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SEED System in Western Balkan Region

Belgrade, 14th September 2011

Implemented by:



AGENZIA
DELLE
DOGANE

SEED Concept Life Cycle

SEED Phase 1 – Pilot Actions

May 2008 – July 2009

1: EU-SEMS / EU-TACTA Projects

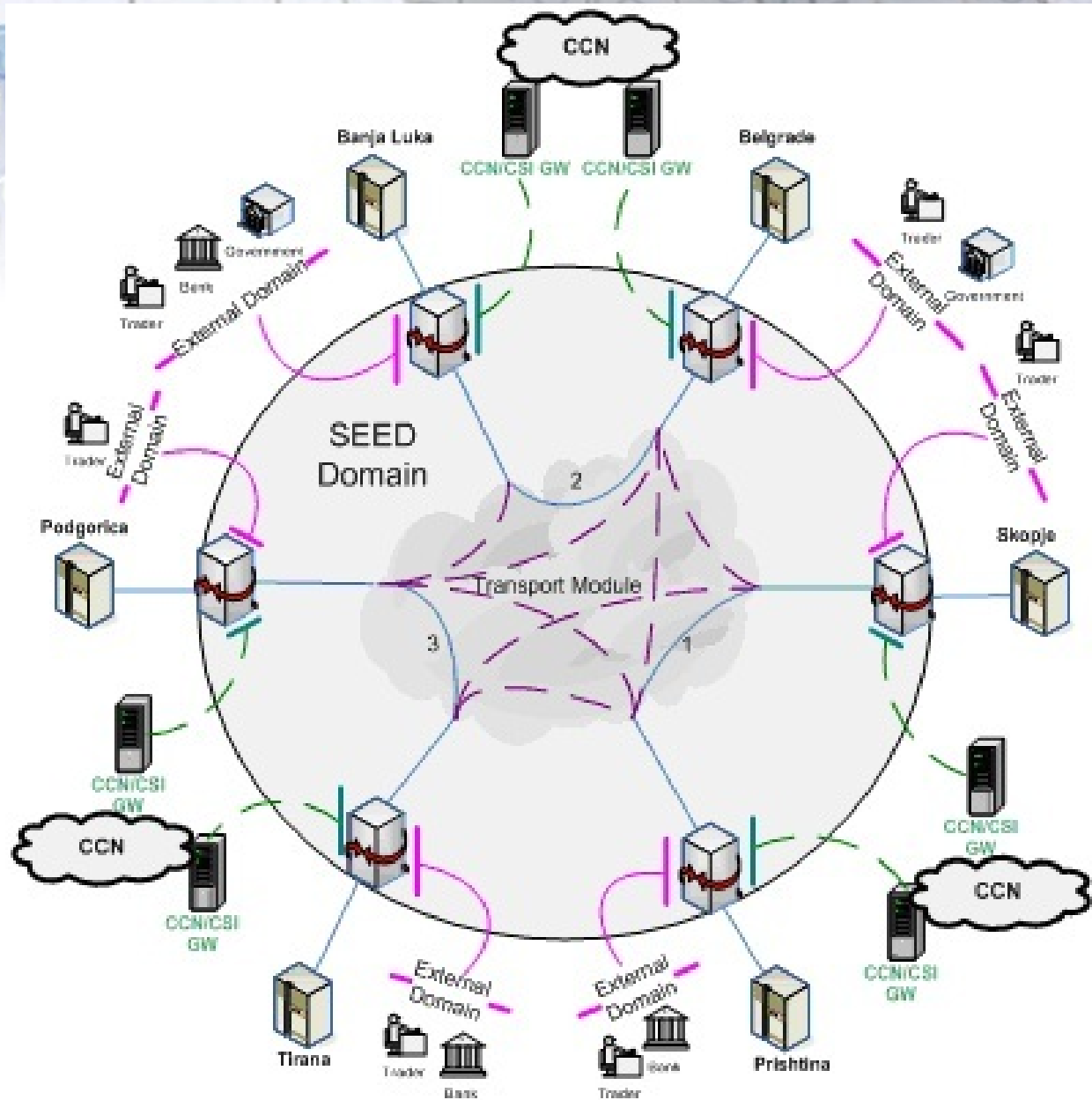
November 2009 – April 2010

2: Regional IBM Project

SEED Phase 2

September 2010 – September 2012

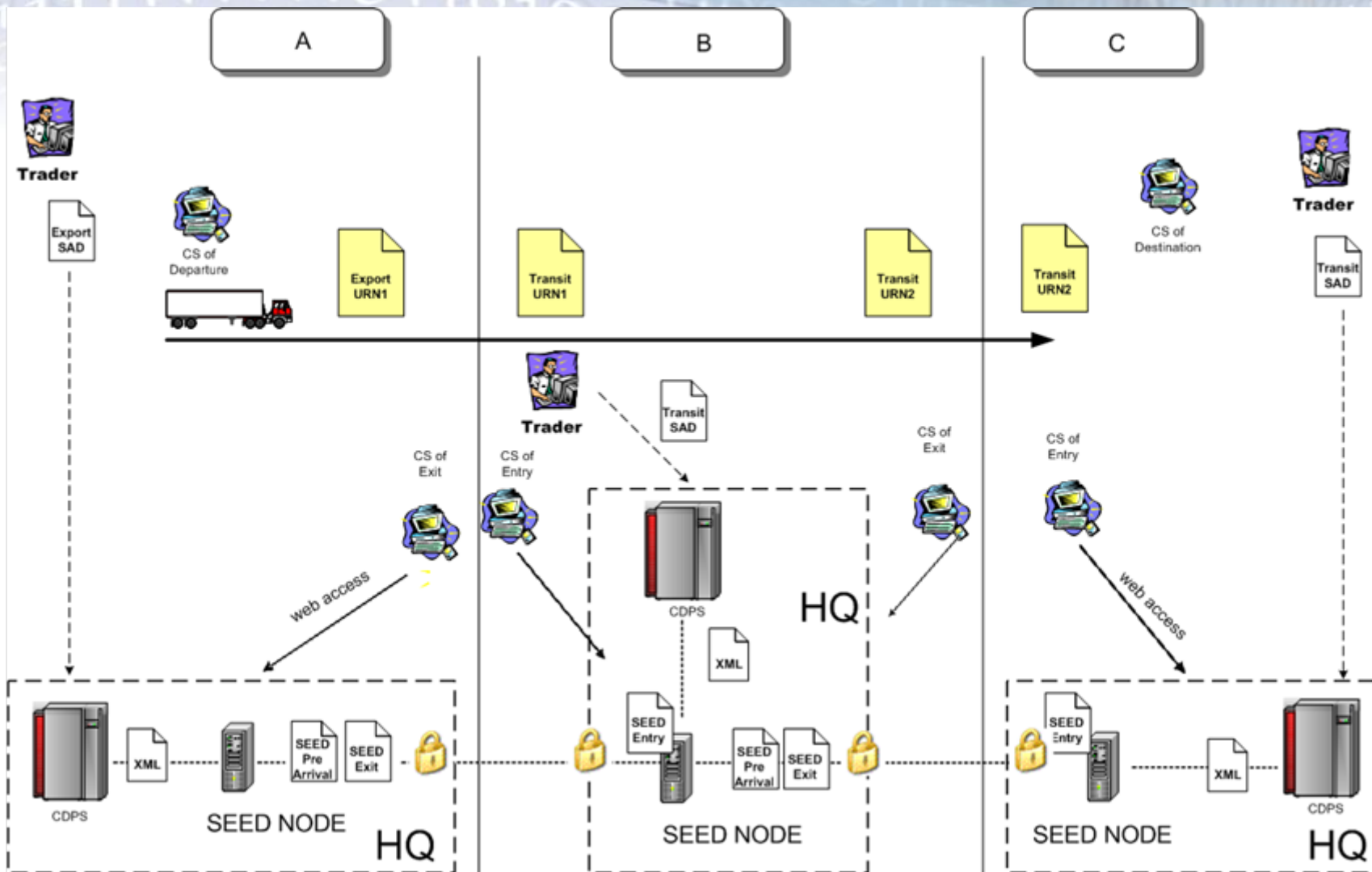
3: SEED Project



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SEED Phase 1 (Pilot Actions) – Current Status

- **Electronic data exchange via SEED system is operational, exactly according to requirements for the SEED Pilot Actions (SEED Phase 1);**
- **Currently operational bilateral “SEED Pilot Actions” are :**
 1. The Former Yugoslav Republic of Macedonia – Kosovo*;
 2. Bosnia and Herzegovina – Serbia;
 3. Serbia – The Former Yugoslav Republic of Macedonia;
 4. Montenegro – Serbia;
 5. Montenegro – Albania;
 6. Albania – The Former Yugoslav Republic of Macedonia;
 7. Albania – Kosovo*;
 8. Montenegro – Kosovo*;
 9. Montenegro – Bosnia and Herzegovina;

(* = UNSCR 1244)

CONCLUSION – Pilot Actions Functionalities (1)

- Legal base for each Pilot Action is “Protocol” on exchange of data signed between two administrations;
- Bilateral systematic and automatic data exchange of the real (production) data from CDPS databases,
- For following procedures (type of declarations)
 - Transport Declarations (all 9);
 - Export Declarations (all 9);
 - TIR carnets (BiH-SRB, SRB-MAK);
 - Empty Trucks (BiH-SRB, MNE-SRB, ALB-MNE, MNE-XK, MNE-BiH);

CONCLUSION – Pilot Actions Functionalities (2)

- In Real Time (at the same moment when declaration is “verified” within the National CDPS);
- And for all Border Crossings Points between two neighbour Administrations;
- **CONCLUSION:** these functionalities are already going much above “testing scenarios”, but Project Team is insisting to call them Pilot, just to make difference with new functionalities that will be developed for the SEED Phase 2.



