☑ i4M Lab

www.aegean.gr
UNIVERSITY OF THE AEGEAN

STORK 2.0
### SECURE IDENTITY ACROSS BORDERS LINKED 2.0

@INFOSTRAG, #syros, #july2014, #stork2, #e-government

How a country would intelligently use STORK 2.0 service offerings: Boost eGov Services through Identity Attributes Provision

<Petros KAVASSALIS, **Univ. of the Aegean, i4M Lab & CTIP, Greece>**

<Stelios LELIS, **Univ. of the Aegean, i4M Lab, Greece>**

atlantis group

- sophisticated products
- R. Anand et al, 2012, IMF:

"… Some products are more sophisticated, in the sense that they are associated with higher productivity levels*, and those countries that latch on to such products will perform better. Over time, the sophistication of a country's production structure may evolve, through either an increase in the quality of previously produced goods, or a move into new, more sophisticated products…."
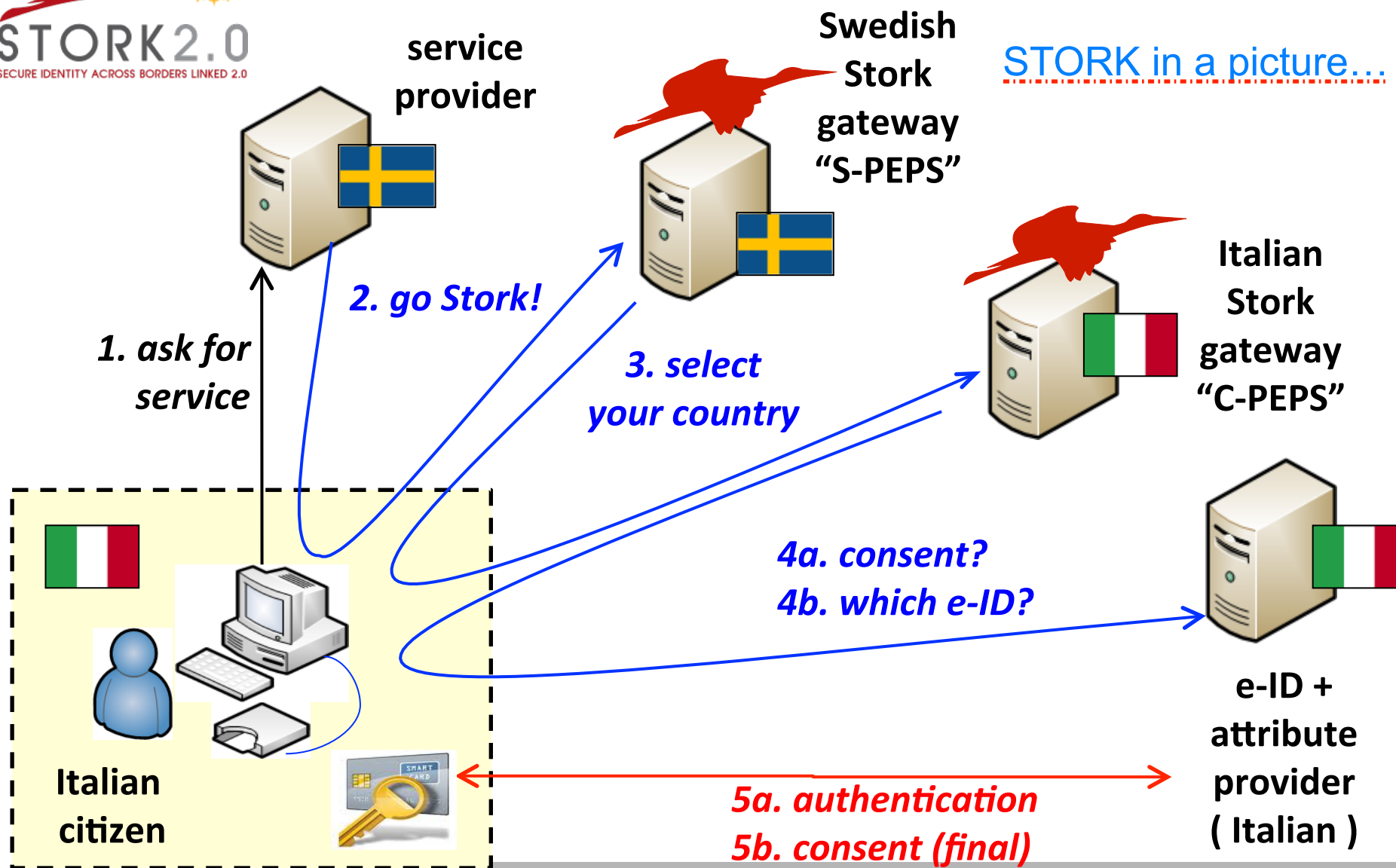
(* and low price elasticity of exports)

