

Augmented Borders™ EU-EES

**An end-to-end solution to
support Member States in
achieving their goals**





Trusted by EU institutions to secure external borders

IDEMIA is a European technology leader and a long-standing industrial partner of the European agencies in charge of border management. We have been a partner of eu-LISA since its creation in 2012.

We have actively participated in the Smart Borders initiative launched by the European Commission to prepare for the upcoming EU Entry/Exit System deployment, by testing many technologies in real-life environments.

Our biometric solutions are already being used by many European mission critical systems such as the Visa Information System and Schengen Information System II. In 2020, IDEMIA and Sopra Steria were chosen by eu-LISA to build the new shared Biometric Matching System (sBMS) for border protection of the Schengen Area.

A new European Entry/Exit system

Europe is the most visited continent in the world and therefore there is a continuous effort to improve the management of its external borders, prevent irregular immigration and facilitate migration flows. In order to ensure that all Member States are doing this in a secure and uniform manner, the European Commission (EC) has chosen to implement a European Entry/Exit system (EU-EES).

The new system aims to improve the management of external borders by collecting and registering the identity (including biometrics) and all movements of Third Country Nationals (TCN) coming for a short stay to the Schengen Area. The EU-EES will also register refusals of entry and calculate the duration of authorized stay for each traveler in accordance with European regulations. This initiative will strengthen the external borders and improve security inside the Schengen Area.

The system will be enforced at all external land, air and sea borders of the Schengen Area, as well as external borders of the candidate countries which have not yet applied the Schengen acquis in full. This means that each Member State shall develop and deploy a national system that will manage all entry and exit movements*.

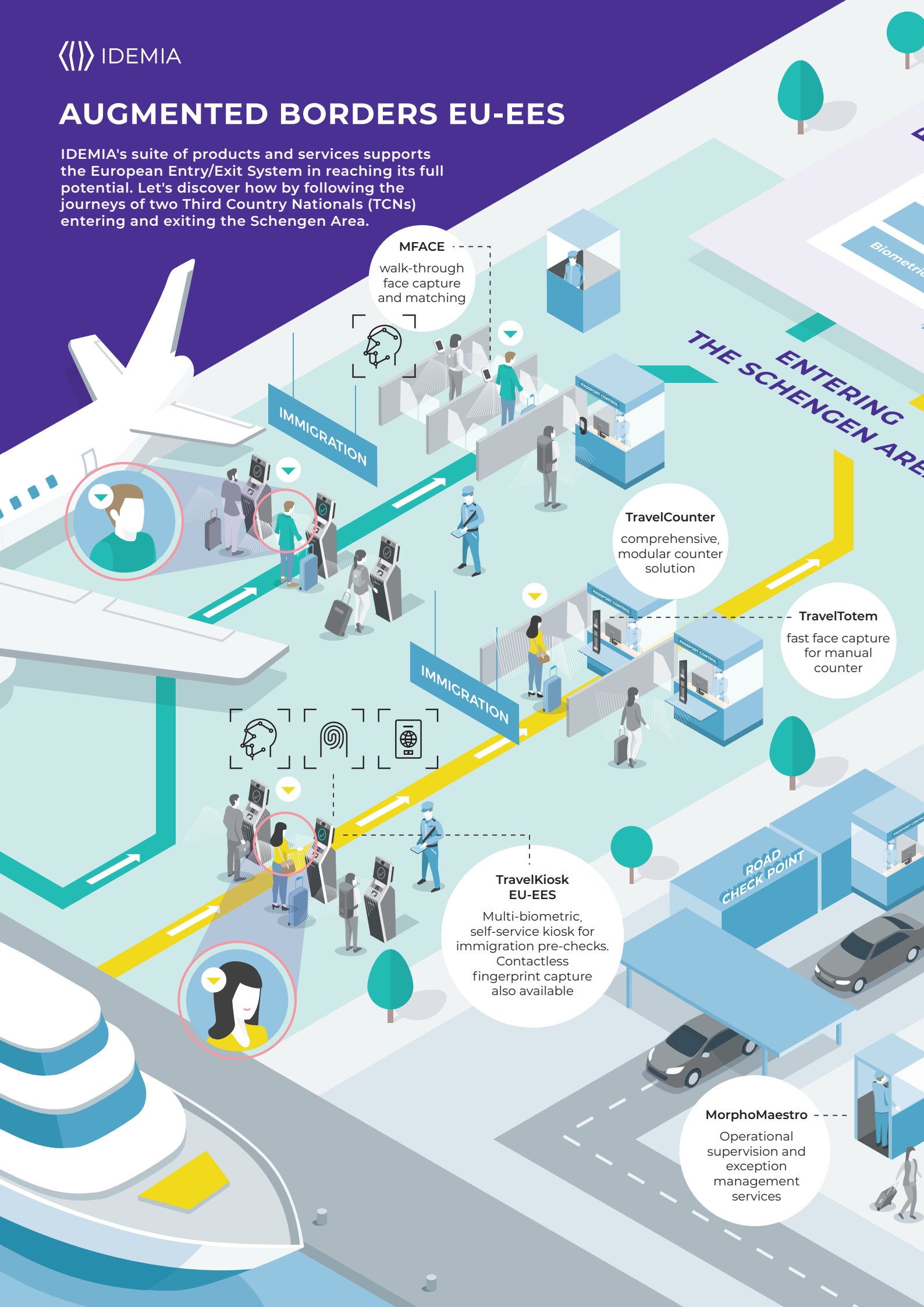
The EU-EES system is set to revolutionize the way TCN are managed at external Schengen borders, but it also sets complex challenges for all Member States. For example, processing times will have to be streamlined to accommodate biometric acquisition, the new checks and information registration. The system will also have to adapt to each border crossing environment in order to accommodate local constraints and infrastructure. And lastly, at a minimum, every border crossing point will need to be connected to the relevant national and European systems. This will enable border control officers to perform the required homogeneous checks for TCN at their first, and every subsequent, Schengen border crossing.

