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Intégrateur de solutions de confiance pour les documents au service du citoyen

Digital Tachograph Network

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The digital Tachograph project

- Set up by the European Commission thru a **regulation**

- Main objectives :
  - Increase the road safety
  - Keep a real competition between carriers
  - Struggle against fraud

- Based on the use of :
  - An **on-board unit** able to record information sent by a motion sensor set on the gear box named "tachograph"
  - A **smart card**, namely associated to the driver

- System mandatory in extended European Union from May 2006 for new vehicles (31 countries)

- Mandatory for non EU AETR contracting parties (mainly former USSR, Balkans, Turkey) from

The main requirements

- Three **type approval certificates** are needed before being authorised to issue any tachograph or card
    - Security → European authorized laboratories
    - Functionality → National level
    - Interoperability → European level (DG-JRC)

- Each country is responsible of the card issuing for its own drivers thru a "Card Issuing Authority" which is named by the Ministry in charge of the project, usually Ministry of Transports, in the role of "State Authority"

- **Before issue a card for an applicant, each CIA must check the uniqueness of the card in all countries**

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Control bodies must be able to check any card

Tools for data exchange

- All European countries are interconnected thru the **sTESTA** network (secure **T**rans **E**uropean **S**ervices for **T**elematics between **A**dministrations)*, private network under the responsibility of the **European Commission**

- **In each country**, Ministries are interconnected thru **national** dedicated **network** (SETI / ADER in France)

- **Each national** inter-ministerial **network** is **connected to sTESTA**

- In the framework of the digital Tachograph project, **European** Commission has provided **specifications** for **data exchange common interfaces**, xml based, to describe the 4 types of request used
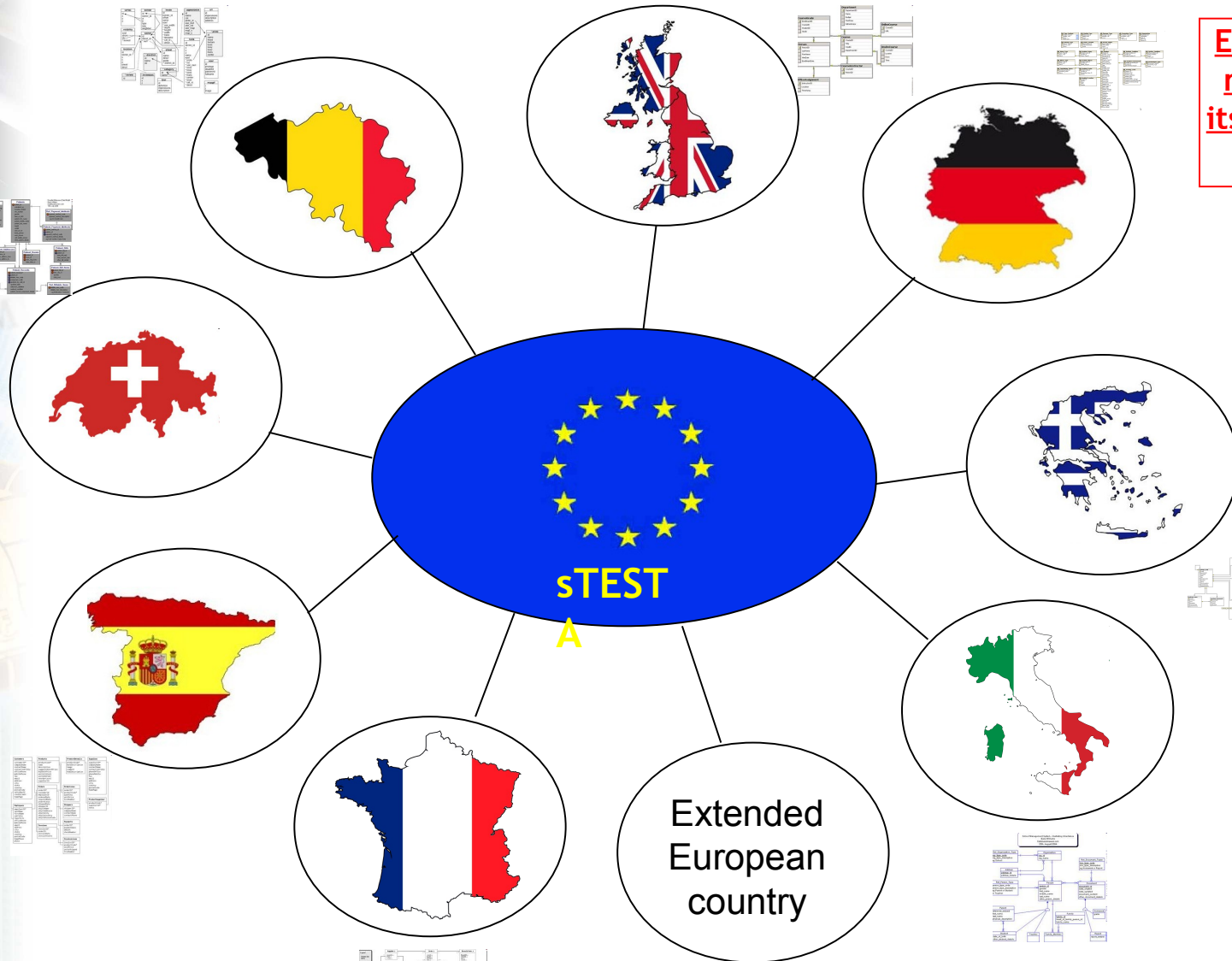
Inter-connexion general scheme