background

Figure 14. Export Sophistication over Time, for Goods, Manufactures, and Services, 1990-2009
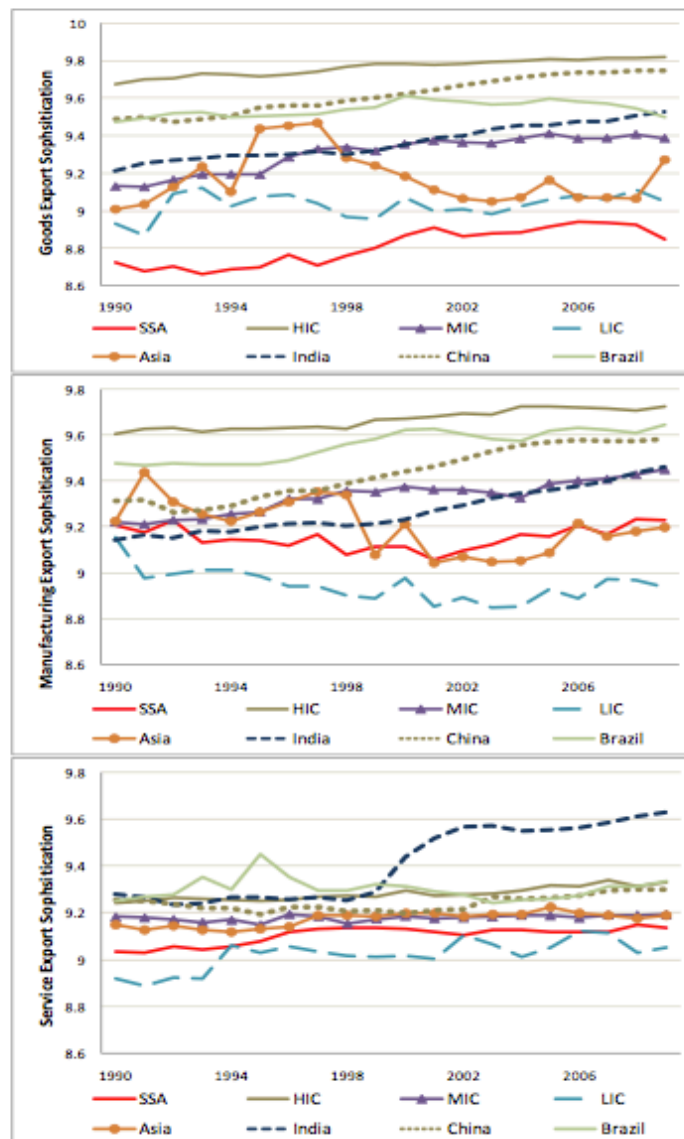
- STORK 2.0: The European Network for e-identity provision
  - online identity federation
  - identity attributes

- e-government services
  - the "information move" requirement
  - aggregate information from various sources

- Re-use STORK 2.0 to provide smart e-gov services

STORK2.0
SECURE IDENTITY ACROSS BORDERS LINKED 2.0

service
provider

Swedish
Stork
gateway
"S-PEPS"

STORK in a picture…

Italian
Stork
gateway
"C-PEPS"

2. go Stork!

**1. ask for
service**

**3. select
your country**

**4a. consent?
4b. which e-ID?**

e-ID +
attribute
provider
(Italian)

Italian
citizen

**5a. authentication
5b. consent (final)**

☑ i4M Lab   4   ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΙΓΑΙΟΥ   www.aegean.gr

