a useful exercise, the strategic purpose of the scenario development process is to help the EUAA and its partners prepare for a wide spectrum of possible futures. Identifying critical challenges present across the scenarios helps to prioritise as well as build preparedness and resilience. This section outlines those challenges that play a role across all of the scenarios within three categories: 1) Geopolitics and International Relations, 2) Digitalisation and Datafication and 3) Climate Change and Resource Scarcity. To better develop an anticipatory stance for uncertain futures, the following should be integrated into organisational strategic planning activities.

Challenge Cluster 1: Geopolitics and International Relations

This cluster is focused on challenges that can emerge if relationships between countries shift or reconfigure themselves and the rules governing those relationships change accordingly. The scenarios address very distinct geopolitical situations and outline the very different challenges each presents within the scope of international protection.

Armed conflicts, be they international, intranational or internationalised, are one of the greatest concerns with regard to the futures of international protection given the variety of challenges such conflicts present. The distinct possibility of widespread increase in armed conflict is explicitly taken up in one scenario (Caimans and Piranhas), while the threat of smaller scale armed conflict, particularly in transit countries, and the steps taken to avoid such incidents is explored in the others.

Transit countries and differing strategies to building relationships with them remain a source of challenges across all scenarios. Close cooperation with transit countries could become particularly important if these countries take over parts of the processing of applications, although instrumentalisation of migrants and refugees would encumber such developments in some important transit countries. The scenarios show that different forms of cooperation are possible, ranging from actual on-site processing in these countries to remote application support through the provision of digital infrastructures. Further challenges arise from the political instabilities in many transit countries and the very real threat that major disruptions (e.g., extreme weather, economic disruption, resource scarcity, etc.) can quickly destabilise socio-political systems in transit countries.

While two scenarios explore economic development in transit countries as a mode of strengthening their economies and changing the role that they play in international protection, these 'solutions' also carry new challenges (e.g., corruption and exploitation of refugees and migrants). In the course of the scenario process, the extent to which economic support for transit countries could lead to these countries changing from transit to host countries and thus assuming even greater importance in the context of international protection was disputed.

Even in the case of stabilised geopolitical blocs, transit countries take on important strategic roles in maintaining stability by serving as migration channels or buffer zones to keep the peace between blocs. A resilient and longer-term orientation of international protection activities should therefore include close cooperation with strategically selected transit countries. This might also include a strategic monitoring of transit countries. Furthermore, challenges arise as international protection applicants live in transit countries for increasingly longer durations. Safeguarding their lives, providing material support for their daily needs and developing routes for safe transit are costs that must be born, and can be at the root of bi-lateral or multi-lateral agreements. The introduction of international protection quotas and limitations on the number of refugees – no matter the exact configuration that such quotas might have – is a challenging idea with respect to the convention and its interpretation, and requires a more in depth examination that can account for multiple configurations of these kinds of policies and the varied impacts they might entail.

Noted Challenges

- At the level of international organisations, there remains the possibility that long standing organisations (like the United Nations or the World Trade Organization) will be asked or forced to change some of the underlying legal agreements that bind them. In particular, shifts to the conventions regarding international protection and the possibility of it being revised to include 'climate refugees', presented a number of challenges.
- Additionally, the economic development of present day transit countries was viewed as a mode of reconfiguring international relationships more specific to migration and refugees. However, this was often linked to amplifying challenges of corruption and exploitation and adding complexity to specific state agreements.
- Armed conflict remains a primary challenge area for international protection, as any increase in violence (state-to-state, civil conflict, etc.) can increase the number of international protection applicants. While three scenarios look at a world with decreased state-to-state conflict, two of these scenarios describe a rise in surveillance and persecution of groups and the possibility of civil unrest. For the scenario that shows an uptick in armed conflict, the challenges for international protection multiply more rapidly.

Challenge Cluster 2: Digitalisation and Datafication

As digital technologies continue to reshape many aspects of daily life and work, they present some distinct challenges within the context of international protection. While digital technologies offer improvements to speed information transfer, remote work, data processing and analysis, among others, they also present new challenges. Major challenge areas include a rapidly changing technological landscape which far outpaces institutional adoption, scarce and expensive human resources, inconsistent database quality, non-standardised interoperability, an uncertain regulatory environment and increasing cybersecurity risks.

The internationally coordinated use of transparent and explainable AI for increasingly automated processing of applications, represents a particularly important challenge across numerous different scenarios. The reliability of the available data varies greatly across the scenarios and being able to evaluate the data quality accurately for different regions and at different points in time will be one of the major challenges in the future.

Across several scenarios, it was repeatedly emphasised that final decisions should still be made or at least supervised by a human being and only be supported by AI. Hence, the challenge will be to clearly define and continually refine which aspects can be largely handled unsupervised by AI and which aspects are deliberately assigned to human beings.

