



# OUTCOMES & RECOMMENDATIONS REPORT

11 - 13 December 2024

**BORDER MANAGEMENT AND IDENTITY CONFERENCE**

7<sup>th</sup> edition

**The Future of Borders and Borders of the Future:  
Accelerating Seamless and Secure Cross-Border Travel  
and Trade with Technological Solutions  
and Re-engineered Identity Management Processes**

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# Foreword

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It is with great pride and optimism that I present the outcomes and recommendations report of the 7th Border Management and Identity Conference.

Over the years, BMIC has grown from a regional initiative into a global platform, bringing together diverse stakeholders to reimagine the future of border management and identity systems. For this 7th edition, almost 500 representatives from governments, international organizations, academia, and industry partners came together to explore transformative solutions to some of the most pressing challenges facing global border management and identity ecosystems. This report is the culmination of three days of rich dialogue, innovative ideas, and a shared commitment to addressing the challenges of our time.

In an era marked by unprecedented mobility, technological innovation, and complex security threats, the role of border management has never been more critical—or more challenging. During my opening address, I reflected on the so-called “border management dilemma”—the interplay between travel facilitation and security as a core of modern border management. But perhaps this dilemma exists because we have not yet fully harnessed the power of both human empathy and technology to create systems that rely not only on trust but also on truth. Can we envision border management systems that truly embrace human rights, environmental considerations, and ethical governance? Can we achieve a balance where facilitation and security complement, rather than compete with, one another?

At BMIC7, these questions guided our discussions. We explored the nuances often overlooked in binary decision-making—where travelers are deemed either *bona fide* or not. BMIC7 served as a unique platform to share expertise, exchange innovative practices, and forge partnerships across sectors and borders. The themes explored during this conference, ranging from credible identity verification and advanced passenger information systems to enhancing cooperation at land and maritime borders, reflect the dynamic and interconnected nature of our work.

This Outcomes Report captures not only the knowledge shared by distinguished experts but also the actionable recommendations derived from constructive discussions. It is my hope that these insights will serve as a guide for policymakers, practitioners, and innovators as they navigate the evolving landscape of border management and identity systems.

As we move forward, let us continue to embrace collaboration, innovation, and inclusion as the cornerstones of our efforts. Together, we can build border management systems that are not only secure but also resilient, humane, and capable of adapting to the challenges of the future.

Sincerely,

Laura Scorretti

Senior Immigration and Border Governance Specialist for Asia and the Pacific, IOM

# Acknowledgements

The success of the 7th Border Management and Identity Conference (BMIC7) is a testament to the dedication, leadership, and collaborative efforts of numerous individuals and organizations.

First and foremost, IOM wishes to express our heartfelt gratitude to Thailand, our host country, for its warm hospitality and support. IOM also extends our sincere thanks to the BMIC co-founder, APSCA, and its Chairman, Greg Pote, for their exceptional organization and vision. Special acknowledgement goes to this longstanding partnership between IOM and APSCA for its invaluable role in fostering dialogue between technology providers and policymakers.

We further extend our sincere gratitude to the 73 expert speakers who enriched the BMIC7 with their insights and knowledge. Their contributions represented the diverse perspectives of 38 governments, 24 international organizations, two academic institutions, and nine industry partner entities, collectively shaping the future of border and identity management.

This year's conference benefitted from the leadership and insights of our esteemed conference chairpersons, Mr. Dion Chamberlain of the Department of Internal Affairs, New Zealand and Ms. Anna Polak of Frontex. Their expertise and guidance were instrumental in shaping the discussions and outcomes of BMIC7.

Special thanks also go to the Workshop Chairs—Ms. Isabelle Moeller of the Biometrics Institute (Workshop 1); Ms. Sarah Zacka of the Australian Border Force (Workshop 2); Mr. Ross Greenwood of Biometix (Workshop 3); and Mr. David Scott of Regional Support Office, The Bali Process (Workshop 4)—for their exceptional contributions in guiding the workshops, leading the pre-workshop preparations, and demonstrating unwavering dedication to ensuring the success of these sessions.

Our gratitude goes to Mr. Iori Kato, Regional Director for IOM Asia and the Pacific, for his leadership throughout the planning and execution of BMIC7.

Our heartfelt thanks also go to the IOM colleagues from around the globe, the Immigration and Border Governance Division at IOM Headquarters and IOM Thailand. Their exceptional efforts ensured the active participation of governments worldwide, enriching the conference's scope and impact.

We would also like to acknowledge the outstanding contributions of the IOM ICT team for ensuring a seamless experience throughout the conference.

Finally, we extend special appreciation to the Media and Communications Unit (MCU) at the IOM Regional Office for Asia and the Pacific, led by Mr. Itayi Viriri, for their invaluable efforts in promoting the event and ensuring its global visibility.

**BMIC Secretariat and IOM organizing team:** Laura Scorretti, Varaporn Naisanguansri, Margarita Minzateanu, Jessica Dewangga, Pimpattra Rakdech, Adapol Aupalanon

**APSCA organizing team:** Greg Pote, Veronica Ribeiro, Echo Zhao, Zoe Ye

**Notetakers:** Nirut Bannob, Noppasorn Sathirapanya, Surucchawadi Seweewanlop

**Outcomes report author:** Margarita Minzateanu and the IBG team at IOM Regional Office for Asia and the Pacific



# BMIC History & Evolution

## BMIC1

*"Implementing International Standards for National Border Management Solutions in the Asia Pacific Region"*

19 - 21 January 2010

more than 300 participants, 36 governments represented

## BMIC2

*"Facilitating Travel and Reducing Risks through Efficient Pre-departure Data Management"*

5 - 7 June 2012

315 participants; 35 governments represented

## BMIC3

*"Border Management Information Systems for 2025: What can we expect and how will they integrate with existing systems?"*

2 - 4 December 2014

more than 300 participants, 36 governments represented

## BMIC4

*"Integrating Registration Systems at Borders with National Identity Management"*

9 - 11 November 2016

336 participants; 36 governments represented

## BMIC5

*"Alternative Approaches to Border and Identity Management"*

11 - 13 December 2018

396 participants; 58 governments represented

## BMIC6

*"Solutions to Minimise Disruption to Cross-Border Movements of People and Trade While Safeguarding National Security during Crises"*

7 - 9 December 2022

424 participants; 55 governments represented

## BMIC7

*"The Future of Borders and Borders of the Future"*

11 - 13 December 2024

475 participants; 72 governments represented



# BMIC Objectives

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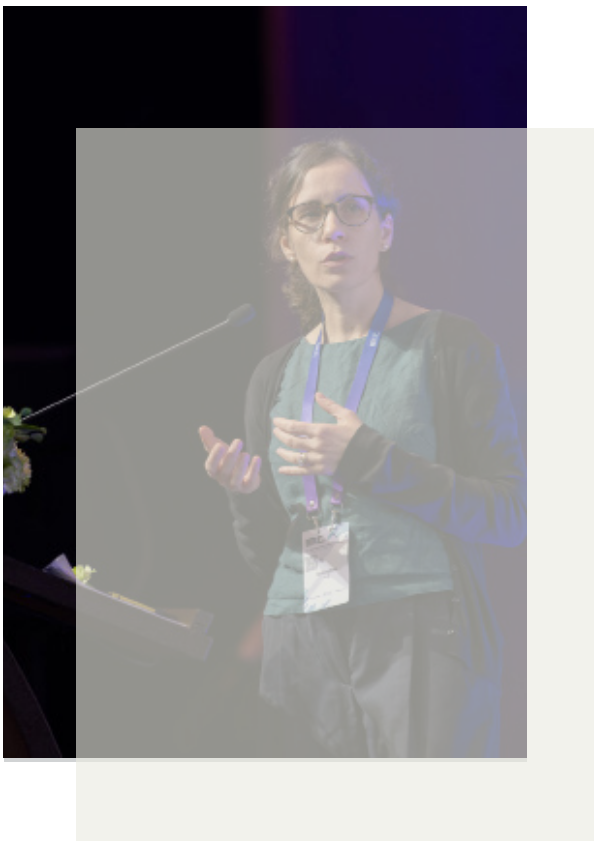
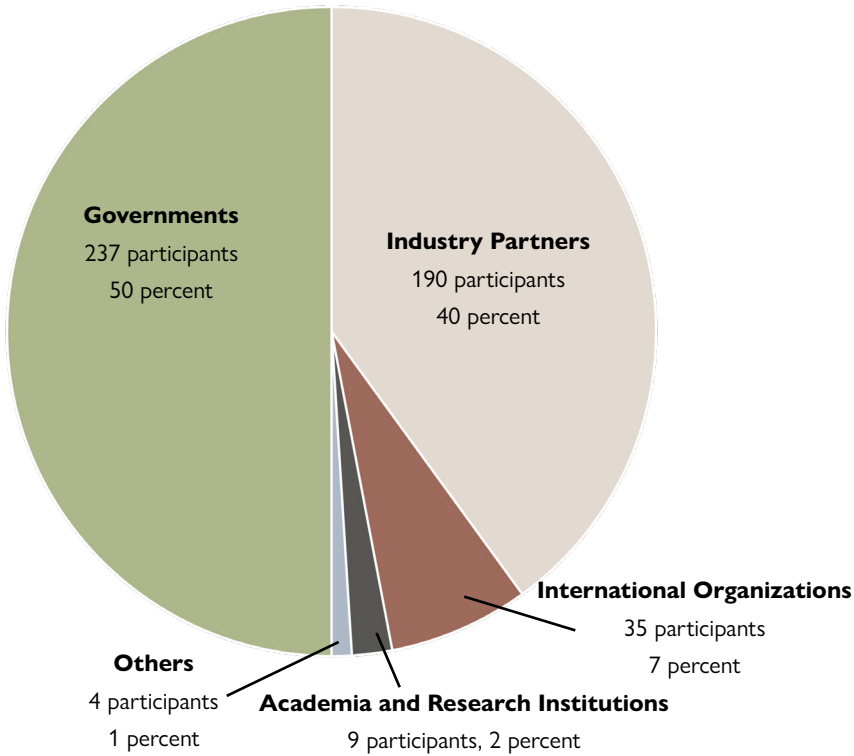


Since its inception in 2010, BMIC has grown into the largest global gathering of government authorities, industry partners and organizations specializing in border and identity management. The conference serves as a platform for immigration, home affairs, customs, civil registration, and other relevant agencies to connect and collaborate with international partners, industry experts, and solution providers. Initially focused on the Asia-Pacific region, BMIC has expanded its reach to encompass stakeholders from six continents, emphasizing global consultation, mutual learning, and cooperation in identity management as the means to enable seamless and secure human mobility.

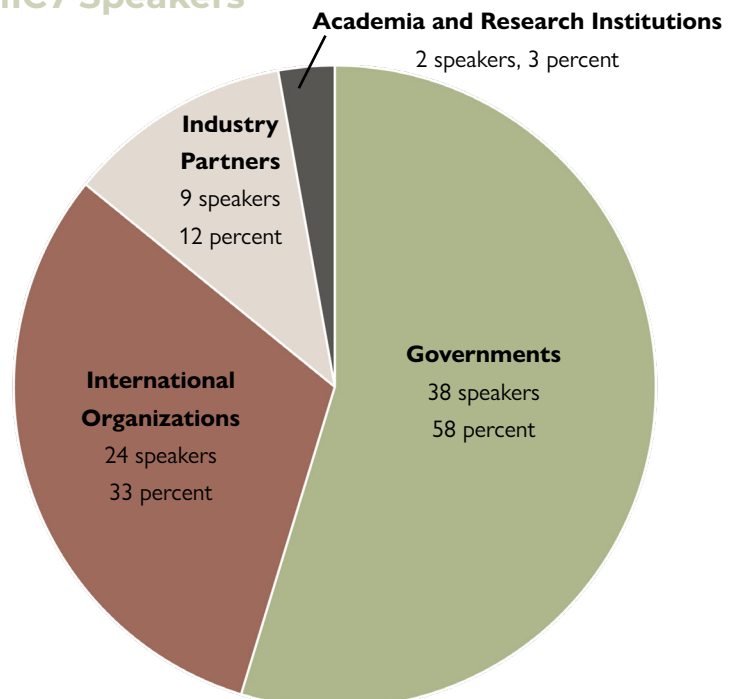
BMIC's primary objective is to provide an opportunity for stakeholders to share information on the latest developments and continue to define the border and identity management agenda. The event also includes a unique international stage to exhibit the latest solutions and technologies designed to facilitate cross-border movements while strengthening national security, to ultimately enable government authorities to advance border and identity management processes and international partner organizations to prioritize their support.

# BMIC7 Statistics

## BMIC7 Participants



## BMIC7 Speakers





Argentina  
 Australia  
 Austria  
 Bahrain  
 Bangladesh  
 Bhutan  
 Brazil  
 Kingdom of Cambodia  
 Canada  
 People's Republic of China  
 Kingdom of Denmark  
 Arab Republic of Egypt  
 Kingdom of Eswatini  
 Federated States of Micronesia  
 Republic of Fiji  
 Finland  
 France  
 Republic of The Gambia  
 Georgia  
 Germany  
 Republic of India  
 Republic of Indonesia  
 Islamic Republic of Iran  
 Ireland  
 Italy  
 Republic of Kazakhstan  
 Republic of Kenya  
 Kiribati  
 Lao People's Democratic Republic  
 Republic of Liberia  
 Republic of Malawi  
 Malaysia  
 Republic of Maldives  
 Republic of the Marshall Islands  
 Mexico  
 Republic of Moldova  
 Mongolia  
 Myanmar  
 Republic of Nauru  
 Kingdom of the Netherlands  
 New Zealand  
 Federal Republic of Nigeria  
 Kingdom of Norway  
 Islamic Republic of Pakistan  
 Republic of Palau  
 Independent State of Papua New Guinea  
 Republic of Paraguay  
 Republic of the Philippines



Republic of Korea  
 Republic of Rwanda  
 Independent State of Samoa  
 Kingdom of Saudi Arabia  
 Republic of Sierra Leone  
 Slovak Republic  
 Solomon Islands  
 Republic of South Africa  
 Kingdom of Spain  
 Democratic Socialist Republic of Sri Lanka  
 Swiss Confederation  
 Kingdom of Thailand  
 Democratic Republic of Timor-Leste  
 Kingdom of Tonga  
 Republic of Tunisia  
 Republic of Türkiye  
 Tuvalu  
 Republic of Uganda  
 Ukraine  
 United States of America  
 Republic of Vanuatu  
 Socialist Republic of Vietnam  
 Republic of Zambia

SITA  
 Veridos  
 Innovatrics  
 Entrust  
 CEN  
 Vision-Box  
 Infineon  
 Biometix  
 Biometrics Institute  
 KURZ Thailand  
 Cairn Advisory  
 Pepper & Ink Technologies LLP  
 Covestro  
 Veridos GmbH  
 NXP Semiconductors  
 OVD Kinegram  
 MaskTech GmbH  
 JURA  
 Regula  
 Firebytes  
 MANTRA  
 Aloko  
 SomapaIT  
 Travizory  
 Thermo Fisher Scientific  
 Herofun  
 STMicroelectronics  
 Landqart  
 foster + freeman  
 Markland  
 Docus Lumus  
 LINXENS  
 Evolis  
 Melzer Maschinenbau  
 Matica  
 Ground-Controls  
 Datasonic  
 Iris ID  
 Scicom  
 Cognitec  
 IXLA  
 Xperix  
 HID  
 Tongxin Micro  
 TAD Industries  
 KURZ Digital  
 SPICA  
 CETIS  
 GEN2WAVE  
 MK Smart



71

INDUSTRY PARTNERS

20

INTERNATIONAL PARTNERS

BioRugged  
 EMPTECH  
 NEUROTECHNOLOGY  
 NJA  
 Keesing Technologies  
 Lahnpaper  
 JIT Identity  
 Amadeus  
 IRIS Corporation  
 ITS Hong Kong  
 Elyctis  
 Muehlbauer  
 MB Automation  
 OSD  
 Chanwanich  
 Dohatec New Media  
 idCentric  
 HID Global  
 IN Groupe  
 Masktech  
 Integrated Biometrics

INCERT GIE  
 UNHCR  
 PIDC  
 SPC  
 UNOCT  
 Frontex  
 European Commission  
 ICAO  
 INTERPOL  
 CARICOM IMPACS  
 RSO  
 OHCHR  
 ESCAP  
 ISO  
 IATA  
 Vital Strategies  
 UNICEF  
 Security Identification Union  
 The World Bank  
 European Union

# 1. The Future of Borders and Borders of the Future: Evolving Practices and Emerging Trends

## Introductory Remarks



**Ms. Laura Scorretti**

Senior Immigration and Border Governance Specialist for Asia and the Pacific  
Regional Office for Asia and the Pacific, IOM

In her introductory remarks to BMIC7, Ms. Laura Scorretti addressed the ongoing dilemma faced in border management: the balance between travel facilitation and security. She posed critical questions about whether border management systems could rely on truth instead of trust, and if such systems could fully incorporate human rights and environmental considerations. While recognizing the significant progress in leveraging technology to improve border control, she stressed the importance of human examination skills, augmented by technology application, in detecting increasingly sophisticated document and identity fraud techniques during identity verification at borders. In parallel, analytical skills, coupled with a work attitude based on compassion and empathy, are essential tools for border control officers to assess travelers' true intentions and evaluate migrants' complex, nuanced cases.

