EU Interoperability framework for border management systems

Secure, Safe and Resilient Societies

5 June 2018
Brussels

European Commission – Directorate-General Migration & Home Affairs
Unit B3 – Information Systems for Borders and Security

Who are you?

European Commission

What do we know about you?

Where are you from?

Where will you go?

How long will you stay?

Are we sure you will leave?

Where have you been?

Why are you here?

Are you wanted for anything?

Can you pay for your stay?

Have you done anything wrong?

Were you here before?

Schengen Border Checks

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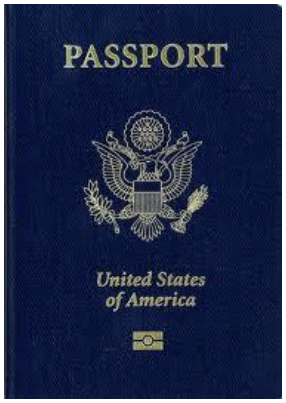
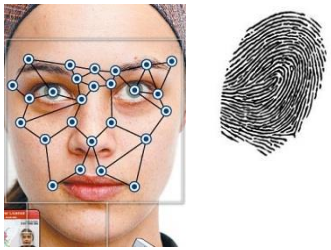
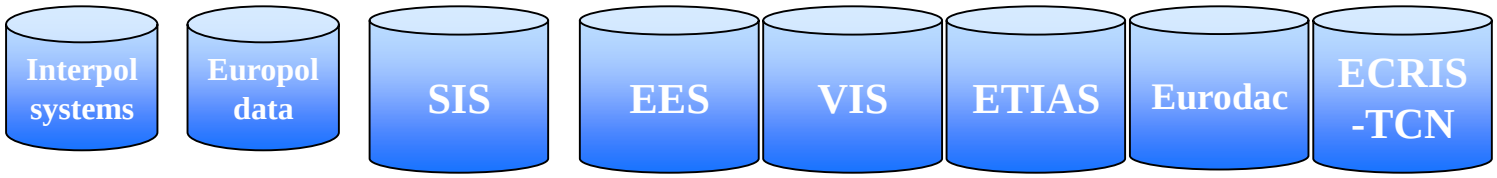


ETIAS
EU TRAVEL INFORMATION &
AUTHORISATION SYSTEM





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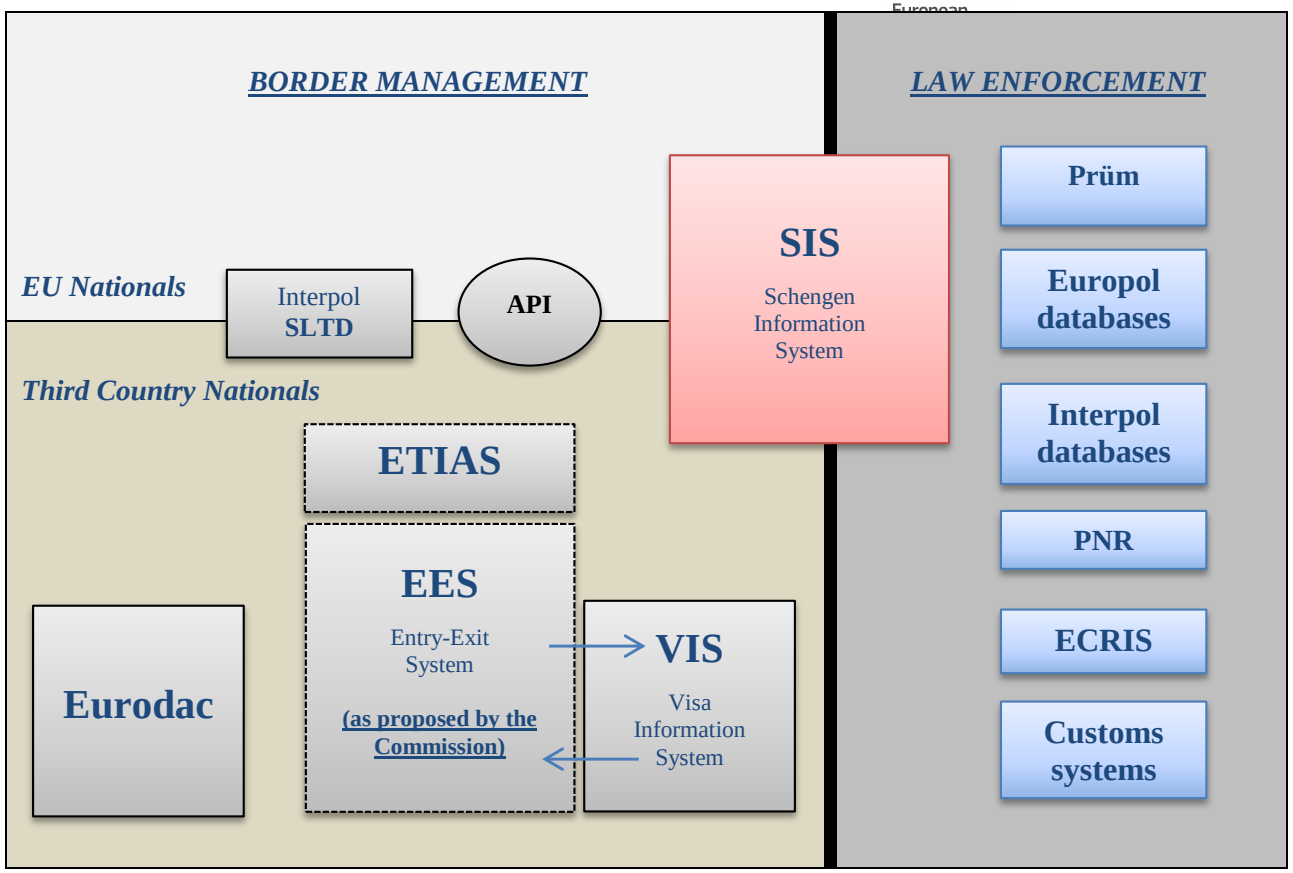