On the one hand technology has undergone a global standardisation with the industry dominated by a handful of tech behemoths, but on the other hand geopolitical division into different blocs or spheres of influence – each with different data standards, platforms and social media – can create special challenges for international protection. These challenges should be considered from a long-term, strategic orientation, since variants of this increasing fragmentation of the internet (e.g. the splinternet) are considered across numerous scenarios. A resilient digital strategy in the area of international protection therefore requires the observation of this development and the build-up of competences for different skills and knowledge bases critical for digitalisation.

The increasing use of surveillance technologies is included in all of the scenarios, though it plays different roles in each. For example, one scenario presents surveillance used to protect and inform refugees and migrants, while another outlines increasing use of state surveillance to monitor and persecute dissidents and minorities. In any case, the expansion of surveillance entails that international protection authorities build up extensive expertise in this fast moving and technologically demanding area.

A major challenge for international protection is the risk of an increasing digital divide among refugees. For example, discrimination against asylum seekers with lower digital skills is a challenge that is discussed across the scenarios and will require explicit consideration in the design of future processing procedures by the international protection agencies, to ensure that these effects are not extremely amplified by increasing automation and the use of remote applications.

Noted Challenges

- It is important for international protection institutions to develop the knowledge, technical skills and capacities needed to keep abreast or even lead on digitalisation, while at the same time ensuring that technical solutions respect privacy and human rights.
- The rapidly changing technological landscape makes it difficult to identify the best technology for any given task, that is durable and adaptable so as to maintain viability over a time horizon that justifies expenditures. Not only that, but once the solution is installed and workforce trained, another newer more efficient solution might already be available.

- Digitalisation and datafication demand continuous (often expensive) training and skills acquisition by the workforce.
- Technological development creates competing standards that can negatively impact interoperability, database reliability and broader adoption of digital solutions by partners or collaborators.
- AI systems and technologies require highly specialised skills to program, test and validate. Given the popularity of AI, these human resources can be difficult and expensive to retain.
- Effective automated systems require large databases of highly structured and verified data to 'train' on as well as databases with non-uniform structures. Incomplete or misconfigured entries can introduce various types of bias – resulting in incongruous decisions across authorities, aggravating cross-country differences or calling into question the integrity of the CEAS.
- Increased reliance on digital network technologies leaves essential workplaces and processes at risk of facing increased cybersecurity threats. This is a global phenomenon, with cyberattacks being both state-sponsored and criminal initiatives.

Challenge Cluster 3: Climate Change and Resource Scarcity

The Intergovernmental Panel on Climate Change report on the impacts, adaptability and vulnerability (2022) outlines the tremendous amount of social, political and economic change that will accompany the environmental and ecological effects of climate change. While there is uncertainty regarding the specific details of when and where such change will manifest, the overarching conclusion is that climate change will be a defining driver of change for human society and mobility for the 21st century and will impact international protection.

The continuation of climate change creates a number of challenges for international protection, even in scenarios in which human societies are taking proactive measure to limit or mitigate its effects. Through various mechanisms, the impacts of climate change may generate a significant rise in the number of persons seeking international protection.

In particular, the collapse of food supply chains due to climate crises and extreme weather events (and linked to subsequent conflicts) poses a major challenge for international protection. Several scenarios describe the refugee flows directly caused by these events as well as the migration movements due to violent conflicts in connection with the shortage of food supplies. Under these conditions, it is hardly possible to distinguish between reasons for flight related to protection needs from economic reasons that are not included in the current convention interpretation. Additionally, resource scarcity (e.g. food or energy supply) potent enough to displace populations are likely to be at work in the countries that these new refugees must pass through or are forced to settle in, thus making some previous routes prohibitively dangerous and forcing new routes to emerge in places that may not, at present, be prepared.

Occurring over longer periods, changes to the productivity of agricultural lands could lead to the displacement of populations within countries. Such climate change effects could also lead some governments to begin claiming domain over any remaining productive land. Combined,

these pressures could create the type of socio-political conditions that lead to regime violence against segments of their country's population, and create new sources of asylum seekers. While these situations may not individually lead to large numbers of international protection applicants, cumulatively they may significantly change the resource requirements for processing asylum claims. As different countries will have different capabilities to respond to influxes in refugees, the increased pressure these refugees may place on societies of transit or host countries could quickly harden borders and create dangerous conditions for the displaced.

Within the scenario process, it was disputed whether there could be a legal recognition of climate refugees within the framework of international protection within the next 10 years. The position was well-argued by some experts that changes to the UN convention that defines international protection would be difficult to find agreement on and that international protection could even lose potency in such negotiations. However, the idea that new policies or legal interpretations could evolve to grant 'climate refugees' a similar form of rights protections was too critical to be ignored during most expert conversations. Such a fundamental change would be accompanied by considerable challenges for the respective authorities, as the recognition criteria would have to be redefined and, if necessary, coordinated internationally. In addition, the number of applicants on this basis could rise very sharply in the coming years.

