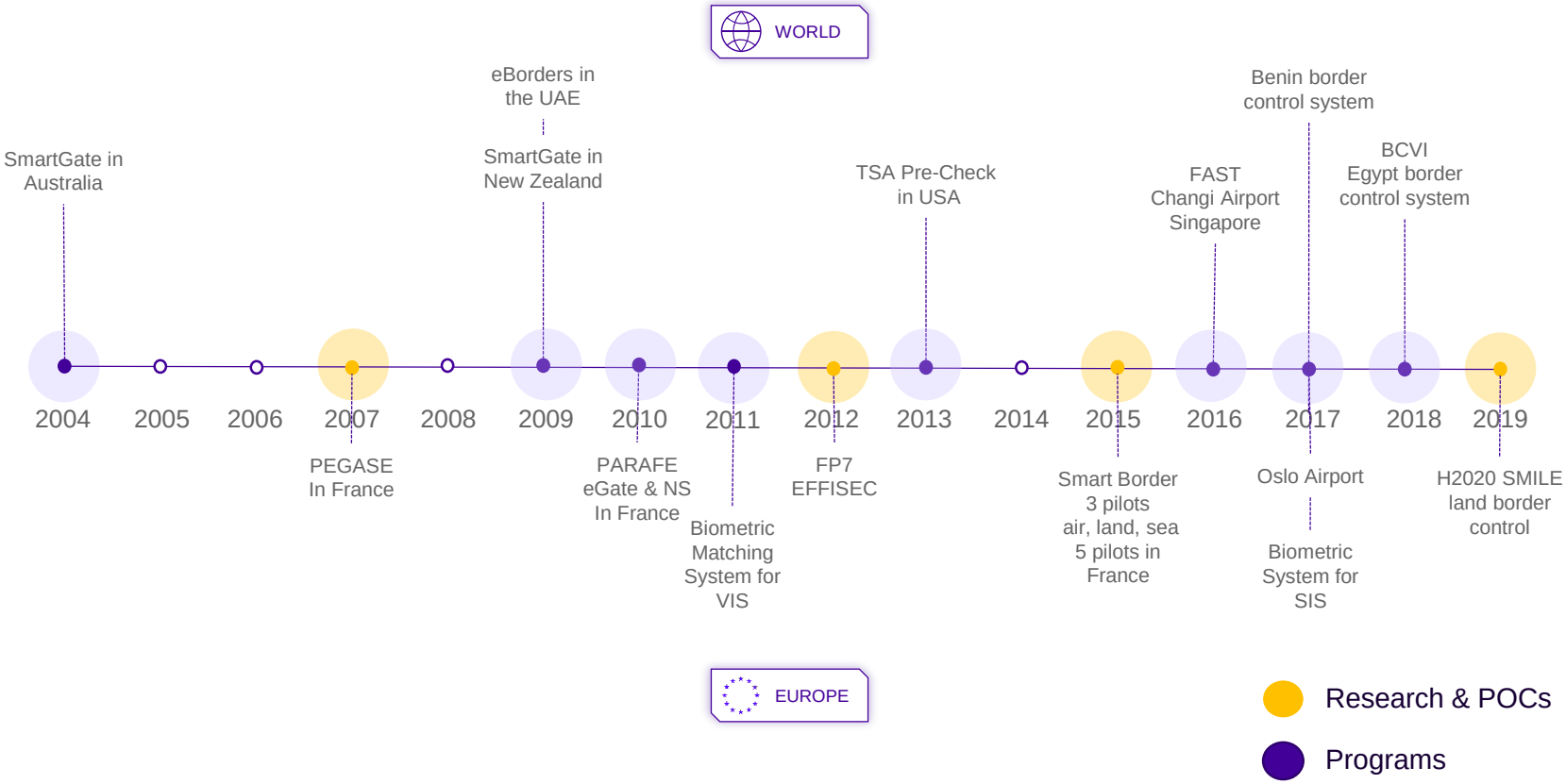
IDEMIA

IDEMIA | Public
Security & Identity

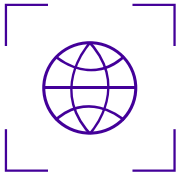
Custom-made business services versus standard identity and biometric solutions