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SEED Phase 1 - System usage

- Data analysis is performed by Operational Centre (Customs HQ);
- Border officers enter data for missing functionalities (border crossings of Empty Trucks)

System limitations:

- Huge number of received information;
- Lacking of automatic matching;

System usage:

- On basis of indication – quick and efficient data checking through SEED System;
- Already concrete results achieved: tens of discovered cases of undervaluation (swopping of Invoices);



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SEED Phase 2 – OBJECTIVES

- **Automatic matching of data**

Automatic reconciliation of customs declarations data sent from the border office of exit (custom administration of departure) with data declared at the entrance (at the neighbour BCP, customs administration of arrival);

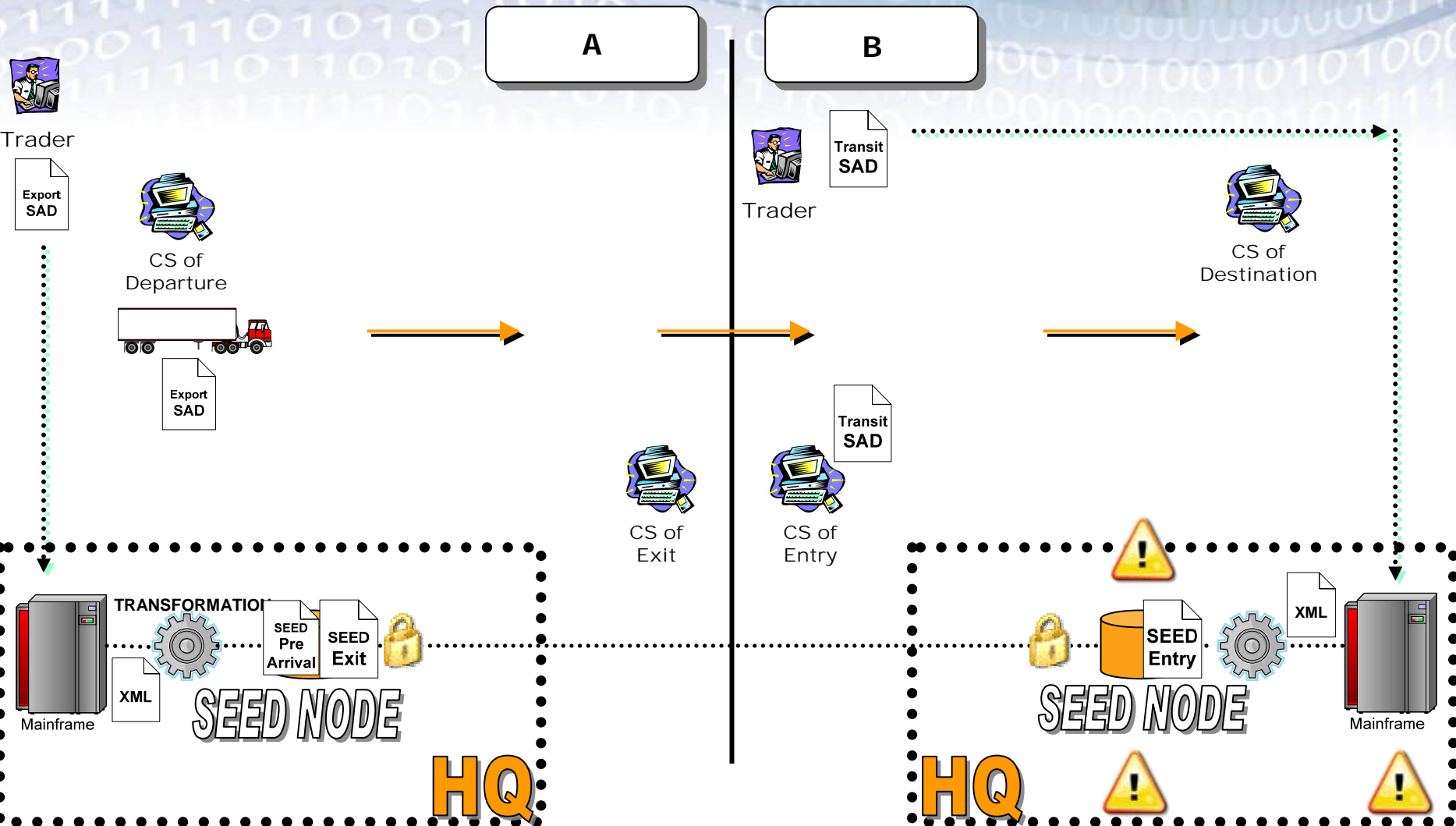
- **Exchange of pre-arrival data and risk analysis**