Noted Challenges

- Shifting rainfall patterns, extreme weather events and other climate change effects can cause population displacement at varying scales. While some of this displacement may be temporary, displaced communities will still increase strain on resources and infrastructure wherever they settle. These increased pressures can eventually lead to targeted persecution and can create new sources of international protection applicants.
- Disruptions from climate change, as outlined above, can also destabilise socio-political conditions, leading to the rise of more oppressive regimes which can carry out targeted persecution. Again, this model also increases the number of people with protection needs.
- Climate change can disrupt food and water supplies, effecting any populations that are reliant on delivery systems (i.e., global markets and logistics) of essential resources. In this manner, climate-change induced disruptions can have far reaching socio-political impacts on peoples and communities. In particular, they could lead to more authoritarian and oppressive governance regimes which use land eviction and resource expropriation to consolidate power.
- Any changes to policy or legal definitions that grant 'climate refugees' similar rights and protections as those under the current UN convention imply a number of challenges across the international protection field:
    - A major increase the number of applicants for international protection with both event-driven surges and long-term continued growth.
    - Policies or conventions that are bi-lateral or multi-lateral, but not universal will complicate the work of coordinating efforts and resources between countries.
    - New parameters for assessing applicants add complexity to decision making processes.

Annexes

4.1. Annex 1: EUAA Foresight Process Overview

4.1.1. Horizon Scanning and Factor Identification Process Overview

To develop coherent and useful alternative future scenarios, it is first necessary to gather, organise and assess information about key factors that are influencing the development of international protection and asylum-related migration. We use the term *factor* to encompass trends, emerging issues and novel developments (i.e. social phenomena or technology uses) that drive or shape changes related to international protection in the future. Research activities included a literature review and expert interviews with EUAA senior staff and resulted in an organised collection of initial factors for use in the workshop process.

During the Factor Vetting and Mapping Workshop (28-29 October 2021) the set of factors derived from research was first reviewed and supplemented by workshop participants from the EUAA. This process included a facilitated discussion about the social, technological, economic, environmental, political and additional elements or situations that have expanded our understanding of the factors (Annex 1a). Following this phase of the workshop, the resulting factors were taken into an assessment activity, utilising the collective expertise of EUAA participants to select the *key factors* needed for the creation of the alternative future scenarios. Key factors are distinguished from the larger factor list because they are assessed as both highly uncertain and highly influential in shaping potential futures for international protection and asylum-related migration.

The final phase of the workshop involved a deeper discussion of the possible developments for each of the key factors (Annex 1b) and the implications that those developments harbour for international protection and asylum-related migration. To better articulate the uncertainty that surrounds key factors, discussions were organised using the Tetralemma activity adapted for use in strategic foresight processes. Workshop participants in each small (3-5 people) group contributed to the ideas and comments that shape our understanding of the possible future developments for each key factor. These key factors and their associated alternative development paths were then used as critical inputs for the scenario development phase of the project.

4.1.2. Scenario Development and Analysis Process Overview

The overall objective of the scenario development process was to produce four to six comprehensive scenarios, that could help the EUAA have useful discussions about different futures of migration and international protection and make preparations accordingly. Scenarios are not predictions but coherent narratives that emerge when relationships between factor assumptions are articulated alongside their collective implications. Scenarios are created to provoke an anticipatory stance for planning and operations, each providing a speculative platform to ask plausible questions about the readiness of the EUAA, national

asylum authorities in the EU+ and additional stakeholder groups in the face of uncertain futures. We approached this objective through a multi-stage scenario development process that included:

- Scenario seed development and selection;
- Scenario sprints (scenario development);
- Creation of scenario-specific narratives and personas; and
- Scenario analysis to derive strategic implications for the EUAA and EU+ authorities.

Because of the pandemic, all workshops were conducted online, and the scenario workshop process was split into two workshops to provide more time for scenario refinement and richer discussions. The first of these workshops on 15 and 16 December 2021 focused on creating the initial structure of the alternative scenarios and developing a set of personas to provide different perspectives on the implications of those scenario sketches. These scenario sketches were refined internally and then taken into a second workshop on 2 and 3 February 2022 that focused on using the scenarios to better understand the range of implications that different futures hold for the EUAA and to develop some recommendations to help the EUAA prepare robust strategies. The participants of the two workshops consisted of experts from the EUAA, the UNHCR, the European Commission (including the Joint Research Centre), Frontex, Europol, the ICMPD, national asylum and migration authorities of several EU+ countries (Belgium, Finland, France, Germany, Italy, Malta, the Netherlands, Norway and Slovenia), and academic experts on specific topics relevant to international protection. In total, the first workshop was attended by 35 participants and the second workshop was attended by 26 participants.