sTEST
A

Extended
European
country
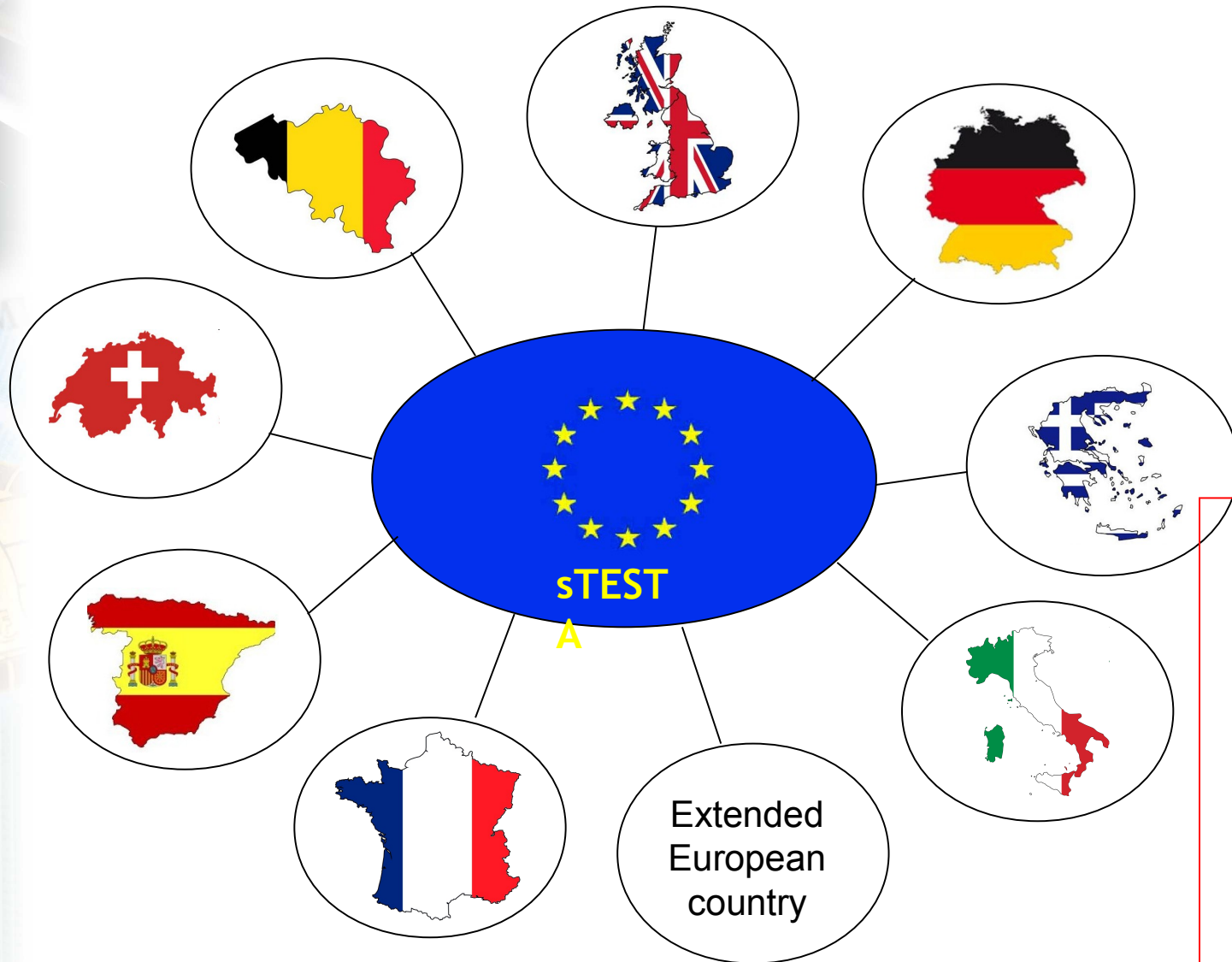
**27 Countries
from UE
+
Norway
Swiss
Iceland
Lichtenstein**

