

A network diagram is overlaid on the slide. It features several blue circular nodes connected by red and blue lines. One red line connects a node on the left to a central node on the right. Another red line connects a node at the top to the same central node. A blue line connects a node at the bottom to the central node. A light blue line connects a node on the left to the central node. The background is a light gray grid.

**The Once-Only Principle for  
Europe Conference**

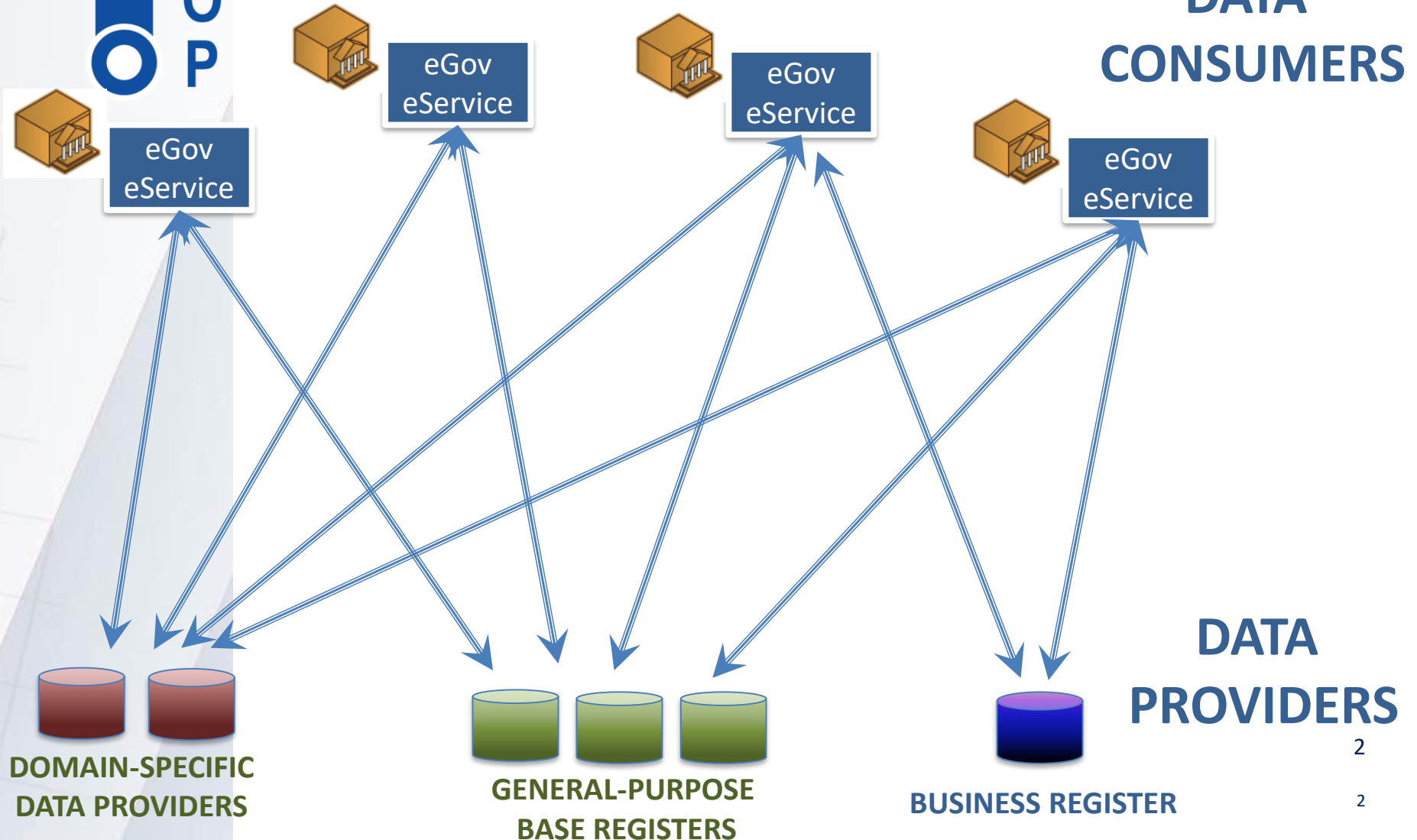
## **TOOP Pilots and Architecture**

**Lefteris Leontaridis – TOOP Piloting Manager**

**Vienna, 24 September 2018**

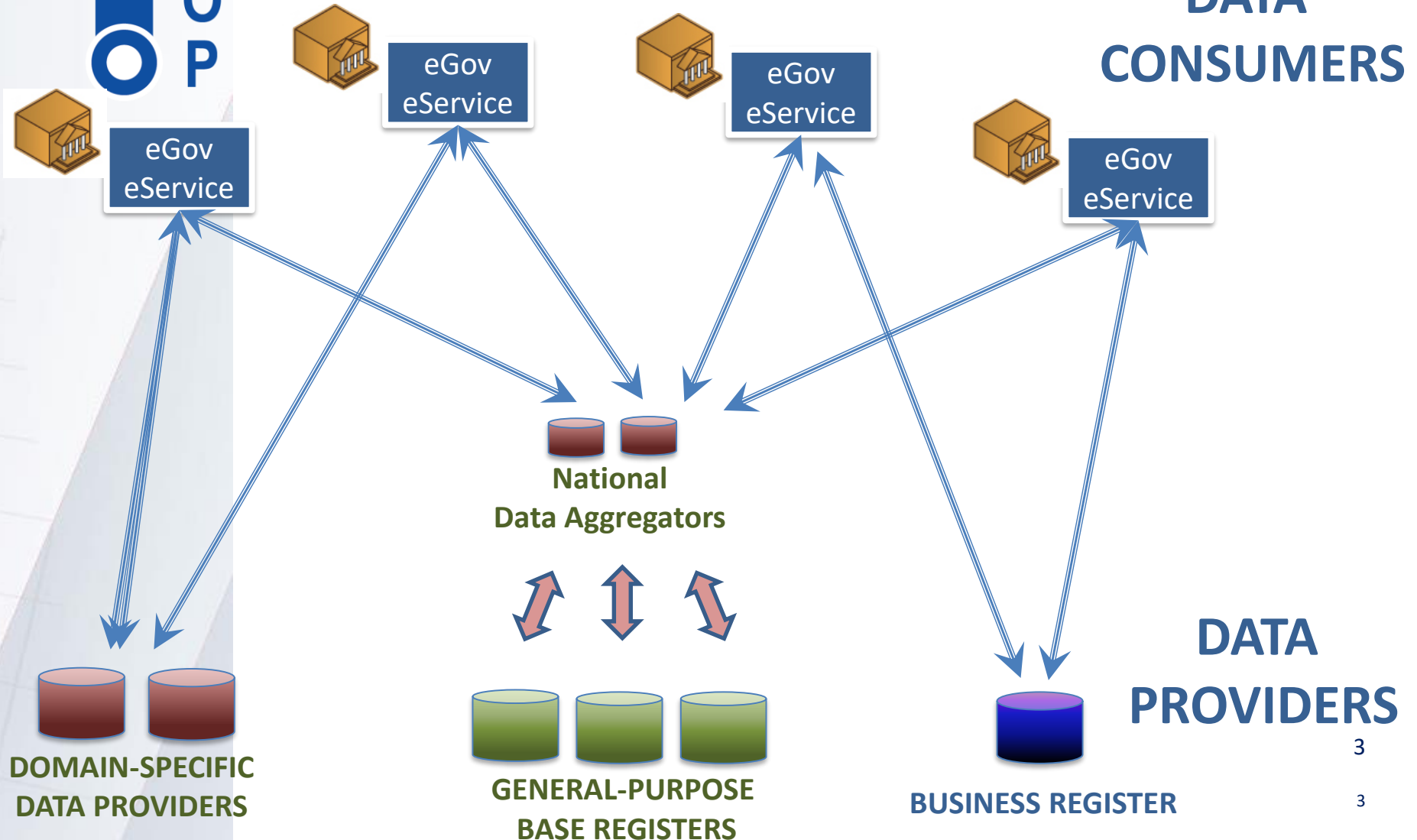


# Basic concepts and OOP needs – bilateral connections



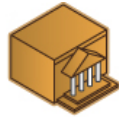