ICT PSP
cip

- Name-value pairs (data)
- Provide basic personal identity for a digital subject (physical person or legal entity)
    - Name. address etc.
- Used also to define characteristics; examples:
    - Is over 18?
    - Has income below 10KE (Year2013)?
    - Has business location in Paris
- Attributes may also contain rich information about a subject, such as education profile, purchasing behavior, bank account and balance etc.
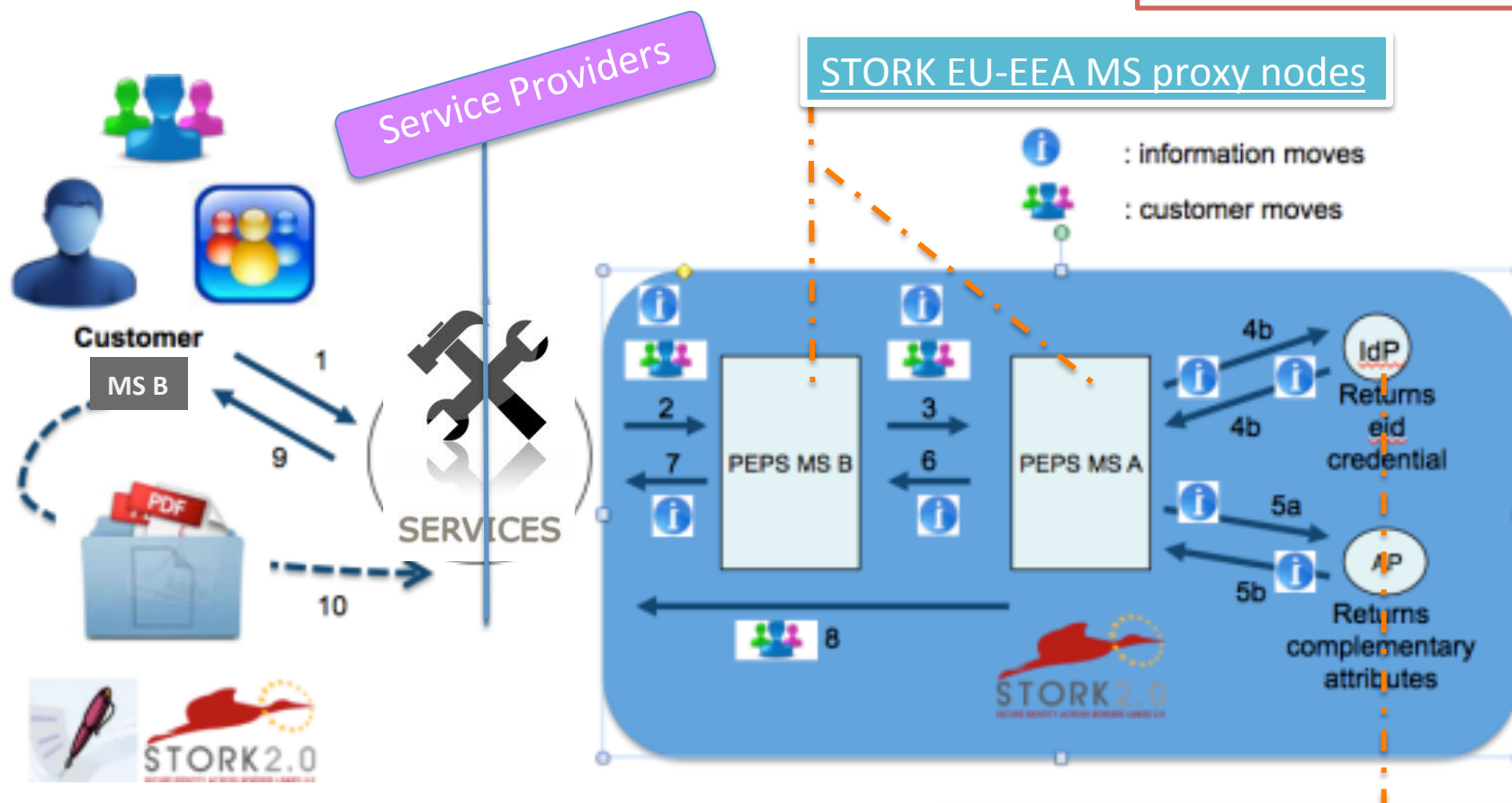   - Complex attributes
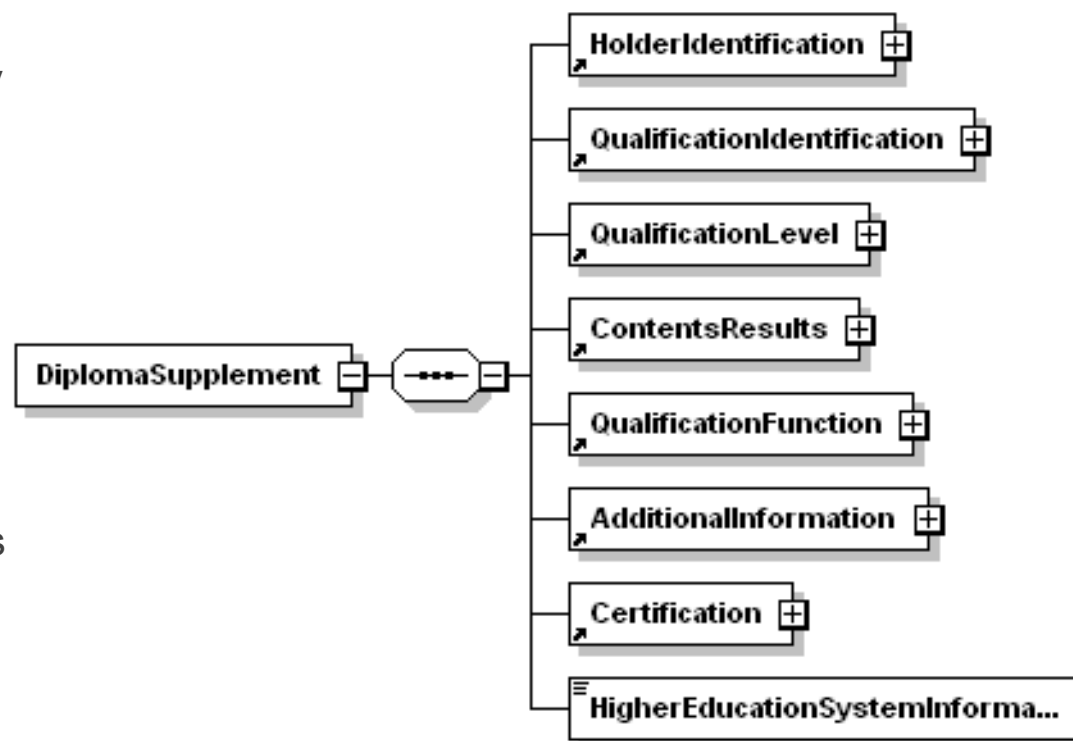
example: diploma supplement