+

**4 extended
European
Countries**

Talking about TachoNet ...

Each country is responsible of its data (scheme and contain)

sTESTA

Extended European country

Talking about TachoNet ...
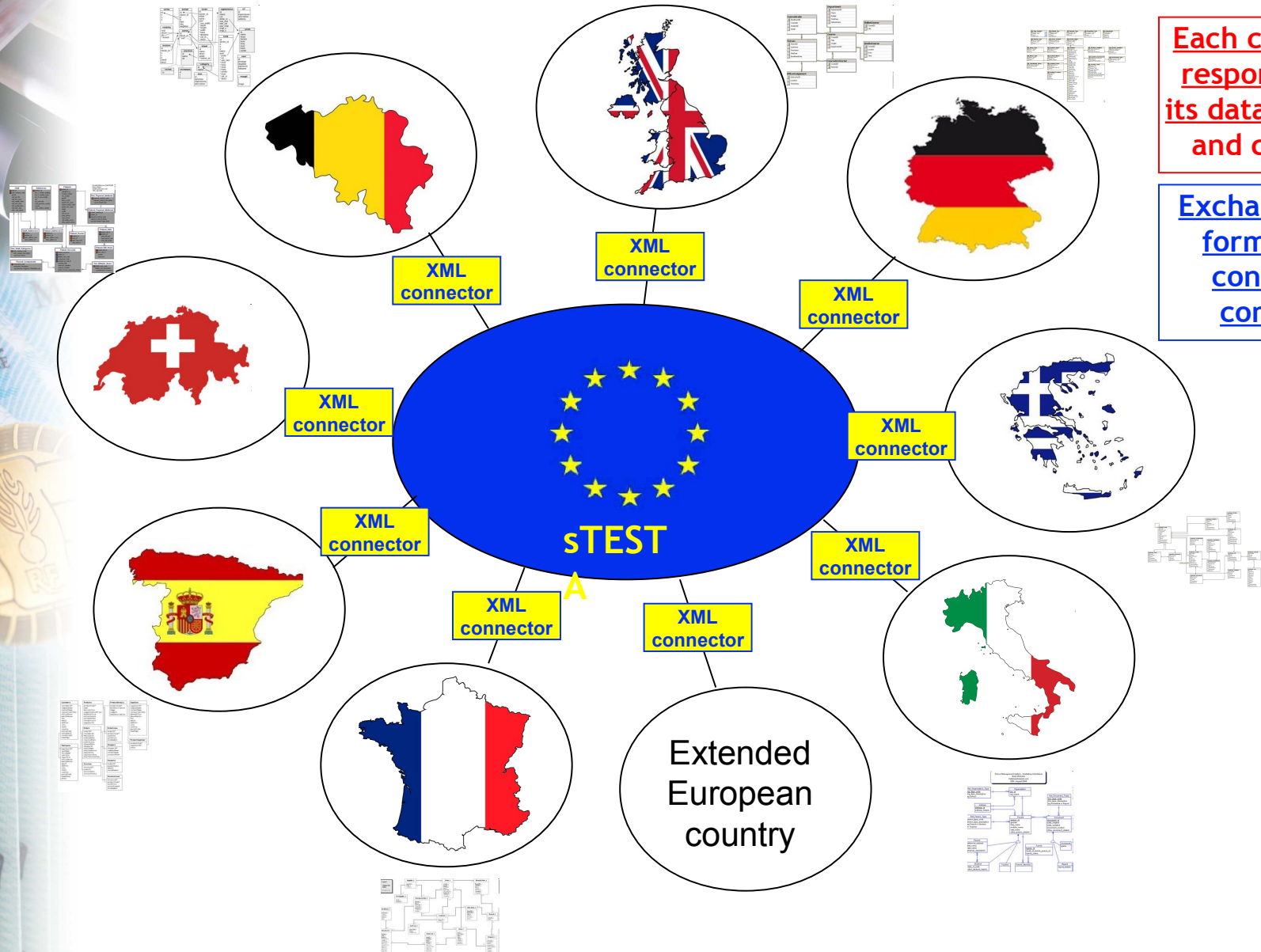
Each country is **responsible of its data** (scheme and contain)

