MB Seamless Travel solutions including a “Smart Corridor”

Thomas Schirferneder

Mühlbauer Group

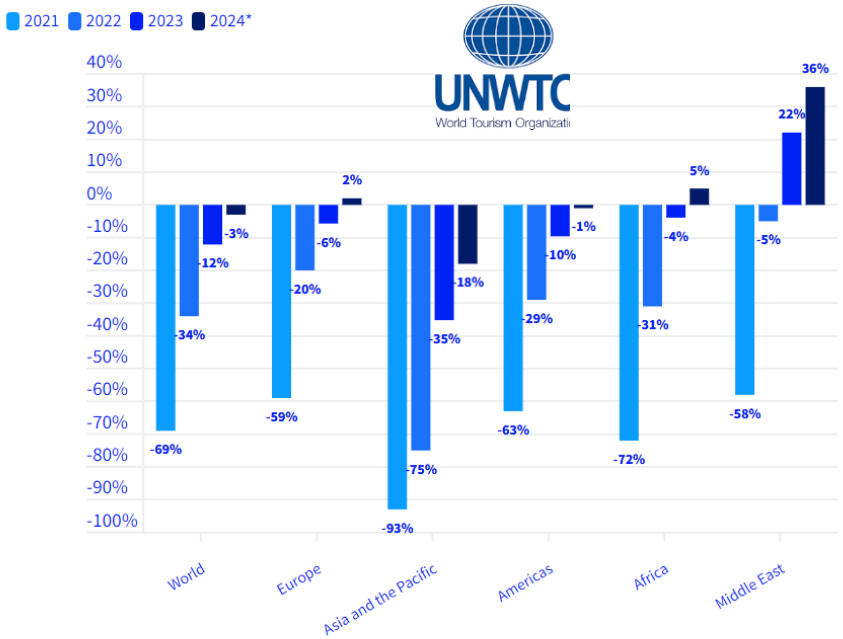
Process Overview

Seamless Travel

Travel & Tourism News

- Travel & Tourism recovery: Reaching pre-pandemic in 2024
- USD1.4 trillion industry in 2023
- **Are you prepared for the next wave?**

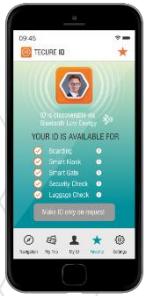
International Tourist Arrivals (% change over 2019)



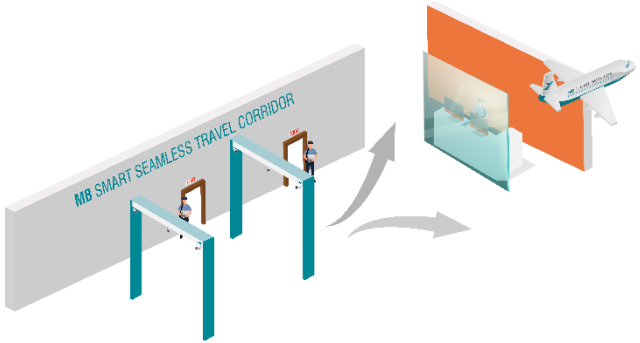
Source: UN Tourism | World Tourism Organization © • % change over 2019 | *Preliminary figures
Data as collected by UN Tourism, May 2024. Published: 21/05/2024

Seamless Travel: Next Chapter

VERIFICATION/ENROLMENT
ONLINE VIA SMARTPHONE



AUTHENTICATION
CONTACTLESS
CORRIDOR



TOUCHPOINTS
(BAGDROP, SECURITY
CONTROL, BOARDING ETC)

Travel & Tourism Challenges

Globalization led to increase in number of travellers worldwide.

Existing infrastructure running at bottleneck

Delay in border crossing & unfavourable experience

New solution is needed !!!