# Partial OOP implementation – Data Aggregators

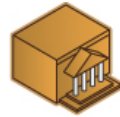




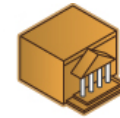
# The Once-Only Layer at a national level



eGov  
eService



eGov  
eService



eGov  
eService

DATA  
CONSUMERS



National OOP Layer



DOMAIN-SPECIFIC  
DATA PROVIDERS



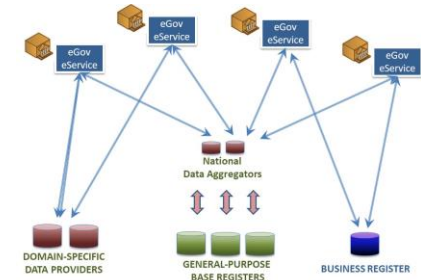
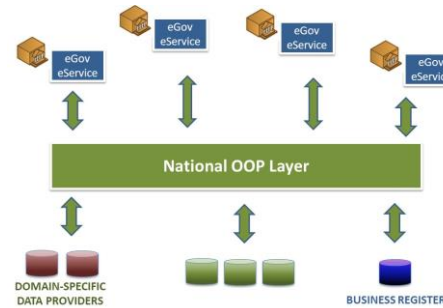
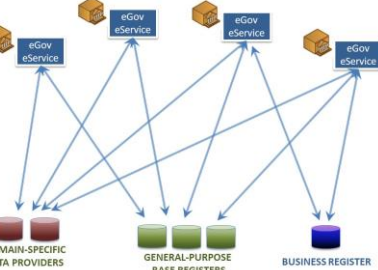
GENERAL-PURPOSE  
BASE REGISTERS



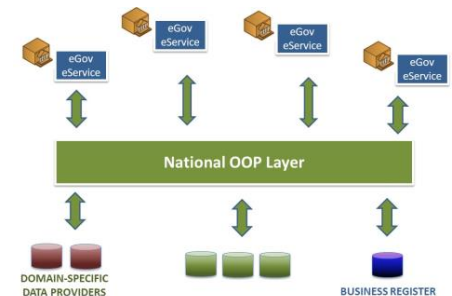
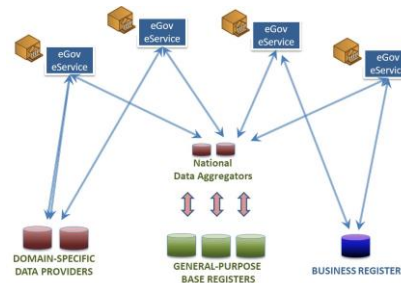
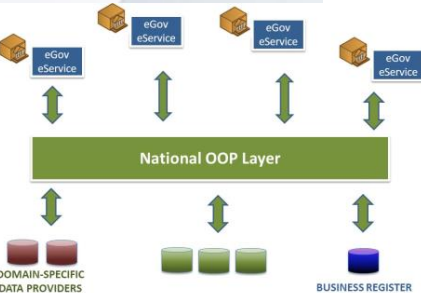
BUSINESS REGISTER

DATA  
PROVIDERS

# Cross-Border Once-Only



**TOOP Federation:  
Acts as a Cross-Border  
Once-Only Layer**

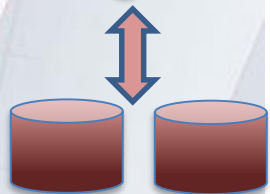
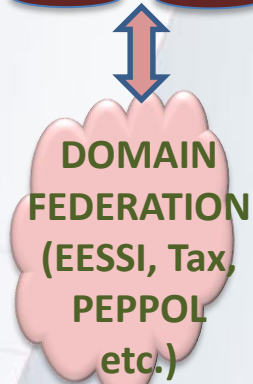