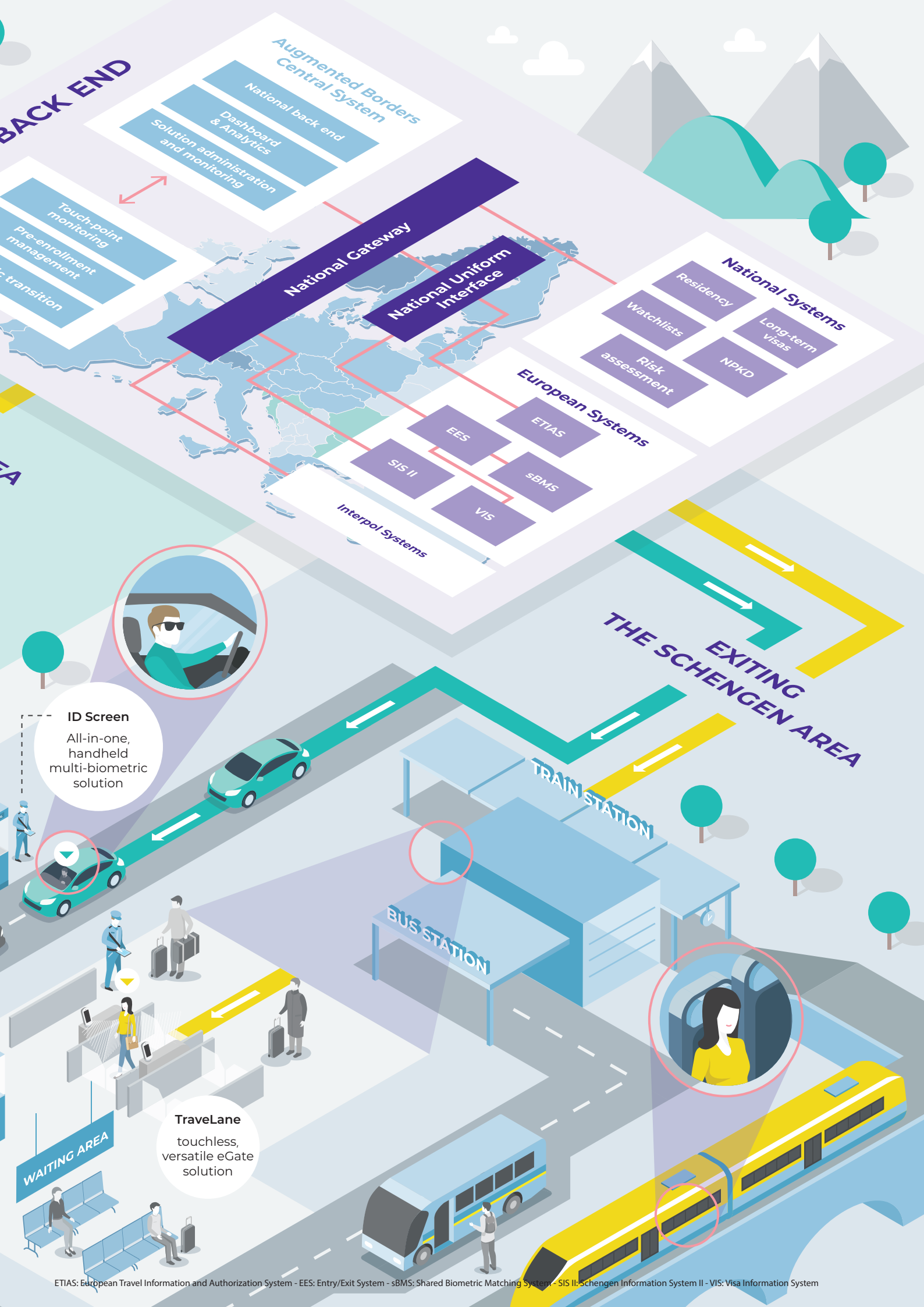
**IDEMIA is ready
to support all
Member States with
a comprehensive
portfolio of border
control solutions,
specifically developed
to comply with the
EU-EES regulations.**

