

ELECTRONIC PROCUREMENT SCENARIOS

SECTION ONE
The Enterprise
Segment
B2B

eProcurement in the private sector

1. “E” enabled procurement

1. Electronic Invoice

2. Electronic ordering

3. Electronic catalogue

2. Tracking of goods along the supply chain

1. Electronic communication; data exchange

2. Electronic commerce

3. Marketplace as service platform

3. The use of standards in eCommerce

1. Electronic message standards

2. Classification systems

Tracking of goods along the supply chain

- 1. Electronic communication; data exchange**
- 2. Electronic commerce**
- 3. Marketplace as service platform**

Supply Chain Management

Supplier of manufacturer

Manufacturer

Distributors

Dealer

Integrator/Value added reseller/Service provider

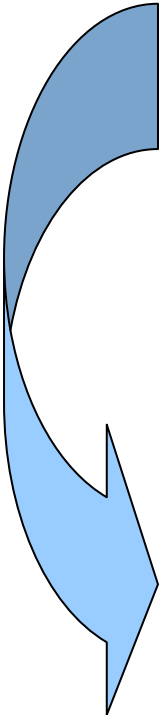
TRANSPARENCY

Contracting agency

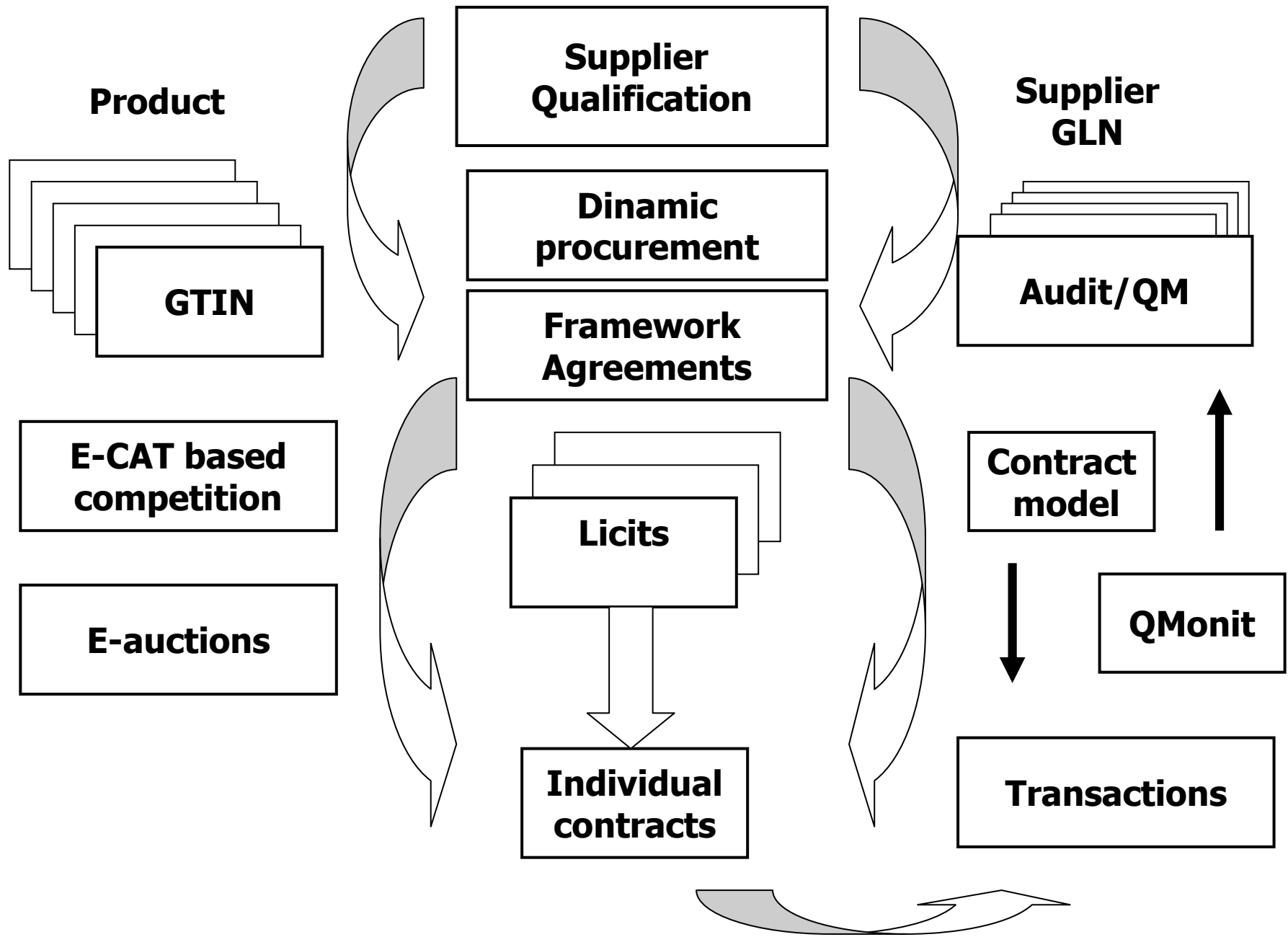
Budgetary entity

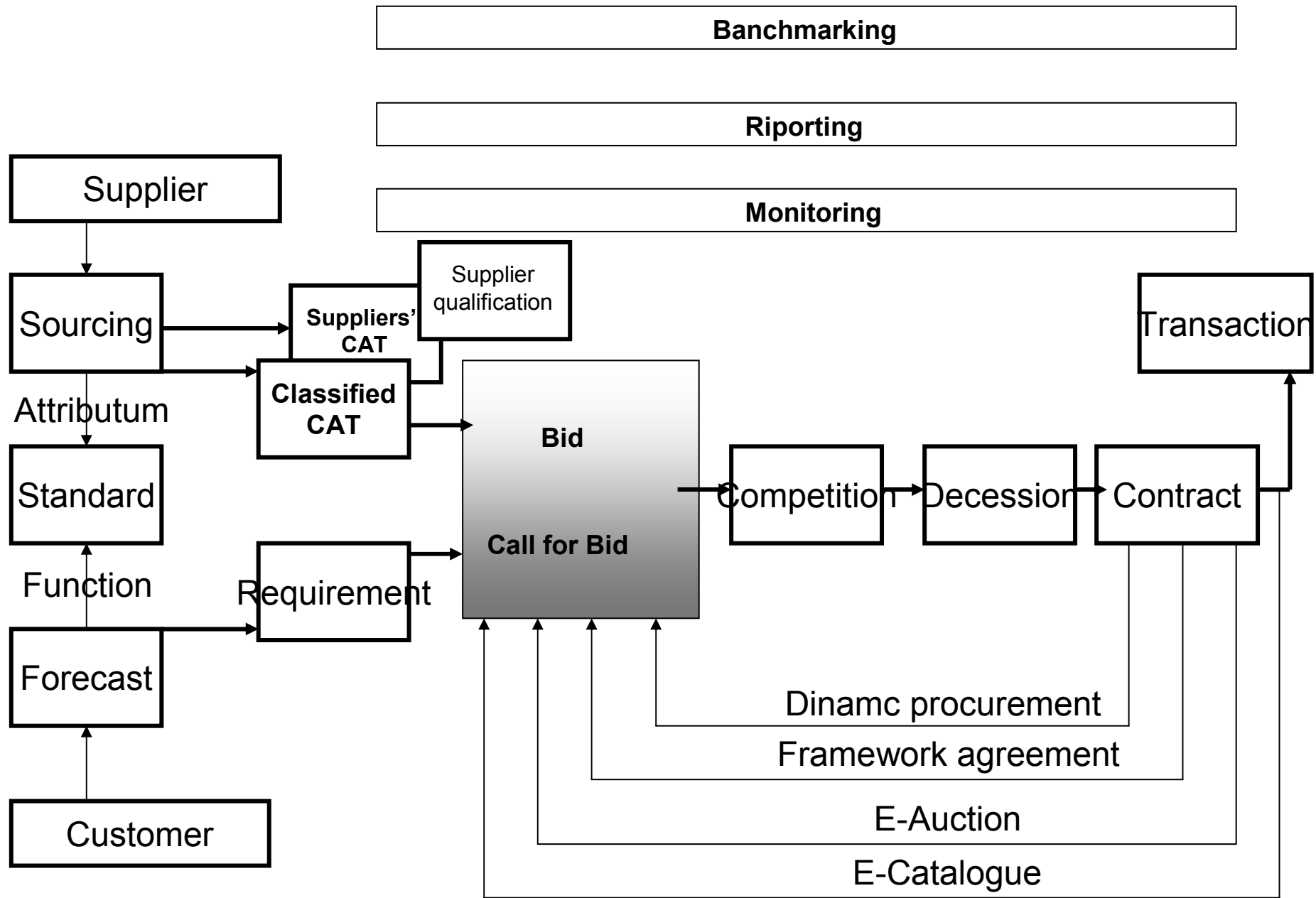
Functional operator

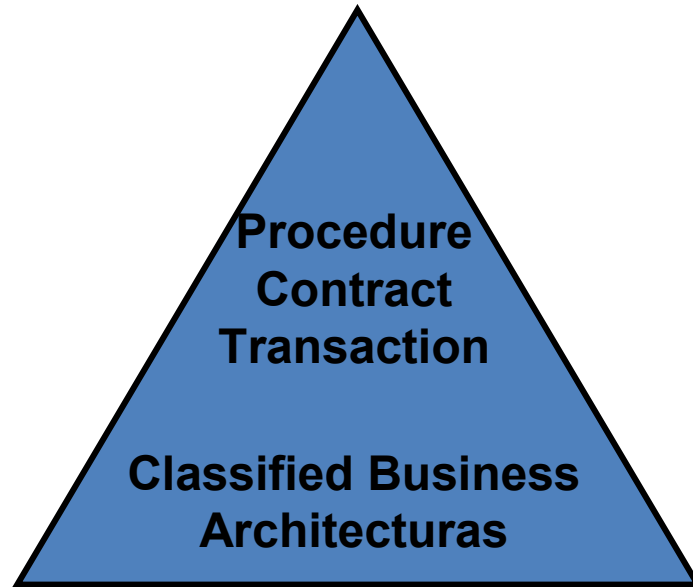
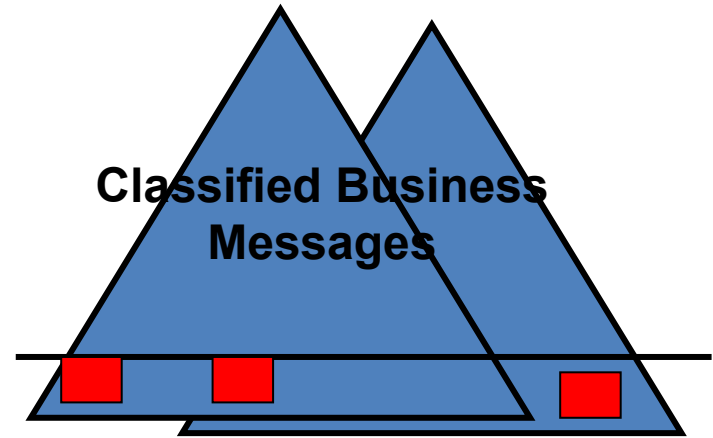
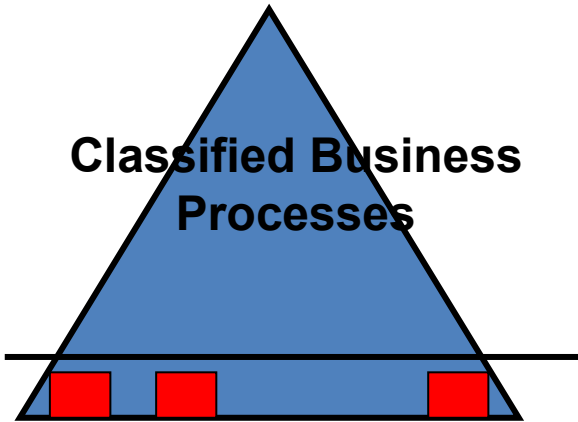
End user

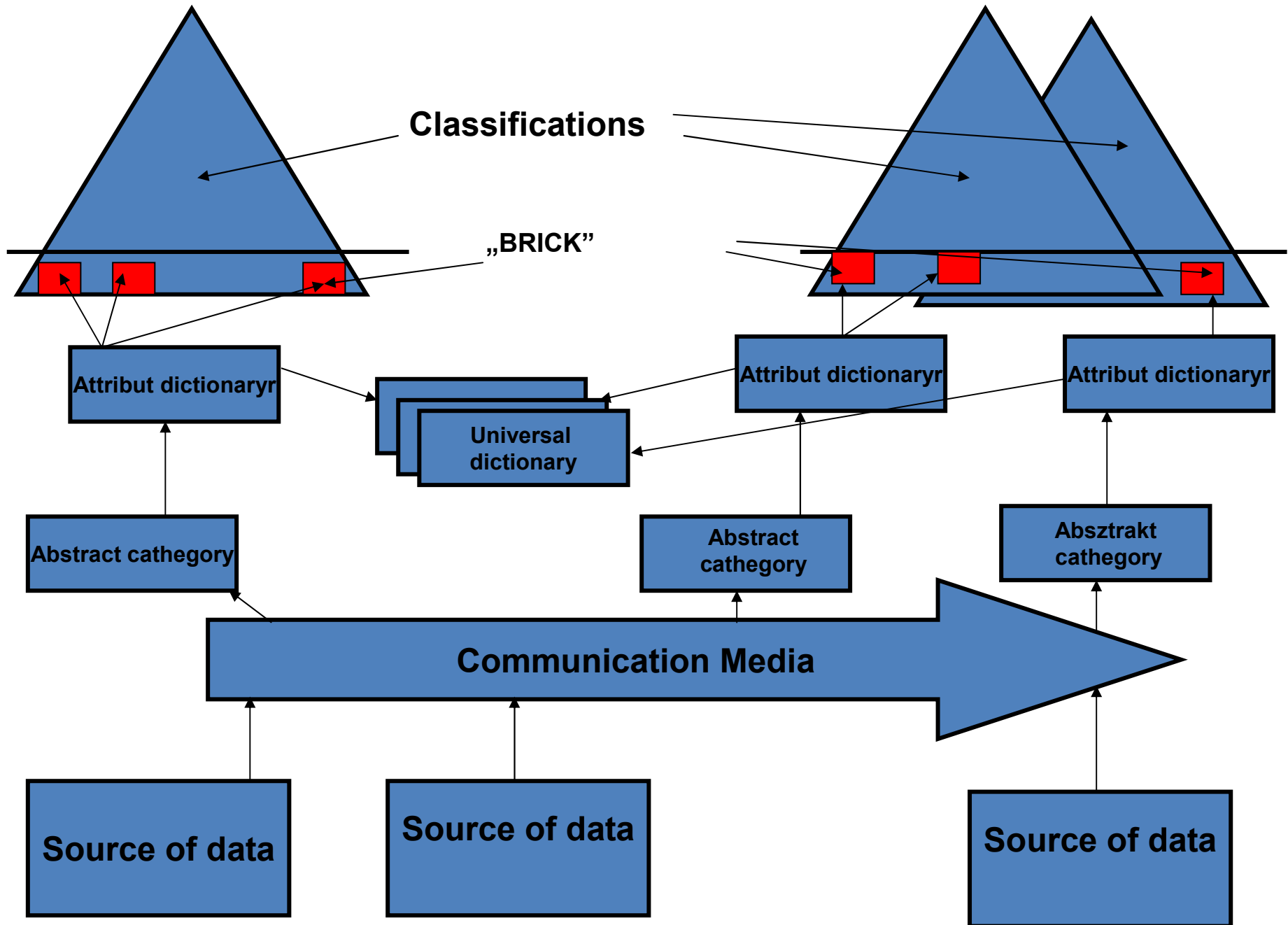


Service level









Functional requirements

Value analisys

Function carring attributes

Mesurment unit

Measurment unit family

Product parameters

Megfeleltetés

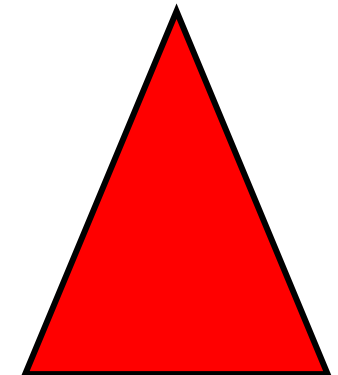
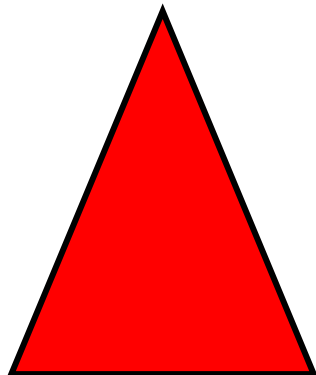
Abstract product cathegories

Procurement Cathegories And attributes

Commercial Cathegories and parameters

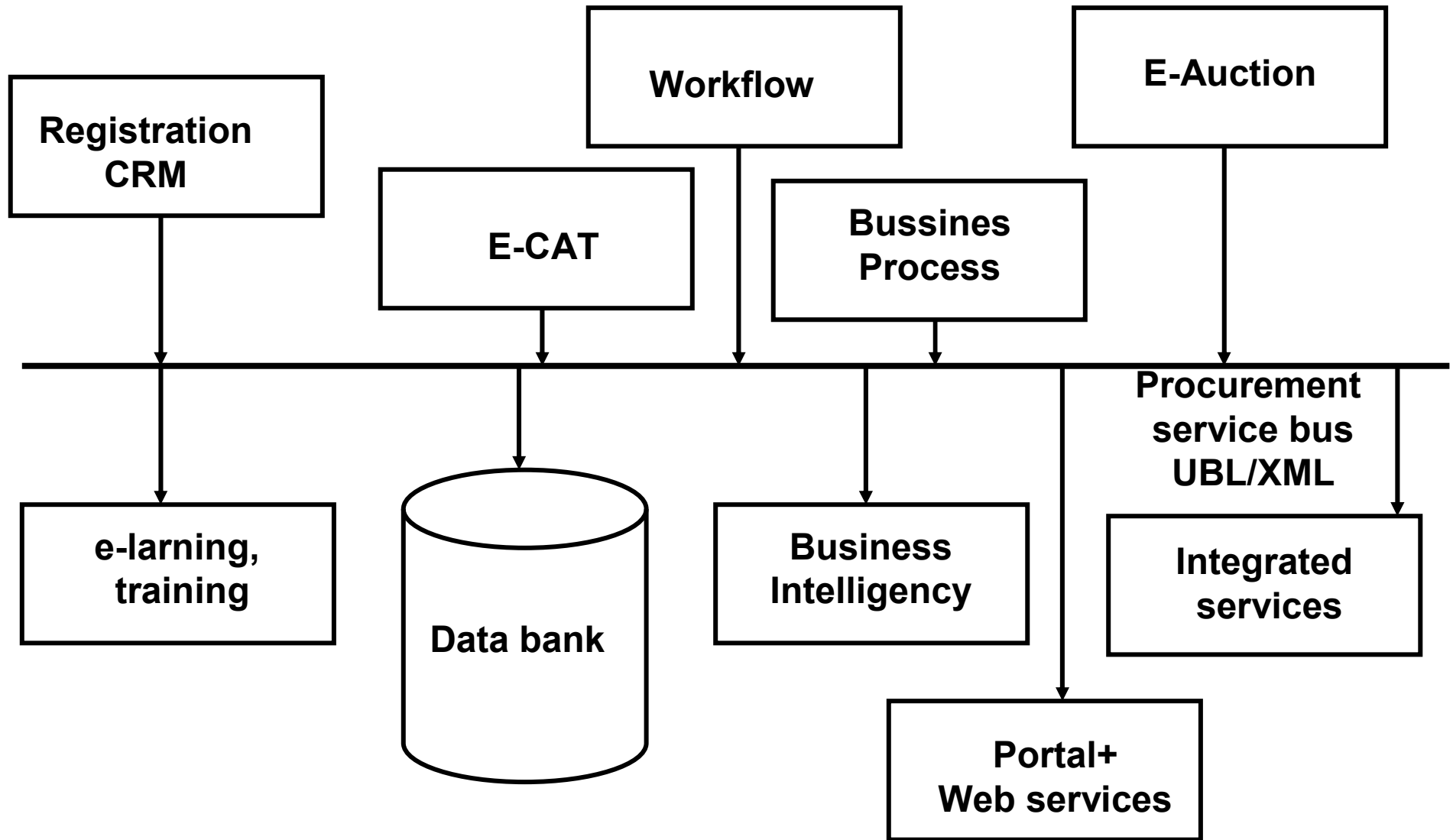
Classification

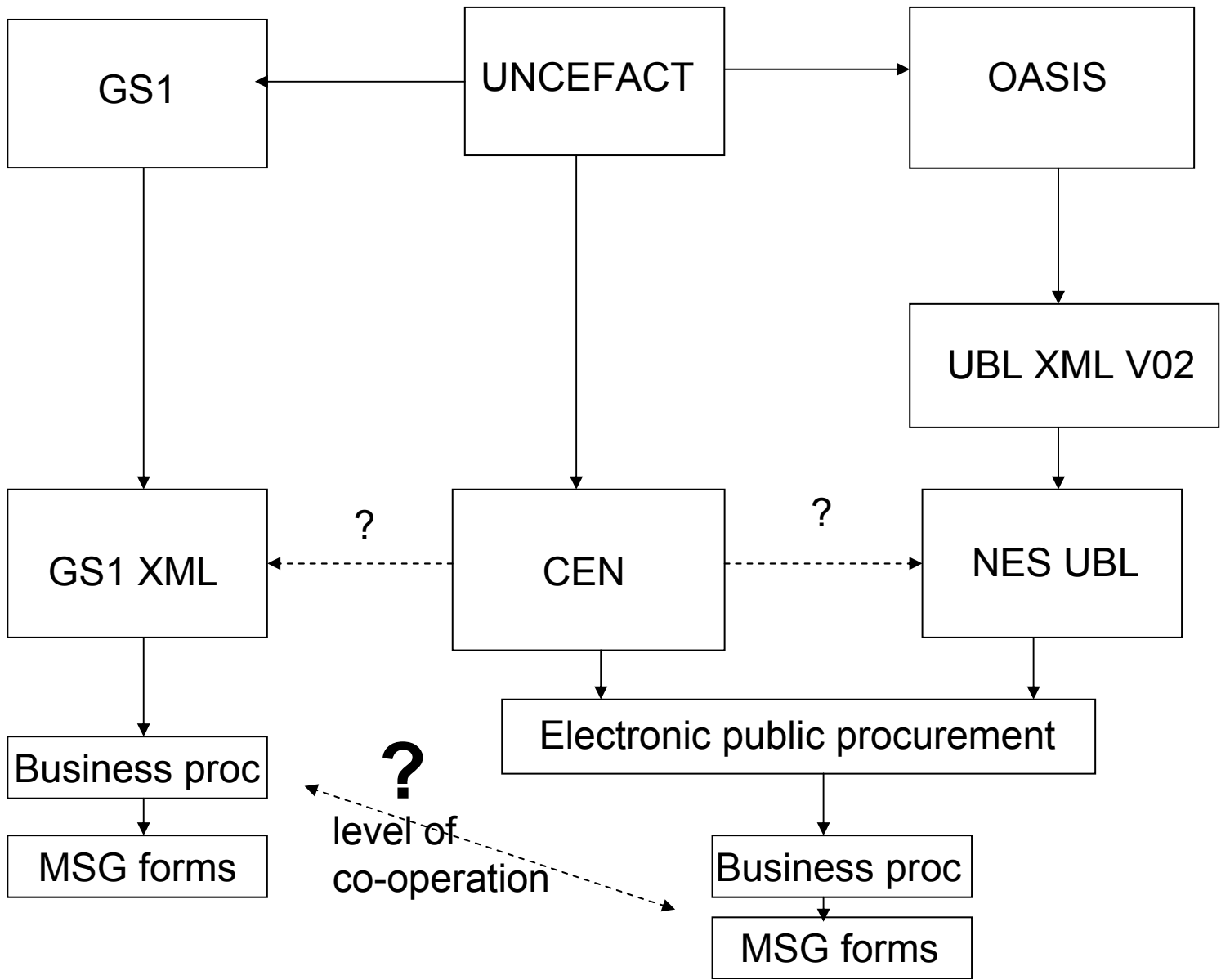
Classification



Interlacing

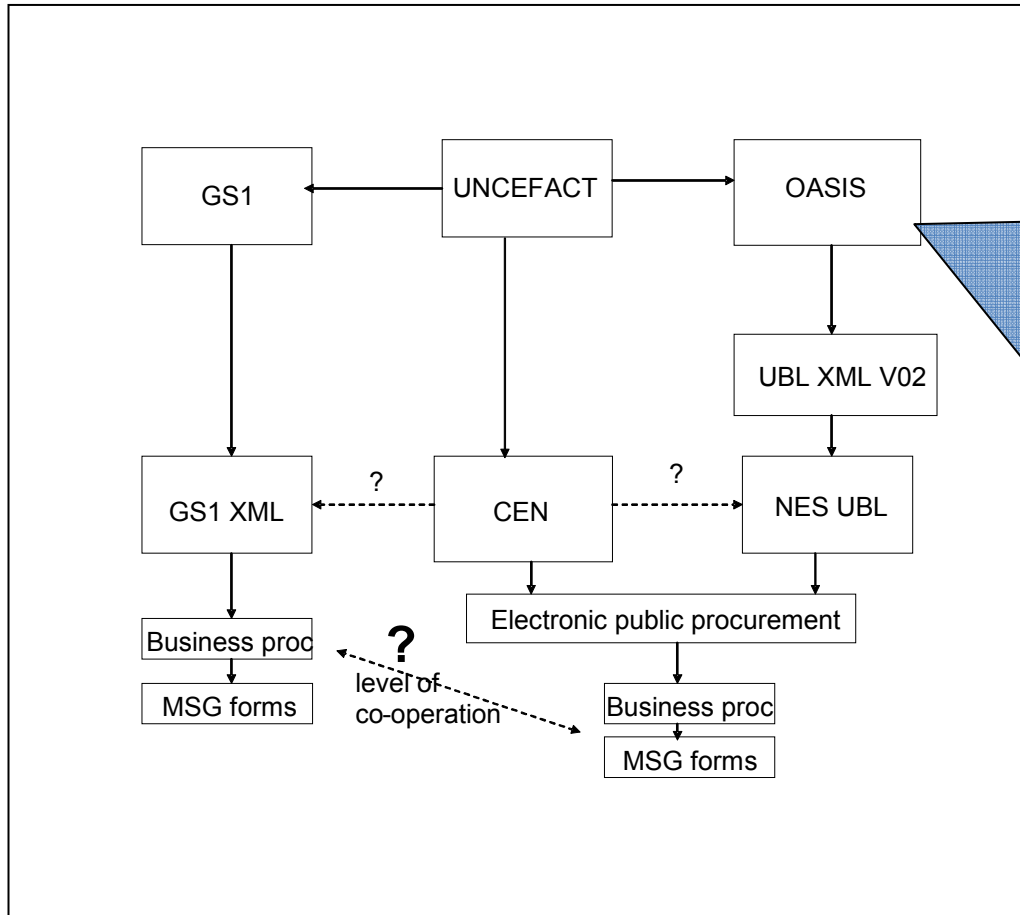
- Private segment
 - Segment
 - Supplier's Activity
 - Product class
 - Commodity
 - Extensions
- Public sector
 - Segment
 - Supplier's Acceptance
 - Product class
 - Commodity
 - Extensions





UN CEFACT, eProcurement & Global initialisations

What do we mean when we make a line to a box? There are shades of conformance.



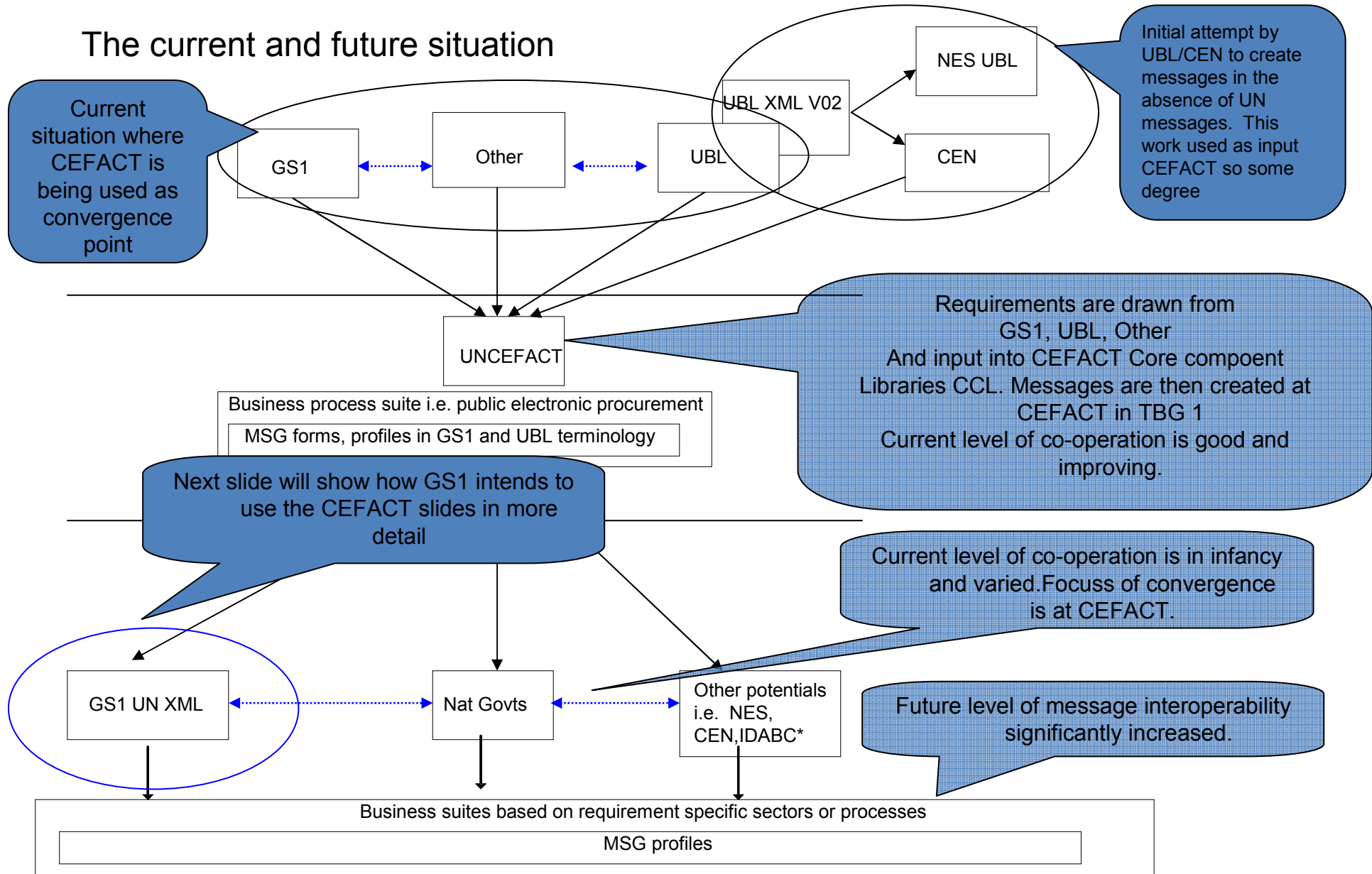
Need to be very clear what these boxes in relationship to CEFACT mean, i.e. level of compliance

At the moment, neither UBL, nor GS1 is fully compliant to UN CEFACT.

The reasons are that

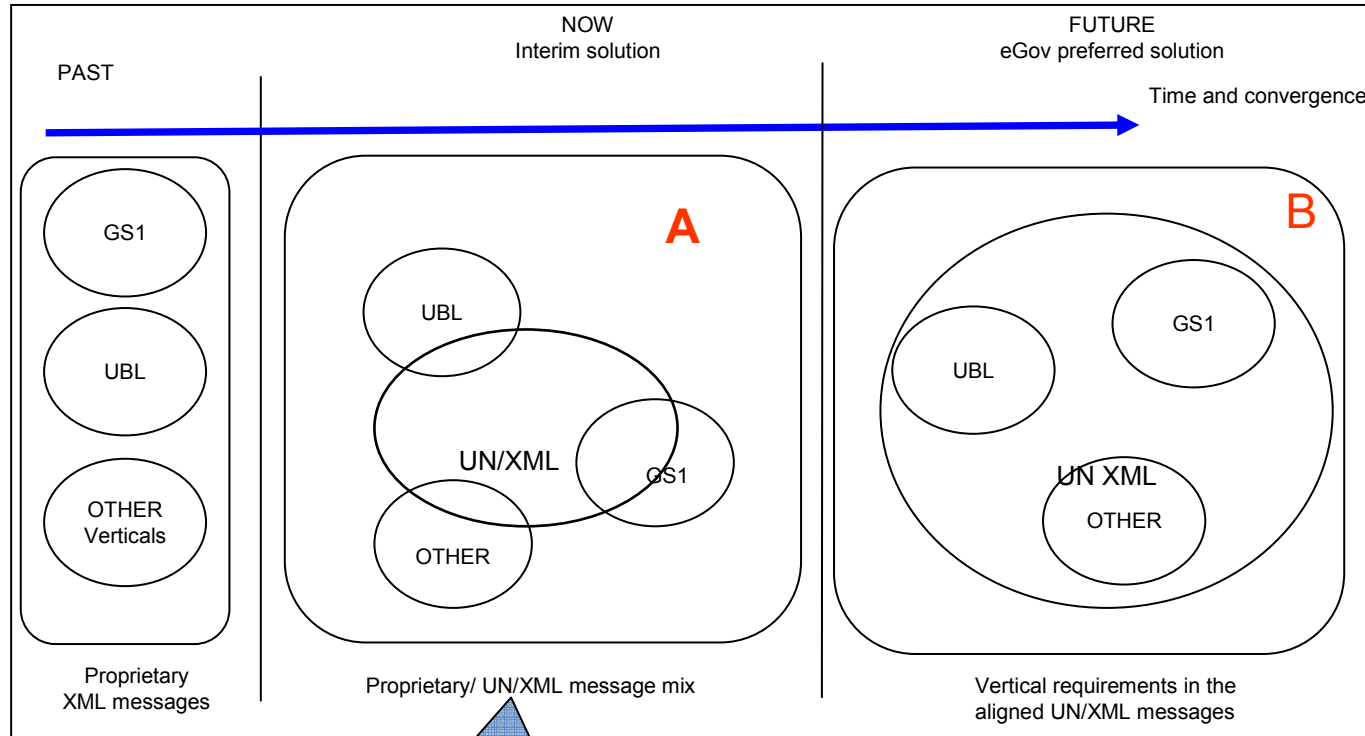
- a) Some UN XML messages have only just this year been created and are not ready for implementation...there are only a few messages available.
- b) An order to pay process set of messages is being developed.

The current and future situation



***IDABC** – Interoperable Delivery of European eGovernment Services to public Administrations, Business and Citizens, is a Community Programme managed by the European Commission's directorate

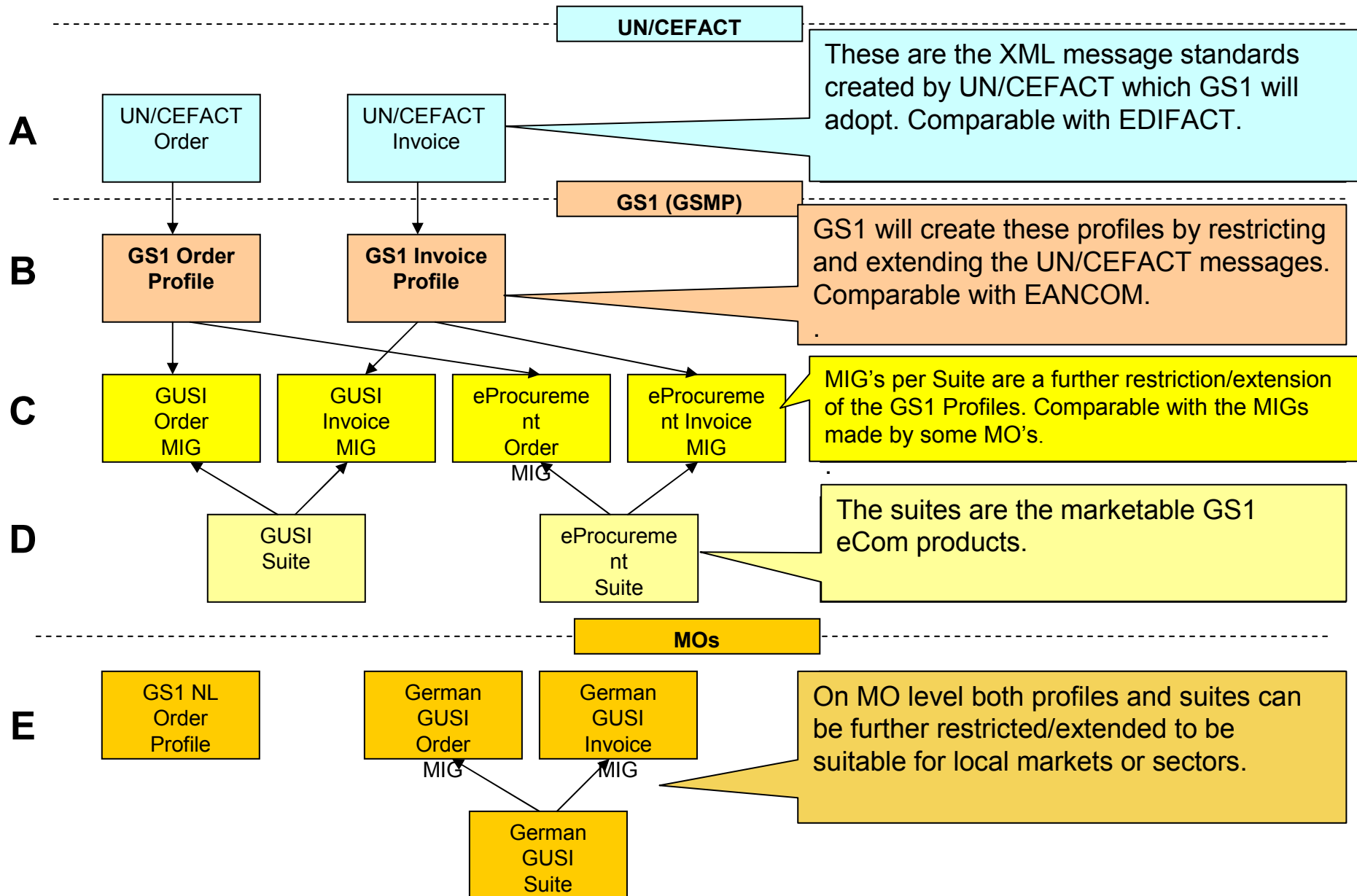
There is a pre-UN XML message view and and post UN XML creation view



A
The current situation is somewhat like this:
Stds bodies use a portion of ebXML specs, limited CCL usage and NO UN Messages (they are not ready for implementation yet....mid 2008)

B
The future situation could look somewhat like this:
Stakeholders use ebXML specs, not limited CCL usage and implement UN Message prfiled against process/sector guides

How the GS1 UN XML messages will be created



4 flavours of XML with 'some' common classes

The image shows a screenshot of the XML Schema Editor (GEEG.FX 6.0 Professional) with four different XML schemas open. The schemas are:

- UBL**: UBL-Invoice-2.0
- UNXML**: Cross Industry Invoice guide: IRI: 1.0
- IDABC**: Invoice: IDABC
- OIO**: Pielax: 1.0

A speech bubble points to common classes across the schemas, stating: "Similar class structure and the same code lists!". The common classes are:

- xsd:sequence
- xsd:ID
- xsd:schemaID
- xsd:schemaName
- xsd:schemaAgencyID
- xsd:schemaVersionID
- xsd:schemaDataURI
- xsd:schemaURI

Other classes visible in the schemas include:

- External Schemas
- Elements
- Types
- Groups
- AttributeGroups
- Attributes
- Guidelines
- DocumentID
- DocumentDate
- documentName
- Signature
- Attachment
- ContractRef
- PaymentMethod
- DocumentTotal
- NetDocumentTotal
- ChangesTotal
- DiscountsTotal
- TaxTypeTotal
- ExchangeCurrency
- TaxTotal
- AccountsReceivable
- InvoicePoint
- AccountCode
- PartyName
- Address
- BuyerContact
- ExternalContract

*IDABC – EU commission, OIO – Danish Gov, UBL – UBL, UNXML - UN CEFAC XML

4 flavours of XML with major divergencies i.e. here at **Line item level** the challenge is for UN XML to pull these together so we all speak one standard

The image shows four overlapping XML schema editor windows. The top-left window is titled 'UBL Invoice 2.0' and shows a tree structure of elements under 'Elements/Invoice'. The top-middle window is titled 'UN XML' and shows a tree structure under 'Elements/CrossIndustryInvoice'. The top-right window is titled 'OIO, Danish Govt' and shows a tree structure under 'Prefix: 3.0'. The bottom window is titled 'IDABC' and shows a tree structure under 'Invoice | IDABC'. Arrows point from callout boxes to specific elements in these schemas. A large blue callout box on the right contains the text: 'Non-standard classes in important areas, i.e. Line item! There are major differences even between flavours of UBL based XML'. A smaller blue callout box at the bottom right contains the text: 'This is why GS1 now believes that profiles drawn from UN CEFAC XML is the only viable alternative to a plethora of competing XML standards'. The 'UBL' label is in a white box at the bottom left, and the 'IDABC' label is in a white box at the bottom center.

Non-standard classes in important areas, i.e. Line item!
There are major differences even between flavours of UBL based XML

This is why GS1 now believes that profiles drawn from UN CEFAC XML is the only viable alternative to a plethora of competing XML standards

Advantage

- Previous slides show how far we still have to go
- CEFACT XML has to be the point of convergence for future profiles for GS1 and Govts
- This is the only way improved integration for Govts, and GS1 users and other verticals will be achieved

Users benefits ie:

- Improved interoperability, reduced mapping 1 std for gov and commerce – horizontal std
- Harmonised messages/elements across processes

Where are we now?

- TBG 1 UN CEFACT (GS1 GO,NL,SE,CH)
 - Creating order to pay UN XML msgs
- TBG 19 (GS1 DK, FR)
 - eProcurement project
 - Gathering requirements from governments CEN/ISSS etc
 - The eProc process msg set:
 - Pre-contract
 - Cat
 - Order to pay

TBG 19 CEFACT

- Precontract will include in scope:
 - Tendering
 - Quote
 - Contract

- This is a new process for GS1, not in the pre-contract area right now.

- EDI
- **EDIFACT**
- GS1 EANCOM
- GS1 XML

– Industry specific and national standards

– 1978-86: USA ANSI X.12

– 1983: TDI ⇨ UN/ECE ⇨ ISO

– 1986: international coordination

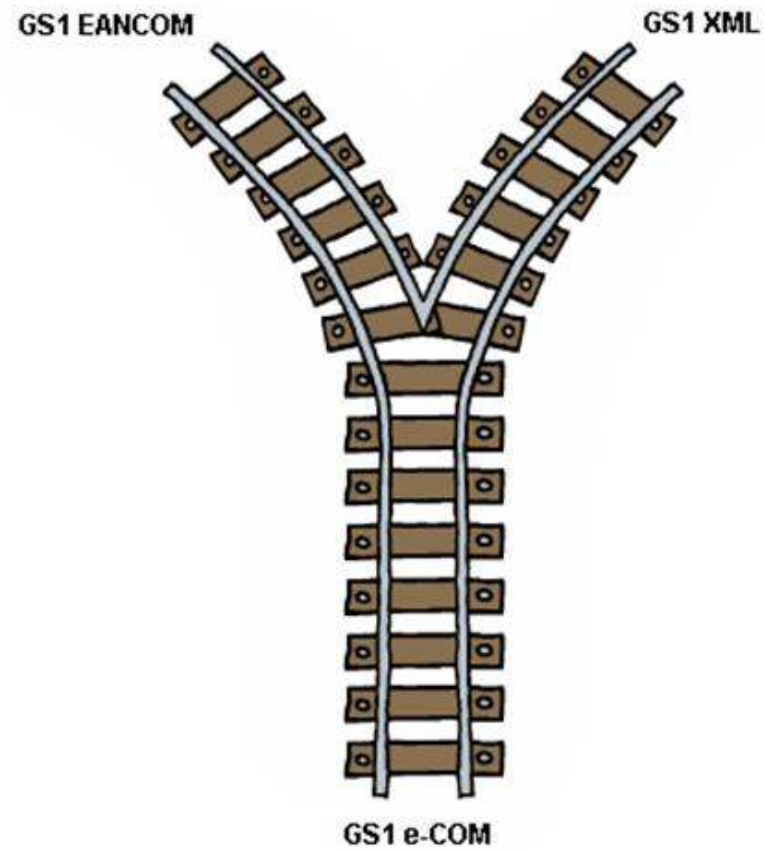
– 1987: ⇨ ISO 9735 UN/EDIFACT

 sitax and msg development guidelines;

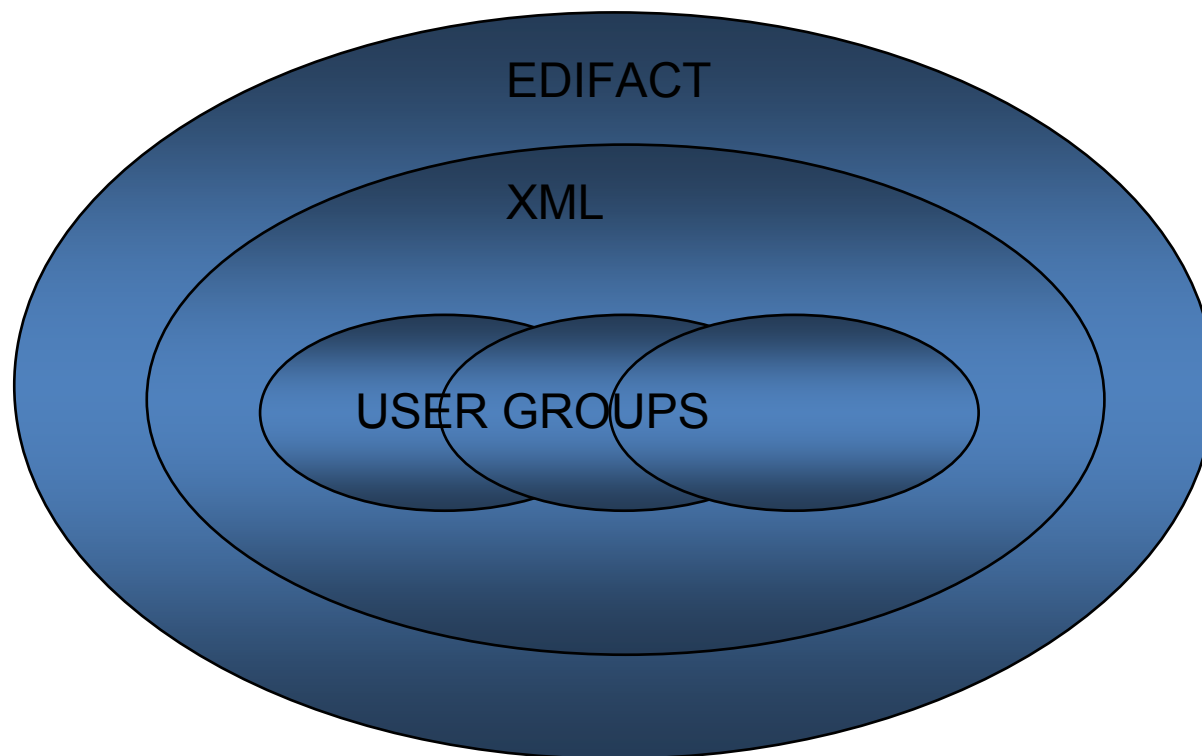
 ⇨ ISO 7372 UN eCOM data address library

EDIFACT standards are general forms for electronic commerce transactions

- EDI
- EDIFACT
- **GS1 EANCOM**
- **GS1 XML**



- EDI
- EDIFACT
- **GS1 EANCOM**
- GS1 XML



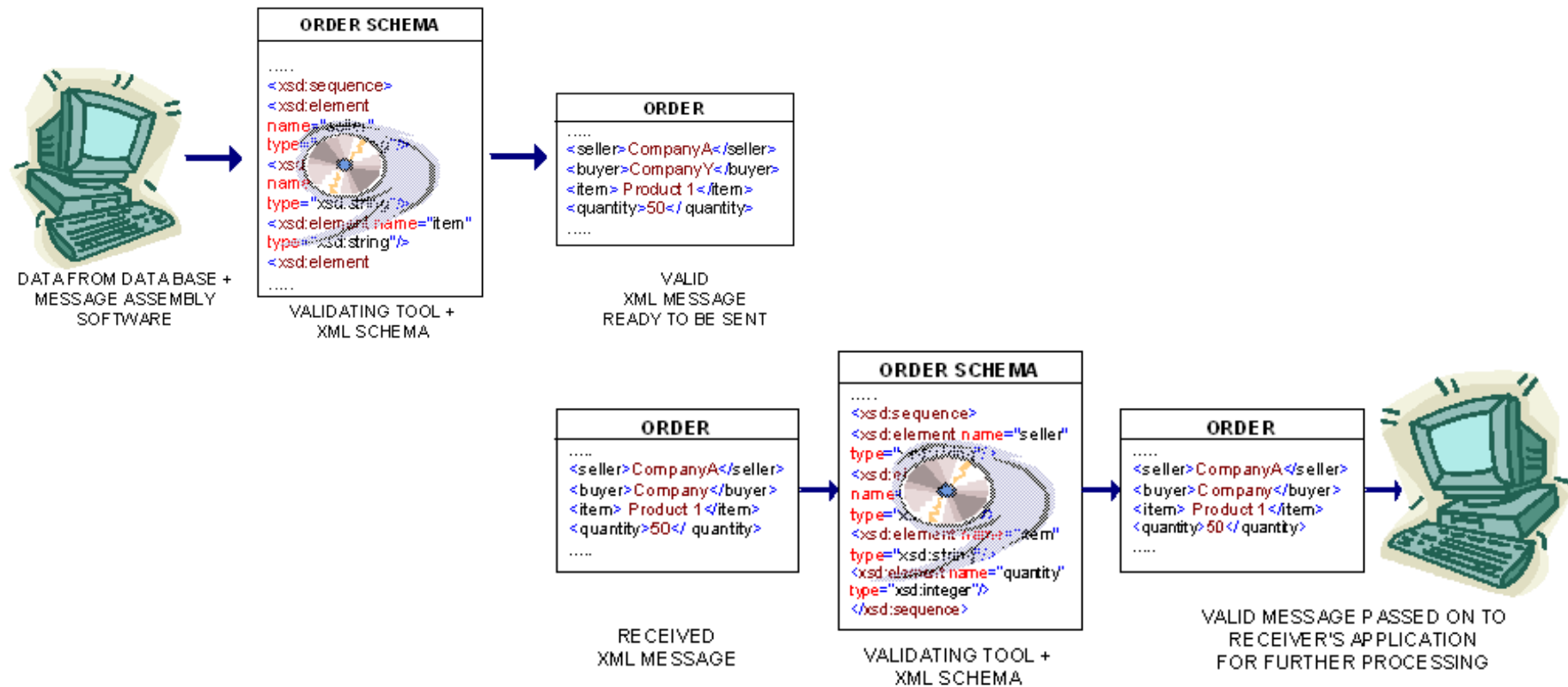
- EDI
- EDIFACT
- **GS1 EANCOM**
- GS1 XML

- Detailed user guidance
- Handling special business cases
- Rigid business rules
- Definite data and code description
- Modal cases and msg templates

- EDI
- EDIFACT
- **GS1 EANCOM**
- GS1 XML

- eCommerce messages
 - basic data
 - business transactions
 - reports and planning messages
 - syntax and service msgs
 - general msgs
 - security control messages
- Delivery notes
- Financial transfer messages

- EDI
- EDIFACT
- GS1 EANCOM
- **GS1 XML**



- EDI
- EDIFACT
- GS1 EANCOM
- **GS1 XML**

- Planning messages
- Order messages
- Dispatch and delivery notes
- Payment notes
- Basic data exchange messages
- Other messages
- System coreography messages (GDSN)

The synchronisation of
Global and Local
Classifications

- 2007 - 2008

Year of Change!

- Global Source (Master) Classifications
- Global Derived (Slave) Classifications
- The relation between classifications
- GDSN – The network as the key element of the integration

- **Classification system:** a group of individually identified mutually related, structured elements, where each and every element is linked to a describing definition and or to an adequate attribute/attribute-value pair.

Global Source (Master) Classifications



ISIC

International Standard
Industrial Classification of
All Economic Activities

Owner organisation

UNITED NATIONS

Managing organisation

UN – Statistic Division

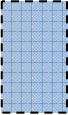
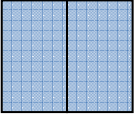
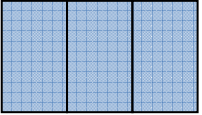
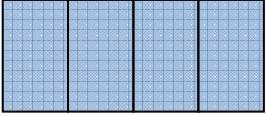
Content

Activity

Valid version

Rev. 4

ISIC

Definition	Hierarchy	Number of elements
<i>0. level (sector)</i>		21
<i>1. level (division)</i>		88
<i>2. level (group)</i>		272
<i>3. level (class)</i>		472



Harmonised System

Owner Organisation

WCO

Managing Organisation

WCO

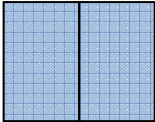
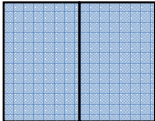
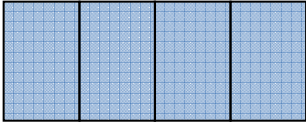
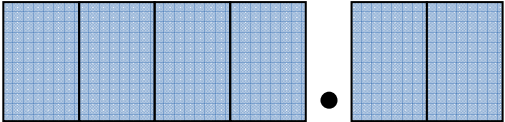
Content

Product

Valid Version

2007

HS

Definition	Hierarchy	Number of elements
<i>0. Level (section)</i>		21
<i>1. Level (paragraph)</i>		97
<i>3. Level (item)</i>		1224
<i>4. Level (sub-item)</i>		4661



ICS

International Classification
For Standards

Owner Organisation

ISO

Managing Organisation

ISO

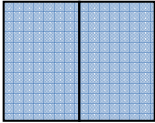
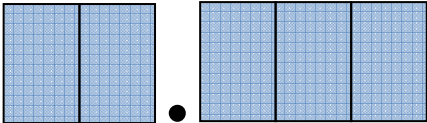
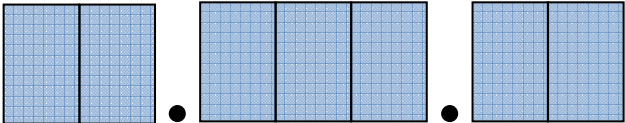
Content

STANDARDS

Valid Version

2005

ICS

Definition	Hierarchy	Number of elements
<i>1. level (field)</i>		40
<i>2. level (group)</i>		392
<i>3. level (sub-group)</i>		909

**Global Derived (Slave)
Classifications**



GPC

Global Product Classification

Owner Organisation

GS1 GPC Brg.