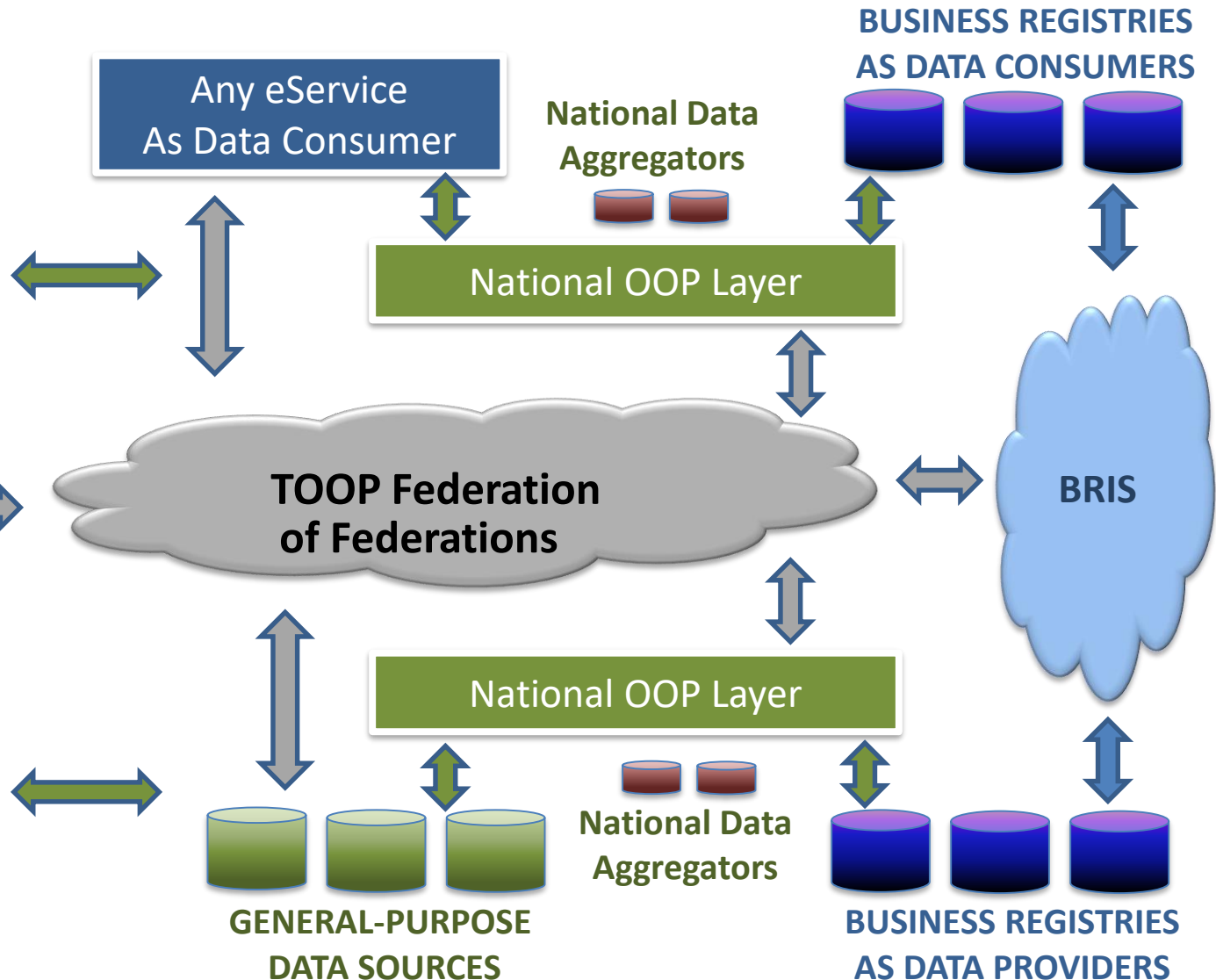
# How TOOP fits into the big picture



DOMAIN-SPECIFIC  
DATA CONSUMERS

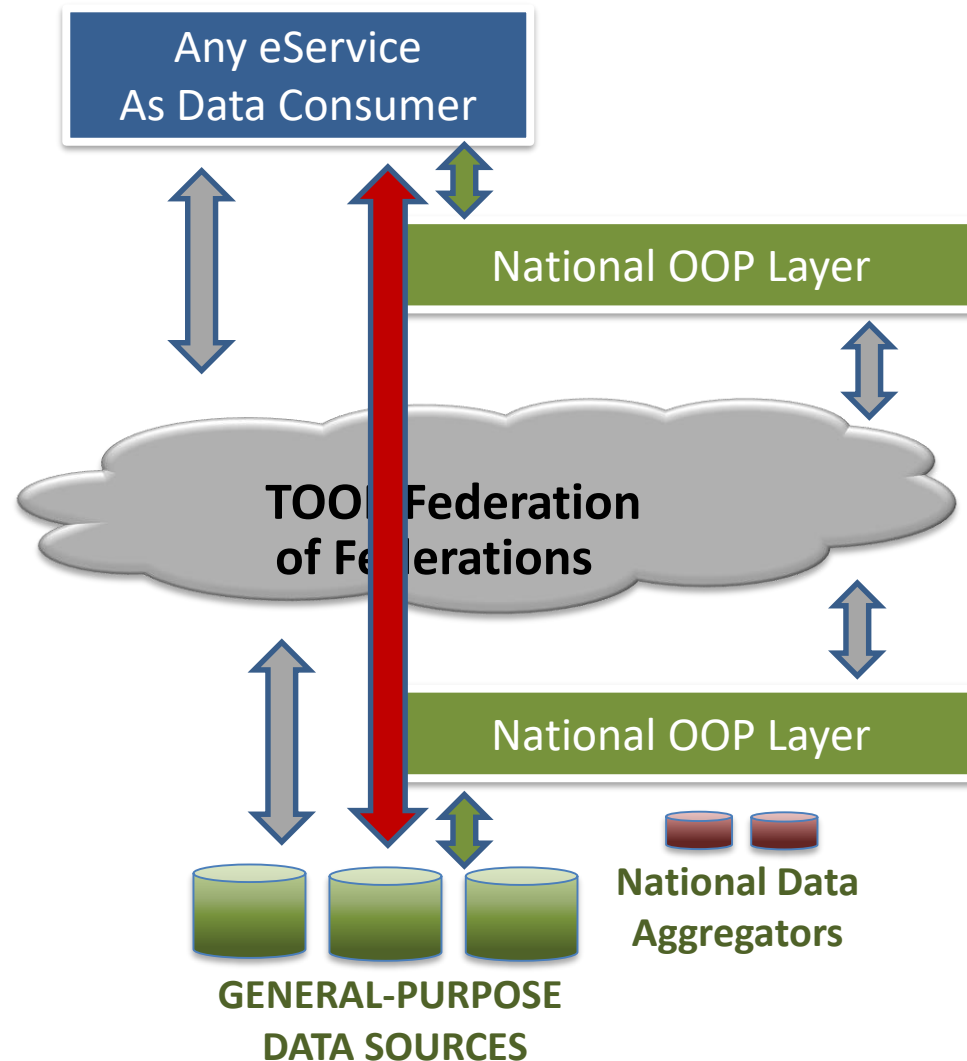


DOMAIN-SPECIFIC  
DATA PROVIDERS  
/AGGREGATORS