21 October 2019

Selected References in Europe and Abroad



Global trends on border control initiatives



WORLDWIDE

- Countries have **different laws**, heterogeneous organizations, but **common issues**
- Beyond local **variability** they all face the **same ID management needs**

LEGACY

Clients have a history:

- We often offer **biometrics add-on** on a **legacy system**
- **Migration** and **integration** are recurring key topics

BIOMETRICS

Governments turn to biometrics:

- Need for **enrolment terminals** and **biometric recognition**
- These solutions always integrate in a more **global solution**

SEAMLESS

Ease of use is an important criteria:

- **User experience** shall not depend on integration issues
- We promote **open standards** for solution components to be replaced without impact

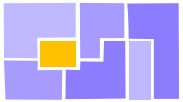
REX 1 : Standalone solutions no more exist

1 **PART OF A WHOLE**

Comprehensive immigration solution management is scarely the object of a single contract

2 **SPECIALIZED**

Because you cannot be specialist of everything, big contracts and research projects are usually addressed by consortiums

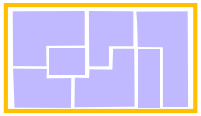


3 **EVOLVING**

Laws evolve, new components appear in the landscape: a solution does not remain the same for a long period.

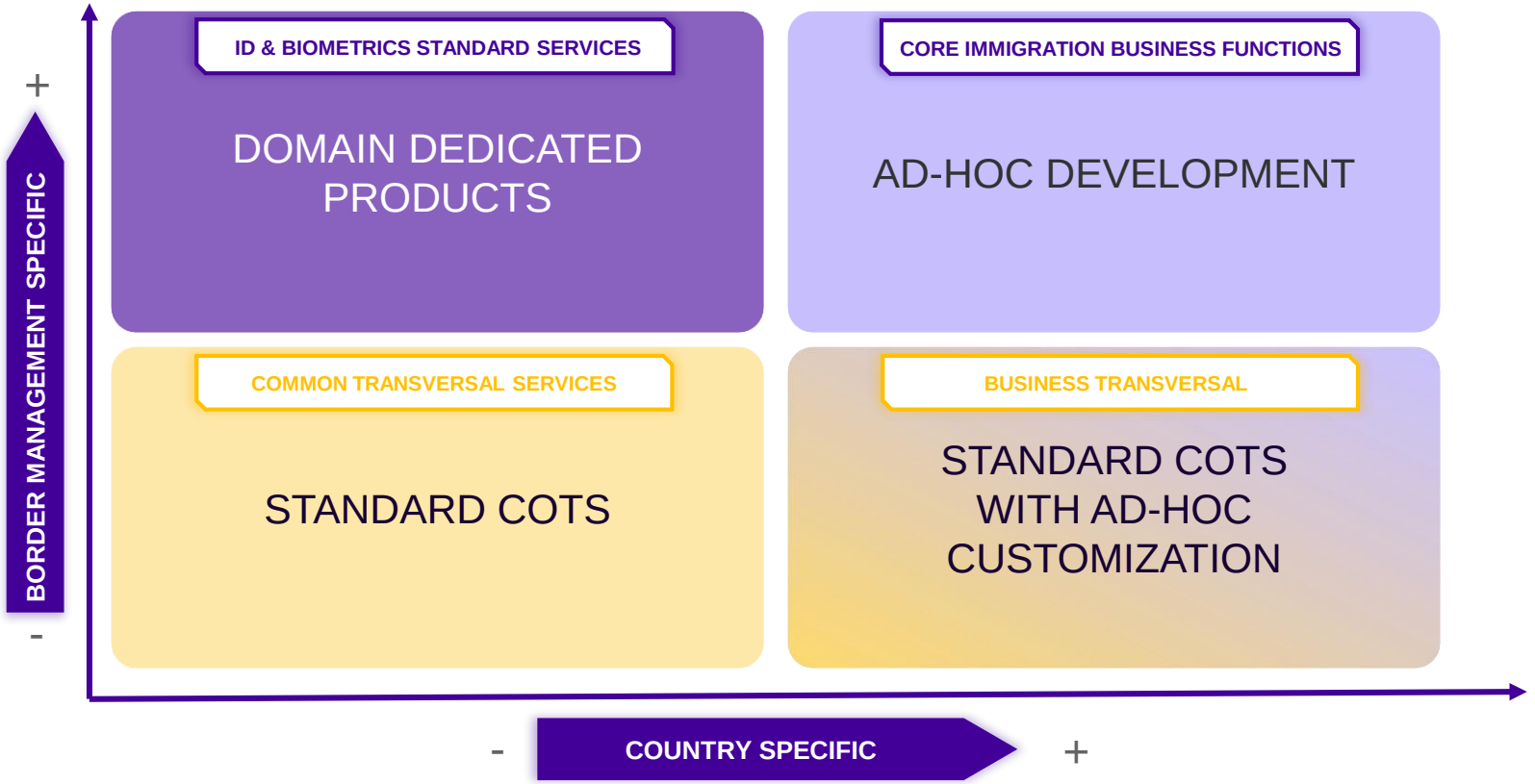
4 **OPEN**

Customers do not want to be tied to a provider through monolithic proprietary systems