Ms. Scorretti emphasized that the role of border officials extends beyond simply controlling borders; they serve as the first line of defense in understanding who travelers truly are and why they cross borders. Investing in the integration of technological advancements and human skills would lead to the future border management systems that prioritize both security and the protection of human rights. Such approach shall guide the technological progress of border control automation, while borders progressively become frictionless.

## Welcoming Remarks



**Mr. Naruchai Ninnad**

Deputy Director-General  
Department of Consular Affairs  
Ministry of Foreign Affairs  
The Kingdom of Thailand

Mr. Naruchai Ninnad in his welcoming remarks focused on the theme of post-COVID-19 border security and management. He highlighted the significant reforms undertaken by Thailand to balance the dual priorities of security and travel facilitation, ensuring the country remains a premier global tourism and trade destination. Key measures include the expansion of Visa on Arrival eligibility and the implementation of a seamless E-Visa service, enabling travelers to apply for Thai visas entirely online. These initiatives showcase Thailand's commitment to leveraging technology for both security and traveler convenience, reaffirming its position as a global leader in border management innovation.

Mr. Naruchai emphasized the importance of data linkage between the Ministry of Foreign Affairs and the Thai Immigration Bureau, a vital development that streamlines border screening and decision-making processes. He further highlighted Thailand's compliance with ICAO standards for the issuance of E-passports, ensuring global interoperability and security.

In addressing ongoing challenges, Mr. Naruchai acknowledged the need to bridge the digital divide and mitigate privacy concerns, emphasizing the importance of robust cybersecurity measures. He concluded with a call for continued inter-agency coordination, innovation, and the sharing of best practices to overcome emerging challenges. By striking a careful balance between security and facilitation, Thailand aims to set new benchmarks in seamless and secure cross-border travel, fostering both global connectivity and economic resilience.



## Opening Remarks



**Ms. Ugochi Daniels**

Deputy Director-General for  
Operations  
International Organization for  
Migration

Ms. Ugochi Daniels, delivered an opening video address expressing her gratitude to the Royal Thai Government for their longstanding support and emphasized the importance of examining innovative technological solutions to enhance secure cross-border movements for both people and trade. Her remarks highlighted the dual role of borders as guardians of sovereignty and facilitators of migration and economic growth, especially in a world shaped by challenges such as climate change, conflict, and economic inequality.

Ms. Daniels identified three critical challenges to shaping the borders of the future. She emphasized the urgent need to address the global identity gap, noting that 850 million people, including 250 million children under five, lack legal identity, leaving them vulnerable and excluded from basic services. She also pointed to the uneven investment in border infrastructure, particularly at land and sea gateways compared to airports, which creates security vulnerabilities and hinders efficient trade and migration. Lastly, she underscored the complexity of irregular migration, calling for stronger data collection, advanced risk analysis tools, and greater inter-agency collaboration to transition from reactive to preventive measures.

In closing, Ms. Daniels stressed the importance of shaping borders that balance security with humanity, leveraging innovative tools like IOM's AI-enhanced Border Data Dashboard (Data Exchange Solution for Counter Smuggling - DESC), which integrates real-time analytics and fraud detection to transform border management practices globally. She urged participants to envision borders that protect and connect, foster collaboration and resilience, and uphold ethics and efficiency.

## Official Opening of Exhibition



**Mr. Greg Pote**

Chairman  
APSCA

Mr. Greg Pote, co-organizer of the 7th Border Management and Identity Conference, began his address by expressing heartfelt gratitude to the organizations and individuals whose efforts contributed to the event's success. He extended thanks to the International Organization for Migration (IOM) for its continued collaboration and to the Department of Consular Affairs of Thailand for their invaluable support. He also recognized Ms. Laura Scorretti and her team at the IOM Bangkok office for their hard work in organizing the conference, as well as the BMIC7 co-chairs Mr. Dion Chamberlain and Ms. Anna Polak.

Mr. Pote underscored APSCA's ongoing commitment to advancing identity and payment systems and highlighted the conference as a critical platform for governments to exchange insights and explore the latest developments in border management and identity. He noted the 2024 theme, "The Future of Borders and Borders of the Future," as a timely and significant focus, emphasizing seamless and secure cross-border travel supported by technological innovation and enhanced identity management processes.

Mr. Pote officially opened the exhibition, an integral component of the conference showcasing state-of-the-art border management and identity technologies. He acknowledged the vital contributions of the sponsors and exhibitors, whose financial support and innovative solutions added immense value to the event. The ribbon-cutting ceremony, which he led alongside distinguished guests, marked the formal opening of the exhibition and the conference, setting the stage for three days of dynamic discussions, collaboration, and knowledge exchange.

## Opening Remarks



**Mr. Dion Chamberlain**

Chair ICAO ICBWG, Lead ICAO DTC  
Policy Sub-Group  
Director, International and Product  
Strategy  
Department of Internal Affairs  
New Zealand

Mr. Dion Chamberlain opened the session by addressing the significant struggles individuals face during their journeys and efforts to establish new lives in unfamiliar settings. He stressed the pivotal role of new technologies in facilitating these transitions and ensuring processes remain efficient and supportive. Mr. Chamberlain acknowledged the complex challenges inherent in border management, particularly in balancing the demands of security and mobility. He called for a continued commitment to developing and implementing innovative technologies that enhance both border security and the ease of movement. Concluding his remarks, Mr. Chamberlain encouraged participants to use the conference as a platform to exchange insights and develop practical solutions to overcome these pressing issues.

## Opening Remarks



**Ms. Anna Polak**

Director of Strategy, Governance and  
External relations Division  
European Border and Coast Guard  
Agency - Frontex

Ms. Anna Polak highlighted the high-pressure environment of border management, where decisions often need to be made within seconds, and the implications of those decisions can be profound. She underscored the critical importance of accuracy in this context, emphasizing the necessity of equipping border officials with advanced technological tools to enable well-informed and human rights based decision-making. Ms. Polak advocated for a delicate balance between ensuring robust border security and facilitating seamless, dignified travel for individuals. She called for the modernization of identity and registration systems, with a strong emphasis on safeguarding privacy and ethical principles. Concluding her remarks, Ms. Polak affirmed that the future of border management depends on advancing and refining systems through innovative and thoughtful applications of technology and security measures.



## 1.1. Expert Outlook from Day 1

### The Future Passenger Experience and Facilitation at Airports



#### Ms. Nuria Fermoso

Senior Manager  
Operations, Safety and Security (Customer Experience & Facilitation)  
International Air Transport Association (IATA)

Contact: [fermoson@iata.org](mailto:fermoson@iata.org)  
[Presentation link](#)

Ms. Nuria Fermoso presented the critical role of automation and digital identity solutions in addressing the expected doubling of passenger traffic in the coming years. She emphasized the challenges of expanding airport infrastructure to meet this demand and the necessity of leveraging technology to streamline processes and enhance passenger experiences. Drawing on insights from the IATA global passenger survey, Ms. Fermoso highlighted travelers' growing preference for completing processes such as visa applications, immigration procedures, and check-ins remotely and in advance. She discussed the concept of "One ID," which enables passengers to meet travel requirements digitally, receive pre-approval, and arrive at the airport ready to board.

Ms. Fermoso also addressed the importance of interoperability and compatibility within the travel ecosystem. She outlined how a unified digital identity and credentials could be used across multiple trips, facilitating a consistent and efficient experience for travelers. The presentation stressed the need for government support to establish regulatory frameworks that ensure the secure and effective implementation of these technologies. By adopting such measures, the travel industry can not only accommodate the projected growth in passenger numbers but also meet the increasing demand for convenience and efficiency among travelers.

The presentation underscored the growing willingness of travelers to adopt technology to improve their experiences, particularly in expediting processes like visa issuance, immigration, and check-ins. Technologies such as biometric recognition and digital wallets for payments emerged as crucial enablers for achieving the speed and efficiency that passengers value. Ms. Fermoso highlighted the transformative potential of digital identity solutions, exemplified by the European digital identity wallet initiative, in streamlining travel processes and enhancing security. However, the full realization of these benefits hinges on regulatory support from governments to establish secure, interoperable frameworks, ensuring that technological advancements align

### A Roadmap for Digital Travel Credentials



#### Mr. R Rajeshkumar

Convener – ISO/IEC JTC1 SC17/  
WG3  
International Organization for Standardization (ISO)

Contact: [R.Rajeshkumar@auctorizium.com](mailto:R.Rajeshkumar@auctorizium.com)  
[Presentation link](#)

Mr. R Rajeshkumar's presentation focused on the latest developments in travel document specifications set by the ICAO New Technologies Working Group (NTWG) in collaboration with ISO/IEC JTC1 SC17/WG3. He highlighted key updates, including the introduction of two-letter codes for document types, the deprecation of Basic Access Control (BAC) and Password Authenticated Connection Establishment (PACE), amendments to the Visible Digital Seal (VDS) specifications, and new complementary tests for the physical conformance of travel documents. Additionally, he discussed significant advancements such as a new profile for encoding biometrics, the introduction of the ICAO Datastructure for Barcodes (IDB), and updated layouts for TD1-sized documents. These changes reflect the ongoing evolution of travel document standards to enhance security and interoperability. He also reminded attendees that after 1 January 2028, it will be possible to issue PACE only eMRTD, therefore all border control systems need to be upgraded to be able to read such travel documents.

Beyond detailing these technical advancements, MR. Rajeshkumar examined their implications for both travel document issuers and border control operations. He outlined how these new specifications will shape the future of border management, emphasizing the importance of preparing for upcoming transitions. The presentation provided insights into the expected timelines for implementing these changes and the steps stakeholders must take to adapt.



Furthermore, he offered an update on the current status of the Digital Travel Credential (DTC) specifications, which are poised to play a critical role in the digital transformation of identity verification at borders. Mr Rajeshkumar presentation on travel document specifications was particularly relevant for both border control agencies and document issuers, reminding the need for both stakeholders to ensure peer to peer exchanges, and highlighting the support that the ICAO ICBWG Border Control and Law Enforcement Sub Group can provide to this end.

### How does PKI Technology Fit with Electronic and Digital Identity Documents?



**Mr. Benoit Poletti**

Chief Executive Officer  
INCERT  
Grand Duchy of Luxembourg

Contact: [BPOLETTI@incert.lu](mailto:BPOLETTI@incert.lu)  
[Presentation link](#)

Mr. Benoit Poletti presented on the intersection of advanced security technologies and public needs, with a focus on ensuring robust and future-proofed systems for border management and electronic travel documents. Mr. Poletti outlined INCERT's pivotal role in creating a global framework for certifying and evaluating aviation security equipment. This framework not only aligns with international standards but also enhances the resilience of aviation infrastructure. The presentation delved into the practical applications of Public Key Infrastructure (PKI) technology, emphasizing its role in authenticating and securing data within electronic travel documents and digital communications. Mr. Poletti also shared real-world insights, explaining how PKI facilitates secure communication and data integrity while eliminating redundancies by enabling a single PKI system to serve multiple purposes. During the transition from physical to electronic documents, a single mutualized PKI solution can serve the authentication of multiple documents, from travel, to identity ones to administrative, and can also be applied to multiple countries.

In addition, Mr. Poletti explored the critical advancements in post-quantum technology, highlighting INCERT's efforts to address the potential cybersecurity threats posed by quantum computing. He explained the importance of preparing for this technological shift by integrating post-quantum solutions into existing PKI systems. The presentation also touched on nuanced topics, such as the differences between PKI and PKD (Public Key Directory), and the evolving applications of PKI in digital travel credentials (DTCs).

### Improving the Human Ability to Detect Morphing Attacks



**Ms. Frøy Løvåsdal**

Senior Adviser, National Police Directorate, Norway  
PhD Candidate at the Norwegian University of Science and Technology  
The Kingdom of Norway

Contact: [froy.lovassdal@politiet.no](mailto:froy.lovassdal@politiet.no)  
[Presentation link](#)

Ms. Frøy Løvåsdal highlighted the critical challenge posed by morphing and manipulation of facial images in identity and travel documents, a growing concern for governments worldwide. She discussed how advanced algorithms for Morphing Attack Detection still face limitations, particularly when accounting for ageing effects. The presentation centered on the ongoing efforts of the National Police Directorate in Norway within the iMARS project (Image Manipulation Attack Resolving Solutions), an international initiative aimed at addressing these challenges. Key research findings, conducted in collaboration with the Norwegian University of Science and Technology (NTNU) and the University of Bologna, revealed varying human abilities to detect manipulated images, with morphing and geometric distortions being the most difficult to identify. Ms. Løvåsdal also presented the project's efforts to develop a robust training program that seeks to elevate human performance in morph detection.

Through a benchmark study, the presentation highlighted the disparity in human detection accuracy, with most officers achieving 50–60% accuracy in identifying morphed images. The research underscored the importance of integrating high-performing human examiners' methodologies into algorithmic training to improve outcomes. Ms. Løvåsdal shared details on experimental activities covering diverse forms of image manipulation, including beautification, geometric distortion, and morphing, illustrating the distinct challenges each posed. Additionally, the iMARS project has made significant strides in creating tools such as algorithm testing platforms, e-learning modules, and international standards for performance evaluation.

Ms. Løvåsdal emphasized that neither humans nor algorithms alone are sufficient to effectively address the challenge of detecting morphing attacks in identity verification. Instead, a synchronized approach, leveraging the strengths of both human expertise and technological innovation, is essential. She also highlighted the need for legislative reforms to enable the storage of images collected at border crossing points, ensuring both human and algorithmic limitations can be mitigated. This collaboration between human and machine can significantly enhance state capacities to combat transnational crime and identity fraud.

### Document and Identity Fraud: Observations from Thailand



#### **Pol.Lt.Col. Sophida Boonprakobsap**

Deputy Superintendent of General  
Staff Sub-Division  
Immigration Division 2  
Immigration Bureau  
Royal Thai Police  
Thai Immigration Bureau  
The Kingdom of Thailand

Contact: [saraban\\_imm2@police.go.th](mailto:saraban_imm2@police.go.th)  
[Presentation link](#)

Pol.Lt.Col. Sophida Boonprakobsap, delivered an insightful presentation on the evolving landscape of identity verification and border management in Thailand. The focus was on the increase in imposters using other individuals' passports, including family members, observed between 2005 and 2012. Highlighting technological advancements, she detailed the development of automated gates (E-gates) at airports, which leverage fingerprint comparison against an integrated database to detect imposters. Initially limited to non-Thai nationals at departure points due to legal and visa complexities, the E-gates have been operational since December 2023. Furthermore, by December 2024, a biometric identification system will be introduced at airline check-in counters, enabling travelers to authenticate their identities by showing their passports and boarding passes just once.