Managing Organisation

GS1 GPC Brg.

Content

Product

Valid Version

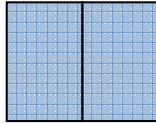
2007.01.31

Definition



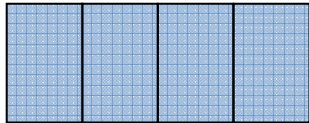
Number of elements

1. level
(segment)



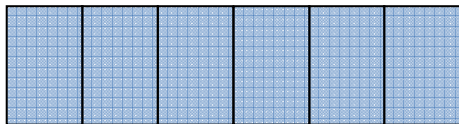
36

2. level (family)



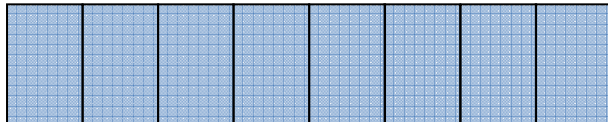
84

3. level (class)



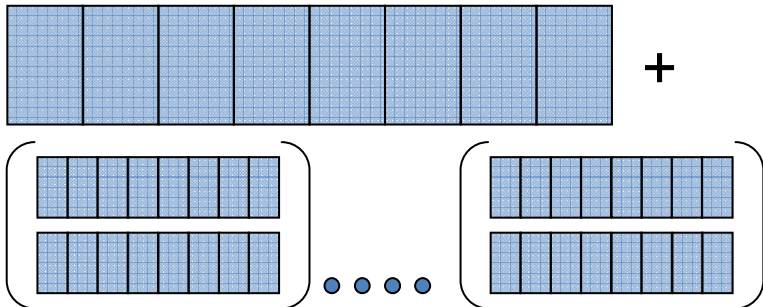
449

4. level (brick)



2857

5. level
brick +
attributes



Attributes 1583
Attr. Value 8063
Permutation ~ **50000**

UNSPSC

**United Nations Standard
Products and Services
Code**

Owner Organisation

GS1 US

Managing Organisation

GS1 US

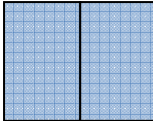
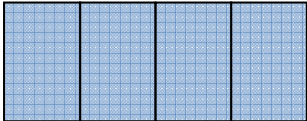
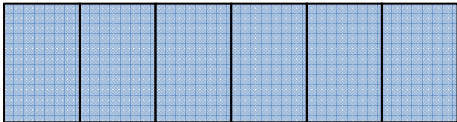
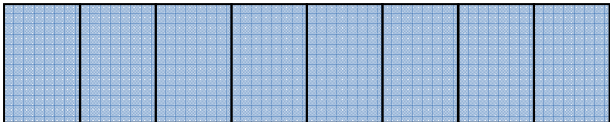
Content

Products and Services

Valid Version

v. 9.1201

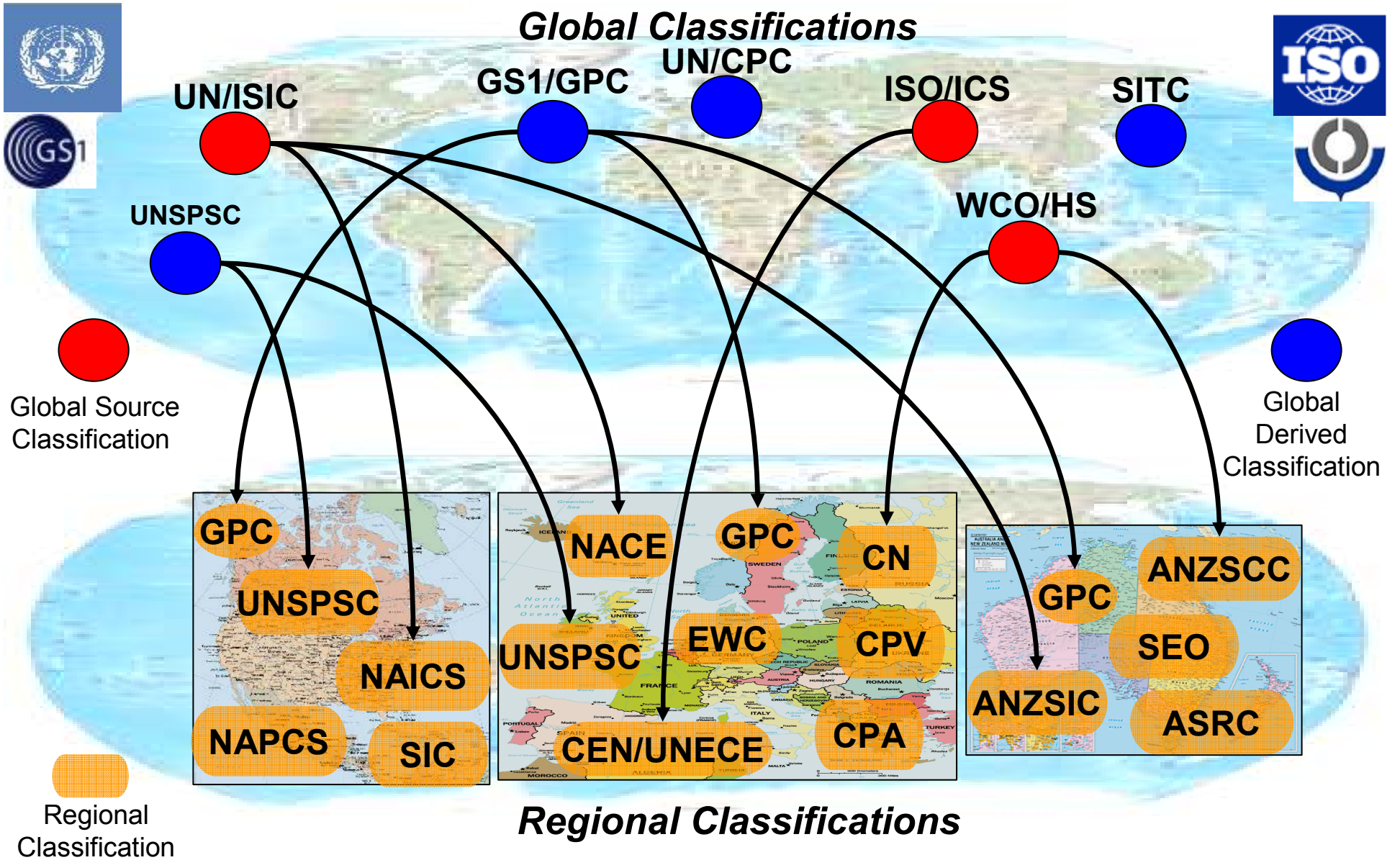
UNSPSC

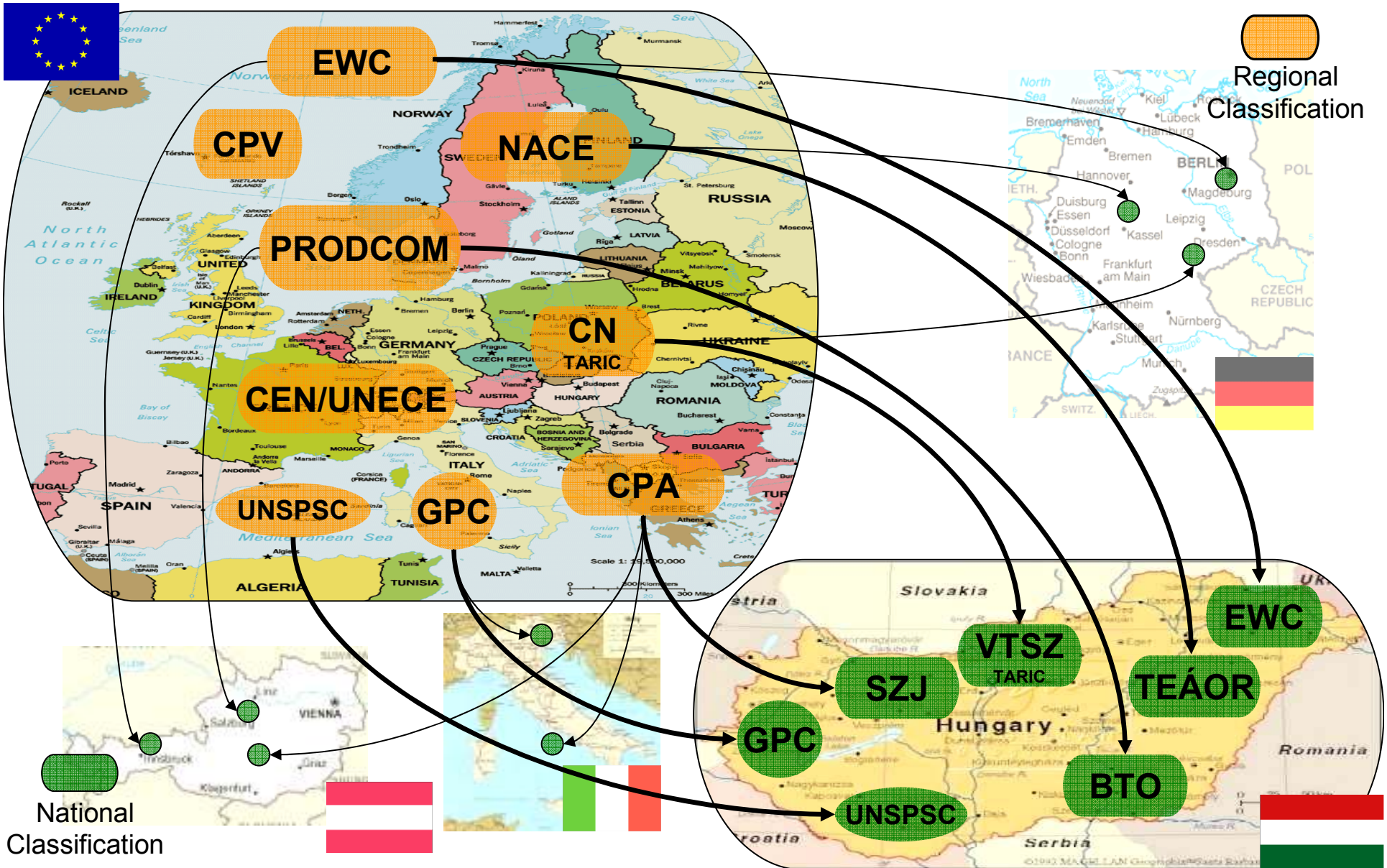
Definition	Hierarchy	Number of elements
<i>1. level (segment)</i>		55
<i>2. level (family)</i>		364
<i>3. level (class)</i>		2132
<i>4. level (product)</i>		19167

- Global
 - ISIC Rev. 3.1 - ISIC Rev. 4
 - HS 2006 - HS 2007
 - CPC 1.1 - CPC 2

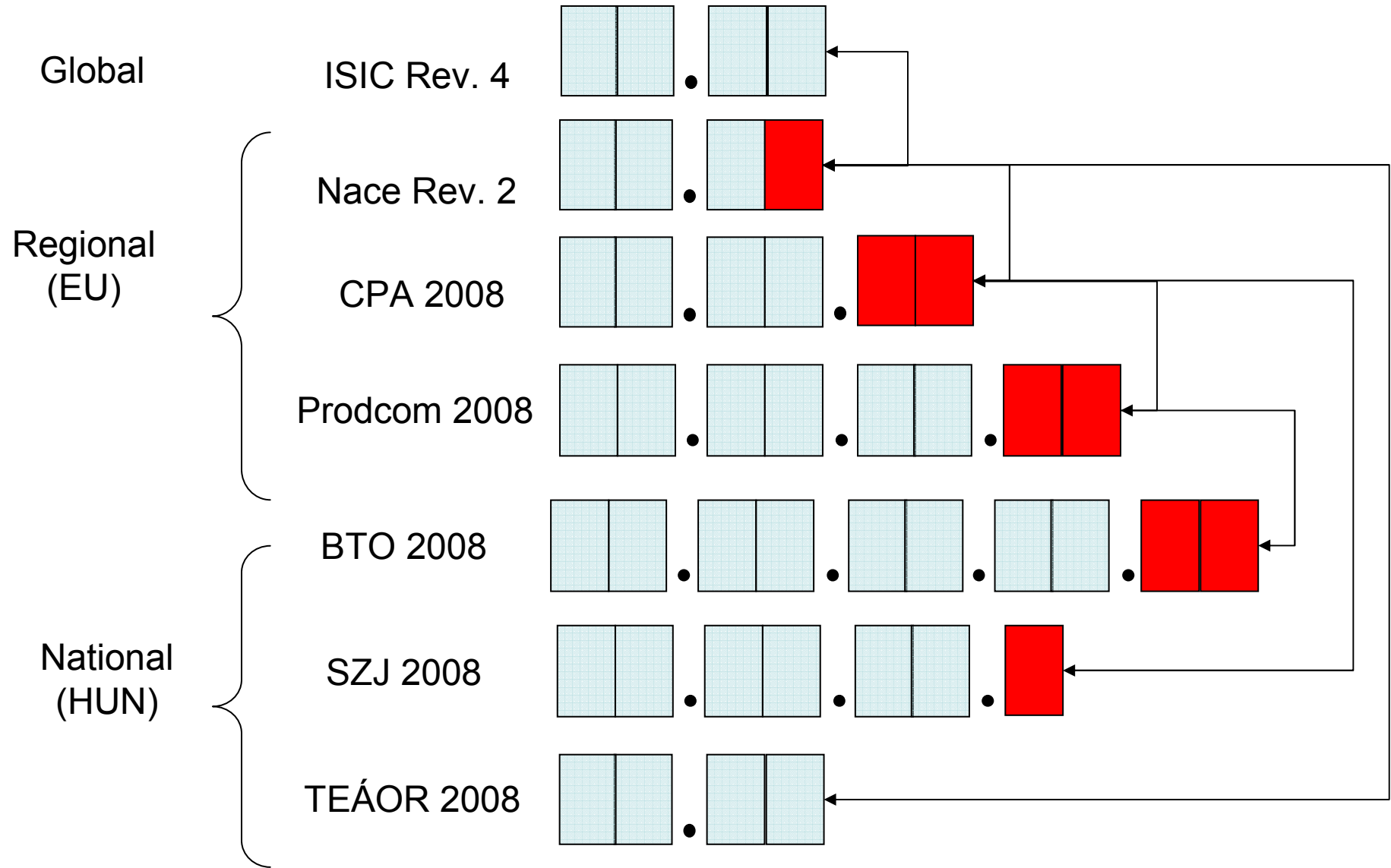
- Regional (EU)
 - NACE Rev. 1.1 - NACE Rev. 2
 - CPA 2002 - CPA 2008

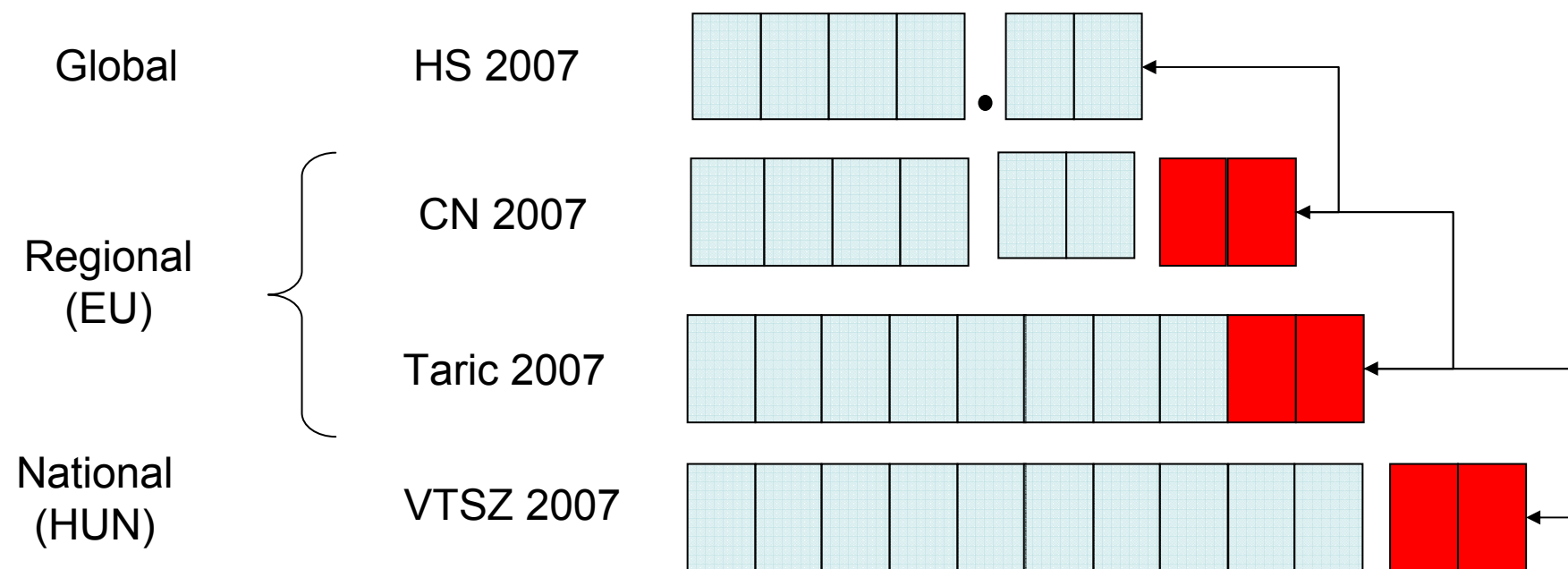
- National (HUN)
 - TEÁOR' 03 - TEÁOR' 08
 - SZJ' 03 - SZJ' 08

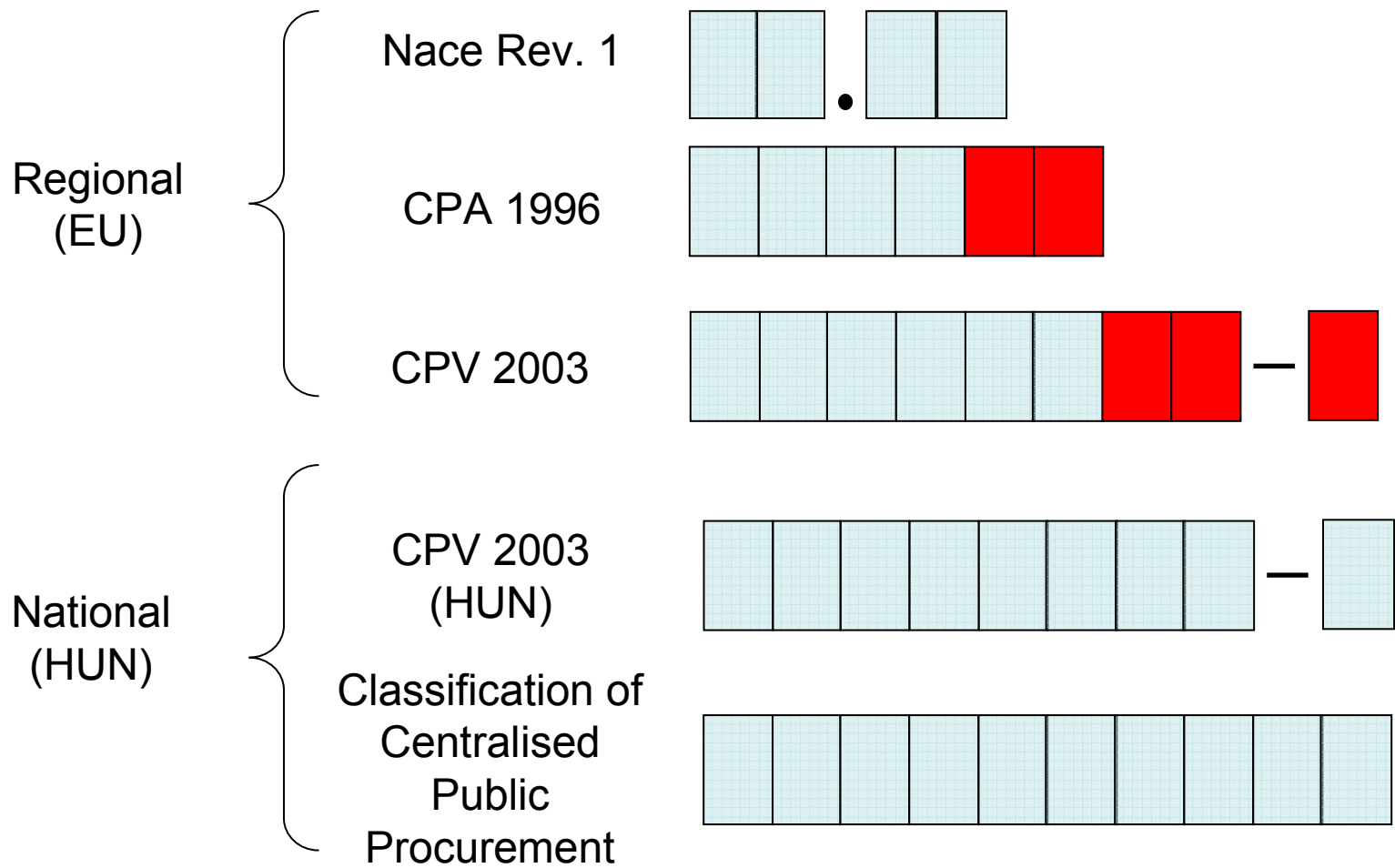




The relations between classification systems



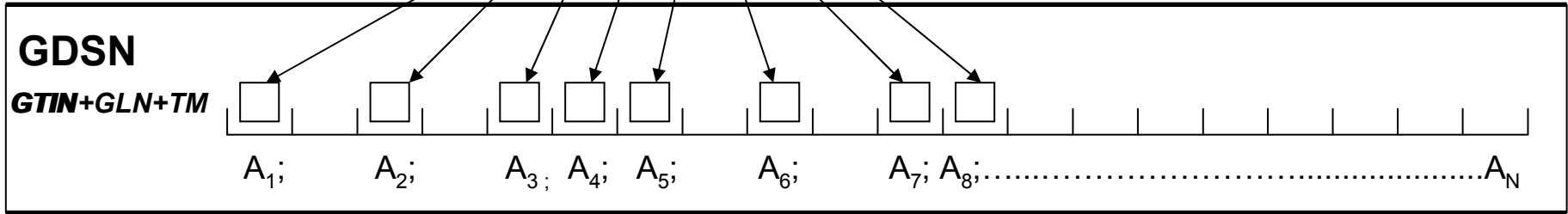
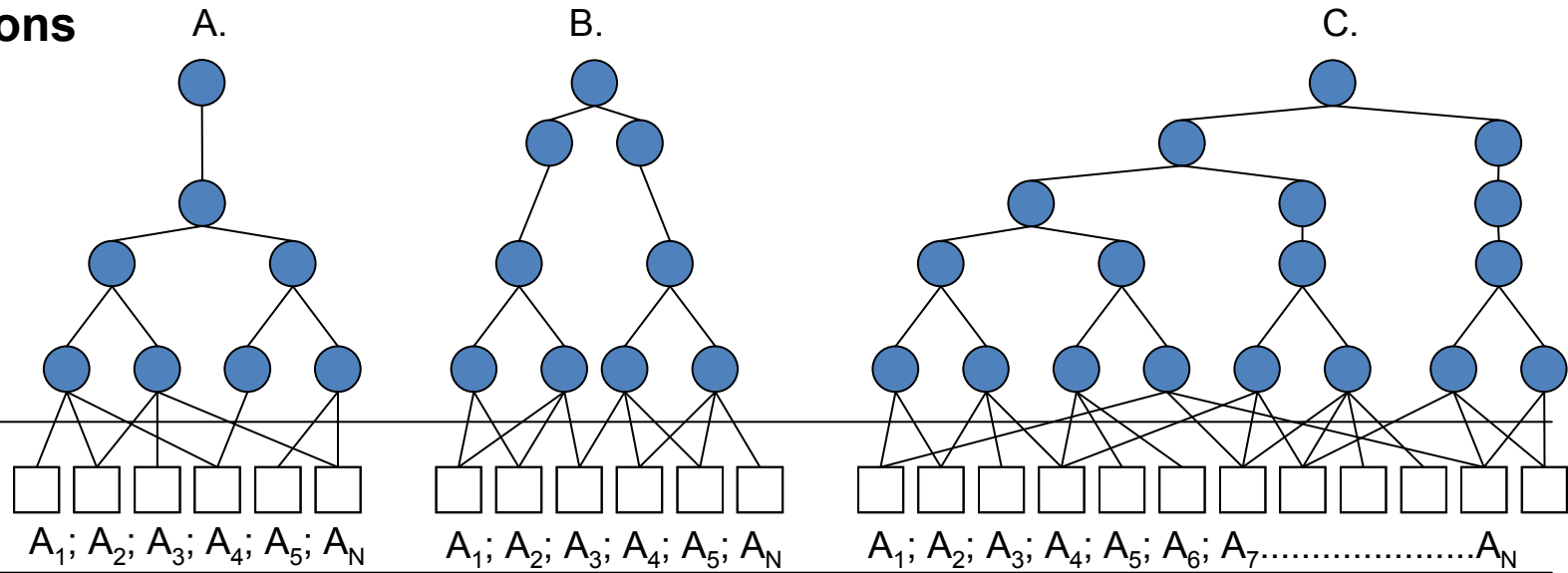




GDSN – Network, the key for integration

Classifications

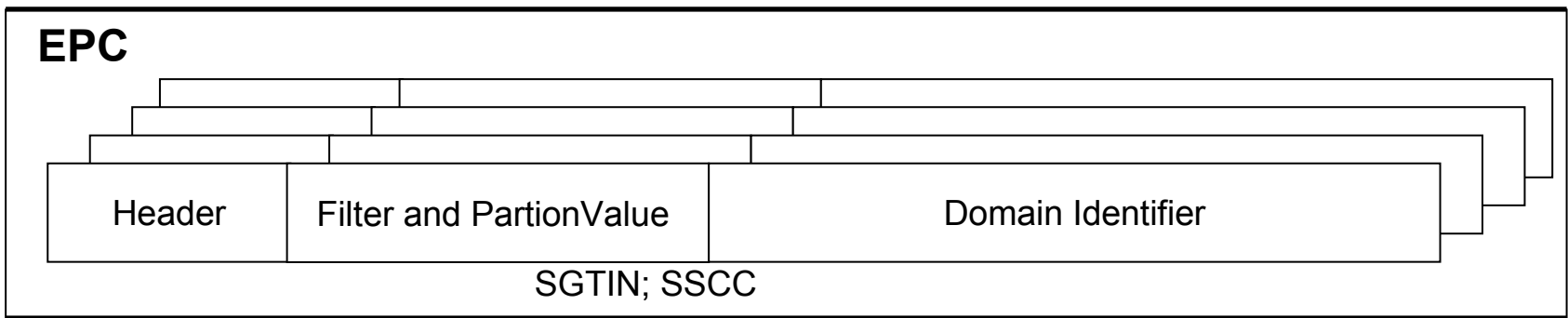
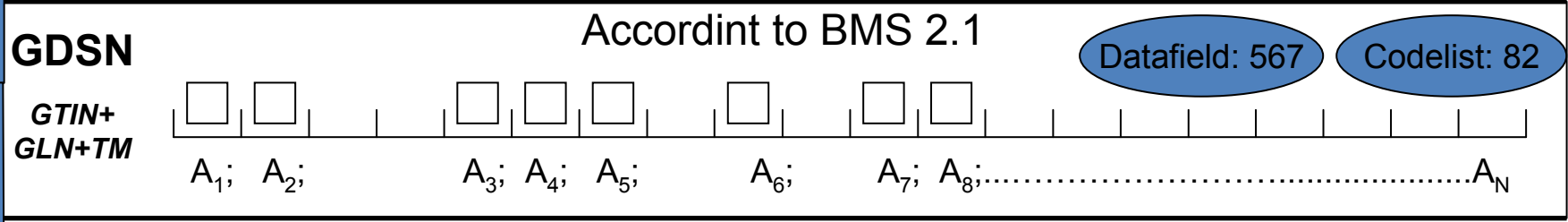
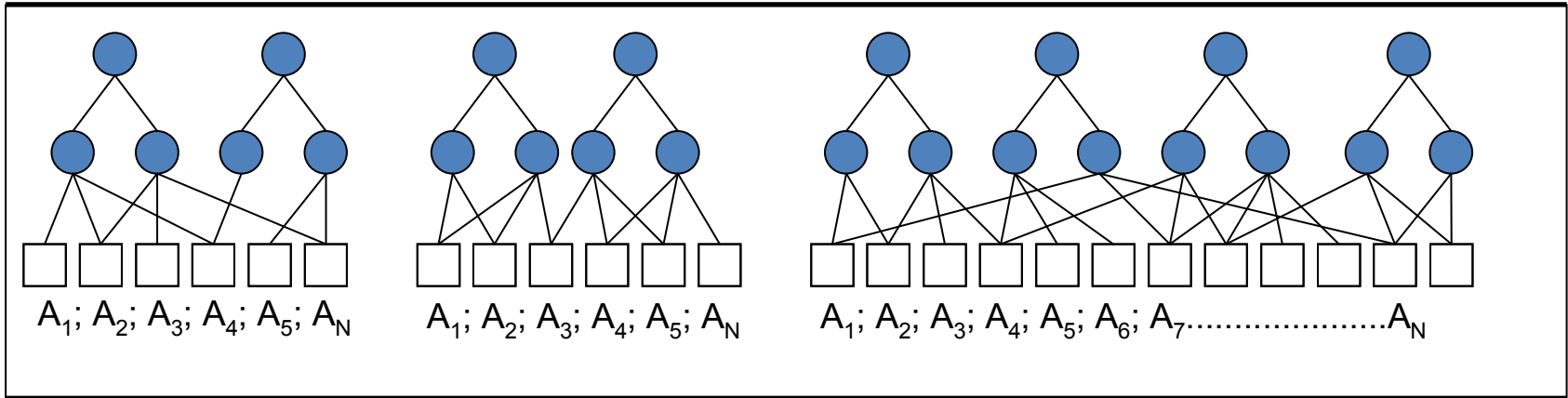
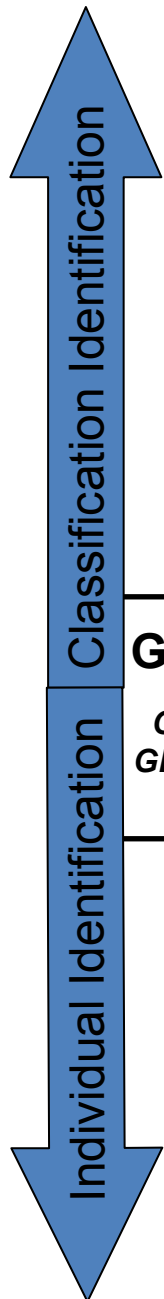
- 1. LEVEL
- 2. LEVEL
- 3. LEVEL
- 4. LEVEL
- ⋮
- N. LEVEL



EPC

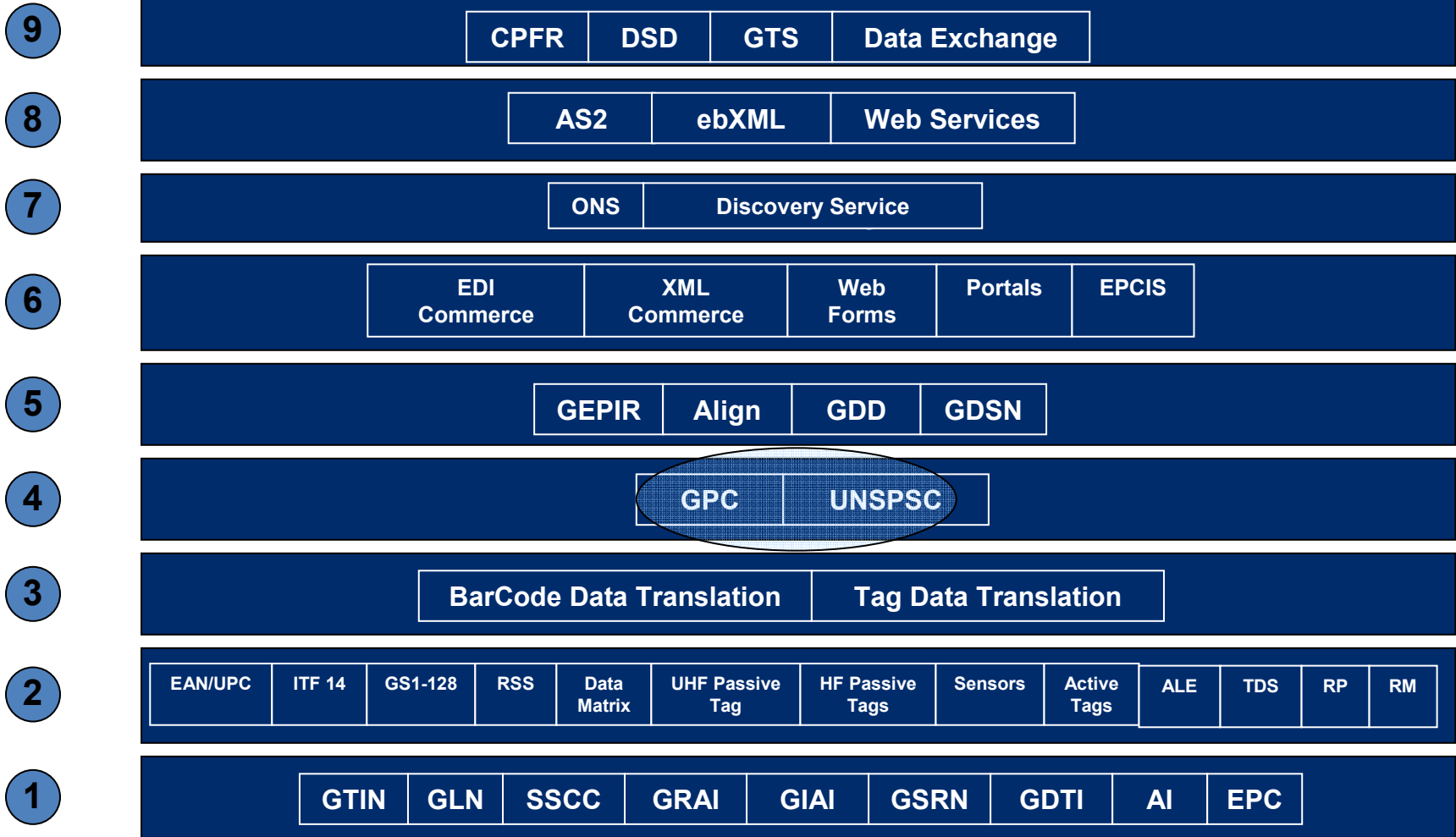


S



- Hence the GDSN Network (GTIN+GLN+together with TM) identified record is the finest level of any classification it provides a conversion possibility between classifications and form the framework system of global-synchronisation.

B2B Collaboration	Transportation/Logistics	Marketing & Sales	Manufacturing
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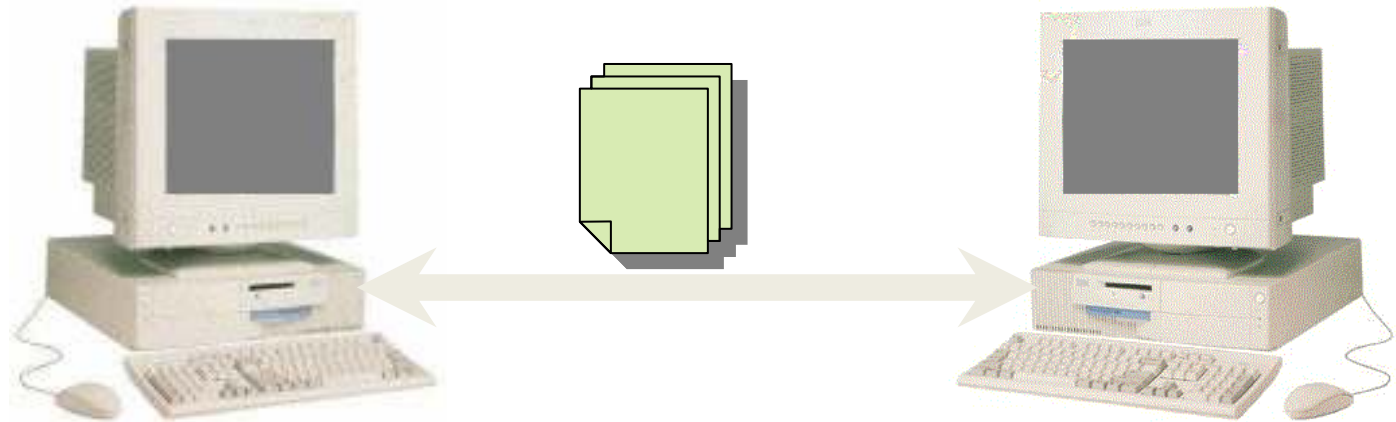
- GS1 should create the conversion possibilities between global, regional, national, classifications and provide this service as potential platform for the deduction of further value added services for all operators of the economy and for the government.
- GDSN and GEPIR networks should gain a functional role in GS1 architecture as a tool for providing conversion possibilities between classifications beside the GPC/ UNSPSC.

Electronic Commerce

Message scenarios

- EDI**
- EDIFACT**
- GS1 EANCOM**
- GS1 XML**

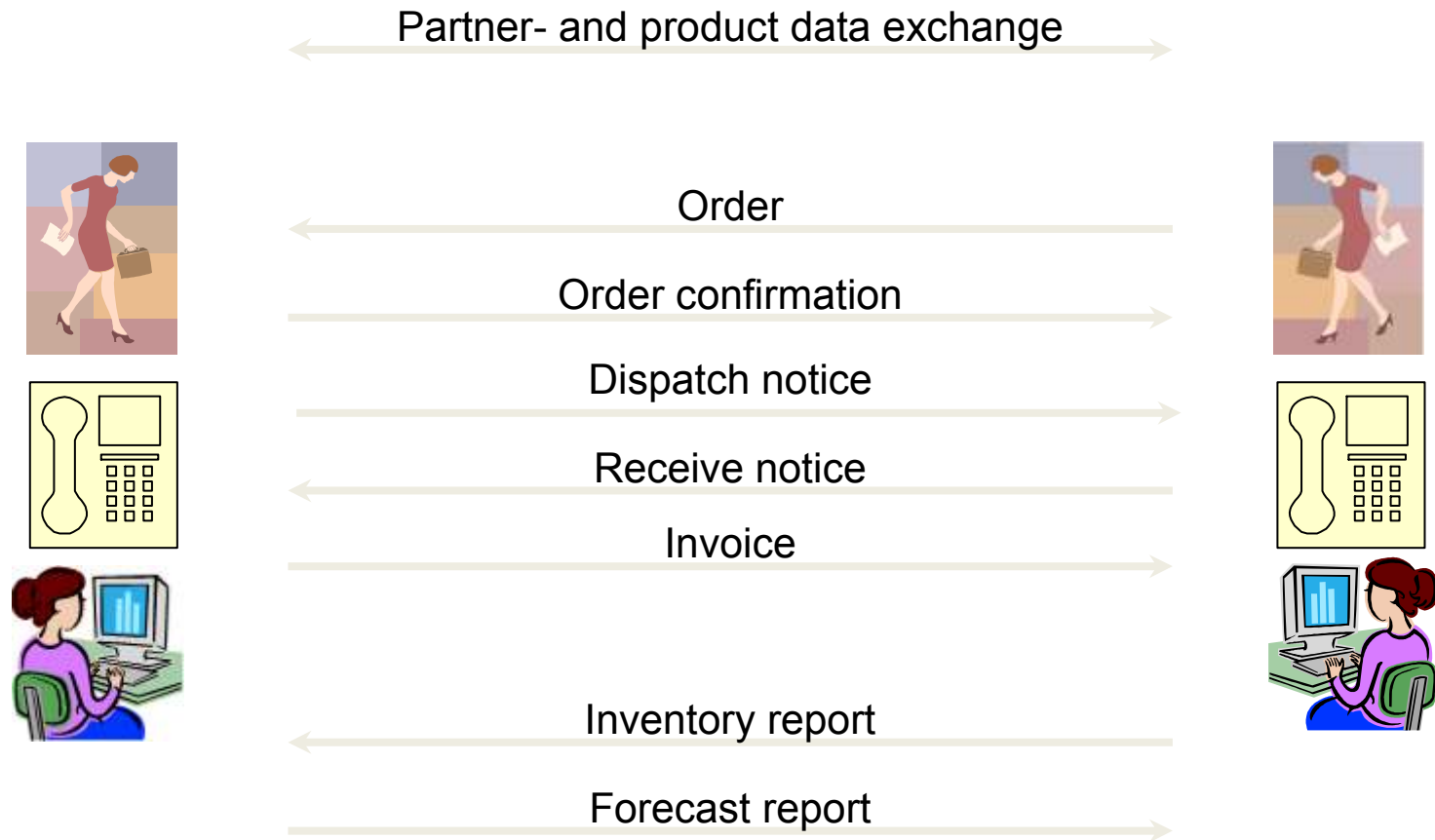
- **EDI**
- EDIFACT
- GS1 EANCOM
- GS1 XML
- Elterjedtség



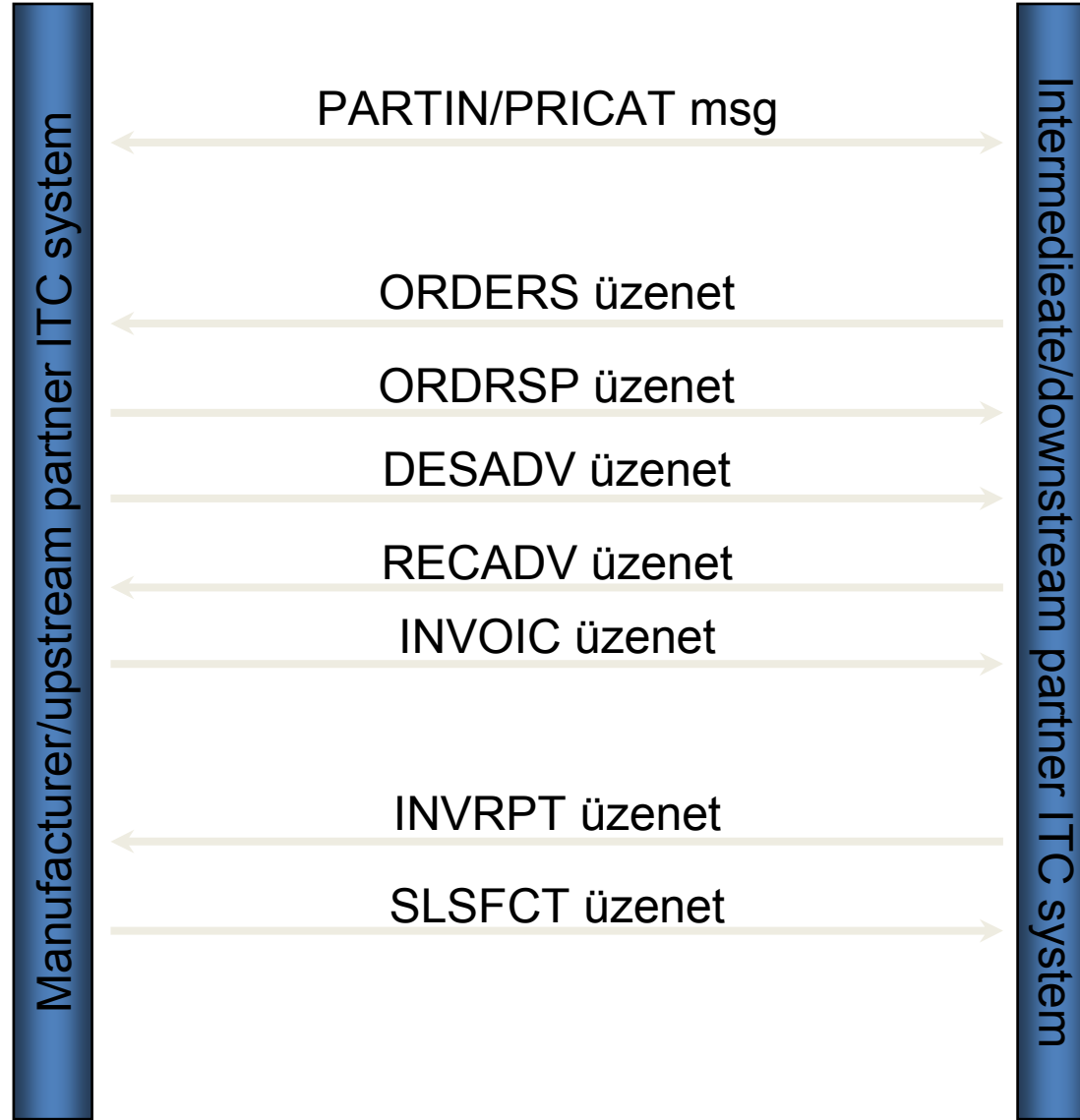
Charasterised by:

- strukturised dataált adatok
- standard messages
- maschine to maschine

- **EDI**
- EDIFACT
- GS1 EANCOM
- GS1 XML



- **EDI**
- EDIFACT
- GS1 EANCOM
- GS1 XML

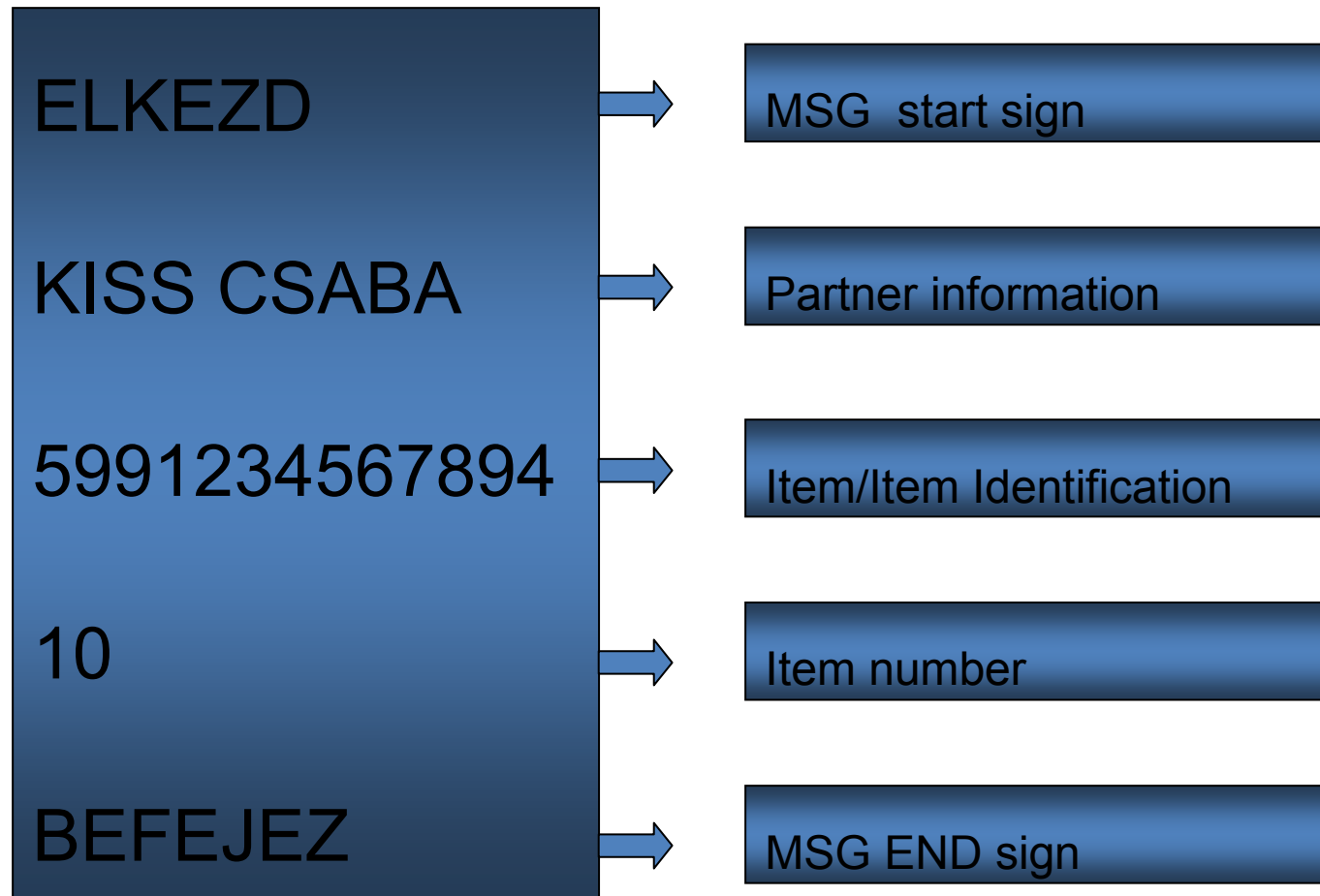


BENEFITS

- EDI
- EDIFACT
- GS1 EANCOM
- GS1 XML

- Time required
- Accuracy achieved Pontosság
- Spead
- Financial requirements
- Customer relation

- EDI
- **EDIFACT**
- GS1 EANCOM
- GS1 XML



eProc at the EU commission

- **eProcurement Forum Jan 31st**
- **The Objective**
- The eProcurement Forum at ePractice.eu is an initiative sponsored by the European Commission to help all the practitioners in public electronic procurement (“eProcurement”) in Europe to meet and share their experiences and knowledge, to ask and provide support. The community is open to practitioners from European administrations, from public and private organisations, from academia and research centres. Hopefully such variety of stakeholders will provide different contributions, approaches and points of view.
- The eProcurement Forum is an open space to express opinions and exchange knowledge and where members are encouraged to provide contributions and participate in the discussions and events. It is not an official Commission site
- The community is mainly focused on technical and organisational aspects of eProcurement
- <http://www.epractice.eu/community/eprocurement>

“E” enabled procurement

- 1. Electronic Invoice**
- 2. Electronic ordering**
- 3. Electronic catalogue**

CEN INITIATIVES

Business requirements specification - Cross industry catalogue
process

The European Committee for Standardization (CEN) is a business facilitator in Europe, removing trade barriers for European industry and consumers. Its mission is to foster the European economy in global trading, the welfare of European citizens and the environment. Through its services it provides a platform for the development of European Standards and other technical specifications.

CEN's 30 National Members work together to develop voluntary **European Standards (ENs)**.

These standards have a unique status, since they also are national standards in each of its **30 Member countries**. With one common standard in all these countries, and every conflicting national standard withdrawn, a product can reach a far wider market with much lower development and testing costs. ENs help build a European Internal Market for goods and services and to position Europe in the global economy. More than 60.000 technical experts as well as business federations, consumer and other societal interest organizations are involved in the CEN network that reaches over 480 million people.

Legislation and useful links

EU: Policy on Public Procurement

europa.eu/pol/singl/index_en.htm

europa.eu/publicprocurement/index_en.htm

NUTS: Nomenclature of territorial units for statistics / Statistical Regions of Europe

ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html

Single European market: Public procurement

ec.europa.eu/internal_market/publicprocurement/index_en.htm

IDABC: Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens.

ec.europa.eu/idabc/eprocurement

PPN: European Public Procurement Network is a co-operation network of public procurement expert officials, dedicated to European companies, also has links to the national public procurement portals.

www.publicprocurementnetwork.org

SME portal: access to information to Europe's small and medium-sized enterprises

ec.europa.eu/enterprise/sme/index_en.htm

Solvit: Internal Market Problem Solving System

ec.europa.eu/solvit/site/index_en.htm

Your Europe - Business: to carry out company business in another country.

ec.europa.eu/youreurope/nav/en/business/index.html

Other links:

[PLAN Network - Procurement Law Academic Network](#)

Electronic Invoice

Vs Electronic Signature

the CEN/ISSS Workshop on Interoperability

of Electronic Invoices in the European Community, with the view to supporting the effective implementation of the related Council Directive 2001/115/EC of 20 December 2001, with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of Value Added Tax, as well as regulations on electronic signatures and EDI. The set of CWA is as follows:

- Commission Recommendation 1994/820/EC October 1994, proposed revision with the requirements

of Directive 2001/115/EC, present day e-Commerce practices and revised definition of EDI

Electronic Data Interchange

- The list of invoice content details expressed as UN/CEFACT Core Components
- Recommendation to allow coded identifiers as an alternative to the current unstructured clear text identifications.

- A standardised set of codes with definitions to replace plain text clauses in eInvoice messages.

- Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions.

- eInvoices and digital signatures.

- Storage of Electronic Invoices.

- Guidelines for e-Invoicing service providers.

- eInvoice Reference Model for EU VAT purposes specification

An executive summary of these CWAs is available at:

ftp://ftp.cenorm.be/PUBLIC/e-Invoicing/CWA/Executive_Summary.doc

According to the Council Directive 2001/115/EC invoices sent by electronic means shall be accepted by Member States provided that the authenticity of the origin and integrity of the contents are guaranteed. This could be guaranteed by means of an advanced electronic signature within the meaning of Article 2 (2) of Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures; Member States may ask for the advanced electronic signature to be based on a qualified certificate and created by a secure signature-creation device, within the meaning of Article 2(6) and (10) of the aforementioned Directive.