* In accordance with the Schengen Borders Code (EU) 2016/399 and all its amendments, specifically with regulation (EU) 2017/2225 and its implementation decisions.

AUGMENTED BORDERS EU-EES

IDEZIA's suite of products and services supports the European Entry/Exit System in reaching its full potential. Let's discover how by following the journeys of two Third Country Nationals (TCNs) entering and exiting the Schengen Area.





BACK END

Augmented Borders
Central System

National back end

Dashboard & Analytics

Solution administration
and monitoring

National Gateway

National Uniform
Interface

National Systems

Residency

Watchlists

Risk
assessment

Long-term
Visas

NPKD

European Systems

EES

ETIAS

SIS II

SBMS

VIS

Interpol Systems

EXITING
THE SCHENGEN AREA

TRAIN STATION

BUS STATION

ID Screen

All-in-one,
handheld
multi-biometric
solution

TravelLane

touchless,
versatile eGate
solution

WAITING AREA

One-stop shop for secure and convenient traveler clearance at borders

The biometric enrollment of all TCN wishing to enter the Schengen Area, in addition to current measures, will inevitably increase the traveler processing time, resulting in longer queues and waiting times. Facilitating the flow of travelers and streamlining the border control process is key to maximizing efficiency and security at borders. To that end, IDEMIA's solutions enable border guards to focus on their core mission, rather than performing repetitive tasks.

Each country/border has its own specificities making it impossible to use a one-size-fits-all approach. It is therefore crucial to deploy a variety of solutions that are best adapted to each country's borders.

The combination of high-tech equipment and supporting supervision systems make IDEMIA's multi-biometric border solutions ideal for all border environments (air, land, sea). They are designed to maximize throughput, while maintaining the highest level of security, without the need to increase resources. They are capable of supporting various operational use cases (manual, self-service, automated, etc.) and of processing all the different traveler profiles.

All these solutions integrate Presentation Attack Detection (PAD) and embed biometric quality control capabilities, in compliance with eu-LISA requirements.



1.

TravelApp:

white label pre-checking app

Speeds up the border clearance process and improves the traveler experience:

- › Immigration declaration form completion prior to arriving at the border
- › Generation of a QR code to ease the border clearance process



2.

TravelKiosk EU-EES:

multi-biometric, user-friendly self-service kiosk

Optimizes passenger flows at manual border counters and at electronic doors (eGates) with fast and comprehensive immigration data capture and pre-checks:

- › High-quality face and four-fingerprint capture
- › Front, tight-framed facial image
- › Small form factor and footprint



3.

TravelCounter:

comprehensive and modular manual border counter solution

Helps border guards with their daily tasks for a fast and secure traveler clearance process:

- › Commercial off-the-shelf solutions: equipment and border management applications
- › Biometric-enabled for fast and secure data retrieval from pre-enrolled travelers
- › Highly customizable workflows and user interface
- › Easy-to-understand overview of all traveler data and checks on a single screen





4.

TraveLane:

multi-biometric, versatile
eGate solution

Improves passenger flow and convenience while increasing security:

- › Touchless, walk-through and multi-biometric ready: face and fingerprint
- › Various anti-spoofing measures
- › Available in a range of configurations with a small footprint and an unobstructed field of view for border guards

5.

MorphoMaestro:

real-time operational
supervision

Enables border guards to simultaneously monitor field equipment, such as gates and kiosks:

- › Homogenous centralized supervision to follow data collection and results
- › CCTV monitoring capabilities
- › Support for the decision-making process
- › Enables direct support intervention through mobile supervision equipment (smartphone or tablet)
- › Additional technical supervision and dashboard analytics

6.

ID Screen:

all-in-one, handheld multi-biometric tablet for mobile teams

Offers real-time, autonomous operational capabilities, enabling border guards to perform tasks effectively anytime, anywhere:

- › On-the-spot document and identity verification
- › Highly accurate biometric capture and matching
- › Operates in both online and offline modes
- › Supports outdoor applications



7.