- A common framework for cross-border federation and delivery of electronic identity in Europe
  - In online-processes
    - web authentication via multi-attributes digital identities
    - e-mandate provision (vital for legal entities)
    - e-signature cross-border transfer
  - Open standards (SAML 2.0, HTTP POST, WebSSO)
  - Deployment model
    - Based on the creation of "PEPS" proxy nodes
    - EU Member States develop their own PEPS… a more decentralized architecture could be possible
    - Pilots in real-world environment (examples, open a bank account, diploma supplement, mandates with detailed power description etc.)
- Previous STORK until Dec. 2011 - STORK 2.0: 2013-15, *go pilot* now, go in *real life* after the end of STORK 2.0

identity as a service

Service Providers

STORK EU-EEA MS proxy nodes

i : information moves

: customer moves

Customer

MS B

PDF

SERVICES

***In US: **Backend Attribute Exchange (BAE)** but only for Federal Government Services

Identity and Attribute Providers

STORK2.0
SECURE IDENTITY ACROSS BORDERS LINKED 2.0
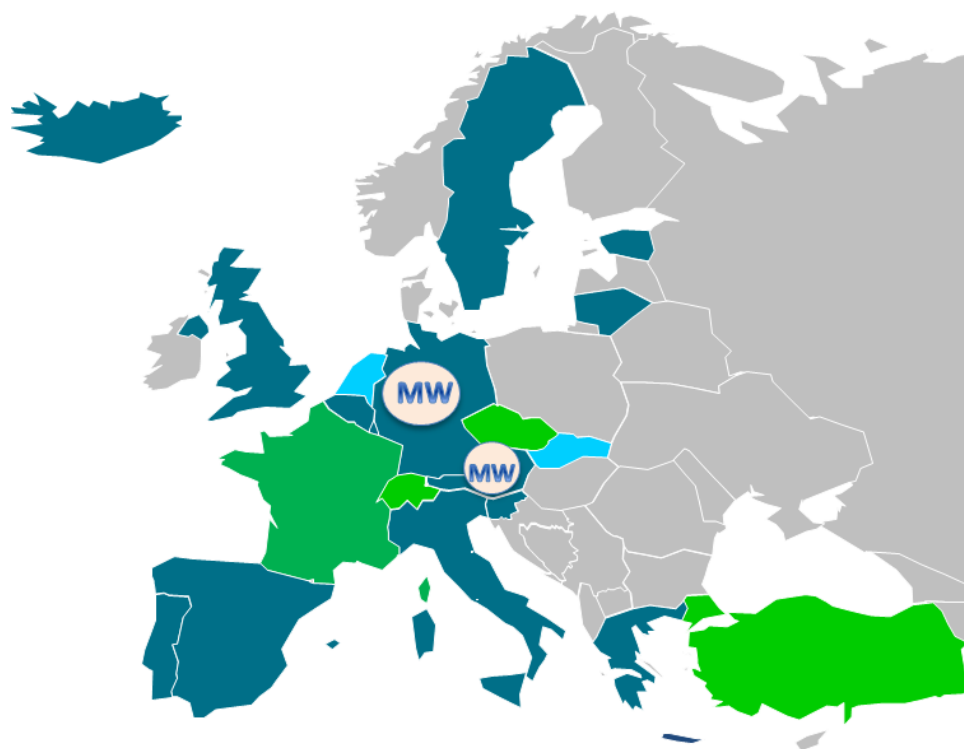
STORK-1 MS IN PRODUCTION

STORK-1 MS IN PREPRODUCTION

OTHER STORK-1 MS

NEW STORK 2.0 MS

MW

MW

➤ **29+ Portals in 6 pilots**
➤ **110+ eIDs accepted**
➤ **Succesful integrations: ECAS**
(CIRCABC   & eJustice portal),
PSCs, ECRN, SEMIRAMIS…

STORK 2.0 basic features: (i) a network of proxy nodes (PEPS)
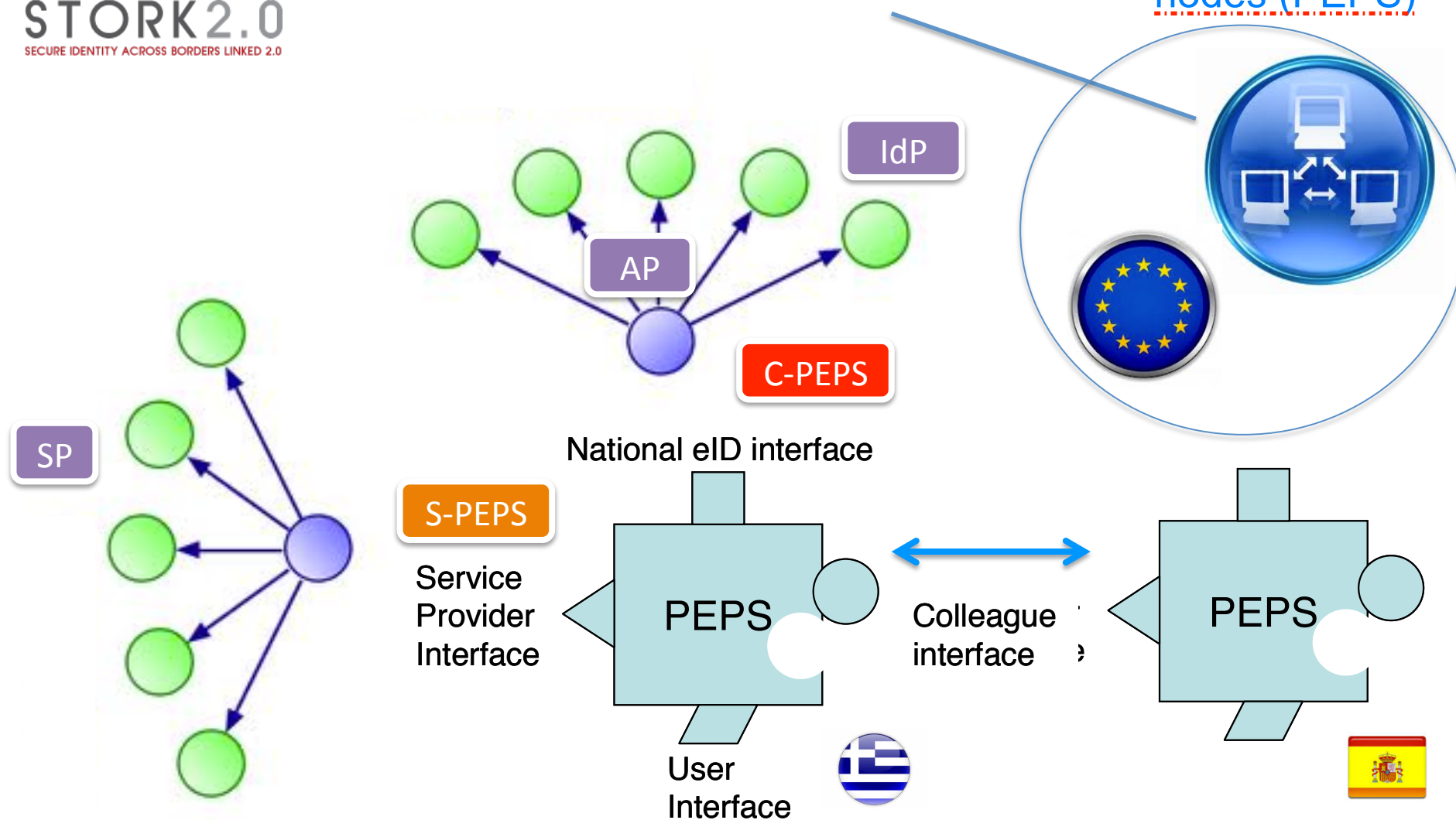
IdP