Pol.Lt.Col. Boonprakobsap also addressed the challenges accompanying digitalization, emphasizing the risks associated with automated systems. Specifically, she raised concerns about traffickers and syndicates exploiting reduced human interaction at border checkpoints. While automation significantly enhances passenger flow and alleviates the workload of border officials, it poses risks by diminishing direct interaction between officials and travelers. This reduction in contact may weaken the ability to identify document and identity fraud. To address these vulnerabilities, Pol.Lt.Col. Boonprakobsap underscored the necessity of strengthening international cooperation to combat cross-border criminal activities effectively.



## The Experience of International Cooperation in Strengthening the National Directorate of Migration



**Mr. Jorge Marcelo Kronawetter K.**

National Director  
National Directorate for Migration  
Republic of Paraguay

Contact: [jkronawetter@gmail.com](mailto:jkronawetter@gmail.com)  
[Presentation link](#)

Mr. Jorge Marcelo Kronawetter outlined the modernization of Paraguay's border management through the implementation of the IOM's developed Border Management Information System, "Migration Information and Data Analysis System (MIDAS)". Since its launch in 2016, MIDAS has been deployed at 15 key entry points, introducing biometric verification to manage over 9.5 million annual border crossings. The presentation also highlighted Paraguay's collaboration with Brazil's Federal Police and participation in the Red Atenas, which enables real-time detection of fraudulent documents through international information sharing. These efforts, coupled with technological updates and enhanced data-sharing mechanisms, aim to strengthen Paraguay's capacity to address growing border security demands and migration management challenges.

Paraguay's adoption of MIDAS has significantly enhanced its border security and migration processes, modernizing its systems to handle increasing migratory flows. Mr. Kronawetter highlighted the importance of international collaboration in enhancing migration processes and border security, emphasizing how the aforementioned initiatives, combined with projected technological innovation, benefit Paraguay on its path toward a more efficient and secure migration management system.

## Strengthening Pacific Regional Resilience: Australia-Pacific Mobility Arrangements



**Mr. Damien Kilner**

First Assistant Secretary  
Immigration Programs Division  
Department of Home Affairs  
Australian Government

Contact: [damien.kilner@homeaffairs.gov.au](mailto:damien.kilner@homeaffairs.gov.au)  
[Presentation link](#)

Mr. Damien Kilner presented on Australia's approach to strengthening Pacific regional resilience through various mobility arrangements. He discussed Australia's alignment with the 2050 Strategy for the Blue Pacific Continent and the Pacific Regional Framework on Climate Mobility, which aim to support the Pacific while respecting the desire of Pacific people to stay in place with safety and dignity in the face of climate change. The presentation covered key initiatives such as the Pacific Australia Labour Mobility (PALM) Scheme, the Pacific Engagement Visa (PEV), and special visa arrangements under the Australia-Tuvalu Falepili Union, all designed to strengthen regional resilience, bilateral relationships, and diaspora community ties.

Mr. Kilner highlighted Australia's national strategy for collaboration with Pacific-led regional organizations across various sectors, including labor mobility, maritime security, policing, and responding to humanitarian disasters. He further discussed the Regional Framework on Climate Mobility, which emphasizes that relocation should be a last resort, focusing instead on strengthening resilience and improving climate adaptation. The Climate Resilience and Adaptation Framework aims to build stronger homes, communities, and infrastructure, with cross-border relocation assistance when necessary.

The session also explored how labour mobility schemes and visa grants for Pacific Island and Timor-Leste nationals, through initiatives like the PALM Scheme and PEV, strengthen ties and opportunities for regional growth. Mr. Kilner highlighted Australia's proactive stance in integrating migration with resilience strategies, emphasizing the importance of collaboration, adaptability, and cultural sensitivity in addressing the multifaceted challenges posed by climate change in the Pacific.



## Navigating the Way Forward: How can access to refugee travel documents unlock opportunities?



**Ms. Amanda Stovall**

Resettlement and Complementary Pathways Officer  
Division of International Protection (DIP)  
The Office of the United Nations High Commissioner for Refugees (UNHCR)

Contact: [stovall@unhcr.org](mailto:stovall@unhcr.org)  
[Presentation link](#)

Ms. Amanda Stovall emphasized the critical need for frameworks and technical solutions to help over 37 million refugees worldwide seeking safety and durable solutions. A key enabling factor for refugees to access migration streams and global opportunities is their ability to obtain machine-readable travel documents (MRTDs), which must include necessary protection safeguards. While this may seem like a straightforward issue, the reality is far more complex. Many refugees are still excluded from obtaining a travel document that complies with ICAO standards, limiting their mobility and opportunities. The presentation further explored the challenges refugees face in rebuilding their lives after fleeing conflict or persecution, with a particular focus on complementary pathways. These pathways allow refugees to work or study outside their country of asylum, ensuring their international protection needs are met. However, the lack of access to proper travel documents remains a significant barrier, as many refugees must rely on manual or non-compliant documents, which impede their ability to move freely and connect to life-changing opportunities.

Ms. Stovall also addressed the technical and administrative challenges in implementing MRTDs for refugees. Despite the existence of legal frameworks in many countries, gaps in the systems—such as the transition from manual to machine-readable documents—continue to hinder refugees' access to these essential documents. Additionally, there is often a lack of understanding about how to issue refugee travel documents and identity cards, making the implementation process even more challenging. To address these issues, efforts are underway to align UNHCR's requirements with ICAO standards, ensuring a more consistent approach to issuing refugee travel documents globally. This involves collaboration with various stakeholders, including countries that have made progress in implementing complementary pathways for refugees. The goal is to create inclusive systems that allow refugees and stateless persons to access opportunities, giving them the chance to rebuild their lives sustainably.

## DIDA Pilot: The Digital IDentity Asylumseeker



**Mr. Alex van Duuren Bit**

Senior Advisor R&D Identity Office  
Ministry of Migration and Asylum  
The Kingdom of the Netherlands

Contact: [a.van.duuren@ind.nl](mailto:a.van.duuren@ind.nl)  
[Presentation link](#)

Mr. Alex van Duuren Bit presented the Digital Identitycard Asylumseeker (DIDA), which aims to provide a more efficient and secure means of identification for asylum seekers. A pilot phase for DIDA is scheduled for late 2024 to early 2025, during which the usability and functionality of the app will be tested, particularly with regard to its user-friendliness and technical features. The pilot phase aims to assess user experiences through voluntary registration by asylum seekers, evaluating whether they continue using the app and their satisfaction with its features. Initial feedback indicates minor technical issues, such as problems with facial recognition and RFC readers, as well as difficulties in downloading the app. These insights will be critical in refining the app and ensuring it meets the needs of users, with the ultimate goal of launching a fully functional digital identity system for asylum seekers in the future. To accomplish this, it will be essential to engage in discussions with relevant states to build a collaborative framework, ultimately progressing towards a unified and secure approach to digital identification for asylum seekers.

## Digital Border Governance: A Human Rights-Based Approach



**Ms. Izza Leghtas**

Human Rights Officer  
UN Human Rights Office of the High  
Commissioner (OHCHR)

Contact: [izza.leghtas@un.org](mailto:izza.leghtas@un.org)  
[Presentation link](#)

Ms. Izza Leghtas highlighted that digital technologies offer various opportunities to facilitate safe and dignified migration, ensure timely and effective processes at borders, and prevent human rights violations, while emphasizing the importance of enhancing human rights monitoring and accountability when using digital tools. She outlined the obligations under international law that states and businesses must adhere to when implementing digital border technologies. These obligations include the right to leave a country, the prohibition of collective expulsion, the right to seek asylum, and the prohibition of discrimination. The presentation also discussed the risks associated with digital technologies, such as preventing people from leaving their country or claiming asylum, and the potential for discriminatory outcomes due to biased datasets.

Ms. Leghtas highlighted the risks of over-reliance on technology and the need for human judgment in screening processes. She also stressed that states need to develop clear and transparent processes for the deployment of digital border technologies, calling for the meaningful participation of affected communities and civil society in the decision-making process.

Ms. Leghtas advocated for the expansion of training for border authorities, highlighting the importance of equipping them with the knowledge of the risks, limitations, and human rights impacts associated with digital technologies. She also recommended that human rights impact assessments (HRIAs) be conducted by independent entities before deploying any digital border technologies. Finally, she recommended the regular monitoring and evaluation of digital border technologies to assess their effectiveness and ensure their continued compliance with human rights standards.

## Ethical Aspects of Technologies, Artificial Intelligence and Impacts on Identity Management



**Mr. Paolo Benanti**

Professor and member of the High-  
Level UN Advisory Board on Artificial  
Intelligence  
Pontifical Gregorian University, Italy

Contact: [benanti@unigre.it](mailto:benanti@unigre.it)  
[Presentation slide](#)

Mr. Paolo Benanti presented on the ethical considerations surrounding AI and its application. His presentation centered around two key takeaways and actionable recommendations to guide the development and deployment of AI systems, particularly in sensitive areas such as border control. Firstly, Mr. Benanti emphasized the importance of addressing ethical considerations in technology. He discussed the need for a clear focus on ethics during the development and implementation of digital technologies to ensure transparency and prevent the displacement of power. He also stressed that as AI technologies evolve, particularly in areas like border control, it is crucial to consider their societal impact and ensure they do not unintentionally harm or marginalize vulnerable populations.

Mr. Benanti further highlighted the critical role of human involvement in AI decision-making. While AI systems can be highly effective, Mr. Benanti pointed out that human oversight remains essential to ensure that decisions made by AI are ethical and informed. Over-reliance on automated processes could result in unintended consequences, making it vital to integrate human judgment throughout the decision-making loop.

Building on these takeaways, Mr. Benanti recommended to develop ethical guidelines for the implementation of digital technologies, particularly in areas such as border control. These guidelines should prioritize transparency and accountability, ensuring that AI systems are deployed in a way that protects human rights and minimizes the potential for misuse. The second recommendation was to enhance human-AI collaboration by ensuring that human expertise is integrated into the AI decision-making process. This could be achieved through targeted training programs and protocols designed to balance the benefits of automation with the critical need for human oversight.

## Introduction to the National Immigration Administration of China on Leveraging Information Technology to Facilitate Customs Clearance



**Mr. Wang Tuanwei**

Deputy Director  
Application Management Division  
Department of Information and  
Technology  
National Immigration Administration  
(NIA)  
Peoples' Republic of China

Contact: wangtuanwei@nia.gov.cn

Mr. Wang Tuanwei presented on the innovative use of information technology to facilitate exit-entry processes and improve border management. His presentation focused on the NIA's ongoing efforts to leverage technology to enhance the efficiency, security, and convenience of border control systems.

Mr. Wang introduced several key initiatives that the NIA has implemented to streamline border management. These included the introduction of interactive Advance Passenger Information (iAPI), PKI, and electronic port visas, all of which are designed to enhance the speed and security of the customs clearance process. He also highlighted various innovative measures developed by the NIA for more efficient and secure border management. To facilitate international travel, the NIA has introduced pilot business inspection processes, online applications, and one-stop inspection modes. These innovations aim to reduce waiting times and simplify the customs clearance experience for international travelers, making the overall process more efficient and user-friendly.

Looking toward the future, Mr. Wang discussed the NIA's commitment to improving transit and inspection services. He emphasized NIA's ongoing efforts to explore and implement new technologies, as well as its willingness to collaborate with international partners to find innovative solutions for ensuring safer and more convenient global travel.





## Improving the Migration Processes with Innovative Technology



**Vice Admiral Miguel Idelfonso Amézaga Ramírez**

Director of Airports and Maritime Ports  
National Immigration Institute  
International Airport of Mexico City (AICM)  
Government of Mexico

Contact: [mamezaga@inami.gob.mx](mailto:mamezaga@inami.gob.mx)  
[Presentation link](#)

Vice Admiral Miguel Idelfonso Amézaga Ramírez provided an overview of how the Mexican Government has managed the transition towards the implementation of eGates at major international airports and the shift from paper-based to digital Immigration Forms (FMM), explaining the main steps taken from the technology, legal, procedural, and human resources management perspectives. The implementation of E-Gates in six international airports aims to streamline the immigration process by reducing the workload for migration authorities and improving efficiency. With 64 E-Gates currently operational, there are plans to expand this initiative to additional airports and increase the number of eligible countries.

The transition from paper-based FMM to digital format has been a significant part of the modernization process. This required changes to national legislation, change management within immigration agency, and procedural changes. Once such changes were implemented, the digitalization of the FMM resulted in faster processing times and enhanced traveler experience, reducing the burden on immigration authorities and providing more convenient immigration procedures for visitors.

Vice Admiral Ramírez highlighted the importance of collaboration with various stakeholders, addressing legal, technical, and technological challenges during the transition from manual to digital based immigration clearance. Additionally, training sessions for immigration officers were conducted to ensure that they were familiar with the new systems and processes, helping to ease the transition to the new technologies.

## Becoming a Visa-free Nation - Kenya's Digitalization Experience



**Ms. Evelyn Cheluget**

Director General  
Immigration Services  
State Department for Citizen Services  
Republic of Kenya

Contact: [evelinecheluget@gmail.com](mailto:evelinecheluget@gmail.com)  
[Presentation link](#)

Ms. Evelyn Cheluget presented on Kenya's digitalization efforts in immigration, particularly the implementation of the Electronic Travel Authorization (eTA) system, introduced in January 2024. The initiative aims to streamline the visa process, enhance security, and help position Kenya as a global tourism and economic hub. The eTA system allows for faster passenger clearance by conducting real-time risk assessments and securing data before a passenger's arrival. The process involves applying online, uploading documents, making secure payments, and receiving approval through a single platform.

Ms. Cheluget highlighted the benefits of eTA, including more efficient processes, access to rich data, and improved decision-making through pre-screening and real-time traveler data. She added that despite the success, challenges such as cybersecurity concerns remain, requiring regular testing and cooperation with stakeholders. Ms. Cheluget emphasized the importance of comprehensive training and public awareness to ensure smooth adoption of the system, and added that digital immigration program is now a benchmark for digitalization in Africa and demonstrates the country's proactivity in digitizing immigration processing. As a key takeaway, facilitating seamless immigration requires strong security management and mechanisms for effective assessment, clearance, and addressing public security concerns.

## Border Management Strategies and Facilitation Schemes to Enhance Visitor Experiences, Maximizing Development Benefits from Trade, Tourism, Talent, and Labor Mobility



### Maj. Gen. Apollo Kasiita-Gowa

Director  
Directorate of Citizenship and Immigration Control  
Republic of Uganda

Contact: [apollo.kasiita@immigration.go.ug](mailto:apollo.kasiita@immigration.go.ug)

[Presentation link](#)

Major General Apollo Kasiita-Gowa's presentation focused on Uganda's innovative approaches to border management, emphasizing the importance of integrating technology to streamline entry and exit procedures while maintaining robust security standards. He highlighted Uganda's adoption of biometric identification, e-gates, and digital visa processing, which have significantly reduced wait times and administrative burdens for travelers. The e-visa system has simplified the visa application process, eliminating long queues, while the biometric system ensures faster and more secure border clearance. Additionally, Uganda is working toward integrating data from all border points to facilitate real-time monitoring and decision-making, which enhances both efficiency and security.

The strategies discussed also focus on tailoring facilitation schemes to meet the needs of various traveler categories, such as business professionals, tourists, and skilled labor migrants. Uganda has introduced an East African Tourist Visa to facilitate regional travel, and fast-track lanes for pre-registered travelers help streamline entry for investors and frequent visitors. These measures, along with one-stop border posts (OSBPs) and improved interagency cooperation between customs, immigration, law enforcement, and neighboring countries, are designed to ensure timely decision-making and foster stronger international partnerships. Uganda's border management system also aims to maximize development benefits, with visa issuance growth and faster tax clearance helping to support tourism, business, and trade.