Need for **interoperability** & **modularity** in our solutions

REX 2 : Solutions cover a mix of custom and generic needs



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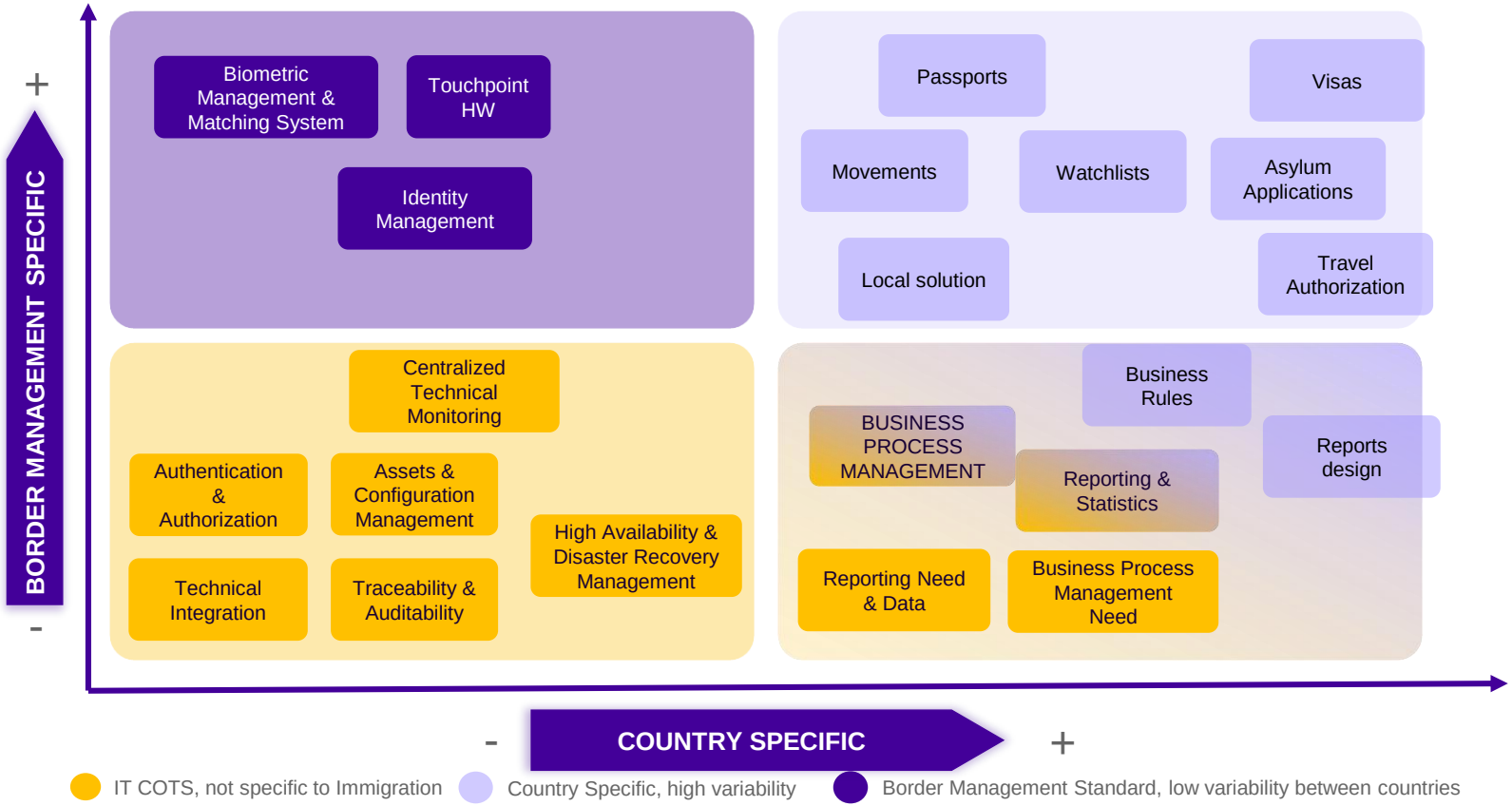