AP

C-PEPS

SP

S-PEPS

National eID interface

PEPS

Service Provider Interface

Colleague interface

PEPS

User Interface

STORK 2.0 basic features: : (ii) an attribute collection and aggregation service
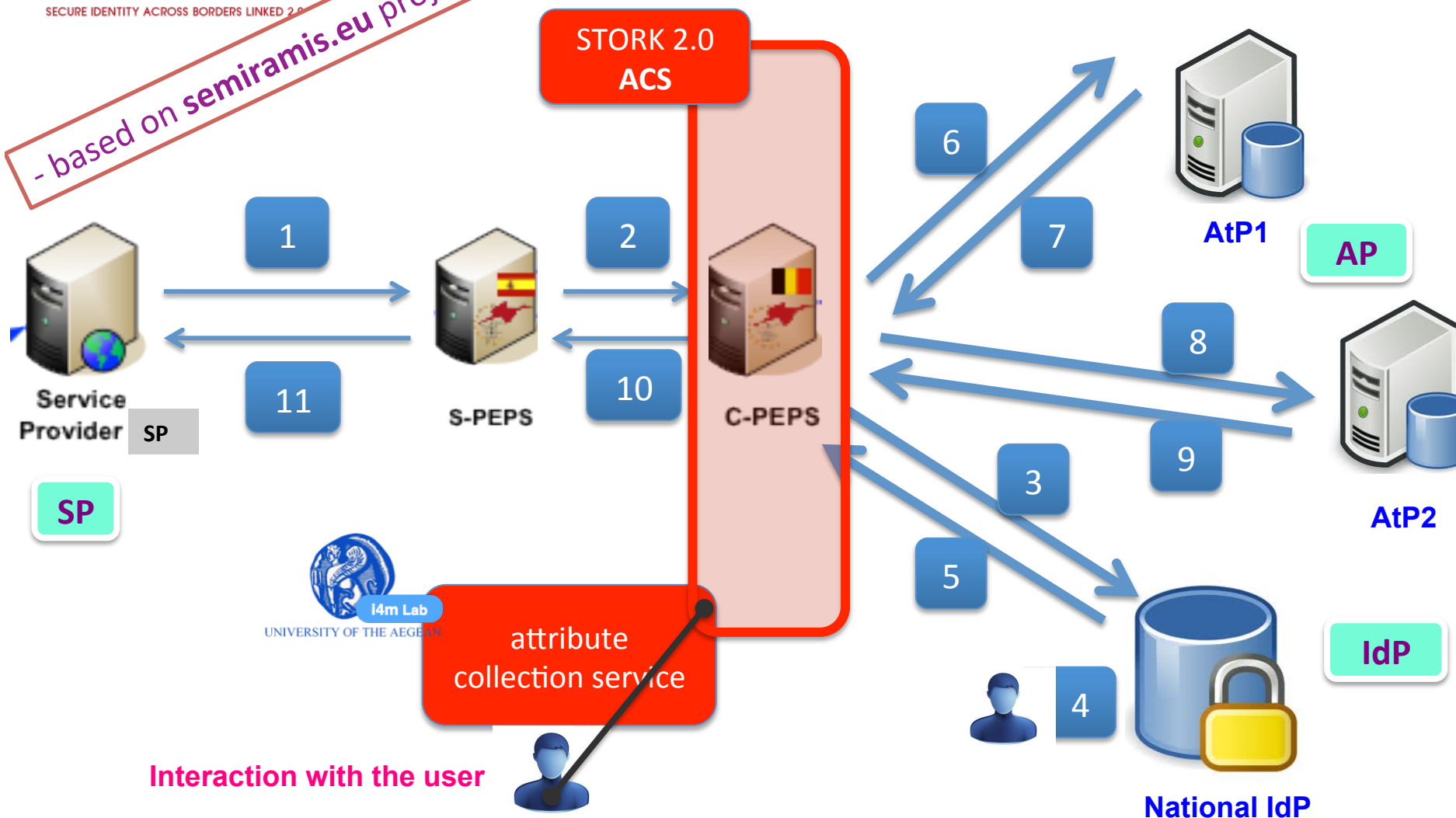
- A digital identity is a composite document
    - Multi-section; each section includes a personal attribute
    - Multi-provider; attributes are collected from multiple Identity and Attribute Providers -- IdPs and APs providing service at different quality levels (LOA)
- Is managed by a federated identity structure (which also manages the user consent process)
- Is created through the collection of attributes from IdPs and APs members of the federation
- Is delivered to a Service Provider (SP), and consumed by the SP in an online authentication and access control process (user consent)