4.1.3. First Scenario Workshop: Scenario Development

(a) Creation and Selection of Scenario Seeds

The Factor workshop results (Annex 1b) were the foundational inputs for the scenario development process. Between the Factor Workshop (D2/A3) and the initial Scenario Development workshop, the results of the Tetralemma exercise were used to create the scenarios seeds. Given the high assessment scores of the key factors *Armed Conflict* and *Transit Country Roles*, at least one of the alternative developments for either of these factors was present in all of the scenario seeds. Additionally, the scenario seeds were created to present a broad spectrum of alternative futures, based on the optimism/pessimism duality that was used in the Tetralemma process (see Figure 1).[2] This process resulted in the creation of five scenario seeds, which were then used in the workgroup activities within the first phases of scenario development.

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[2] The broad spectrum was also selected to ensure a de-biasing of the rather pessimistic view that was identified during the learning log activities in the first workshop.
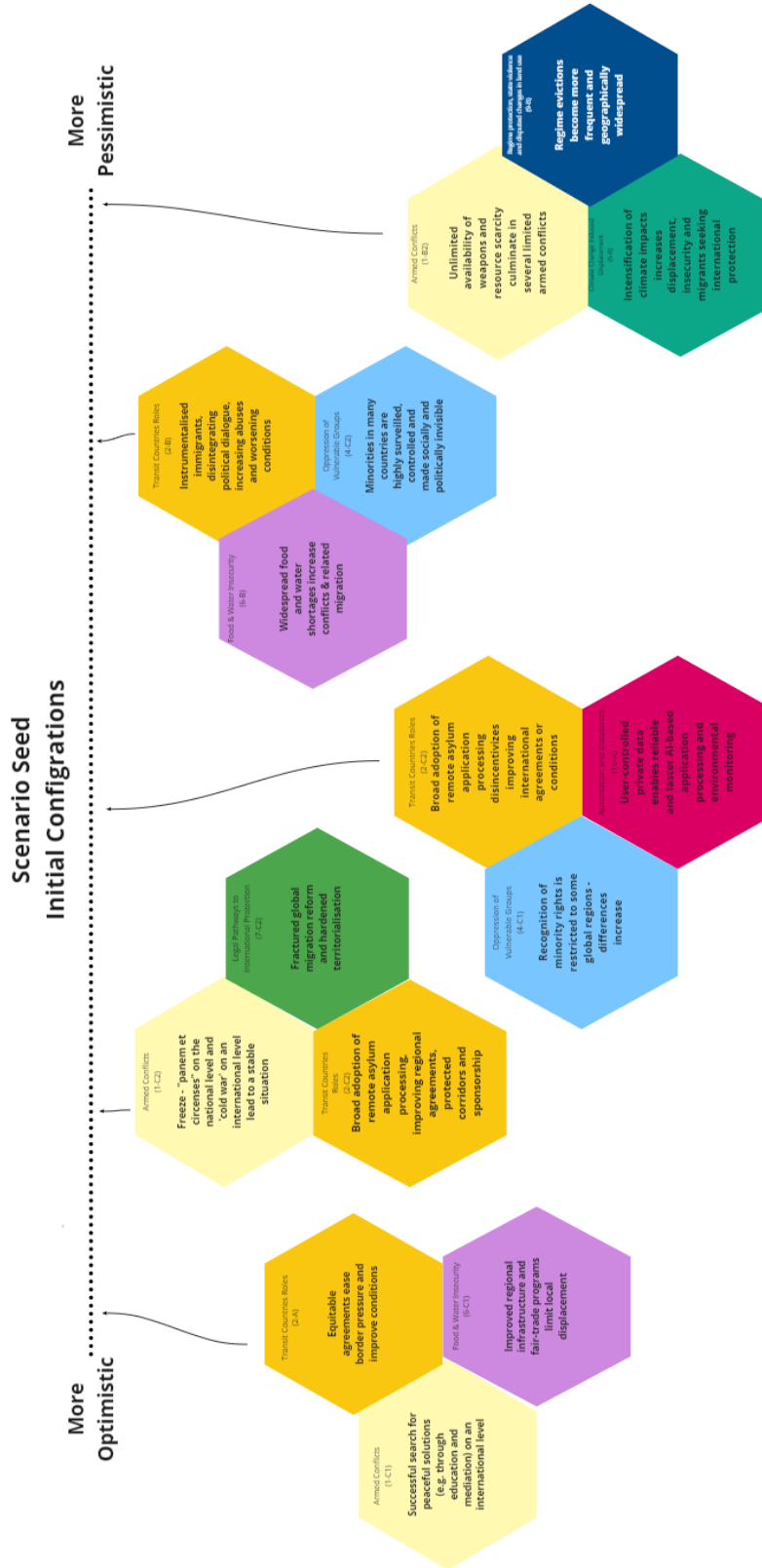
Annex Figure 1. Initial scenario seed configuration along the spectrum of optimism and pessimism