Although many technologies exist that may be called 'advanced electronic signatures'. In practice, the more widely used Advanced Electronic Signatures in an EU context are typically Public Key Infrastructure (PKI)-based digital signatures using the X.509v3 standard, which have been issued by a Certification Authority using a minimum set of rules and agreements to ensure compliance with the four-part EU definition. At least digital signatures based in X.509v3 certificates should be accepted by all Member States. EESSI standards should be adopted as common technical interpretation, instead of creating new standards, to foster interoperability.

Authenticity and integrity are the sole and clear requirements of the Invoicing Directive for electronic invoices. In addition, Directive 2001/115/EC clearly states “*Member States shall not require invoices to be signed*”, thus excluding giving signatures, even qualified electronic signatures, the meaning of “content commitment”, as per TECHNICAL CORRIGENDUM 3 to ISO 9594-8: 2001. Following this intention it has to be indicated that this requirements can be fulfilled by any electronic invoice, may it be signed by a legal or a physical person. Both scenarios are possible.

Advanced electronic signature: an electronic signature which meets the following requirements:

- a) it is uniquely linked to the signatory;**
- b) it is capable of identifying the signatory;**
- c) it is created using means that the signatory can maintain under his sole control; and**
- d) it is linked to the data to which it relates in such a manner that any subsequent change of the data is detectable;**

Note: Definition taken from the Directive 1999/93/EC

Authentication: the mechanism that verifies that a person or a process is the stated person or process.

Certificate Policy: certificate policy: named set of rules that indicates the applicability of a certificate to a particular community and/or class of application with common security requirements (ISO/IEC 9594-8:2001)

[5] Each CP is assigned a unique Object Identifier – ID by an authorised entity.

Certification authority: a body trusted by all users to create and assign (public key) certificates.

Digital signature: data appended to or a cryptographic transformation of, a data unit that allows a recipient of the data to prove the source and integrity of the data unit and protect against forgery (ISO/IEC 7498-2).

Electronic Signature: data in electronic form that are attached to or logically associated with other electronic data and which serve as a method of authentication (Directive 1999/93/EC).

According to the Council Directive 2001/115/EC [2] *“invoices sent by electronic means shall be accepted by Member States provided that the **authenticity of the origin and integrity of the contents are guaranteed**”*.

*This could be guaranteed “by means of an advanced electronic signature within the meaning of Article 2 (2) of Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures; **Member States may however ask for the advanced electronic signature to be based on a qualified certificate and created by a secure signature creation device, within the meaning of Article 2(6) and (10) of the aforementioned Directive**”.*

Authenticity of the origin and integrity of the content has to be guaranteed when using electronic data interchange (EDI) as defined in Commission Recommendation 1994/820/EC of 19 October 1994 relating to the legal aspects *“when the agreement relating to the exchange provides for the use of procedures guaranteeing the authenticity of the origin and integrity of the data”*. However, as per the Directive [2]: *“Member States may, subject to conditions which they lay down, require that an additional summary document on paper is necessary”* to be exchanged, summarising a set of invoices. Where the applicable law allows for it this **summary document could also be exchanged electronically**. It is to be remarked that usage of EDI is subject to meeting the previously italicised wording. To exchange this summary document electronically also electronic signatures can be used to guarantee authenticity of the origin and integrity.

Regarding electronic signatures and electronic invoices focus has to be taken on the companies issuing and receiving electronic invoices:

1. Issuing electronic invoices to customers or other parties replacing paper invoices:

The issuing party is issuing other parties electronic invoices which are signed with advanced electronic signatures to guarantee authenticity and integrity.

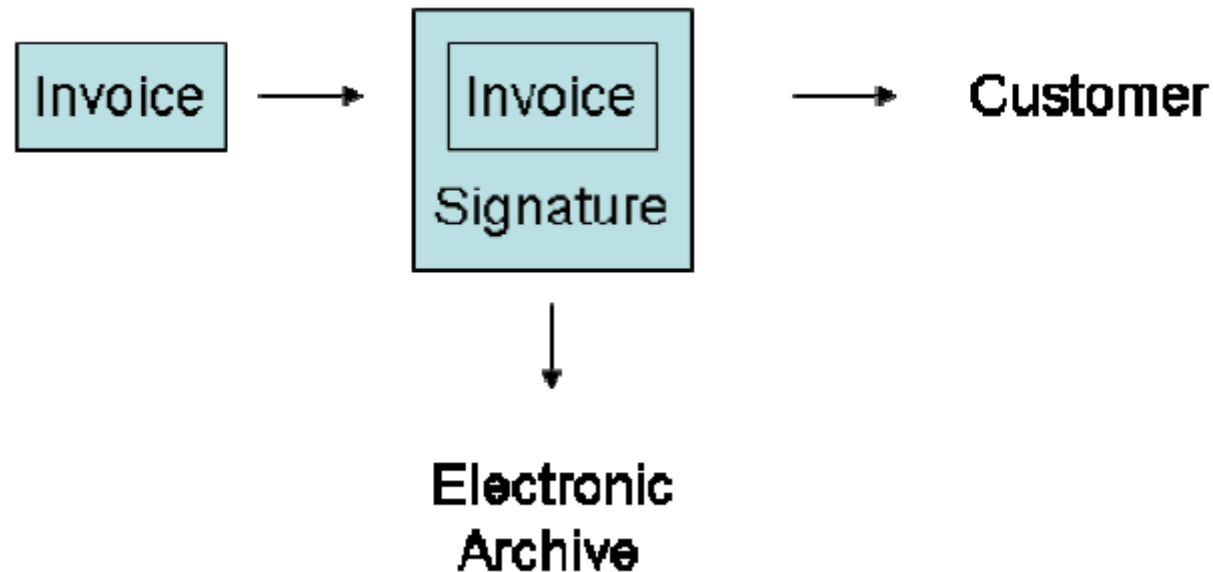
Depending on the applicable laws advanced electronic signatures can be or not be based on a qualified certificate and can be issued with or without the use of a secure signature creation device (SSCD). For example in Italy electronic invoices have to be signed with advanced electronic signatures based on a qualified certificate and issued by means of a Secure Signature Creation Device (SSCD).

2. Receiving electronic invoices from sellers or from other parties replacing paper invoices:

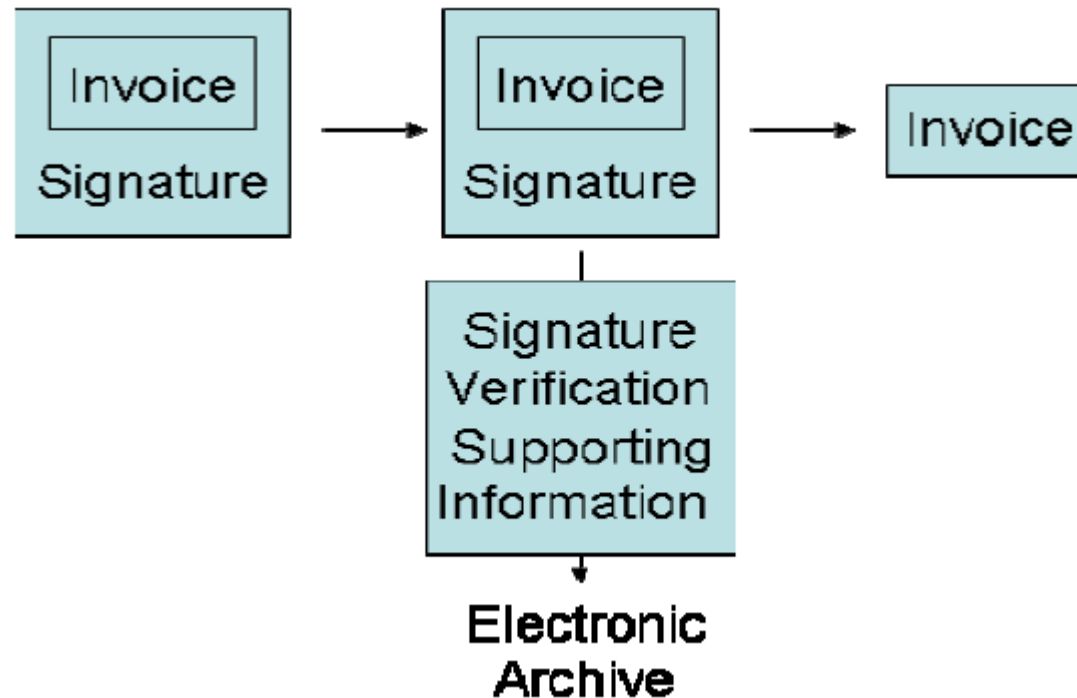
The enterprise is receiving invoices from sellers or from other parties. These invoices are electronically signed. The electronic signatures of the invoices have to be verified. Without signature verification the validity of the invoice cannot be guaranteed, which may have unpleasant consequences upon inspection by any Authority. Depending on applicable laws the verification results have to be documented and archived. For example in Germany all data which is needed for verifying the electronic signatures has to be archived together with the electronic invoices. (GDPdU - Guidelines for companies to enable inspector of taxes to access and verify electronic data). In Italy you do not need to store additional information, but you have to apply every predefined time period (i.e. at most every 15 days) a qualified signature and a timestamp to the set of stored documents and entrusting the QES and the TST to the Tax Authority.

Basic e-invoicing workflow

1. **Generation of the electronic invoices;**
2. **Generation of the electronic signatures for the invoices;**
3. **Archiving the electronically signed invoices;**
4. **Transmitting the electronically signed invoices to the customers/suppliers.**



On the receiver side before an incoming electronic invoice is processed, the electronic signature of the invoice has to be verified. The Directive [2] states: *“Member States ... may also require that when invoices are stored by electronic means, the data guaranteeing the authenticity of the origin and integrity of the content also be stored”*. Where this Directive requirement is implemented in the applicable law these data have to be archived together with the electronic invoice.



Major parts and parties in the e-invoicing workflow

1. Invoice signer

The first question which comes up when issuing electronic invoices is who does/can sign the electronic invoice? For example it might be useful in some cases that a third party signs the invoices on behalf of the seller.

The Directive [2] states: “Every taxable person shall likewise ensure that an invoice is issued, *either by himself or by his customer or, in his name and on his behalf, by a third party*”.

From a technical point of view this implies that each of these three parties - **seller, buyer, third party i.e. service provider - is enabled to issue an invoice. Where the issuer is a customer or a third party on behalf** of the seller, it must be explicitly stated that such invoice is issued in the name of the seller. As a direct implication of the quoted stipulation, a third party or a customer is empowered to sign such an invoice with its own certificate, but, where required by the applicable law, it must be clearly stated in the invoice the name of the seller on behalf of which it is issued.

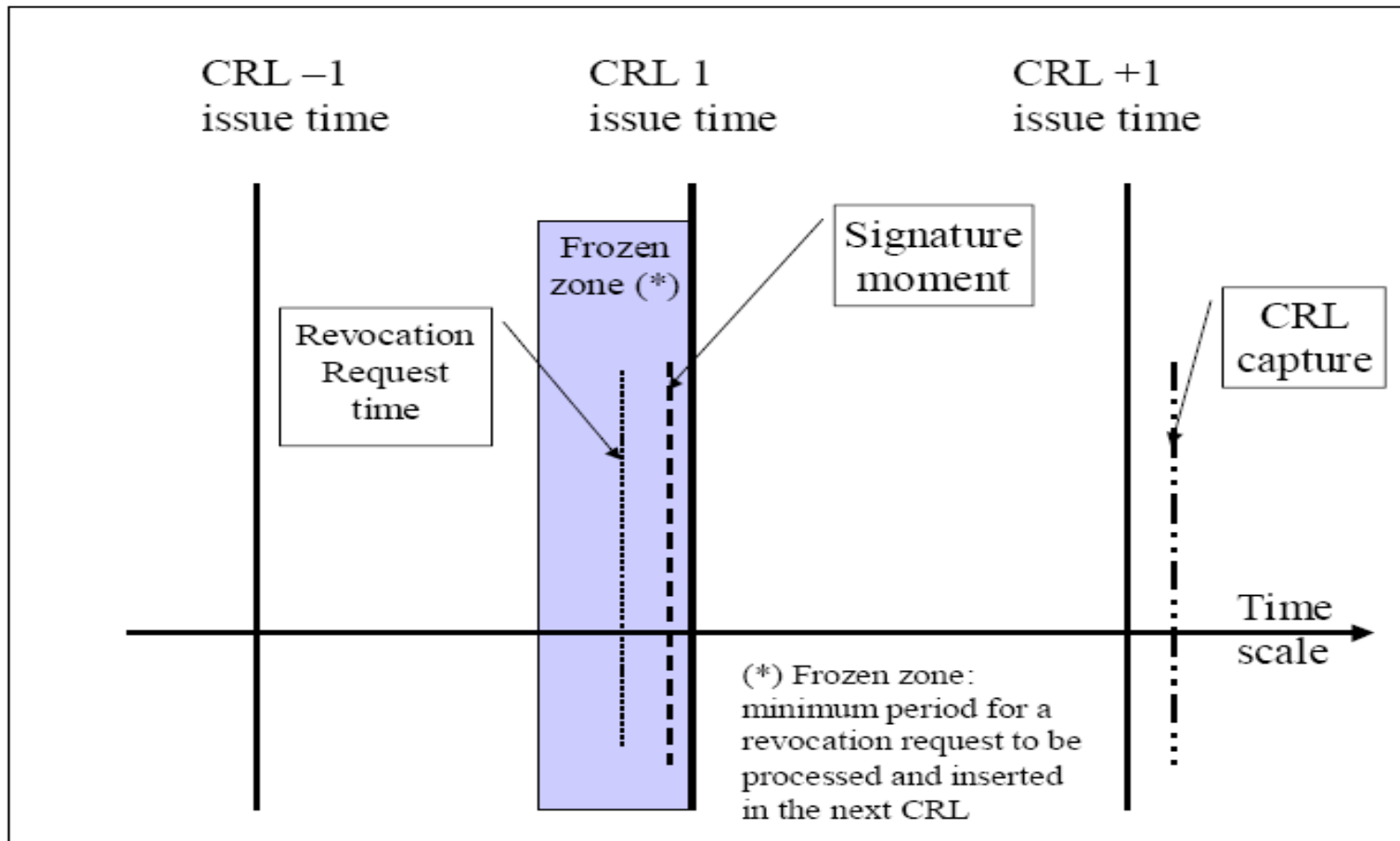
2. The signing process

To guarantee an efficient processing of the electronic signatures it **must be possible to generate the *signatures for electronic invoicing in a batch process. The format used for the signature depends on the*** customers' needs. This signing process can be **run in-house or at an external service provider's** premises. The basic requirements for signing the electronic invoices in a batch process can be found in "5 Advanced Electronic Signature used for electronic invoices".

3. Validity of the e-invoice's signature at issuance time

Depending on legal requirements or on organisational procedures or agreements between the parties, data **ensuring the invoice's signature was valid at issuance time (like CRL or OCSP responses) can be fetched, sent along with the invoice, and stored. General Guidelines for Electronic Signature Verification** can be found in CWA 14171 (see Bibliography).

As specified in this CWA, it might be good practice to fetch the CRL/OCSP response after what the same CWA calls "Grace period" has elapsed: "time period which permits the certificate revocation information to propagate through the revocation process to relying parties". This can be avoided if CAs issuing certificates for e-invoicing take appropriate measures to apply such technological (e.g. OCSP) and procedural (i.e. short revocation information publication cycles) measures as are required to reduce the grace period needed to a practicable minimum (ideally insignificant). Certain service providers or e-invoicing platforms may accept the business risk of compliance issues arising from non-respect of an applicable grace period.



4. Electronic invoice format

The format of the invoice is **not specified in the Directive** but in certain Member States legal obligations exist that the **electronic invoice has to be machine readable**. *Directive [1] on electronic signature stipulates: "Invoices issued pursuant to point (a) may be sent either on paper or, subject to an acceptance by the customer, by electronic means."*

5. E-Invoice storage

After the electronic signatures are processed, the signed electronic invoices have to be unalterably archived, where required along with the shipment data and the information needed to subsequently verify the signature integrity and authenticity. The electronic invoices have to be filed for a number of years depending on the applicable legislation. This topic is discussed in more details in chapter “6 Verification and documentation of the integrity and authenticity of an electronic invoice”.

5. Facts and recommendations

Basic legal requirements:

- authenticity of the origin and integrity of the contents of electronic invoices have to be guaranteed
- Member States may however ask for the advanced electronic signature to be based on a qualified certificate and created by a secure signature creation device

Signature generation:

- it must be possible to generate the *signatures for electronic invoicing in a batch process*

Storage:

- authenticity of the origin and integrity of the content of the invoices, as well as their readability, must be guaranteed throughout the storage period
- Information should be available to ensure that an invoice signature was valid at issuance time

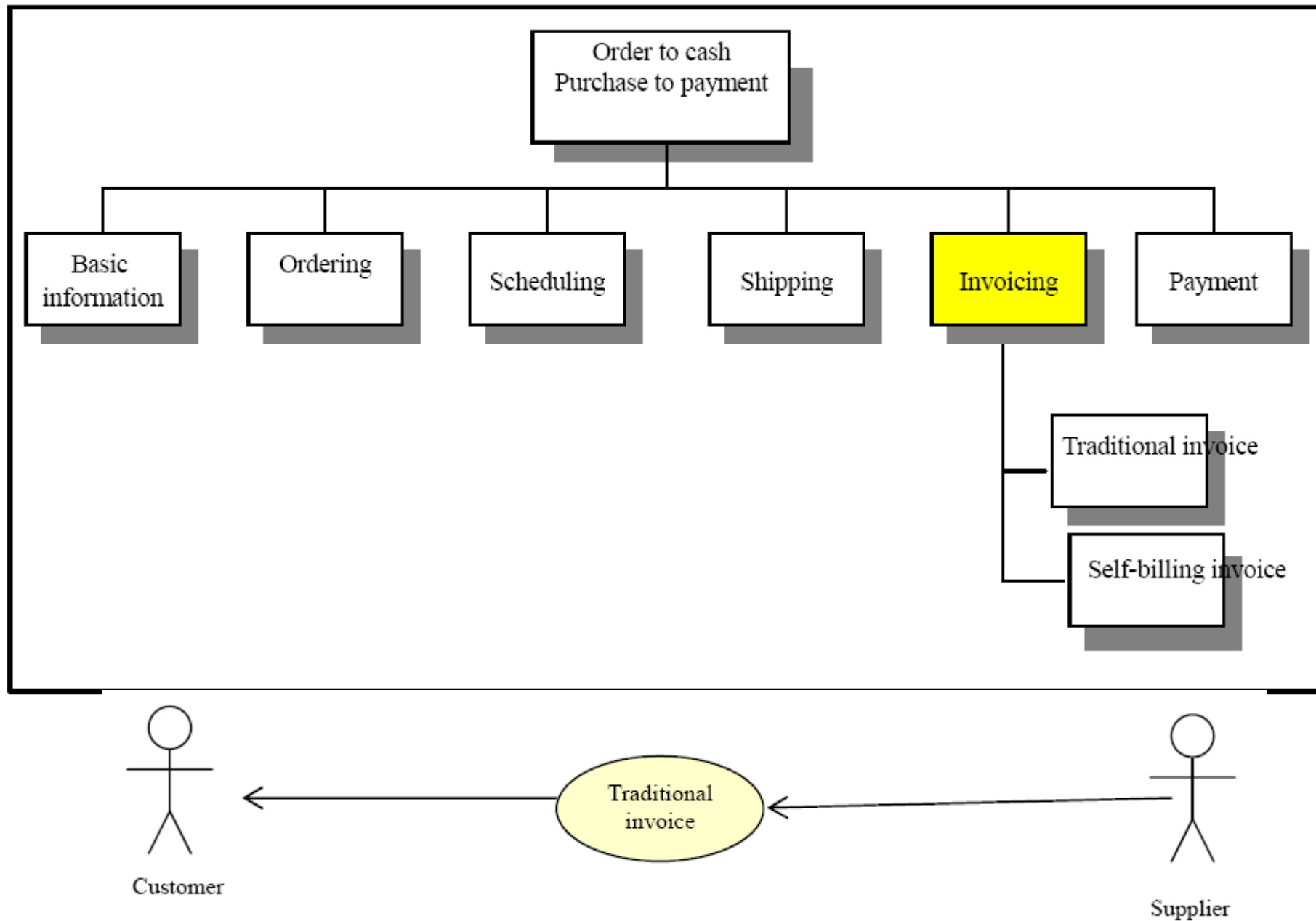
Service providers:

- Seller, buyer, third party i.e. service provider - are enabled to issue an electronic invoice
- The invoice can be issued by a third party or by a customer and signed by these entities with their own signature, but in some legislation it must be clearly stated in the invoice the name of the seller on behalf of which it is issued
- Service providers should be able to sign the invoices using their own signing key pair.
- Depending on the applicable legislation, certificates **MUST**, **MAY** or **MUST NOT** indicate that the signer is acting as a service provider (See guidelines on 5.4 Responsibility in invoices signing and 5.7 Certificate structure).

Invoice formats:

- Formats of the electronic invoices are not specified in the Directive but in certain Member States legal obligations exist that the electronic invoice has to be machine readable
- It is highly advisable to make use of static non modifiable document formats even where non explicitly requested by the applicable law.
- Some applicable law outright forbids the use of macros and hidden codes

Business requirements views



The Invoicing cycle is divided in two processes:

-The traditional or supplier initiated invoice

This process supports the generation of the invoice by the supplier to the customer, and covers also the treatment and the reconciliation of an incorrect invoice.

-The self-billing invoice

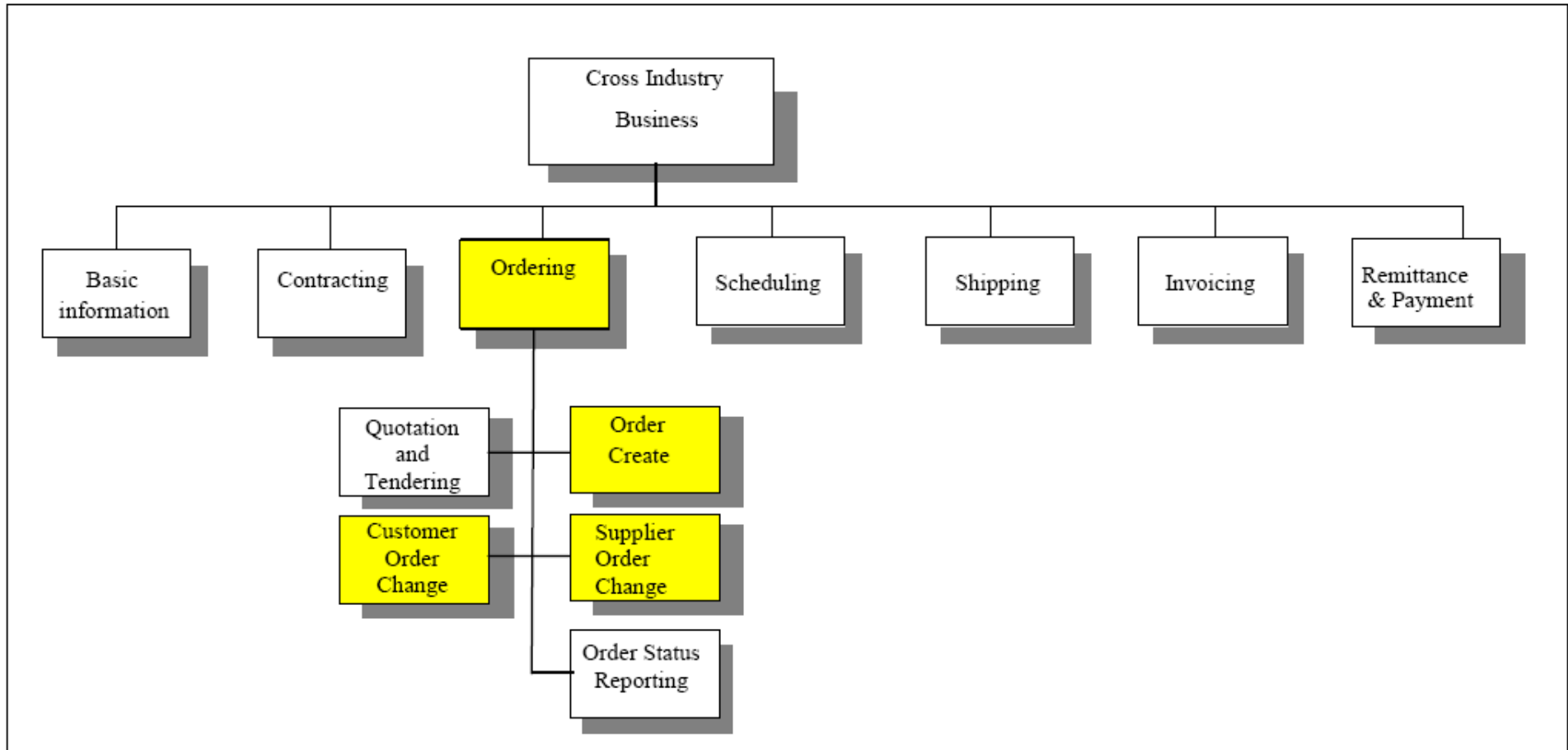
This process supports the generation of the self-billing invoice by the customer to the supplier, and covers also the treatment and the reconciliation of an incorrect invoice.

Electronic Order

Business requirements views

The Order Create process and the two Order Change processes (Customer initiated and Supplier initiated) are part of a set of Ordering processes to which also belong the Quotation and Tendering process and the Order Status Reporting process. The latter two processes are outside the scope of this Business Requirements Specification.

The set of Ordering processes form with other process clusters the total set of processes to conduct cross-industry electronic business. Other clusters include Basic Information exchange, Contracting, Scheduling, Shipping, Invoicing, Remittance and Payment.



Principles

- The Customer initiates the process by sending an Order Create Request to the **Supplier**

- The Supplier has the obligation to respond on an Order Create Request received from the

Customer

- The Supplier may propose changes to the conditions of the order in a **Supplier Order Counter Proposal**

- The Customer has the obligation to respond on a Supplier Order Counter Proposal

- The Customer may counter proposed changes received by sending a **Customer**

Order Counter

Proposal to the Supplier

- The Supplier has the obligation to respond on a Customer Order Counter Proposal

- Either party may respond by accepting the proposal received; the process then results in an agreed Order and the Order Create process ends. If the process results in an agreed Order, the Supplier has the obligation to deliver the goods and/or services under the conditions defined, and the Customer has the obligation to pay for those goods and services under the agreed conditions. Either party may alternatively respond on proposals received by rejecting the proposals or by withdrawing earlier sent proposals; the Order then is withdrawn or cancelled and no residual obligations between the parties exist, except those that were already in effect before the Order Create process was started and the Order Create process ends.

- After the Create Order process has been ended successfully and has resulted in an agreed Order, either party may initiate an Order Change process.

Use case

The use case for the Order Create process has the following business transactions. The associated business messages are shown between brackets.

- Place Purchase Order (Customer Order Create Request)
- Propose Changes (Supplier Order Counter Proposal)
- Counter Proposal (Customer Order Counter Proposal)
- Accept Proposal (Customer Order Counter Proposal Acceptance)
- Accept Purchase Order (Supplier Order Confirmation)
- Accept Purchase Order with additional data (Supplier Order Confirmation with Additional Data)
- Decline Purchase Order (Supplier Order Rejection)
- Decline and Propose Changes (Supplier Order Rejection with Proposal)
- Withdraw Purchase Order (Customer Order Withdrawal)

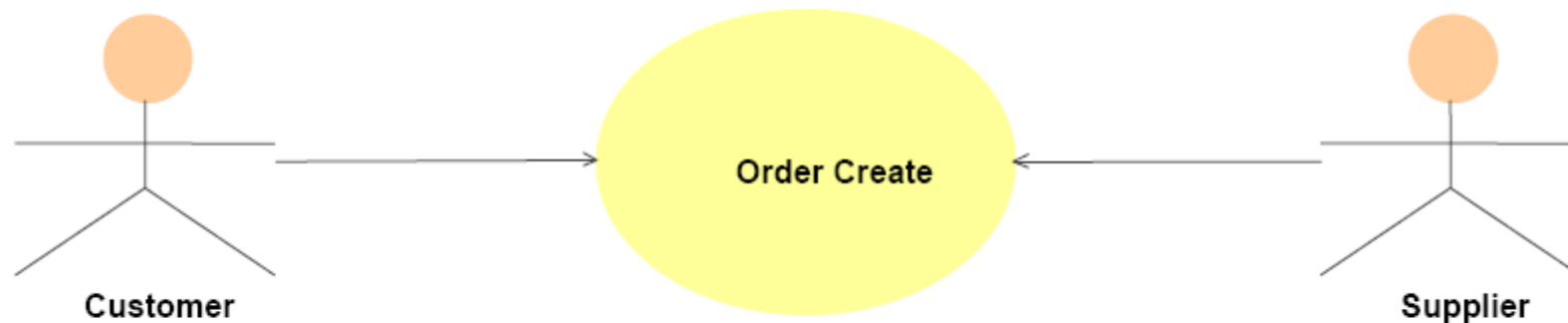
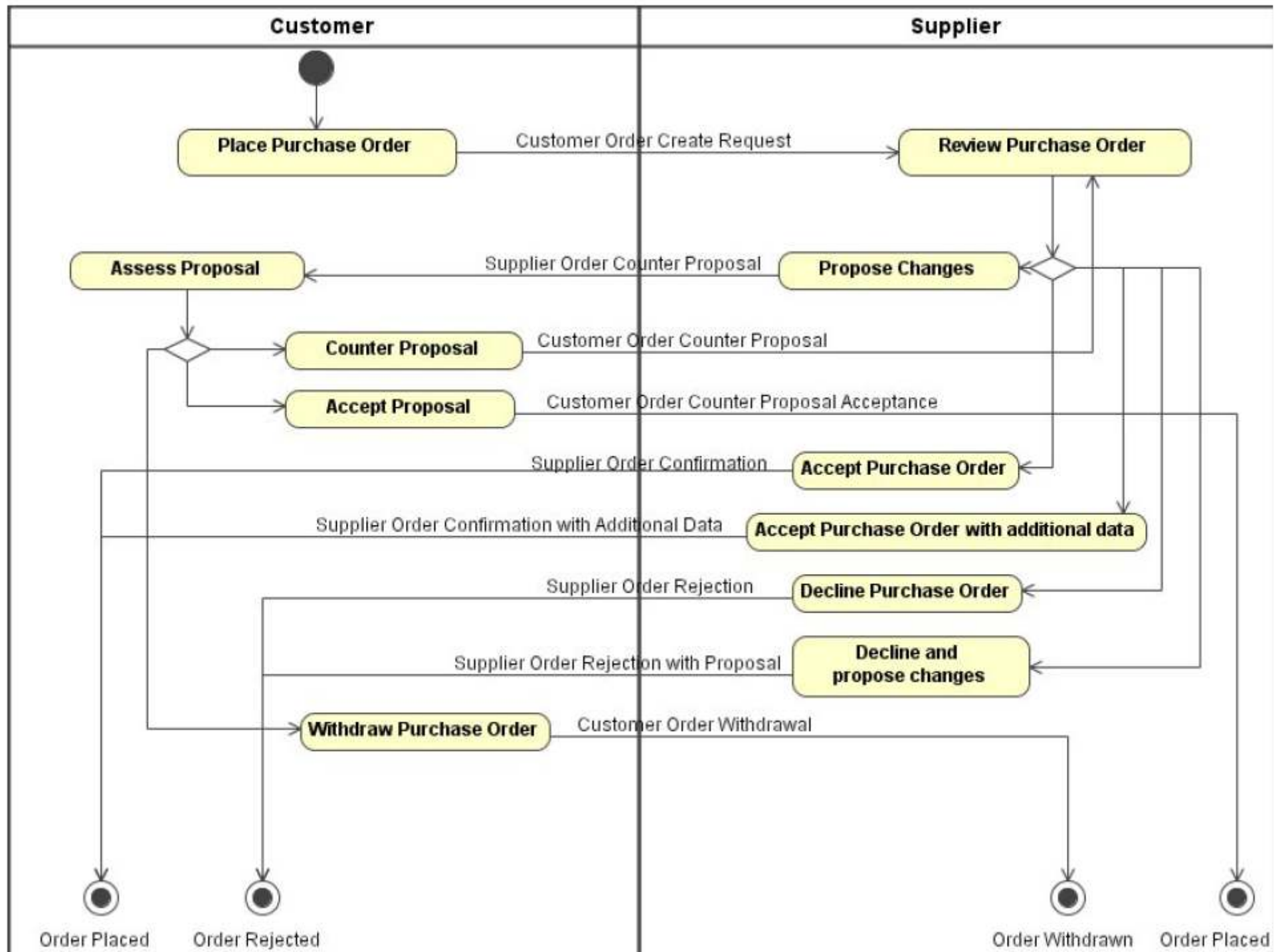


Figure 2 Use Case Diagram – Order Create



The Supplier may:

- **Accept the Order, and send a Supplier Order Confirmation back,**
- **Accept the Order and add additional information with a Supplier Order**

Confirmation with Additional Data,

- **Decline the Order and sending a Supplier Order Rejection,**
- **Decline the Order, but propose changes to the Order that will lead him to acceptance, sending a Supplier Order Rejection with Proposal, or**
- **Propose Changes and send a Supplier Order Counter Proposal.**

In the latter case, the Customer may:

- **Refuse the Proposal, send a Customer Order Withdrawal and end the cycle,**
 - **Accept the proposal and send a Customer Order Counter Proposal**
- Acceptance or**
- **Counter the Proposal with a Customer Order Counter Proposal**

Electronic catalogues

**As data base for electronic
commerce**

1. Scope

This section describes the extent and limits of the business processes within the supply chain being described in this document. The class diagram of the catalogue business information is developed in such a way that it specifies the cross industry reusable Business Information Entities. It allows the extension of industry specific BIEs such as product specification details to describe a specific product. Each industry may specify, based on the BRS of the cross industry catalogue processes, its industry specific catalogue documents.

The following table lists the context categories according to the Core Components Technical Specification and their values for the catalogue processes.

Context Categories	Description and Values
Business process	Catalogue processes
Product Classification	All
Industry Classification	All
Geopolitical	Global
Official Constraint	None
Business Process Role	Private and public procurement
Supporting Role	None
System Capabilities	No limitations

The catalogue processes are used to offer goods or services by the Supplier to potential Customers and give basic information needed for ordering those goods or services.

The processes cover:

- Exchange of multi language catalogues or parts of catalogues
- Exchange of multi Supplier catalogues or parts of catalogues
- Customer specific items and prices, including contract prices.

3. Business requirements

3.1. Business requirements views

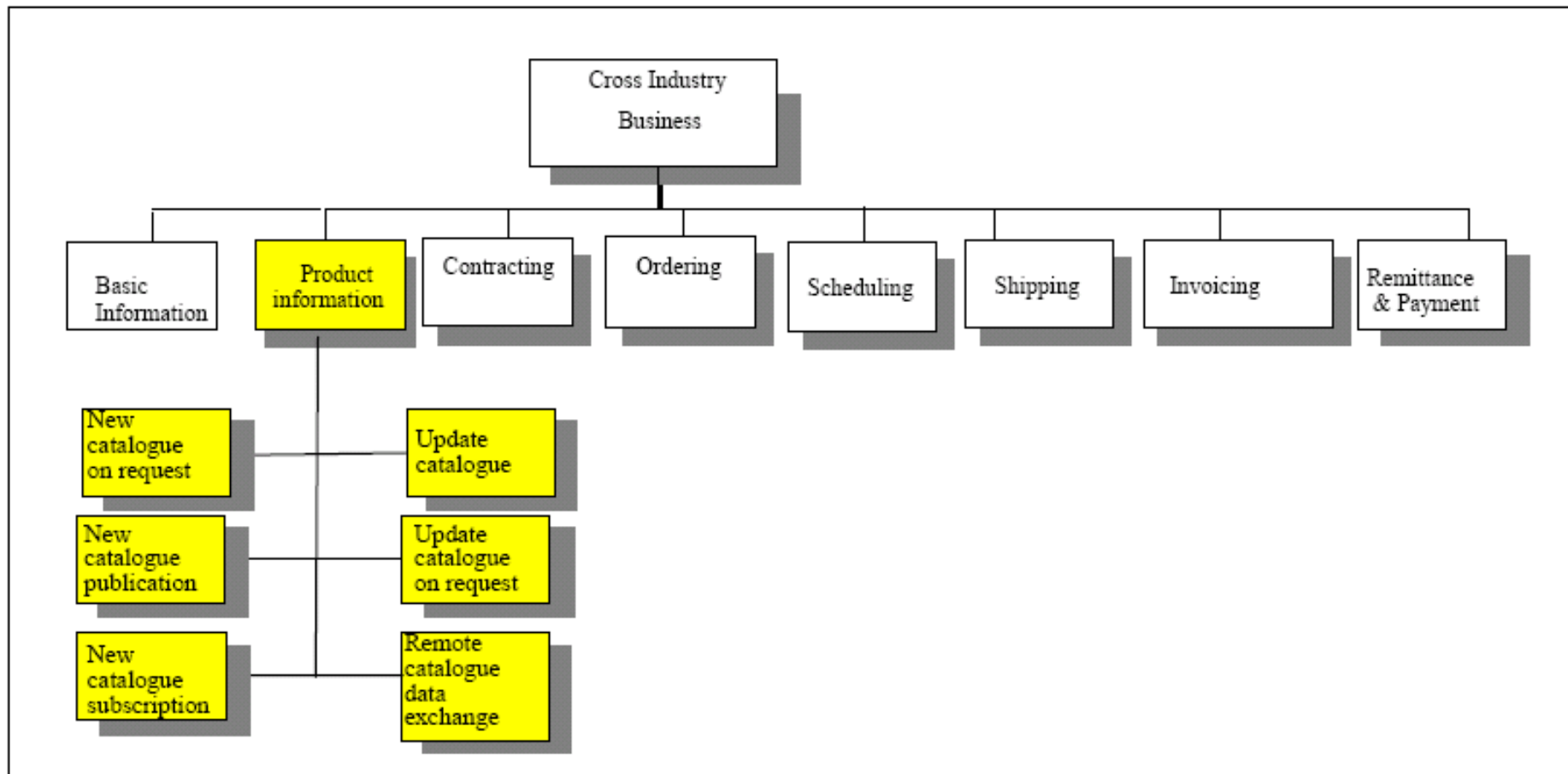


Figure 1–c-Cataloguing

The product information cluster contains the following business processes dealing with the data exchange about catalogs;

- **The new catalogue on request**

This process supports the exchange of a catalogue by the Catalogue Provider on request, and covers also the acceptance or rejection of the catalogue by the Catalogue Receiver.

- **The new catalogue publication**

This process supports the automatic exchange of a catalogue by the Catalogue Provider based on an existing subscription of the Catalogue Receiver, and covers also the acceptance or rejection of the catalogue by the Catalogue Receiver.

- **The new catalogue subscription**

This process supports the subscription request from a Catalogue Receiver to the Catalogue Provider, in order to receive automatically a new catalogue and the updates without further requests.

- **The update catalogue**

This process supports the automatic exchange of the updates of a catalogue by the Catalogue Provider, and covers also the acceptance or rejection of the updates by the Catalogue Receiver.

- **The update catalogue on request**

This process supports the exchange of the updates of a catalogue by the Catalogue Provider on request, and covers also the acceptance or rejection of the updates by the Catalogue Receiver.

- **The remote catalogue data exchange**

This process is used in a desktop application to address specific information from a Supplier's catalogue. In fact this process will always be part of another process, such as the quotation or ordering process, asking for product information from a catalogue to be included in the request for quote or order transaction.

3.2.1. New catalogue on request

Scope

This process details the exchange of a (selection of a) new catalogue on request between a Catalogue Provider and a Catalogue Receiver. In this case, the catalogue data is created by the Catalogue Provider for the Catalogue Receiver based on a specific request of the Catalogue Receiver.

On receipt of the catalogue data the Catalogue Receiver can inform the Catalogue Provider about the acceptance of the catalogue.

The Catalogue Provider has the possibility to reject the request for a new catalogue from the Catalogue Receiver.

If the receiver finds an error in the received catalogue, he can raise a catalogue rejection to inform the Catalogue Provider.

Principles

- The Catalogue Receiver initiates the process by sending a request for catalogue to the Catalogue Provider.
- The Catalogue Provider has the obligation to respond on the request for catalogue received from the Catalogue Receiver by providing the requested catalogue data or to reject the request.
- The Catalogue Receiver has the obligation to respond on the catalogue received from the Catalogue Provider by providing a catalogue acceptance or a catalogue rejection.

Use case

The use case for the New catalogue on request process has the following business transactions:

- Request for Catalogue
- Catalogue
- Catalogue Request Rejection
- Catalogue Acceptance
- Catalogue Rejection

Use case diagram



Figure 2 Use Case Diagram – New catalogue on request

Use case description – New catalogue on request

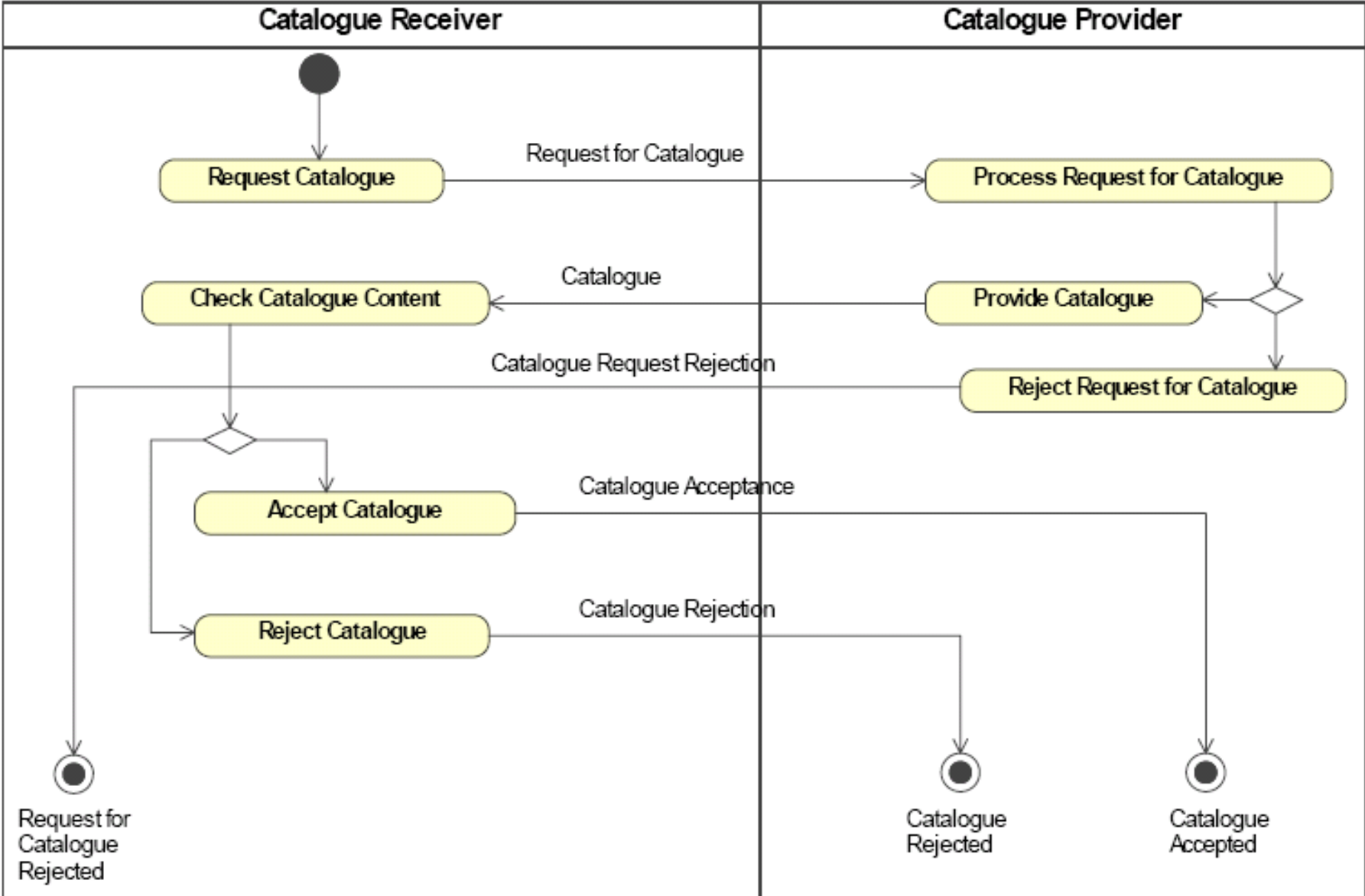
Business process name	New catalogue on request
Identifier	Cross industry catalogue on request
Actors	Catalogue Provider, Catalogue Receiver
Description	The Catalogue Receiver requests catalogue data from a Catalogue Provider. The process results in an accepted catalogue received or in the rejection of the catalogue received or the rejection of the request for catalogue data.
Pre-condition	<ul style="list-style-type: none">• Parties may or may not have an established trading relationship.
Post-conditions	<ul style="list-style-type: none">• After the acceptance of the catalogue data, the Catalogue Receiver can use the data provided to update its system's Item master data for further business processes, e.g. to place a Request for quote or order for goods or services to a Supplier.• After the rejection of the request for catalogue or after the rejection of the catalogue data the same situation exists as defined under the pre-condition.
Scenario	<ul style="list-style-type: none">• The Catalogue Receiver sends a Request for catalogue to the Catalogue Provider.• The Request for catalogue is always followed by a response from the Catalogue Provider, either:<ul style="list-style-type: none">- To accept the request and provide the catalogue data (Catalogue)- To reject the request for catalogue (Catalogue request rejection).• The Catalogue data is always followed by a response from the Catalogue Receiver, either:<ul style="list-style-type: none">- To accept the catalogue data (Catalogue acceptance)- To reject the catalogue data (Catalogue rejection).
Remarks	

3.3. Information flow definition – Catalogue data exchange

For the use cases defined in section 5.2., in this section the corresponding activity diagrams are presented.

3.3.1. New catalogue on request

Activity Diagram



Process Description

The Catalogue Receiver initiates the process by placing a request for catalogue with the Catalogue Provider and sending him a Request for Catalogue.

The Catalogue Provider may:

- Accept the Request for catalogue and send the Catalogue
- Decline the Request for Catalogue by sending a Catalogue Request Rejection.

On receipt of the Catalogue the Catalogue Receiver may:

- Accept the Catalogue and send a Catalogue Acceptance
- Refuse the Catalogue and send a Catalogue Rejection.

The cycle ends when the Request for Catalogue was rejected by the Catalogue Provider or when the Catalogue was accepted or rejected by the Catalogue Receiver.

Transaction tables

In this section each of the business messages used in the New catalogue on request process are described.

Business Transaction	
Identifier	Cross industry Request for Catalogue
Business Message Type	Request for Catalogue
Description	The Catalogue Receiver requests Catalogue data from a Catalogue Provider.
Partner Types	Catalogue Receiver Catalogue Provider
Authorized Roles	Catalogue Receiver, Catalogue Provider (Customer, Supplier, Buyer, Seller)
Legal Implications	None
Initial/Terminal Events	<ul style="list-style-type: none"> • Initial: the Catalogue Receiver sends the Request for Catalogue • Terminal: the Catalogue Provider reviews the Request for Catalogue.
Scope	To request a catalogue from a Catalogue Provider.
Boundary	Global cross industry
Constraints	The Catalogue Receiver shall have full traceability of his Request for Catalogue to make sure it has been received.

3.3.7. Transaction Patterns

Each message is to be implemented according to the UMM Notification Pattern. That means that on Business Transaction View level two signals are returned by the recipient: a signal that denotes proper receipt (message has been received but not yet processed) and a signal that denotes successful processing. Neither signal is a confirmation on business level that the recipient will act upon the contents of the message. They merely convey that the message has been received and can be processed and understood.

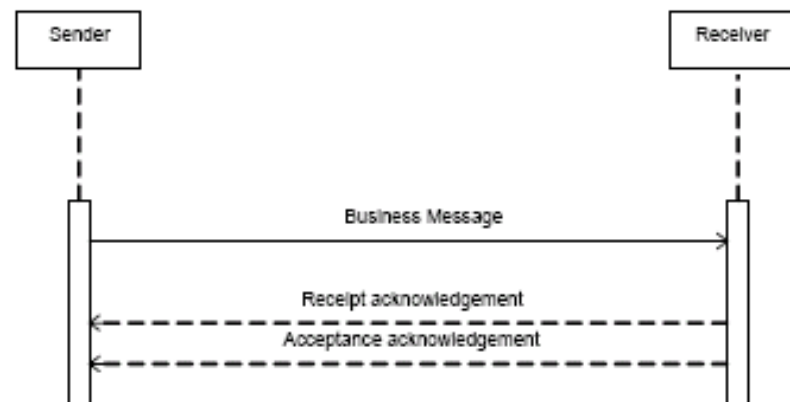


Figure 14. Transaction Pattern

3.4. Information Models

3.4.1. Reference Information Model definition – Catalogue (Class Diagram)

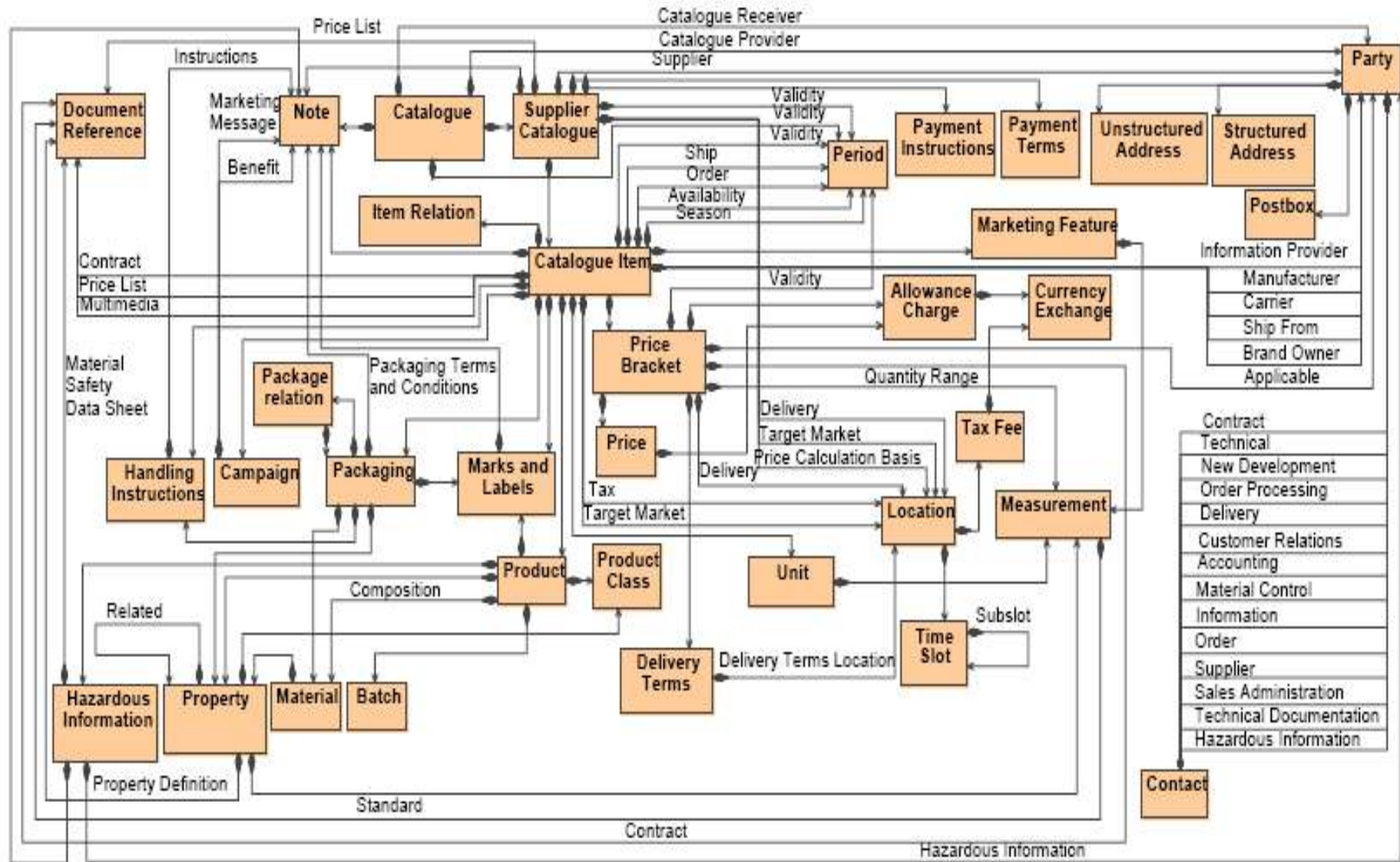


Figure 11: Item Class Diagram

3.4.2. Reference Information Model definition – Catalogue (Description)

The Catalogue Information Model is the reference model for many of the business messages exchanged in the c-Catalogue processes. Deviations from this model are specified in the sections with the message definitions. The following table lists the attributes (BBIE's) and associations (ASBIE's) of the Catalogue Class.