Exchange of data sent at the moment of starting of the customs procedure (early announcement). Basic Risk Analysis (Alarming Module) on SEED System or import to domestic CDPS;

- **External Communication Node**

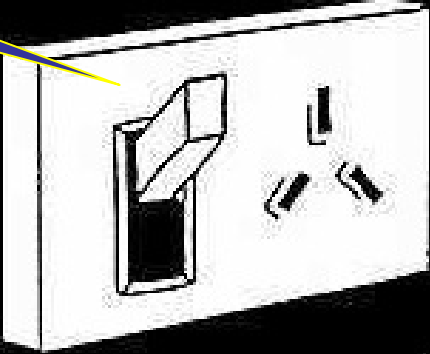
Module for communication between Customs Administration and the “rest of the World”;

SEED Phase 2 – The Main Scenario



WHAT WE ARE CREATING?

CCN/CSI
GATWEAY



SEED
ECN

Common
Domain

CDPS

DESIGN CONSIDERATIONS

SEED Message	Reference System	Reference Data Model
SEED Transit Messages	NCTS	NCTS – IE001
SEED Export Messages	Export Control System	ECS – IE501
SEED Import Message	Import Control System	ICS – IE729
SEED messages for TIR	UNECE e-TIR Working Group	eTIR data model



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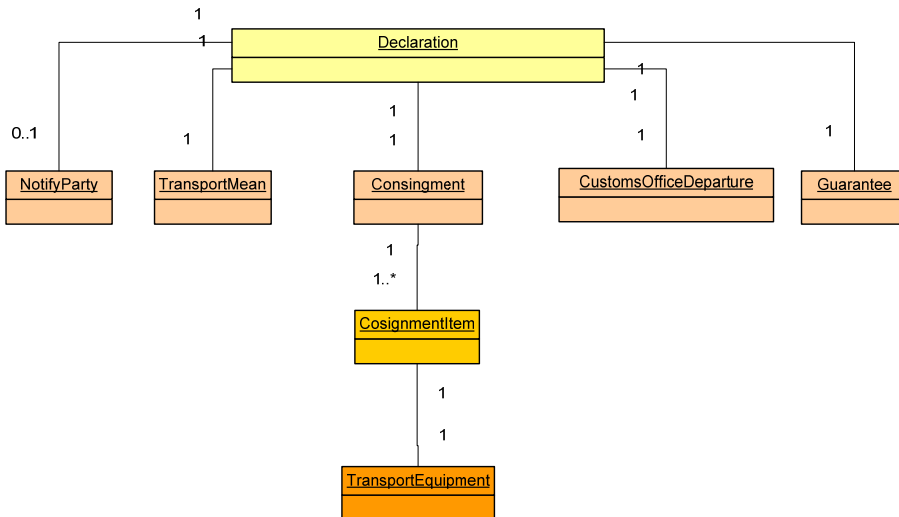


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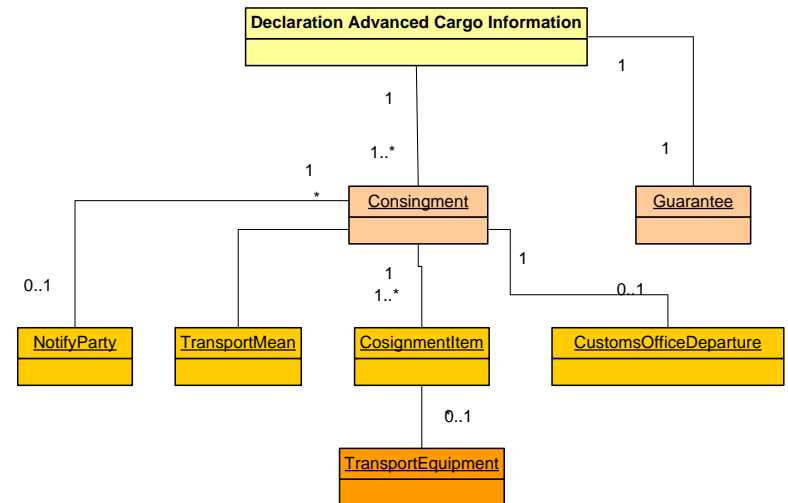
TIR REFERENCE DATA MODEL