The specific objectives of this 'interoperability' proposal are to:

1. ensure that end-users have fast, seamless, systematic and controlled access to the information that they need to perform their tasks;
2. detect multiple identities linked to the same set of biometric data;
3. facilitate identity checks of third-country nationals, on the territory of a Member State, by police authorities; and
4. facilitate and streamline access by law enforcement authorities to non-law enforcement information systems at EU level

My name is.....

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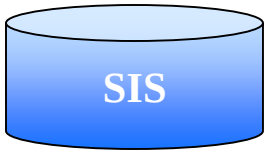

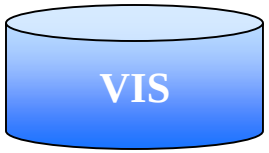

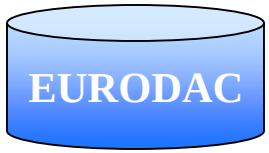

T
Trump, Donald

R
Rinkens, Richard

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Rinkens, Richard

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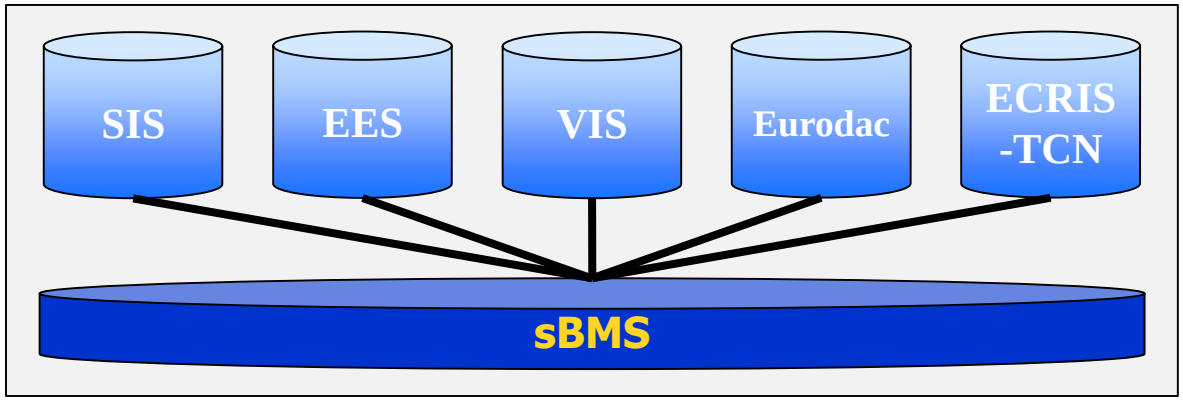
Trump, Donald