Exchange data **format** and **contain** is **common**

Talking about control bodies …

Each country is **responsible of its data** (scheme and contain)

Exchange data **format** and **contain** is **common**

Control bodies access thru their national CIA

XML connector

sTEST A

Extended European country

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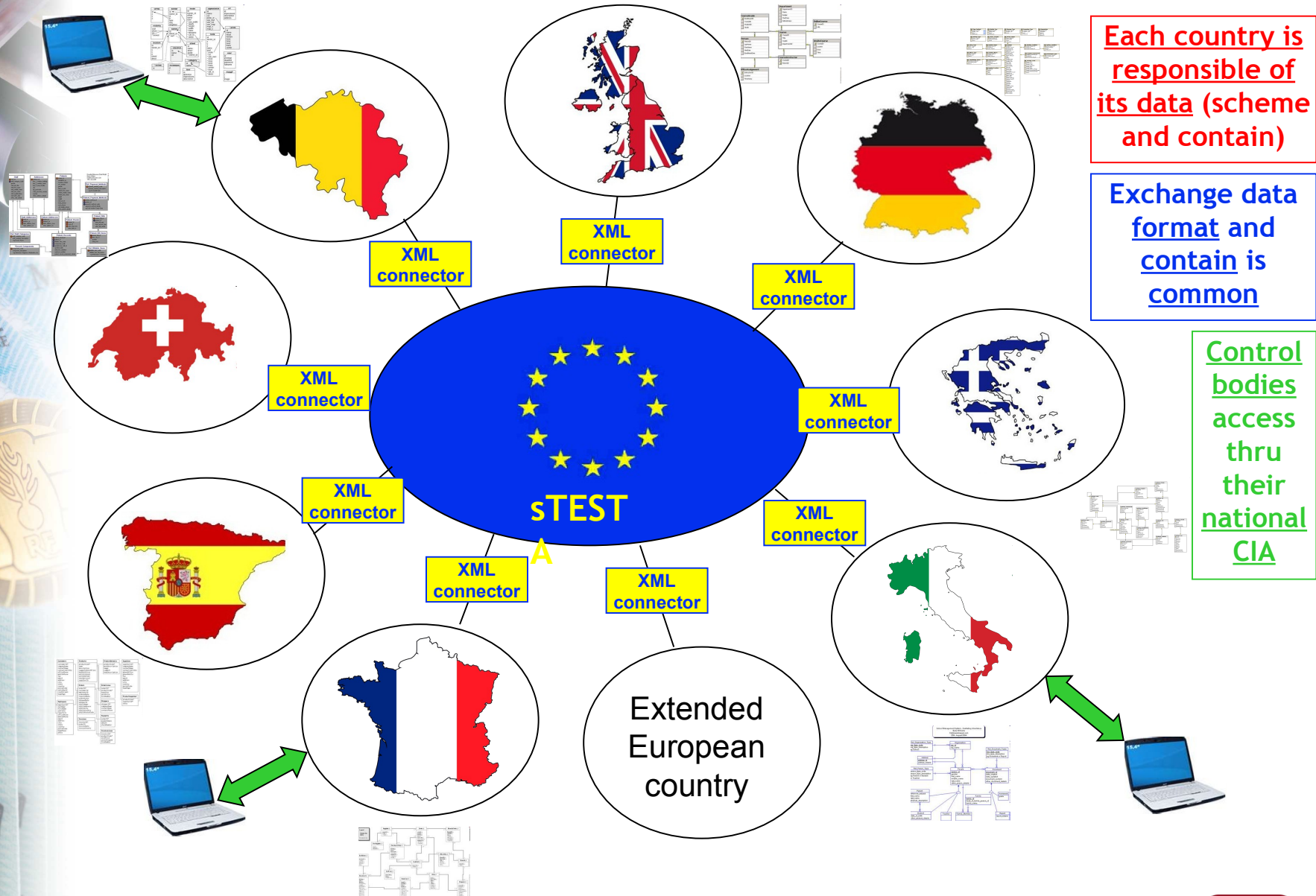
A case study : check for uniqueness

- Check for uniqueness before issue of the card

    - 1 - The CIA stores data in its database with its own format

    - 2 - The data are set in the common xml model for the request

    - 3 - The request is sent by the CIA to the central system of the European Commission thru national network + sTESTA

    - 4 - The central system transfer the request to all CIAs

    - 5 - Each country receive the request

    - 6 - Each country prepares the answer from its database, and send back the request to the central system

    - 7 - The central system has received answers from the CIAs, it aggregates these answers in only one xml request, and send the result to the initial CIA.