- e-gov services: requirements for federating personal information to (usually) produce an electronic document

- Cross-border services by necessity
  - Should span over multiple organizations

- Always involve a process orchestrating various IT systems and users
  - applicant interface
  - basic registries
  - gov IT (cms etc)
  - employees desktops
  - third party services (for example banks)

Applicant: activity

service outcome

request

orchestration: business process management – case management etc.
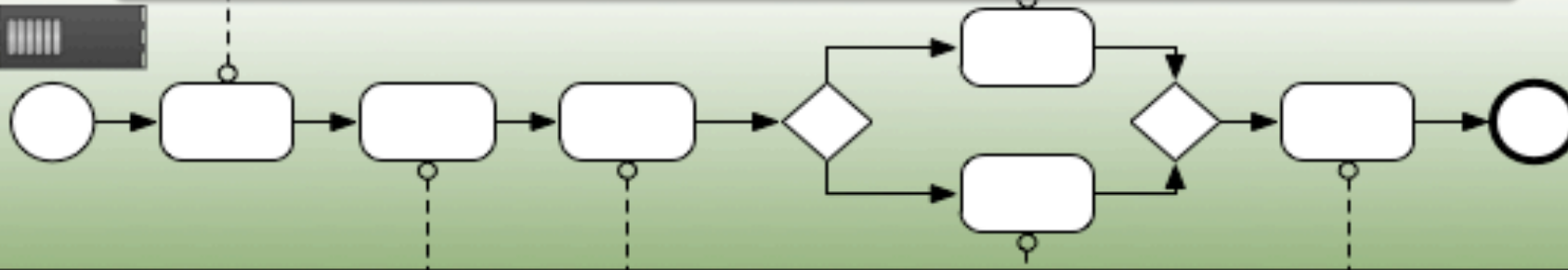
Public Employee: activity

Legacy System and Third Part Applications

this is a typical e-gov service!

Ενιαίο Διαδικτυακό Περιβάλλον
για την Παροχή Online Υπηρεσιών
στους Πολίτες και στις Επιχειρήσεις
LGAF

Re-use STORK 2.0 as the basic infrastructure for e-gov processes support (national level)

- Federated Identity can revolutionize e-government services
  - Securing access to online government services through federated IDs
- STORK 2.0 can provide "lessons to learn" on how to organize federated identity services at the national level

---

- STORK 2.0 may also provide a mechanism for smart e-services requiring interaction with the users and not extended internal process automation
  - BPMS solutions are expensive
  - Public employees are reluctant to adopt a "task attribution" method of work
- The STORK 2.0 infrastructure is here, the cost of re-using STORK in national e-gov provision is limited, it can efficiently supply a lot of sophisticated scenarios of e-gob services (4th and 5th level of sophistication)…

STORK 2.0 for e-government: an opportunity for smart and lean e-gov services

Example: subscription of freshmen in Greek Universities involves the physical presence of a student's family. e-subscription through STORK 2.0!