A
Al Fulani, Fulan

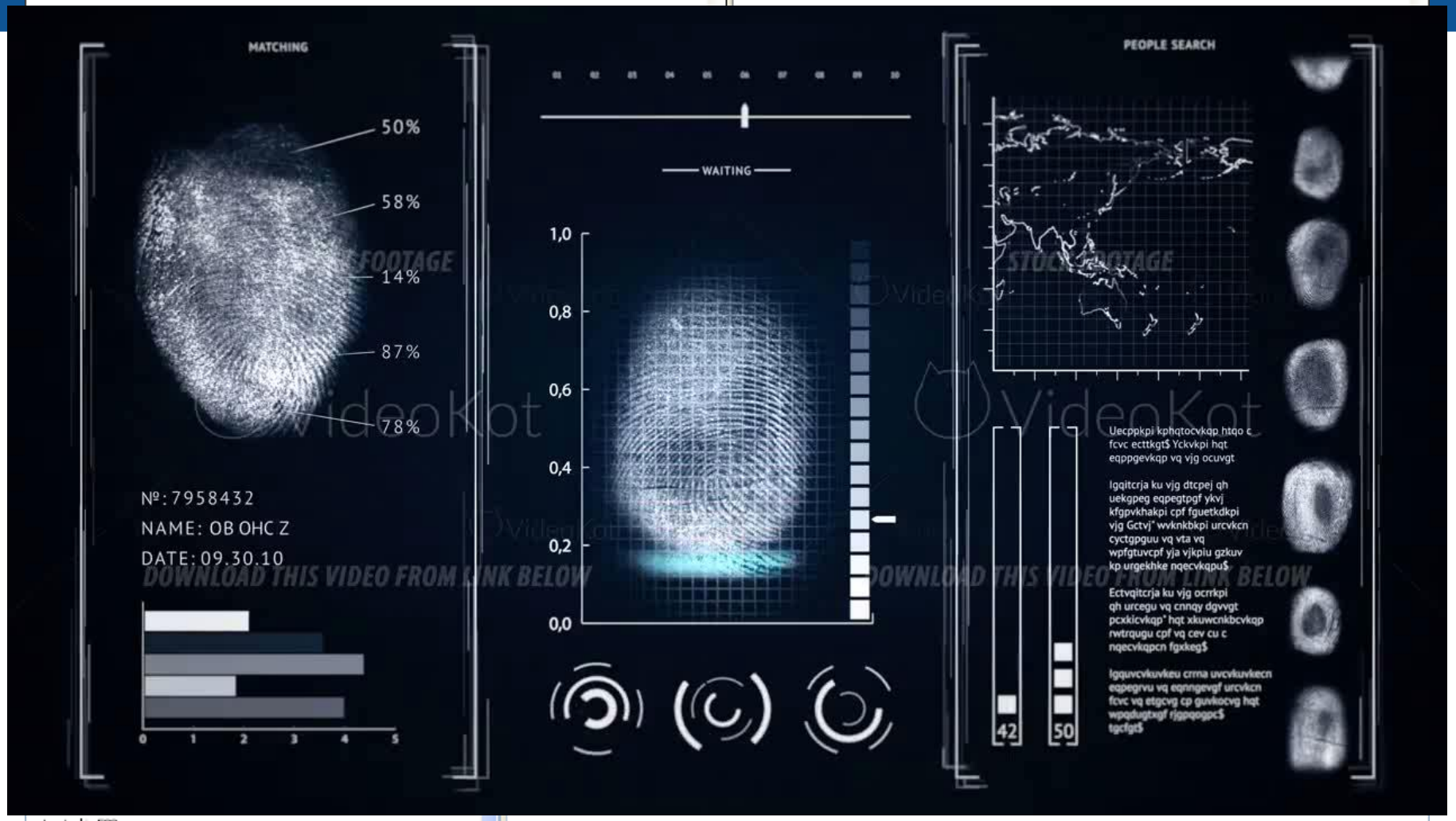
R
Rios, David

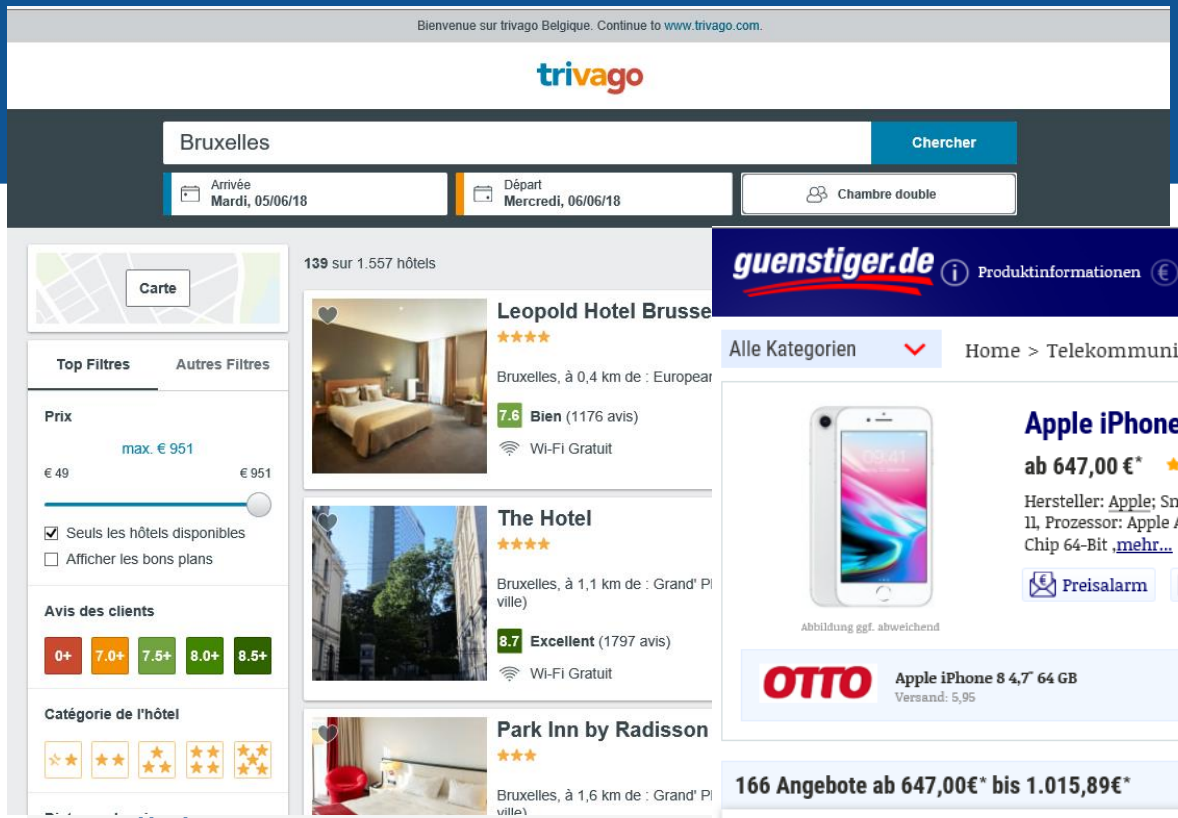
Shared BMS
A back-end infrastructure component