(b)   Scenario Sprint Activity

The scenario sprint is a process by which rough structures for scenarios are constructed based on the alternative development pathways for the key factors. In the first scenario development workshop, smaller working groups were given one scenario seed as a starting point along with a full list of the key factors and their alternative developments as derived from the Factor Workshop. For the purpose of the scenario development process, a hexagonal, digital card was created for each alternative key factor development (See Figure 2).[3]
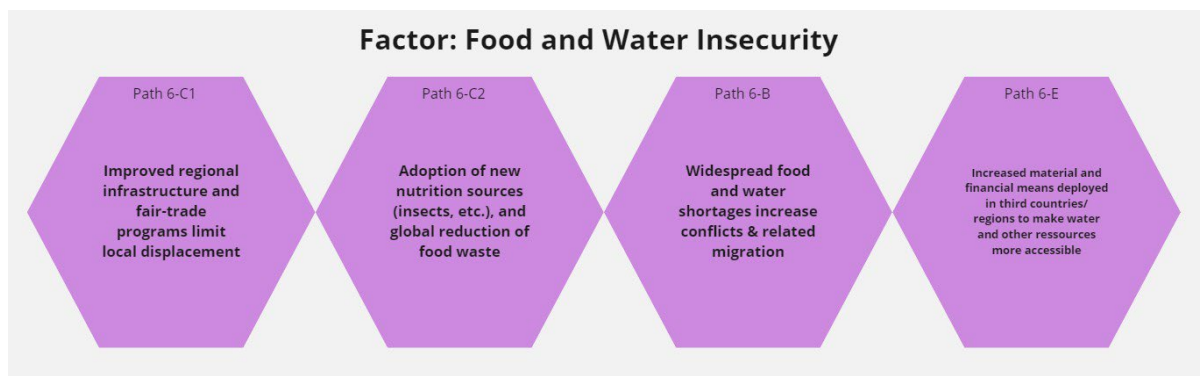
Annex Figure 2. Example for alternative development pathways developed in the Tetralemma process that were picked up during the scenario sprint

Over the course of the small group work sessions, participants selected key factor developments, placed them in connection to one or more of the other factor-development 'cards', and gave a verbal explanation for the rationale behind the card's selection and placement. After each card's placement, a short discussion between workgroup participants was encouraged, to build collective agreement on the relationships between the factors and the overall coherence of the scenario. Relationships between key factor cards were recorded on the digital whiteboard using sticky notes and arrows (for an example, see Figure 3). This process of key factor placement and discussion was repeated until the time limit for discussion expired.

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[3] Overview image, details are only visible when using a digital whiteboard that allows extensive zooming in and out. Information is identical to the documentation of the factor workshop.

Annex Figure 3. Example of multiple key factor alternatives forming the framework for a scenario
Note: Relationships between factors are represented through connection or by arrows. Verbal rationales are recorded on digital sticky notes.

(c)   Development of Personas

Once the scenario structures had been constructed and agreed upon by the work groups, the scenarios were briefly presented to all participants in the plenary. Following these presentations, participants were encouraged to join new working groups and begin the process of creating two personas within a scenario. A template was developed to guide each group to define relevant background information for the persona, and consider the changes presented by the scenario outlined in relation to the asylum-seeking process from an asylum seeker's perspective (motivations, challenges, etc.).

4.1.4.   Second Scenario Workshop: Scenario Refinement and Strategic Implications

(a)   Creation and Refinement of Scenario Narratives

Between the first and second scenario workshops, members of the Fraunhofer ISI and the EUAA teams transformed the scenario structures developed in the first workshop from a series of mapped cards and notes into descriptive scenario narratives. During this process, two of the scenarios showed such similarity that they were merged into a single scenario

narrative. The full texts of the four resulting scenario narratives were refined internally in preparation for their distribution to workshop participants.

(b)   Strategic Implications

The narrative scenarios were the central input to the workgroup activities designed to identify strategic implications for asylum authorities and policy makers that each scenario presented. Each scenario focused on defining the changing environmental conditions based on the combined key factors and the impact that those conditions were having on international protection. Activities were designed to generate productive dialogue among the workgroup participants.

The first scenario activity asked participants to respond to a series of questions that had been co-written by Fraunhofer ISI and the EUAA project members. Initially, participants were given 10 minutes to read and answer the provided questions, marking their responses to each question on the digital whiteboard. Each group was given the same set of prompting questions:

- Which are the main countries/regions of origin of applicants in the EU+? (Differences between global patterns and applications in EU+?)
- What are the main (official and unofficial) reasons for applications?
- What is the socio-economic background of the applicants? (Age, gender, family situation, education, profession, income…)
- How many asylum applications are lodged in the EU+ in 2032 in this scenario? (Very rough estimation compared to today)
- How has the overall EU+ recognition rate evolved compared to today? (Share of refugee and subsidiary status)
- How many cases are pending? What is the average duration of cases awaiting a decision? Are more/fewer cases pending for specific types of asylum seekers – e.g., minorities, children, or perhaps asylum seekers with climate or economic grounds?
- Are there special procedures in place? (Accelerated, border, priorities… procedures)
- Where and how are the applications lodged, processed and decided upon?