- Reference Data Model for the TIR Procedure: **eTIR Reference Model**
- Design documents:
 - [ECE/TRANS/WP.30/GE.1/2010/3, February 2010](#)
 - ECE/TRANS/WP.30/GE.1/2011/4, March 2011
- Modelling TIR data for integration in the SEED system for customs documents data matching,
- Focus on TIR documents data model, not data model supporting message exchange
- 2011 model among other changes introduced data group TransportEquipment, both at the Consignment and ConsignmentItem level, with more data elements

SEED TIR Model



eTIR Model



Note: Only excerpts from TIR models presented for comparison

eTIR AND SEED TIR DATA MODEL

- All **data groups** with associated **data elements** from eTIR model incorporated in the SEED TIR model
- Multiple Consignment occurrence reduced to one, comparability with SAD declarations
- Data grouping hierarchy flattened:
 - SEED data model focused on movement data
 - Make easy movement data pairing and matching, even for different customs regimes and documents
- Different data formats reduced to shorter:
 - HolderName **an..35** (SEED) an..70 (eTIR)
- Minor additions – data elements from more elaborated TIR models:
 - Holder.Status, SubContractor.Status, TransportMean.IdentificationTrailer, TransportMean.NationalityTrailer

CONCLUSION - SEED Project Achievements

- Legal base for electronic data exchange in place;
- Aligned and harmonised procedures at both side of the BCP (even recognised by national legal provisions);
- IT system in place which will accomplish business objectives;
- Ownership of the system handed over to the BA;
- Administrative and operational capacity of each BA brought the higher level;



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Recommendations – What to do?

- **Business objectives (automatic data matching and alarm module) will be achieved;**
- **Each BA will be trained to handle its own part of the system;**

However:

- **SEED Concept shall be further utilised and customised for other purposes;**
- **Regional approach and coordination needs to be continued;**

Potential for the future

Regional cooperation:

- Utilisation of the available IT infrastructure for other purposes in Western Balkan Region;
- SEED ECN module for communication with the External Domain;

EU integration:

- IT infrastructure which is directly accession related (connector to the CCN/CSI):
 - AS-IS now;
 - TO-BE in the future;