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Check for uniqueness : cinematic
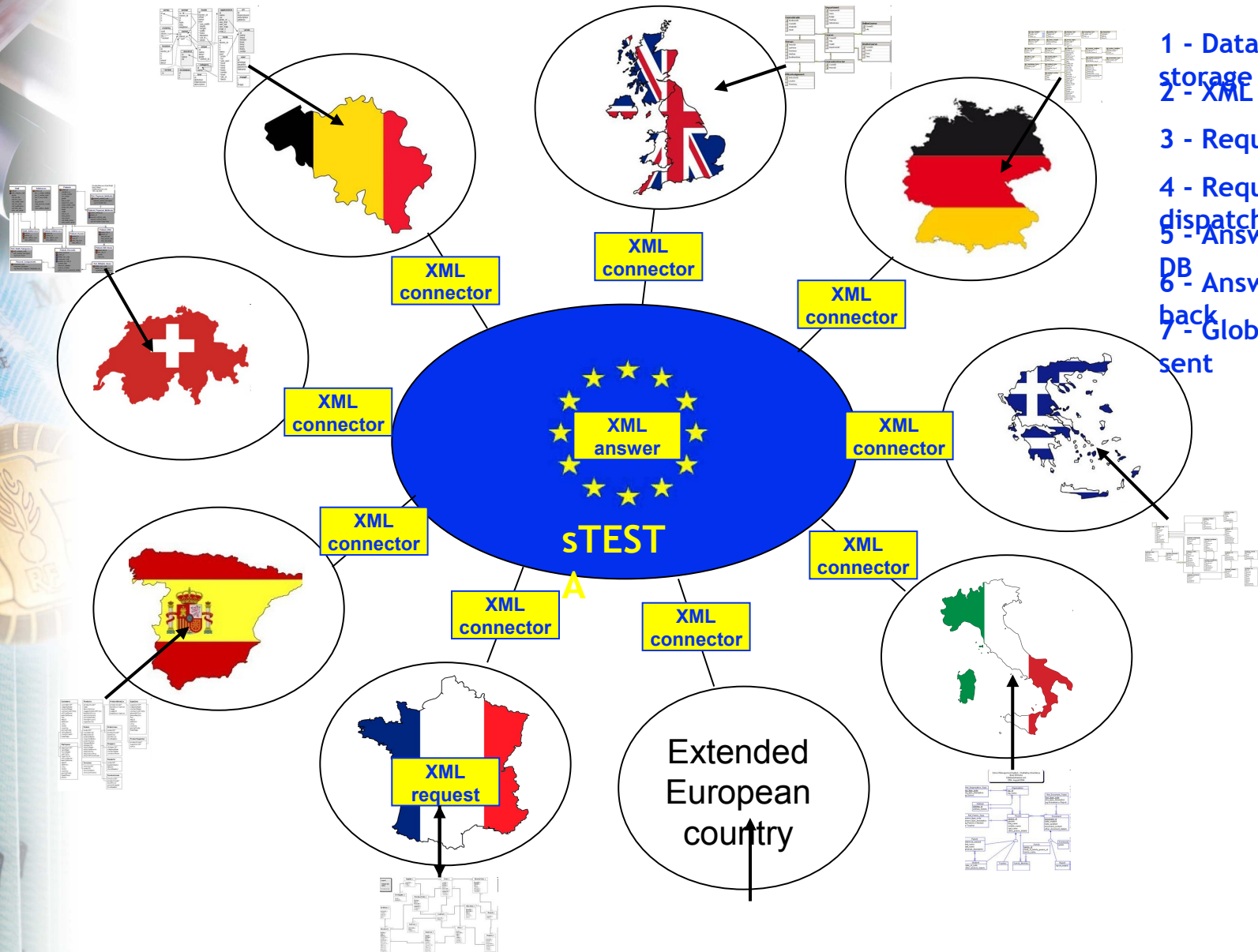
1 - Database storage

2 - XML request

3 - Request sent

4 - Request dispatched

5 - Answers from DB

6 - Answers sent back

7 - Global result sent

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Other case study : check card status

- Every control bodies can check every card status 24/24 7/7
  - 1 - Enforcer connexion to its national Card Issuing Authority
  - 2 - Sending of a driver card number and the country of issue (national data format)
  - 3 - The CIA system generates a TachoNet request
  - 4 - The request is sent by the CIA to the central system of the European Commission thru national network + sTESTA
  - 5 - The central system transfers the request to the concerned CIA
  - 6 - The country receives the request
  - 7 - The country prepares the answer from its database, and send back the request to the central system
  - 8 - The central system transfers the result to the initial CIA.
  - 9 - The CIA system generates the answer (national data