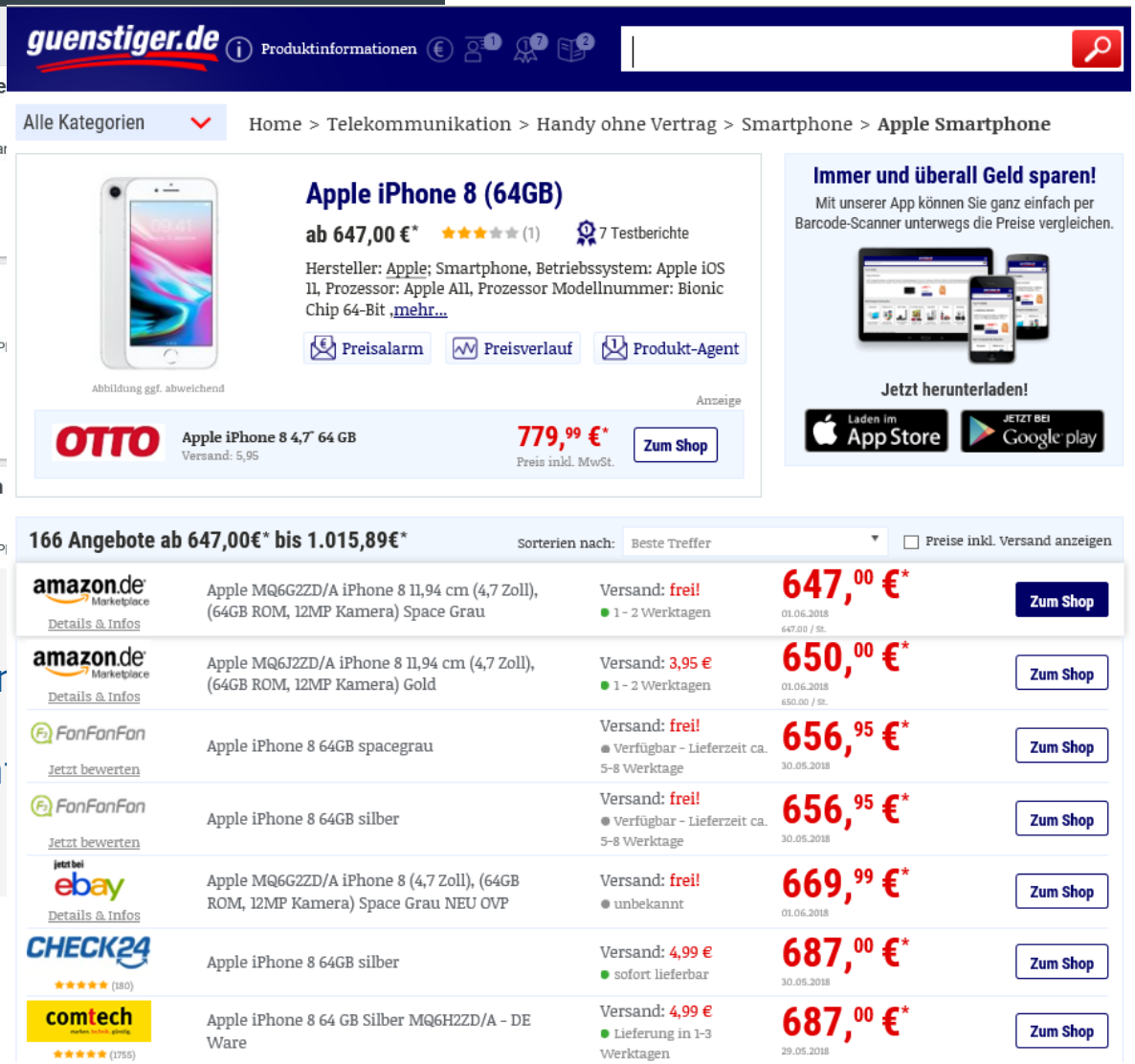


A shared Biometric Matching Service will deliver economies of scale by providing a fingerprint & facial image search service to cross-match biometric data present on all central systems.