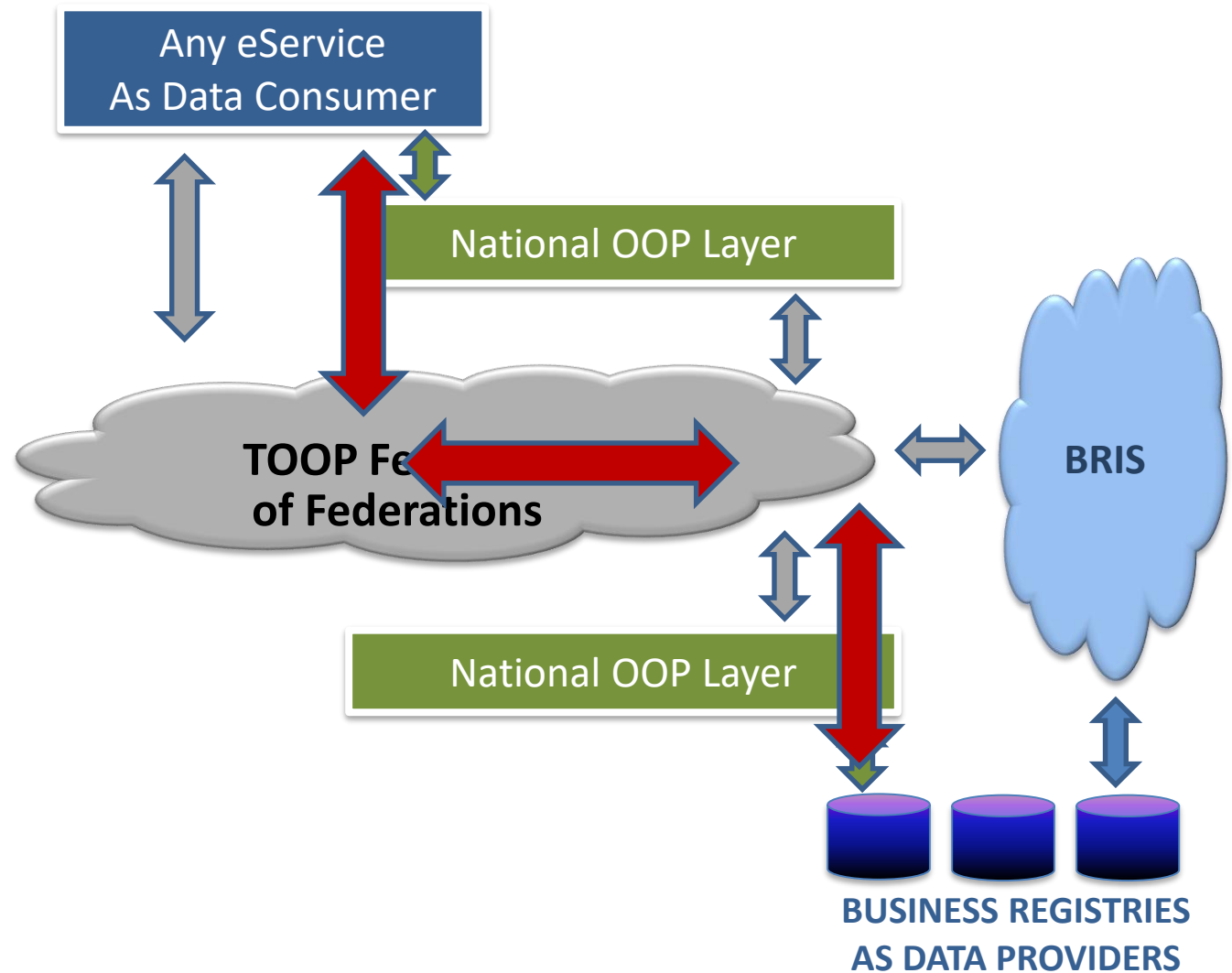
# Example 1: eGov Service to any Base Registers cross-border







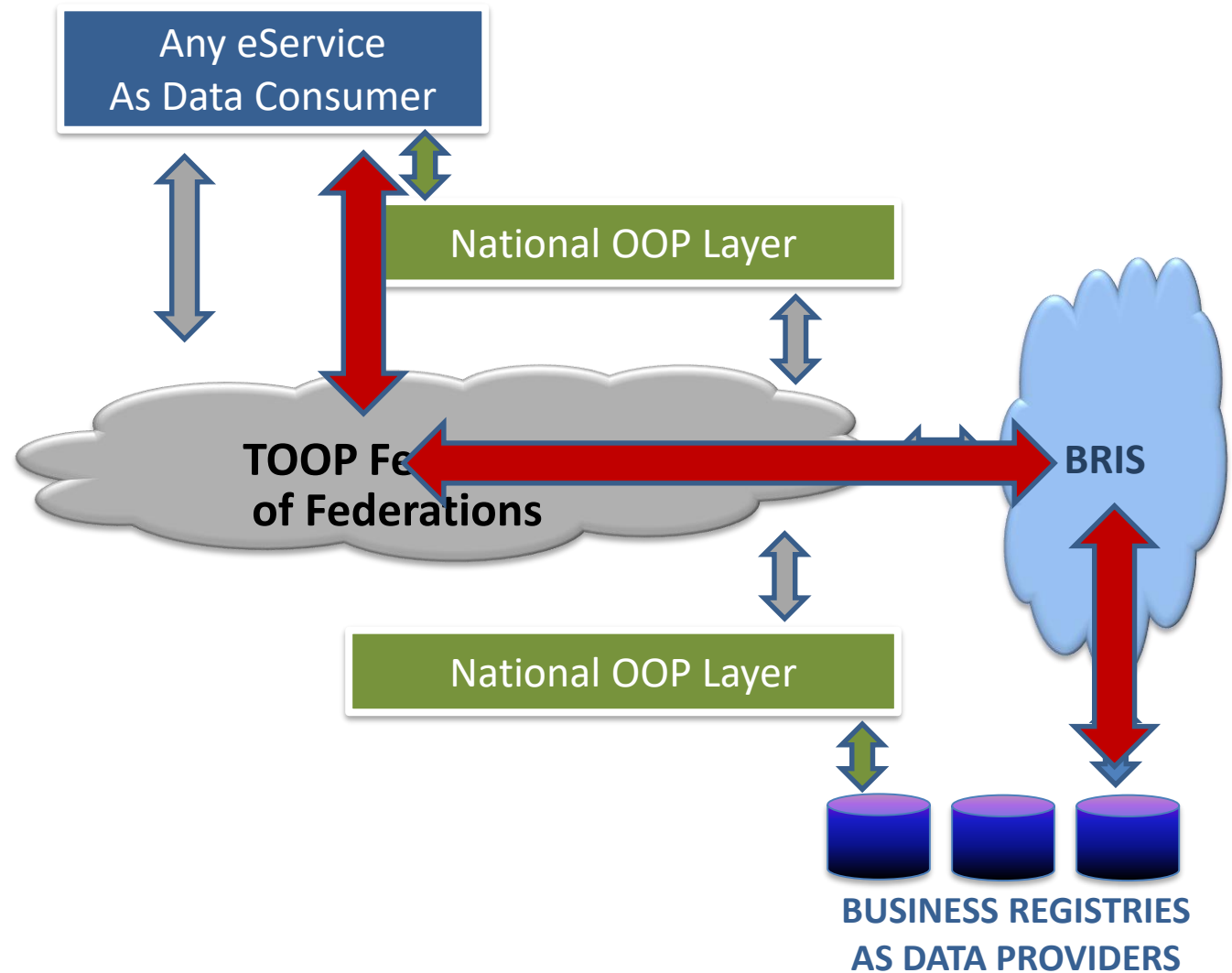
## Example 2a: eGov Service to Business Register cross-border