Check card status : cinematic (e.g. SP and GR)
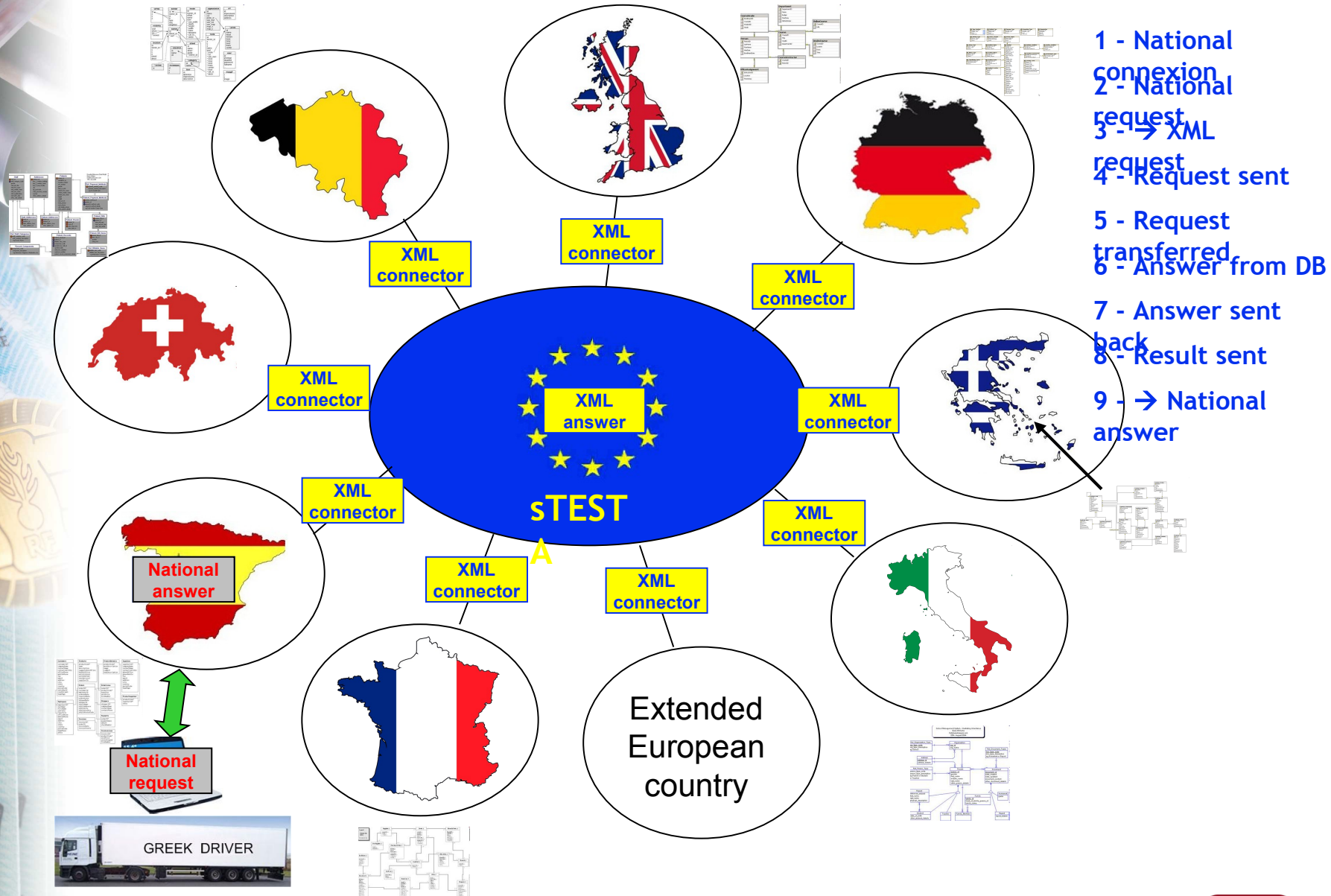
1 - National connexion
2 - National request
3 - → XML request
4 - Request sent

5 - Request transferred
6 - Answer from DB

7 - Answer sent back
8 - Result sent

9 - → National answer

XML connector

XML answer

sTEST

National answer

National request

GREEK DRIVER

Extended European country

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# Talking about countries out of Europe … 1/2

- The **sTESTA** network is a **private network** under the responsibility of the European Commission, **dedicated** to extended **European Union countries** for inter-connexion

- Question : how to **share information** between these countries and **non EU AETR contracting parties** ?