In-house, easy-to-integrate biometric devices

MFACE

Walk-through, multi-face capture and matching with highly accurate anti-spoofing capabilities. Uses ambient light and does not require height adjustment.

TravelTotem

Fast and accurate face capture to speed up the border clearance process at immigration counters.

MorphoWave

On-the-move, touchless four-fingerprint capture with a simple wave of the hand, integrated with highly accurate PAD* capabilities.

MTop Slim

The smallest sensor of its kind for simultaneous four-fingerprint capture and matching, with highly accurate integrated fake-finger detection.



MFACE



MorphoWave



8.

Desktop Document Authentication:

advanced travel document authentication

Verifies the authenticity of a comprehensive range of travel documents:

- › Capability to read and process more than 4,000 travel documents currently in use
- › Full scope of optical authenticity checks under UV and IR light
- › Quarterly library updates to add new documents issued by governments worldwide

* PAD: Presentation Attack Detection

Flexible management of border control systems

An efficient border control system needs a reliable and stable back end to ensure the continuous management of borders. In addition, Member States must be able to adapt to the constant progression of regulations both at a European and national level, and as new IT systems are deployed. Each Member State's system should be able to interact with the EU-EES, SIS, VIS, Interpol databases, the future ETIAS and other new systems, as well as a set of national security systems. In this context, interoperability is fundamental.

Augmented Borders Central System:

the cornerstone of the national Entry/Exit System

Continuous interaction between the EU-EES and national EES systems is key to streamline border guards' decision-making process, based on accurate traveler information. This allows Member States to speed up the border clearance process for bona fide travelers.

The main roles of the national EES are to:

- › Manage the Member State's interaction with the EU-EES system through the National Uniform Interface
- › Ensure central management of all border crossing points at the national level
- › Organize and adapt the border crossing process to the passenger's profile



Key features



Flexible architecture to meet country-specific needs (e.g. local infrastructure vs. fully centralized)



Future-proof, highly modular and easily scalable



Designed for high availability and data security



Integrated analytic tools

Local biometric matching system

A national EES can be complemented by a local biometric matching system to manage the flow of travelers at specific border crossing points. The goal of this local system is to match the biometric data captured at the kiosks against the data presented at the manual border counters or electronic doors. In compliance with European regulations, it retains data only for the time needed to complete the border clearance process and must guarantee secure erasure of data once the border control process has ended.

The purpose of a local biometric matching system is to:

- › Reconcile traveler records between self-service kiosks and manual border counters/electronic doors
- › Ensure high throughput by enabling a passport-less approach at manual border counters and electronic doors
- › Provide local database management services such as inserting, accessing, updating and removing records

Key features



High availability and reliability



Capability to handle the varied population (gender, age, ethnicity etc.)



100% software solution, easy to integrate on standard server



Adapted to real-life operations



Serving European institutions and Member States

DEMIA's high-tech biometric solutions help secure the Schengen Area with respect to the regulatory framework. They are being used in the frame of the following European projects:

eu-LISA

shared Biometric Matching System for the European Union

eu-LISA

User Software Kit for embedded quality checks on enrolled biometric data for EES

EU H2020

Smile pilot
Smart mobility at European land borders

eu-LISA

Biometric Matching System for the European VIS, SIS and EES

eu-LISA

Smart Borders pilot



Trusted worldwide to protect borders

With over 30 border control solutions deployed worldwide, IDEMIA has extensive experience with meeting client expectations and delivery dates, while working with varied national and international requirements. We provide a field-proven, interoperable and fully scalable suite of products and services that allow governments to create a bespoke border control solution.



Australia

Automated border clearance process based on kiosks and eGates at eight international airports



Belgium

Asylum management system



Benin

Biometric Entry/Exit System at Cotonou International Airport



France

CCAF program

National supervision system for counters, kiosks and eGates

API-PNR program

French Customs risks assessment system

VisaBio program

National biometric visa management system



New Zealand

Automated Border Control system at four international airports



Singapore

Automated, multi-biometric border clearance process at Changi and Seletar airports



Norway

Automated Border Control at Avinor Oslo Airport, the second busiest Scandinavian airport



UAE

National, multi-biometric border control system at five international airports and two seaports

And many more around the world: Argentina, Chile, Egypt, Jordan, Kazakhstan, Mali, Mauritania, The Netherlands, Oman, Saudi Arabia, the UK, the USA, etc.



Augmented Borders™ EU-EES

An end-to-end solution to support
Member States in achieving their goals

www.idemia.com/our-vision-eu-entryexit-system



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