Catalogue

Description: A collection of offerings to the market of products and/or services by one or more Suppliers

1..1	Identifier	Att	Identifier	Identifier	The identifier of the catalogue assigned by the Catalogue Provider
0..1	Catalogue name	Att	Text	Name	The name assigned by the Catalogue Provider to the catalogue.
0..1	Catalogue version	Att	Text	Version	The version number of the catalogue.
0..1	Catalogue action code	Att	Code	Action	The code specifying the action valid for the entire catalogue (e.g. New, update, replace, delete)
0..1	Catalogue Receiver	Ass	Party	Catalogue Receiver	The Receiver of the Catalogue Information
1..1	Catalogue Provider	Ass	Party	Catalogue Provider	The Provider of the catalogue
0..1	Validity period	Ass	Period	Validity period	The period in which the catalogue is valid
0..*	Supplier catalogue	Ass	Supplier Catalogue	Supplier Catalogue	A catalogue of a Supplier, contained in this catalogue
0..*	Note	Ass	Note	Note	A coded or textual description relevant for the catalogue

Catalogue Item

Description: The information about one catalogue item

0..1	Catalogue item identification	Att	Identifier	Identification	The unique number assigned by the Supplier to identify the specific catalogue item.
0..1	Catalogue item action code	Att	Code	Action	The code specifying the action valid for the specific catalogue item (e.g. New, update, replace, delete)
0..1	Item type	Att	Code	Item Type	The code specifying the type of item (e.g. service item, sample item).
0..*	Description	Att	Text	Description	A description necessary to help define the item.
0..*	Description short	Att	Text	Short Description	A free form short length description of the item that can be used to identify the item at point of sale.
0..*	Invoice item description	Att	Text	Invoice Description	A free form information designed to match item description as noted on invoices.
0..*	Variant description	Att	Text	Variant	A free text field used to identify the variant of the Item. Variants are the distinguishing characteristics that differentiate items with the same brand and size including such things as the particular flavor, fragrance, taste.
0..*	Multimedia presentation	Att.	Binary	Multimedia	Multimedia presentation of the item (e.g. picture or drawing)
0..1	Private information indicator	Att	Indicator	Private	The indicator to qualify that item data is restricted to specific private use.
0..1	Cancellation date	Att	Date	Cancelled	The cancelation date of the launch of an item that was never and will never be manufactured, but may have been presented to buyers.

					available
0..1	Minimum lifespan from time of production	Att	Measure	Life Span from Production	The period, guaranteed by the manufacturer, before the expiration date of the item, based on the production date
0..1	Minimum lifespan from time of arrival	Att	Measure	Life Span from Arrival	The period guaranteed by the manufacturer, before the expiration date of the item, based on the arrival date.
0..*	Gross weight	Att	Measurement	Gross Weight	The gross weight of the item. The gross weight includes all packaging materials of the item. At pallet level the item Gross Weight includes the weight of the pallet itself
0..*	Height	Att	Measurement	Height	The height of the item. The vertical dimension from the lowest extremity to the highest extremity, including packaging. At a pallet level the item Height will include the height of the pallet itself.
0..1	Base unit indicator	Att	Indicator	Base Unit	The indicator identifying the item as the base trading unit level in the packaging hierarchy for the business transaction.
0..1	Consumer unit indicator	Att	Indicator	Consumer Unit	Indicator identifying the item as a consumer unit.
0..1	Despatch unit indicator	Att	Indicator	Despatch Unit	The indicator identifying that the item may serve as a dispatch (shipping) unit
0..1	Invoice unit indicator	Att	Indicator	Invoice Unit	The indicator identifying that the item may appear on an invoice.
0..1	Orderable unit	Att	Indicator	Orderable Unit	The indicator identifying that the item

Measurement

Description: A numeric value or quantity of a property of an item, product or package

1..1	Mesaurement type code	Att	Code	Measure type	The code specifying the type of the measurement
0..1	Mesaurement value	Att	Measure	Value	The value of the measurement
0..1	Mesaurement minimum value	Att	Measure	Minimum value	The minimum value of the measurement
0..1	Measurement maximum value	Att	Measure	Maximum value	The maximum value of the measurement
0..*	Standard	Ass	Document Reference	Standard	The reference to a standard that defines the measurement

Payment Instructions

Description: The set of information describing the conditions and guarantee under which the payments should be made

0..1	Payment conditions code	Att.	Code	Code	The code identifying the method employed or to be employed in order that a payment may be made or regarded as made.
0..1	Payment guarantee code	Att.	Code	Payment Guarantee	The code specifying the means of payment guarantee.
0..1	Payment means code	Att.	Code	Payment Means	The code specifying the means of payment.

Payment Terms

Description: The details of the payment terms and date/time basis.

1	Payment terms identification	Att.	Code	Code	The identification of the terms of payment.
0..1	Payment terms time reference	Att.	Code	Time Reference	The code referencing a point in time for the calculation of the payment date.
1	Payment terms number of periods	Att.	Measure	Time Interval	The number of periods applicable to calculate from the payment term time reference the latest payment date.

Product Class

Description: The Class a product belongs to according to a certain classification scheme or ontology

0..1	Classification system/Ontology Identifier	Att.	Identifier	Ontology	Identification of the ontology that defines the property
0..1	ICD	Att.	Code	International Code Designator	The ISO-specified data element used to uniquely identify a registration scheme. (ISO/IEC 6523-1)
0..1	OI	Att.	Identifier	Organisation Identifier	The identifier assigned to an organization within a registration scheme, and unique within that scheme.
0..1	OPI	Att.	Identifier	Organisation Part Identifier Source	The identifier allocated to a particular department, service or other entity within an organization
0..1	OPIS	Att.	Identifier	Organization Part Identifier Source	The data element used to specify the source for the organization part identifier.(ISO/IEC 6523-1)
0..1	Number	Att.	Text	Standard number	For referencing standards, here the standard number will be given (e.g. 61360 for the IEC 61360)
0..1	Part	Att.	Text	Standard part	For referencing standards, here the part of the standard will be given (e.g. 2 for the Part 2 of IEC 61360)
0..1	Edition	Att.	Text	Standard edition	Edition of the standard
1	Class Code	Att.	Identifier	Class	Gives the identification of the class in the context of the classification / ontology
0..1	Version	Att.	Text	Version	The version of the class

3.4.4. Referencing between messages

Messages refer to each other within the process they are being exchanged in, through an association with the Document Reference Class.

Note: This referencing mechanism may be affected by generic UN/Cefact rules on message assembly. Trailing underscores are to be ignored.

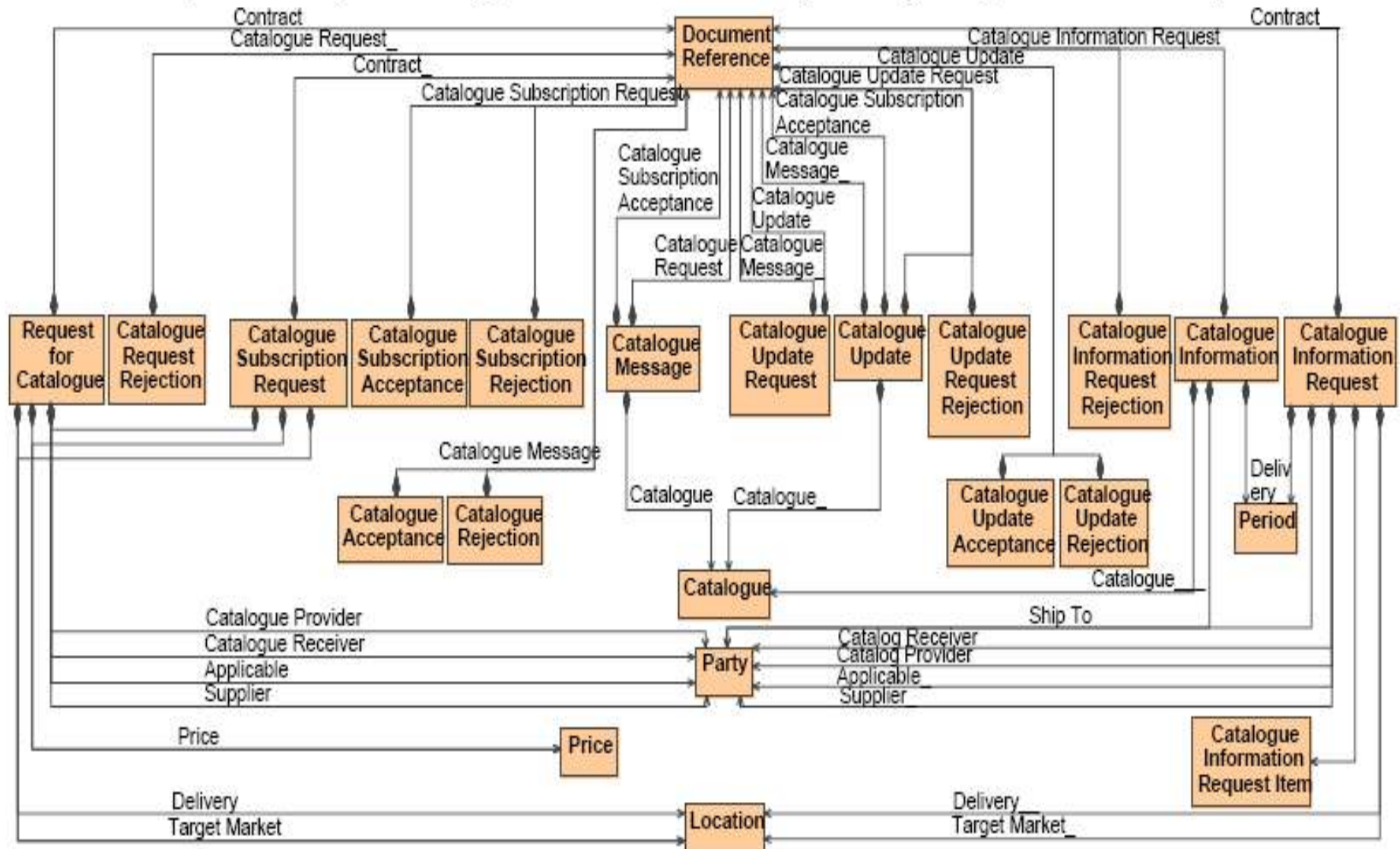


Figure 12: MessagesClass Diagram

3.4.10. Catalogue Subscription Request

Description: A request for subscription to (updates of) a Catalogue

1	Catalogue Subscription Request Identifier	Att	Identifier	Identifier	The identifier of the Request for Catalogue subscription
1	Catalogue Subscription Request date time	Att.	Date Time	Issue	The date/time when the Catalogue Subscription Request is issued.
0..1	Subscription Frequency	Att.	Code	Frequency	Frequency of subscribed Catalogue updates.
0..1	Subscription Start Date	Att.	Date	Subscription Start	Start date of the Catalogue subscription
0..1	Subscription End Date	Att.	Date	Subscription End	End date of the Catalogue subscription
0..1	Catalogue Update Indicator	Att	Indicator	Catalogue Update	Indicator whether only updates of the catalogue must be provided
0..n	Language Code	Att.	Language	Code	Language(s) of the Catalogue information
0..n	Currency	Att.	Currency	Code	Currency or currencies of the prices, allowances and charges in the Catalogue
0..1	Validity Start Date	Att.	Date	Validity Start	Start date of the Catalogue validity

3.4.13. Catalogue Update

Description: A message to convey a Catalogue update.

1	Identifier	Att	Identifier	Identifier	The identifier of the Catalogue
1	Catalogue Update date time	Att.	Date Time	Issue	The date/time when the Catalogue Update is issued.
0..1	Catalogue Update Request Reference	Ass .	Document Reference	Catalogue Update Request	Reference to the Catalogue Request.
0..1	Catalogue Subscription Acceptance Reference	Ass .	Document Reference	Catalogue Subscription Acceptance	Reference to the Catalogue Subscription Acceptance.
0..1	Previous Catalogue Reference	Ass .	Document Reference	Catalogue Message	Reference to the Catalogue to be updated.
1	Catalogue	Ass .	Catalogue	Catalogue	The Catalogue information.

3.5.1 Parties and party roles

Term	Definition
Buyer	The buyer is the person or organization acting on behalf of the Customer and who buys or purchases the goods or services.
Carrier	A company which provides transport services
Consignee	Party to which the products will be shipped and who is taking possession.
Consignor	The consignor is the person or organization who provides (dispatch) the goods or services on behalf of the Supplier.
Customer	Party who owns the products after successful completion of the transaction.
End Use Customer	The final user of the product, where known. Also known as the Customer's customer.
Freight Forwarder	The party arranging the carriage of goods including connected services and/or associated formalities on behalf of a consignor or consignee
Invoice Issuer	A party issuing an invoice.
Invoicee	Party who will receive the invoice for the delivery of products or services.
Manufacturer	Party who makes the products (not to imply a party who simply provides packaging of the product)
Marketplace	a exchange or hub that may act as a broker or agent on behalf of the buyer and/or seller.
Notify Party	Party that needs to be notified, or aware of the transaction. Similar to a cc: in an email.
Payee	A party to which a payment is to be or has been made
Payer	Party responsible for a payment.
Seller	The seller is the person or organization acting on behalf of the Supplier and who sells goods or services to the Customer
Ship From	The party from whom the products are physically originating.
Ship To	Party to whom the products will be physically delivered.
Supplier	Party who owns the products and consigns or makes them available in trade
Ultimate Consignee	The final, end party who will take ownership of the product after a shipment has passed through multiple depots/warehouses.

Supply Chain Management

Supplier of manufacturer

Manufacturer

Distributors

Dealer

Integrator/Value added reseller/Service provider

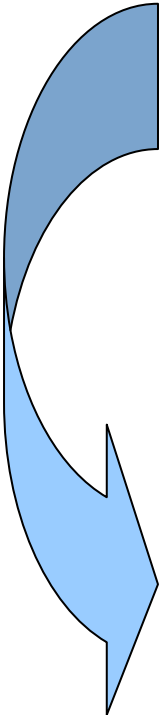
TRANSPARENCY

Contracting agency

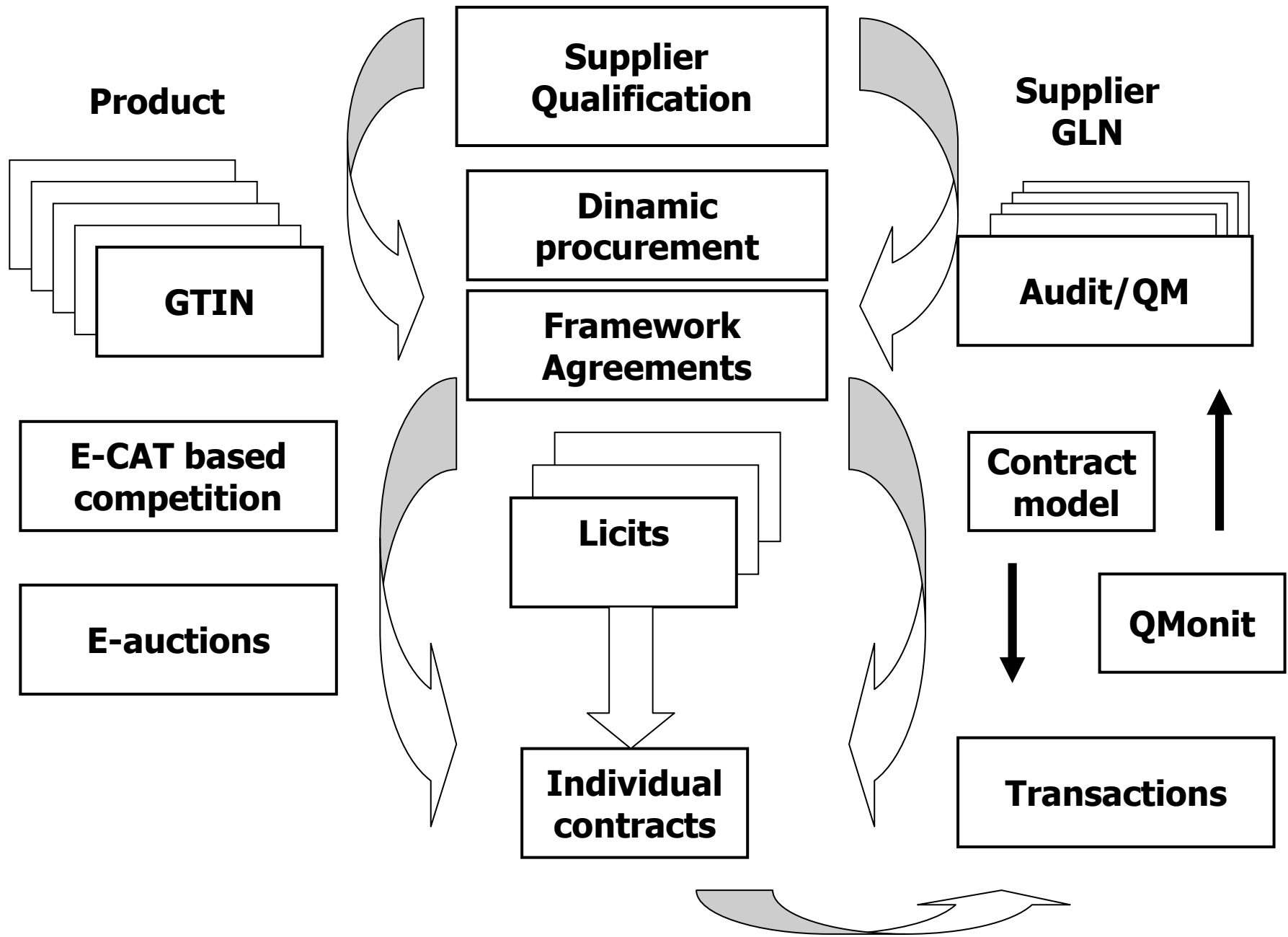
Budgetary entity

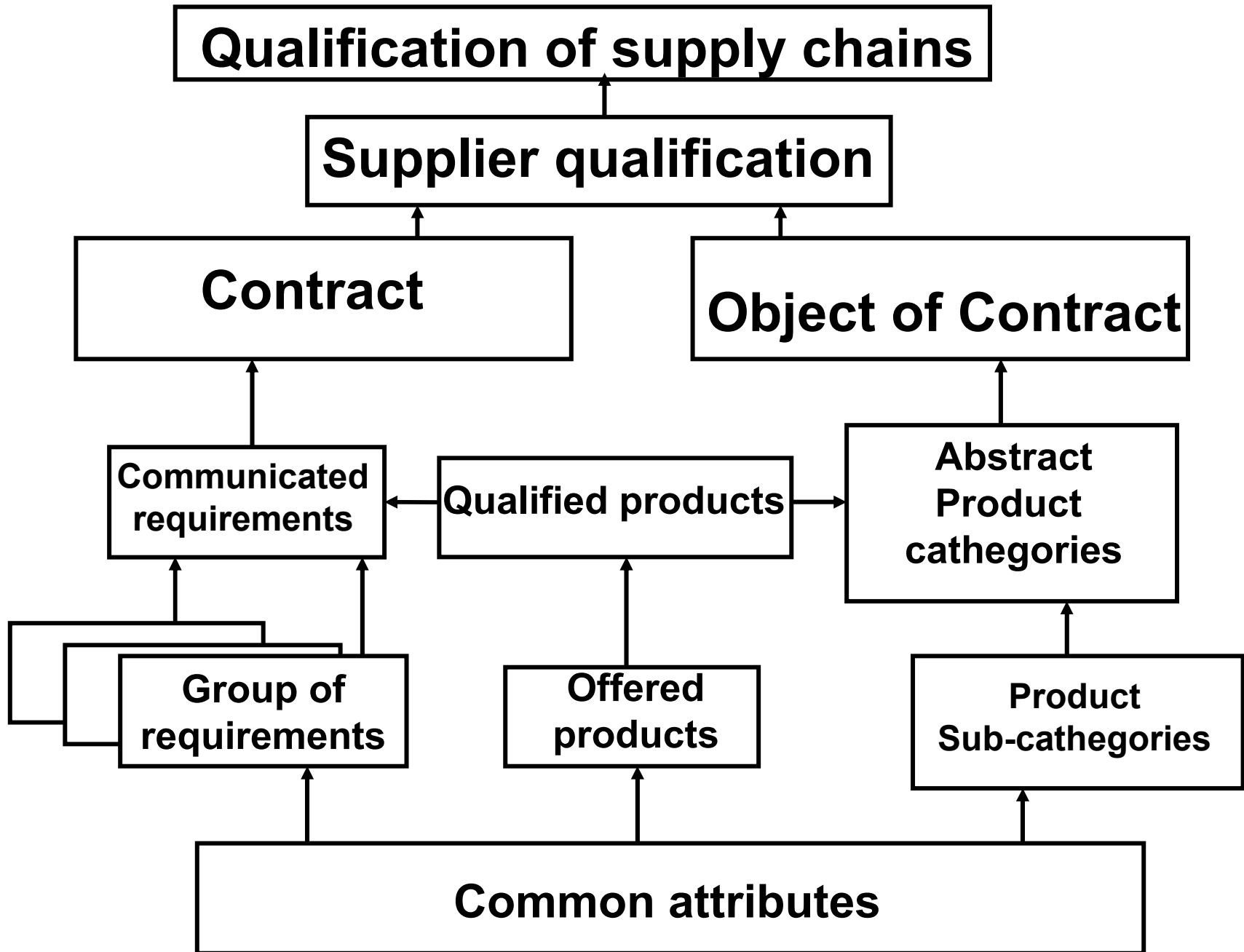
Functional operator

End user



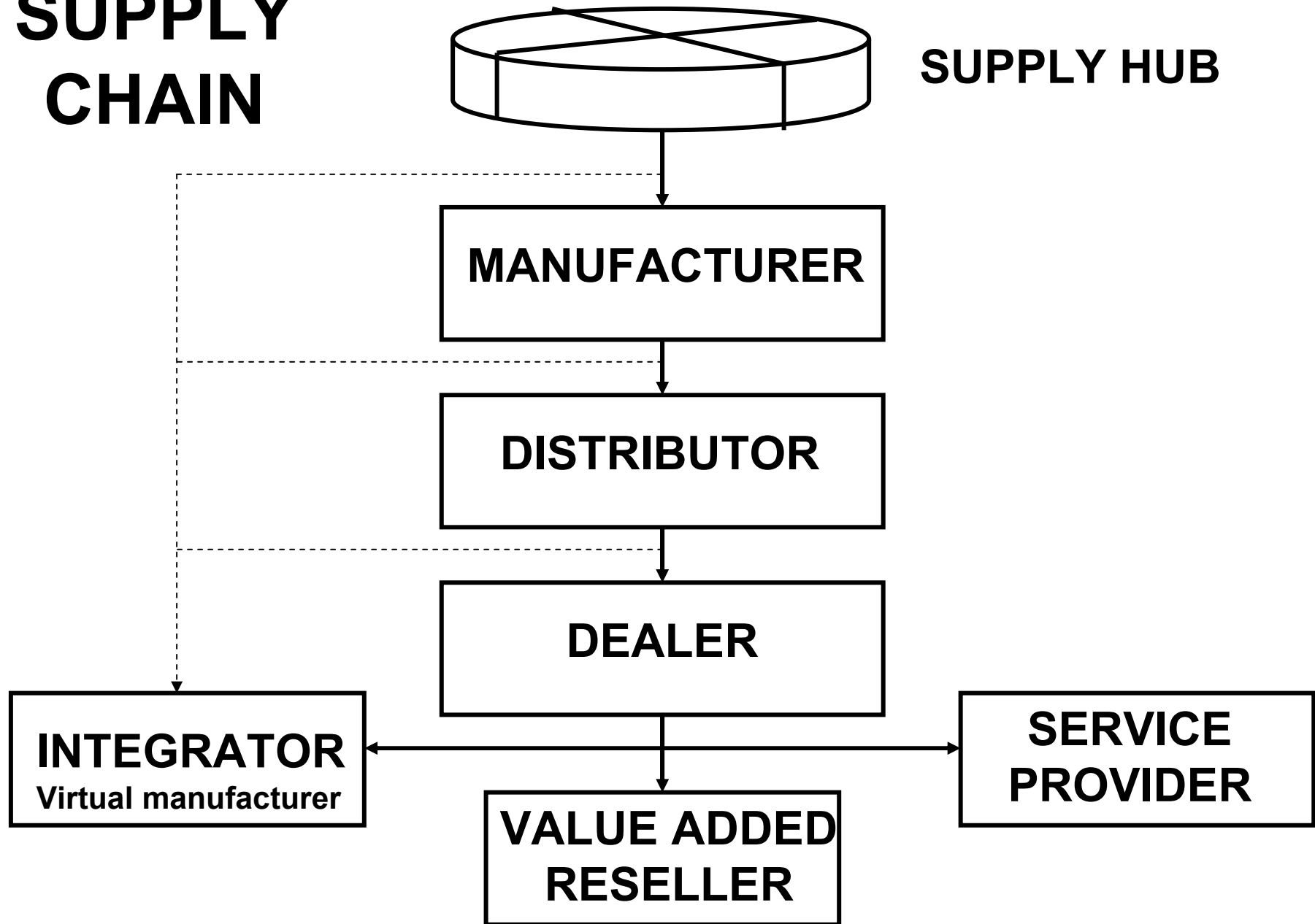
Service level



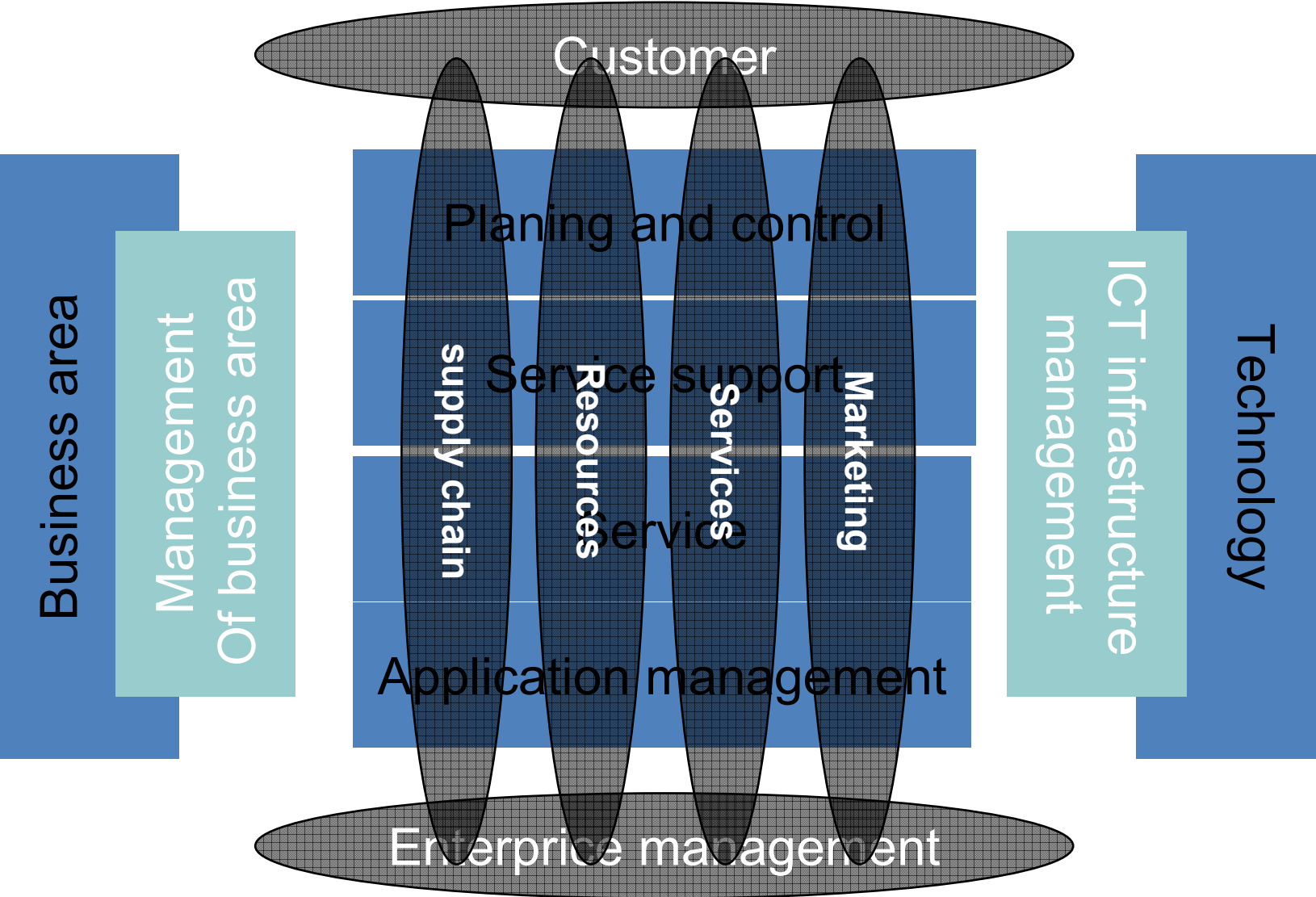


SUPPLY CHAIN

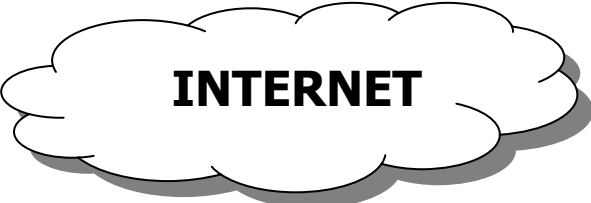
SUPPLY HUB



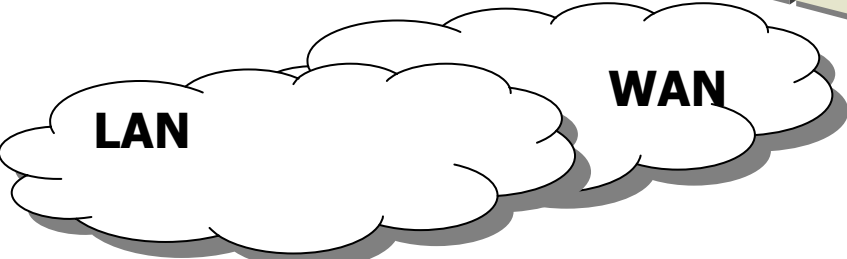
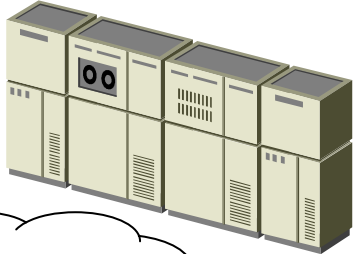
Supply chain convergence



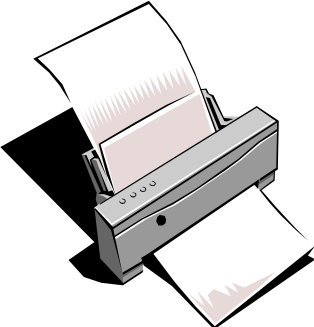
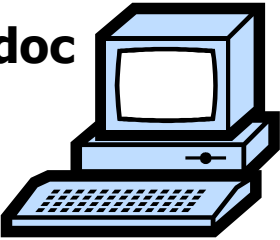
Knowledge capital



Data asset

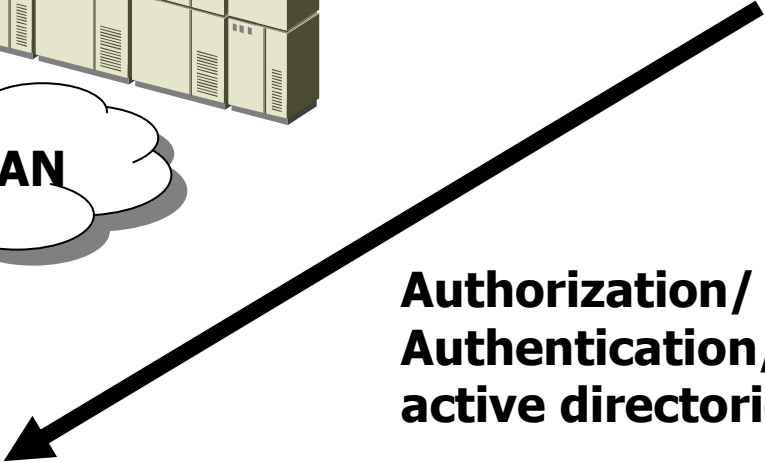


e-doc

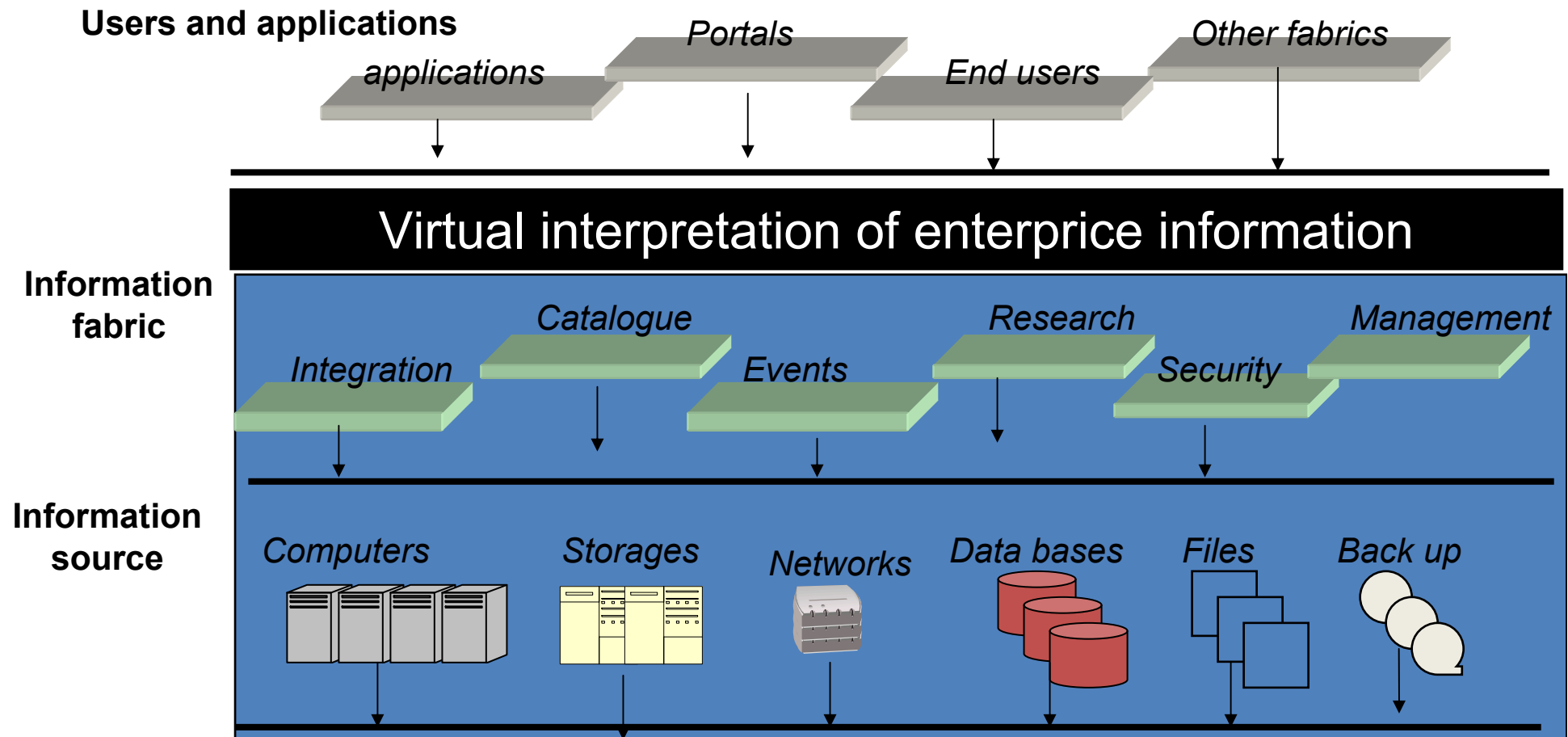


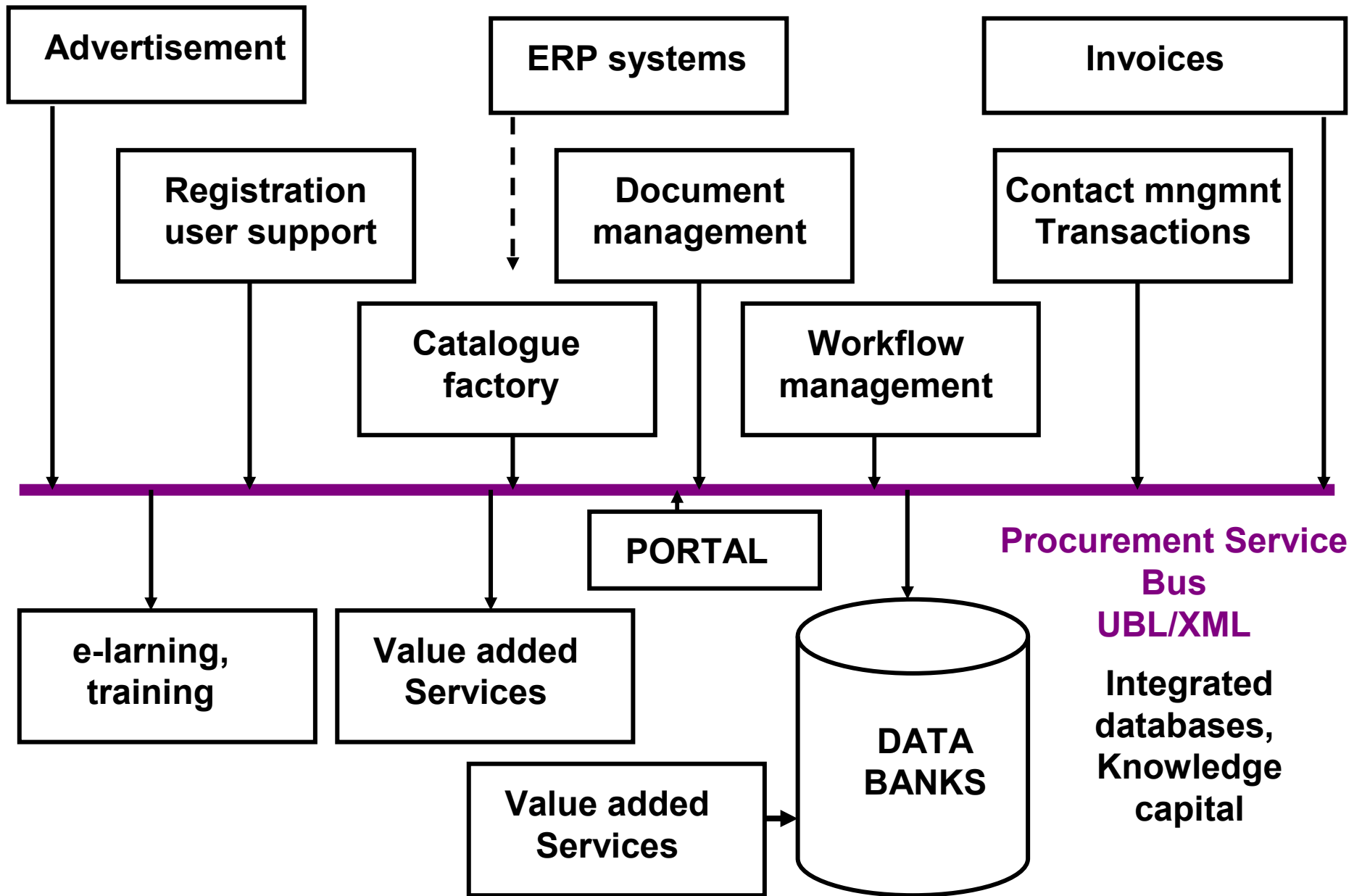
Application

**Authorization/
Authentication/
active directories**



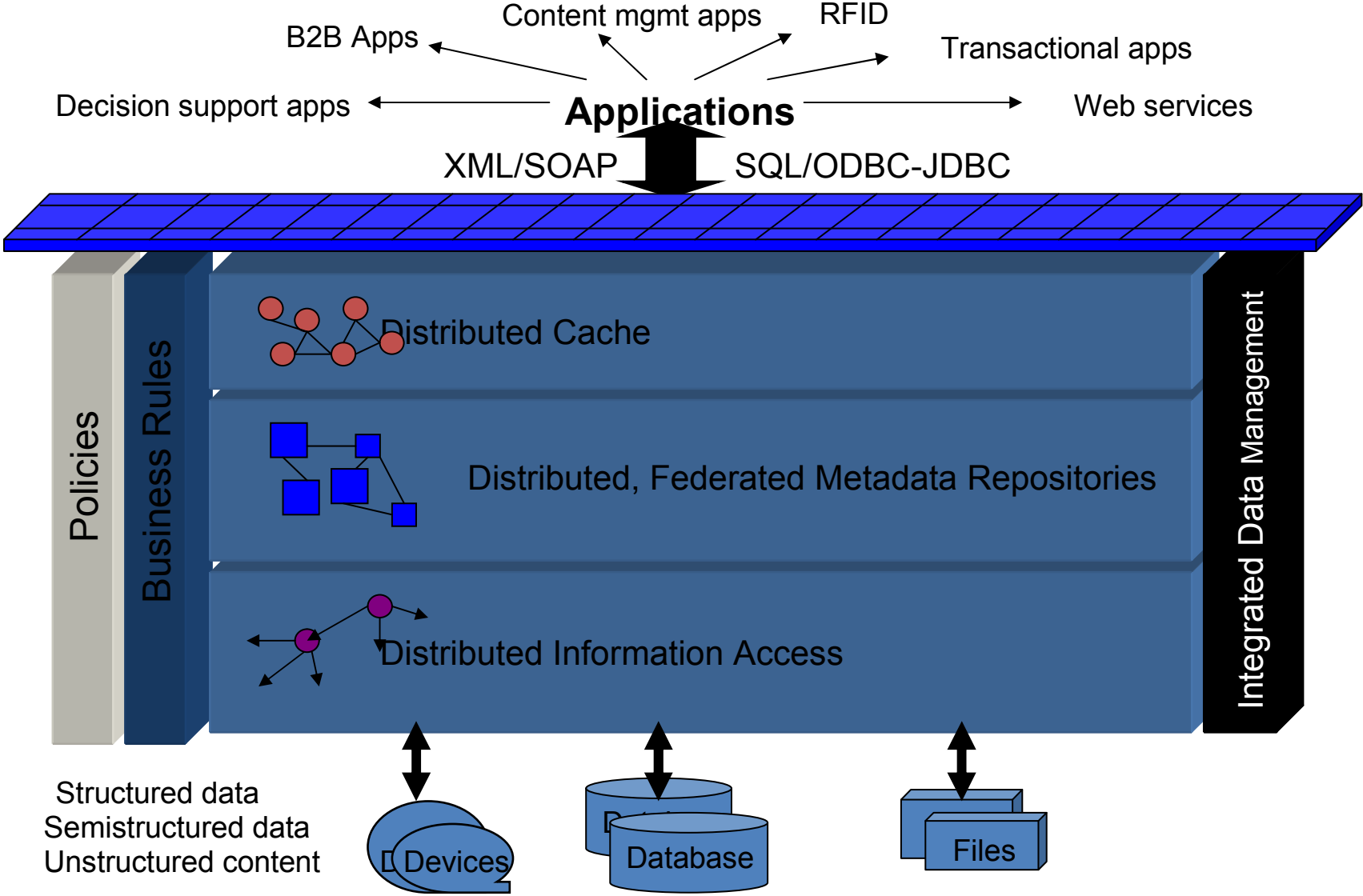
Information factory: conceptional view



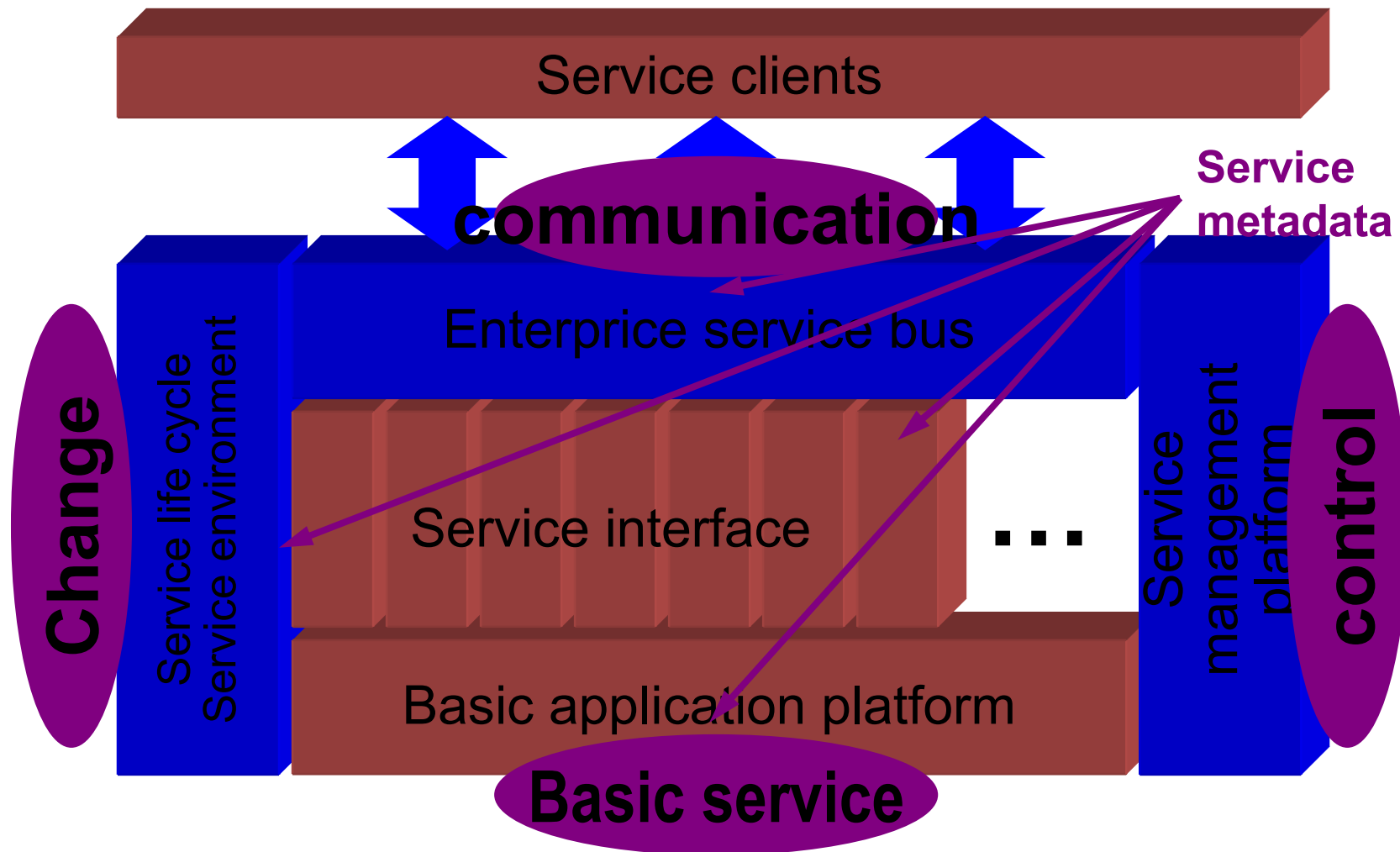


INFORMATION FABRIC ON SOA IN PUP SERVICES

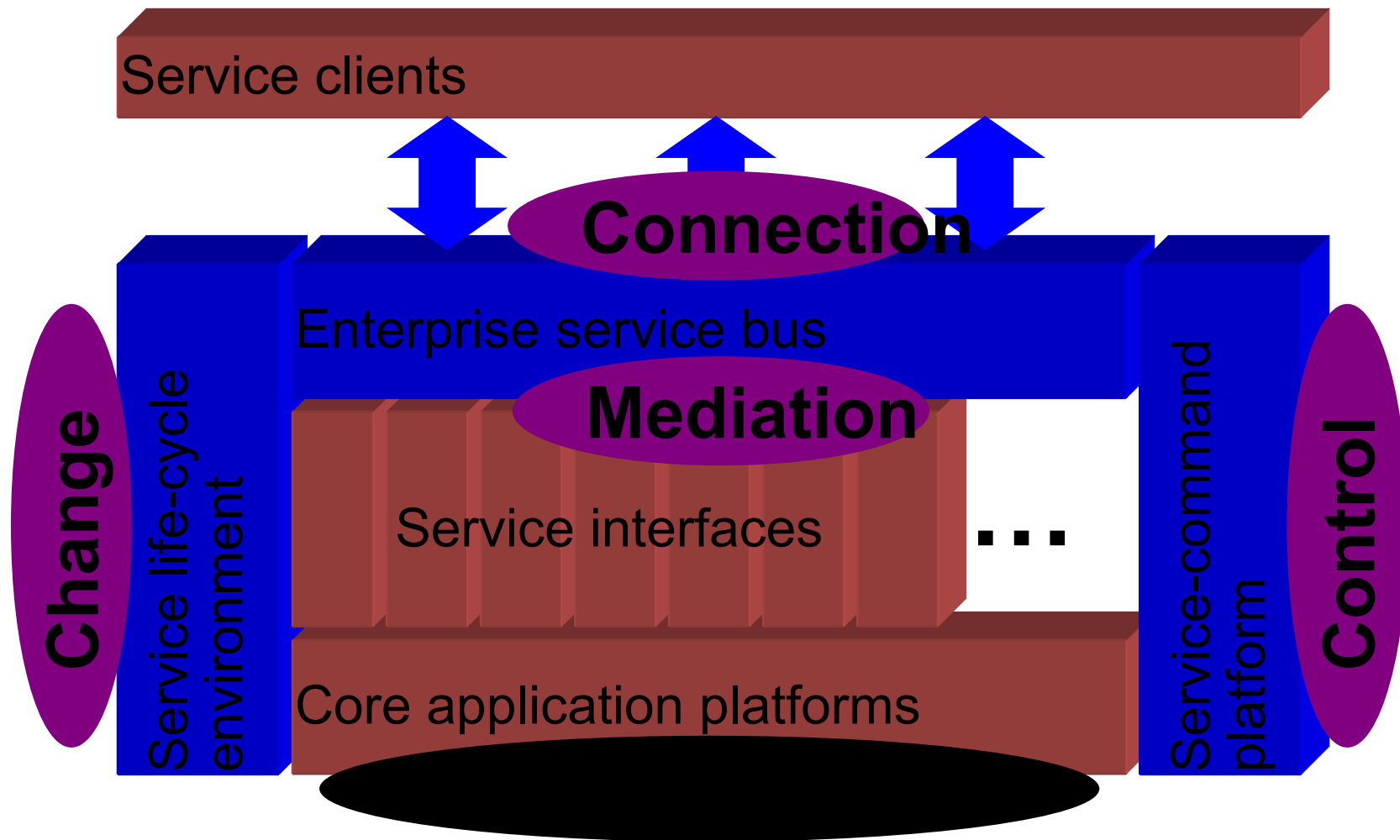
Information fabric: physical view



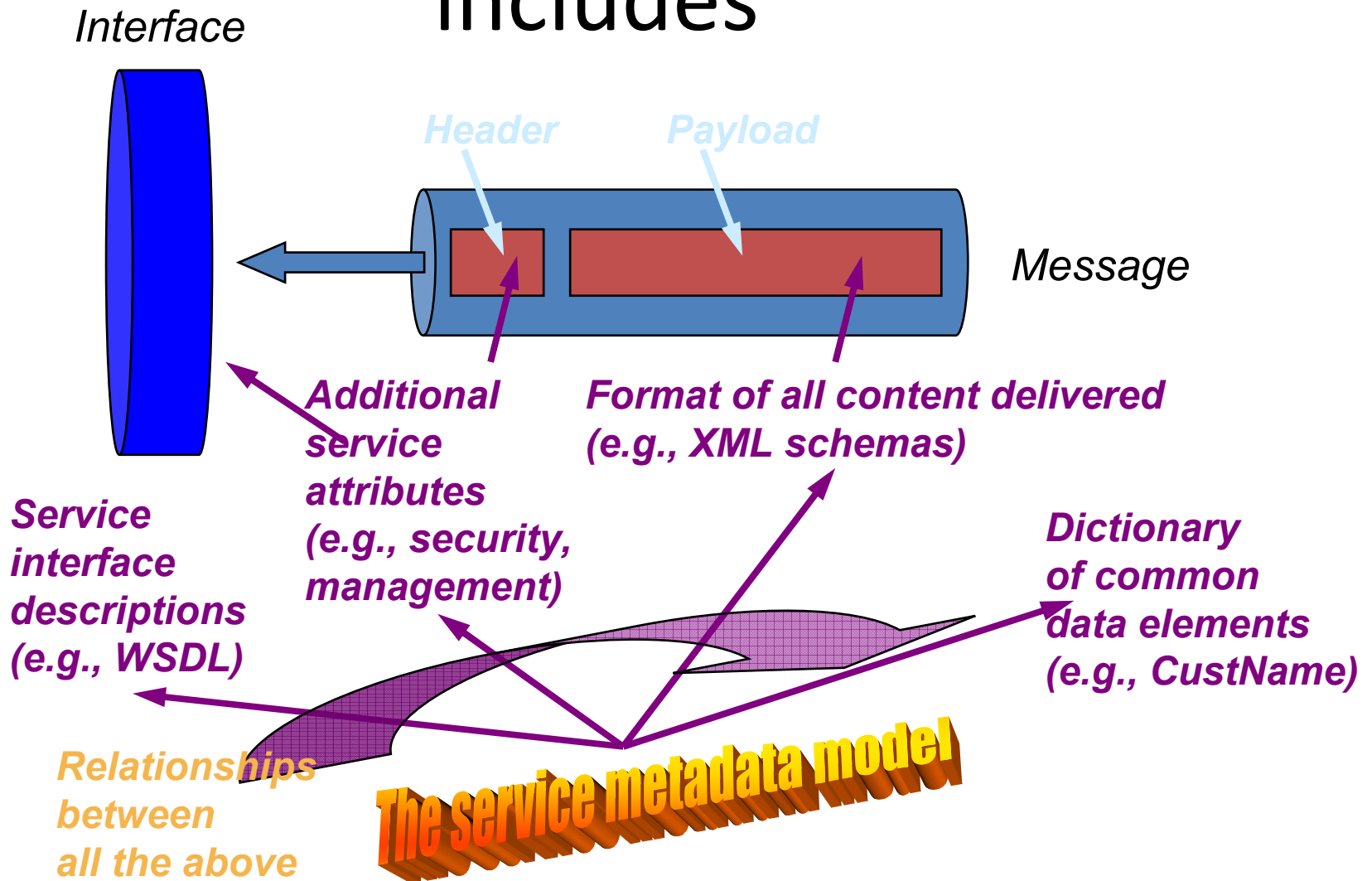
The crytical element of SOA is metadata



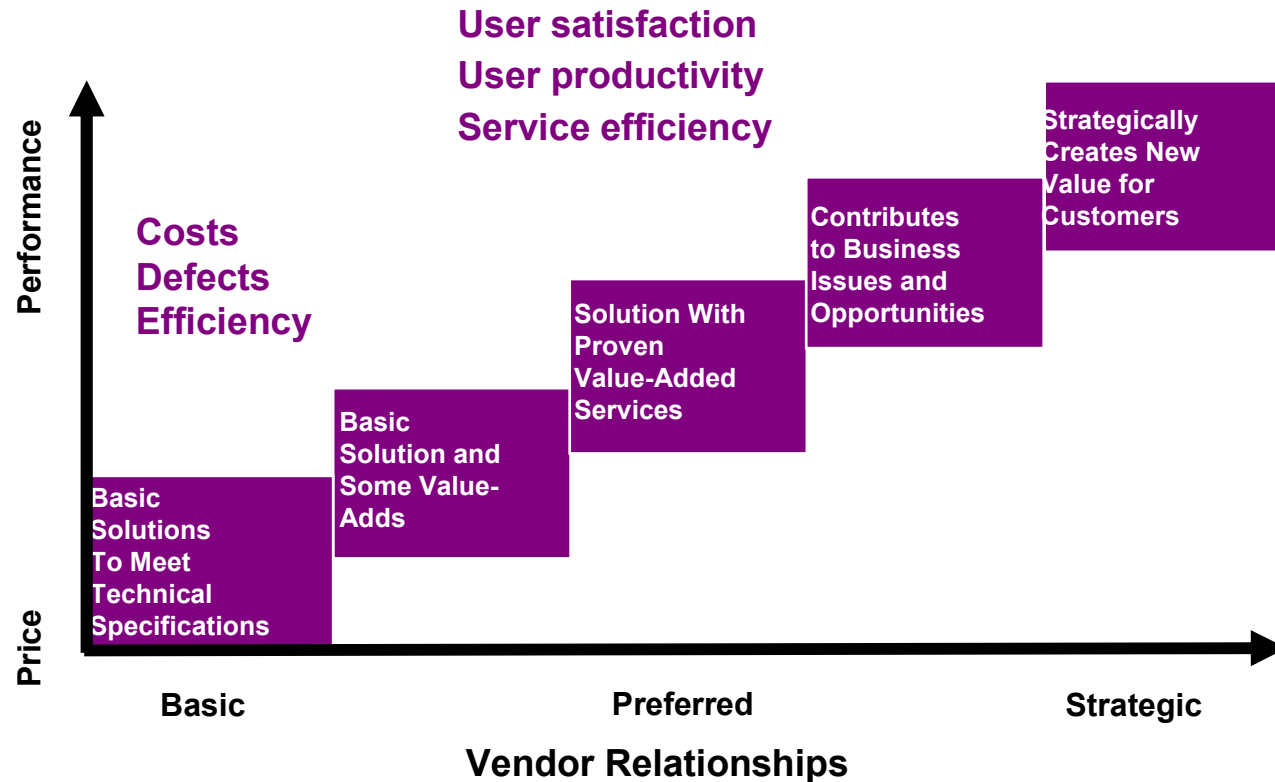
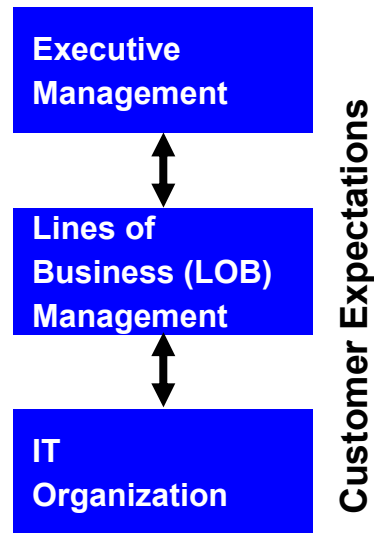
An ESB is part of a SOA platform