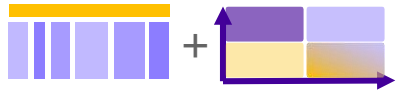
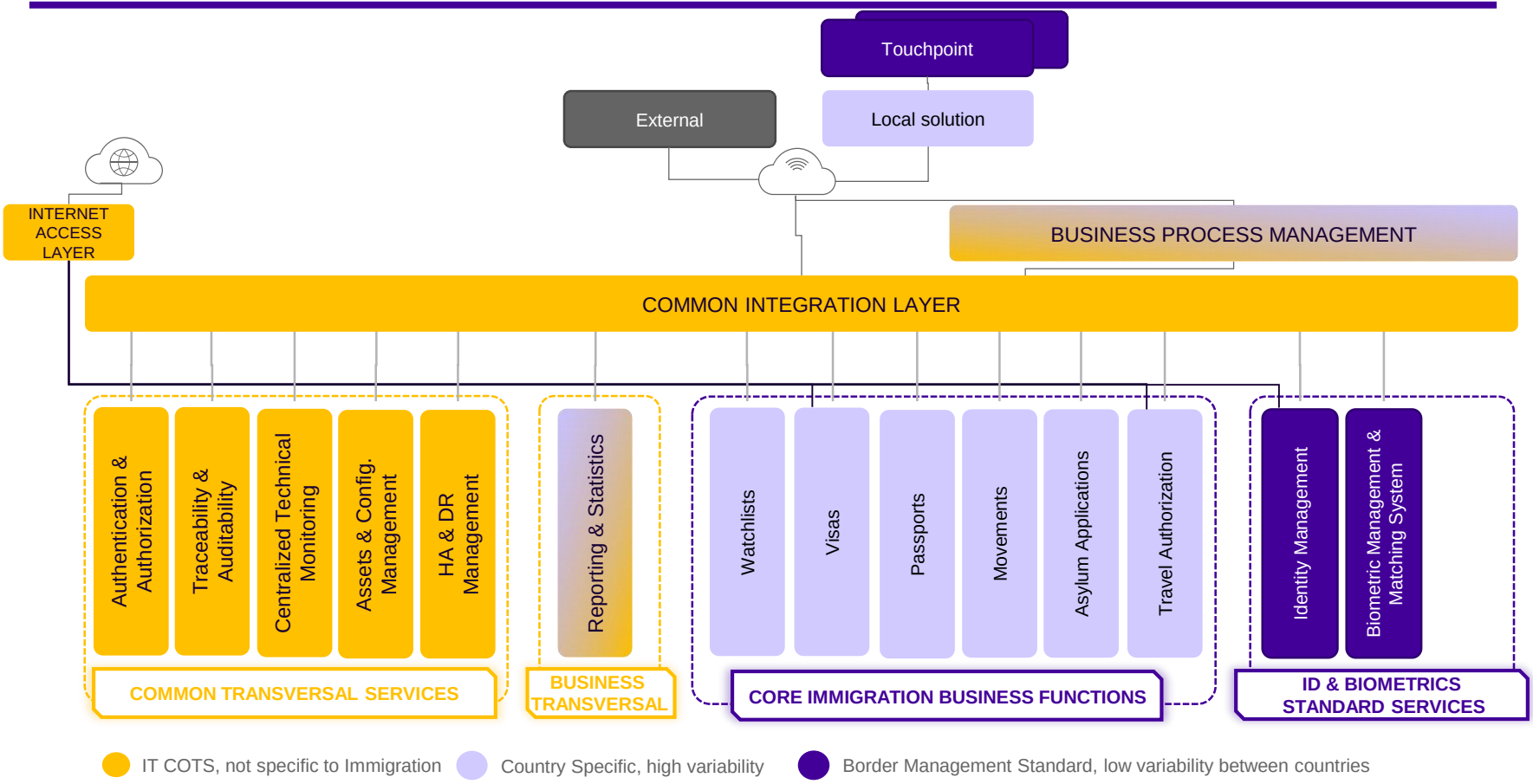
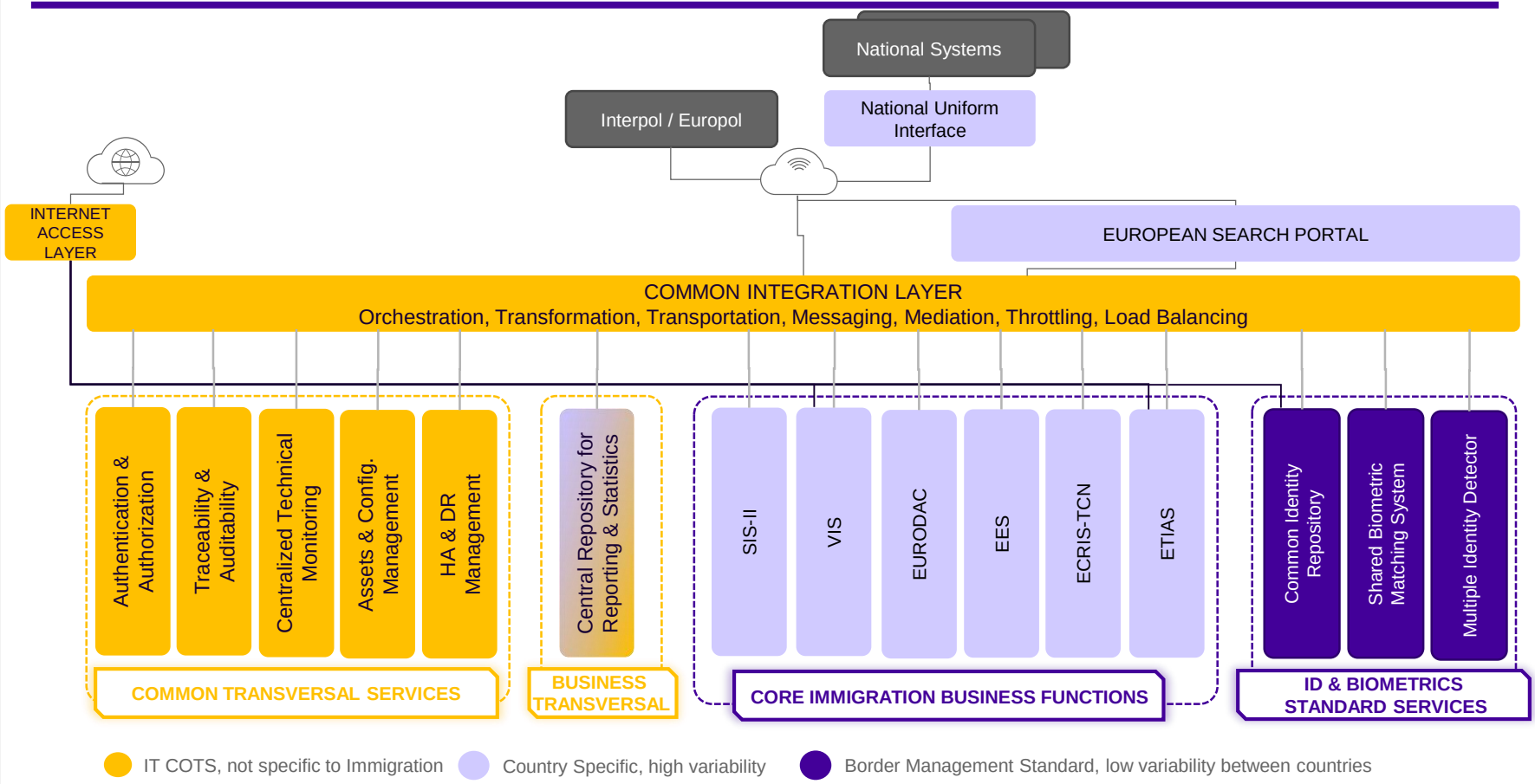