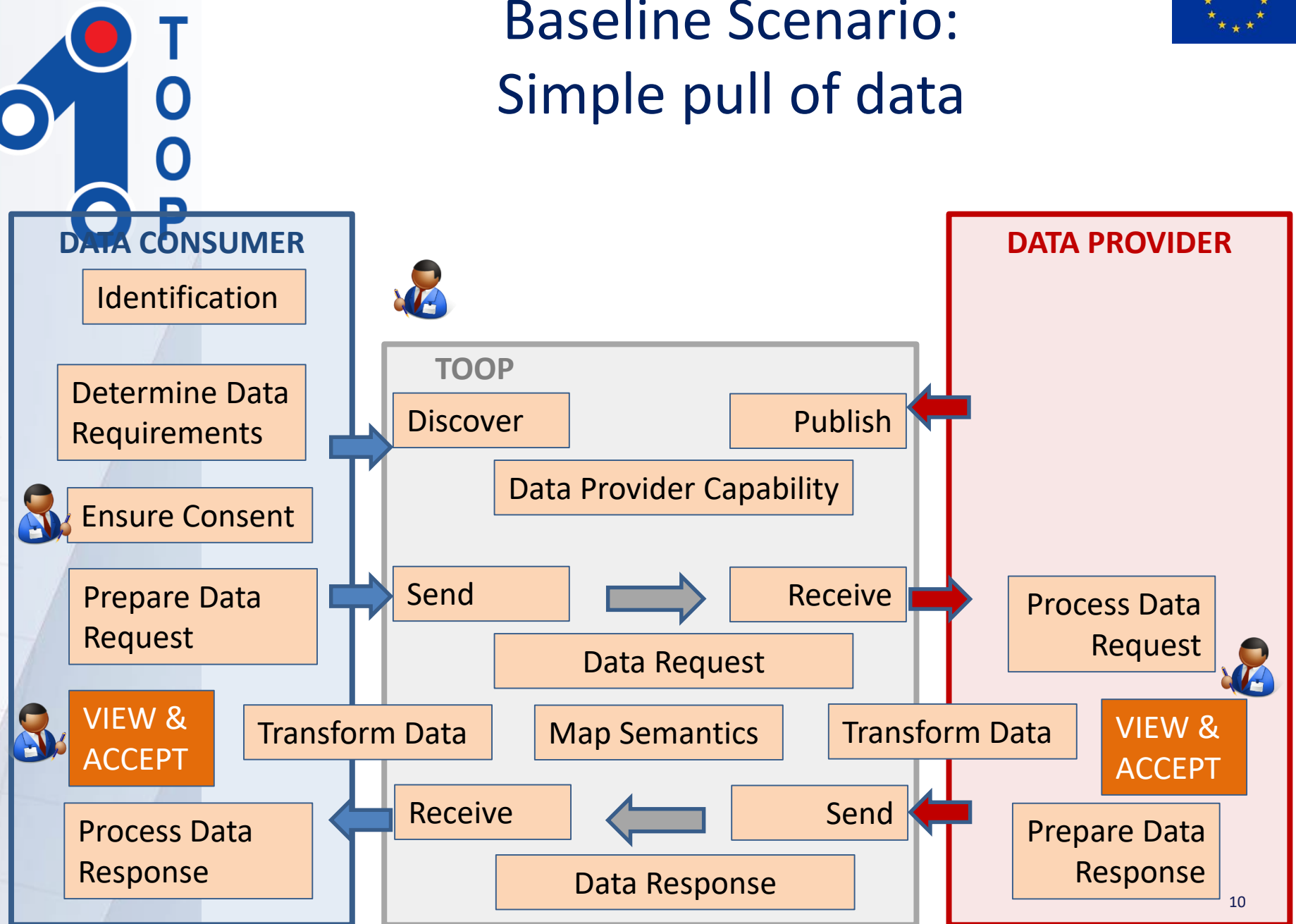




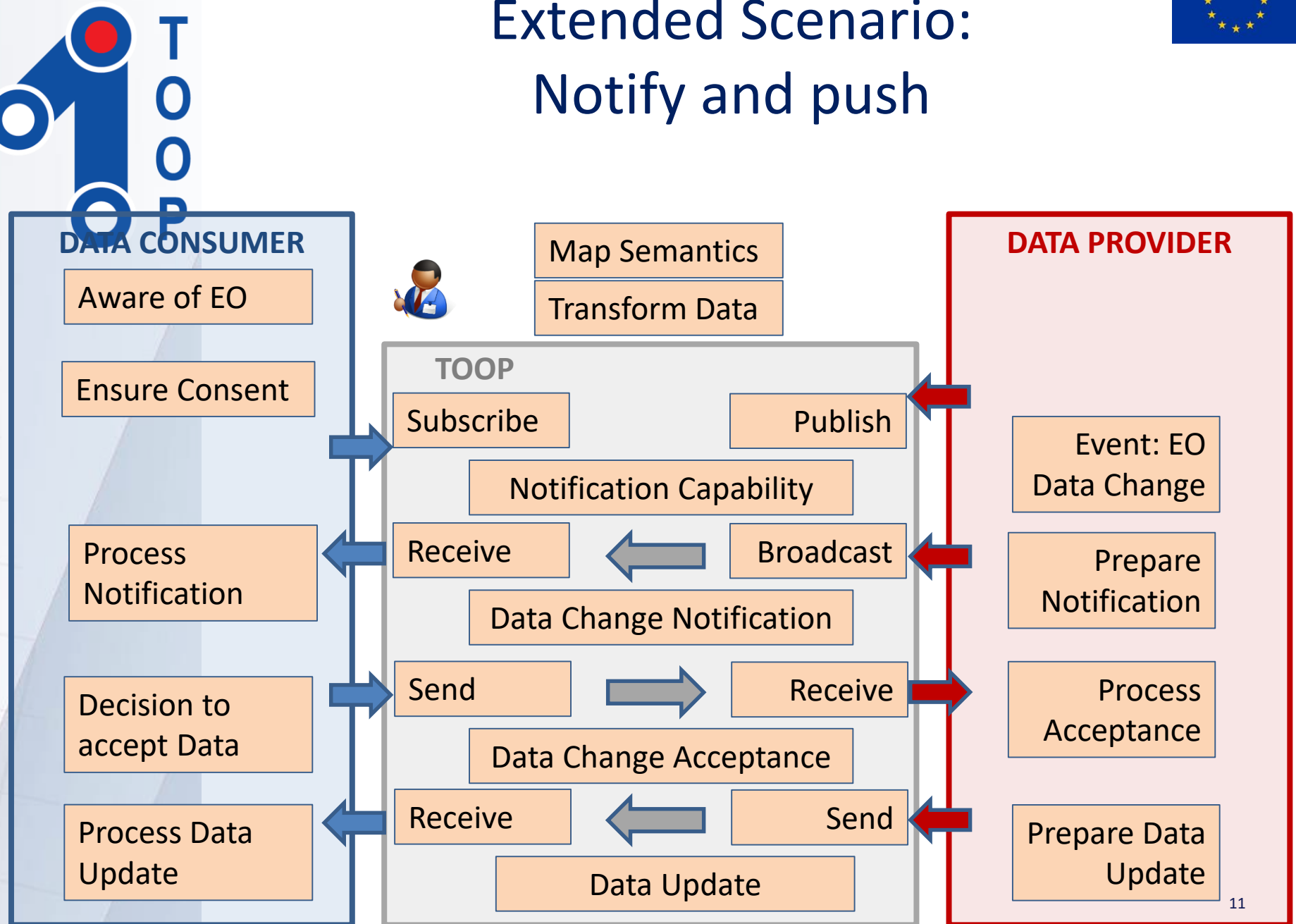
## Example 2b: eGov Service to Business Register cross-border



# Baseline Scenario: Simple pull of data



# Extended Scenario: Notify and push





# Re-use and enhance existing pan-European infrastructure



## DATA CONSUMER

Identify EO

Request EO Attributes

Request Company Data



Ensure Consent

TOOP