The service metadata model includes

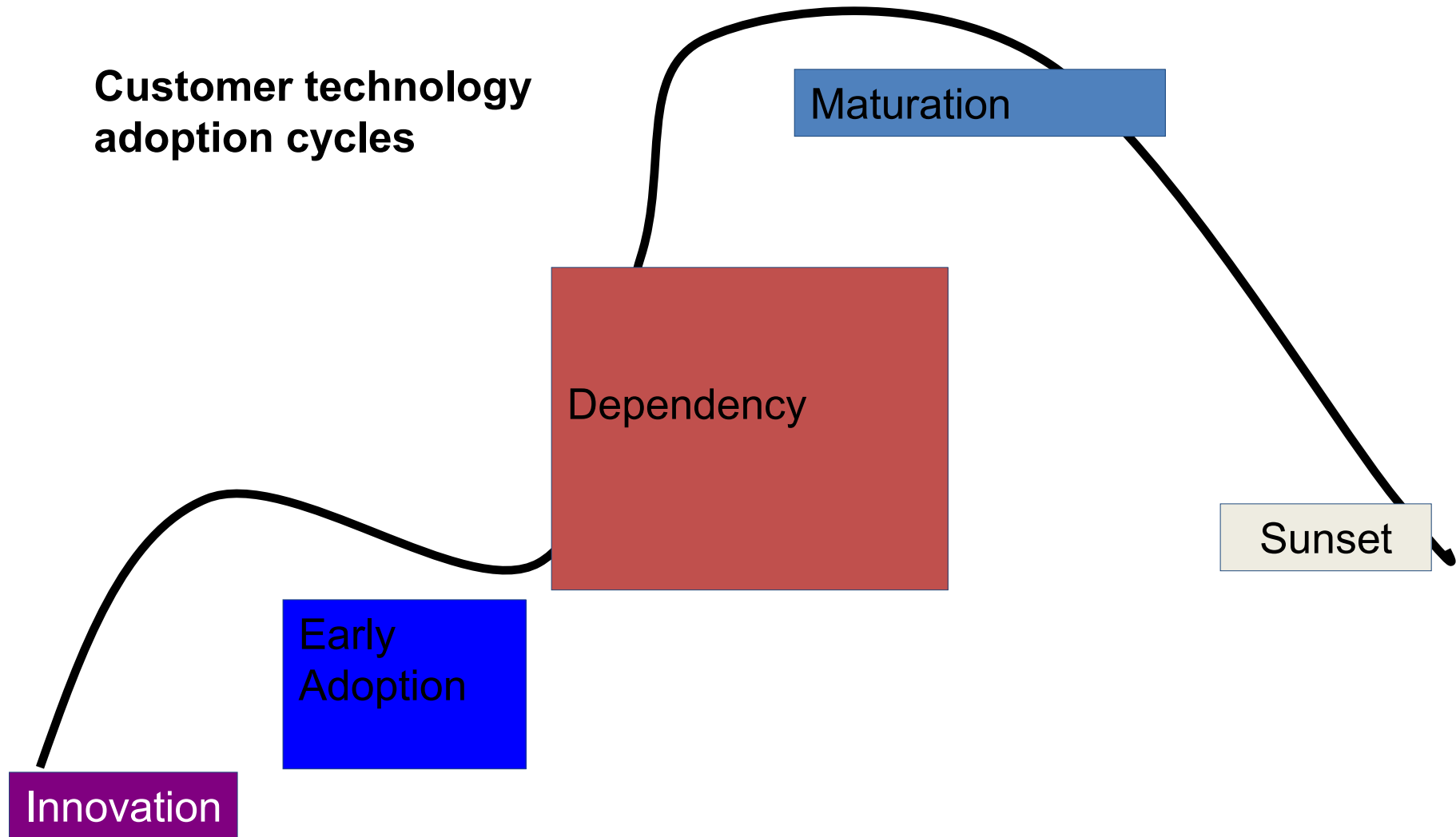


Finding the right value balance



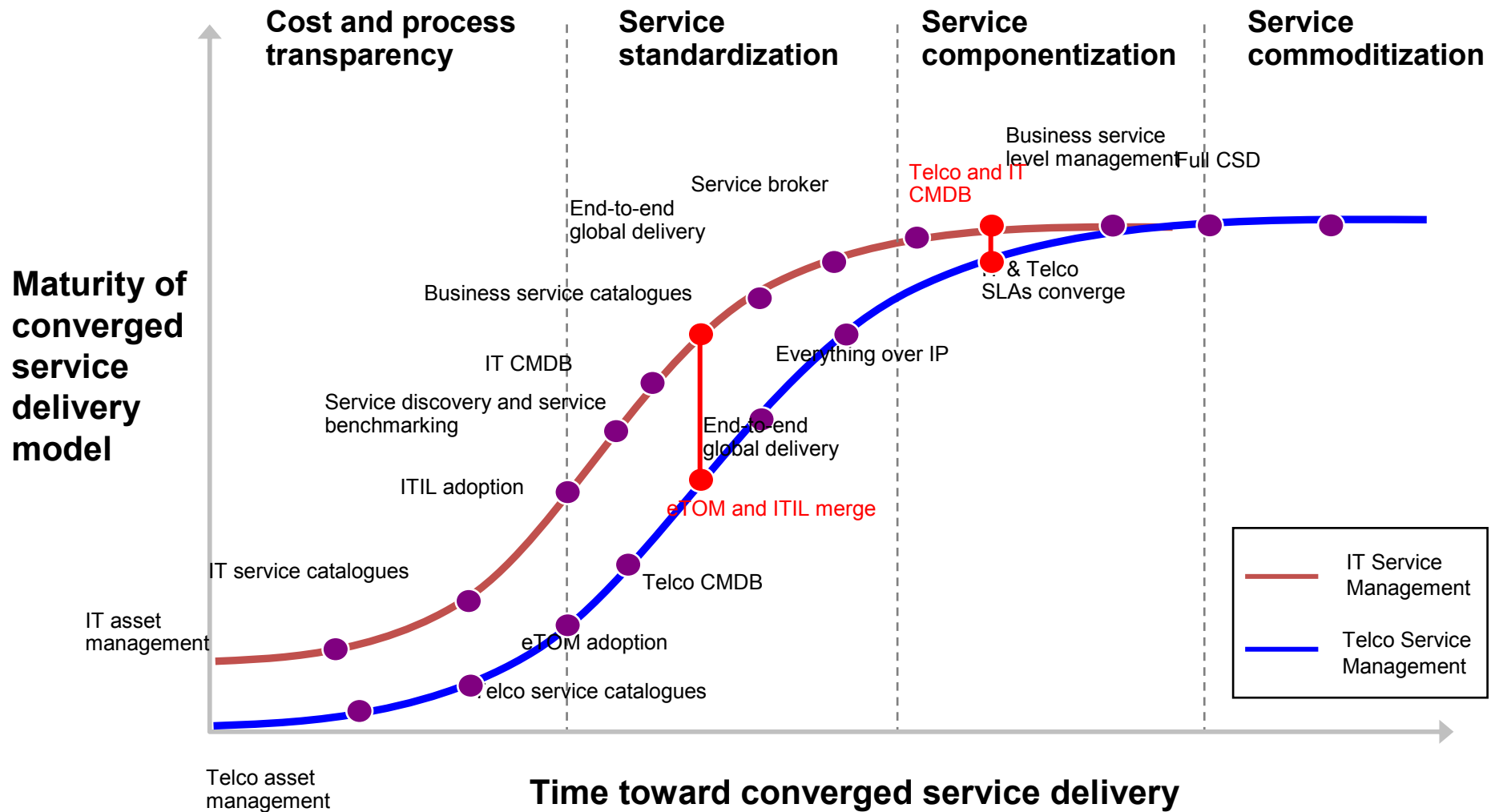
Where are you on the continuum now? Where are your customers? Are different constituents at different points on the continuum? Where would you like to see buyer/supplier consensus? Where can you really be most successful?

Expectations shift with adoption cycles



Source: January 12, 2006, Forrester Big Idea "Adaptive Sourcing: Outsourcing's New Paradigm"

The converged service delivery S-curve



SECTION TWO

The PUBLIC

Sector

G2B

ePublic Procurement

1.Public Procurement

1.Object, subject, business cases

2.Regulatory hierarchy

a.Regional

b.National

2.Electronic Public Procurement

1.Electronically concluded business processes in PUP

2.Legislation and market development

3.Electronic advertisement

4.Electronic tendering

5.Extension techniques/eauction

6.Electronic documents in electronic procurement

a.Virtual Company Dossier

b.Electronic Catalogue

c.Other nonstructured documents

7.Electronic Ordering

8.Electronic Invoicing

9.Electronic Payment

10.Contract and portfolio management

3.Improvement of effectiveness

1.Contract Potential

2.Repeated procurement cycles

3.Complex procedures

a.Framework agreement

b.Dynamic Procurement System

4.ITC Ecosystem: Virtual product, virtual market

Electronic procurement (eProcurement) definitions

The term *eProcurement* refers to the use of electronic means in conducting a public procurement procedure for the purchase of goods, works or services.

eProcurement sub-phases

eSourcing: preparatory activities conducted by the contracting authority/entity to collect information for the preparation of a call; potential bidders are contacted by electronic means to provide quotations or manifest interest.

eNoticing advertisement of calls for tenders through the publication of appropriate contract notices in electronic format in the relevant Official Journal (national/EU).

eAccess: electronic access to tender documents and specifications as well support to economic operators for the preparation of an offer, e.g. clarifications, questions and answers.

eSubmission: submission of offers in electronic format to the contracting authority/entity, which is able to receive, accept and process it in compliance with the legal requirements.

eTendering: is the union of the eAccess and eSubmission phases.

eAwarding: opening and evaluation of the electronic tenders received, and award of the contract to the best offer in terms of the lowest price or economically most advantageous bid.

eContract: conclusion, enactment and monitoring of a contract / agreement through electronic means between the contracting authority/entity and the winning tenderer.

eOrders: preparation and issuing of an electronic order by the contracting authority/entity and its acceptance by the contractor.

eInvoicing: preparation and delivery of an invoice in electronic format.

ePayment: electronic payment of the ordered goods, services or works.

To successfully conduct electronic procurement across borders, eProcurement systems rely on some “key-enablers”:

eSignature: data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication with regard to this data.

eIdentity: dynamic collection of all attributes, in electronic format, related to a specific entity (citizen, enterprise, or object) which serve to ascertain a specific identity.

eAttestations (*Virtual Company Dossier*): set of certificates and attestations, in electronic format, to be provided by a supplier to prove compliance with the selection and exclusion criteria of a procurement procedure.

eCatalogues: electronic supplier catalogue prospectuses used to prepare and submit offers or parts of them.

eArchiving: use of electronic means for long-term preservations of documents in digitalised format, ensuring that they can be easily retrieved without conversions.

The object and subject of public procurement

The source of public procurement:

-Public spending from public resources and funds (budget)

The aim of public procurement:

- To ensure the provision of public services provided by public organizations by the development and operation of front end and back end operation of services and infrastructure.

The core process of public procurement:

- Contracting technique defined and regulated by the act on public procurement under the framework of civil law

The subject of public procurement:

- Public entity (contracting agency) being enabled to make decision on awarding contract on specified budget being advertised and processed inline with corresponding regulations.

The object of public procurement:

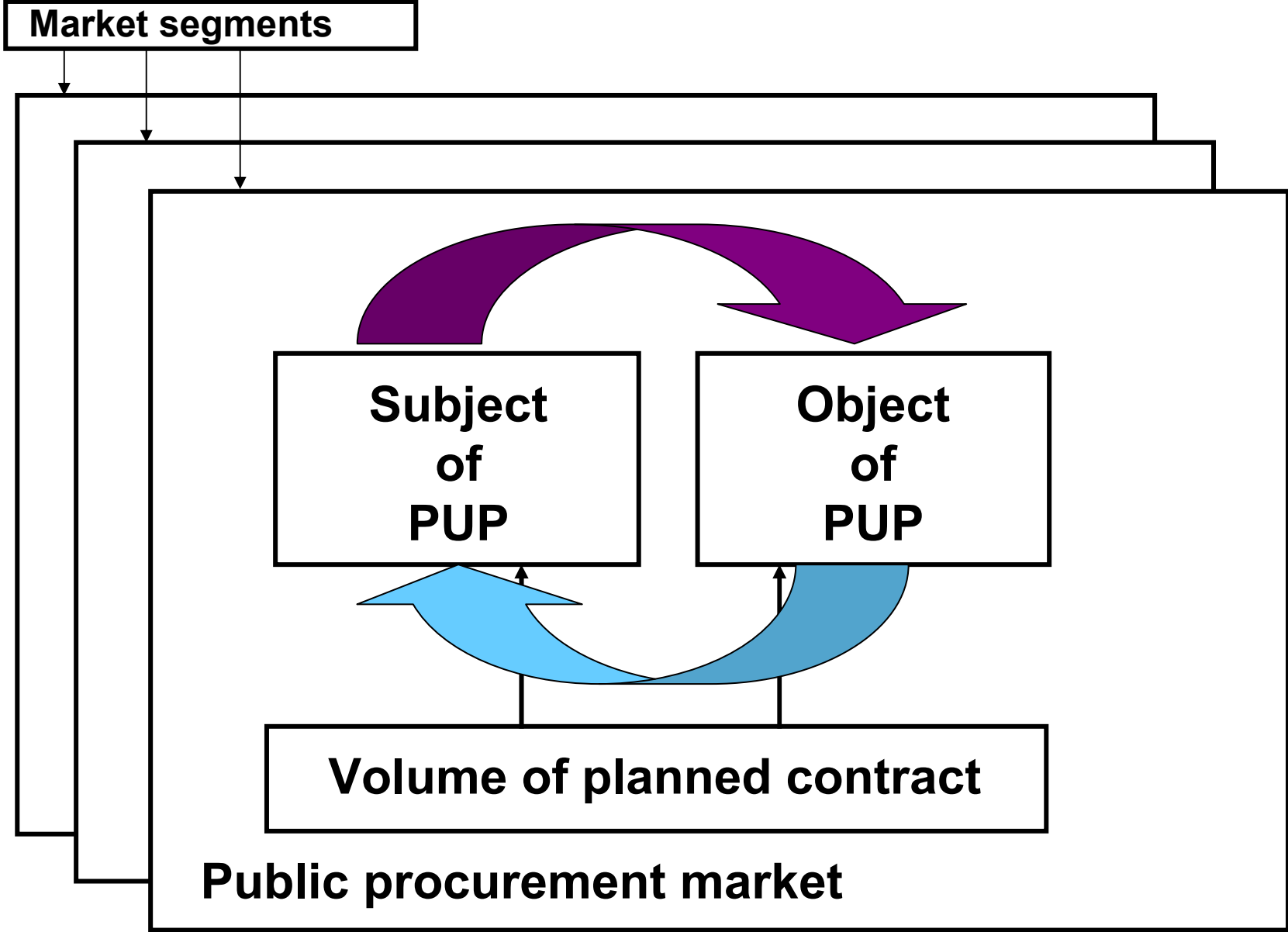
- The goods, products and services to be provided, delivered as defined in governing contract.

Regulations in the Countries of the European Union

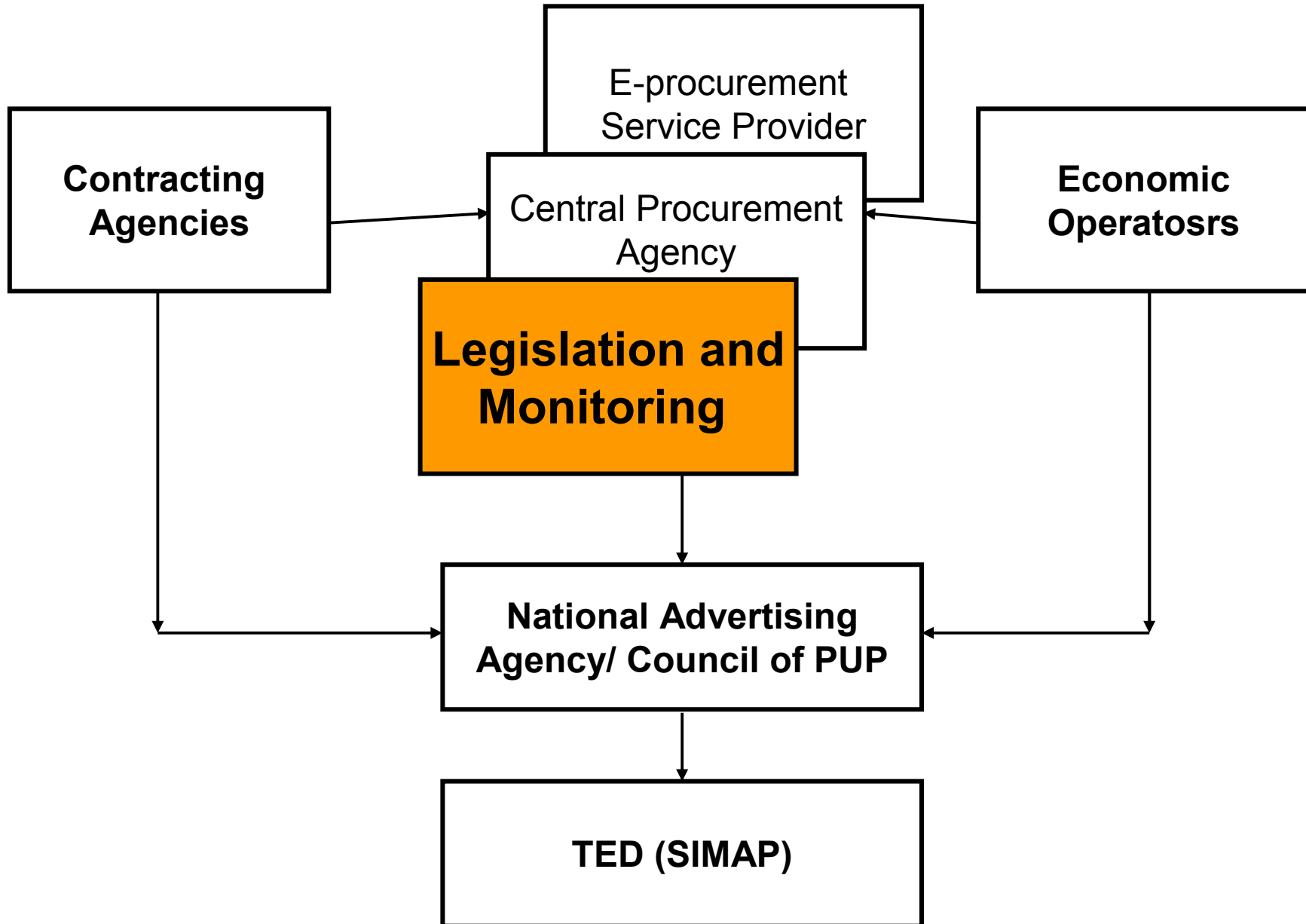
Should be harmonized with the directives on public procurement

The hierarchy of legislations:

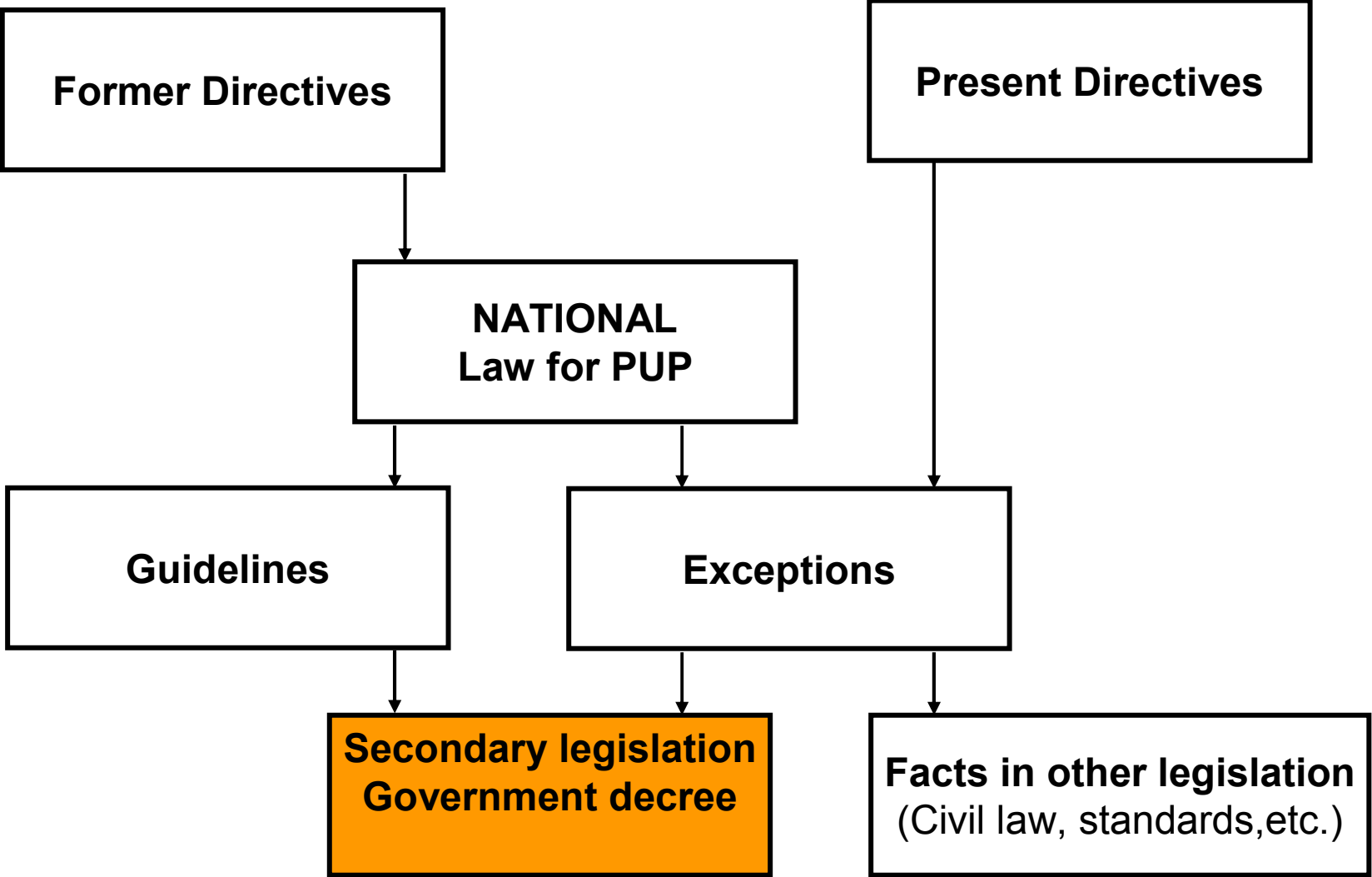
- Directives of the European Union
- Contracts in force between the European Union countries and organizations out of the region of the EU
- Standards of the EU
- National acts on public procurement
- National acts on other field
- Secondary legislations under national acts
- Other regulations (Ministerial Guidelines, etc.)



STAKEHOLDERS



The Hiererchy of Low



The acts on *public procurement* are defining the *business processes* from *publicly advertising* the intention of appointed contracting agency possessing the financial resources allocated *in referred public funds* to contract with the economic operator(s) turning out the *most suitable* and providing the *best evaluated offer* in matching the criterias stipulated in advertised call and referred documentation including the clear evaluation criterias providing *equal chance* for business operators to know the aims and details of the future contract in fully *neutral and transparent* way.

EU LEGAL FRAMEWORK

Procurement Directives

The Public Procurement Directive 2004/18/EC

The Utilities Directive 2004/17/EC

**Both entered into force in April 2004, final date for
transposition was 31 January 2006**

Other relevant legislation

Regulation 1564/2005/EC on standard forms

New Regulation on CPV in March 2008

Directive 2006/112/EC on VAT

Directive 2000/31/EC on electronic commerce

**Directive 1999/93/EC on a Community framework for electronic
signatures**

CEN/ISSS Workshop on business interoperability interfaces for public



National IT- and Telecom Agency, Denmark

Hungarian eProcurement Seminar, Marts 13'th

Background

- IDABC initiatives on eProcurement
- NES
- CODICE
- CIP i2010 roadmap pilot projects

Why

- To facilitate the internal market and to achieve the Lisbon Objective of making Europe the most knowledge competitive society by 2010, electronic working, based on the development of interoperable public electronic procurement and business (eProcurement and eBusiness) solutions are essential.

Objectives

- To identify and document the required business interoperability interfaces related to pan-European electronic transactions in public procurement expressed as a set of technical specifications developed taking due account of current and emerging UN/CEFACT standards in order to ensure global interoperability
- To co-ordinate and provide support to pilot projects implementing the technical specifications in order to remove technical

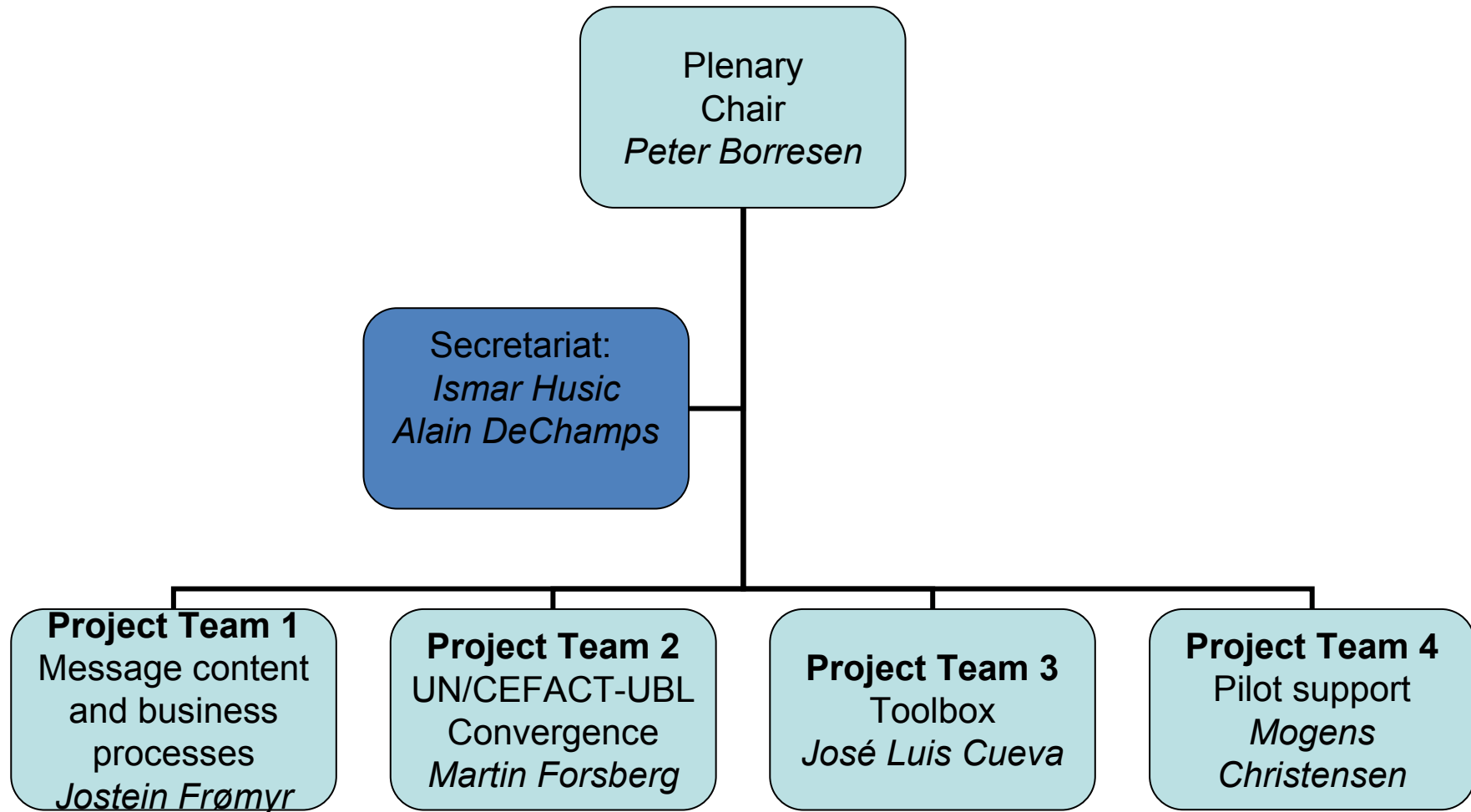
Vision

- To save administrative costs 12-20 minutes pr. invoice
- To lower the prices with a real common electronic market
- To raise the quality of the business transactions
- To agree on common interpretation of the EU directives
- To create non-system depended interoperability.

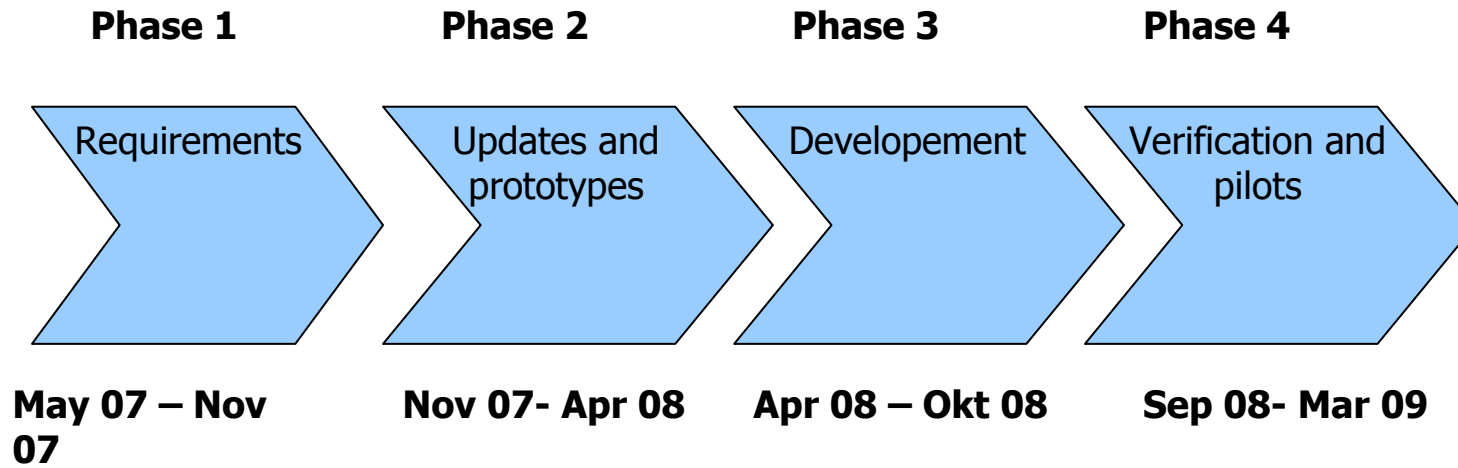
Activities

- Message content and business process
- UBL-UN/CEFACT convergence
- Toolbox
- Pilot support

Organization



Timeline



WG 1 - Message content and business processes

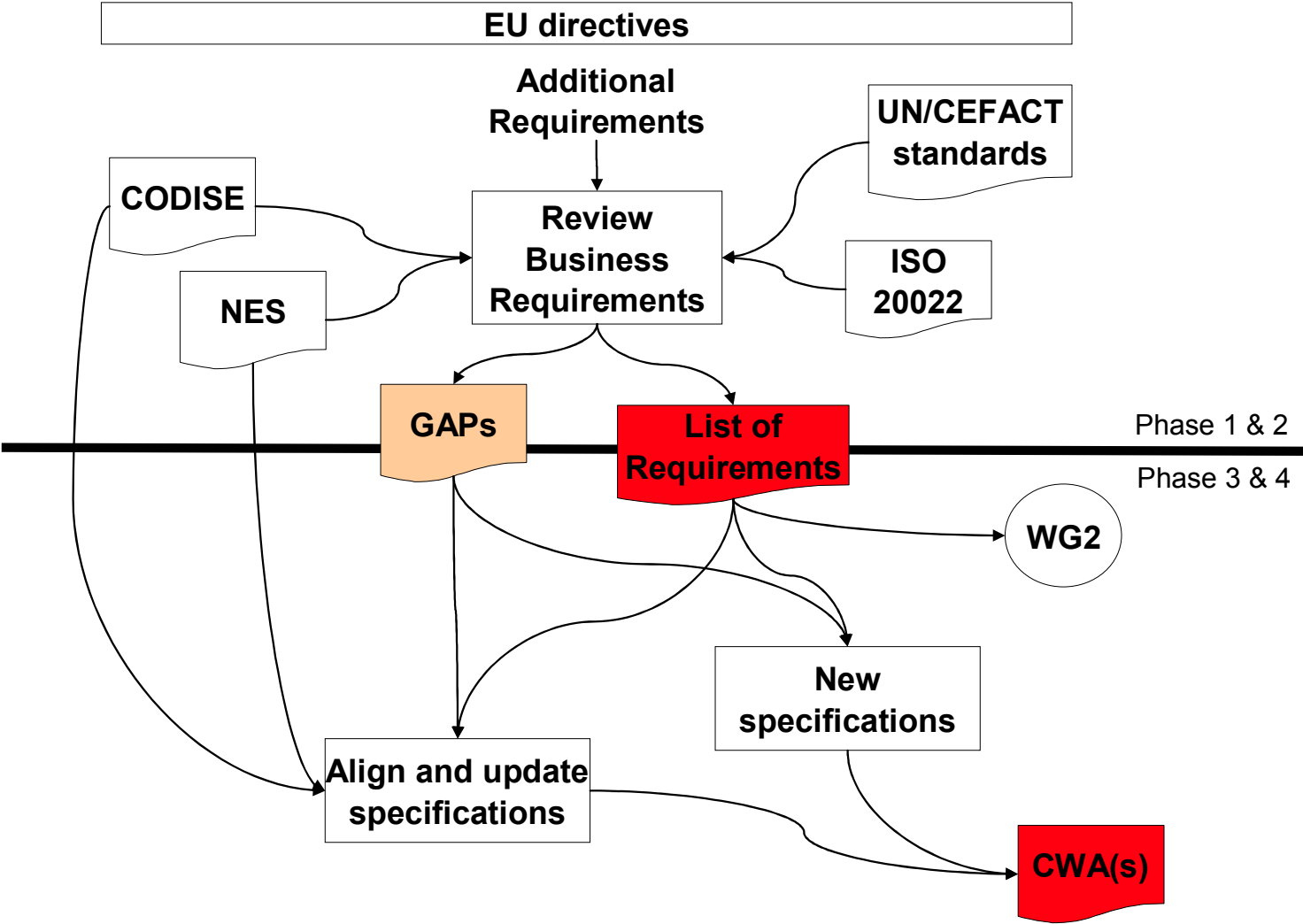
To provide specification of message content and business processes that facilitates business interoperability interfaces related to pan-European electronic transactions in public procurement.

From the outset the workshop recognizes the value of the work already done within NES and CODICE, and will use these as the starting point for its work. It is furthermore recognized that global interoperability is a key requirement and that the workshop has to

WG 1 - Activities

- Review the NES specifications and the CODICE documents/ components in regards of:
 - The Workshop participants' requirements as identified by the group (business requirements, legal requirements);
 - Business requirements referenced in ISO20022 payment standards;
 - Business requirements referenced in current and emerging UN/CEFACT standards
 - Provide a list of identified requirements, to be documented using the template for UN/CEFACT BRS, and a GAP analysis
 - Align and update the NES and CODICE specifications based on the identified requirements and GAPs
 - Develop new specifications of message content and business processes for requirements not currently covered by NES and/or CODICE

CEN ws/BII; WG1 Scope



WG 1 - Deliverables

- Registration (based on CODICE)
- Tendering by Open procedure (based on CODICE)
- Tendering by Restricted procedure (based on CODICE)
- Tendering by Negotiated procedure with publicity (based on CODICE)
- Tendering by Negotiated procedure without publicity (based on CODICE)
- Tendering by Dynamic Purchasing System (new)
- Auctions (new)
- Contract Notices to the official Journal (new)
- Request for Quotation (new)
- Catalogue only (based on NES)
- Catalogue with update (based on NES)
- Basic Order only (based on NES)
- Basic Invoice only (based on NES)
- Basic billing (based on NES)
- Basic billing with dispute (based on NES)
- Basic procurement (based on NES)
- Simple procurement (based on NES)
- Customs Invoice (new)
- Advanced Procurement (new)
- Scanned Invoice (new) TSPunch-out (new)
- Competitive dialogue (new)

WG 2 - Convergence

- Support UBL and TBG1 convergence
- Support TBG1 development
- Requirement gathering to UBL and UNCEFACT
- Gap analysis between TBG5 (Finance) requirements and UBL and TBG1 invoice.

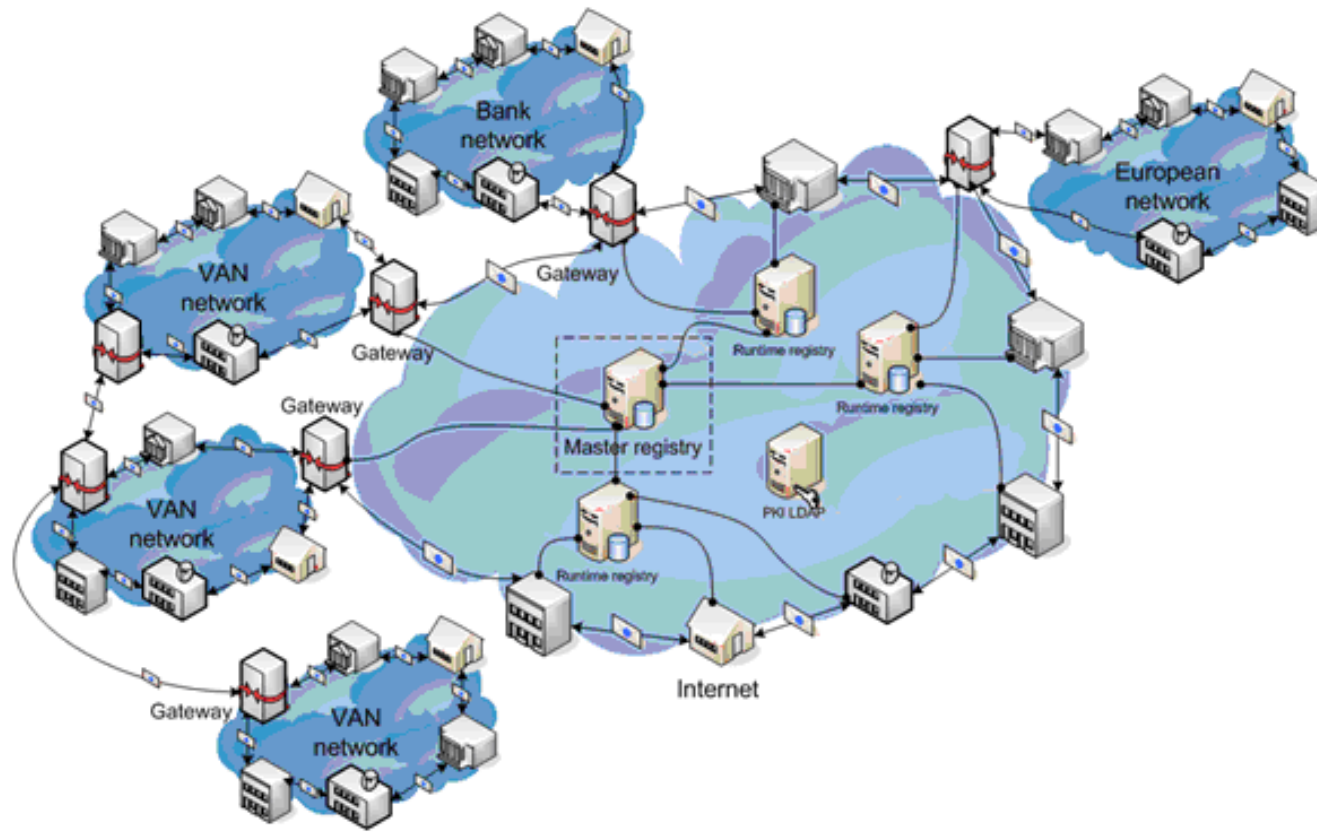
Toolbox

- Creation, validation and presentation of XML instances
- Support for the tendering process (e.g. Notification)
- Common European Service Oriented Infrastructure (Reliable messaging + PKI + Registry)

WG 3 - Objective

- responsible for **recommending, referring to and (if necessary) developing** tools and standards to ensure technical interoperability and ease the adoption of the technical specifications and standards that the workshop produce (developed in working group 1) in the information systems and tools used for eProcurement. With that aim, collections of tools must be identified and compiled in a toolbox. The focus will be to identify and prioritize the requirements for tools or standards for the different needs (validation, output, input, digital signature, storage and exchange of XML documents) and everything around the document content and business processes, although it is not intended to propose or recommend commercial solutions.

RASP UDDI Registry model



WG 4 - Pilot support

- Coordinate the cooperation between the CEN BII and Pilot projects e.g. interface with the PEPPOL consortium
- Setting up success criteria for pilots
- Standard project plans for pilot projects
- Making testplans for pilot

WG 4 - Activities

- Description of a multipart cross border pilot project that can be used as a CIP eProcurement Pilot project (phase 1).
- Documented common base test criteria and success measures (phase 2).
- Development of project templates used to execute and evaluate pilot projects (phase 3).
- Development of test instances and test plans that proves interoperability conformance according to the technical specifications (phase 3).
- Development of project report template (phase 2 & 3).
- Collation of individual pilot project reports including lessons learned and proposed recommendations to the technical group (phase 4).

CEN BII members so far

Governmental and regional representatives by the 3th of September 2007:							
 Denmark	Danske Regioner National IT & Telecom Agency Danish Standard	 Finland	State Treasury	 Hungary	CENTRAL SERVICES DIRECTORATE	 Norway	Norwegian eProcurement Secretariat
 Austria	Federal Ministry of Finance Bundesrechenzentrum GmbH	 Belgium	Cel e-Procurement POD Personeel en Organisatie	 Iceland	ICEPRO Ministry of Finance	 Romania	A.N.C.R.T.I.
 France	Ministère de l'Économie Des Finances Et De L'Industrie Direction Des Affaires Juridiques	 Spain	D.G. Patrimonio del Estado/ Ministerio de Economía y Hacienda	 Italy	CSI Piemonte	 Sweden	Swedish association of Local Authorities and Regions
						 United Kingdom	Supplier e-enablement & P2P Manager eProcurement Scotland Programme Office

13 Countries
9 Companies
(not all displayed)

Private Companies by the 3th of September 2007:	
	Unisys Belgium nv-sa
	IBM EDI & Business Integration
	WM-data a LogicaCMG company
	MACH ApS
	[Inno:vasion]
	JustSystems EMEA Limited

Funding

- in 2007 the expenses are 100% paid by the workshop members.
- in 2008 the expenses are 90% paid by the commission.
- The price for membership will be 2.000€
- A membership give access to three participants to the plenary and two per working group.
- The time and travel for the participants are paid by the members they represent.
- Extra funding may be needed, depending on the ambitions from the working groups

- 1'st public meeting
- CEN BII Workshop
 - Hilton (airport)
- Copenhagen, Denmark

- March 31'st, 2008

•Lecturers

- Director John Ketchel, CEN, Belgium
- Jørgen Abild Andersen, NITA, Denmark
- Dr. Karel De Vriendt, IDABC Head Of Unit, Belgium
- Jacob Holmblad, Danish Standards, Denmark
- Kim Østrup, IBM, Denmark
- Abdelkrim Boujraf, UNISYS, Belgium
- Ken Holman, Crane Softwrights, Canada
- Chris Mora-Jensen, Innovasion, Denmark
- Jostein Frømyr, Edisys, Norway
- José Luis Cueva Calabria, Ministry of Economic, Spain
- Martin Forsberg, Ecry, Sweden
- Ben Walshaw, Just Systems, UK
- Diddier Hardy, Publications office, Luxemburg

One procurement standard for Europe



www.cenbii.eu

Common platform for e-procurement

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Hungarian eProcurement Seminar

Marts 14, 2008

Agenda

- What is NES?
- Our use of UBL 2.0
- NES deliverables
 - Profiles
 - Profiled messages (Subsets)
 - Guidelines
 - Code and Identifier lists
- Implementations
- Where do we go from here?