Major Kasiita-Gowa highlighted that despite significant progress, Uganda faces challenges such as infrastructure gaps at remote border points and a growing number of refugees due to regional instability. The country currently hosts 1.5 million refugees, adding complexity to border management. To address these challenges, Uganda has committed to continuous training for border officials and further development of its border infrastructure.



## Integrating Training Programs for Border Management Authorities in the Humanitarian Border Management Context



### General Mohamed Rashwan

Head  
Human Resources and Capacity Building Sector  
Egyptian Customs Authority

Contact: mohamed.rashwan@customs.gov.eg

### Brigadier General Mostafa Reda Mohammed Elmorsy Soliman

Head of Peace Division, Liaison Agency with International Organizations (LAWIO)  
Ministry of Defense

Contact: mostafa\_elmorsy197580@yahoo.com

### Major General Tarek Refat Abdelrahman Elnagdy

Head of the Medical Military Academy  
Ministry of Defense  
The Arab Republic of Egypt

Contact: tnagdy@yahoo.com

The joint presentation from the Arab Republic of Egypt highlights the country's efforts to enhance border management including during crises, and address key challenges such as human trafficking and cybercrime. Central to these efforts is the implementation of six joint training courses, aimed at fostering expert exchange and improving techniques for effective border security. These courses cover a wide range of topics, including humanitarian border management, search and rescue operations, medical-related training for military personnel, and psychological support for migrants, particularly in conflict zones. Additionally, specialized training in mental health care, trauma life support, and advanced cybersecurity for IT departments is provided.

Egypt has also focused on enhancing the capacity of border forces and medical teams to address the complex needs of migrants and refugees, particularly in regions affected by conflict. One notable initiative is Egypt's collaboration with NGOs and UNHCR to ensure that migrants have access to healthcare, particularly in light of the health risks posed by the ongoing conflicts in Gaza, Yemen, and Sudan. The country's universal health insurance system, coupled with partnerships for initiatives like the 100 Million Seha Campaign, ensures that migrants are included in essential healthcare programs. In addition to healthcare, the Egyptian Customs Authority plays a crucial role in enhancing security, preventing smuggling, and supporting the economy through advanced technological measures such as X-ray scanning, big data analysis, and real-time container tracking systems, all necessary systems to address the challenges posed by increasing trade volume and the increase sophistication of smuggling techniques.

The presentation underscored the importance of inter-institutional collaboration and continuous capacity building for the successful implementation of integrated border management. Given Egypt's geopolitical position and its proximity to ongoing regional conflicts, these efforts are essential for managing borders effectively while ensuring the safety and well-being of migrants. Moving forward, Egypt is focused on advancing digital transformation of its customs systems, strengthening international partnerships, and developing modern training programs to adapt to the evolving landscape of border management.





## 1.2. Expert Outlook from Day 3

### Legal Identity and Civil Registration/Vital Statistics systems in Asia Pacific



**Ms. Tanja Brøndsted Sejersen**

Statistics Division  
The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

Contact: [sejersent@un.org](mailto:sejersent@un.org)

[Presentation link](#)

Ms. Tanja Brøndsted Sejersen delivered a presentation on the critical role of Civil Registration and Vital Statistics (CRVS) systems in achieving sustainable development and legal identity for all. She highlighted CRVS as the foundation for registering vital events such as births, deaths, marriages, and causes of death, providing individuals with legal identity and facilitating access to essential services and societal participation, stating that these systems are integral to national ID frameworks, digital government services, and the realization of human rights.

Ms. Sejersen underscored that ESCAP's Asia-Pacific CRVS Decade (2015–2024) set an ambitious regional vision for universal, responsive, and inclusive CRVS systems by 2024. This initiative is guided by three goals: ensuring universal registration of vital events, providing individuals with the necessary legal documentation, and producing accurate, complete, and timely vital statistics. Progress has been made, but gaps in birth and death registration completeness persist, with marginalized populations—such as migrants, refugees, stateless individuals, and those living in remote areas—being disproportionately affected. She presented the key challenges to CRVS implementation include under-prioritization, outdated systems, parallel and poorly coordinated processes, insufficient skills (notably for certifying causes of death), outdated legislation, and barriers faced by vulnerable groups based on gender, income, geographic location, or ethnicity.

Looking forward, the Third Ministerial Conference on CRVS, scheduled for June 2025, will focus on accelerating action, addressing inclusivity and resilience, and potentially extending the CRVS Decade to 2030. The conference will involve multisectoral participation and culminate in a ministerial declaration. It is supported by ESCAP and numerous development partners, underscoring the critical need for collaborative efforts to strengthen CRVS systems and ensure that no one is left behind.

### Civil Registration - Strengthening confidence in Identity and Border Security



**Mr. Jeff Montgomery**

Adviser  
Civil Registration and Vital Statistics  
Pacific Community - Communauté du Pacifique (SPC)

Contact: [jeffmontgomerynz@gmail.com](mailto:jeffmontgomerynz@gmail.com)

[Presentation link](#)

Mr. Jeff Montgomery presented on emerging work in the Pacific to modernize civil registration systems through open-source solutions, which support easier interoperability with identity and border security systems. He highlighted that as the premier technical and scientific organization in the Pacific, SPC supports diverse sectors including public health, education, human rights, and statistics, where CRVS emerges as a pivotal ecosystem connecting government functions with societal needs. Beyond the foundational tasks of birth and death registration, CRVS systems are integral to national identity frameworks and intersect with areas such as education, health, and border management. Despite their importance, these systems often face challenges related to insufficient resources and technological advancement.

Mr. Montgomery presented an example from Niue, which showcased the successful implementation of an open-source CRVS system. Previously reliant on paper-based processes vulnerable to data loss and inefficiency, Niue transitioned to a secure, interoperable system within nine months. The new system, developed with open-source technology, allowed the country to store and control its data while connecting with other government systems such as immigration, education, and passport services. A subsequent phase linked Niue's CRVS system with New Zealand's passport database, exemplifying cross-border interoperability. Mr. Montgomery emphasized the need for tailored CRVS solutions, noting that while population size may not be a primary concern, the system's alignment with the specific data and operational needs of a country is crucial.

Key takeaways highlighted the dual benefits of CRVS for individuals and society, including accurate population statistics, informed policy-making, and improved service delivery. The open-source approach demonstrated that CRVS systems could be both secure and adaptable, fostering interoperability at intra-national, cross-national, and regional levels. Mr. Montgomery urged participants to explore opportunities for integrating CRVS with broader government functions, reinforcing that “CRVS is an ecosystem where different elements of the government work together to ensure that people and society receive the service they need.”

## Documenting Vulnerable Migrants in a Digital World



### Ms. Patrícia Zucca

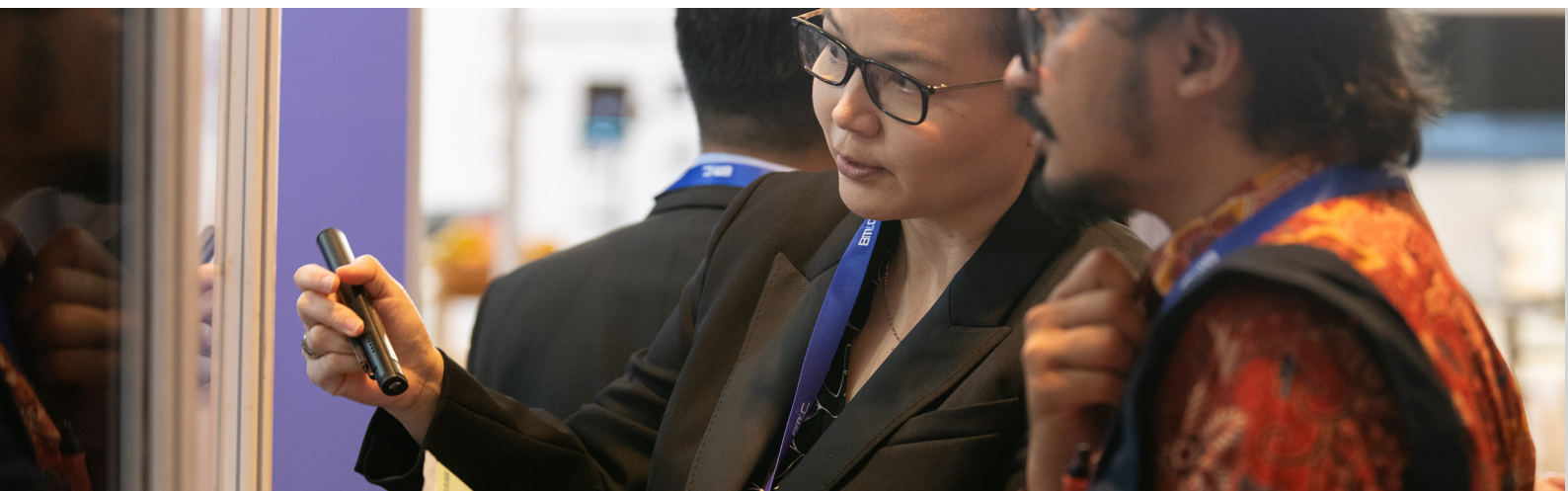
Head of the Foreigners Documentation and Registration Unit in São Paulo  
Federal Police Commissioner  
Federative Republic of Brazil

Contact: [patricia.pz@pf.gov.br](mailto:patricia.pz@pf.gov.br)  
[Presentation link](#)

Ms. Patrícia Zucca provided an overview of Brazil's migration policy, emphasizing its inclusive approach, which regards migration as a valuable socio-economic and cultural contribution. With approximately 1.9 million migrants, including 700,000 asylum seekers, Brazil has implemented robust mechanisms to ensure that migrants can access rights such as residency and work permits. Migrants, regardless of status, are encouraged to register with Brazil's CRVS system, enabling them to exercise their civil rights.

Ms. Zucca highlighted that the migration registration process is streamlined to minimize in-person visits. Migrants submit documents online, attend a single on-site meeting for biometric data collection and verification, and are screened against domestic and international criminal records. Temporary Foreigners' ID Protocol Cards allow migrants to exercise their rights while awaiting permanent documentation. However, challenges persist, including the complexity of legislation, high labor intensity for authorities, and barriers faced by vulnerable migrants, such as digital exclusion, language difficulties, and fear of engaging with state authorities.

To address these challenges, Ms. Zucca presented Operation Horizon in 2022, which was initiated in São Paulo. Serving a city that registers 80,000 migrants annually, this initiative focuses on documenting vulnerable migrants excluded from digital systems. Through a multi-agency approach involving the federal, state, and local governments, civil society organizations (CSOs), and international partners such as IOM and UNHCR, the program provides pre-screening and orientation through CSOs, reducing the burden on migrants to navigate complex processes. Looking forward, Brazil plans to modernize its registration processes to enhance efficiency and empower migrants to navigate the system independently.



## An outlook on the 2040 Identity Ecosystem



### Mr. Fons Knopjes

Fellow at the University of Texas (US) and member of the board of advisors of Center for Identity

Contact: Fons.knopjes@pm.me



### Mr. Nelson Goncalves

Head of the Legal Identity Unit, Immigration and Border Governance Division  
International Organization for Migration (IOM)

Contact: ngoncalves@iom.int  
[Presentation link](#)

Mr. Fons Knopjes and Mr. Nelson Goncalves, presented the outcomes of the Expert Meeting on Identity Management - in Future 2040 (EM 2024). They emphasized that the ID ecosystem enables individuals, governments, and private organizations to securely interact based on registered and identified IDs, both physically and digitally, from a trusted source. The presenters stressed the importance of adaptable frameworks to address rapid technological changes, intergovernmental collaboration, and resource sharing to reduce costs while maintaining protection and access for migrants. Privacy and security were underscored as critical pillars, requiring continuous refinement. Technological advances and societal needs are reshaping public-private partnerships, but progress varies globally due to high costs and inconsistent standardization.

Key issues discussed included the complex interplay of ethical, legal, technical, and organizational factors, such as how to standardize access to documents, implementation, and access to personal identifiable information. The presenters noted the need for proactive legal frameworks, as technological solutions like APIs can advance faster than the approved legal frameworks. They also emphasized the role of integration of AI and data science into the development of identity ecosystems in enhancing registration, reducing duplication, and streamlining identity systems, while highlighting the importance of global regulatory frameworks to align AI with rights-based principles, inclusivity, interoperability, and privacy, versus the challenges related to the risk of bias and the necessity for ethical design, with the inclusion of “kill-switches” for AI applications in identity management.

The presenters emphasized that future directions in identity management should focus on addressing global disparities in standardization and affordability, while ensuring that technological advancements reshape public-private partnerships. “The identity system by 2040 should be inclusive by design, able to accommodate vulnerability and prevent data misuse.” They also noted the importance of overcoming challenges such as cost, privacy-security concerns, technological change, and the need for intergovernmental collaboration, resource sharing, and trust-building.





## BioHub



### Mr. Fabrizio Di Carlo

Senior Coordinator  
Forensics and Police Data Management  
Interpol General Secretariat

Contact: [f.dicarlo@interpol.int](mailto:f.dicarlo@interpol.int)

Mr. Fabrizio Di Carlo and Mr. Marian, presented on Interpol's fingerprint and facial image databases reviewing the different notices issued for wanted persons, suspects, dangerous individuals, missing persons, and unidentified bodies. The presentation also covered the Interpol Biometric Hub, a secure gateway for fingerprint and facial image search requests, which interfaces with Interpol's databases for biometric data and support identification of individuals including when travelling abroad, and offering a necessary complement to the nominal and document related alert lists. The Biometric Hub supports the INTERPOL NIST Standard and incorporates advanced biometric technology for near real-time responses and robust data governance to securely handle sensitive biometric data. The Hub has expanded to include DNA data, enhancing its policing capabilities. It is also mobile-friendly, enabling frontline law enforcement personnel to access it, and facilitates national data sharing by forwarding search requests to national biometric systems.



### Mr. Marian Strycek

Deputy Director of the Risk Analysis and  
Coordination Unit  
Bureau of Border and Foreign Police,  
Presidium of the Police Force  
Government of Slovakia

Contact: [marian.strycek@minv.sk](mailto:marian.strycek@minv.sk)  
[Presentation link](#)

The speakers emphasized the importance of the Biometric Hub for international cooperation in criminal investigations, underlining its critical role in improving the efficiency and speed of cross-border policing and data sharing.



## The Future of Borders vs Borders of the Future: The Responsible Use of Biometrics to Counter-Terrorism



### Mr. Rocco Messina

Head of the Border Security and Management Unit  
United Nations Office of Counter-Terrorism (UNOCT)

Contact: [messinara@un.org](mailto:messinara@un.org)  
[Presentation link](#)

Mr. Rocco Messina discussed the role of biometrics as an effective tool in responding to security threats posed by terrorism and Foreign Terrorist Fighters (FTFs). Biometrics are a powerful asset in counterterrorism efforts and should be integrated as part of a comprehensive approach to border management provide human rights safeguards are in place, and their use is necessary, proportionate, and aligned with a legitimate aim. Mr. Messina underscored the necessity of ensuring that data protection laws explicitly covers biometric data and that strict safeguards are implemented to prevent misuse and unauthorized access to biometric data.

A key aspect of the presentation was the enforcement of purpose limitation in biometric authentication systems. Mr. Messina emphasized that such systems must be used only for their intended purposes and adhere to the principles of necessity and proportionality. Periodic reviews of these systems were recommended to ensure compliance with these standards. In terms of good practices for promoting and protecting human rights in the context of biometric data collection, Mr. Messina recommended establishing effective data management policies to ensure clear guidelines for the collection, processing, sharing, storing, and deletion of biometric data. Finally, Mr. Messina highlighted the importance of managing and mitigating risks associated with false positives to prevent discriminatory impacts or adverse effects on the fundamental freedoms of individuals.

## Development of New Approaches to Border Protection and Governance in Light of the Risks and Threats Associated with Irregular Migration



### Colonel Igor Cherepkov

Advisor to the Director of the Border Guards Service of the National Security Committee  
Republic of Kazakhstan

Contact: [gtabynbayeva@iom.int](mailto:gtabynbayeva@iom.int)

Colonel Igor Cherepkov presented Kazakhstan's efforts to address border security risks, reporting that the country intercepted more than 200 incidents of irregular entry in 2024. Due to Kazakhstan's vast geographical expanse and harsh temperature variations along its borders, the country has tailored its border management policies to effectively respond to these challenges.