IDEMIA Augmented Borders® Architecture





EU-LISA interoperability platform



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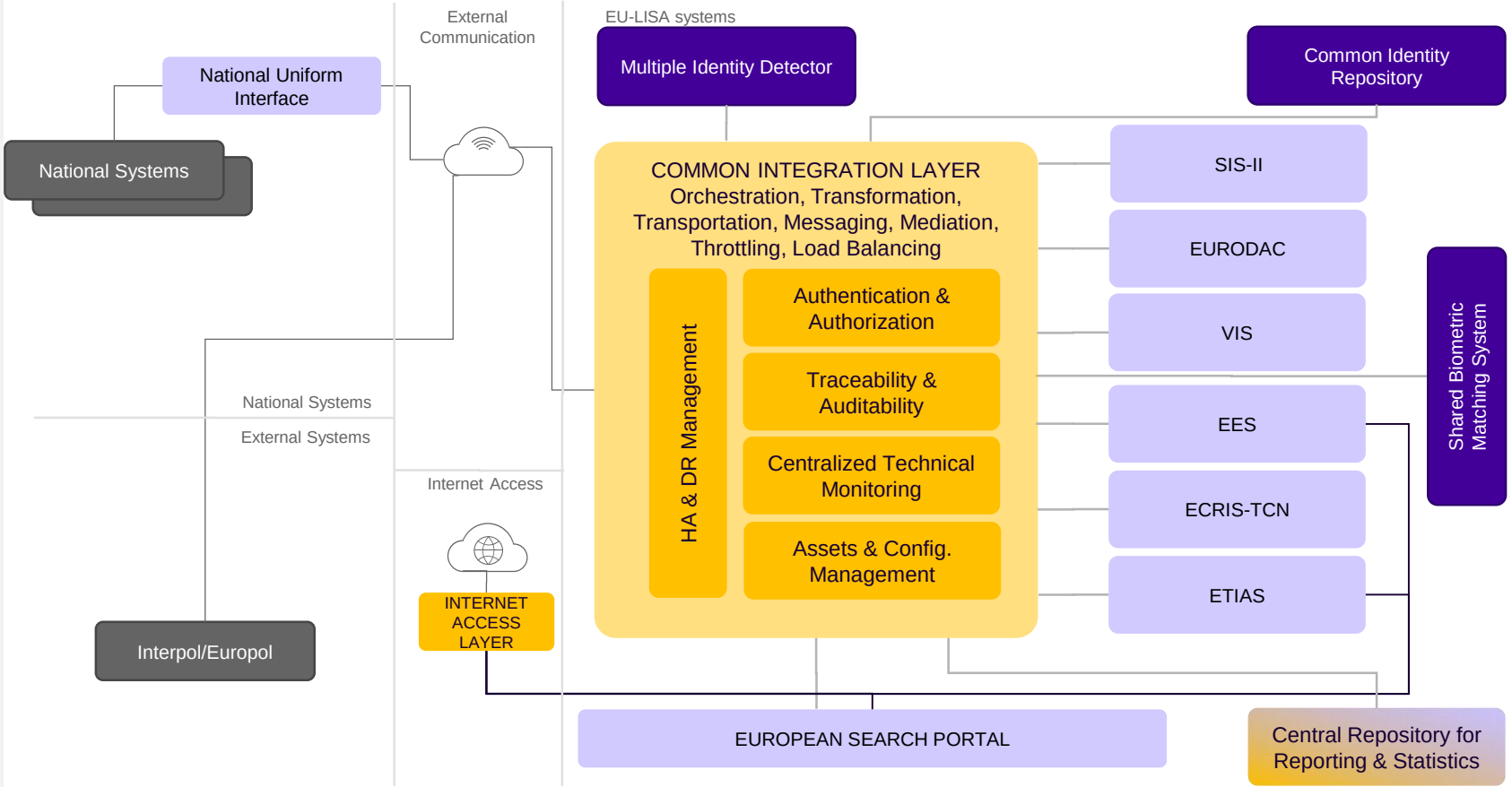