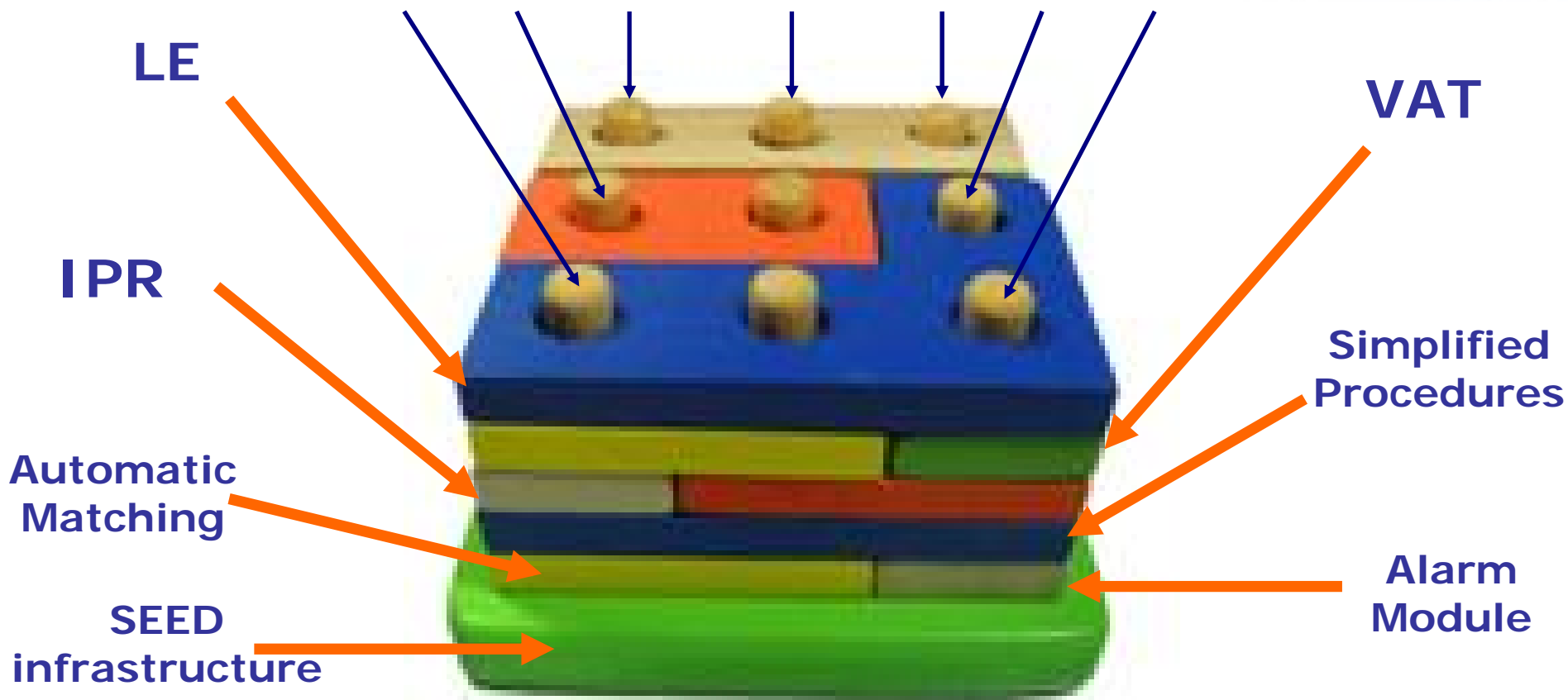
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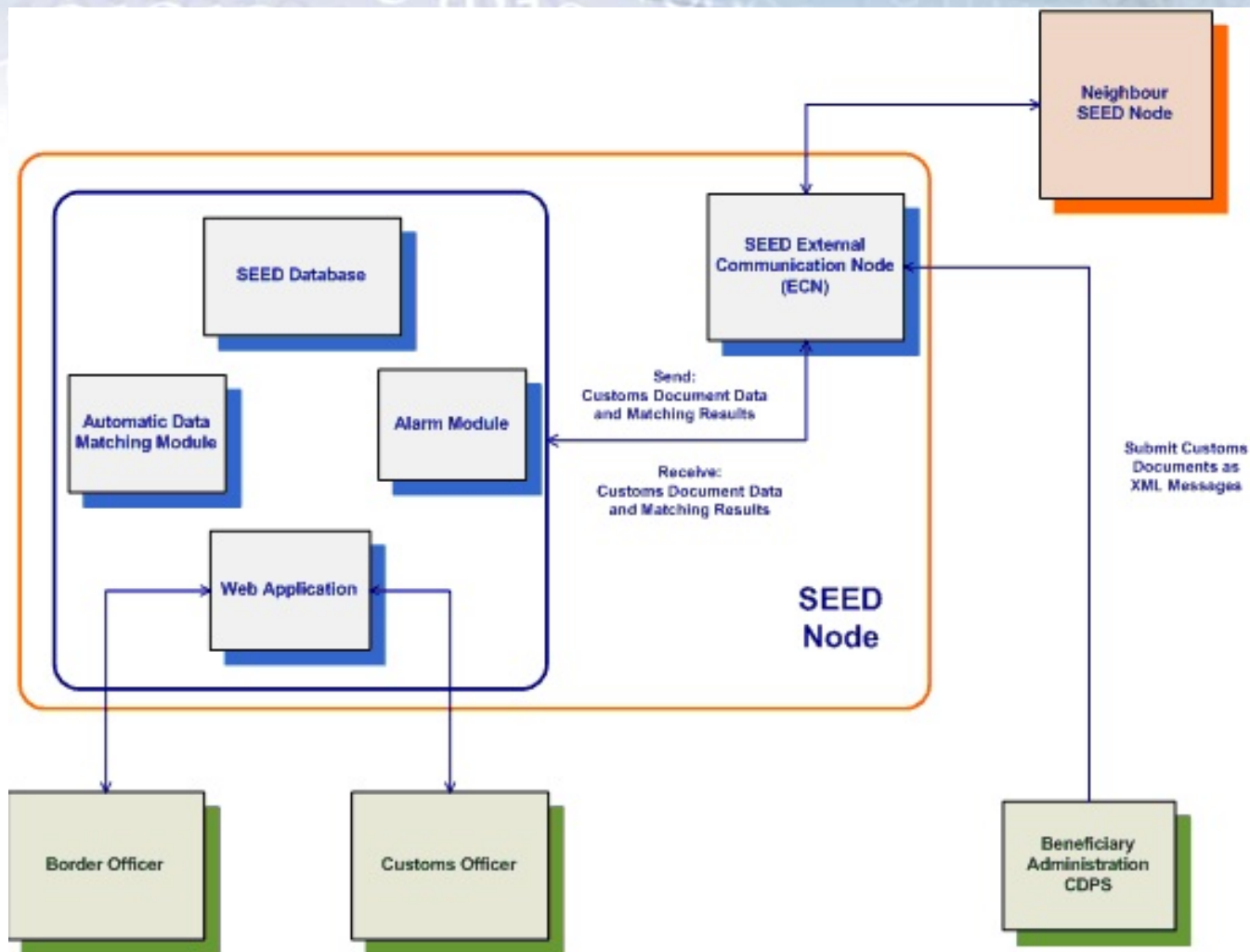
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UTILISATION of AVAILABLE INFRASTRUCTURE