Biometric matches can be made when adding new data and when searching with biometric data.


MATCHING
50%
58%
14%
87%
78%
№: 7958432
NAME: OB OHC Z
DATE: 09.30.10
WAITING
1,0
0,8
0,6
0,4
0,2
0,0
PEOPLE SEARCH
42
50
DOWNLOAD THIS VIDEO FROM LINK BELOW





parallel.

End-user access rights are deterr

The ESP is a message broker tha
credentials.

Common Identity Repository (for TCNs)
A front-end infrastructure component

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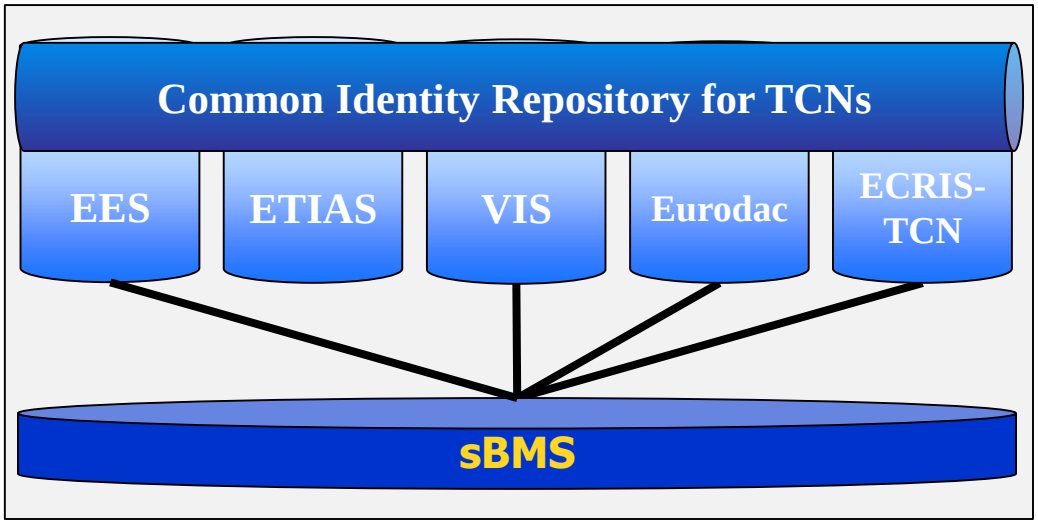
- Al Fulani, Fulan
- Salieri, Paolo
- Rinkens, Richard
- Rios, David
- Trump, Donald



- Similar to the shared BMS combining biometric samples of persons to enable biometric identifications, the Common Identity Repository would combine biographical identities of persons (name, gender, date of birth)
- The common identity repository for third-country nationals would enable identification of TCNs without (proper) travel documents

Police identification of third-country nationals in the territory

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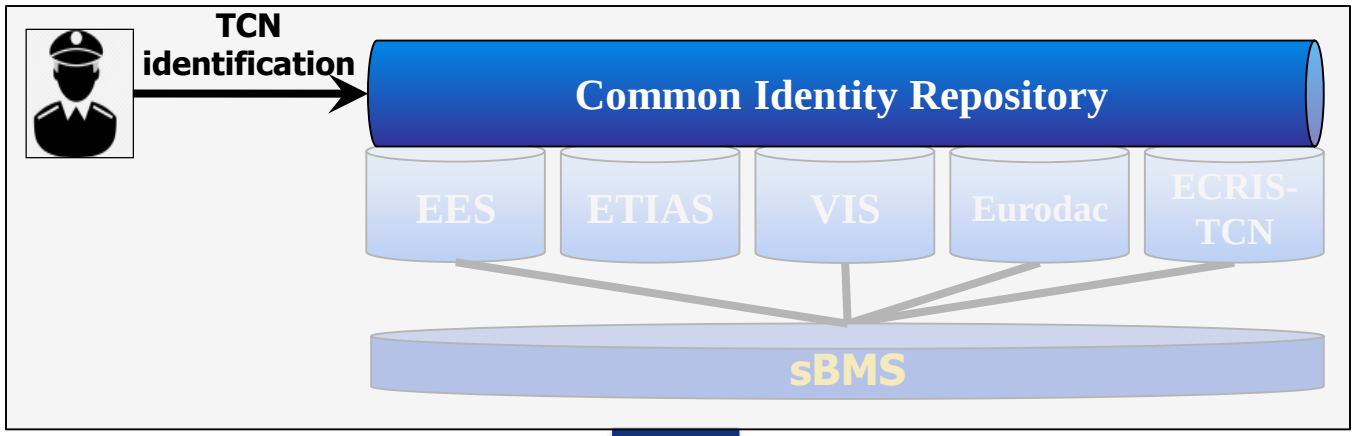
VIS, EDAC, EES, ETIAS, ECRIS-TCN legal instruments do not foresee identification of TCNs by police authorities. *(unless for the purpose of migration management)*