Colonel Cherepkov reported that the government has implemented advanced technical equipment and remote border control systems to monitor and secure remote area, including autonomous technical solutions in rural regions to reduce costs while ensuring effective border control, and automated checkpoint systems at border points to increase processing capacity, ensure the efficient flow of people and goods, and enhance the reliability of border control operations. Kazakhstan has also integrated an inter-agency information storage system, API, and PNR systems into its border control mechanisms to improve efficiency and coordination between agencies. These systems have helped streamline the customs and immigration process, contributing to a more comfortable experience for travelers. Kazakhstan's collaboration with international migration organizations has significantly strengthened its ability to regulate migration flows and address irregular migration. By sharing information and aligning strategies with global partners, Kazakhstan continues to improve its capacity to address border management challenges.

## Border Management Strategies and Facilitation Schemes to Enhance Visitor Experiences, Maximizing Development Benefits from Trade, Tourism, Talent and Labor Mobility



**Lieutenant Colonel Ghazi Ali Al-Subaie**

Director  
Research and Follow-up Department  
at the Nationality, Passports and  
Residence Affairs (N.P.R.A)  
The Kingdom of Bahrain

[Presentation link](#)

Lieutenant Colonel Ghazi Ali Al-Subaie presented the new Bahraini E-passport, highlighting its advanced security features and machine-readable information designed to enhance movement control. He emphasized several sophisticated security measures incorporated into the passport to prevent counterfeiting and fraud, including rainbow print, security screen, latent image, multicolor intaglio print, intaglio microtext. He further highlighted that the Bahraini E-passport is crafted with high-quality materials and advanced specifications, complying with international standards. It simplifies visa processing and provides visa exemptions for holders in numerous countries worldwide. It was noted that the Bahraini E-passport has received global recognition, having won the “Best New Passport for 2024” award in the Europe, Middle East, and Africa region at the High Security Printing Awards. This recognition underscores the passport’s cutting-edge security features and its international acclaim.

## Integrated Border Management: NADRA's experience



**Mr. Asim Majeed**

Deputy Director  
National Database and Registration  
Authority (NADRA)  
The Islamic Republic of Pakistan

Contact: muhammad.asim@nadra.  
gov.pk

[Presentation link](#)

Mr. Asim Majeed presented Pakistan’s NADRA technological solutions and expertise in border control and citizen registration. The presentation outlined NADRA’s role in streamlining border management and enhancing security, focusing on the integration of digital systems and biometric technologies. A key aspect of the presentation was the Integrated Border Management System (IBMS), which has been deployed at airports, land ports, and seaports across Pakistan. The IBMS has processed over 210 million travelers, playing a critical role in the country’s border security infrastructure. In addition, the system integrates with APIs and PNR data to improve passenger data management, security, and efficiency.

Mr. Majeed presented NADRA’s key achievements, including registering 144.6 million citizens and creating 76.1 million biometric profiles, processing 1.3 billion matches per second, and handling over 300 million biometric verification transactions annually. The authority’s technological infrastructure includes indigenously assembled devices, such as handheld tablets with integrated IRIS cameras, ICAO-compliant imaging, and secure, portable designs. NADRA’s digital governance initiatives encompass a range of services, including national ID cards, e-justice services, and tax filing systems, which contribute to Pakistan’s broader digital transformation. Furthermore, NADRA has revamped services such as Pakistan’s Online Visa and Passport systems, facilitating convenient and efficient processing for travelers. NADRA’s role extends beyond border control, encompassing national citizen ID solutions, exit control mechanisms, and integrated passport management systems. Its partnership with other agencies, such as the Civil Aviation Authority (CAA), further strengthens Pakistan’s integrated border management capabilities.



## Pioneering Digital Transformation in Border Control and Identity Management: Nigeria Immigration Service's Perspective



### Ms. Kemi Nanna Nandap

Comptroller General of Immigration  
(CGI)  
Nigeria Immigration Service  
Federal Republic of Nigeria

Contact: [kn.nandap@immigration.gov.ng](mailto:kn.nandap@immigration.gov.ng)  
[Presentation link](#)

Ms. Kemi Nanna Nandap presented Nigeria's ongoing digital transformation journey in border control and identity management, highlighting how advanced technologies have significantly improved the country's border security operations. The focus of the presentation was on the technologies that Nigeria opted for to improve security and streamline border inspection. The E-Gates have drastically reduced passenger processing time to under 30 seconds. The I-API/PNR was deployed to anticipate pre travel screening via the interactive system that supports intelligent, target-based border security and facilitates inter-agency collaboration. An Intelligent Video Surveillance allows for real-time video monitoring of Nigeria's land borders, contributing to enhanced border surveillance.

Ms. Nandap also highlighted IOM's developed MIDAS deployment as a critical element of Nigeria's digital transformation in border control, is integrated with several important databases, including Nigeria's Watch List, INTERPOL's Stolen and Lost Travel Documents database, and the TDAWN Database. These systems collectively work to enhance border security, ensuring that individuals with fraudulent or suspicious documents are identified and preventing irregular border crossings. MIDAS in Nigeria is also used for foreigner registration for purpose of regularization, and allows better cooperation on cross border crimes with the neighbor Niger.

## The Importance of the Border and the Management of Border Affairs



### Dr. Javad Radka

Deputy Bureau of Border Affairs and  
Border Residents  
Ministry of Interior  
The Islamic Republic of Iran

Contact: [Radka\\_javad@yahoo.com](mailto:Radka_javad@yahoo.com)  
[Presentation link](#)

Dr. Javad Radka provided an overview of Iran's comprehensive efforts to strengthen border control and combat smuggling and organized crime. The speaker highlighted the country's strategic measures in border management, focusing on enhancing preparedness to address border security threats, fostering regional cooperation, and addressing vulnerabilities at various border points. Several key measures were outlined to improve border management, including enhancing training for border guards to ensure effective enforcement of border controls. Iran has also established infrastructure and procedures for issuing electronic visas and incorporated modern technologies, such as advanced surveillance systems, to increase border security. The effectiveness of preventive management was further emphasized, along with the organization of regular border meetings to improve coordination and address ongoing issues. To strengthen physical control, Iran has strengthened its border infrastructure, while also creating an integrated management system for land entry and exit points. In addition, regulations for managing air, land, and sea borders have been standardized.

Dr. Radka also discussed the importance of implementing economic and social development programs at border areas, aimed at creating productive employment, improving educational facilities, and upgrading infrastructure, particularly biometric systems at border gates. A special border task force, led by the Ministry of Interior, has been established to oversee these activities. The speaker concluded by emphasizing the importance of considering the unique internal conditions of each country when designing and implementing border control policies, ensuring that financial resources and programs are tailored to meet the specific regional needs.

## Report from the ICAO ICBWG



### Mr. Dion Chamberlain

Chair ICAO ICBWG, Lead ICAO  
DTC Policy Sub-Group  
Director, International and Product  
Strategy  
Department of Internal Affairs  
New Zealand

Contact: [dion.chamberlain@dia.govt.nz](mailto:dion.chamberlain@dia.govt.nz)

[Presentation link](#)

Mr. Dion Chamberlain provided an update on the ICAO Implementation and Capacity Building Working Group (ICBWG). ICBWG offers to states and stakeholders support to navigate the evolving landscape of identity management and border security, providing support on technology advancements and good practices to facilitate seamless travel. It also fosters closer cooperation and provides guidance on foundational standards and specifications for the identity ecosystem.

Mr. Chamberlain outlined the passport evolution timeline, covering the transformation from machine-readable passports to ePassports and, more recently, to Digital Travel Credentials (DTC). He noted that digital transformation in this space typically happens every 20 years, underlining the significant change occurring in the sector. As of December 2024, over 165 countries are issuing ePassports, and 101 countries are members of the ICAO's Public Key Directory (PKD). He highlighted ongoing challenges in the identity ecosystem related to border management. Of the 300 foreign nationals' ePassports inspected under DTC pilots, 190 showed cryptographic issues affecting validation. Further research by the ICBWG found that, out of 140 ePassports, 55 had defects preventing verification, and 25 had large cryptographic defects. Mr. Chamberlain stressed the need to address these foundational issues to ensure the integrity of the system, which is essential for integrating future innovations and advancing DTC. He emphasized that the ICBWG provides a critical platform for discussions, collaboration, and support. Through its initiatives, the ICBWG helps countries navigate complex challenges related to identity management.

One of the ICBWG's key contributions is its lab accreditation scheme, which allows countries to receive certification from ICAO for compliance with technology standards. The ICBWG is also working with ICAO's PKD to gather data and identify non-compliance issues from state uploads. Additionally, the group provides a space for countries to voice their opinions on international standards and consult on document issuance. Mr. Chamberlain's key recommendation was to enhance international collaboration to uphold the integrity and drive the continued advancement of identity management systems, with ICBWG playing a vital role in supporting countries as they navigate these challenges.



## 2. Evidence of Identity: Striking a Balance Between Trust and Truth

### Securing Public Trust in the Use of Biometrics

Mr. Jakob Dam Glynstrup outlined the importance of securing public trust in the utilization of biometrics, particularly given its expanding application in various domains, including border control and immigration. He began by emphasizing that trust is like money in the bank: it takes time to build but is easy to lose. His presentation focused on strategies to ensure public trust in the use of biometrics in the fields of identity management and immigration. Mr. Glynstrup referred to the Three Laws of Biometrics and presented three key rules: always do it right, communicate by being as transparent as possible, and continuously evaluate systems and processes. He underscored that deploying biometrics is just the start of the journey. He described biometrics not as a short-term effort, akin to speed-dating, but as a long-term relationship requiring careful planning and risk management. To achieve this, it is essential to prioritize fairness and inclusion, establish a clear purpose, and ensure public awareness. Mr. Glynstrup stressed the importance of asking, “Just because we can, should we?” as part of adopting a responsible approach to biometrics. Solid procedures must be established when operating biometric systems, with continuous evaluation to ensure effectiveness, as what works today may not work tomorrow. Finally, he highlighted that dialogue and transparency with stakeholders and the public are critical to fostering understanding and trust.



**Mr. Jakob Dam Glynstrup**

Head of the Danish National ID  
Centre  
Danish National ID Center  
Kingdom of Denmark

Contact: [jg@nidc.dk](mailto:jg@nidc.dk)  
[Presentation slide](#)

### Root Identity: The Roadmap to Standardization of Breeder Documents and Data

Mr. Hofstetter provided valuable insights into the development of a path from need to action currently being undertaken by the European standardization body CEN. This initiative focuses on creating both a technical and trust-based framework under CEN TS 17489 for foundational documents, with a strong emphasis on birth certification. He highlighted the importance of clarifying the concept of identity, which encompasses various elements such as the body, mind, soul, date of birth, and other background information. He also discussed digital credentials, including cards and passports, as essential components of modern identity systems. Additionally, he referenced the ICAO guide on Evidence of Identity (EOI) Principles, emphasizing its relevance to this work. A key challenge he identified is that breeder documents, which serve as the foundation for identity, can, in some cases, be easily forged. He stressed that secure data is not useful unless the data itself is reliable. Mr. Hofstetter outlined the details of the standards currently under development, noting that while this is a European standard, it will offer valuable guidance to countries worldwide. Foundational identity, he explained, is more than just a piece of data stored in a database or printed on a certificate; it also involves trust in the processes that underpin identity systems. He encouraged collaboration by welcoming comments and contributions, whether informally or through participation in the working group.



**Mr. Stephan Hofstetter**

European Committee for  
Standardization (CEN)  
Editor CEN prTS 17489-5, Delegated  
Expert SNV

Contact: [stephan.hofstetter@secoia-excon.com](mailto:stephan.hofstetter@secoia-excon.com)  
[Presentation slide](#)



## Finnish Digital Travel Credentials (DTC) Pilot

Mr. Christoffer Bonn presented the Finnish DTC pilot, which marked the first successful implementation of a Digital Travel Credential type 1 in a border crossing. His presentation explored the enrolment and border crossing processes, as well as the results and levels of customer satisfaction. The pilot also included defect management and a study on digitizing the European residence permit into a QR code. Mr. Bonn explained that while there is currently no legislation governing DTCs, the pilot provided valuable insights into the potential next steps in the evolution of travel. With passenger numbers in air travel steadily increasing, the need for new, efficient solutions has become apparent. Public surveys revealed strong support for the use of DTCs, with 90% of respondents favoring their implementation to enable seamless travel. He emphasized that DTC type 1 represents the future of travel. It offers significant benefits by improving border security and expediting traveler processing. However, the success of the DTC relies on its trust anchor being tied to a government-sponsored identity, as there are too many fake DTCs in circulation. Additionally, Mr. Bonn stressed that defect management is crucial to the system's effectiveness; without it, an excessive number of false positives could create significant delays at border crossings.



**Mr. Christoffer Bonn**

Chief Technology Officer  
Finnish Immigration Service  
Republic of Finland

Contact: [christoffer.bonn@migri.fi](mailto:christoffer.bonn@migri.fi)  
[Presentation link](#)

## Mobile ePassport – DTC Type 1 + ePassport Reapplication Use Case

Ms. Fabiola Bellersheim presented the innovative implementation of mobile ePassports in Bangladesh, focusing specifically on leveraging Digital Travel Credential (DTC) Type 1 reapplication via mobile devices. She explored how mobile ePassports can enhance the efficiency, security, and convenience of identity verification processes for citizens of Bangladesh. She was joined by Lt. Col. Mohammad Faisol, the Deputy Project Director of the ePassport and Automated Border Control Management Project in the Department of Immigration and Passports, Bangladesh.

Together, they highlighted the practical applications of mobile technology in modernizing identity systems. Ms. Bellersheim emphasized that mobile passports are a complementary solution designed to facilitate specific use cases, rather than replacing physical passports entirely. Physical passports will remain necessary as long as at least one country continues to issue visa stickers. She also stressed that security mechanisms for digital ID documents must be continuously improved to prevent digital manipulation. In her discussion, Ms. Bellersheim detailed the integration of mobile technology with ePassports, explaining how users can securely reapply for ePassports through their mobile devices. This approach offers a streamlined and user-friendly solution, further advancing the digital transformation of identity systems.



**Ms. Fabiola Bellersheim**

Vice President  
Head of Sales Asia and Caribbean  
Veridos GmbH

Contact: [fabiola.bellersheim@veridos.com](mailto:fabiola.bellersheim@veridos.com)



**Lt. Col. Mohammad Faisol**

Deputy Project Director  
Department of Immigration and Pass-  
port, Bangladesh

Contact: [dpd\\_dc@passport.gov.bd](mailto:dpd_dc@passport.gov.bd)  
[Presentation link](#)

## Good-bye to eGates? The Future Border is Face Only

Mr. Steven Grant discussed how most biometrically-secured borders today rely on heavy, expensive infrastructure, much of which was installed long before the recent advancements in remote identity technologies and the introduction of the ICAO Digital Travel Credential (DTC). He highlighted how governments are now implementing biometric ETA/visa systems or enhancing legacy systems with an additional layer of biometric security. A notable trend is the “exporting” of the border, where identity checks are conducted before travel begins, prompting an urgent need to reconsider border infrastructure. Mr. Grant argued that if passenger identity can be verified and tied to a trusted travel document before travel, there is little reason to repeat the process upon arrival. Instead, a simple face biometric scan could connect the arriving passenger to their trusted digital identity. This raises the question: could a camera alone suffice as the future of border infrastructure? To support his argument, Mr. Grant presented a case study from the Curacao Express Pass. He emphasized that the technology is ready for widespread use, as demonstrated by countries like the United States and Singapore. However, more countries need to embrace bold, innovative solutions to improve the border experience for everyone. He also noted that the purpose of e-gates is evolving. In the future, reading a passport at the gate may no longer be necessary. Passengers could complete pre-clearance from home and pass through e-gates using only their face, streamlining the entire process and enhancing convenience.