Application submission

Document submission

reception → identification → **STORK 2.0** → subscription

IdP

minedu
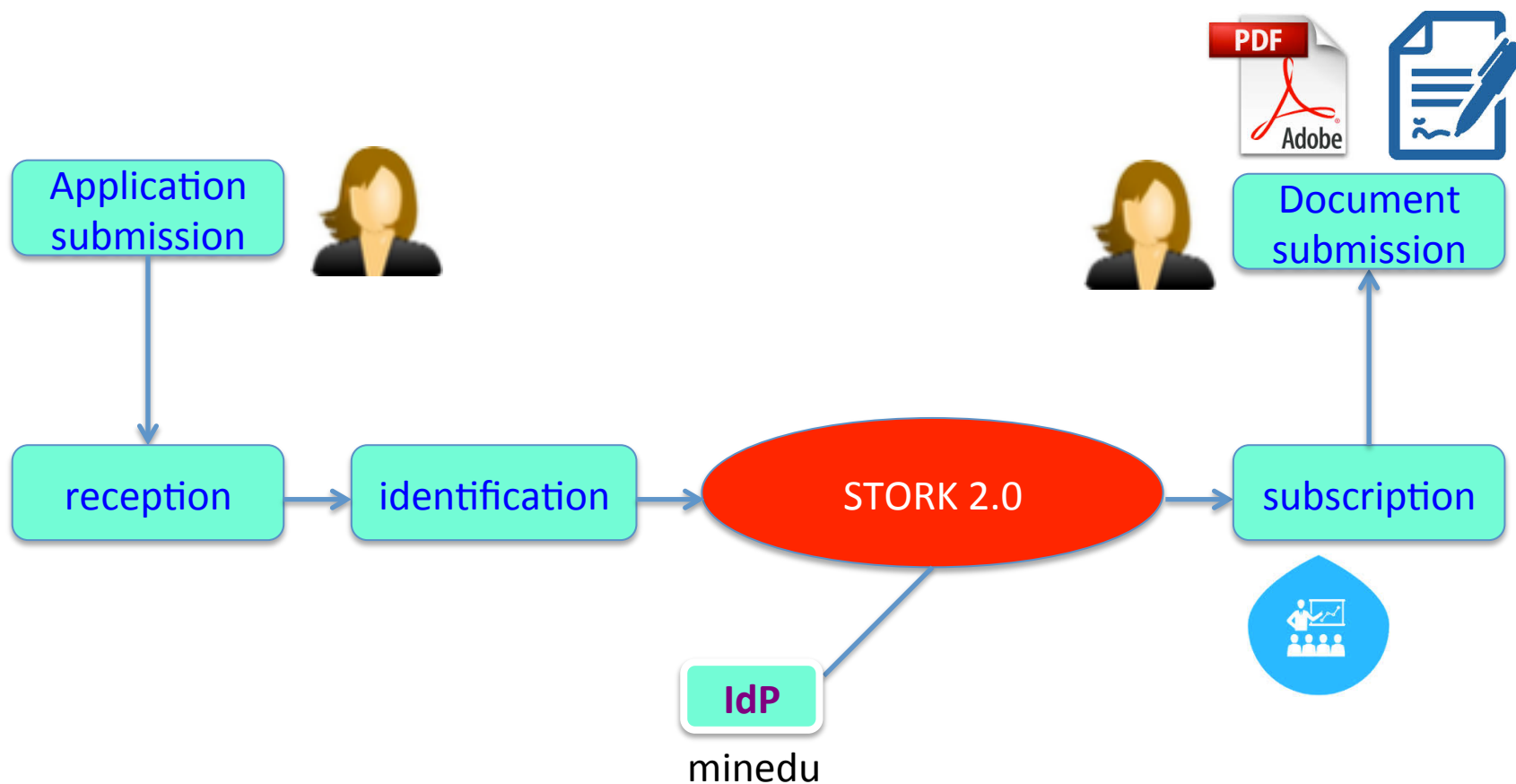
How STORK 2.0 makes it possible? By creating clean interfaces at the extreme points…

STORK enabled applicatons

common enterprise technologies **WS-REST**

SP

STORK SAML 2.0

AP

IdP

common enterprise technologies **SSO-WS-workflow**

Streamline to increase aggregation efficiency

http://www.eid-stork2.eu
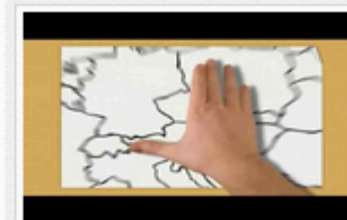
...thanks!
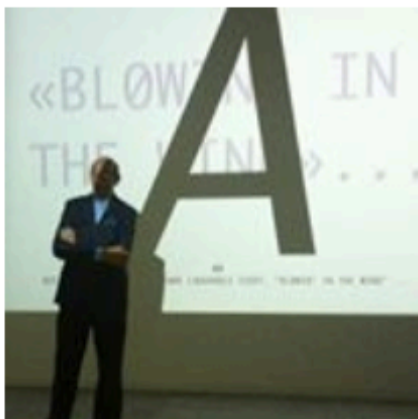
Petros KAVASSALIS
Associate Professor, University of the Aegean
Researcher, Computer Technology Institute and Press (CTIP)

http://www.atlantis-group.gr

pkavassalis@atlantis-group.gr

http://www.facebook.com/pkavassalis

i4m Lab
UNIVERSITY OF THE AEGEAN

atlantis group