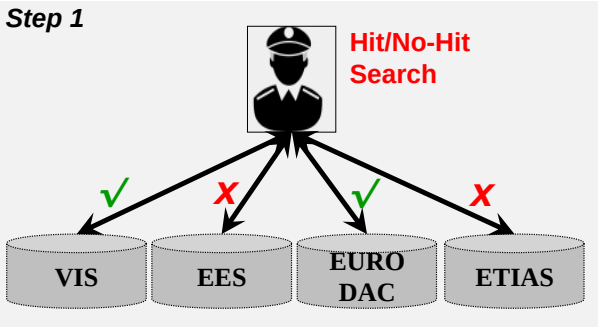
	SIS	VIS	Eurodac	EES	ETIAS (proposal)	ECRIS TCN (proposal)	Europol data	Interpol SLTD
Purpose of access **Police checks: Identification or verification of identity in territory of Member State**	X							

- The common identity repository only contains identity data commonly found in a passport, which a third-country national is supposed to carry.
- If a TCN has no identity document or the authenticity is doubtful, police authorities can use the CIR to identity the person using biometric data (via sBMS) or travel-document details (MRZ).
- No data from the underlying central systems will be retrieved.



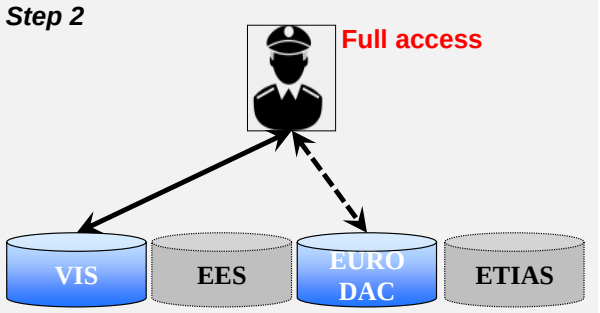
Law Enforcement Access two-step approach

Systems like VIS, EURODAC, EES, ETIAS foresee Law Enforcement Access under strict conditions and following strict procedures involving ex-ante authorisation and cascading searches.
A new Law Enforcement Access concept is based on a two-step approach:



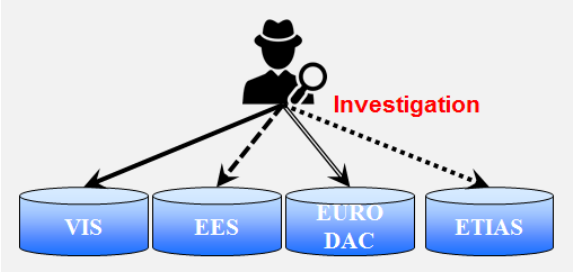
The end-user performed a parallel search (no cascade). The search was logged but did not require authorisation.

In this example, only VIS and EURODAC indicate to contain data concerning the person. The result of this search contains no other data. Only Yes or No.



In a second step, the end-user requests actual access to the data. In this example this would be VIS and EURODAC. If authorised, the end-user will access the data on the person in question. These retrievals of data are logged.

Here, the end-user will not bother requesting access to EES or ETIAS as they indicated to hold no data on the person.



Person(s) physically NOT present!

Complex investigations may require full access to systems, for instance when reconstructing travel movements or looking for background data on several persons or groups of persons.

The user knows which system could hold relevant data, a sequential cascade is irrelevant. The access requires ex-ante authorisation and will be fully logged. Provisions for emergency situations will be made.