After the individual working period was completed, the working groups were encouraged to openly discuss their responses to each of the questions. During these discussions, notes and comments were recorded by workgroup facilitators.

(c)   EUAA Case Worker Personas

After these initial discussions on scenario implications, each working group was taken into a second persona development activity. In contrast to the persona development activity in the first scenario workshop, and aligned with procedural feedback received, these personas were to focus on the workers within the EUAA and international protection services at national level. To accomplish this, each group was asked to develop the persona of a case worker tasked with mentoring and training a case worker who resumes work in 2032 after having been absent for the past 10 years. This activity was designed to reflect on and assess EUAA

operations within the context of each scenario's different environmental conditions, using the current EUAA training modules and the case worker persona as proxies for examining scenario impact.

Again, this activity was designed to promote discussion between workgroup participants and thus was developed as a series of questions used for both individual reflection and group discussion. Each group was asked to respond to the following questions:

- Have the interview methods and tools used by case workers changed (interpreters, remote, automatised, outsourced…)?

- What are the most important indicators for rejecting an asylum application?

- How does the evidence assessment take place? To what extent are automatised procedures/AI used to assess the evidence and to make the decision to accept or reject an asylum application?

- To what extent are technologies/AI used for translation purposes?

- Has the concept of "vulnerability" somewhat changed/evolved in 10 years? Is the Dublin procedure still important?

- How is the country of origin information provided? Are complex cases handled differently than standard cases?

- Does country of origin information comprise aspects that are currently not considered?

Following this discussion, workgroups developed the persona of 'Maria' – a veteran international protection case worker – as she offers guidance to a case worker trainee (for results see Figures 7, 9, 11 and 13). Reflecting on the scenario implications for the daily tasks of a caseworker, 'Maria' would promote certain learning modules for the returning caseworker, providing an explanation of why these modules were so critical to caseworker operations within the context of the scenario. In addition, the group would imagine new modules for the learning curriculum based on the anticipated impact of scenario conditions on international protection related operations.

At the conclusion of the working group breakout sessions, each group was asked to create a presentation of their assigned scenario and the implications discussed via an infographic. The infographic template asked working groups to answer five quantitative questions about asylum-related migration within the scenario and visually represent the countries with high numbers of pending cases and recognition rates based on the scenario narrative (for results see Figures 6, 8, 10 and 12). These infographics formed the core of each presentation in combination with a selection of critical discussion points.

(d) Scenario Implications and Robust Strategies

The final portion of the second scenario workshop was designed as a plenary meeting to ensure that all workshop participants could gain a comprehensive understanding of the implications of the different scenarios identified in the working groups. Each scenario working group presented an overview of their scenario and the major discussion points that had emerged with respect to the scenario's implications both on global asylum-related migration and on international protection operations (via the 'Maria' persona). At the conclusion of each

presentation, the plenary would discuss the scenario and the identified implications in a facilitated roundtable format. Participants were also asked to consider the list of taboos that had been collected and identify which of these taboos were relevant in each scenario discussion (see Learning Log II (D3/A8)). Finally, the plenary participants were asked to respond to two questions with respect to the presented scenario:

- What would be required for the EUAA to be prepared for this scenario?
- What would be required at the national level to be prepared for this scenario?

This presentation procedure was repeated by each of the scenario groups, so as to encourage equal consideration of each scenario and facilitate the final conversation – identifying robust strategies for the EUAA. For our project's purposes, the term robust refers to strategic implications and recommendations that remain valid across multiple scenarios. The final plenary discussion was focused on participant discussion revolving around the idea of robust strategies and recommendations that might be derived from these scenario implications. Through facilitated discussion, workshop participants collected their thoughts and ideas for the EUAA's strategic development. From this discussion, focal areas for developing a robust strategy emerged, including:

- Improving coordination with external stakeholders;
- Developing and promoting documentation for guidelines and protocols;
- Monitoring technological advances and preparing recommendations; and
- Continued development of human resources and skills.

4.1.5. Delphi Process

The Delphi survey method is a systematic and interactive foresight method designed to elicit feedback from a panel of experts. The method is best utilised to gather assessments about topics of interest wherein the present state of the art is not comprehensively understood and future developments are highly uncertain.