Smart Seamless Travel Corridor: Advantages

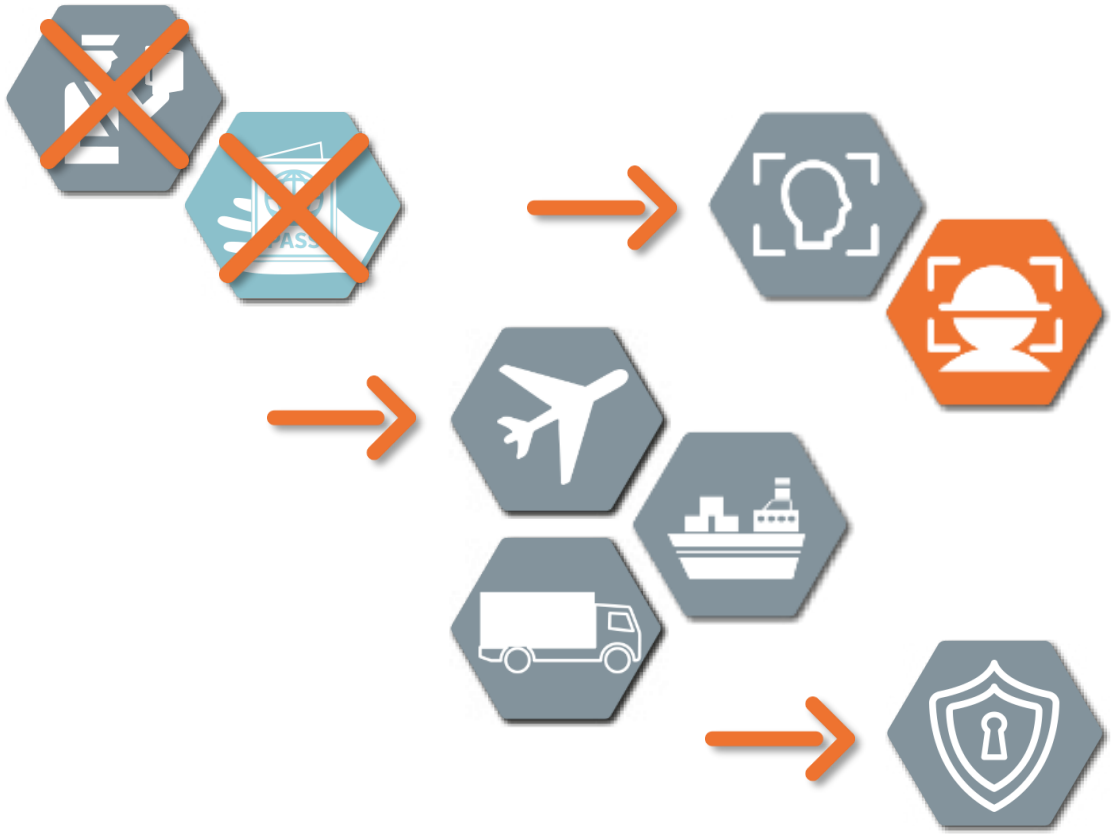
Without document presentation

Without active user interaction

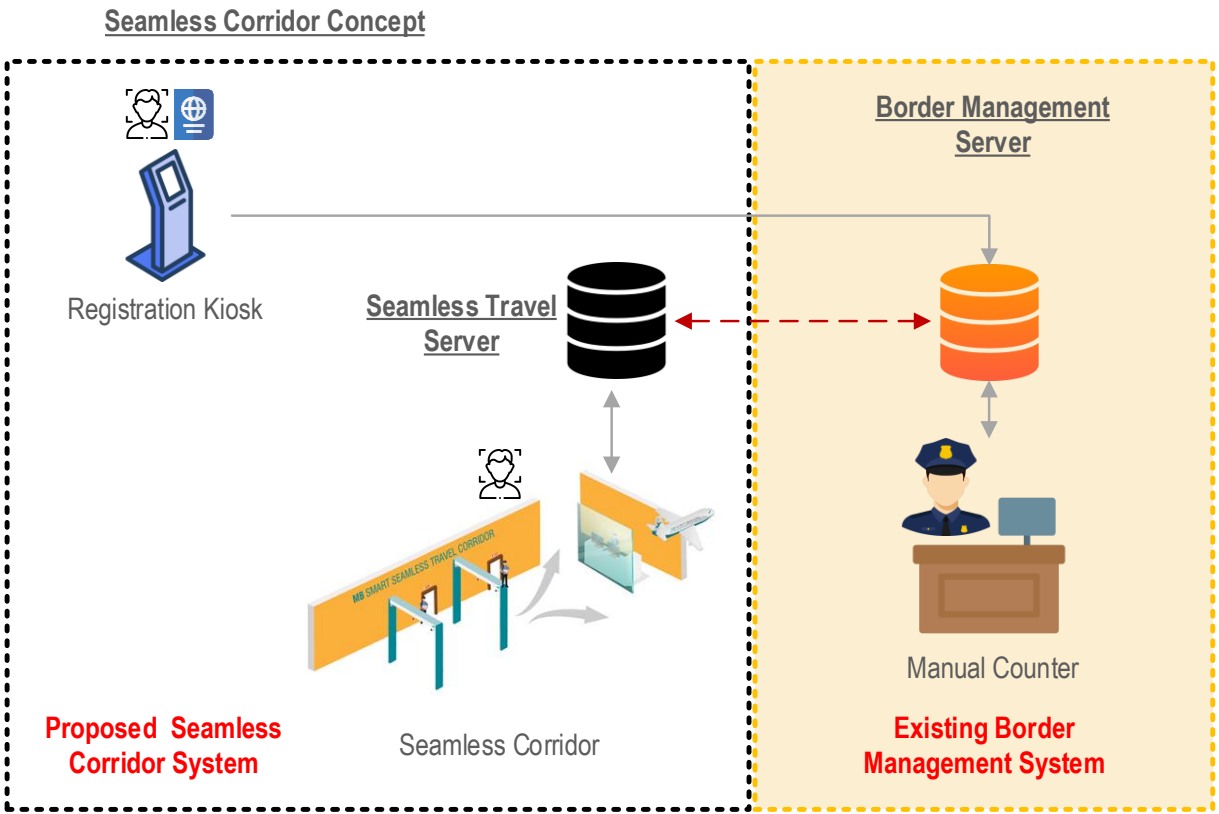
Biometric Identification & Tracking

Portability & Easy Deployment at airport, land & sea border

Security & Privacy by Design



Smart Seamless Travel Corridor: Data protection



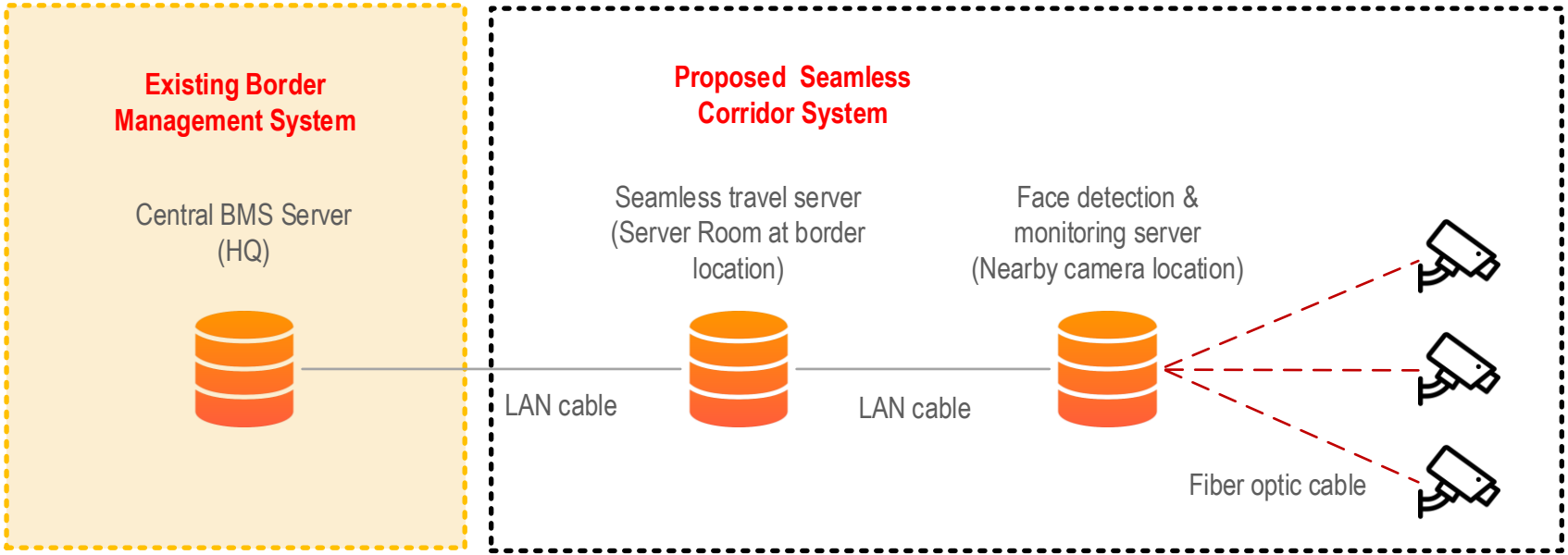
Smart Seamless Travel Corridor: Privacy by Design

- The Seamless Travel Server does not need personal data, just a face image and an unique ID
- The informed consent is obtained during the registration (GDPR compliance)
- If an advanced passenger information is available, only the data face image and unique ID need to be pre-loaded into the gallery
- The retention periods of biometric information can be configured