First step via CIR
Second step to central-system

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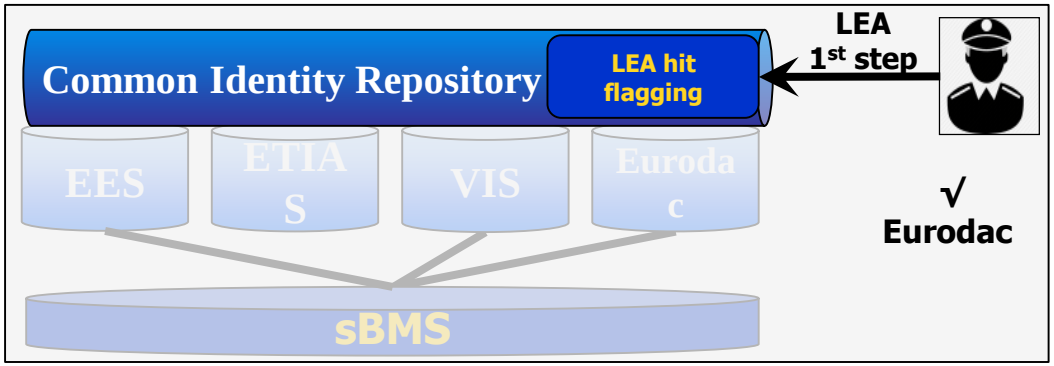
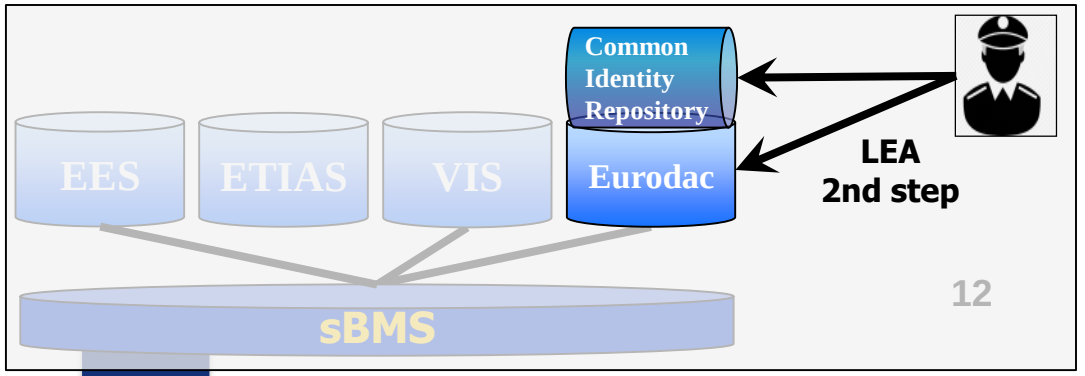
- The common identity repository can be queried using biographical identity data or biometric data via the sBMS
- For the first step of a law-enforcement access, this query will only result in:
  - *No hit*
  - *HIT in: EES ; ETIAS ; VIS ; Eurodac ; ECRIS-TCN*
- This first step requires no authorisation and is not part of any sequence or cascade

- In case a HIT was indicated in one or several systems, an authorisation is required to gain access to those systems that indicated a hit. (in the graphic below, only Eurodac is relevant





ECRIS-TCN currently has no LEA provision!

Multiple-Identity Detector

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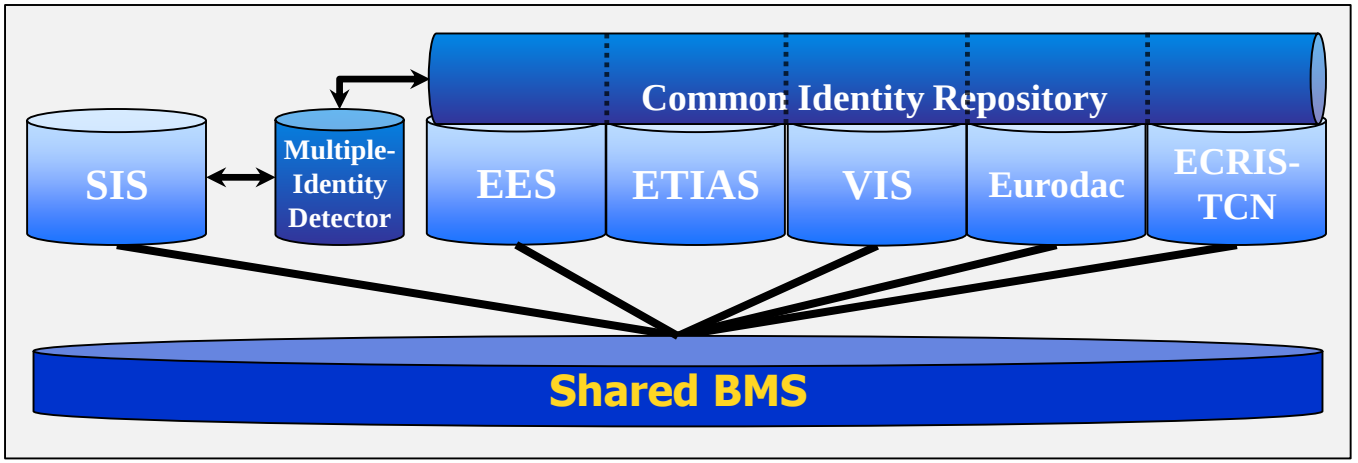
- To allow linking identities present in different systems, the Multiple Identity Detector will;
  - Detect a possible link
  - Determine the type of link
  - Store the link for future use



Trump, Donald 

Rinkens, Richard 

Al Fulani, Fulan 

GREEN

WHITE

RED

Trump, Donald 

Rinkens, Richard 

Rinkens, Richard 

MID links

MID links are 'colour-coded' to indicate the following situations:

YELLOW:
- A link may exist, manual verification will lead to maintaining the link with a different colour or removing the link

GREEN:
- Same or very similar biographical identities with different biometric data

RED:
- Different biographical identities are linked to the same biometric data and manual verification determines that this is unlawful (identity fraud)

WHITE:
- Same biometric data and same (or very similar) biographical data (same person in multiple systems)
- Same biometric data but lawfully differing biographical data after manual verification