  => How to allow non EU AETR contracting parties to access sTESTA ?

- France answer : physical mutualisation, logical separation

- This **solution** is set up for Albania in the framework of a **State to State agreement** between French and Albanian Ministries of Transports, and has been **accepted by the European Commission**

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Talking about countries out of Europe ... 2/2

1 - **Private network** between Albanian dedicated IT system and French infrastructure

2 - Albanian system can reach sTESTA thru the French physical access

3 - Albanian data flow is logically identified, and fully separated from the French one by using different digital certificates, **on the same physical access**

sTESTA

Extended European country

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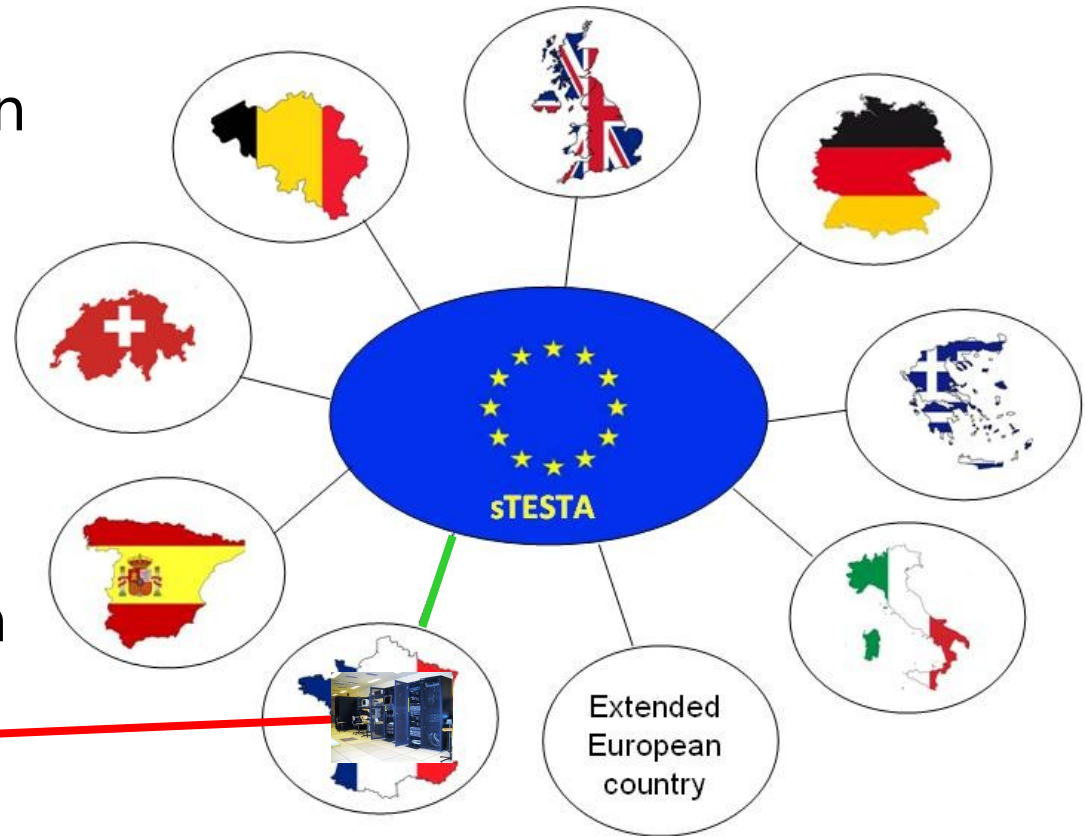
Summary

- The global framework must be described to guaranty a common way, ideally in a **Regulation**, which is a **law**, in opposite with a Directive witch must be adapted in each country

- Each **country** is **responsible of its** own **data** and national structure, **and** responsible of **its enforcement**

- The **European Commission does not store any national data**, only information for exchange tracking

- A **common interface** for exchange **between the countries** must be defined and its use is mandatory

- Technical **solutions** exist **to include countries out**

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