The survey process involves inviting subject experts to participate in two or more "rounds" of the questionnaire. In each round, respondents are asked to assess or evaluate 'theses' – statements about future issues – by means of open or closed questions, e.g., on the importance or possibility of, or time horizon for realisation. The Realtime Delphi (RTD) method is a structured (online) survey with immediate feedback – the distribution of the responses is fed back to the experts as soon as they answer for the second time (Gordon and Pease 2006, Aengenheyster et al. 2017). This feedback mechanism enables participants to revise their own input in response to other participants as often as they wish. The digital format also allows for a more structured and accurate record of qualitative comments and arguments that support each expert opinion. These arguments are made visible as survey feedback and respondents may choose to edit their original assessments based on new information or to respond to arguments made by others with additional countering evidence.

The EUAA Delphi survey was conducted in May and June 2022, with 59 respondents (of which 38 respondents fully completing the survey). Survey responses were anonymised to encourage participants to reply in an unrestrained manner. The statements for the Delphi survey were derived from the EUAA scenarios developed to portray alternative futures of international protection on a 10-year time horizon. Following each statement, respondents were asked to assess if the statement would be possible in the next 10 years and to give a qualitative argument for their assessment. Following this, respondents were asked to estimate when, in the future, the content of the statement would be actualised. In a second step the participants had the opportunity to compare their individual assessment with the evaluation and arguments of other participants and to adjust their own assessment on this basis. At the conclusion of the survey, the aggregated data allow us to view the overall distribution of expert assessments of the scenarios. In conjunction with the collective argumentation for each respondent's positions, the total survey results become a form of peer validation of the scenarios' respective plausibility and coherence.

4.2. Annex 2: External Factors and Projections per Factor

4.2.1. Annex 2a: Factor Candidate List and Key Factors

The following list contains the factors identified through desk research and interviews with EUAA staff. The list is organised to highlight the key factors selected through the workshop process (grey cells), factors that were merged into one or more key factors (blue cells), and factors that were not taken up as key factors (red cells).

Table 1. Original Factor Candidates (full list) and Key Factor Selection (Factors 1-11)

Assessment Rank	Factor Title	STEEP+ Category
1	Armed Conflicts	Political
2	Transit Countries Roles	Political
3	Economic Inequalities	Economic
4	Oppression of Vulnerable Groups	Social
5	Climate-Induced Displacement	Environmental
6	Food and Water Insecurity (new merging aspects below)	Environmental
7	Legal Pathways to International Protection	Political
8	Surveillance/Technological Disruption Privacy Security	Technological
9	Regime Protection and State Violence	Political
10	Automation and Databases	Technological
11	Social Media	Technological
	Extremism and Human Rights (Merged into 4)	Social
	Digital Warfare (Merged into 8)	Technological
	Drought and Resource Scarcity (Merged into 6)	Environmental
	Food Insecurity (Merged into 6)	Environmental
	Disputed Changes in Land Use (Merged into 9)	Political
	Demographic Change	Economic
	Access to Healthcare	Additional
	Digital Currencies	Technological
	E-Governance	Technological
	Health Crisis	Additional

4.2.2. Annex 2b: Key Factors and their alternative development paths

The alternative development paths for each key factor were derived from group discussion during the key factor workshop. Using the Tetralemma method for examining potential factor developments, experts were asked to use different 'lenses' to consider and frame these pathways. The lenses included optimist (best possible development of the factor), pessimist (worst possible development outcome), mediator (one or more midpoints between optimist and pessimist positions, and innovator (a development from outside the factor, that shifts the conditions for factor development).

In the below tables, each of the key factors, and their development paths, are presented. This allows participants to examine the breadth of the possibility space for each factor as discussed with workshop participants. The short descriptions for each path are summaries of extended discussions, developed after the workshop to more clearly outline the differences in each position.

Factor 1: Armed Conflicts
Interstate conflicts, military interventions, terrorism and civil war create conditions for affected populations to engage in asylum-seeking migration. In some areas these situations, or the risk thereof, are increasing.

A (optimist)	C1 (mediator)	C2 (mediator)	B1 (pessimist)	B2 (pessimist)	D (innovator)
Transparency, participation and social cohesion lead to fewer conflicts on a national and international level	Successful search for peaceful solutions (e.g., through education and mediation) on an international level	Freeze - *panem et circenses* on the national level and 'cold war' on an international level lead to a stable situation	Changes in the world order lead to large scale international war	Unlimited availability of weapons and resource scarcity culminate in several limited armed conflicts	Civic technologies reinvent national level democracy and increase stability

Factor 2: Transit Countries Roles
Transit nations serve as a mode of containment, hold the possibility for increased externalisation and might instrumentalise asylum-seeking migrants.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Equitable agreements ease border pressure and improve conditions	Protected transit corridors assure asylum seekers safety of movement	Broad adoption of remote asylum application processing de-incentivises improving international agreements or conditions	Instrumentalised immigrants, disintegrating political dialogue, increasing abuses and worsening conditions	Developed transit country labour markets and expanded refugee sponsorship programmes
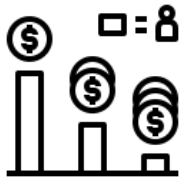
Factor 3: Economic Inequalities