**Mr. Steven Grant**

P.Eng., Director of Business  
Development and Strategic Alliances  
Identity Verification Entrust

Contact: [steven.grant@entrust.com](mailto:steven.grant@entrust.com)  
[Presentation link](#)

## The Dutch DTC-1 Pilot Project on KLM Flights Between Canada and the Netherlands

Ms. Lisette Looren de Jong's presentation focused on the opportunities and challenges of public-private partnerships in evaluating the effectiveness of the ICAO DTC1 standard in the context of airplane boarding and border crossing. This initiative was co-funded by the European Commission. She highlighted key lessons learned from the project. One key area for improvement is the usability of the system for customers. Different phone types present unique challenges, and better guidance is needed to help passengers create their DTCs effectively. Additionally, last-minute gate changes created issues, as they were unable to contact passengers in time. In the next pilot, they plan to incorporate push notifications and address data minimization requirements to enhance communication and efficiency. Ms. de Jong emphasized that the DTC concept could significantly improve passenger facilitation and border management processes. However, large-scale adoption is crucial for the system to make a real impact. She also pointed out that the focus must remain on ensuring interoperability, as the interpretation, technical standards, and implementation of DTC initiatives and pilots can vary from country to country.



**Ms. Lisette Looren de Jong**

Program Manager Innovation Border  
Management Ministry of Justice and  
Security  
Kingdom of the Netherlands

Contact: [l.looren.de.jong@minjenv.nl](mailto:l.looren.de.jong@minjenv.nl)  
[Presentation link](#)

## Bhutan National Digital Identity Initiative and Border Management

Mr. Jacques von Benecke presented the Bhutan National Identity Initiative, highlighting the importance of the Three Laws of Biometrics. He explained that a significant amount of time was spent on policy and legislation which involved consulting with all key stakeholders, educating the public, and developing the necessary framework. The initiative also had to address challenges related to digital access, promotion, and social inclusion. It was ultimately decided not to pursue a passport with a chip, but rather to implement a digital identity system. Bhutan did not have an established identity system like some other countries, which actually made it easier for them to transition to this new digital identity framework. Mr. von Benecke raised several important questions for the panel to consider. He asked what a realistic timeline would be for digital device-based border crossings, as opposed to relying on paper passports. He also inquired when the shift to predominantly biometric-based crossings would occur, where passengers would no longer need to use a smart device or paper passport beyond the initial registration at the airport. Additionally, he questioned the influence that initiatives like IATA One-ID might have on industries linked to border control and identity management in the region.



**Mr. Jacques von Benecke**

Member of the Royal Government of  
Bhutan Technology Commission  
Royal Kingdom of Bhutan

Contact: [jacques@dhi.bt](mailto:jacques@dhi.bt)  
[Presentation link](#)

## The Digital Identity “Aadhaar” Project

Mr. Sumnesh Joshi presented on India's pioneering digital identity initiative, Aadhaar - a unique form of biometrically-linked Digital Identity that is the largest of its kind globally. This project ensures that each individual possesses a singular identity, which mitigates the risk of duplication. Aadhaar's rapid enrollment has resulted in 1.36 billion identities. Aadhaar enables seamless, paperless, and cashless service delivery, epitomized by initiatives such as Digi Yatra, which simplifies airport entry procedures. Standardization enhances interoperability, facilitating smoother cross-border interactions. However, executing such ambitious projects is not without its challenges, including ensuring data security and privacy, maintaining data quality, managing logistics, and establishing resilient architectures for continuous 24/7 online authentication. The key takeaways include the power of Aadhaar in enabling interoperability across states, where individuals can avail benefits anywhere, regardless of the state where they enrolled. This is made possible by the uniqueness of the identity and online authentication. Furthermore, Aadhaar follows a minimalistic data approach that ensures the privacy of residents. It contains only the essential information: name, address, photo, gender, date of birth, and optional details such as mobile and email. Finally, Aadhaar's architecture is built on encryption at the point of data collection, security by design, and scalability—principles that are essential to its success.



**Mr. Sumnesh Joshi**

Deputy Director General (Joint  
Secretary level)  
Ministry of Communications  
Republic of India

Contact: [sumnesh.joshi@gov.in](mailto:sumnesh.joshi@gov.in)  
[Presentation link](#)



## 2.1. Outcomes and Recommendations of Workshop 1

The Workshop on the Credible Evidence of Identity: Striking a Balance Between Trust and Truth was chaired by Ms. Isabelle Moeller, who stated that trust as the new currency requires transparency, explainability, regulation, policy, standards, and effective technology, but must not stifle innovation. Biometrics are a key enabler in creating efficiency, convenience, and security in border management, refugee management, and other applications like disaster victim identification. They can make interactions easier and safer, but only if used responsibly, ethically, and effectively.



**Ms. Isabelle Moeller**

Chief Executive  
Biometrics Institute

Contact: [isabelle@biometricsinstitute.org](mailto:isabelle@biometricsinstitute.org)

She highlighted results from the 2024 Biometrics Institute Industry Survey, which indicated that the acceptance of biometrics relies on educating citizens regarding data protection and privacy. Policy, regulation, and standards cannot keep pace. They need to be well-considered, and that takes time. Biometrics pose risks that need to be managed with proper guidance since a biometrics project's onset. Ms. Moeller highlighted that any biometrics application shall uphold the Three Laws of Biometrics: Policy first, followed by process, and then technology, ensuring the technology serves humans. She concluded her opening remarks taking inspiration from President Lincoln's Gettysburg Address translated into the world of biometrics: the use of biometric identification of the people by the people must be for the people. Hence, the central foundation of any framework for biometrics must be people.

The session provided a comprehensive update on international initiatives related to testing, piloting, and implementing new digital border management capabilities leveraging biometrics.

An overarching theme for the session was that trust is critical, with the focus on putting people at the center of border management. It was emphasized that policy development has to be at the start of any biometrics implementation, bringing all stakeholders on board. The Three Laws of Biometrics were referenced by several speakers: Policy comes first, followed by process, and then technology. Cultural differences play a role also in the application of biometrics; there is not one size fits all approach to establishing and managing identities. Standards are available and essential for identity management. Terminology was also referred to to bring the diverse audience of BMIC7 on the same level of understanding: What is a digital identity? What is a digital credential?

Presenters shared their learnings, which included the significant benefits that digital innovations are delivering to countries today. However, presentations and discussions also focused on the risks that countries must be aware of and the controls that must be planned and implemented before new technology is used. Furthermore, presenters informed of the processing efficiencies being seen with seamless travel and digital identity schemes.

It was noted that the passport is not going to go away, nor are e-gates, but the way they are used is likely to evolve. Mobile passports are just a complementary solution to facilitate certain use cases. Physical passports will stay as long as "1" country is still issuing visa stickers. Security mechanisms must be constantly improved with digital ID documents to avoid manipulation.

Attendees were made aware of risks related to defects in the encoding of passport chips and DTCs. These defects open opportunities for fraud and should be understood, remediated, and ideally managed with the support of technology applications. Other lessons for the use of DTCs included ensuring user-friendliness for usability and data minimization. User-friendliness remains a challenge that needs to be further addressed, especially with different types of hardware. While data minimization is important, there is also a need to be able to contact passengers using DTC with push notifications of gate changes, for example. Finally, countries with less established identity systems may find it much easier to go ahead with digital transformation. It was acknowledged that change is hard and takes time.

### 3. API – iAPI/PNR: Solutions for Interoperable Applications

#### The Counter Terrorist Travel Programme

Ms. Christine Bradley presented on the Counter-Terrorist Travel Programme, which focuses on capacity building and technical assistance to enhance states' abilities to identify threats and criminals using Advance Passenger Information (API) and Passenger Name Record (PNR) data, in line with UN Security Council resolutions and international standards. The program supports states across four key pillars: legal assistance to draft or amend legislation for API and PNR usage; operational support to establish data analysis units and provide tailored training; fostering industry connections to ensure consistency across air, maritime, and land transport; and technological support to link databases and ensure interoperability. Ms. Bradley emphasized the importance of collecting and analyzing aviation and maritime travel data in a unified manner, with consistent management of information from police, immigration, and security services for counter-terrorism purposes. Additionally, she highlighted the expansion of international cooperation platforms, including regional working groups, online collaborative platforms, and user community exchanges.



**Ms. Christine Bradley**

Head of the Countering Terrorist Travel Section  
Special Projects and Innovation Branch  
United Nations Office of Counter-Terrorism (UNOCT)

Contact: [christine.bradley@un.org](mailto:christine.bradley@un.org)  
[Presentation link](#)

#### The EU Data Protection Regime and Its Impact on Travel

Mr. Mikko Hakkarainen's presentation focused on the EU Data Protection Regime, particularly the General Data Protection Regulation (GDPR), and its implications for international travel. He began by outlining the core principles of GDPR, such as lawfulness, fairness, transparency, purpose limitation, data minimization, accuracy, storage limitation, integrity, confidentiality, and accountability. These principles govern how data should be collected, processed, and stored, with an emphasis on clear rules regarding access and management. He discussed the stakeholders involved, including travelers, carriers, transport hubs, and border authorities, and highlighted their benefits and the impacts and challenges encountered. Mr. Hakkarainen's presentation highlighted several key challenges across stakeholders, including cross-border data transfers and regulatory discrepancies, high compliance costs—particularly for smaller entities, and the evolving technologies and biometric data security concerns. Despite these challenges, he emphasized the opportunities presented by GDPR, which has transformed data practices in international travel, improving data protection and increasing transparency. He also raised questions about global standardization and the role of international actors, while stressing the need to ensure that the legal regime keeps up with rapid technological developments.



**Mr. Mikko Hakkarainen**

Team Leader Document Security & Identity Management, European Commission  
Directorate-General Migration & Home Affairs  
Unit B1 – Schengen and External Borders  
European Union

Contact: [mikko.hakkarainen@ec.europa.eu](mailto:mikko.hakkarainen@ec.europa.eu)  
[Presentation link](#)

## The National Traveler Security Centre

Ms. Areej Alzahrani's presentation focused on the work of the National Traveler Security Centre (NTSC) in the Kingdom of Saudi Arabia, which plays a pivotal role in enhancing traveler security and experience. The Kingdom utilizes advanced technologies, including the API Data Single Window, to facilitate safe and smooth travel. The NTSC supports information sharing, risk analysis, economic sustainability, crisis management, and traveler experience improvement. Key focus areas include integrated border management, immediate risk assessments, crisis management through operation rooms and decision-making support, and efforts to reduce procedure volumes and time. In 2023, the NTSC conducted over 7 million border checks and monitored suspected passengers 24/7, addressing over 60 travel disruptions linked to terrorism or suspicious activities. Ms. Alzahrani highlighted NTSC's capacity-building efforts, including infrastructure, technical systems, human resources development, expertise exchange, and training initiatives. She emphasized NTSC's ongoing commitment to continuous innovation, coordination, and the use of advanced technology to ensure a safer future for travelers.



**Ms. Areej Alzahrani**

Manager, Partners Relation  
National Traveler Security Centre  
Kingdom of Saudi Arabia

Contact: [alzaareej@yahoo.com](mailto:alzaareej@yahoo.com)  
[Presentation link](#)

## Lao PDR Experience with Interactive Advance Passenger Information

BG Gen. Saisaming Sivilay's presentation focused on the Lao People's Democratic implementation of the Automated Advance Passenger Processing System (APPS). APPS automates the pre-screening of passengers and crew traveling on aircraft, allowing the Immigration Police and other border control agencies to make national security decisions about travelers before they arrive, depart, or transit through Lao PDR. BG Gen Sivilay outlined how the system cross-checks passengers against blacklist and watchlist databases, improving security by identifying high-risk individuals. With a significant rise in usage, including 2.4 million uses of the APPS in 2024, Sivilay highlighted the system's benefits, including advanced screening, better planning through early access to passenger data, reduced clearance times at checkpoints, and increased government revenue. He emphasized that the APPS aligns with international standards, particularly ICAO guidelines, providing a more secure and efficient experience at border control points while supporting national security objectives.



**BG Gen. Saisaming Sivilay**

Deputy Director General  
General Department of Public  
Security  
Lao People's Democratic Republic

Contact: [jitmanut.w@somapait.com](mailto:jitmanut.w@somapait.com)  
[Presentation slide](#)



### Reinventing Pre-Clearance with Digital Identities

Mr. Andy Smith's presentation focused on the effective use of passenger data to pre-clear travelers, emphasizing the underutilization of interactive Advance Passenger Information (iAPI) despite over a decade of UN Security Council Resolutions advocating for its adoption. He shared SITA's role in enabling countries to benefit from passenger data and highlighted the ongoing efforts to make compliance and adoption easier and more affordable for carriers. Mr. Smith discussed how digital pre-clearance enables authorities to ensure secure borders and smooth travel experiences, while emphasizing the need for states to trust and develop digital identities, such as mobile passports. He outlined the progression from traditional API and PNR data to more advanced systems like interactive iAPI, APP and DTC OneID, noting that with the right technology, authorities can shift from mechanical tasks like stamping to focusing on people's needs. Mr. Smith also pointed out that biometric data collection and sharing are underused, stressing the importance of a trusted ecosystem for seamless and secure travel for legitimate passengers. He concluded by advocating for greater accessibility of this digital data, not only by states but also by the industry partners, including airlines and hotels, to enhance the travel experience.



#### Mr. Andy Smith

Director, Industry Bodies & Innovation  
SITA

Contact: [andy.smith@sita.aero](mailto:andy.smith@sita.aero)  
[Presentation link](#)

### Use of API/PNR in Indonesia (API/PNR at land)

Mr. Haryono Agus presented on Indonesia's evolving immigration system, which initially relied on a custom API but has since integrated this system with border management technologies to better address security needs. He outlined the new structure where data from flight operators and customs is collected through an API route, which is then made accessible to border officials. The system includes API data (e.g., name, gender, passport details), PNRGOV (which combines API with additional travel details such as date, origin, and destination), and APP (a comprehensive traveler data package). This integrated approach, with 76 data elements, allows targeted monitoring and communication between immigration and customs when individuals appear on both trade and immigration watchlists. Mr. Agus highlighted the future direction of the system, including the introduction of the SIPP (Information Passenger Profiling System), which will analyze high-risk travelers before they enter Indonesia, further strengthening the country's border security measures.



#### Mr. Haryono Agus

Deputy Director of Immigration  
Bilateral Cooperation  
Ministry of Immigration and  
Correctional Affairs  
Republic of Indonesia

Contact: [seribukilat@gmail.com](mailto:seribukilat@gmail.com)  
[Presentation link](#)

### A Roadmap for API/PNR Implementation at Sea

Ms. Rasieli W Rabukawaqa's presentation outlined Fiji's current border management challenges and the need for adopting Advance Passenger Information (API) and Advance Passenger Processing (APP) systems. As a central hub for regional travel, Fiji's border control system, which still includes partially manual processes, faces increasing pressure from rising passenger volumes and evolving security threats. API and APP systems are essential for enhancing security by enabling pre-screening of passengers and cross-checking against international watchlists, improving operational efficiency by reducing wait times, and aligning with international standards. These systems will transform both seaports and airports, enabling proactive risk management, smoother passenger flows, and interagency collaboration. Fiji's tourism sector will benefit from the improved traveler experience, while the country can enhance regional leadership in border security. Ms. Rabukawaqa also highlighted the challenges of infrastructure development, legislative amendments, and securing funding and technical support, emphasizing the importance of regional and international cooperation in overcoming these hurdles. By implementing API and APP, Fiji aims to strengthen border security, boost economic growth, and set a regional benchmark for effective border management.