BENEFICIARY ADMINISTRATIONS



SEED Context Diagram



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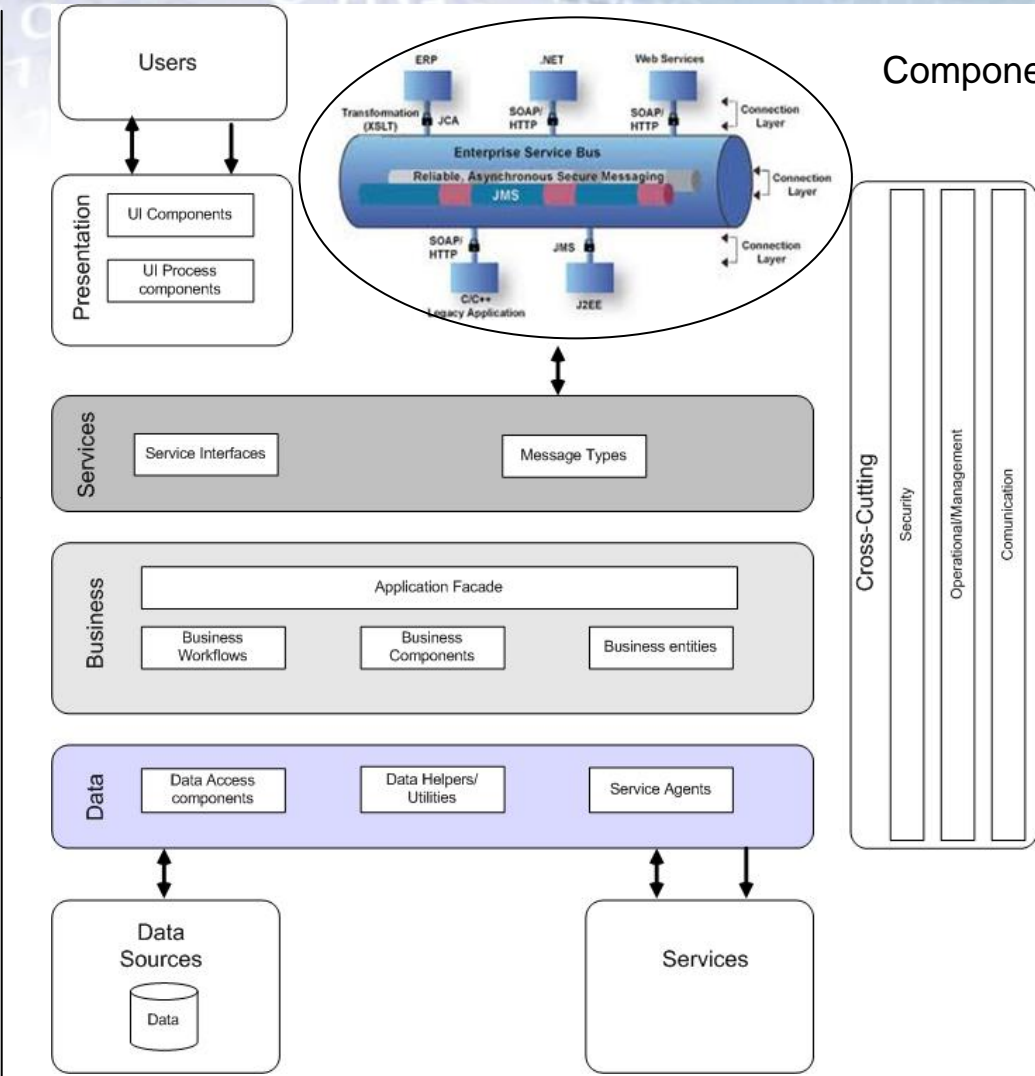
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APPLICATION COMPONENTS

- SEED Application (EMS)
 - Messaging Application for processing of ANY XML messages
- SEED ECN- External Communication Node (From FS to UR)
 - Application for communication and secure data exchange with any Customs stakeholder

ARCHITECTURE

Component 1



Component 2

COMPONENT 1 – SEED Application

- Service Oriented Architecture (SOA)
- Enterprise Messaging System (EMS)
- Based on familiar technologies
- RDBMS independent
 - .NET Framework application using ORM for Data persistence

COMPONENT 2 – ESB (OPEN ESB)

- No need to reinvent the wheel

ADVANTAGES

- Faster and cheaper adaptation of existing systems
- Greater flexibility: easier to make changes to the changing requirements
- Foundation for global standards
- Scalability: easy extension of the initial application to only one location on the application of the whole business system (distributed bus)
- More configuration, less coding

WHY OPEN ESB IS ATTRACTIVE?