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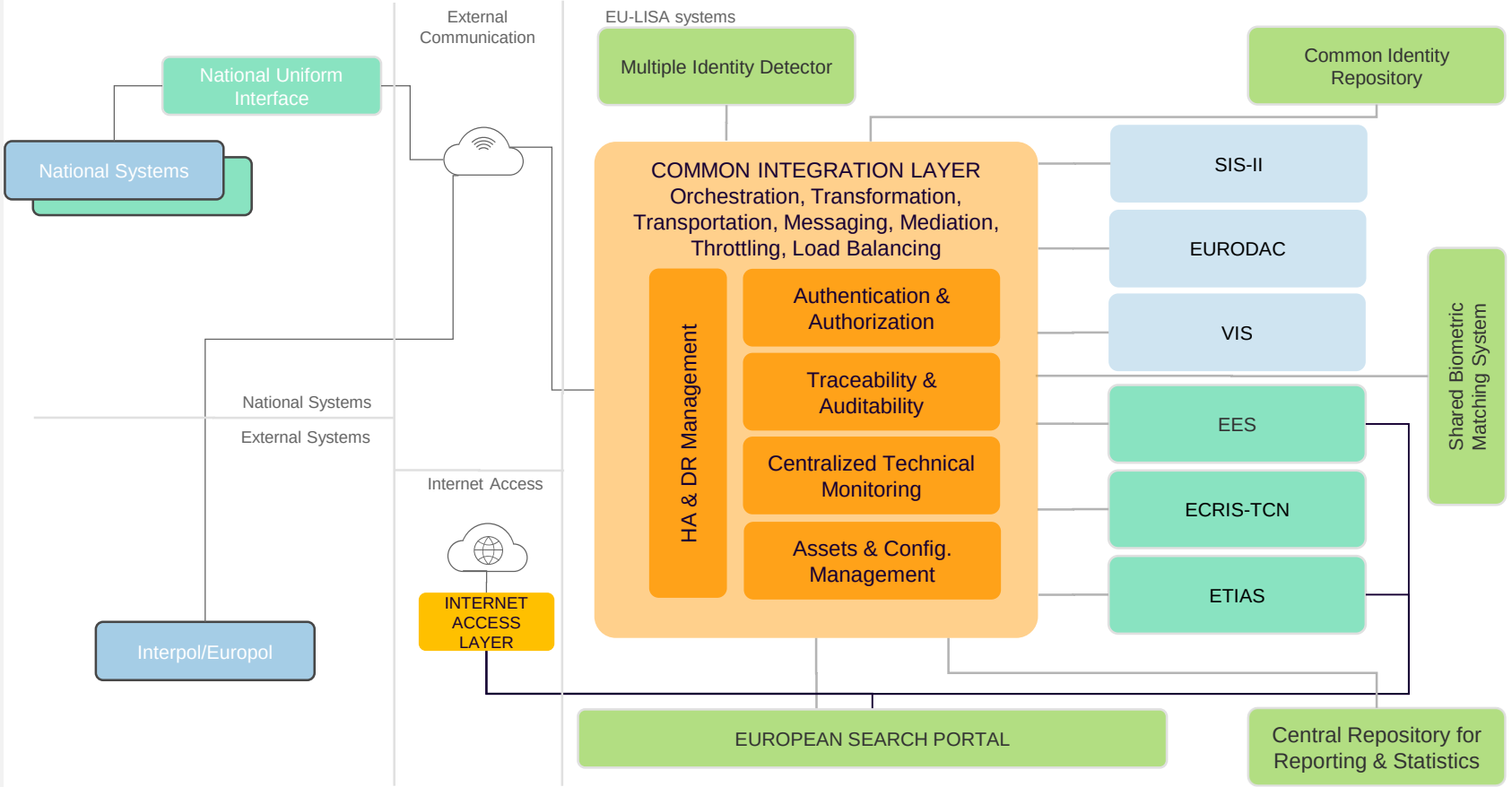
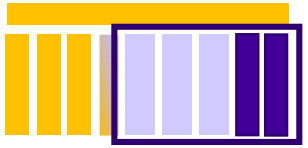