CEF, ISA

**eIDAS infrastructure**

Additional Attribute Discovery,  
Mandates modelling etc.

Semantic mapping (e.g.  
eCertis)

**eDelivery infrastructure**

OO profiling of Message Exchange,  
Dynamic Discovery etcetc.

## DATA PROVIDER

Provide EO Attributes

Provide Company Data

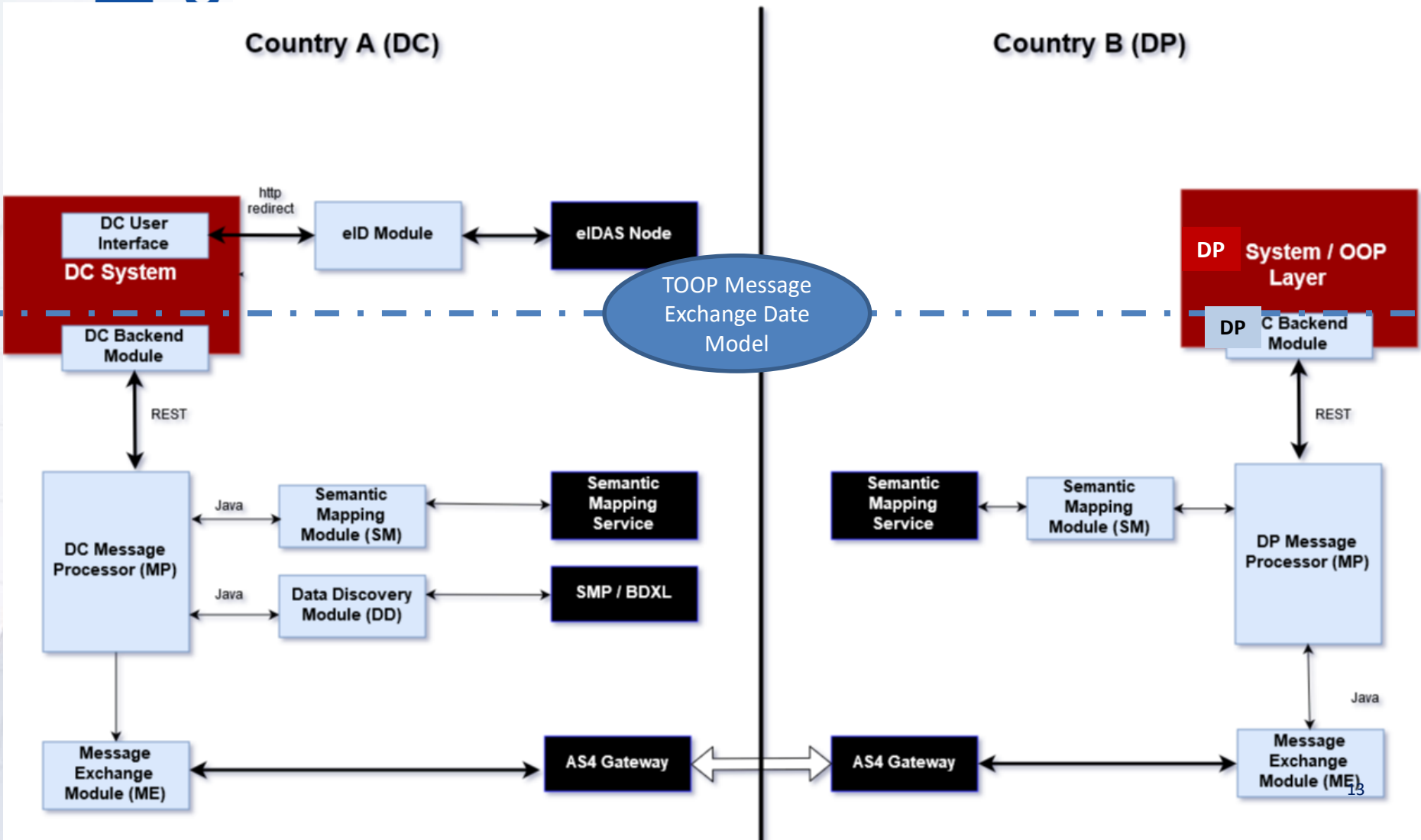


# Detailed definition of Component Architecture



Country A (DC)