International co-operation

- Co-operation between a group of countries and organisations

- **Denmark**

- *Danish Ministry of Science, Technology and Innovation (VTU),*
- *Danish IT and Telecom Agency (ITST)*

- **Sweden**

- *Single Face To Industry (SFTI), the public sector initiative in Sweden to promote e-business by the Swedish National Financial Management Authority (ESV), Swedish Association of Local Authorities and Regions (Sveriges Kommuner och Landsting), and Swedish Administrative Development Agency (Verva)*

- **Norway**

- *Norwegian Ministry of Government Administration and Reform eProcurement Secretariat (www.ehandel.no)*
- *NorStella / e2b Forum (an e-invoicing initiative in the private sector supported by the government - www.e2b.no).*

- **Finland**

- *State Treasury*
- *Tieke Finnish Information Society Development Centre*

- **England**

- *OGC buying solutions under Office of Government Commerce*

- **Iceland**

- *The Financial Management Authority (Fjársýsla Ríkisins).*
- *Iceland Committee on e-business and Trade Procedures" ICEPRO*



- To facilitating practical use of electronic collaboration based on available international standards
- Focusing on basic e-procurement functions

Common platform for e-procurement

- The purpose of NES is to
 - facilitate interoperability and practical use of e-procurement both in domestic and cross border trade
 - Even if the participants in the working group are mainly from the public sector, the group will try to include both business-to-business and business-to-government e-commerce/e-procurement in its work.
 - facilitate harmonisation of different types of e-procurement documents
 - This provides an opportunity to base e-procurement documents and processes on a coordinated Northern European subset.
 - contribute to the development and use of an

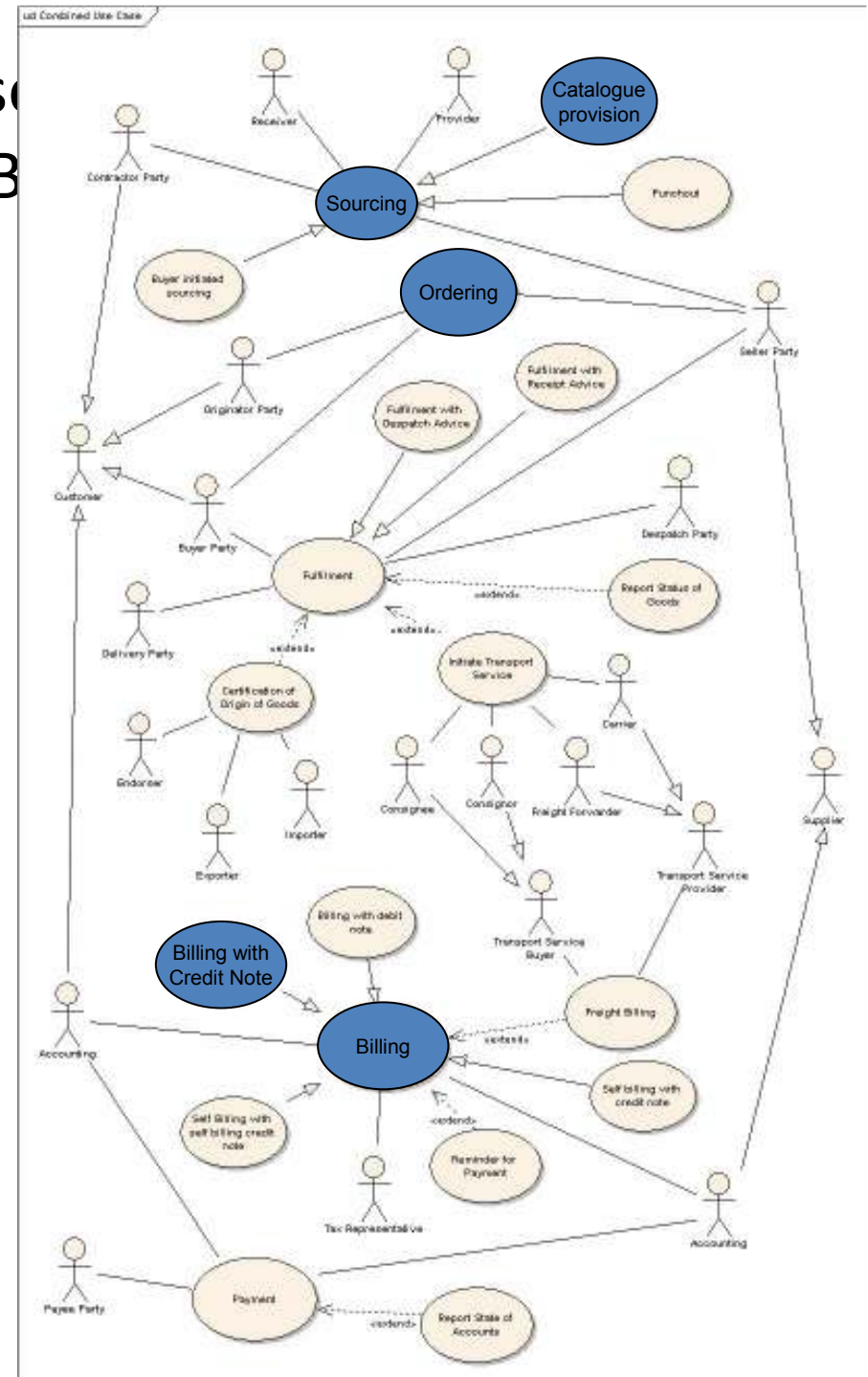
... based on international standards

- NES identified UBL as a free and open format, which at the time when NES was started presented the greatest potential for realizing large-scale e-commerce both in a domestic and a cross-border trade
- UBL is an open and freely available library of XML documents for e-commerce
 - Version 1 was released as an OASIS standard in May 2004
 - Version 2 was released as an OASIS standard in December 2006
 - 31 business documents covering an extended e-procurement process and transport
 - Based on ebXML Core Components - ISO 15000-5
- Furthermore NES recognises the importance of the standardisation work in progress within UN/CEFACT and are actively working for the adoption of the UBL-specifications in the UN/CEFACT framework

NES supports and is committed to the ongoing convergence between UBL and UN/CEFACT

Business processes supported by UBL

- UBL 2.0 extends the order-to-invoice processes of UBL 1.0 to cover a supply chain from sourcing to payment, including the commercial collaborations of international trade.
- NES provides support for the basic e-procurement functions



Use of UBL 2.0 Business Documents

- **Application Response**
- Attached Document
- Bill of Lading
- **Catalogue**
- Catalogue Deletion
- **Catalogue Item Specification Update**
- **Catalogue Pricing Update**
- Catalogue Request
- Certificate of Origin
- **Credit Note**
- Debit Note
- Despatch Advice
- Forwarding Instructions
- Freight Invoice
- **Invoice**
- **Order**
- Order Cancellation
- Order Change
- Order Response
- **Order Response Simple**
- Packing List
- Quotation
- Receipt Advice
- Reminder
- Remittance Advice
- Request For Quotation
- Self Billed Credit Note
- Self Billed Invoice
- Statement
- Transportation Status
- Waybill

e-procurement is more than just exchange of messages

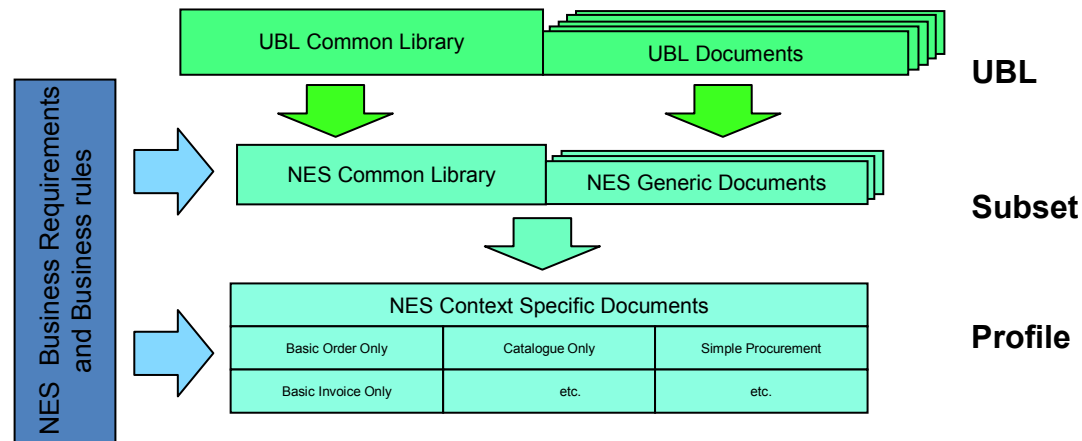
- **Business processes and scenarios** based on a common application of UBL applicable for both domestic and cross border trade
- **Business rules and recommendations** for the use of the UBL XML documents
- **A common subset** of the UBL XML documents reflecting the needs expressed in the business rules
- **Formal rules for validation** of the business rules expressed as Schematron
- **General guidelines and code lists** for the use of UBL

Business Process
& scenarios
Business Rules
Business Content

Syntax implementation
based on UBL 2.0

Guidelines
&
Code lists

NES deliverables



- Profile Definition Normative
- Profiled Message Definition Normative
- Guidelines Normative
- Code lists Normative
- Validation tools
 - Restricted XML schema Informative
 - Schematron Informative

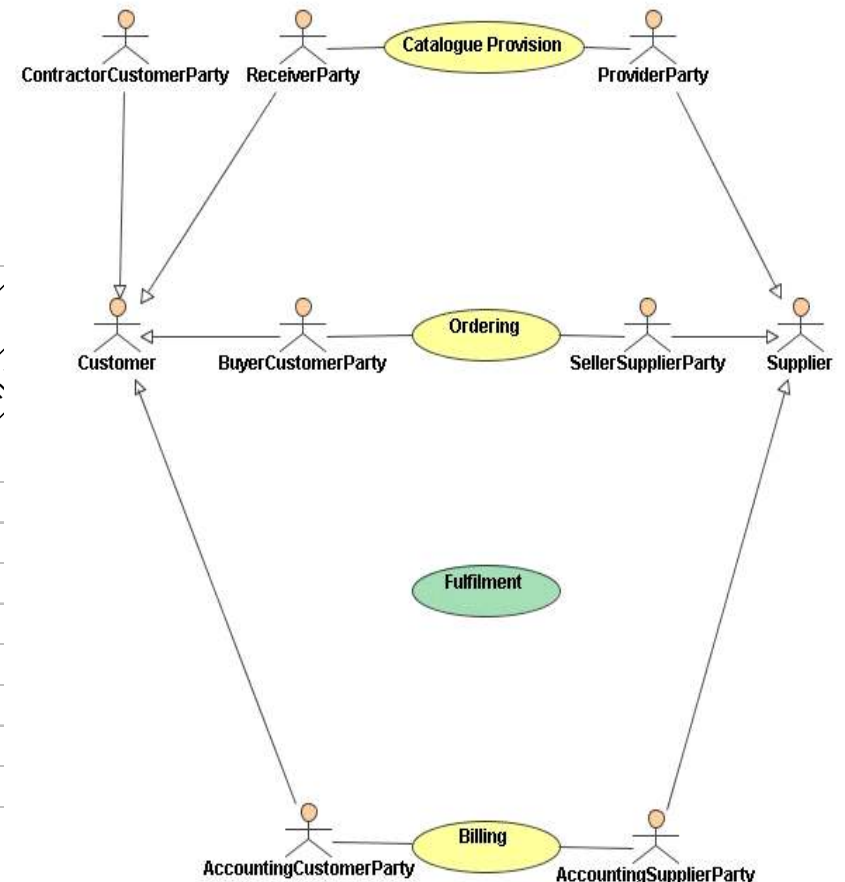
NES profiles

- A description of one or more related **business processes** supported by the exchange of a defined set of electronic **business documents** in order to fulfil a defined **business purpose** under a defined set of **business rules**.
 - Two profiles may contain the same messages, but with different content and/or business rules
 - The receiver of a “NES message” need to identify the relevant Profile before applying validation and processing of the message content.
- The NES profiles are
 - designed to support cross country and domestic trade
 - based on legal/fiscal requirements and agreed best practices
- Each NES profile should be recognised as an independent implementation

Profiles in NES phase 1

- Supporting basic e-procurement functions
- Deliverables were published for public review at the end of December 2006
- First release in March 2007
- **NES2 released in July 2007**

NES Profile	Catalogue	Catalogue Item Update	Catalogue Price Update	Order	Order Response	Invoice	Credit Note	Application
Catalogue Only	X							X
Catalogue with updates	X	X	X					X
Basic Order Only				X				
Basic Invoice Only						X		
Basic Billing						X	X	
Basic Billing with dispute						X	X	X
Basic Procurement				X	X	X	X	
Simple Procurement				X	X	X	X	X

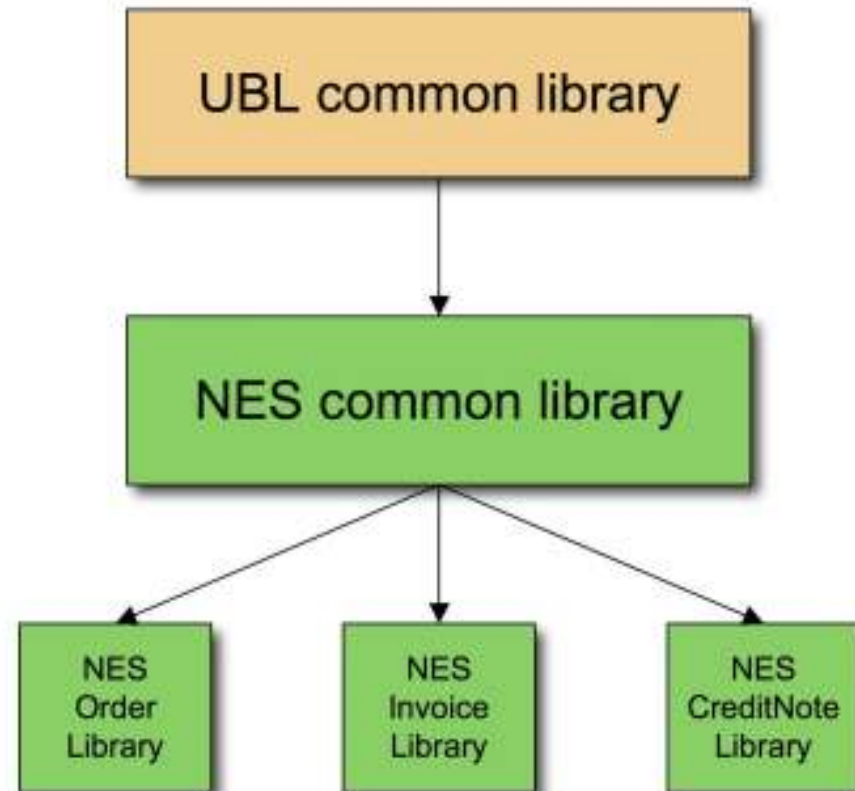


Why these profiles?

- They are simple and straight-forward
- They address key issues related to procurement control, especially in decentralised organisations
- Procurement systems are used more and more
 - *To show framework contracts, and to guide buyers to buy from them*
 - *To register requisitions, and to obtain advance attestation*
 - *Register delivery*
 - *And to automatically reconcile invoices*
- That is
 - *Buying against catalogue is common*
- But also invoices outside such control have to be dealt with, e.g. in a workflow type of system
- We try to have a migration path ready for those who wish to move more transactions into procurement systems

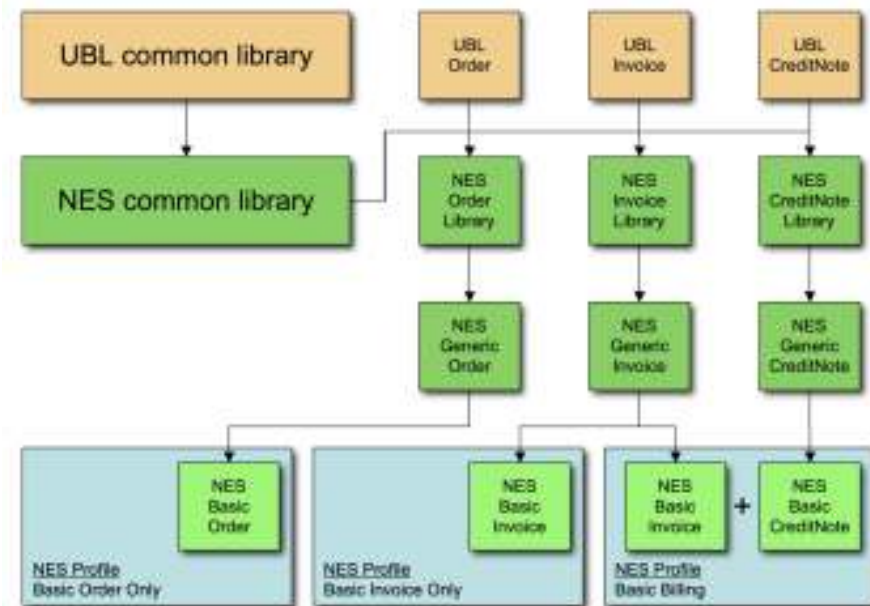
The library approach

- In UBL, all common aggregated components (ABIEs) such as Address, Delivery, Party, Payment Means etc. are stored in a library called the Common Library. The Common Library comprises approximately 113 reusable components.
- The UBL library-approach requires NES to create several levels of customized libraries, refined from the parent level library.
- This one-way restriction enforces consistency and robustness of the Information Model Architecture.



Internal structure of the models

- NES restrictions, as mandated by the profiles, are collected on several levels:
 1. the UBL libraries and documents where nothing is restricted
 2. the NES Common Library that includes everything that can be used in all the NES documents
 3. the NES document specific libraries and generic documents comprising only BIEs relevant for specific documents.
- The final level is the one at which Profiles are defined.
 - Using the generic documents as base, further restrictions are applied to define process specific (Profile) documents – Profiled messages.

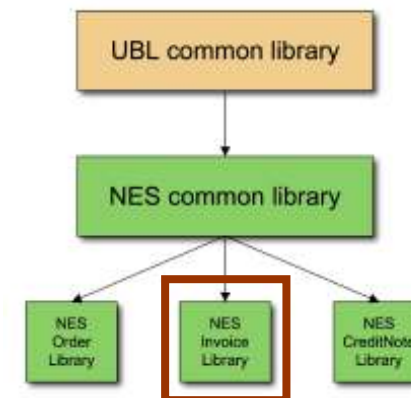
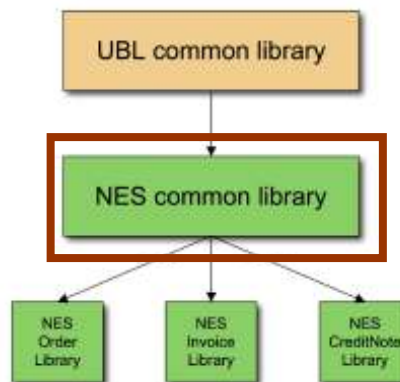
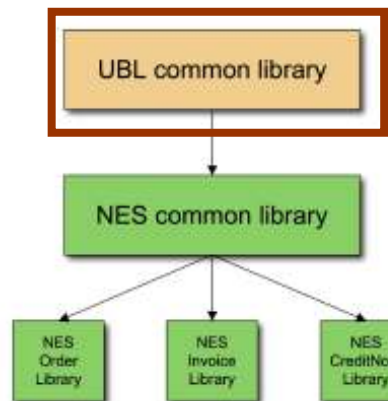


Consistent content based on levels of restriction

- [-] C Delivery, Details
 - [+] ● A Delivery, Identifier
 - [+] ● A Delivery, Quantity
 - [+] ● A Delivery, Minimum_Quantity, Quantity
 - [+] ● A Delivery, Maximum_Quantity, Quantity
 - [+] ● A Delivery, Actual_Delivery Date, Date
 - [+] ● A Delivery, Actual_Delivery Time, Time
 - [+] ● A Delivery, Latest_Delivery Date, Date
 - [+] ● A Delivery, Latest_Delivery Time, Time
 - [+] ● A Delivery, Tracking Identifier, Identifier
 - [+] ● C Delivery, Delivery_Address, Address
 - [+] ● C Delivery, Delivery_Location, Location
 - [+] ● C Delivery, Requested Delivery_Period, Period
 - [+] ● C Delivery, Promised Delivery_Period, Period
 - [+] ● C Delivery, Estimated Delivery_Period, Period
 - [+] ● C Delivery, Delivery_Party, Party
 - [+] ● C Delivery, Despatch

- [-] C Delivery, Details
 - [+] ● A Delivery, Identifier
 - [+] ● A Delivery, Quantity
 - [+] ● X Delivery, Minimum_Quantity, Quantity
 - [+] ● X Delivery, Maximum_Quantity, Quantity
 - [+] ● A Delivery, Actual_Delivery Date, Date
 - [+] ● A Delivery, Actual_Delivery Time, Time
 - [+] ● A Delivery, Latest_Delivery Date, Date
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 - [+] ● X Delivery, Delivery_Address, Address
 - [+] ● C Delivery, Delivery_Location, Location
 - [+] ● C Delivery, Requested Delivery_Period, Pe
 - [+] ● C Delivery, Promised Delivery_Period, Peric
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 - [+] ● A Delivery, Actual_Delivery Time, Time
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 - [+] ● C Delivery, Promised Delivery_Period, Period
 - [+] ● C Delivery, Estimated Delivery_Period, Period
 - [+] ● C Delivery, Delivery_Party, Party
 - [+] ● X Delivery, Despatch



Guidelines

- The *NES Guidelines* are a normative part of NES that provides guidelines and explanation on how to
 - *use and interpret certain aspects of UBL*
 - *represent key procurement aspects in UBL*
- Application Response
- Data Format
- Signature
- UUID
- Allowance Charge
- Delivery
- Delivery Terms
- Exchange Rate and Currency
- Party
- Payment Means
- Payment Terms
- Tax

Code lists

- The NES published specification of *Code Lists and Identification Schemes* is considered a normative part of NES

- Account Type Code
- Action Code
- Address Format Code
- Allowance Charge Reason Code
- Catalogue Document Type Code
- Country Identification Code
- Country Subentity Code
- Currency Code
- Delivery Terms ID
- Dimension Attribute ID
- Discrepancy Response Code
- Document Type Code
- Financial Institution ID
- Financial Account ID
- Invoice Type Code
- Item Classification Code
- Life Cycle Status Code
- Line Response Code
- Line Status Code
- Location ID
- Party ID
- Payment Channel Code
- Payment Means Code
- Price Type Code
- Profile ID
- Response Code
- Response Document Type Code
- Substitution Status Code
- Tax Category ID
- Tax Exemption Reason Code
- Tax Scheme ID
- Tax Type Code
- Unit of Measure
- Commodity Code
- Endpoint ID
- Party ID

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- Unit of Measure

- Commodity Code
- Endpoint ID

Validation tools

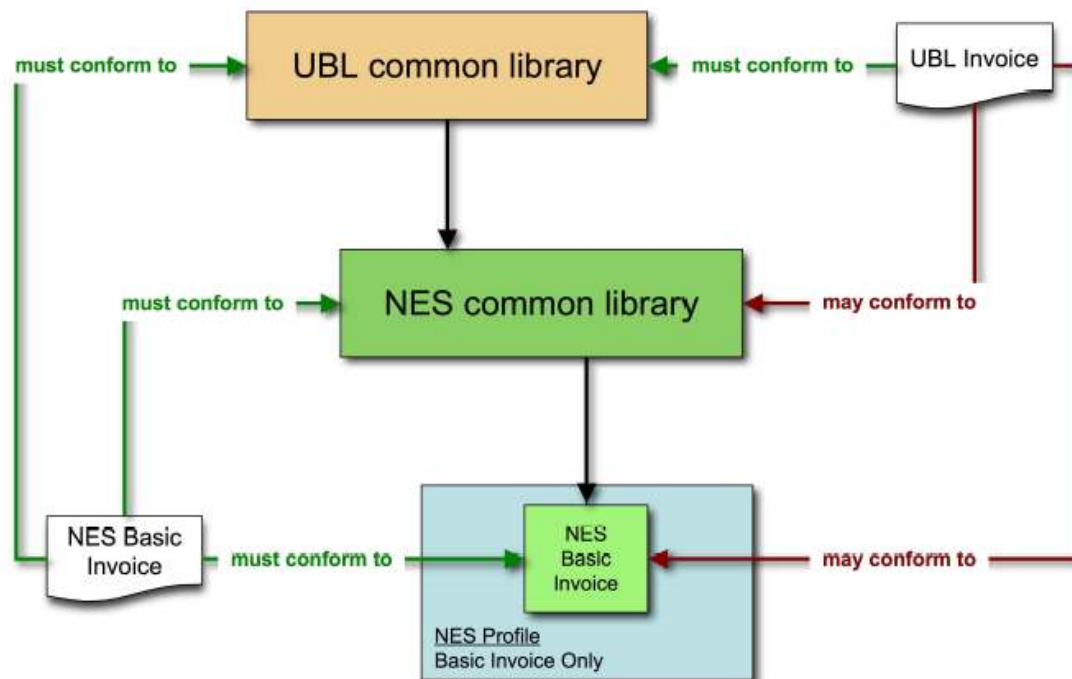
- A set of XML schemas and Schematron files provided for information in order to allow for validation of NES compliant messages.
- Restricted schemas
 - XML Schemas reflecting the requirements of the relevant profile
 - A separate set of schemas are available for each profile
 - Allow for syntactical validation of each profiles message
- Schematron
 - A formal implementation of the business rules defined in the profiles
 - A separate set of files are available for each profile
 - Allow for validation against business rules

The “must understand” principle

- Conformance to NES is measured against each profiles
- Any party claiming conformance to a NES profile is expected to:
 - Support all of the functions and business rules described for that profile
 - Be able to send and receive all of the messages defined by the profile
 - Be able to understand all of the elements, mandatory or optional, in the Profiled Message

Conformance

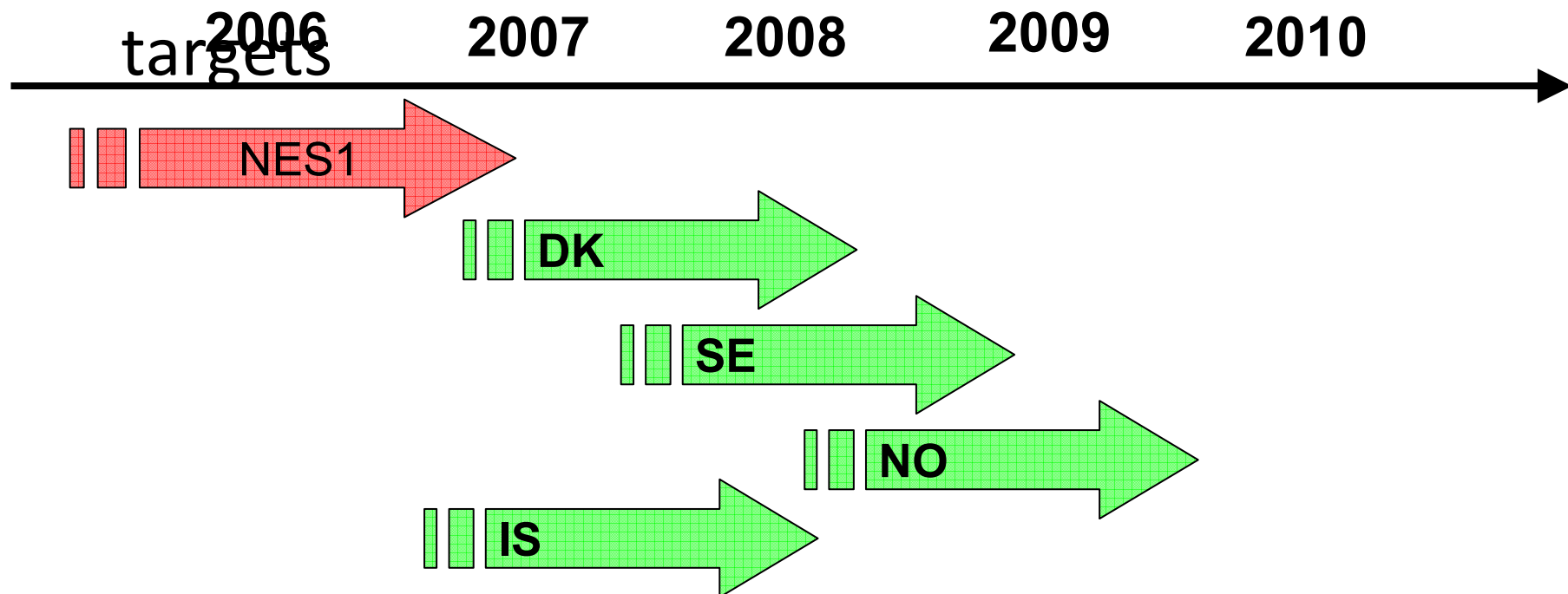
- A UBL conformant instance *might* be conformant to NES, but a NES conformant instance is *always* conformant to UBL.
- By keeping the UBL namespaces, all NES instances are always conformant to UBL software and validators.



Implementation

- Implementation is done within the respective countries

- Each country has their own priorities and



Implementation (3)

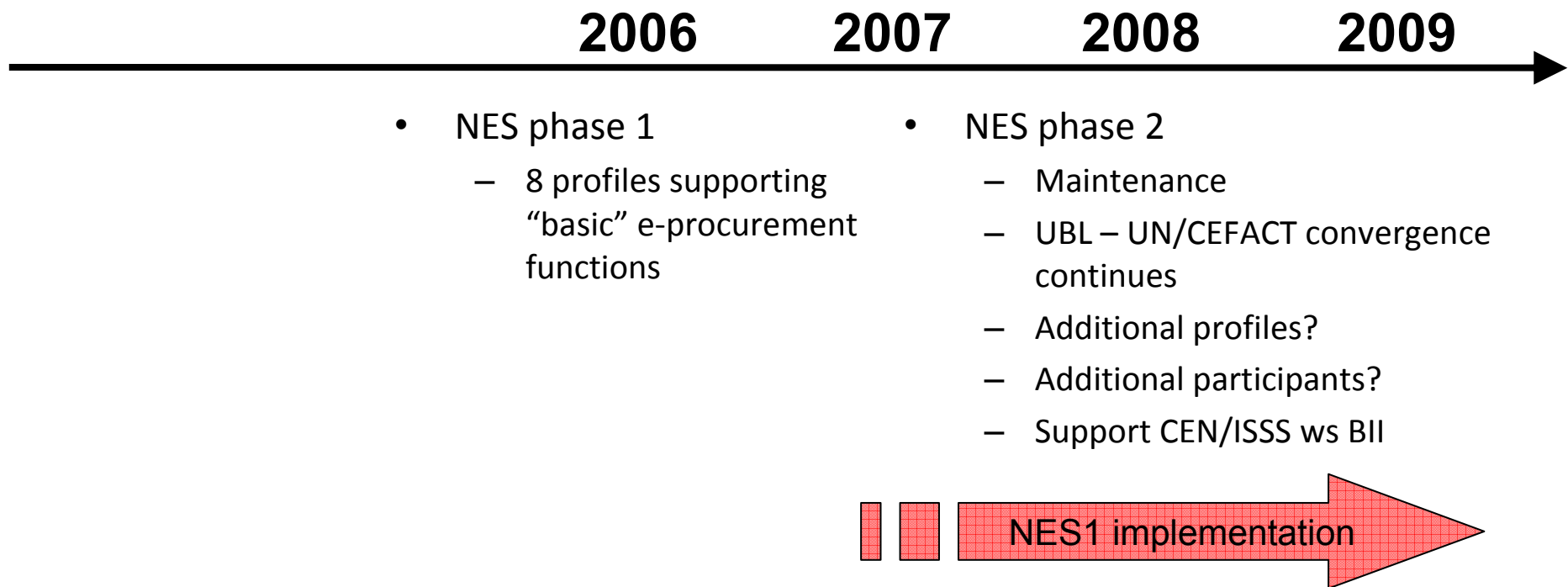
- Denmark
 - Will continue to support OIOXML for invoicing
 - Started implementing OIOUBL during the fall of 2007
 - NB! OIOUBL is aligned with NES
- Sweden
 - Are recommending the use of NES for communication with the public sector
- Iceland
 - Are in the process of implementing NES with selected government agencies

Implementation (4)

- Finland
 - No final commitment on the use of NES for eProcurement at national level
 - The new service agreement on eInvoicing starts on December 1, 2007
 - Will make use of the Finvoice during the first period
 - Contract has provisions for switching to an European eInvoice standard (i.e. NES).
- Norway
 - No final commitment on the use of NES for eProcurement at national level
 - Initiatives under way to establish “Norsk Refransekatalog”
 - Likely to include NES as a recognized (or recommended) standard
 - Initiative under way amongst 3 ministries to evaluate how to introduce eInvoicing in public sector
 - Likely that NES will be established as preferred format
- England
 - No specific plans for implementation of NES at this point in time

Where do we go from here?

- The cooperation continues to support implementation and continued development.



The added value

- A community
 - Strong public sector commitment in Nordic countries
 - OIOXML → OIOUBL
 - UBL
- A harmonized specification covering the full procurement process
- Prepared for cross border trade
- Reduced need for bilateral agreements
 - But give possibility to agree on extensions if

More information

For documents and other information
see <http://www.nesubl.eu/>

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Commons License

The “NES Invoice”

Klaus Vilstrup Pedersen, Information Architect
Jostein Frømyr, Project Coordinator

Hungarian eProcurement Seminar

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Agenda

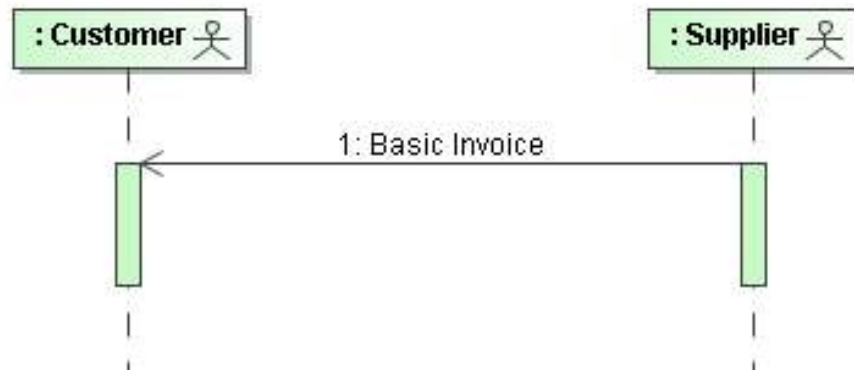
- The role of the Invoice in NES
- Profiles containing the Invoice
 - Profile 4; Basic Invoice Only
 - Profile 5; Basic Billing
 - Profile 8; Basic Billing with Dispute
 - Profile 6; Basic Procurement
 - Profile 7; Simple Procurement
- Information content in a "NES Invoice"

There is no “NES Invoice”

- NES does not have one single specification on an Invoice message
- The Invoice is part of several of the NES profiles

NES Profile	Catalogue	Catalogue Item Update	Catalogue Price Update	Order	Order Response Simple	Invoice	Credit Note	Application Respons
Catalogue Only	X						X	
Catalogue with updates	X	X	X				X	
Basic Order Only				X				
Basic Invoice Only						X		
Basic Billing						X	X	
Basic Billing with dispute						X	X	X
Basic Procurement				X	X	X	X	
Simple Procurement				X	X	X	X	X

Profile 4; Basic Invoice Only



- It is intended for situations where invoicing is electronic, but where matching of the Invoice to other electronic documents may not be practicable.
- The Invoice is a self-contained document with respect to commercial and fiscal requirements.
- It is not a primary objective of this profile to facilitate automatic order matching and/or cost allocation; the profile assumes limited or no procurement data content and limited or no aligned and synchronized identifiers in the system to match the transaction.
- This profile may cover Invoice factoring arrangements.
- This profile can be used with no or little integration to ERP systems.

Profile 4; Basic Invoice Only (2)

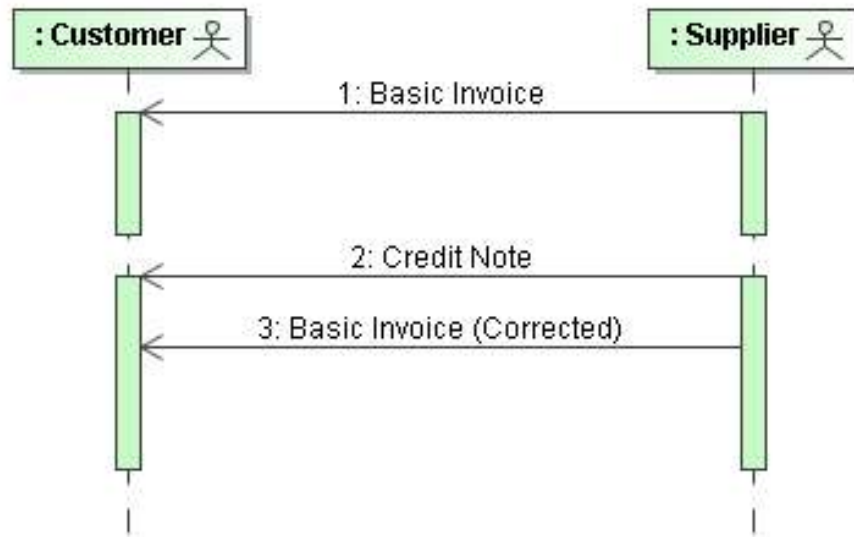
Business Rules at document level:

1. An Invoice represents a claim for payment for specific goods and services or for the provision of goods and services over a defined period of time
2. Reference to a contract or framework agreement may only be made at document level
3. Payment Means and Terms stated at document level must apply to all Invoice Lines
4. Accounting details stated at document level must apply to all Invoice Lines
5. Tax information stated at document level must apply to all Invoice Lines
6. Periodic Invoices including returns may result in a negative total
7. Stated pre-payments must apply to the Invoice as a whole
8. Acceptance and rejection apply to the entire Invoice

Business Rules at line level:

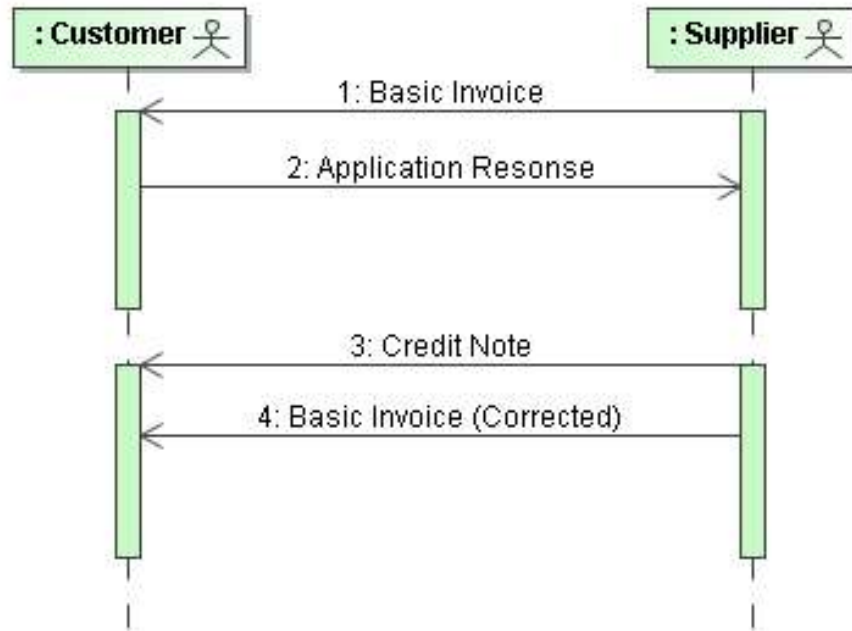
1. An Invoice Line may contain an identified Item or an Item with a free text description
2. Line level tax coding is mandatory in some countries

Profile 5; Basic Billing



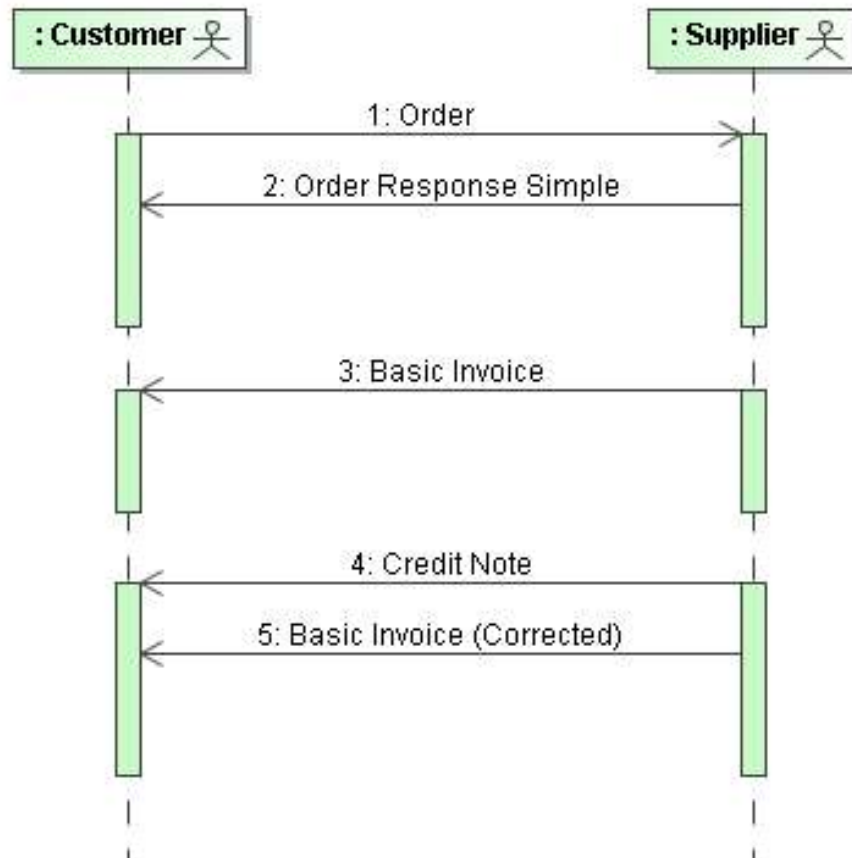
- Adds a Credit Note to Profile 4.
 - Billing anomalies are resolved by the issuing of a Credit Note and/or a subsequent Invoice.
- Business Rules at document level:
 - Same as for Profile 4 +
 1. A Credit Note must refer to an original Invoice
- Business Rules at line level:
 - Same as for Profile 4

Profile 8; Basic Billing with Dispute



- Adds an Application Response to Profile 5.
 - Application Response is a business level response used to notify a disputed Invoice or Credit Note
- Business Rules at document level:
 - Same as for Profile 5
- Business Rules at line level:
 - Same as for Profile 5

Profile 6; Basic Procurement



- This profile describes a process comprising an electronic (purchase) Order, an electronic Order Response Simple, an electronic Invoice and, potentially, an electronic Credit Note. Billing anomalies are resolved by the issuing of a Credit Note and/or a subsequent Invoice.
- The Order may refer to a framework agreement for its terms and conditions; otherwise the Customer's terms and conditions apply.
- The Order may contain Items (goods or services) with Item identifiers and Items with free text description. Acceptance or rejection of the Order in full is communicated by the Supplier to the Customer in an Order Response Simple.
- Following purchase and delivery, the Supplier sends the Customer an Invoice that makes reference to the original Order.
- Invoice errors may be resolved by way of a Credit Note and/or a supplementary Invoice.
- This profile may cover Invoice factoring arrangements.

Profile 6; Basic Procurement (2)

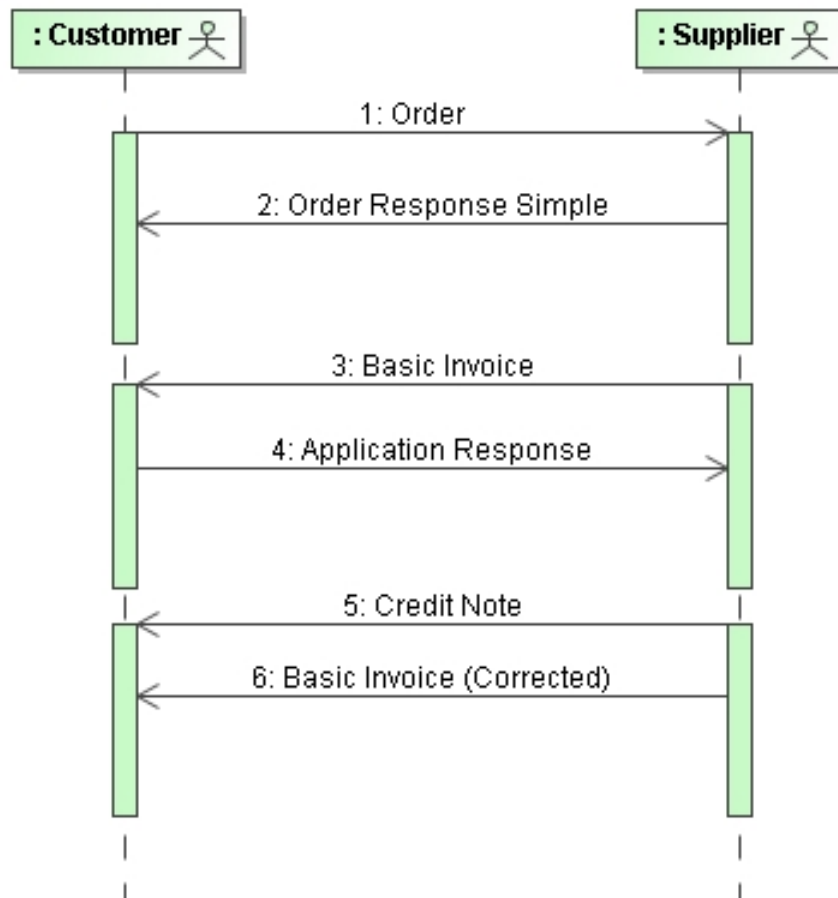
Business Rules at document level:

1. Reference to a contract or framework agreement may only be made at document level
2. Delivery details stated at document level must apply to all Order Lines
3. Payment Means and Terms stated at document level must apply to all Order Lines
4. Accounting details stated at document level must apply to all Order Lines
5. Order Response Simple is a response, positive or negative, to the entire content of the Order, including all terms and conditions
6. An Invoice must make reference to an Order
7. A Credit Note must make reference to one or more Invoices
8. Invoice Payment Means and Terms stated at document level must apply to all Invoice or Credit Note Lines
9. Tax information stated at document level must apply to all Invoice or Credit Note Lines
10. Stated pre-payments must apply to the Invoice as a whole
11. Invoice acceptance applies to the entire Invoice

Business Rules at line level:

1. An Order Line may contain an identified Item or an Item with a free text description
2. Quantities must be positive and amounts must not be negative
3. Invoice and Credit Note Line level tax coding is mandatory in some countries

Profile 7; Simple Procurement

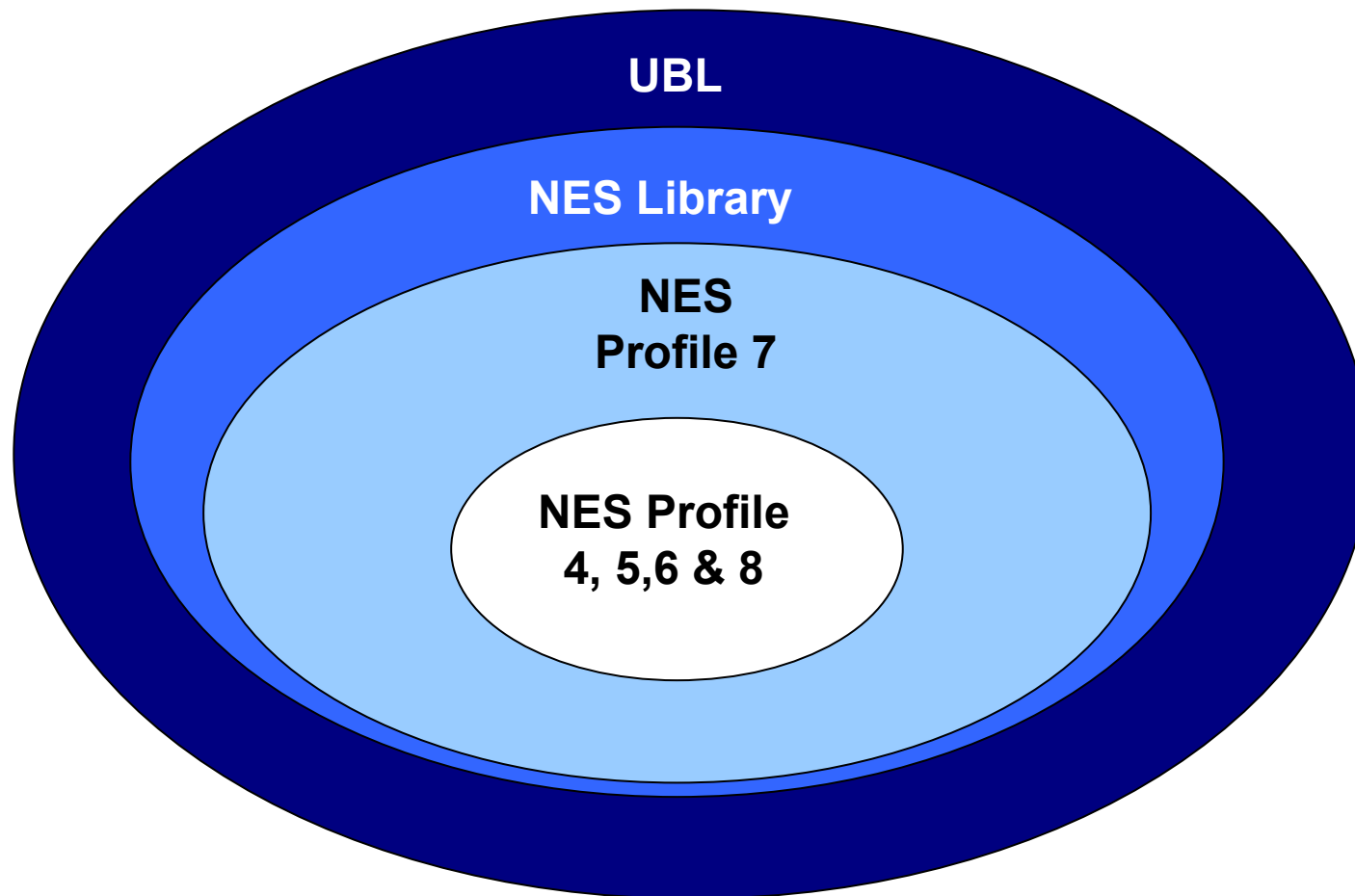


- Adds an Application Response to Profile 6.
 - Application Response is a business level response used to notify a disputed Invoice or Credit Note
- Business Rules at document level:
 - Same as for Profile 6
- Business Rules at line level:
 - Same as for Profile 6

Which profile to use?

Use case	Manual Invoice dispute	Invoice dispute by Application Response
<ul style="list-style-type: none"> ● Invoicing is the only concern ● No or little integration to ERP systems to facilitate automatic order matching and/or cost allocation ● Limited or no procurement data content and limited or no aligned and synchronized identifiers in the system to match the transaction 	Profile 4 or 5	Profile 8
<ul style="list-style-type: none"> ● Invoicing is a part of the procurement process ● Automatic order matching and/or cost allocation by reference ● An Invoice must make reference to an Order 	Profile 6	Profile 7

The content of a “NES Invoice”



More information

For documents and other information
see <http://www.nesubl.eu/>

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Other major initiatives of the EU to create cross border, EU wide PUP market

Standardization activities of CEN/ISSS to develop a consensus on a European common approach to standardization for eProcurement

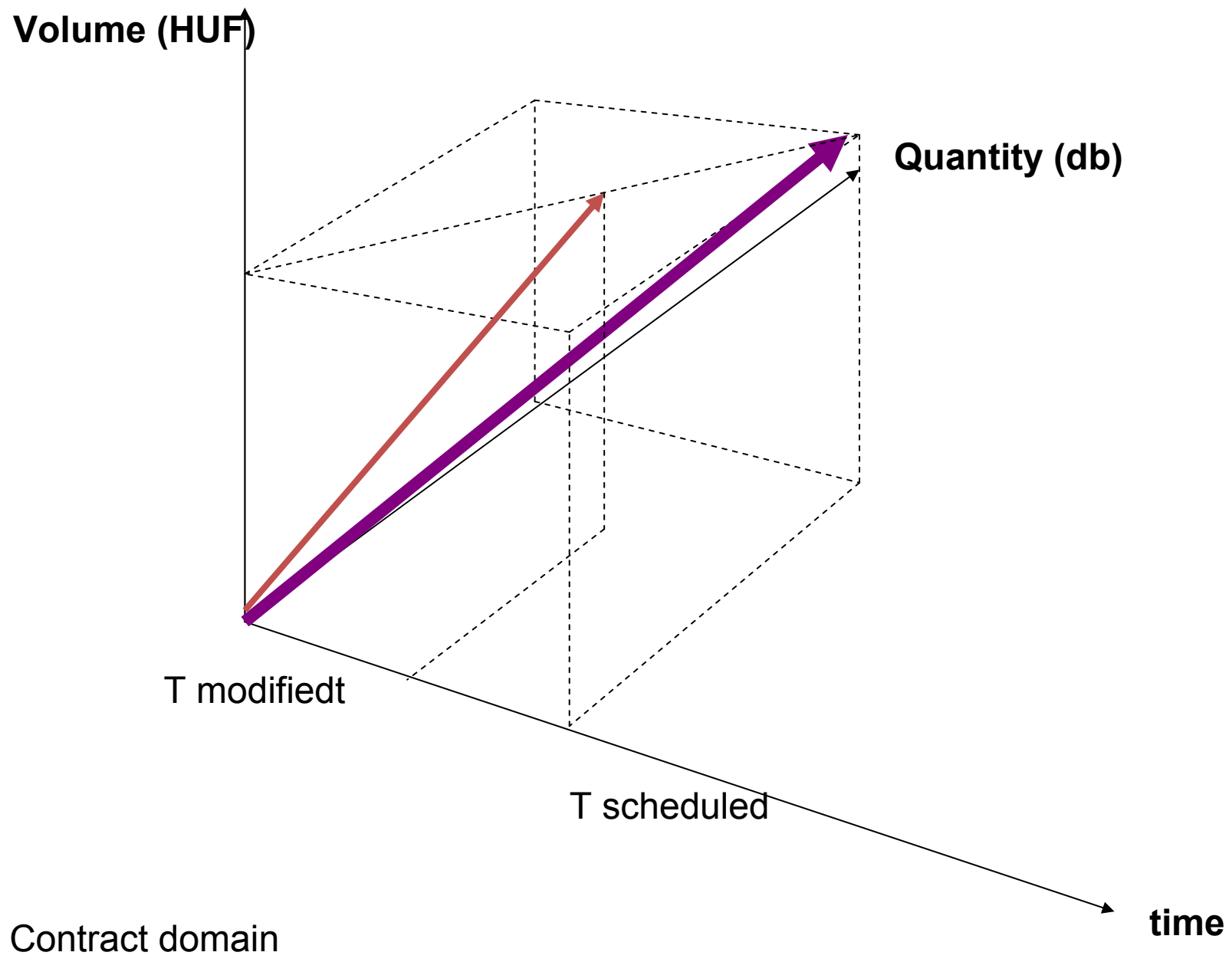
Revised common standard based on NES/UBL in 2008
<http://www.nesubl.eu>

Expert group on e-invoicing Started January 2008 to improve e-invoicing interoperability to create of European e-invoicing framework
http://ec.europa.eu/enterprise/ict/policy/standards/einvoicing_en.htm

More at: www.epractice.eu

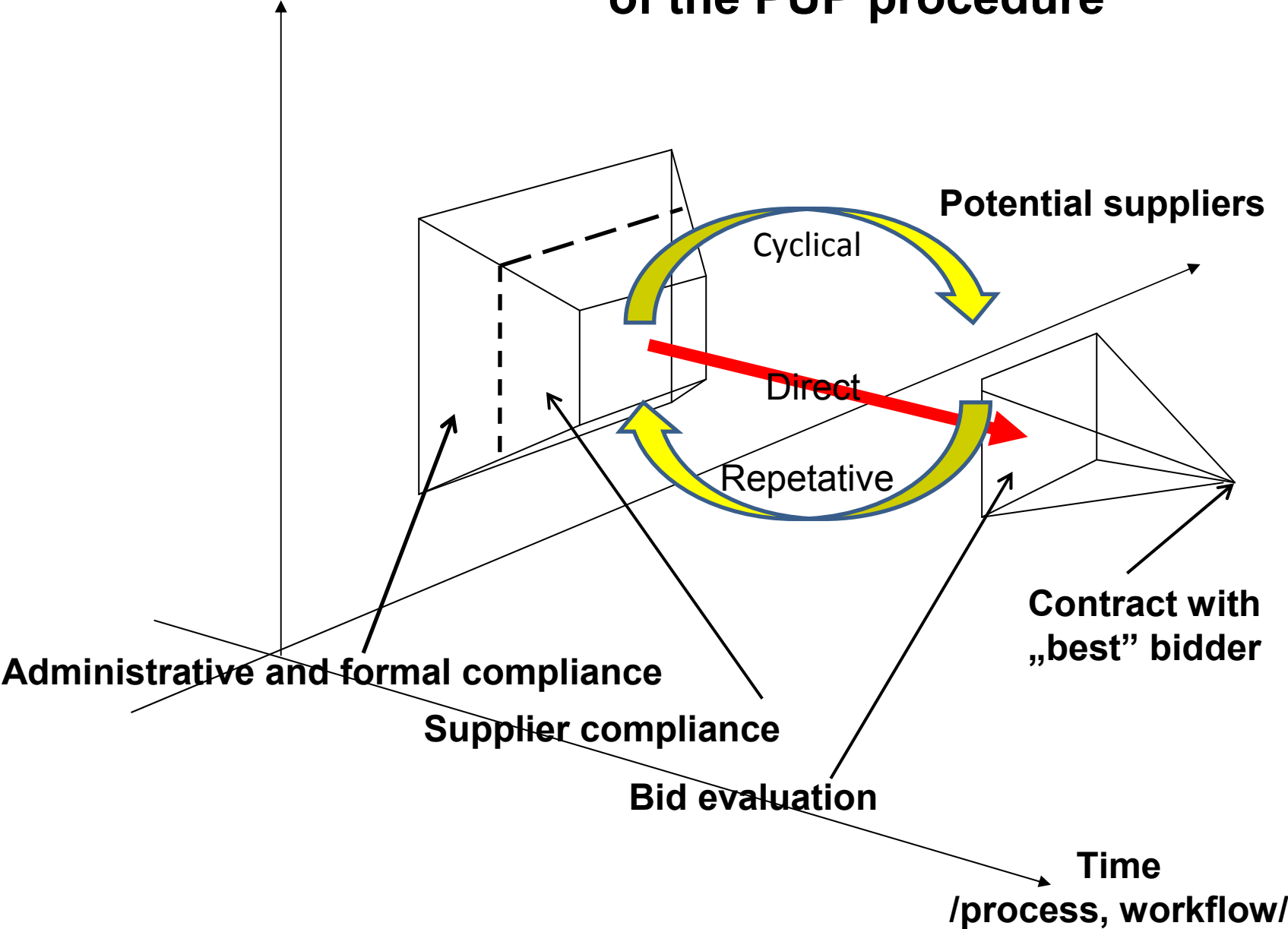
The alternative business processes as type of public procurement procedure

- **Applied contracting technique**
 - **Open**
 - **Restricted**
 - **Negotiative**
- **Aimed contract type**
 - **Delivery contract**
 - **Framework Contract**
 - **Framework Agreement**
 - **Dynamic Procurement System**