Focus on business specific components



CORE IMMIGRATION BUSINESS FUNCTIONS

BUSINESS ORIENTED

Management of business-specific data

COUNTRY SPECIFIC

- Closely linked to **local regulations**: output elements, data to be collected, data to be saved
- Reflects the **operational processes**: because governmental agents already have processes and procedures to apply
- Interconnected to local systems

Requires **re-usable components** with **custom-development** capabilities

ID & BIOMETRICS STANDARD SERVICES

FUNCTIONALLY SIMPLE

Enable to identify and authenticate a person

TECHNICALLY TRICKY

I identify / authenticate:

- **One person:** No duplicate of information
- **The right one**: Reliability of the identification / authentication
- **Whoever he/she is**: Universality of the solution
- In the respect of nationals & internationals **standards & regulations**
- **Whatever his/her situation**: Management of data lifecycle

Requires a high level of **expertise** and **mature standard solution**

Value-added of standard Identity services

ID STANDARD SERVICES

Main Functions

- ID Data Storage & Lifecycle management
- ID Data access / search
- Management of a reliable ID register

Main Expertise

- Normalized and non-normalized identity fields
- Transliteration management
- ID Search / ID Matching resilient to orthographic errors and different transliteration policies
- ID evolutions along the individual's life

BIOMETRICS STANDARD SERVICES

Main Functions

- Biometrics data encoding & Lifecycle management
- Identification / authentication
- Management of a reliable biometric register

Main Expertise

- Reliability of identification and authentication algorithms (FAR / FRR)
- Management of the different biometric modalities
- Modality-fusion strategies
- Tolerance to real-life conditions of data acquisition
- Biometrics eldering management

Key Topic

Tranversal management of coherence between different identities and several biometric features

Synthesis

USING 2 AXES FROM OUR RETURN ON EXPERIENCE, WE DEFINED ARCHITECTURE PRINCIPLES :

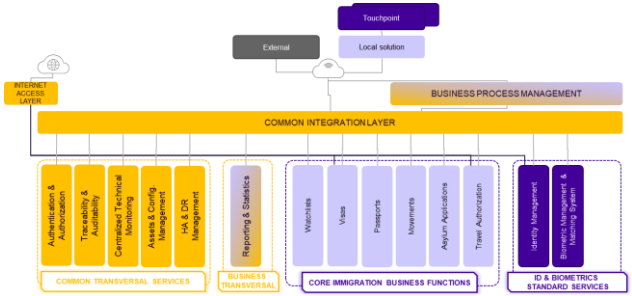
1. Standalone solutions no more exist
2. Solutions cover a mix of custom and generic needs

→

BE MODULAR & INTEROPERABLE

USE COTS WHERE ADAPTED

WE PRESENTED OUR SOLUTION ARCHITECTURE AND MAPPED IT TO EU-LISA INTEROPERABILITY ARCHITECTURE



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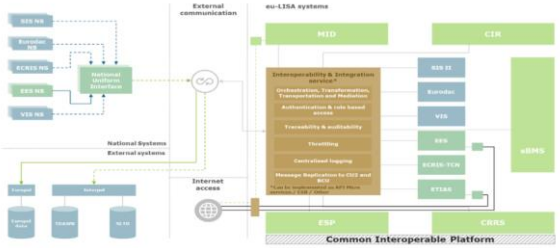

AND WE FOCUSED ON THE EXPERTISE LEVEL ATTACHED TO IDENTITY AND BIOMETRICS MANAGEMENT

Business-specific COTS usage

COTS usage is a **good practice** for low variability components

If generic, non-business specific COTS are wide-spread, especially for technical needs, **specialized COTS** for business-specific matters should also be considered:

1. They encapsulate strong business expertise
2. They include the results of years of research & development
3. They represent a real value-added, being widely field-proven

THE COMMON IDENTITY REPOSITORY (CIR) AND THE MULTIPLE IDENTITY DETECTOR (MID) ARE GOOD CANDIDATES TO BE IMPLEMENTED LEVERAGING BUSINESS-SPECIFIC COTS

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