Country B (DP)



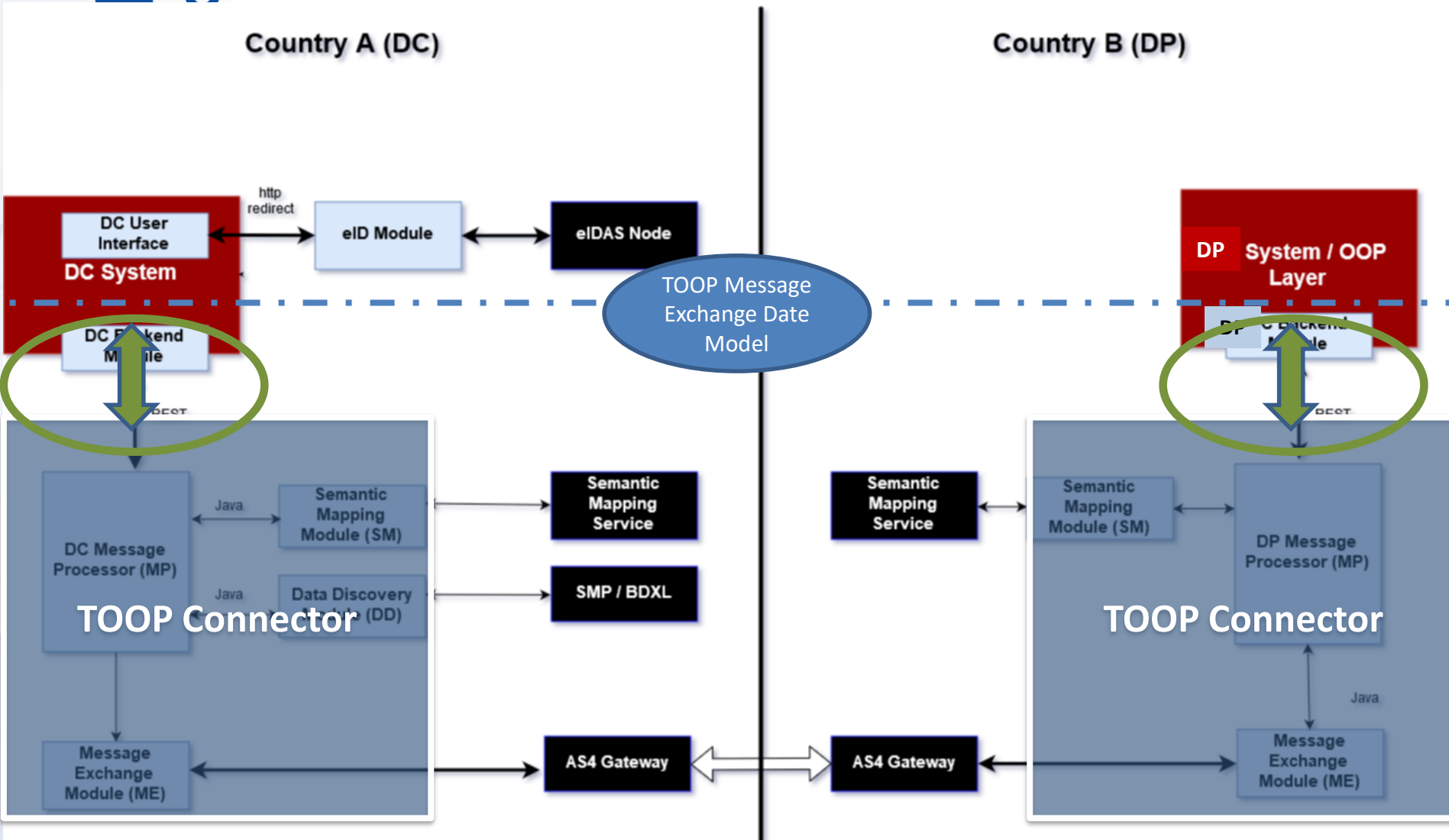


# Implementation option 1 – TOOP Connector + MS Interface



Country A (DC)

Country B (DP)