Examples:

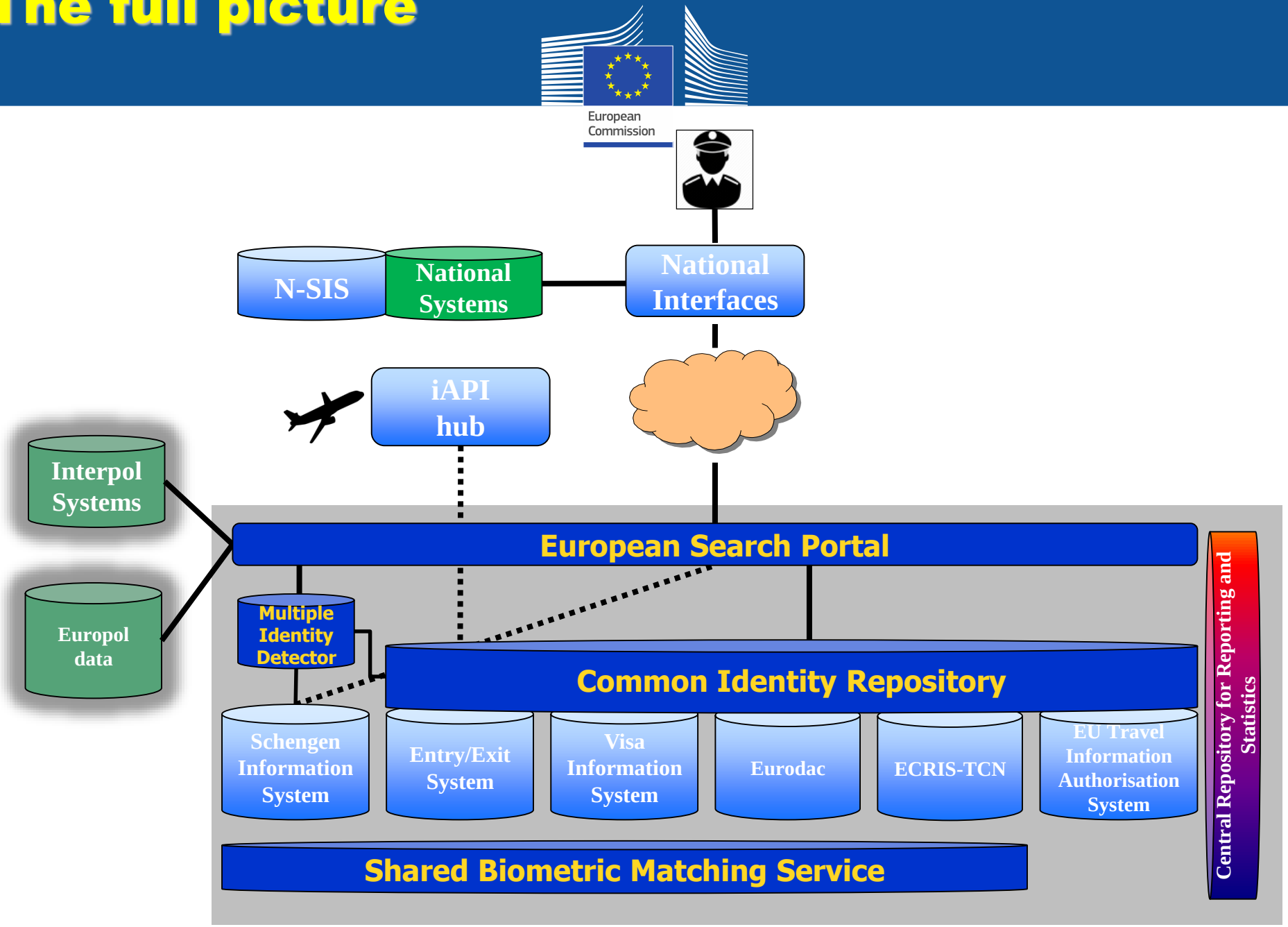
YELLOW:
- John Irving (SIS) & Jonathan P. Irving (VIS) are probably the same person

GREEN:
- Donald Trump (SIS) & Donald Trump (VIS) are two different persons

RED:
- Richard Rinkens (SIS) & Fulan Al Fulani (EDAC) are the same person using different IDs

WHITE:
- Jean-Philippe Smet & Johnny Hallyday are legally different identities for the same person

The full picture



Research

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Biometrics

- How to make capturing of biometrics more ‘user friendly’?
- How to make trusted, revocable biometric identities?
- How to capture good quality biometrics in difficult situations?
- Spoofing and morphing?

Biographic matching

- How to match different alphabets, different spellings, different pronunciations, different phonetics?

Interfaces

- How to converge towards common, standard interfaces and data-models? (UMF)

Societal

- How to make usage of biometrics more ‘acceptable’?
- Why do people change names? (marriage…)
- How to retain original name in identity documents?

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Thank you