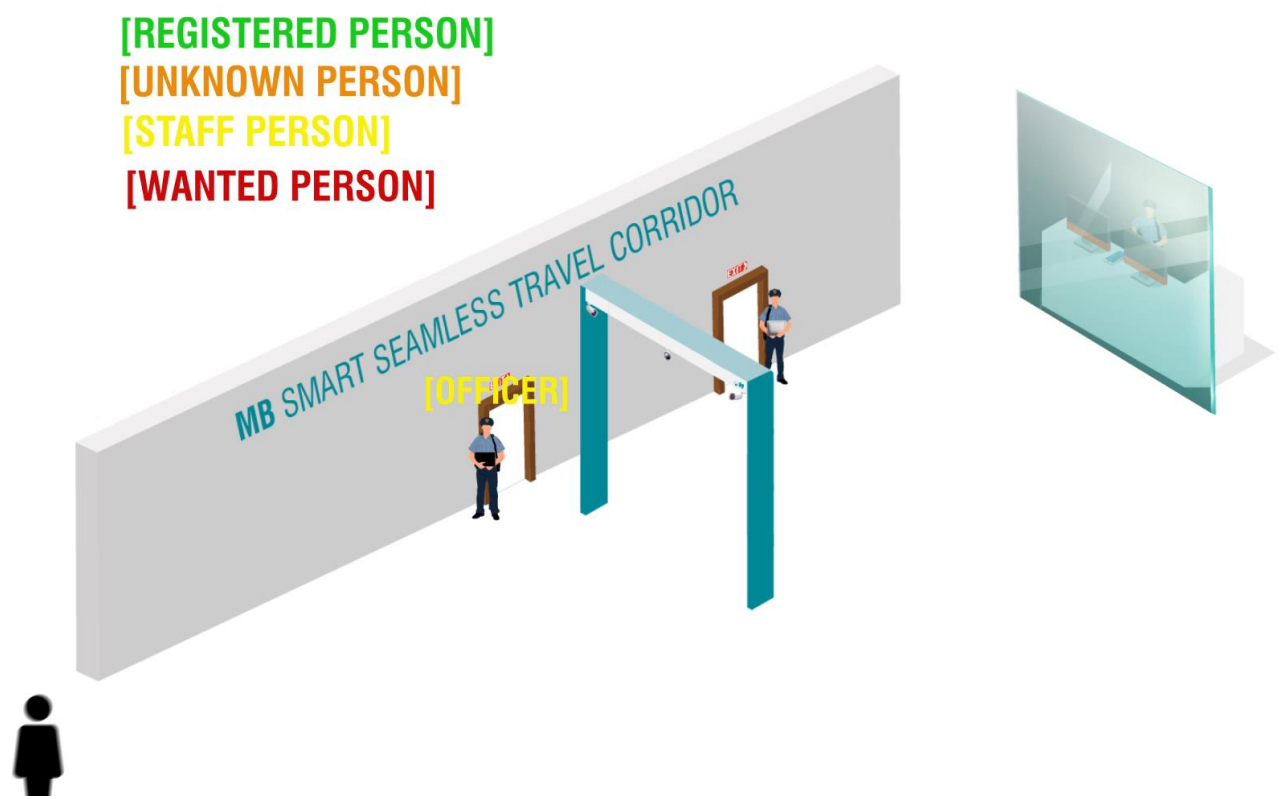
Standards


ETSI
ISO
ICAO
IEC
CEN
CENELEC
BSI
ANSSI
ITU
Common Criteria
NIST
FRONTEX
CBP USA

Smart Seamless Travel Corridor: Principle

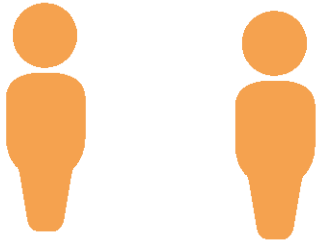


Seamless Travel



Smart Seamless Travel Corridor: Classification of subjects

Acquired,
not registered



Not (yet) acquired

Registered,
Stop-listed

Registered,
Passenger

Registered,
Staff

Smart Seamless Travel Corridor: Biometric Algorithms

- Face image quality assessment according to OFIQ from German BSI
- Integration of any face matching algorithm:
  - Sufficiently quick response time needed
  - Accuracy according to the NIST evaluations

Smart Seamless Travel Corridor: Off-The-Shelf Hardware

Mini Computers

Cameras

Smart Seamless Travel Corridor: Environment

Infrastructure requirements:

- Cameras are mounted on existing walls/pillars or dedicated frames
- Doors/openings need to escort travellers
- Booth needed for border police staff
- standard existing lighting conditions

Smart Seamless Travel Corridor : Behind the scenes

- Based on machine learning & artificial intelligence
- Capture people in random group constellations even without active cooperation
  - Children
  - Persons in wheelchairs
- Tracks persons throughout the corridor
- Throughput around 3 times higher than with e-Gates, based on the same footprint
- No interaction necessary
- Pre registration based on eMRTD or digital ID like mDL or DTC
- Integrateable in existing Border Management Solutions

Smart Seamless Travel Corridor: Conclusion

Increase border crossing throughput

More efficient personnel utilization

Improve security utilizing biometric

Easy integration in existing solutions

Thank you for your attention.

Mühlbauer
High Tech International

Please visit as at the booth in the exhibition room

Thomas Schirferneder
Tel.: +49 9461 952 1150
Mobile: +49 176 3188 1150
Mail: Thomas.Schirferneder@muehlbauer.de