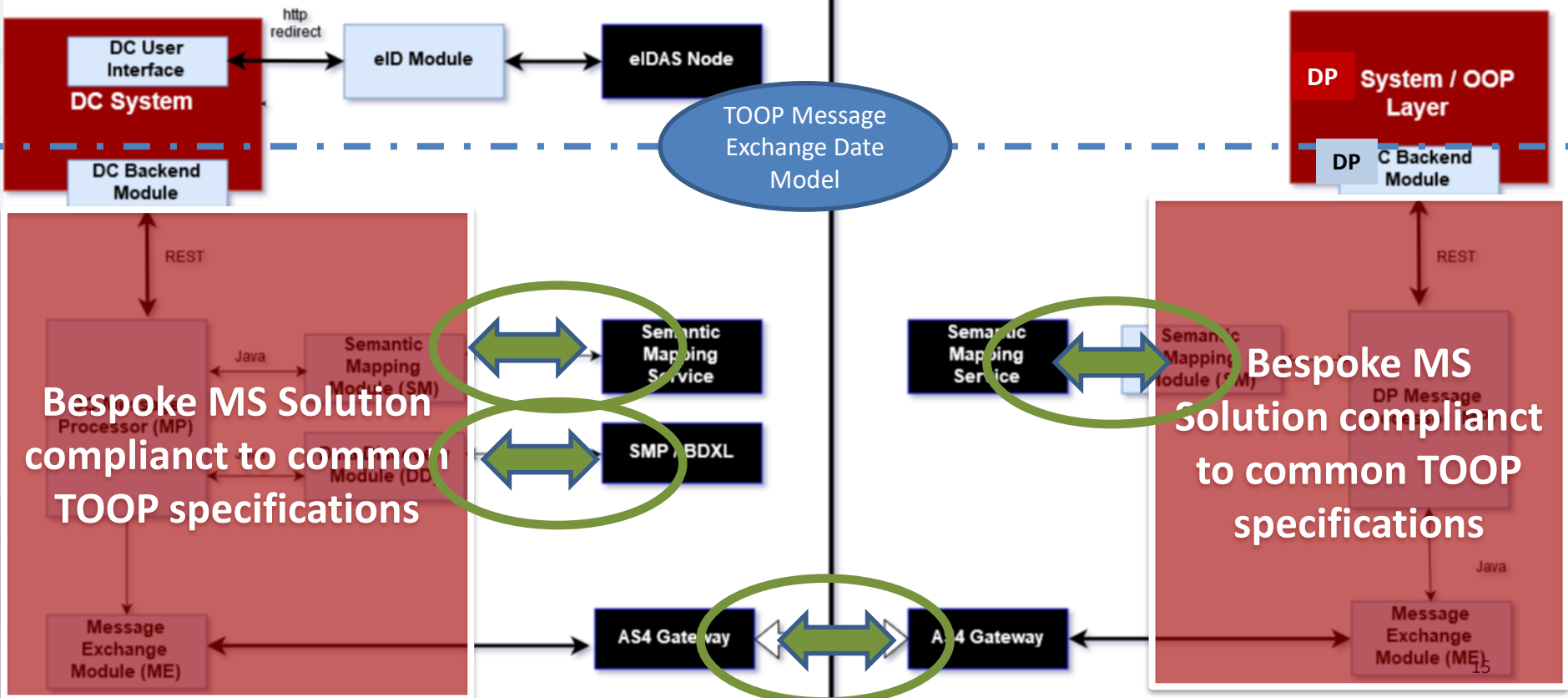


# Implementation Option 2 – TOOP-compliant MS solution



Country A (DC)

Country B (DP)







# Pilot Areas,, countries and status

- eProcurement
  - DE, FR, GR, IT, PT
- General Business Mobility (eGov-to-BR)
  - AT, EE, GR, IT, NL, NO, PL, RO, SE, SI, SK
  - Licenses, permissions, mandates, company data
  - Cooperation with BRIS
  - Can enhance BR-to-BR connection
- Online Ship and Crew Certificates
  - BG, DK, EE, GR, LV, NO

**GR – SE ALREADY CONNECTED!**  
**COME JOIN US, TO LEARN AND PILOT!**



# A TOOP-enabled service demo

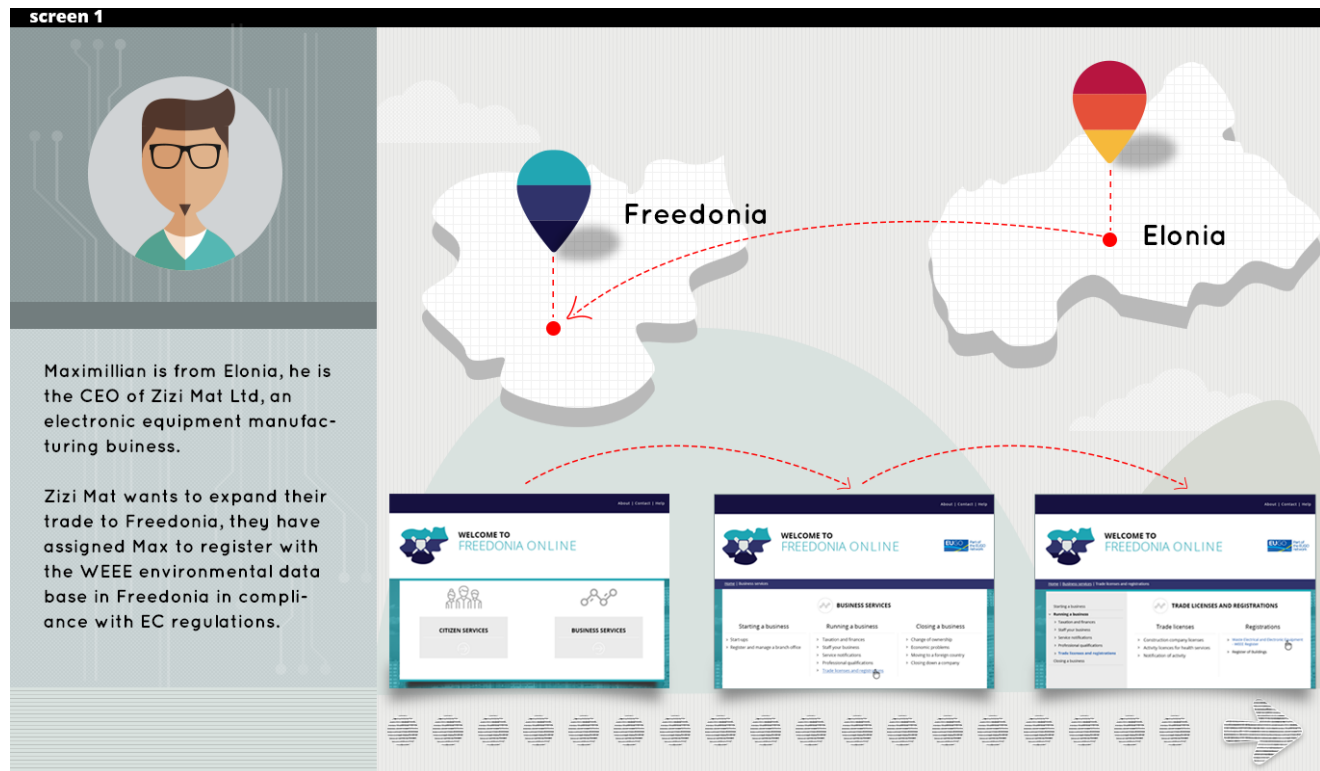
Maximillian, an Elonian entrepreneur, wants to expand his business to Freedonia. He goes to Freedonia's Single Digital Gateway for help ...





# A walk through the underlying technology and flow

Presenting the way that the TOOP architecture components work together to provide automated data exchange across borders





**Thank you for your attention!**

Want to know more? [www.toop.eu](http://www.toop.eu)

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Facebook: [www.facebook.com/onceonlyprinciple](https://www.facebook.com/onceonlyprinciple)