**Ms. Rasieli Rabukawaqa**

Manager Policy  
Department of Immigration  
Republic of Fiji

Contact: [rrabukawaqa@immi.gov.fj](mailto:rrabukawaqa@immi.gov.fj)  
[Presentation link](#)



## 3.1. Outcomes and Recommendations of Workshop 2

Workshop 2, chaired by Ms. Sarah Zacka of the Australian Border Force, focused on the theme of API – iAPI/PNR: Solutions for Interoperable Applications. The session emphasized the critical role of Advance Passenger Information (API) and Passenger Name Record (PNR) systems in enhancing secure travel, detecting high-risk passengers, and facilitating smooth movement for low-risk travelers. According to Ms. Zacka, “The use of API and PNR data, whether at land, sea borders, or airports, needs to be transparent, standardized, in line with privacy regulations, and streamlined through a single system while up to date with emerging technology.”



**Ms. Sarah Zacka**

First Secretary (Airline Liaison)  
Australian Border Force

Contact: [sarah.zacka@abf.gov.au](mailto:sarah.zacka@abf.gov.au)

The discussion centered on the interconnected pillars essential for effective API/PNR implementation: legislation, coordination, technology, engagement, funding, and implementation. These pillars form the foundation for the development of a robust and interoperable system. Participants also discussed challenges, particularly data privacy concerns, and the friction that arises between countries due to differing legal frameworks. Ms. Zacka highlighted, “No matter how advanced the country’s usage of API/PNR currently is or is not, the evolution of API/PNR data usage underscores the needs for careful consideration, balanced policies, and ongoing dialogue between the government, industry, technology experts, legal professionals, and the public to ensure that the use of API/PNR is both effective and responsible in the years to come.”

The workshop outlined the importance of balancing security measures with the need to respect privacy and ensure public trust. Discussions underscored that evolving technologies such as AI, machine learning, biometrics, and digital passports will play a significant role in shaping the future of API/PNR systems.

The following recommendations were outlined

- **Standardization and Interoperability:** Establish a global standardized format to facilitate seamless data exchange and real-time risk assessment, and invest in interoperable systems that are technologically advanced and prioritize data privacy.
- **International and Interagency Cooperation:** Develop frameworks to enable secure and standardized API/PNR data sharing across borders and agencies, and to foster international dialogue and collaboration to align policies and practices.
- **Transparency and Trust:** Implement mechanisms for individuals to track the use of their API/PNR data, enhancing credibility and accountability. Furthermore, create clear guidelines and ensure transparency to prevent data misuse and build public trust.
- **Broader Applications:** Expand the use of API/PNR systems to land and sea borders to address emerging threats comprehensively, and adapt API/PNR systems to consider non-traditional security challenges, such as pandemics, cybercrime, and climate change-related migration.

By integrating these recommendations, governments and stakeholders can enhance the effectiveness, privacy, and credibility of API/PNR systems, ensuring they remain adaptable to evolving technologies and global security needs.



## 4. Beyond Human Mobility Facilitation at Airports: Strengthening Border Control at Land and Maritime Frontiers

### Canadian Approach to Maritime Security

Mr. Olivier St Onge emphasized Canada's vast geography and its significance in maritime security, given its extensive maritime border—the second largest globally. Maritime security is vital for preventing terrorism, hijacking, and illegal fishing, while supporting international waters' safety, counter-terrorism, search and rescue, and humanitarian assistance. Canada adheres to international standards like the SOLAS Convention and ISPS Code. The Canada Border Services Agency (CBSA) plays a crucial role in securing maritime borders, tackling threats such as drug and wildlife smuggling, and irregular migration. Through the Maritime Security Operations Center (MSOC), domain awareness is maintained via vessel tracking, risk assessments, and stakeholder collaboration. Officers conduct border control operations, including vessel rummages, crew interviews, and inspections for irregularities. Mr. St Onge also highlighted the challenges of securing northern maritime borders amid climate change, underscoring the need for enhanced cooperation to address emerging risks in this sensitive region.



**Mr. Olivier St Onge**

Canada Border Services Agency –  
CBSA  
Government of Canada

Contact: [Olivier.St-Onge@International.gc.ca](mailto:Olivier.St-Onge@International.gc.ca)  
[Presentation link](#)

### Addressing the Gaps and Challenges in Border Management

Atty. Maria Concepcion S. Espino underscored the strategic significance of the Philippines' geographical location, with its extensive maritime borders offering both opportunities and challenges. Key vulnerabilities include illegal entry, unregulated fishing, poaching of endangered species, and the exploitation of maritime routes for smuggling, human trafficking, and drug trafficking. These issues are exacerbated by outdated legal frameworks, insufficient personnel, limited technological capacity, and gaps in inter-agency coordination and information sharing. Atty. Espino called for targeted investments in modern maritime technology, the procurement of advanced patrol vessels, capacity building for personnel, and strengthened cooperation among national and international stakeholders. Enhancing real-time data sharing and ensuring legal and institutional reforms were identified as essential measures to address these critical gaps and promote sustainable and secure maritime governance.



**Atty. Maria Concepcion S. Espino**

Boarding Supervisor  
Bay Service Section  
Bureau of Immigration  
Republic of the Philippines

Contact: [biseaportops@gmail.com](mailto:biseaportops@gmail.com)  
[Presentation link](#)

## Maritime Domain Awareness and Maritime Data Collection

Mr. Kevin McAnally highlights the critical role of maritime movement in global economic development, as emphasized by a UN Counter-Terrorism study. Despite its economic importance, maritime zones face significant terrorism threats, necessitating robust security measures and inter-agency collaboration to mitigate risks. Monitoring both air and maritime traffic, including AIS data, is vital but must be complemented by advanced technological tools like IOM's MIDAS, GoTravel and systems from the World Customs Organization to manage complexities effectively. Integrated border control strategies, emphasizing communication, coordination, and balanced use of technology, are essential to protect maritime zones, enhance security, and sustain economic growth. Therefore cooperation with the various types of international carriers acting at air, land and sea borders needs to enable information sharing despite the differences in each business model. It is essential that passenger data is somehow collected even when advance passenger information is not possible, and mobile data



**Mr. Kevin Mcanally**

UN Countering Terrorist Travel Programme (CTTP)  
United Nations Office of Counter-Terrorism (UNOCT)

Contact: [kevin.mcanally@un.org](mailto:kevin.mcanally@un.org)  
[Presentation link](#)

## Orchestrating the Future of Seamless Border Control: Interoperability and Intermodality at Air, Land, and Sea

Mr. Jean-François Lennon emphasizes the importance of technological collaborations, such as partnerships with Vision-Box and Amadeus, in advancing border control and traveler facilitation systems. He highlighted facial recognition as emerging in the leading biometric technology, with initiatives like Emirates Airlines' facial recognition-enabled gates simplifying boarding processes. Mr. Lennon also presented biometric technology as a facilitator of seamless traveler experience across check-in, boarding, arrival, and even hotel check-ins, minimizing the need for physical documentation. The speaker stated that achieving seamless border control relies on government collaboration and interoperable systems across air, land, and sea, supported by data protection frameworks ensuring security and compliance. The Finnish Border Guard provides a case study in smart border solutions that demonstrates the potential for replicable innovation.



**Mr. Jean-François (Jeff) Lennon**

Vice President Strategic Sales and  
Global Partnerships  
Vision Box

Contact: [jeff.lennon@vision-box.com](mailto:jeff.lennon@vision-box.com)  
[Presentation link](#)

## Digital transformation in travel & border, where are we today?

Ms. Fanni Vikor highlighted the current state of border control innovation, emphasizing the adoption of electronic Machine-Readable Travel Documents (eMRTDs) and the driving factors behind Automated Border Control (ABC) systems. Key motivations include enhanced border security, improved efficiency, and biometric integration for seamless and accurate identity verification. She showcased the European Entry/Exit System (EES) as a regulatory model mandating biometric data collection to strengthen security. Challenges of human decision-making were contrasted with the consistency of automated systems, which are now implemented at airports in over 50 countries, with emerging projects for land and sea borders, such as Fastpass. Market trends point to digital travel innovations, including Schengen Online Visas and eGates with Digital Travel Credentials, paving the way for a secure, streamlined border management ecosystem.



**Ms. Fanni Vikor**

Application Marketing and Business  
Development Manager  
Infineon

Contact: [fanni.vikor@infineon.com](mailto:fanni.vikor@infineon.com)  
[Presentation link](#)

## Sri Lanka Vessel Monitoring System (VMS): Advancing Maritime Safety, Security and Sustainability through Technology

The speakers provided an overview of Sri Lanka's fisheries sector, outlining the challenges faced by the fishing community that affect livelihoods, the marine economy, and maritime security. They highlighted the exploitation of multi-day fishing vessels for illicit activities, such as migrant smuggling, illegal fishing, and trafficking of narcotics and small arms. In response, Sri Lanka implemented a Vessel Monitoring System (VMS), with IOM support and Australian Government funding, which offers real-time tracking of fishing vessels, enhancing emergency response, search and rescue capabilities, and communication at sea. The VMS also aids in the early detection of maritime crimes and fosters coordination among law enforcement. Several case studies demonstrated the system's effectiveness in managing medical emergencies, technical failures, and maritime accidents. The VMS has proven essential for maritime safety and security, with continued innovation and collaboration key to addressing its challenges. The speakers emphasized the importance of strategic technologies, partnerships, community awareness, and ecosystem protection to ensure the sustainability of maritime operations and secure coastal communities.



**Captain Jhit Jayawardana**

Director  
Naval Intelligence  
Sri Lanka Navy

Contact: [secretary4dni@gmail.com](mailto:secretary4dni@gmail.com).



**Mr. Susantha Kahawatta**

Director General  
Department of Fisheries and Aquatic  
Resources  
Government of Sri Lanka

Contact: [sjksusantha@gmail.com](mailto:sjksusantha@gmail.com)  
[Presentation link](#)



## Two Stops - One Stop - Non-Stopping Border Crossing: Is That a Real Scenario?

Mr. Samson Uridia discussed the challenges and strategies for managing the Georgia-Azerbaijan border, emphasizing the importance of cooperation and implementing a one-stop border post to streamline procedures and reduce waiting times. He highlighted the role of technological innovations, such as biometric recognition and automated data processing, in improving border management, stressing the need for a compliance culture to facilitate trade and ensure security. Mr. Uridia also underscored the value of collaboration between neighboring countries and shared examples of successful partnerships that enhance border security and trade facilitation. He called for improvements in both hard and soft infrastructure, including the integration of border control functions under one agency, and outlined future plans to further simplify border crossing procedures through advanced technologies. He recommended action on implementing the one-stop border post, integrating advanced technologies, fostering collaboration, and focusing on infrastructure development to create a more efficient border management system.



**Mr. Samson Uridia**

Head of International Relations  
Department  
Revenue Service  
Ministry of Finance of Georgia  
Government of Georgia

Contact: [s.uridia@rs.ge](mailto:s.uridia@rs.ge)  
[Presentation link](#)



## 4.1. Outcomes and Recommendations of Workshop 3

The Workshop 3, chaired by Mr. Ross Greenwood, with the theme of “Beyond Human Mobility Facilitation at Airports: Strengthening Border Control at Land and Maritime Frontiers,” aimed to develop a future-oriented vision for land and maritime borders by exploring how technologies, information systems, targeting strategies, infrastructure, and staffing could reconfigure operations to enhance facilitation, humanitarian responses, and security. The following key outcomes and challenges as well as recommendations were outlined:



**Mr. Ross Greenwood**

Principal Consultant  
Biometix

Contact: [r.greenwood@biometix.com](mailto:r.greenwood@biometix.com)

**Unique Challenges Across Different Environments:** Border management in land, maritime, and aviation domains presents distinct challenges that require tailored approaches. In maritime borders, Canada faces climate change impacts and navigates the increasingly accessible Northwest Passage, the Philippines manages customary travel between neighboring islands crucial to local communities, and Sri Lanka balances security with fisheries management to protect livelihoods. For land borders, Georgia’s one-stop controls at major road trade crossings streamline operations and enhance trade facilitation. In maritime and general aviation, UNOPS focuses on vessel identification and tracking to improve situational awareness and security.

Industry partners like Vision Box and Infineon contribute innovative solutions, including eGates at land borders and streamlined passenger processing for cruise ships, respectively. These challenges emphasize the need for domain-specific strategies to address the complexities of border management while balancing security, efficiency, and the needs of local communities.

**Sovereignty and Security Challenges:** Many land and maritime borders remain unresolved, undelineated, or undemarcated, leading to jurisdictional and enforcement difficulties. Furthermore, ongoing security threats and conflicts in some regions further complicate border management and cooperation efforts.

**Land and Sea Domains vs. Air Domain:** Land and sea trade far exceed the value of goods transported by air, highlighting their significant economic importance. While customary travel across islands and land borders may have lower economic value, it remains essential for the livelihoods and daily activities of local populations. However, solutions designed for air border control often fail to translate effectively to land and maritime domains. To address these unique challenges, a shift in mindset is needed to ensure that solutions developed for air border control become adaptable to land and sea contexts, fostering tailored approaches that effectively balance facilitation, security, and local needs.

**Future-Focused Border Design:** Prioritize land- and sea-specific solutions to modernize operations.

**Enhanced Collaboration and Information Sharing:** Establish frameworks for bilateral and regional collaboration to resolve undelineated borders and enhance intelligence sharing.

**Infrastructure and Staffing Investments:** Develop infrastructure tailored to the needs of land and maritime borders, supporting both trade and humanitarian priorities. Design specialized training to border staff to address challenges unique to non-airport settings, while ensuring appropriate staffing arrangements encompassing all border agencies.

**Targeting and Risk Management:** Leverage real-time data to develop effective targeting mechanisms encompassing all types of border crossing points for delivering a clear picture of entry and exit at all border points simultaneously, ensuring efficient allocation of resources and prioritizing risks at land and maritime borders.

The workshop highlighted the critical need to move beyond air-centric approaches and embrace tailored, innovative solutions for land and maritime border management.

## 5. Information Sharing and International Cooperation: Overcoming the Boundaries of Border Management Ecosystems

### Mutual Security Through Partnerships: Partnership Agreements to Improve the Efficacy of our Border Management Systems

Lt. Col. Michael Jones emphasized via a video call the importance of multilateral partnerships in enhancing border security for small Caribbean countries with limited resources. In line with the 2023-2028 organizational strategy and the motto “Mutual Security Through Partnerships,” CARICOM IMPACS recognizes that information and intelligence sharing is a key, cost-effective strategy for defending its people and borders. By extending its borders beyond traditional geographical boundaries, this approach facilitates the development of early warning systems. To maximize the benefits of such partnerships, a stakeholder analysis is crucial to identify key entities within the law enforcement ecosystem, ensuring that all members benefit mutually, thereby fostering stronger partnerships and joint results. Lt. Col. Jones highlighted the progression of these partnerships, which started informally through networking and identifying champions in thematic areas, and evolved into formalized Memorandums of Understanding, the establishment of a council, and a regional body for information sharing. Key achievements include joint Advance Passenger Information (API) analysis, the embedding of staff from different agencies and States, and enhanced collaboration, all of which have significantly improved the efficacy of border management systems across the region.



**Lt. Col. Michael Jones**

Executive Director  
CARICOM Implementation Agency  
for Crime and Security (IMPACS)  
Trinidad and Tobago

Contact: [m.jones@impacsjrcc.org](mailto:m.jones@impacsjrcc.org)

### Information Sharing Platforms in the Pacific: Needs, Challenges, and Opportunities

Mr. Akuila Ratu emphasized the vital role of regional cooperation in addressing immigration challenges across the Pacific, despite diverse technological, legal, and capacity development levels among member nations. Highlighting the Pacific’s unique strength in collective collaboration, he noted that member states work together to share resources and jointly protect the region’s borders. PIDC, as a regional coordinator on immigration development for its 21 member states, facilitates data sharing through established protocols and tools like the PIDC Intelligence Products, APAN for secure classified information exchange, and WhatsApp for real-time updates. A key milestone has been the development of the Reporting and Information Sharing Platform (RISP) in partnership with IOM and funded by Japan, which provides immigration data collection from each participating countries, and analytical capabilities to monitor migration trends at national and regional levels and support evidence-based regional policymaking. Mr. Ratu underscored the way forward, which includes strengthening RISP to enhance regional cooperation, build trust, and foster a culture of data sharing. This approach aims to empower immigration agencies with the tools and insights needed to develop informed policies, improve operational decision-making, and strengthen preparedness for migration-related challenges across the Pacific region.