Disparity in wealth, income opportunities and access to services (healthcare, etc.) creating conditions for increased social pressures that lead to oppression. This also relates to trends in mixed migration and is reflective of economic differences between countries of origin and destination.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Global initiatives and rapid economic development reduce mixed migration	Increased development triggers a greater number of migrants	Wealth inequalities are unevenly addressed, reduced inflows to wealthy nations	Inequalities worsen living conditions, create more migrants and increase the misuse of international protection	Technologies reduce inequalities: artificial intelligence, telework, renewable energy

Factor 4: Oppression of Vulnerable Groups

Targeted oppression of vulnerable and minority groups can emerge from conservative to authoritarian governments and the rise of extremist groups. Human rights are violated for selected groups.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Global recognition of minority rights, supported by international jurisdictions	Recognition of minority rights is restricted to some global regions – differences increase	Minorities in many countries are highly surveilled, controlled and made socially and politically invisible	Ever more authoritarian regimes make use of new technologies to oppress vulnerable groups	Oppression becomes transparent through new technology and is overcome in many states

Factor 5: Climate-Induced Displacement

Changing environmental conditions lead to justification for permanent displaced populations. Powerful entity takes control of land, displaces previous users, and enforces new ownership and management with violent oppression.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Climate refugees protected by international protection policy and environmental policy reduces climate change impacts	Financial support and land ownership policy allows localised rebuilding and resettling	Unchanged rate of climate-induced migration, weak enforcement and protections of land rights	Intensification of climate impacts increases displacement, insecurity and the number of asylum seekers	Technological solutions to climate extremes, supplemented by experience-based migrant matching

Factor 6: Food and Water Insecurity

As the impacts of prolonged shortage in water supply (e.g. food insecurities) heighten, social pressure transforms into political oppression. Similar dynamics are at play with scarcity of other resources.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Increasingly resilient agriculture systems with more equitable distribution of food and water	Improved regional infrastructure and fair-trade programs limit local displacement	Adoption of new nutrition sources and global reduction of food waste	Widespread food and water shortages increase conflicts and related migration	Bioengineering and material sciences create food and energy abundance

Factor 7: Legal Pathways to International Protection
The options through which international protection can be legally pursued may change based on reforms to global agreements and national legislation, in conjunction with technologies that enable new processes and operations.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Global migration and asylum reform with sponsorship, protected transit and resettlement agreements	Expansion of humanitarian visa programmes but unprotected transit	Fractured global migration reform and hardened territorialisation	Restrictive interpretations of international protection slow processing, worsen conditions in transit countries	Externalised screening and remote interviewing expedite asylum procedures
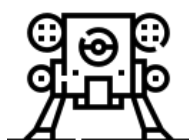
Factor 8: Surveillance, Security and Digital Warfare
The use of various technologies leads to monitoring people across affiliations (state, organisations, digital groups, etc.). Attacks on infrastructure, databases and other forms of IT disruption are executed digitally.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Ultra-secure databases for migration and automated monitoring systems	Broad information sharing enables services, but expands digital attack surface	Automated monitoring systems provide initial success but ultimately fail	Increasing digital surveillance, targeting and persecution	Digital surveillance transparently regulated by international organisations

Factor 9: Regime Protection, State Violence and Disputed Changes in Land Use
Regimes controlling wealth generated from exploitation of resources may exercise violent protection against any threats to power.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
More transparency, more international awareness hinder misuse of state power and land grabbing	Democracies on the rise lead to lower level of regime violence	State violence and land grabbing are intensified by climate change	Regime evictions become more frequent and geographically widespread	Technology reduces resource scarcity and helps safeguard ethno-minorities

Factor 10: Automation and Databases

Artificial Intelligence (AI) and Machine Learning methods can automate identity verification. The databases these technologies rely on are heterogeneous, partial and vulnerable to exploitation.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
User-controlled private data enables reliable and faster AI-based application processing and environmental monitoring	Automated systems are widely deployed, but data sources are very heterogeneous and controlled by a variety of private and public actors	The application of AI automated systems is hindered by restricting use to limited, secure databases	Widespread use of flawed automated systems on (potentially) corrupted databases that have been attacked and exploited by malevolent regimes	Fully automated asylum processes that involve no human intervention

Factor 11: Social Media

Most social media platforms have fundamentally shifted information gathering, organising, networking and communications activities for asylum seekers and receiving countries. Platforms can also be used and targeted by governments.

A (Optimist)	C1 (Mediator)	C2 (Mediator)	B (Pessimist)	D (Innovator)
Regulated, mediated and trustworthy social media provide reliable information, while respecting privacy by default	Social media follow international regulation on minimal standards to limit misinformation and damaging content	Geospatially restricted social media landscape further limits access to information, and enables censorship and surveillance	Completely deregulated social media increases extremism and criminal exploitation, and enables government oppression	New technologies enable deeper integration of next generation communications