- Easy to install
- Easy to understand
- Very easy to use
- An open source Standards based (JSR 208) ESB easier to install, configure, use, manage and maintain than most other ESB-s in the market.
- Binds with: The best java IDE NetBeans 6.x
Excellent integration with Glassfish 2.x
(Possible integration with IBM WebSphere or standalone application)

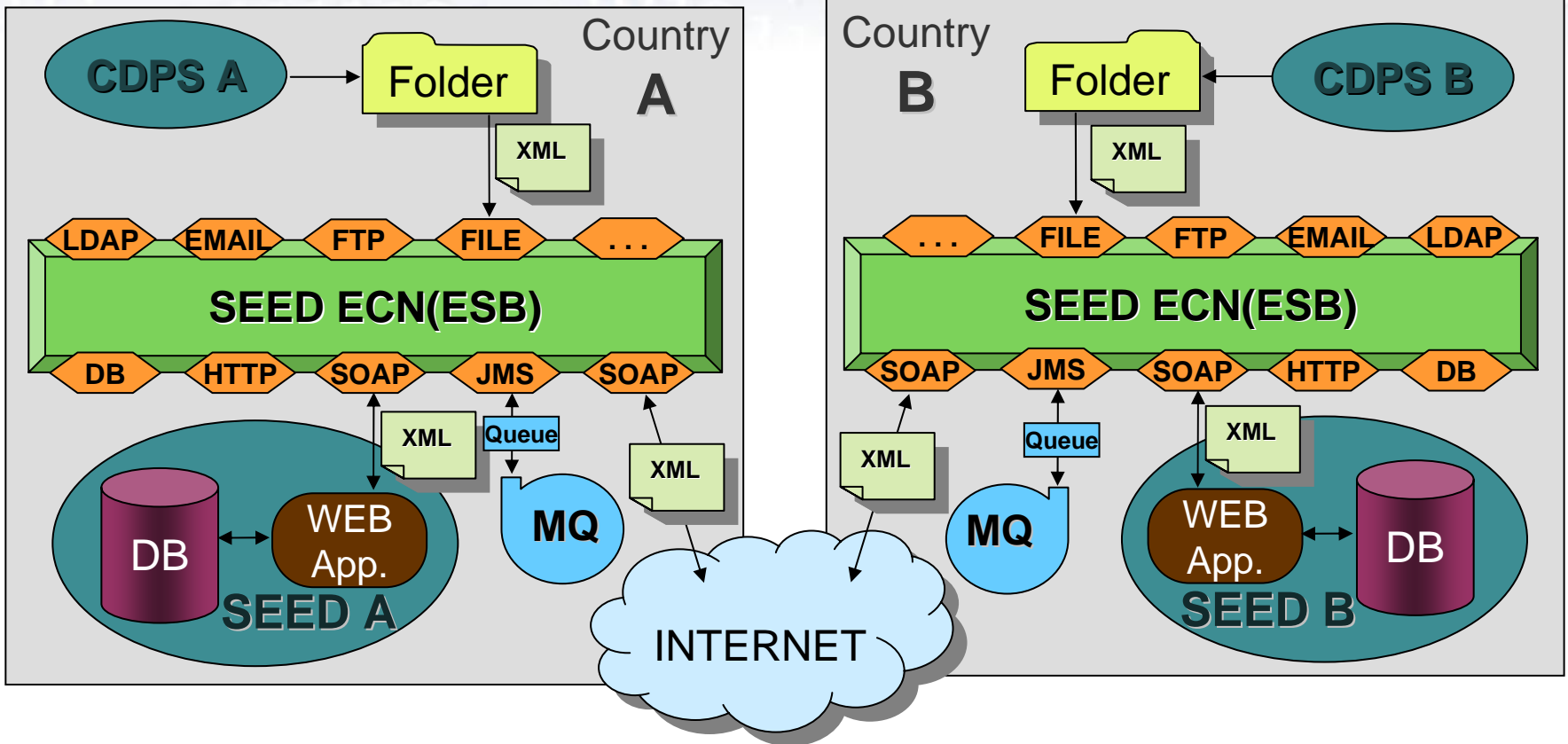


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ARCHITECTURE WITH ESB



POTENTIAL

- Investment for the future
- Solid foundation for forthcoming interconnectivity/interoperability challenges
- Possible usage in various scenarios for communication with ANY customs stakeholder – including EC in the future
- CCN/CSI “Adapter” development part of the Workplan

THANK YOU FOR YOUR ATTENTION!

OPPENING OF DISCUSSION

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