**Mr. Akuila Ratu**

Head of the Pacific Immigration  
Development Community (PIDC)  
Secretariat  
Samoa

Contact: [Akuila.Ratu@pidcsec.org](mailto:Akuila.Ratu@pidcsec.org)  
[Presentation link](#)



## Overcoming Bottlenecks in Border Controls

Mr. Mate Fejes highlighted innovative solutions to streamline and secure border management processes. He emphasized the importance of pre-travel authorization systems that allow passengers to capture passport details and biometric data, such as iris and fingerprints, which are then integrated with e-visa applications and immigration databases. This approach enables real-time biometric background checks to be conducted before the traveler reaches border control, ensuring a seamless, paperless experience through iris verification. By shifting decision-making and security checks away from the high-pressure environment of the checkpoint, border officials can focus their time and resources on addressing high-risk individuals. Mr. Fejes also stressed the need for broader data sharing, advocating for the inclusion of biometric watchlist information in domestic law enforcement systems to enhance investigative and crime-combatting efforts.



**Mr. Mate Fejes**

Director of Sales - APAC  
Innovatrics

Contact: [mate.fejes@innovatrics.com](mailto:mate.fejes@innovatrics.com)  
[Presentation link](#)

## Revolutionizing Border Control: A Data-Driven Approach to Counter Irregular Migration and Migrant Smuggling

In his presentation, Mr. Donato Colucci outlined innovative strategies for addressing the complexities of irregular migration and transnational organized crime. Central to his vision is the Data Exchange Solution for Counter Smuggling (DESC, former Document Examination Support Center), which aims to harmonize regional migration policies and enhance international cooperation. Through a Data-Driven Global Platform on Irregular Migration, DESC facilitates the secure sharing of non-sensitive data related to document and identity frauds detected at border crossing points in Asia-Pacific, and soon in Europe, Latin America and East Africa, so as to infer irregular migration trends, smuggling modus operandi, and produce intelligence able to drive operational responses to counter smuggling, and inform evidence-based policy formulation. Key features include detailed analytics on travel routes, fraud patterns, demographic trends, and workstation insights, supporting timely and coordinated responses. Mr. Colucci also emphasized the system's real-time data-sharing capabilities which enable fast decision-making and response mechanisms, while AI-powered dashboards facilitate evidence-based policy development by offering concise, downloadable analysis and reports, as well as instructions for decision making at borders.



**Mr. Donato Colucci**

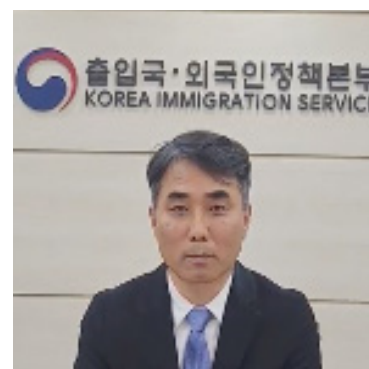
Head, Border and Identity Solutions  
International Organization for  
Migration

Contact: [docolucci@iom.int](mailto:docolucci@iom.int)  
[Presentation link](#)

Notably, the platform includes geolocation and time-series analytics, enabling users to track patterns such as fraudulent document usage, identify high-risk routes, and analyze demographic trends like age and sex of intercepted travelers, which are key to identify potential victims of trafficking including among minors intercepted with fraudulent documents or posing as impostors. An upcoming integration of the AI "Copilot" function will enhance the platform's utility by generating quick, detailed insights solely from internal data, maintaining strict confidentiality. The initiative's global impact is reinforced by its regional networks, fostering collaboration and capacity development across East Africa, Asia-Pacific, the Americas, and Europe. Accessible to authorized law enforcement personnel from participating countries, the platform is unique in its kind, allowing cross regional information sharing on irregular migration and empowers regional and global networks to harmonize policies, improve operational collaboration, and enhance capacity-building efforts.

## Information Sharing Platforms in Asia: Asian Network for Document Examination (ANDEX)

Mr. Jong-Cheol Lee discussed via video intervention the critical challenges posed by irregular migration, travel document, and identity fraud, as part of the modus operandi of transnational organized crime networks. He emphasized the importance of regional collaboration and information sharing in addressing these issues, with a particular focus on the Asian Network for Document Examination (ANDEX). This regional platform, involving 14 countries in Asia and the Pacific, plays a key role in fostering cooperation, sharing best practices, and developing innovative tools for information exchange to enhance border security. ANDEX is the regional Asia-Pacific platform operating under the DESC initiative presented by the former presenter Mr. Donato Colucci. Mr. Lee highlighted the significant achievements under the Korea Immigration Service's chairmanship of ANDEX, including the successful 8th ANDEX meeting and the further development of an entry-exit stamp library presenting the specimens of stamps used in the ANDEX countries so as to facilitate identification of fraudulent stamps in travel documents. The entry and exit stamps library is one of the unique tools that DESC has developed for the ANDEX countries. The presentation also outlined how ANDEX's collaborative approach helps member states improve their detection of document fraud and irregular migration, while IOM continues to provide technical assistance to strengthen migration management capacities across the region.



**Mr. Jong-Cheol Lee**

Director of the Migration Policy  
Division  
Korea Immigration Service  
Ministry of Justice  
Republic of Korea

[Presentation link](#)

## The ICBWG Border and Law Enforcement Engagement Subgroup: Building a platform for working-level cooperation between borders and LE professionals and ICAO

In his presentation on the ICBWG Border and Law Enforcement Engagement Subgroup (BLES), Mr. Tom Van Der Hor highlighted its critical role in bridging the gap between ICAO's formal regulatory framework and the practical needs of border management and law enforcement professionals in charge of travel document verification. The BLES engages directly with these experts to incorporate their insights on passport update trends, operational challenges related to document verification, and the evolving travel landscape into the development of ICAO specifications and guidance material. By supporting the ICAO Implementation and Capacity Building and New Technology working groups (ICBWG and NTWG), the subgroup ensures that the perspectives of border and law enforcement authorities are adequately reflected in ICAO initiatives. Key outcomes from the recent BLES meeting included identifying communication and knowledge gaps between ICAO and border practitioners, which hinder the practical application of regulations. To address these issues, the subgroup promotes proactive information sharing through newsletters, capacity-building networks, and diverse engagement formats, reducing participation barriers and sustaining active involvement. This collaborative approach aims to enhance the operationalization of ICAO regulations and standards while fostering a more informed and connected global border management community.



**Mr. Tom Van Der Hor**

Business and Technology  
Development Officer  
Center of Excellence for Combatting  
Document Fraud at Frontex  
ICAO-ICBWG Border and Law  
Enforcement Engagement Subgroup  
Lead

Contact: [tom.vanderhor@frontex.europa.eu](mailto:tom.vanderhor@frontex.europa.eu)

[Presentation link](#)



## The Digital Travel Authorization (DTA) Explained in Brief

In her presentation, Ms. Christiane DerMarkar, provided an update on ICAO's efforts to standardize visas and travel authorizations as outlined in Doc 9303 and Annex 9, which aims to enhance global interoperability and facilitate international travel by streamlining verification systems for travelers. To address these issues, ICAO introduced the standardized Digital Travel Authorization (DTA) and the Electronic Travel System (ETS). The DTA allows for a non-physical visa in a digital format with a barcode containing the same information as a paper visa, verifiable by Public Key Infrastructure (PKI) for security. The ETS, on the other hand, facilitates two-way communication via an iAPI, enabling states to grant pre-authorization for travelers before they reach the border, primarily designed for online visa applications. These advancements aim to improve the efficiency and security of cross-border travel, while ensuring that verification systems for travelers are consistent and globally compatible.



**Ms. Christiane DerMarkar**

TRIP Officer  
Facilitation (FAL) Section  
Aviation Security and Facilitation  
(ASF)  
Air Transport Bureau (ATB)  
ICAO

Contact: [cdermarkar@icao.int](mailto:cdermarkar@icao.int)  
[Presentation link](#)





## 5.1. Outcomes and Recommendations of Workshop 4

Workshop 4, chaired by Mr. David Scott, focused on two critical aspects of border management: cross-border information sharing and enhancing international cooperation. The workshop aimed to address the fragmentation in border management systems that hampers the detection of security threats and disrupts the secure movement of people and goods. By promoting greater collaboration and promoting information exchange, the discussions sought to identify solutions to streamline border security processes and reduce barriers to effective cooperation across countries.



**Mr. David Scott**

Regional Support Office Co-Manager  
The Bali Process

Contact: david.scott@rso.baliprocess.net

Speakers highlighted several key topics to support these objectives. They discussed the importance of mitigating the impact of national political transitions through coordinated regional sharing platforms and mechanisms. Other topics included improving the credibility and completeness of shared information, exploring the future of Standards and Recommended Practices (SARPs) for Machine Readable Passports, and examining both the benefits and potential threats of emerging technological solutions in border management.

Technology advancements were also noted for their impact on record-keeping protocols and destruction requirements, while the integration of Artificial Intelligence and biometrics intelligence was discussed for their power to enhance the cross-border facilitation. Lastly, the importance of engaging aircraft operators in international cooperation and information-sharing mechanisms was emphasized as a vital step toward improving global border management.

The identified challenges related to information sharing and international cooperation in border management include:

- Building Trust across a Network of Focal Points
- Lack of Comprehensive Data Collection and Analysis Capabilities
- Insufficient Collaboration among Immigration and Law Enforcement Agencies across Borders
- Lasting Relationships between Border, Law Enforcement Authorities, and International Organizations
- Varying Legal Frameworks Governing Travel Data Transfer and Processing
- Concerns over Data Protection and Legally Binding Safeguards
- Need for Reliable Mechanisms for Cross-Border Information Exchange.

To develop recommendations, Workshop 4 participants drew upon key elements for effective international cooperation in border management, highlighting the need for formalized agreements on information sharing, which face challenges such as institutional changes and shifting policy priorities. They discussed the importance of establishing strong knowledge management structures, ongoing capacity building, and effective communication, all of which are essential for long-lasting cooperation. The balance between data protection, accountability, and transparency was emphasized as technology and traveler expectations grow. The use of technology at borders, including the consolidation of the use of AI in border management, requires stakeholders to focus on governance frameworks, regulations, bias control and ethics. Additionally, mutual benefits, shared goals, and resources should be prioritized in international cooperation, including informal engagement and non-sensitive data sharing. Lastly, border officials should focus on enhancing intelligence and risk analysis skills, shifting away from traditional document examination to address emerging security challenges.

To address the challenges discussed in Workshop 4, the following recommendations are proposed to strengthen international cooperation in border management, enhance security, and protect travelers and vulnerable populations while adapting to new technologies:

- Building trust among stakeholders and ensuring secure, transparent data sharing.
- Strengthening data management and analysis systems and capabilities to improve decision-making and risk analysis.
- Promoting the alignment of information-sharing policies and practices across countries to foster cohesive and collaborative efforts in border management to ensure coordinated responses to emerging security challenges.
- Upholding human dignity by prioritizing protection of human rights and protecting vulnerable populations during travel.
- Fostering evidence-based policy development by using data-driven insights in border management policy making and advice.
- Standardizing international border management practices for greater efficiency and consistency.
- Enhancing digital travel authorization systems to streamline processes and enhance security.
- Ensuring active engagement with established information sharing platforms for continuous and effective information exchange.

# Concluding Remarks

*This gathering held under the theme of “The Future of Borders and Borders of the Future,” has demonstrated the true strength of private-public partnership on this topic – the collaboration based on mutual respect, mutual trust, and mutual understanding among the governments, technology providers and other industry partners, the community of experts, and international organizations, across countries and across regions. I am very grateful for witnessing the richness of insights shared and the breadth of the partnerships and camaraderie forged here.*



**Mr. Iori Kato**

Regional Director  
IOM Regional Office for Asia  
and the Pacific

*This conference has provided us with guidance on international standards and lots of good practices, including cutting-edge technologies and advanced systems that can further strengthen border security and facilitate regular migration worldwide. For instance, the conference underscored the essential role of innovation and digital transformation in shaping human mobility in Asia and the Pacific and beyond. Our discussions have emphasized that the borders of the future should center on human safety and seamless mobility to accelerate socioeconomic development.*

*The conversations at this conference have underscored the importance of the roles that the industry partners play in innovative financing mechanisms. The industry partners especially for this region has an enormous capacity for supporting regional and global efforts to improve border security and migration governance.*

*We also had focused discussions on secure and inclusive identity management systems as a critical foundation in facilitating regular migration pathways and safe migration. We have seen presentations of compelling examples of how ensuring interoperability and standardization is crucial for better management of cross-border movements, by leveraging advanced technologies like digital wallets and blockchain to enhance the security of travel documents.*

*Seamless travels rely on whether you can manage borders in a way that also balances security and human rights. The various technical conversations that we had during this BMIC have provided many good ideas that can be translated into effective policies and implementation, ranging from API PNR, to Digital Travel Credentials. We also discussed the need to invest more in improving infrastructure not only at airports, but also at land and sea border crossing points.*

*I am pleased to note that the conference also discussed innovative solutions to break down silos, defy the distance, and enhance regional collaboration through shared platforms and pooling of resources. Especially for the smaller countries and island countries, regional or multi-country solutions facilitated by technologies will be found more cost-effective, leveraging economies of scale, than each country with capacity constraints having to fashion a solution by itself alone.*

*Our collective homework now is how to transform those splendid vision, wisdom, and options that have emerged from this conference into a reality of seamless and secure human mobility. Let us together carry forward the momentum of this conference, turning the ideas shared here into concrete and doable actions that can reshape the future of borders. The insights shared over the past three days reflect the importance of whole-of-government and whole-of-society approaches for more secure and efficient border processes, in line with core principles of the Agenda 2023 and its Sustainable Development Goals (SDGs), the Global Compact for Safe, Orderly and Regular Migration or GCM, as well as reflected in the Pact for the Future that Member State.*

*IOM remains committed to working alongside all of you in coming up with innovative solutions for better migration governance. Together, we can continue to advance safer, more efficient, and more inclusive border and identity systems that reflect our shared commitment to human dignity and protection.*

# BMIC7 in the Media

Visibility of BMIC7 Content on IOM Regional Office Social Media Channels



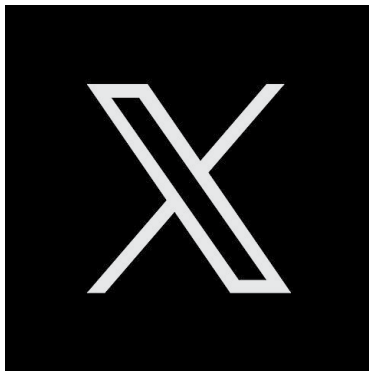
## Facebook (IOM Asia-Pacific)

29 posts  
18,211 reaches  
25,044 impressions  
418 engagements  
55 link clicks



## Instagram (@iomasiapacific)

27 posts  
4,962 impressions  
3,694 reaches  
174 engagements



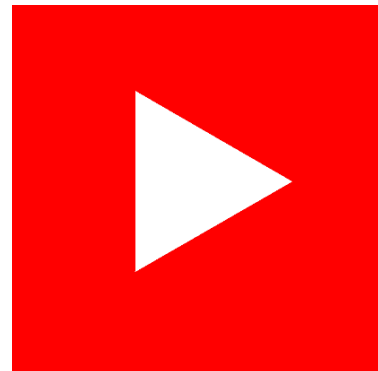
## Twitter (@IOMAsiaPacific)

27 tweets  
9,837 impressions  
770 engagements  
286 detail expands



## LinkedIn (IOM Asia Pacific)

26 posts  
14,995 impressions  
9,513 reaches  
1,623 engagements



## YouTube (IOM Asia-Pacific)

2 videos  
41 views  
0.8 hour of total watch time