General BP layout of the PUP procedure

Potential products



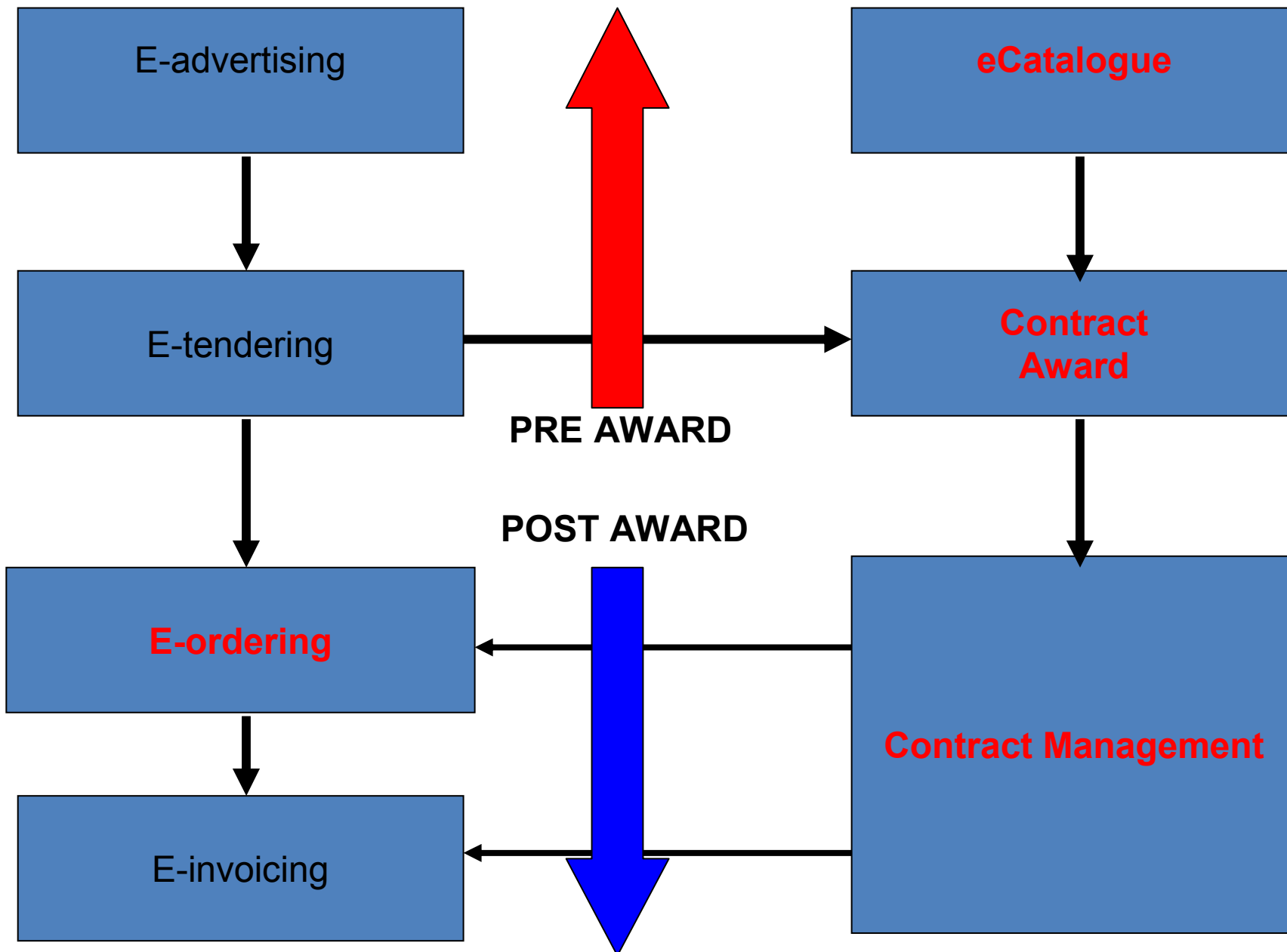
PUP procedure might vary the way following aspects are being handled

- Formal control of issued documents
- Checking the conformity of bidder (economic operator)
 - As of fulfilling all the obligatory against government administrations
 - As of financial performance, capabilities and resources
 - As of technical background, platform and resources
 - As of HR resources
 -all together the risk remain uncovered by selecting the identical bidder as to be the prosperous one
- Checking the conformity of offer
 - Formal conformity
 - Technical conformity
 - Financial conformity
 - Logistical conformity
 - Commercial conformity
 - As of manageable risk level conformity

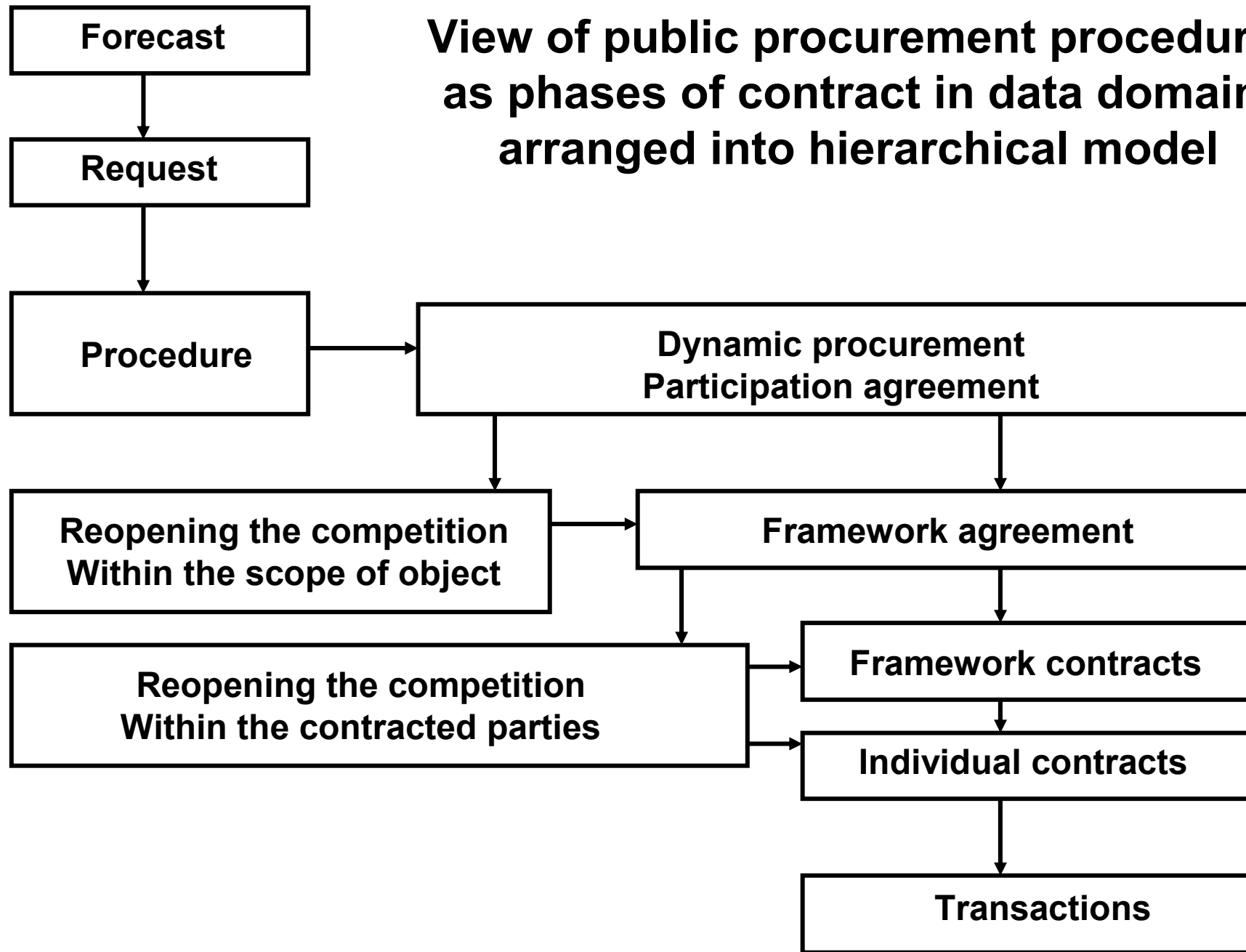
Electronic public procurement

Basic scenario

- I. The basic output of a public procurement procedure is a contract**
- II. The contract award procedure divides the process of functions into 2 main sections:**
 - a.) Pre Award**
 - b.) Post Award**



View of public procurement procedures as phases of contract in data domains arranged into hierarchical model



The critical phase

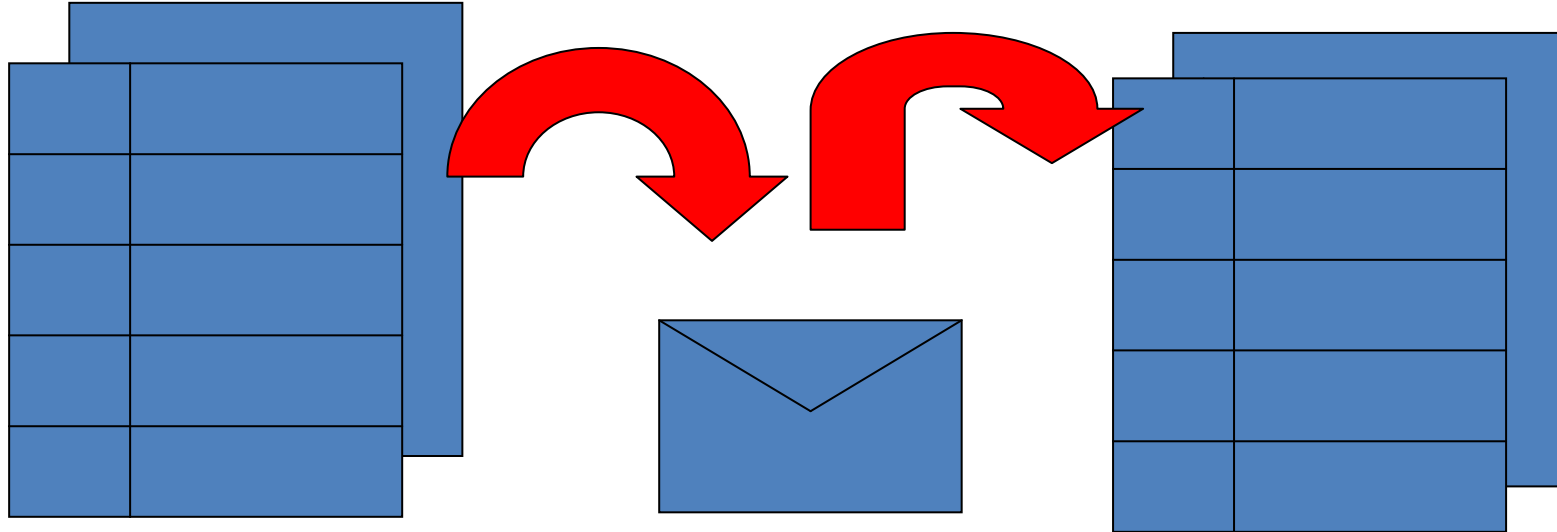
The public procurement – concerning the information (and/or data) content is basically public.

But,...

... from the point the bidder hands over the bid till the time it is being opened the contracting agency is in charge for the integrity and security of the bid as an electronic document and all data included.

Call for tenders
Form/data/text

Bid
Form/data/text



Offer

Time-stamp

Time-stamp

Opening

Integrity/e-signature

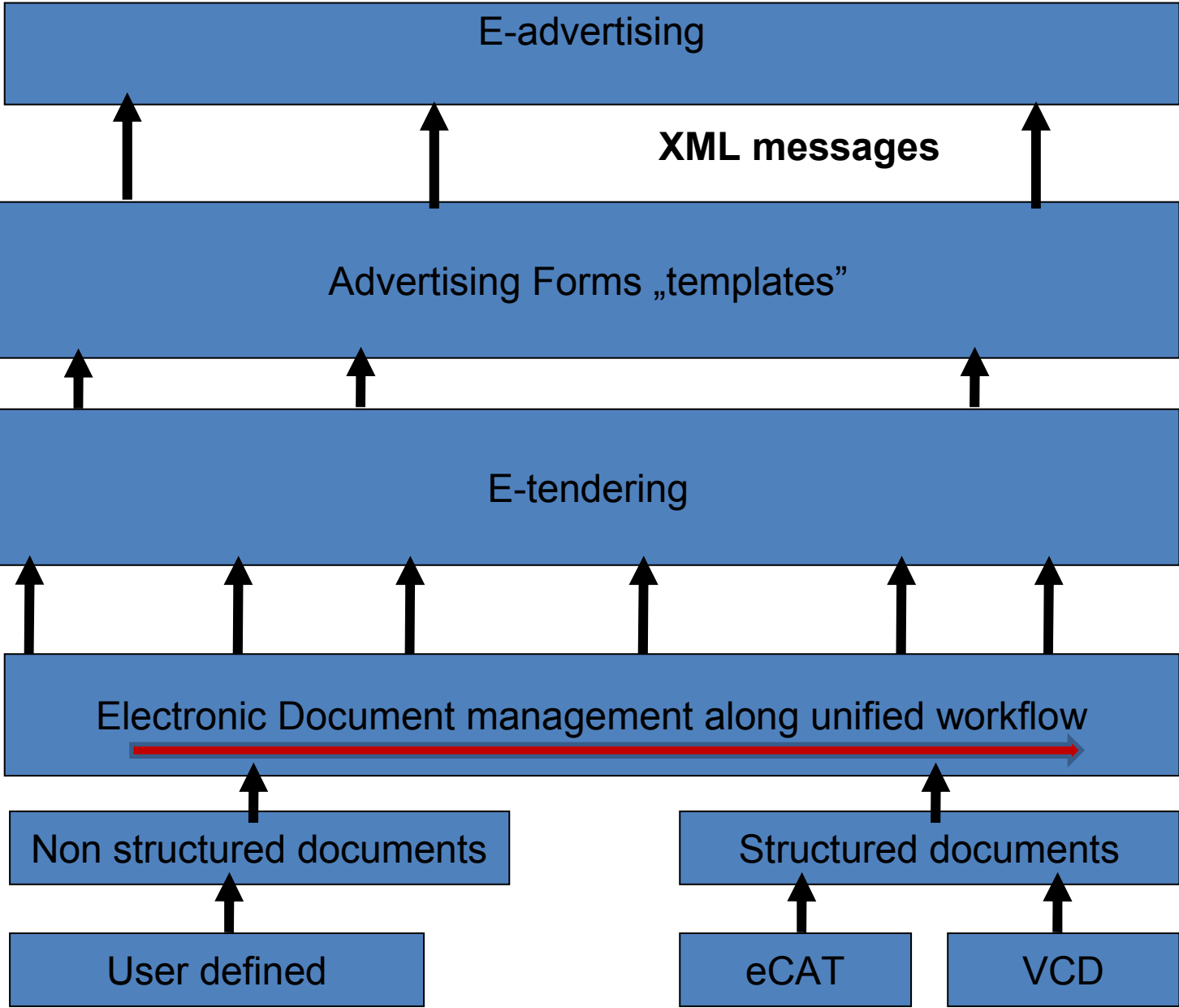
Integrity/e-signature

Content

Public layer

**The administration and bürocracy of
procurement**

E-Procurement Layers



Should not forget...

There should be a real market need to drive the supply chain and force the manufacturer to produce and all others to supply, as these facts are usually hidden by tremendous lots of administrative load in public procurement procedures

Supply Chain Management

Supplier of manufacturer

Manufacturer

Distributors

Dealer

Integrator/Value added reseller/Service provider

TRANSPARENCY

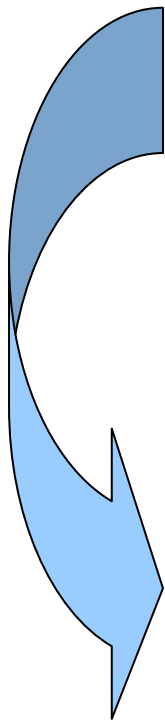
Contracting agency

Budgetary entity

Functional operator

End user

Service level



Below the administrative layer

There are:

- Real requirement**
- Real procurement**
- Real commerce**
- Real logistics**
- Real supply, governed by**
 - Real contract**
 - Real order**
 - Real invoice**
 - Real money**

Advertisement standard messages

Document management

Business process and workflow management

**Service interfaces to
ERP systems**

Internal workflow

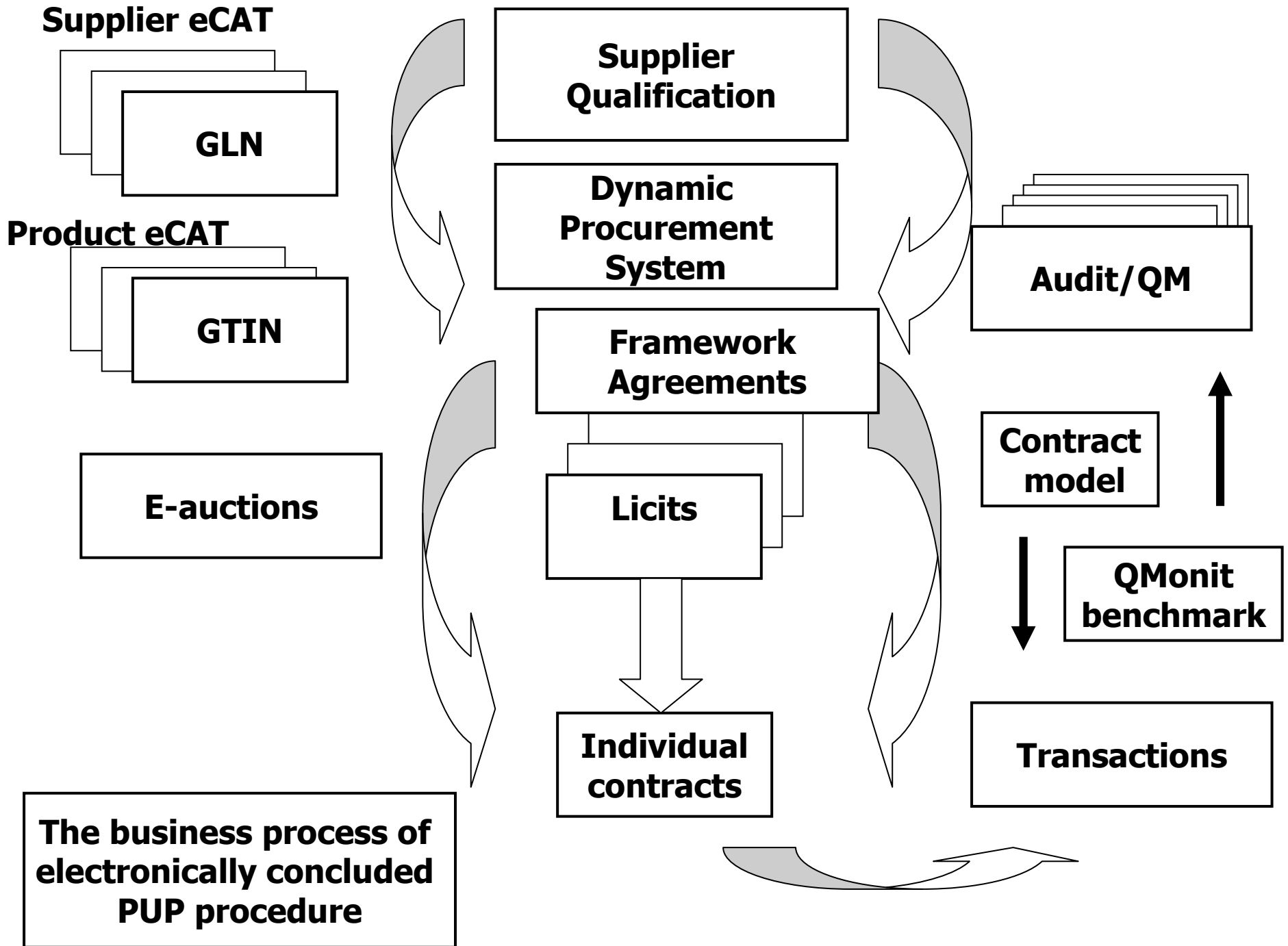
Standard service interface

eProcurement standard messages

Standard eCommerce messages

The entire PUP process and workflow

**Including phases, and statuses that of
the DPS**



BELOW

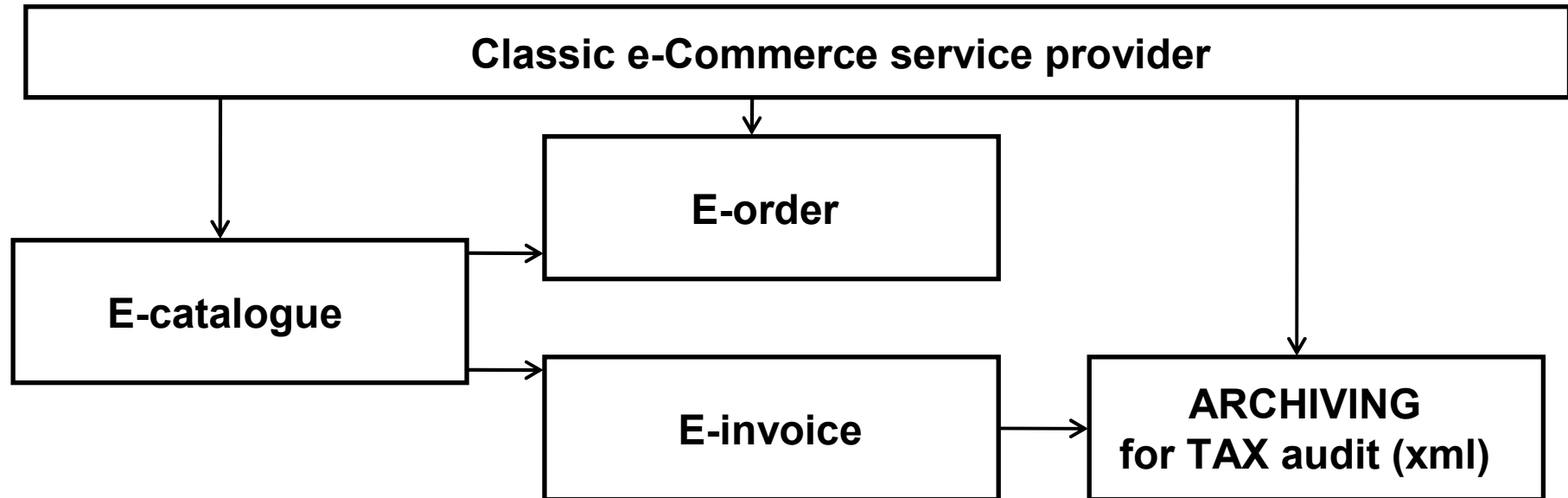
and

above

Functions required

**PUP administration, workflow
and PUP specific service portfolio**

Classic e-Commerce service provider



Internal ERP service portfolio

Financial subsystem

Credited, confirmed RQ

Delivery and service

Supply

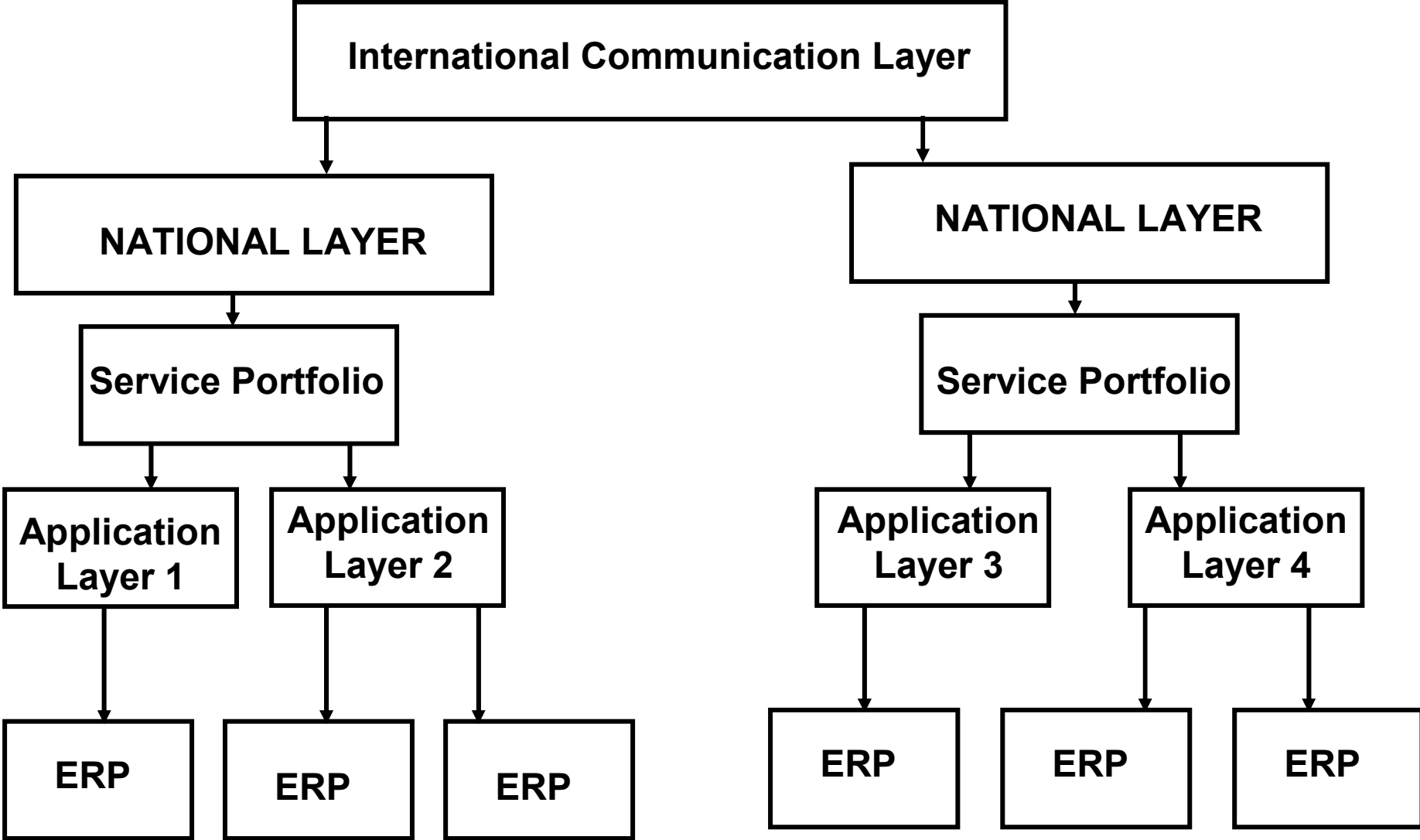
Inventory management

Internal service provider

Total complexity

In cross border relation

CROSSBOARDER „e”



In line with the corresponding directives of the EU the national acts on PUP are *further regulating* the business process of PUP procedures, as per the object ,

-Goods

-Services

-Works

as per the value of the planned contract compared to the stated threshold of the EU for the particular segment,

-Above the EU threshold level (EU regime)

-Below the EU threshold level (National regime)

-Below the PUP threshold level

And as per the subject of PUP be it a classical one (government; central or local), health service provider, educational institute, concession right owner, state owned enterprise, nonprofit organization, winner of specific public found, etc.

Rules for business processes stipulated in legislation are further segmenting the public procurement market along the dimensions of **subject, object, and value** thus seriously pre-defining the possible result of any contract, organization and action of market players.

Legislation and useful links

EU: Policy on Public Procurement

europa.eu/pol/singl/index_en.htm

europa.eu/publicprocurement/index_en.htm

NUTS: Nomenclature of territorial units for statistics / Statistical Regions of Europe

ec.europa.eu/eurostat/ramon/nuts/basicnuts_regions_en.html

Single European market: Public procurement

ec.europa.eu/internal_market/publicprocurement/index_en.htm

IDABC: Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens.

ec.europa.eu/idabc/eprocurement

PPN: European Public Procurement Network is a co-operation network of public procurement expert officials, dedicated to European companies, also has links to the national public procurement portals.

www.publicprocurementnetwork.org

Electronic advertisement

**The publishment of Public
Procurement Procedures above the
EU threshold level at**

TED

**Tender Electronic Daily
In unified classification (CPV)
In unified forms**

Public procurement, or 16.3% of the Community GDP, is an important sector of the European economy. The harmonisation of procedures for concluding contracts is a major achievement of the [Internal market](#).

European legislation has encouraged competition between firms by means of transparent selection procedures. It also makes provision for redress procedures against awarding authorities who do not fulfil their obligations.

European directives are being reviewed with a view to simplifying the existing legal framework and encouraging the use of electronic procedures. The summary sheets give more extensive information on [European legislation on public procurement](#).

At international level, public procurement is exempt from the basic rules of the World Trade Organisation. In addition to the Community, 12 countries have signed the [WTO agreement on government procurement \(GPA\)](#)

TED - Tenders Electronic Daily

European legislation requires that tenders for public contracts where the amounts exceed a certain threshold, which varies according to the type of contract, be published in the Official Journal S series, which can be consulted free of charge in the TED database.

SIMAP - Information system for public contracts (E-procurement)

SIMAP aims to promote the use of the new information technologies in the field of public procurement. It provides a general framework for regulations, legislation; international, European and national links; online forms for the contract notices to be published in the supplement to the Official Journal; common vocabulary; an online electronic notification service; a discussion forum; research in TED and other sites.

Publications Office

The Publications Office pages give more practical advice on how to publish and search for a tender

Standard forms for the publication of procurement notices

Description (short summary):

The European Commission has moved to make it easier to advertise large public contracts on the Internet. It has adopted new standard forms for such notices mainly for use online. This is part of a wider EU strategy on computerizing public procurement procedures in the EU.

The procurement Directives require that contracts above certain thresholds must be advertised EU-wide in the Supplement to the Official Journal of the European Union providing all relevant information for a given call for tender.

The greatest advantage of the new forms comes however with online use. If submitted electronically, notices can be published on TED, the EU Tenders Electronic Daily within five days of being sent instead of the former twelve days. In addition, this is expected to reduce significantly administrations' paper handling costs and to facilitate the processing of tender information.

The forms are available in all EU languages on the [SIMAP website](#).

The PDF files of standard public procurement forms are provided for reference only. The notices should be sent through the web-based tool [eNotices](#) which simplifies and speeds up preparation and publication of tender notices.

Original URL:

http://simap.europa.eu/buyer/forms-standard_en.html

Related article:

[EU: Commission promotes EU-wide online advertising of public contracts](#)

Standard forms for public procurement

The PDF files of standard public procurement forms
[eNotices on-line forms](#) used for sending notices for publication.

1. [Prior information notice](#)
2. [Contract notice](#)
3. [Contract award notice](#)
4. [Periodic indicative notice - utilities](#)
5. [Contract notice - utilities](#)
6. [Contract award notice - utilities](#)
7. [Qualification system - utilities](#)
8. [Notice on a buyer profile](#)
9. [Simplified contract notice on a dynamic purchasing system](#)
10. [Public works concession](#)
11. [Contract notice - concession](#)
12. [Design contest notice](#)
13. [Results of design contest](#)
14. [Notice for additional information, information on incomplete procedure or corrigendum](#)

Sending XML notices

You can send public procurement notices in a structured electronic format, using the online forms available on this portal or by providing XML files to the Publications Office.

Electronic notices ensure speed and accuracy

Notices sent in a structured electronic format are published within five days of their receipt by the Publications Office. In comparison, notices sent by fax, e-mail or post can take up to 12 days to be published.

Automatic checking for mandatory fields and clear structure of electronic notices ensure consistency with the European directives and minimize the risk of encoding errors.

Online forms or XML files?

The OJS online forms are free and easy-to-use. Please use this service if the number of notices you send is low and/or you do not wish to spend time and money to develop customized software.

OJS eSenders send structured XML notices through software developed in-house or services offered by an external contractor specialized in eProcurement. Typical eSenders include national Official Journals, awarding authorities sending a large number of electronic notices, public or private bodies acting on behalf of “contracting authorities/entities” as well as eProcurement software developers.

How to become an OJS eSender

To become an OJS eSender there is a three-phase procedure, consisting of acceptance of your project, testing and production.

Project acceptance

The Publications Office will ask you for a project plan, including:

- project leader (the contact person)
- timetable for the project (start and finish of test periods, implementation)
- estimate of the number of notices you will be sending annually

If you plan to send notices on behalf of contracting entities, the Office would also like to receive:

- a client list
- your business plan
- an outline of the agreement with the contracting entities for whom you would be acting

XML files sent for publication must conform to the DTD (Document Type Description).

● **Overview of the test phases**

Please note that you will need approximately one month for each of the test phases.

Preliminary testing (Alpha phase)

Real data testing (Beta phase)

Production (Gamma phase)

CPV

The CPV establishes a single classification system for public procurement aimed at standardising the references used by contracting authorities and entities to describe the subject of procurement contracts.

What is the CPV?

The CPV consists of a main vocabulary for defining the subject of a contract, and a supplementary vocabulary for adding further qualitative information.

The first two digits identify the divisions (XX000000-Y);

The first three digits identify the groups (XXX00000-Y);

The first four digits identify the classes (XXXX0000-Y);

The first five digits identify the categories (XXXXX000-Y);

A ninth digit serves to verify the previous digits.

The supplementary vocabulary may be used to expand the description of the subject of a contract. The items are made up of an alphanumeric code with a corresponding wording allowing further details to be added regarding the specific nature or destination of the goods to be purchased.

The alphanumeric code is made up of:

a first level comprising a letter corresponding to a section;

a second level comprising four digits, the first three of which denote a subdivision and the last one being for verification purposes

How to use the CPV

Is the use of the CPV classification mandatory in the standard forms?

The use of the CPV is mandatory in the European Union as from 1 February 2006.

The CPV version 2008 is the current CPV version to:

Fill the notices of calls for competition

Search business opportunities in TED

Find contract notices in the archive of TED

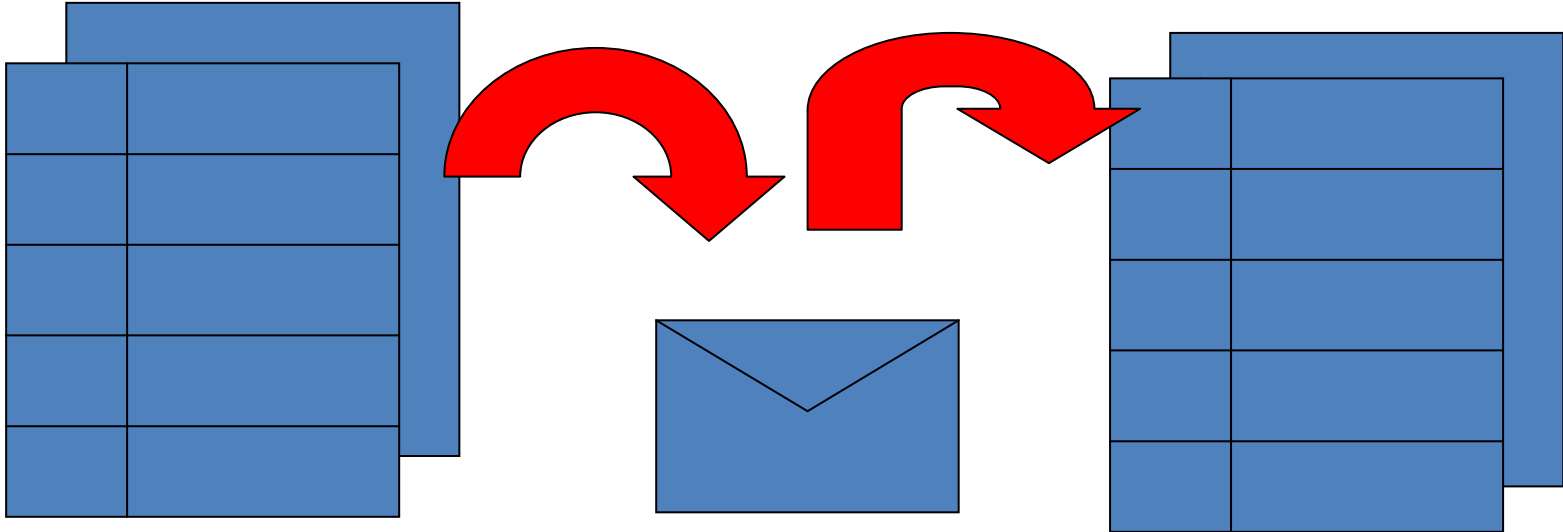
How to fill a notice for a call for competition with the CPV?

Contracting authorities should try to find the code that suits their envisaged purchase as accurately as possible. Although in some occasions contracting authorities may find themselves having to select several codes, it is important that they select a single code for the title of the contract notice. Should the level of accuracy of the CPV be insufficient, then contracting authorities should refer to the division, group, class or category that better describes their intended purchase - a more general code that can be recognised because it has more zeros.

Electronic tendering

Call for tenders
Form/data/text

Bid
Form/data/text



Time-stamp

Time-stamp

Opening

Integrity/e-signature

Integrity/e-signature

Content

Tenders are Easy to Manage

Projects group associated tenders for convenience

RCC#5833 - Data entry services
Assign team | BoQ manager | Documents

No	Process	Description	Times (GMT)				
5757	Standard Restricted Procedure	Data Entry Services PQQ: Data Entry Services RFT: Data Entry Services Optional eAuction	End time: 18/02/08 12:00 End time: 18/04/08 12:00 OLB start time: 25/04/08 12:00 OLB end time: 30/04/08 12:00	0	0	0	0

RCC-LBRT1295 - Parks Maintenance
Assign team | BoQ manager | Documents

No	Process	Description	Times (GMT)				
5767	Standard Restricted Procedure	Parks Leaf Blowing RFQ: Parks Leaf Blowing RFT: Parks Leaf Blowing		0	0	0	0
5805	Standing Orders - Request for Quote	Walkway Trimming	End time: 01/03/08 12:00	0	0	0	0

Nonproject related

No	Process	Description	Times (GMT)				
5758		eSourcing System - Internal Awareness eSourcing System - Internal Awareness eSourcing System - Internal Awareness	End time: 18/06/08 12:00 End time: 18/09/08 12:00	0	0	0	0

Projects can contain multiple procedures, single or multiple steps ITTs, RFQs, PQQs and eAuctions

Procedural templates apply process requirements such as OJEU, ITT, RFQ etc

Checklists guide staff during Tender Creation

Checklist

RFT - Library PCs

- ✓ **Manage packages**
Create, delete, copy or edit packages for this RFT [Library PCs](#)▶▶
- ✓ **Select CPV codes**
Select CPV codes for this RFT, for OJEU publications and for business opportunities alerts (by email) to suppliers matching the CPV [Select CPV codes](#)▶▶

Library PCs [End-time Quotation (GMT): 28/03/08 12:00]

- Pricing required (if any) [Library PCs](#)▶▶
- ✓ **Add BoQ information**
Manage items in the Bill of Quantities assigned this lot [Library PCs](#)▶▶
- ✗ **Manage Qualification Questionnaire**
Add or edit questions to be answered by the suppliers [Library PCs](#)▶▶
- ✓ **Documents**
Upload documents that the suppliers can download [Documents](#)▶▶
- ✓ **Confirmation of compliance** [Library PCs](#)▶▶

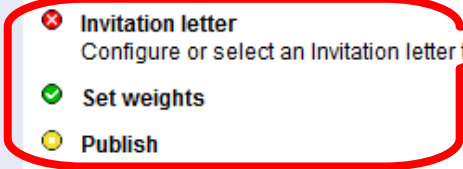
- ✗ **Invitation letter**
Configure or select an Invitation letter that will [Library PCs](#)▶▶
- ✓ **Set weights** [Edit](#)▶▶
- **Publish** [Publish](#)▶▶
- ✗ **Suppliers** [Search](#)▶▶
- ✗ **Send invitations** [Invite](#)▶▶
- ✗ **Evaluate** [Edit](#)▶▶

Contract award

- ✗ **Intention to Award**

Allows staff to work the way they normally work , not in a frustrating '1-2-3' linear fashion

Traffic Lights highlight the status of any particular task



Integrated Document Management

Here you attach any files including documents, specifications, drawings etc to the package.

Files can be added in the following ways:

- Upload files - Click on 'Upload files...' to include files from your PC.
- Add from folder - Click 'Add from folder...' to add files from your Tender, Company or Personal folder. File and folders will then be linked, i.e. all subsequent changes/revisions of the selected files will be visible in the package.

Folder icons	Document icons	Status icons
Linked folder	Tools menu	Comments
	Contains virus	Linked document
	Scan in progress	New version available
	Public available	
	Signed	

Documents

- RFQ folder
 - Library PCs
 - Specifications

				Size	Updated
		Data Protection Act 1998.pdf		518	27/12/07 16:15
		Freedom of Information Act 2000.pdf		459	27/12/07 16:15
		General Product Safety Regulations - Guidance for Suppliers.pdf		526	27/12/07 16:15
		Regus - Map of Town Hall & Immediate Environs.jpg		167	27/12/07 16:15
		Services - Standard Terms and Conditions.pdf		163	27/12/07 16:15
		Standard Contract Notice.txt		10	27/12/07 16:15
		Suppliers - Standard Terms and Conditions.doc		119	27/12/07 16:15

[Do you need a viewer for displaying documents?](#)

Upload files... Add from Project/Shared folder... Public display Sort Delete Manage folders... Print documents... Done

Documents of any type can be uploaded and all files are checked for viruses before being added to the library

Publication to National Procurement Register and OJEU (eSender)

Time left before session times out: 29:20



EUROPE
Publica
2, rue
Telefax
E-mail:
On-line

- Works
- Supplies
- Services

Is this contract covered

- NO
- YES

SECTION I: CONTRACTIN

I.1) OFFICIAL NAME AND

Organisation (required)

Buyer

Address (required)

Pipersgatan 1

DOFFIN - Database for offentlige innkjøp

Denne siden er satt opp for å hjelpe oppdragsøkere og oppdragsgivere. Her kan de legge ut og finne informasjon vedrørende anskaffelser i offentlig- og forsyningssektor. Ved hjelp av linker og søkemotor kan de se på kunngjøringer fra hele Norge.

Tilgjengelighet

- DOFFIN-hjemmeside
- Logg inn/ut
- Kunngjøringsøke
- Oppdragsøker
- Oppdragsgiver
- Publiser kunngjøring
- Vedledning
- Om oss
- Elektroniske linker
- Assistanse
- Kontakt oss
- Sidekart

REGISTRERING

Ol-nyheter
- Nyheter om offentlige innkjøp

Oppdragsgivere

- Offentliggjør en ny kunngjøring her
- Registrering
- Oppdragsgivers hjemmeside
- Kunngjøringens arbeidsområde
- Hjelp og veiledning

Oppdragsøkere

- Søk i kunngjøringer
- Registrering
- Oppdragsøkers hjemmeside
- Hjelp og veiledning

Vilkår og Betingelser | Nasjonalitet | Powered by TendersDirect Enterprise © P&S Systems Associates Limited

Easy to Use Supplier Dashboard

The Supplier 'Thermometer' clearly shows the status of their response

The screenshot displays a supplier dashboard with several sections:

- Navigation:** My Quotation, Contracts, Messaging, Audit trail
- Left Sidebar:** package, Library PCs (View invitation letter, View documents, Bill of Quantities), How to respond
- Main Content Area:**
 - My response:** A large red-bordered box highlights this section, which includes:
 - Compliance with requirements in documents:** 3 of 3 answered. Includes a 'Confirm compliance...' button.
 - Bill of Quantities:** 0 of 20 items priced. 23 rows including headers and notes. Includes buttons for 'Price online...', 'Price offline...', and 'Import pricing...'.
 - Total quote (GBP):** Compliant quote:-, Qualified quote:-. Includes an 'Enter quotation sum...' button.
 - My documents:** 0 document(s) attached. Includes an 'Attach documents...' button.
- Top Right:** A red-bordered box highlights a status message: 'Quotation not submitted (Scroll down to submit)' and 'Quotation Deadline (GMT): 28/03/08 12:00'. Below this is a 'Percent complete' bar showing 33%.
- Bottom Right:** A red-bordered box highlights a 'Quotation not submitted' status message.
- Bottom:** A row of buttons: Assign user rights..., View RFT details, View/Print response form, Submit response.

Each aspect of the response is tracked individually

This status message remains red until a response is submitted

Suppliers respond directly

Code#	Description	Equivalent alternative from other vendor acceptable	Unit	Rate	Total	Comment	Version
Hardware	Hardware						
	Header total: 22,419.20						
Motherboard	Asus P5E3 Deluxe (X38 Chipset)	Equivalent alternative from other vendor acceptable	50.00	€			1
CPU	Intel Core 2 Duo E6850 (3.0 GHz)	High spec CPU acceptable as alternative	50.00	€	2,377.65		2
Hard Drive	Western Digital WD5000AAKS (500 GB)	Equivalent vendor acceptable assuming at least 500 GByte storage capacity maintained	100.00	€	238.14		2
Optical Drive	48X DVD-RW/CD-RW	Equivalent alternative from other vendor acceptable	50.00	€	62.20	64X model at no cha	1
2 Gbyte DRAM	Crucial Ballistix DDR3-1600	Assume single 2GByte stick but will accept 2*1GByte sticks	50.00	€	130.83		1
Case	MasterBlaster Environ3	Equivalent alternative from	50.00	€	79.99		1
Fan			50.00	€	2.22		2
SD Int			50.00	€			1
CPU F			50.00	€			1
Graphic			50.00	€			1
PSU	Coolermaster RS850-EMBA	Alternative from equivalent vendor acceptable assuming sustained maximum power of 850 W and a peak power of 1,000 W	50.00	€	22.22		1
SD Card	San Disk Extreme III 2 GB SD Card	Equivalent alternative from other vendor acceptable	50.00	€	13.01		1
Keyboard	Airboard WiFi Integrated 9300 with Optical Mouse included	Equivalent alternative from other vendor acceptable	55.00	€	27.76		1

Information at Fingertips...

Summary of Overall Tender

RFT information

<i>PQQ: Data Entry Services</i>	End-time Quotation (GMT):	18/02/08 12:00
	Tender box opening (GMT):	18/02/08 12:00
<i>RFT: Data Entry Services</i>	End-time Quotation (GMT):	18/04/08 12:00
	Tender box opening (GMT):	18/04/08 12:00
<i>Optional eAuction</i>	Start-time Online bidding (GMT):	25/04/08 12:00
	End-time Online bidding (GMT):	30/04/08 12:00

Instructions

Here you can follow progress of supplier responses. If you selected to use an 'Opening procedure' the information becomes available after Opening.

You can review quotations one by one by clicking the Quotation link or in comparison/analysis mode.

View Edit from checklist... Close RFT...

Suppliers RFQ RFT Bidding Contracts Messaging Audit trail Reporting

View: All suppliers Quotations

- Quotation declined
- Quotation not viewed
- Locked from RFT
- Selected for BoQ pricing summary
- Awarded

Supplier	Invited	Viewed Invitation/Documents	Accepted/ Declined	Quotation created	Quotation submitted	
Action FM Tom Purvis	●	■				Available after tender box opening
Office Maximus Albert Lau	●	■				Available after tender box opening
Procurement Delivery Solutions Alan Thomas	●	■				Available after tender box opening
Thames Ready Response Mark Shallard	●	■				Available after tender box opening
Works Excellence Lyle Potgieter	●	■				Available after tender box opening

Invite suppliers... Notify changes... Lock/Unlock suppliers... Comparison Analytics Engine

Summary of Supplier Responses

Comparison and Evaluation Tools

Opening procedures including double envelopes

Åbnings procedure

Vejledning
 To open an envelope for a supplier on a package click the button. To be able to open an envelope end time quotation must have passed and the supplier must have sent in a proposal. Technical envelopes must be opened before the commercial envelopes.

To open all technical envelopes at the same time click on 'Open all envelopes'.




-  Indicates a locked envelope
-  Indicates an incomplete envelope
-  Indicates an open envelope
-  Indicates rejected envelope
-  Knap til at åbne kuvert
-  Knap til at åbne kuvert
-  Udbuds boks lukket
-  Udbuds boks åbnet

Åbnings procedure

Kuverter

Quotations in time

Aftale: Jernbanestation

Leverandør	Quotation submitted	Teknisk kuvert	Kommercielle kuvert
Dansk leverantör 1	19/04/06 10:43		
Danske leverantör 2	19/04/06 10:45		
Earthworks inc	19/04/06 10:51		
Earthworks services	19/04/06 10:49		

Late incoming quotations

Evaluation includes Online Weighting and Scoring

The screenshot shows a 'Quotation analysis' window with a menu bar (File, Edit, View, Analysis, Help) and a toolbar. The main area displays a table of supplier quotes for 'RFT 5918: Library PCs'. The table has columns for 'Rate / Total', 'Procurement Delive...', and 'Thames Ready Resp...'. A 'Weighted score' of 45.00 is highlighted in a red box. A yellow callout points to this score, stating 'Identifies Best Value Supplier against Weighting'. A dialog box titled 'Thames Ready Response' is open, asking for 'Enter supplier specific information.' and containing the text: 'There is no obvious reason for such a high quote. Quality is not demonstrably higher and components are COTS. Some items are so above market rate they appear to have been entered in error.' A yellow callout points to this dialog, stating 'Add justification to your evaluation'. At the bottom of the table, a yellow callout points to the 'BoQ Total Quote' row, which is color-coded (green for lowest, red for highest), and states 'Colour codes Lowest (and Highest) Price Supplier'. The table includes various hardware components like Motherboard, CPU, Hard Drive, etc., and software like Microsoft Windows and Office. The 'BoQ Total Quote' row shows a total of 49,782.95 for the lowest price supplier and 72,432.60 for the highest price supplier.

Identifies Best Value Supplier against Weighting

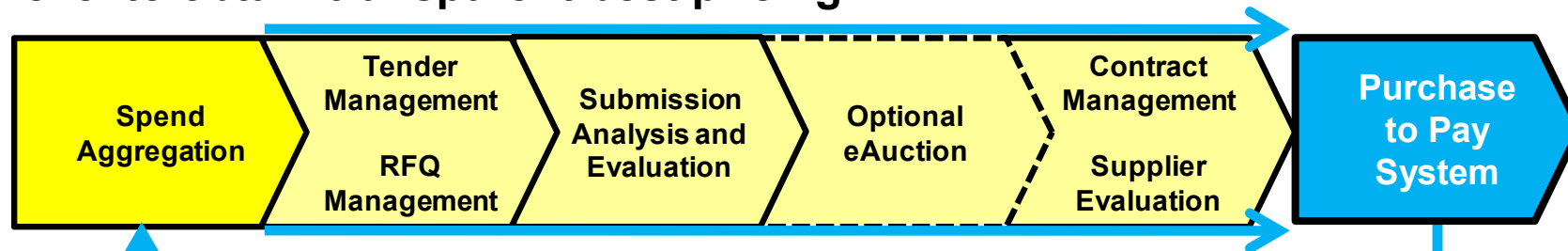
Thames Ready Response
 Enter supplier specific information.
 There is no obvious reason for such a high quote. Quality is not demonstrably higher and components are COTS. Some items are so above market rate they appear to have been entered in error.

Add justification to your evaluation

Colour codes Lowest (and Highest) Price Supplier

Strategic Spend List Management

Management of spend lists through process on data level to obtain transparent best pricing



Item	Description	Unit	Quantity	Price
1.1.1.1	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.2	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.3	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.4	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.5	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.6	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.7	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.8	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.9	STOCKMEL- MEDICAL	kg	1000	1200.00
1.1.1.10	STOCKMEL- MEDICAL	kg	1000	1200.00

Aggregated historical data forms basis for contract renewal RFQ/ITT

Electronic procurement cases

- **Individual procurement**
- **Repetative procurement**
- **Competition and decession supporting tools
(e-catalogues, e-auction, e-invoices, etc.)**

Extensions: electronic auction

I. Electronic Auctions:

Extensions

Electronic auctions (eAuctions): are repetitive processes involving the use of an electronic device for the presentation by tenderers of improved offers for a specific Call for Tenders, after an initial full evaluation of the Tenders. eAuctions can be utilised as an extension to the awarding phase of a tendering procedure

but do not

constitute a complete eProcurement procedure for awarding contracts.

Legal Framework

E-Auction Under the EU Directive 2004/18/EC

Main economic issues:

Auction format and information:

- closing rule**
- disclosure policies**

**Procedures: fully electronic vs. mixed
(paper+electronic)**

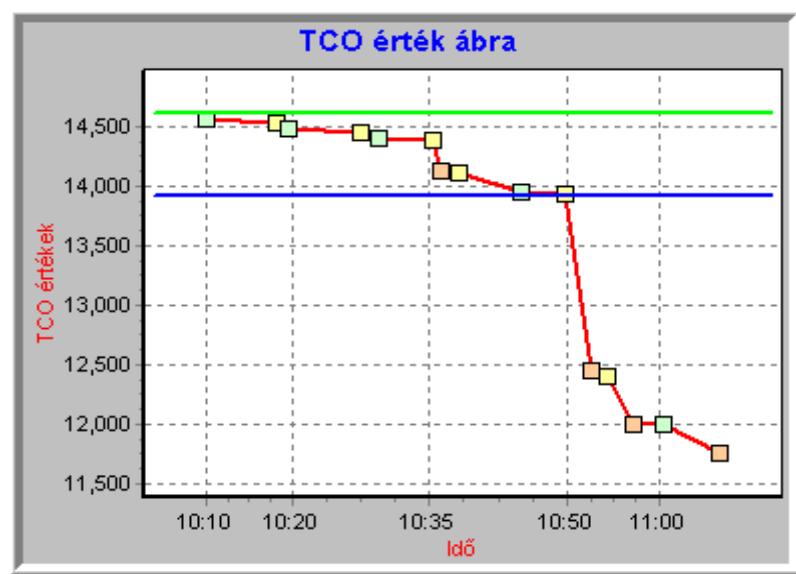
Auction format and Information

1. **Three** possible Closing Rules: Fixed deadline, Limited number of rounds, no further bids
 - Problems with the first two (“snake in the grass” and “last-minute bidding” phenomenon)
 - Sound economics would favor the third criterion
1. How much information should be disclosed?
 - Prices: collusion vs learning
 - Number of active bidders: the buyer may vary her disclosure policy throughout the same auction

Open issues:

- ✓ Does the buyer have any interest in modifying her disclosure policy during the same auction?
- ✓ Should she disclose more or less information as the auction progresses?

Detailed workflow – Cleaning supplies Directorate of Central Services, Hungary



Nr of Suppliers: 3

Nr of Bids: 107

Volume: 65.000 EUR

Bidding time: 1:30

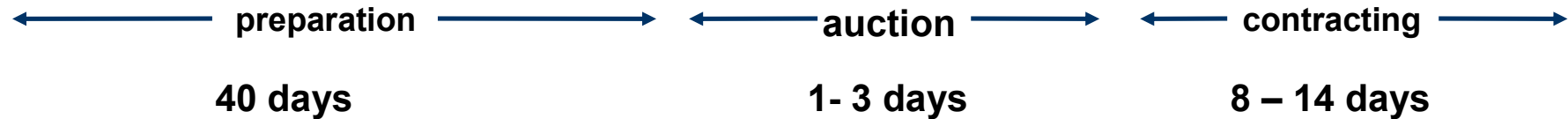
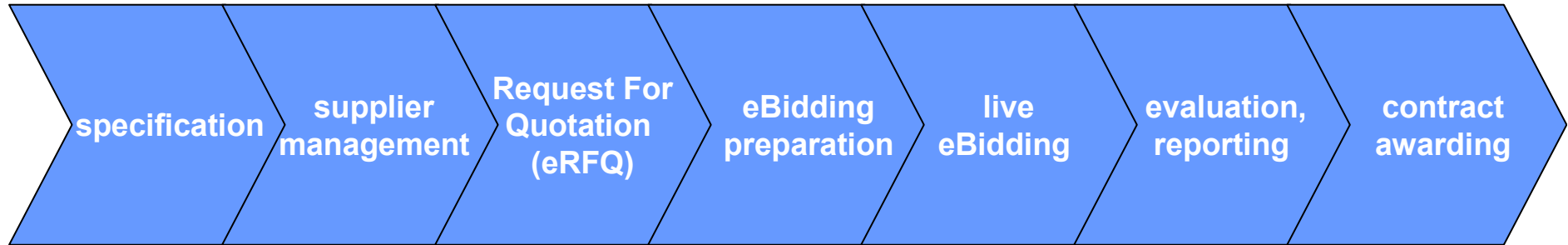
In negotiation:

- price of 57 goods grouped into Lots
- % of discount for the total bundle



Savings:
21,34%
13.870 EUR

Workflow of Cleaning Supplies eBidding Negotiation



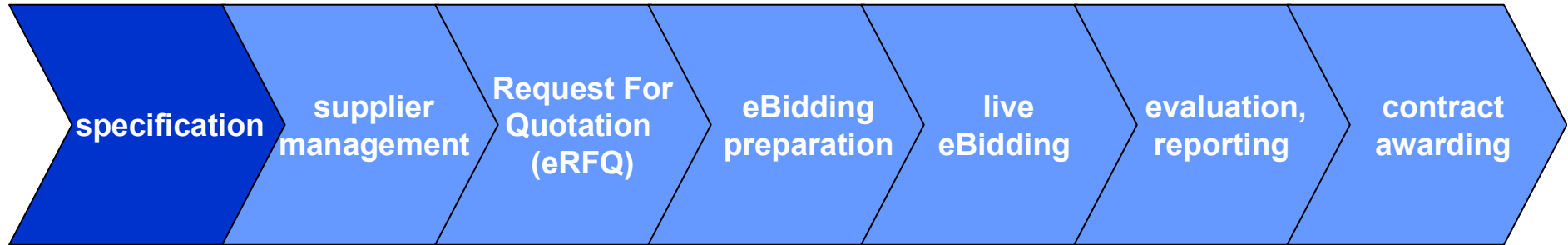
- Preparation for auction
- Picking suppliers
- Publication of request

- Supplier training
- Registering auction
- Running auction
- Monitoring of auction

- Result analysis
- Agreements
- Contracting

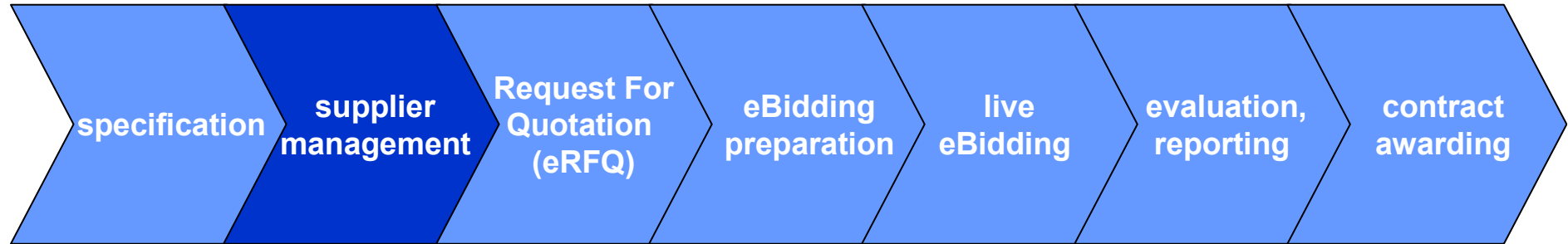
Negotiations can be reduced by 4-10 weeks over the whole supply chain cycle

Workflow of Cleaning Supplies eBidding Negotiation



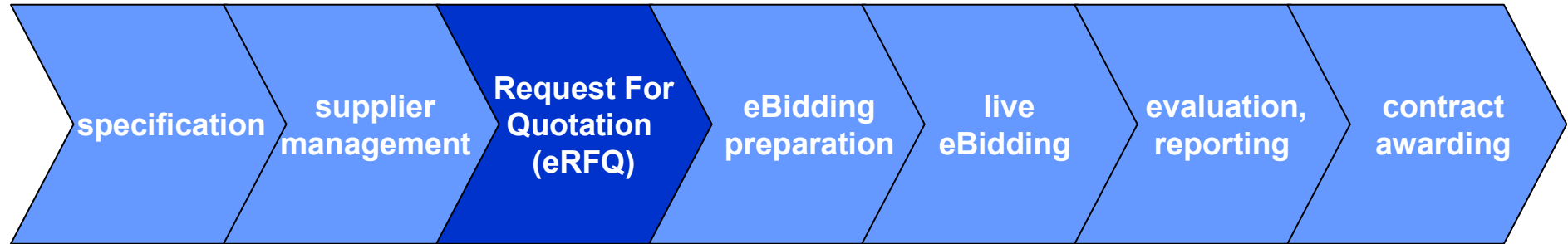
- **Masterplan (procurement workflow and timeline) setup**
- **Definition of respondents, their tasks and deadlines**
- **Arranging meetings for respondents to finalise all possible conditions**
- **Requirement and condition (Tender) definition**
- **Evaluation criteria definition**
- **Lot / Parameter Definition (grouping articles)**
- **Registering RFQ to gain Benchmark information of the market**

Workflow of Cleaning Supplies eBidding Negotiation



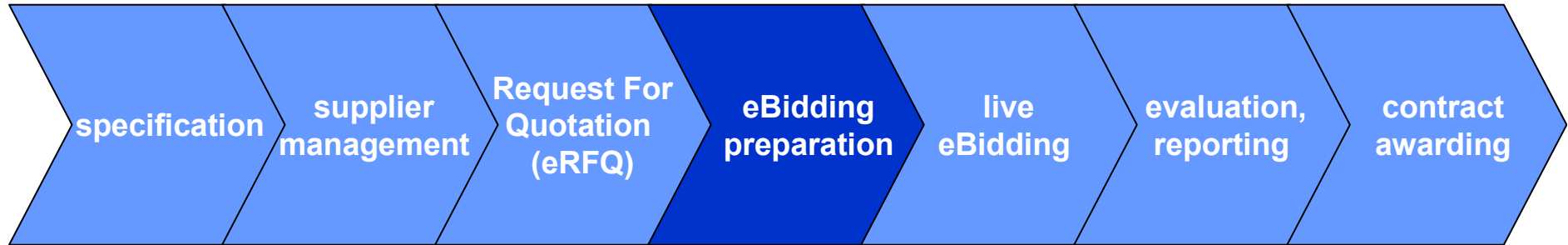
- **Market research for potential suppliers**
- **Supplier qualification based on standardised requirements**
- **Receiving applications for tender**
- **Selecting Suppliers**
- **Informing suppliers about main event details**
- **Conducting training via phone, preparing a training event**
- **Helpdesk / hotline support for suppliers**

Workflow of Cleaning Supplies eBidding Negotiation



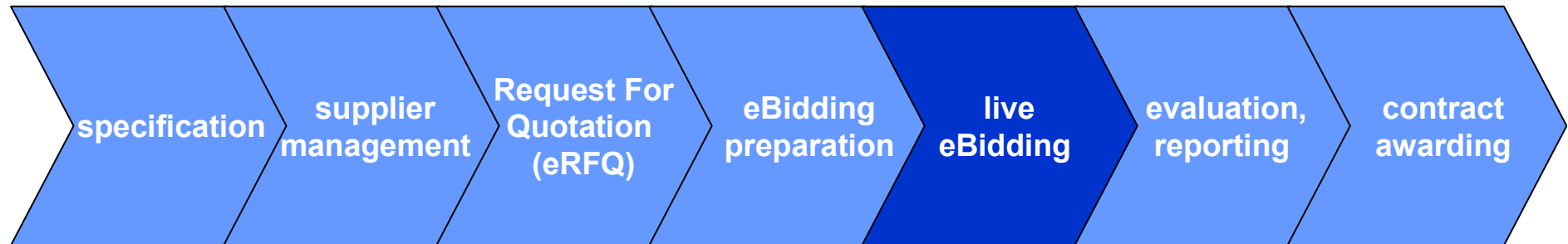
- **Conducting RFQ**
- **Operative monitoring of the event**
- **Helpdesk / Hotline support for suppliers**

Workflow of Cleaning Supplies eBidding Negotiation



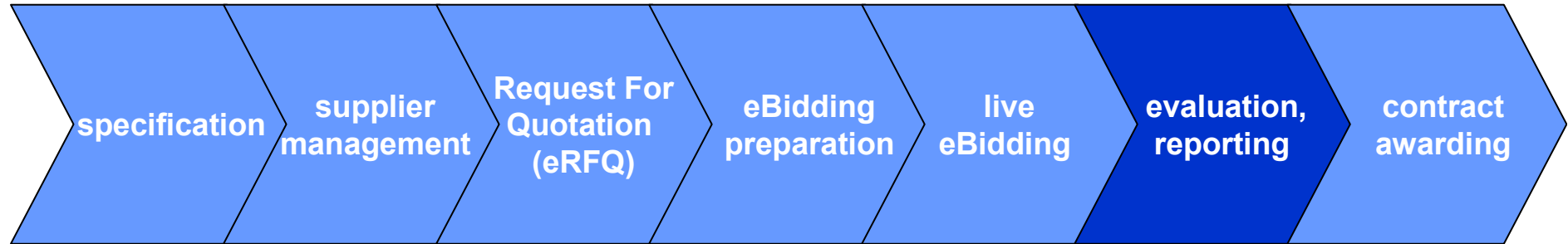
- **Analysing RFQ results (Benchmark data)**
- **eBidding strategy setup based on Best Practise (auction type, formula, overtime, view rights, after event settings,...)**
- **Reference value / treshold level definition (Historic, Target, Bid Step)**
- **Factoring (Involving Supplier qualification results)**
- **Supplier / Lot / Parameter wiegthing definition**
- **Attaching Conditions, Documents**
- **Inviting Participants Bidders, Guests)**
- **Publication of eBidding**

Workflow of Cleaning Supplies eBidding Negotiation



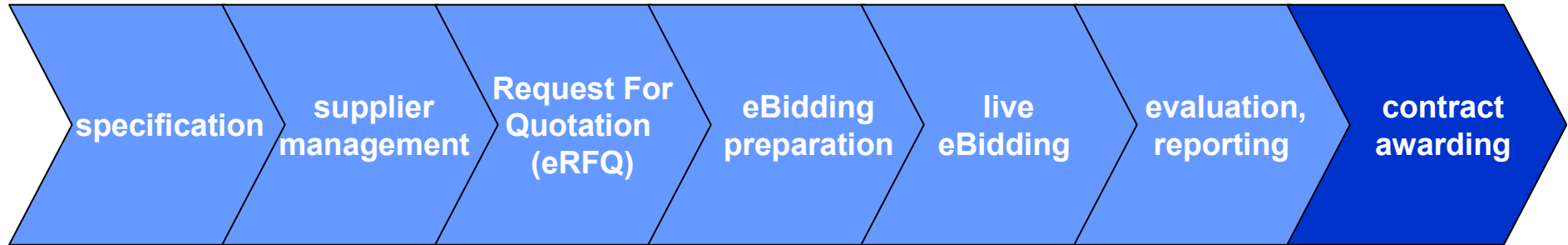
- **Conducting live eBidding**
- **Operative monitoring of event**
- **Facilitation of suppliers during event for active bidding**
- **Helpdesk / hotline support to all Participants**
- **Event-related administration**
- **Closing of eBidding**

Workflow of Cleaning Supplies eBidding Negotiation



- **Evaluation, Scenario comparison of results**
- **Event-specific report with textual, statistical and graphical components**
- **Displaying supplier activity, offers and bidding dynamics**
- **Savings analysis, event-related textual evaluation**
- **Archivating, Reporting**

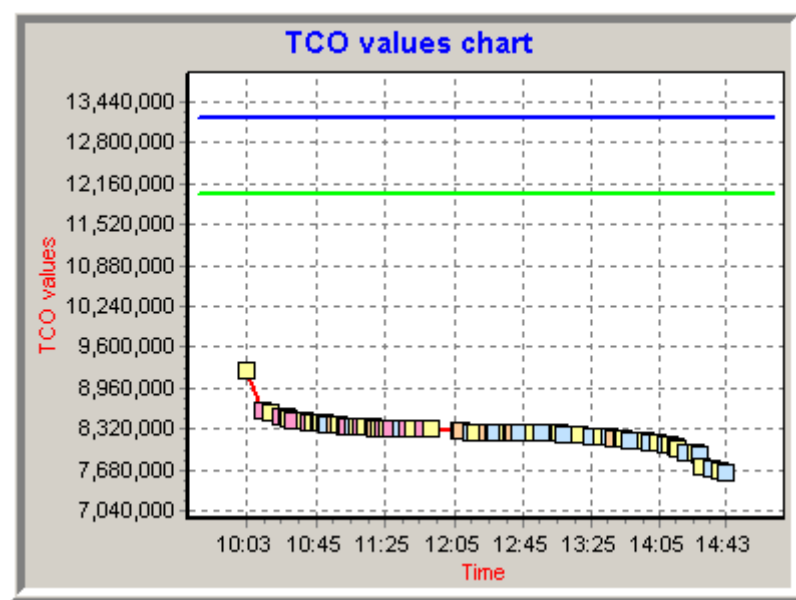
Workflow of Cleaning Supplies eBidding Negotiation



- **Synergy: Contract is defined based on Offers & the appropriate Contract model**

Benefits of eBidding?

- *Casestudy*: Directorate of Central Services, Hungary



Key factors of huge success:

- bundling volume from departments
- accumulating volume for 3 years
- involving novel suppliers
- clear specification
- best practise eBidding strategy
- negotiating in eBidding

Motor Oil Purchasing for 3 years

Nr of Suppliers: 8

Nr of Bids: 74

Volume: 52.000 EUR

Bidding time: 5:00

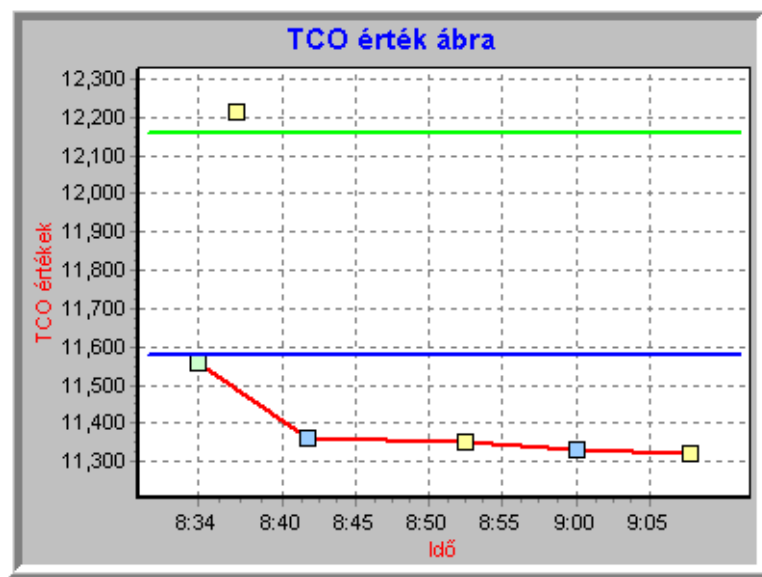
In negotiation:

- price of 11 different types of motor oils
- for barrels, and in liter wrecking

Savings:
42,23%
21.960 EUR

Benefits of eBidding?

- *Casestudy:* Directorate of Central Services, Hungary



Facts:

- Historic value: previous year+inflation
- 9,26% price saving + 1-3% additional on bundle discount

Materials for Building Maintenance

Nr of Suppliers: 3

Nr of Bids: 34

Volume: 70.000 EUR

Bidding time: 1:30

In negotiation:

- price of 9 different material groups
- % of discount for the total bundle

Savings:

11,98%

8.400 EUR

Benefits of eBidding?

- *Casestudy:* Directorate of Central Services, Hungary

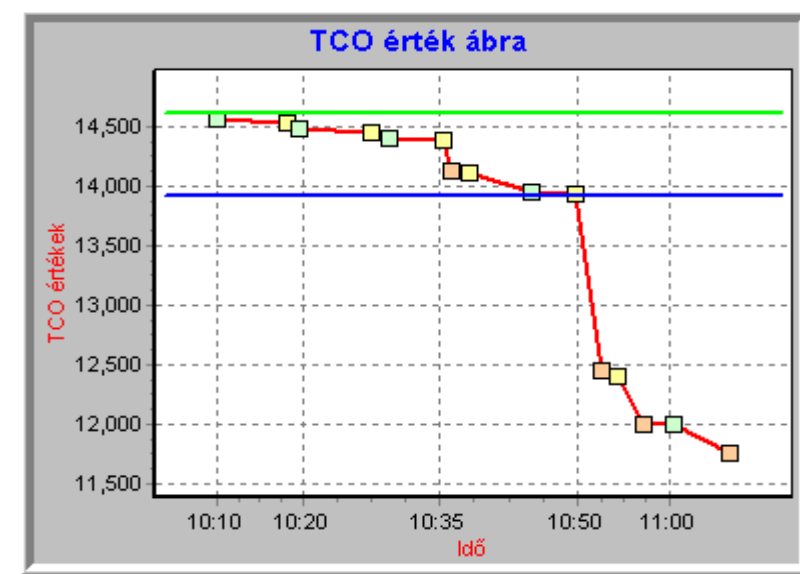


Cleaning Supplies 2003

Nr of Suppliers: 3
Nr of Bids: 107
Volume: 65.000 EUR
Bidding time: 1:30

In negotiation:

- price of 57 items in groups
- % of discount for the total bundle



Savings in 2003:

21,34%

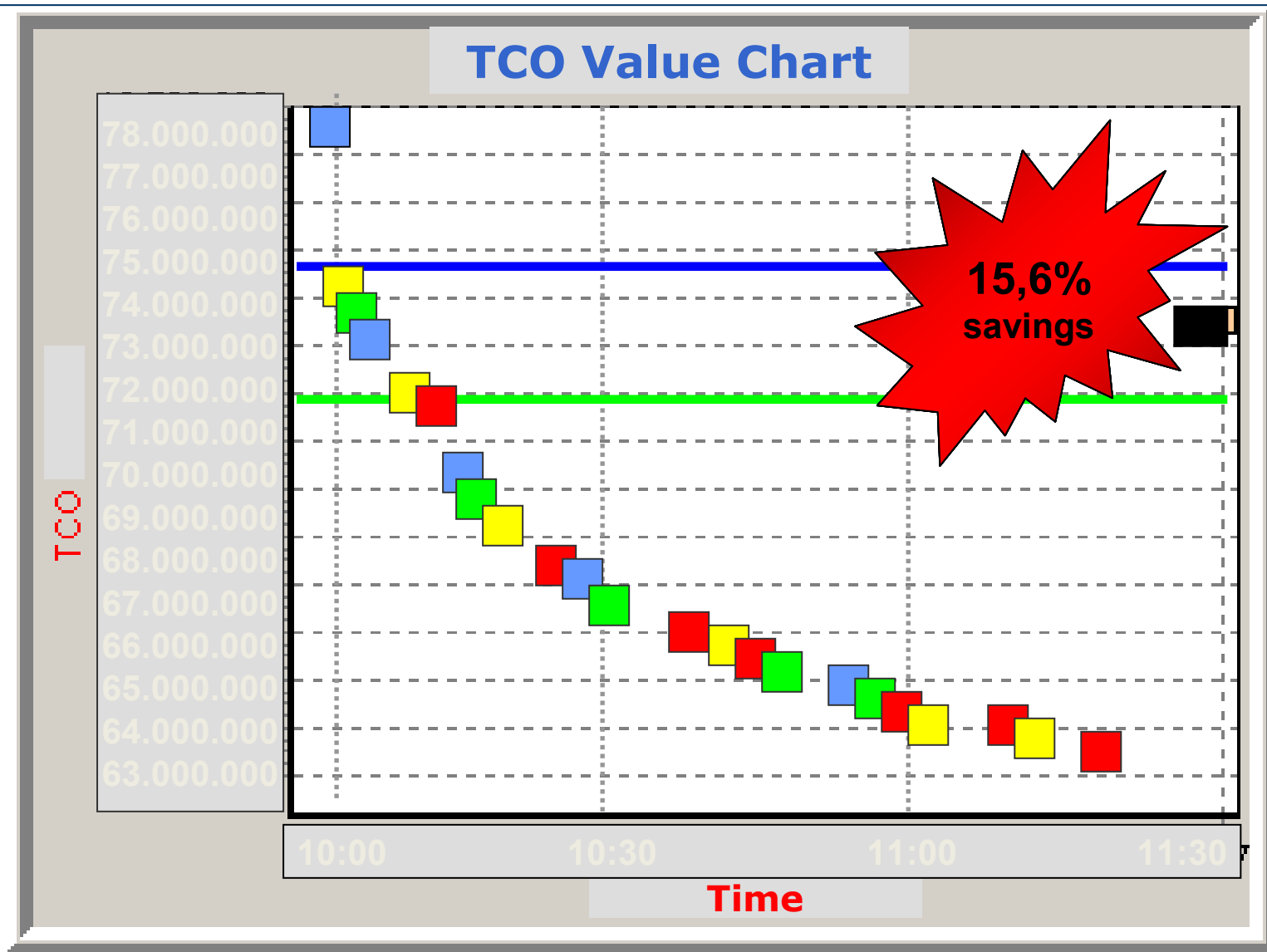
13.870 EUR

Savings in 2004:

1,52%

988 EUR

Graphical illustration of a typical eBidding process



TCO Calculation and Factoring

TCO Calculation

Realization of the most advantageous offers instead of cheapest bid and integrating several factors



TCO correction

Absolute factor
(constants)

- integrating supplier qualifications
- results of first round requests
- life cycle cost
- cost of altering suppliers
- supplier references

Relative factor
(%)

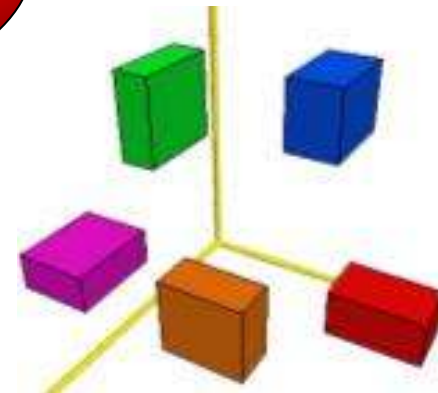
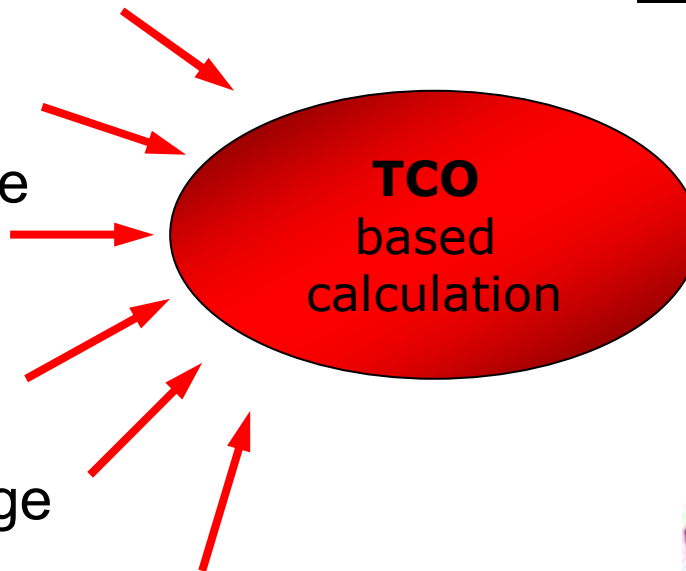
- quality
- reliability
- supplier preference
- integration of other subjective views
- comparison of different offers

Multiparameter handling

paying condition

- accepted amount
- delivery deadline
- construction deadline
- guarantee
- ratio of pre-invoice
- price / unit or package
- binary (yes/no) parameters
- rabat discount in
- transportation variations (ie. 200/500/1000 palettes)

**Unlimited and variable
parametring**



More than 100 eBidding formulas...

Procurement
auction

Sales auction

Price auction

multiparameter
auction

Blind auction

English reverse
auction

Indifferenciated
auction

Power auction

Golden bid
auction

Realtime auction

Multidimensional
auction

Ordering auction

RFQ & auction

Bundle auction

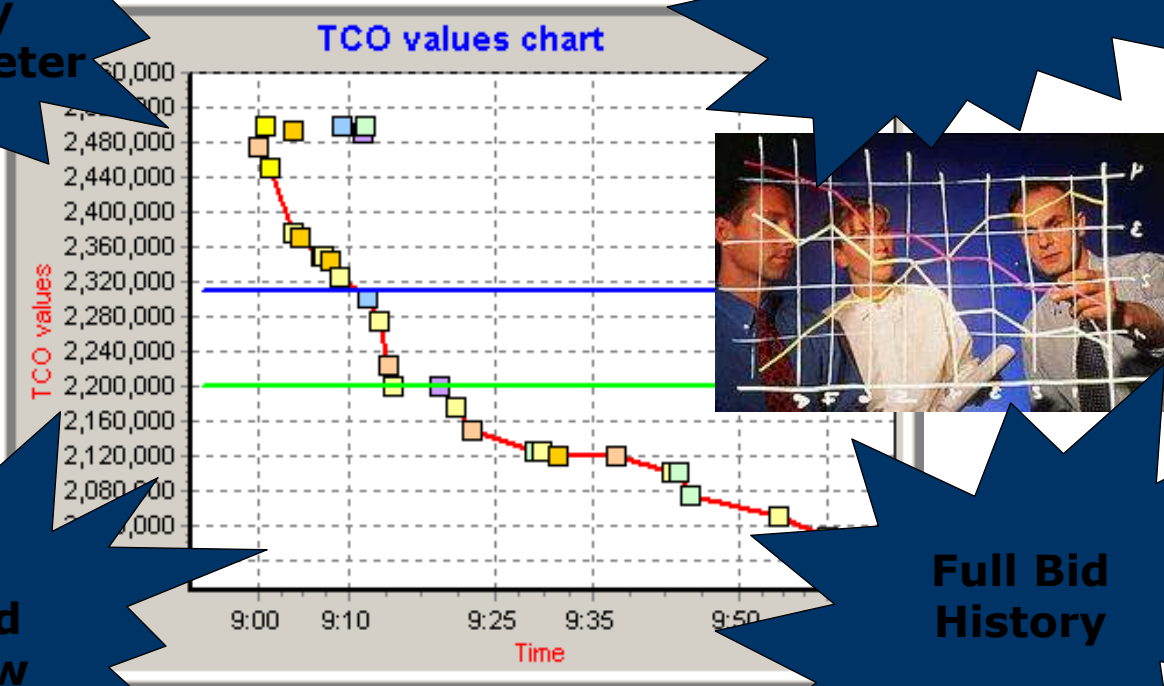
Cherry picking
auction

Pointing auction

Event Cockpit (Results)

Graphs by
Lot / Parameter

Overview



Lot / Bid
Overview

Full Bid
History

eBidding Registration

ASP-based solution & easy event set-up

Internet (ASP) based solution with TCO
(Total Cost of Ownership) calculation
user-friendly (x steps & y minutes) event setup

multi-language support

n languages available and usable even at the same time parallel

roles & view rights

Organiser, Approval, Guest, Bidder, Bidder's Guest roles with different level of view right

flexible overtime

Overtime: overtime, triggertime, trigger condition can be set individually for each Lot

result emailing to suppliers

Email content is definable : 1.rank by lot 2. 1+TCO difference, 3. Full bid history 4. 3 + graph

complex negotiations

Unlimited and variable (multi)parametring, More than 100 negotiation formulas

The specification tells a lot about the intent of public procurement:

- Avoid specifying a specific product which can only be supplied by one supplier or its distributors
- Avoid asking for local content: Example „We look for paper providers having 5% fibre coming from Bavarian woods....“
- Try to use General EU norms to describe your product or service
- Assure that you provide tender documentation so that also „non-locals“ that do not know e.g. The building or the specific constellation can quote

„Stopping the Tender“ if the awarding will not go to your favorite supplier is not good practice:

- A common practice in government buying is to stop a tender process, if the „non desired supplier“ is about to win
- Examples:
 - The Romanian State on their tender for an eGovernment tendering system
 - The German state on their „toll system“ for the Autobahn
 - The Austrian Rail-Roads on their „SRM“ system
 - etc.
- If you do not carry through with the results of your tendering, suppliers will rapidly lose face with you and stop quoting

The Nature of Uncertainty

Factors affecting the cost of performing a contract are usually divided into two distinct classes:

- **Private component**
- **Common component**

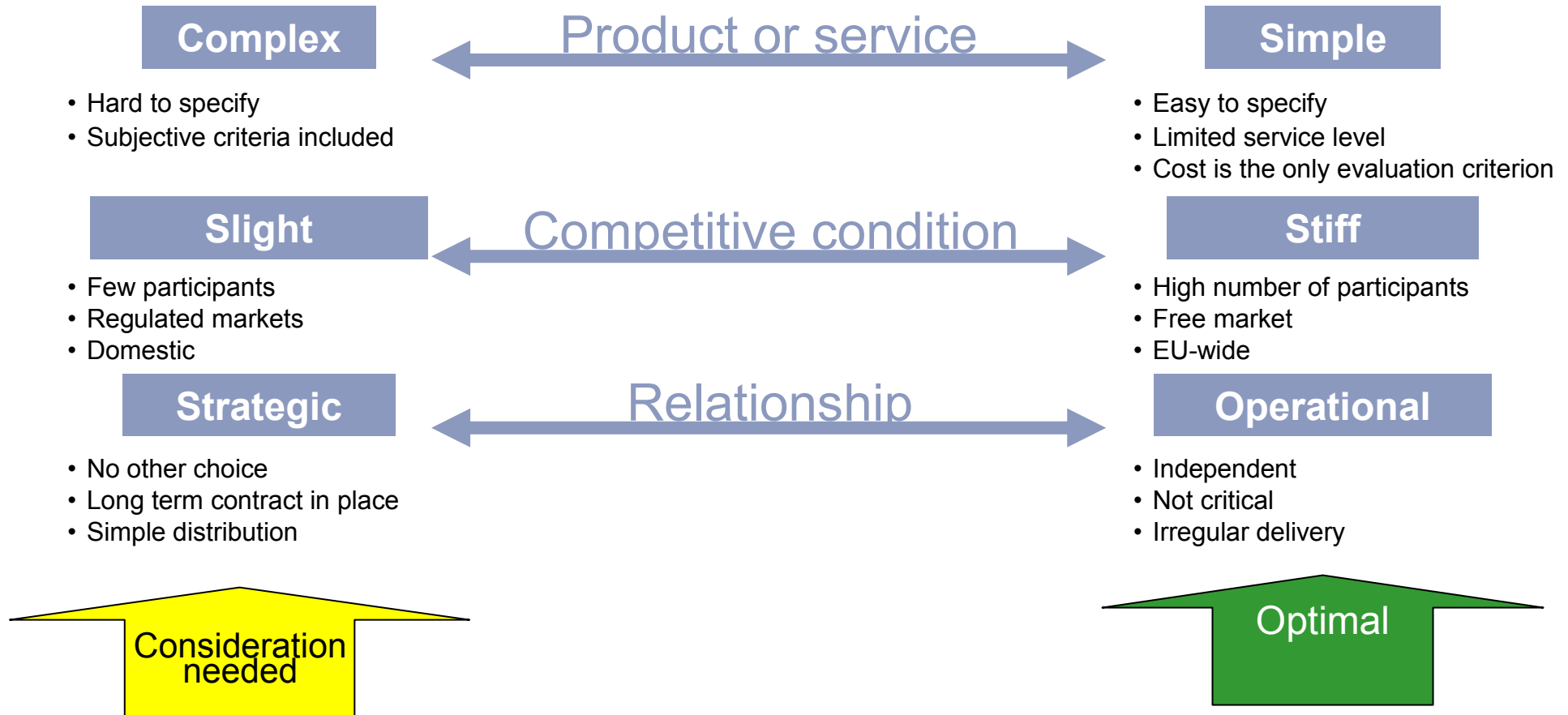
Private component is firm specific:

- **Managerial efficiency**
- **Transportation costs**

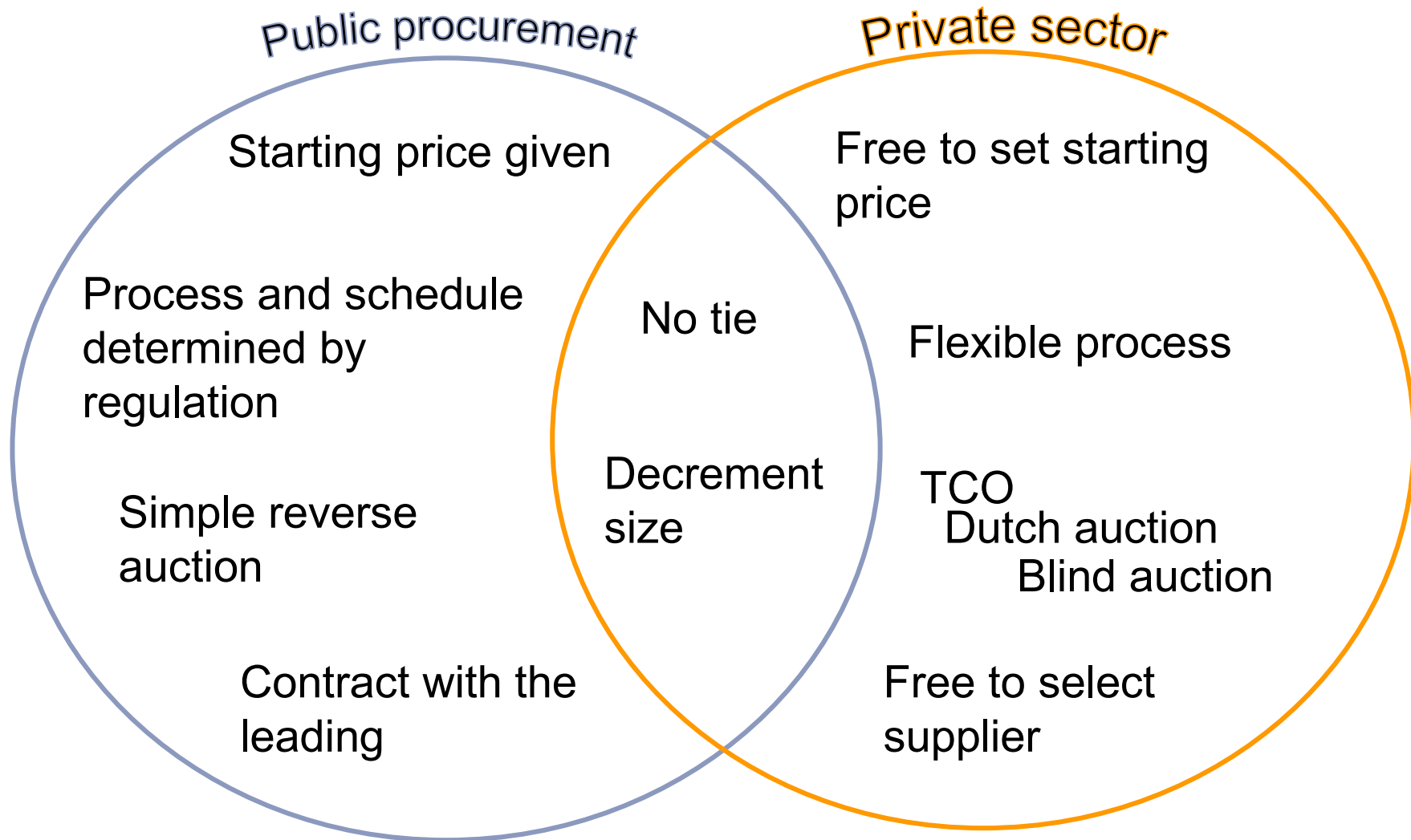
Common component affects all suppliers (although unknown at the time of time of the competitive tendering process)

- **Demand uncertainty** (which authorities will sign the framework contracts provided by the procurement agency)
- **Evolution of the market price of a crucial input** (oil for heating schools)

Auctionability criteria



Limited toolset



Software must has

- Mature and reliable
- Enterprise architecture (Java or .Net)
- Large support staff
- Proven track record
- All legal requirements met



Take away message

- **Auctioning** is way more than software
- Not automatic process, competence required on the requestor side
- Organization should define a process to evaluate auctionability so these decisions won't be ad hoc
- Special planning is needed since in public procurement the number of options are much more limited



Typical categories negotiated:

- Gloves
- Hospital Beds
- Nappies
- Sheets
- Operative Tools



Typical Savings:

- 10-60% depending on Sourcing
- Spectacular Savings if e.g. Chinese Hospital Bed manufacturers are allowed in the tender
- Good results also with very small volumes
- Best Practice Hospitals also negotiate „Generic Drugs“ with this approach



Typical categories negotiated:

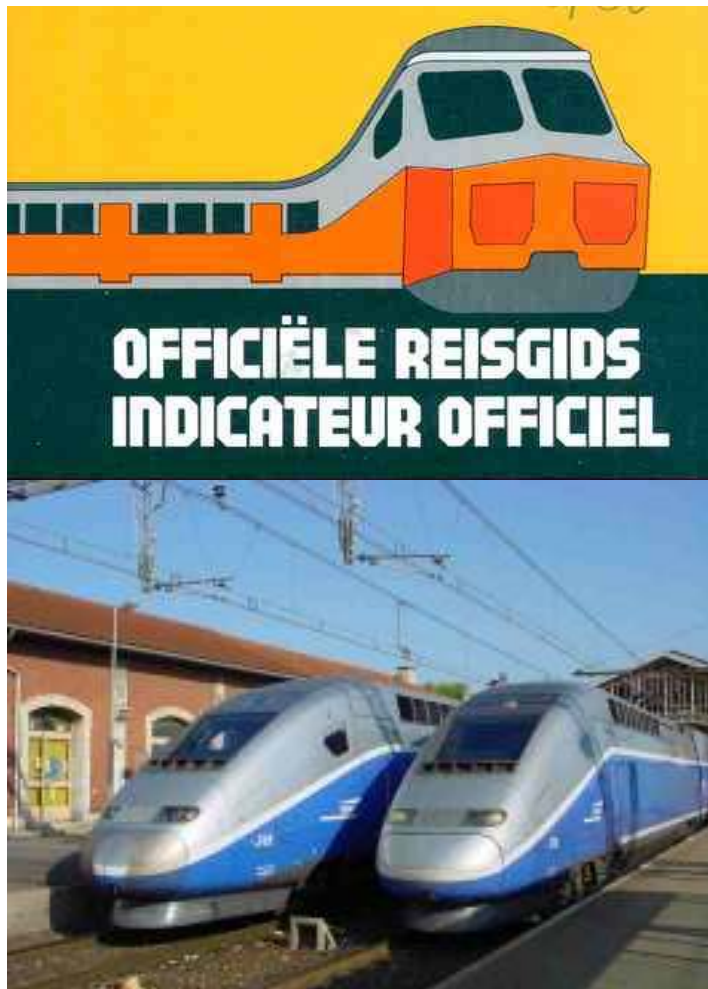
- Troup Uniforms and Accessories
- Supplementary Services
- Food and Drink for Troups
- IT-Hardware & Services
- Standard Ammunition

Typical Savings:

- 30-60%
- Key factors of success are open specification

Key Barriers:

- „Intense Supplier Relationship“ to Political Decision Makers
- „Security Concerns“ used to stop auctioning



Case Example „Course Book“:

- 47 Mio € annual printing cost
- Annual copy of all connections & Timetable
- appr. 800 pages

Annual Savings:

-23 % / 10.8 Mio €

Key Levers of Savings:

- More flexibility on Print Technology to be used
- Specification of Result and not Printing Process



Typical categories negotiated:

- Railway Uniforms and Accessories
- Catering, Food & Drink
- IT-Hardware & Services
- Signal Systems
- Accessories
- Construction of Major Projects

Typical Savings:

- 10 - 40%



Remaining Barriers:

- Limited number of certified Suppliers



City Transport/typical categories negotiated:

- Petrol and Gas
- School Transport to Villages
- Busses incl. Service Contracts
- IT Services
- Construction Works
- Maintenance Work

Typical Savings:

- 10 - 25%

Remaining Barriers:

- Public Transport run as cost center
(Savings are taken away)
- No idea what to do with access staff, if productivity is achieved



**Municipal Utility -
typical categories negotiated:**

- Heating Plant
- Chemicals for Water Supply
- Petrol & Gas

Typical Savings:

- 1-5 % on Energy
- 10-25% on Basic Suppliers
- >20% on larger Project Works

Teplarna Ceske Budejovice

Electricity & Gas I

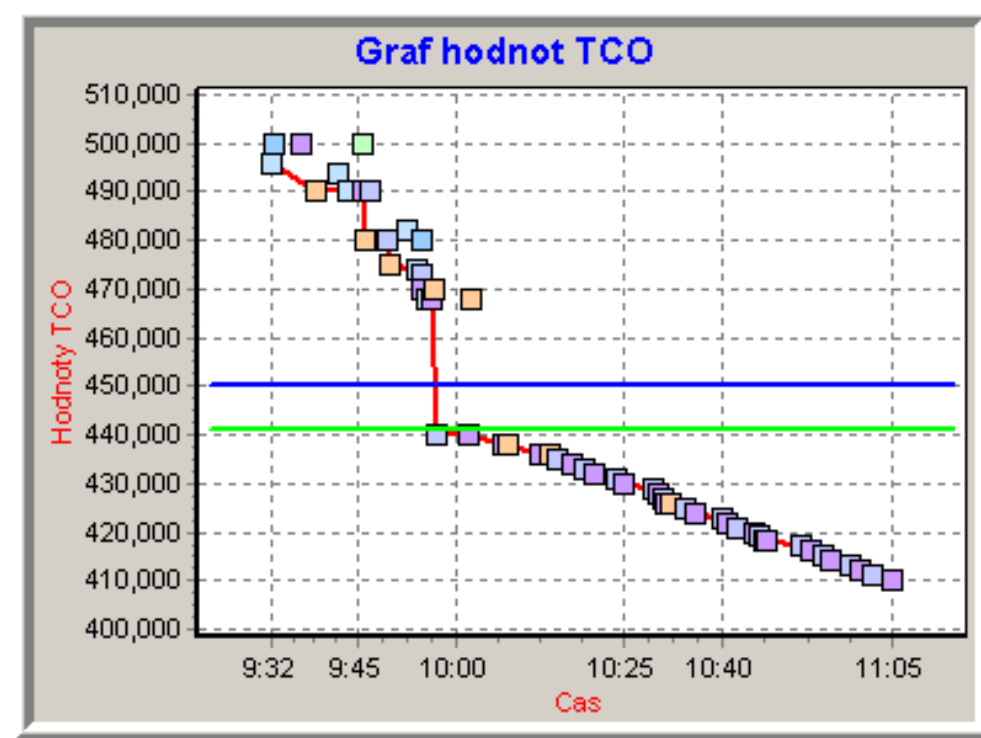
Heating plant in Ceske Budejovice – district town of about 100 000 inhabitants. The 1st contact was in May 2004, not too interested that time, new low for public tender was not too clear for them and they were afraid not to do any mistake. First auction was realized in June 2006.

Till now another 5 auctions for water treatment chemicals were executed, regularly each year quarter. Total volume is 5.3 mil. CZK (200 000 €)

Beside those auctions one auction for analytic balances was executed too; volume 218 000 CZK only.

One typical auction – NaOH - 50%

Historic volume:	450 000 CZK = 16 600 €
Parameters:	1
Suppliers:	9
Bids:	55
Relative saving:	8.89%



Prazska teplarenska a.s.

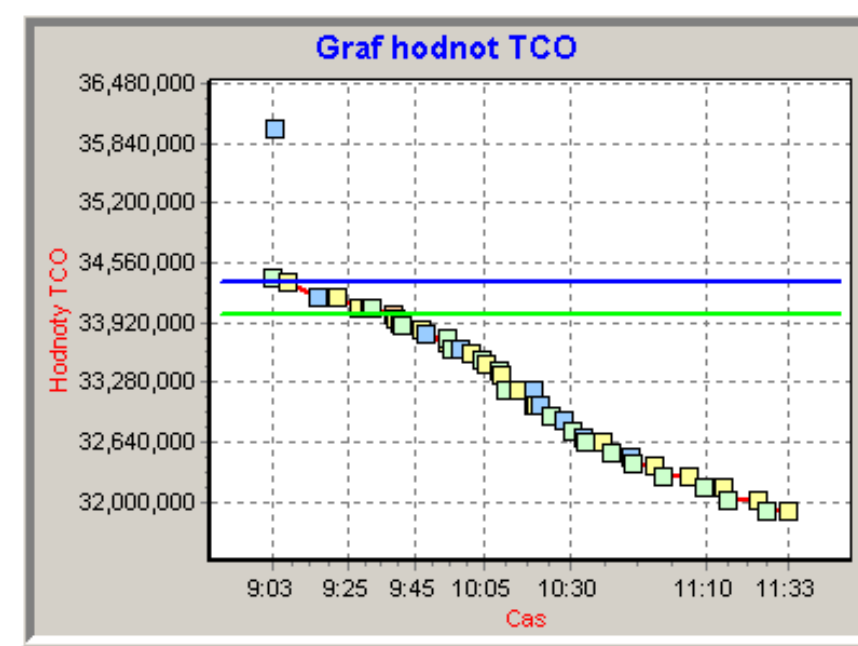
is the biggest heat plant in our country. It supplies heat energy and heat water to 240 thousand of families, different industrial companies and public and private institutions and thus covers 37.5 % of heat energy consumption in Prague. The company produce the electricity too – 138 MW.

First auction was executed for water treatment chemicals in October 2003 and from that time another 9 auctions for chemicals, heating oils and reconstruction were executed. Total volume is about 69.5 mil CZK (2.57 mil €).

Auction: Heating oil

Historic volume: 34 360 000 CZK = 1 270 000 €

Parameters:	1
Suppliers:	4
Bids:	48
Relative saving:	33%



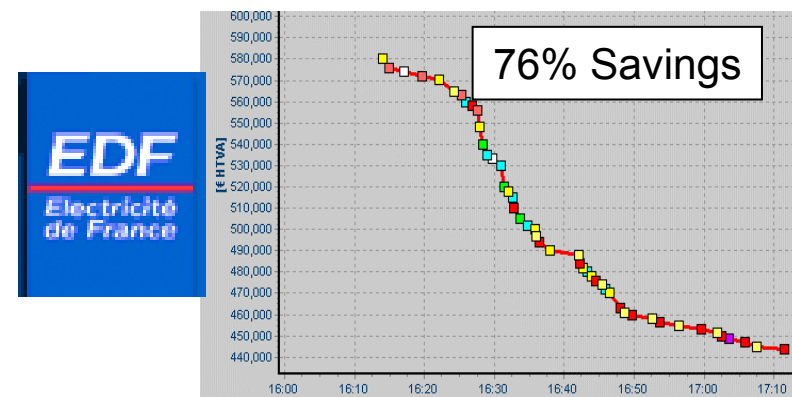


National Gas / Electricity Utility - typical categories:

- Electric / Gas Meters
- New Gas Lines
- New Electricity Lines
- Groundworks
- Maintenance Works

Typical Savings:

- 10-30 % on Meters / Low Volt.
- up to 75 % on Gas/Electricity Lines





Typical Categories:

- Streets
- Bridges
- Building Renovation (Doors, Windows, Paint-Work, New Electrical Lines, Roofs)
- Groundworks
- Maintenance Works

Typical Savings:

- 10-20 % on larger Construction Projects
- 10-35 % on smaller works (more competition !)



ETH Zürich

Typical Categories:

- Paper and Office Supplies
- Cleaning Services
- Maintenance
- Computers

Typical Savings:

- 15-25 % on MRO
- 15-35 % on larger Projects

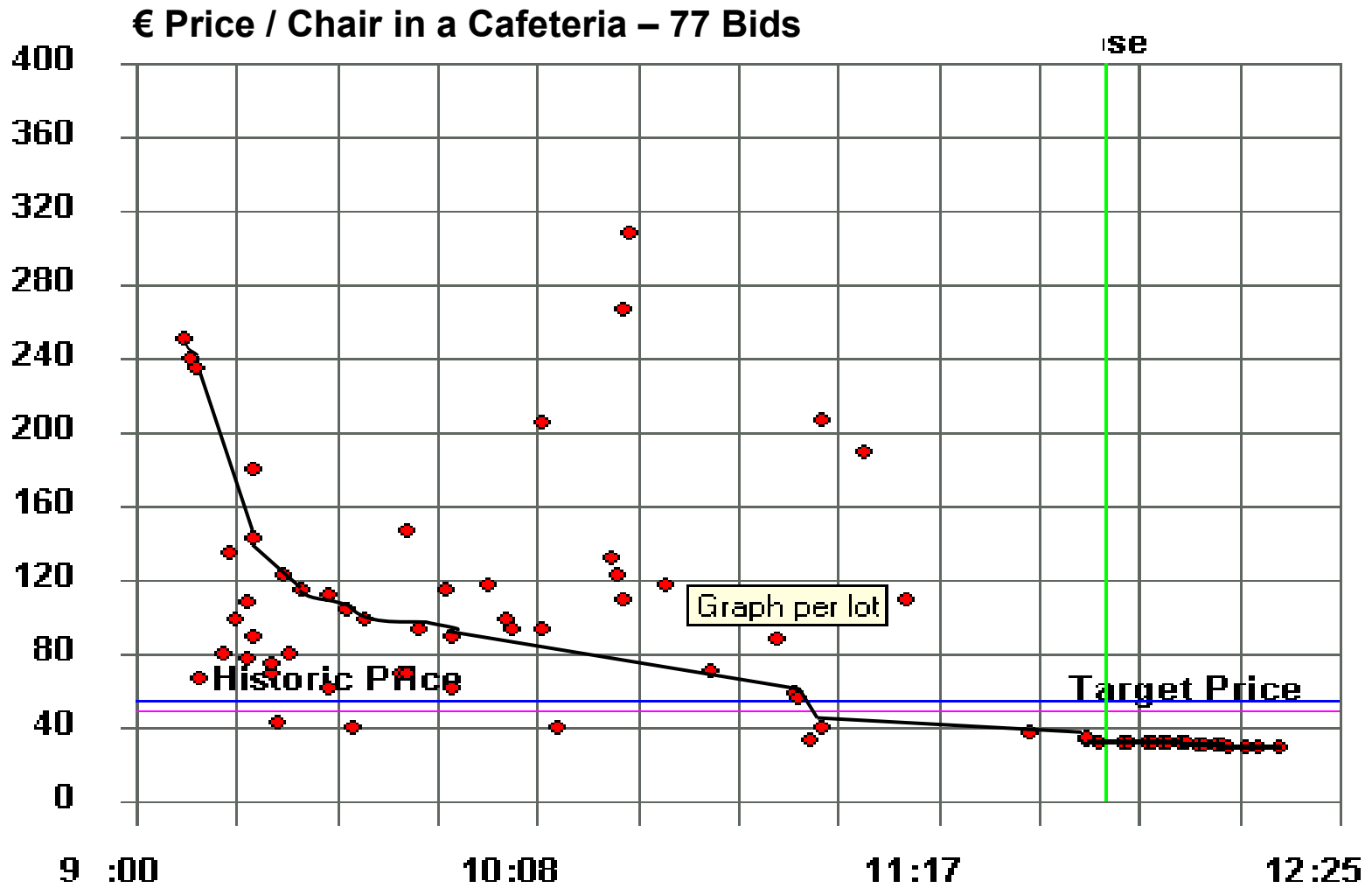


Typical categories negotiated:

- Furniture
- Office Suppliers
- Utility Service
- IT-Hardware & Services
- Vehicles

Typical Savings:

- 10-25%
- Key factors of success are open specification
- Good results also with very small volumes
- In Bavaria also „Micro-Auctioning“ with 500-5000 € volume quite successful



Electronic documents

In

Electronic procurement

Electronic tendering as document and workflow management application focus on the following categories of documents

- **Structured documents (regulated by standards)**
- **Advertising forms**
- **Virtual Company Dossier**
- **Electronic Catalogue**
- **Non-structured documents (user managed)**
- **General bidding documents**

VIRTUAL COMPANY DOSSIER VCD eEnable Supplier

- I. Supplier exists (being registered)**
- II. There is no registered evidence of breaking obligation stated in national legislation (Disclosure 1)**
- III. Every obligation stated in national legislation have been fulfilled (Disclosure 2)**

Supplier qualification against requirements stated in the call

- I. Financial status**
- II. Financial capabilities (free financial capacity)**
- III. Technical background (financial evidence of it)**
- IV. Qualified HR capacity**
- V. References**

Electronic Attestation

Business relation

- I. National level/national regime**
- II. National level/EU regime**
- III. Cross border/national regime**
- IV. Cross border/international regime**

Stakeholders to consider

- I. TAX agency**
- II. Local governments**
- III. Chamber of Commerce**
- IV. eGovernment**

EU environment

- I. EBR European Business Registry**
- II. BRITE project**
- III. PEPPOL project**
- IV. Other third party solution**

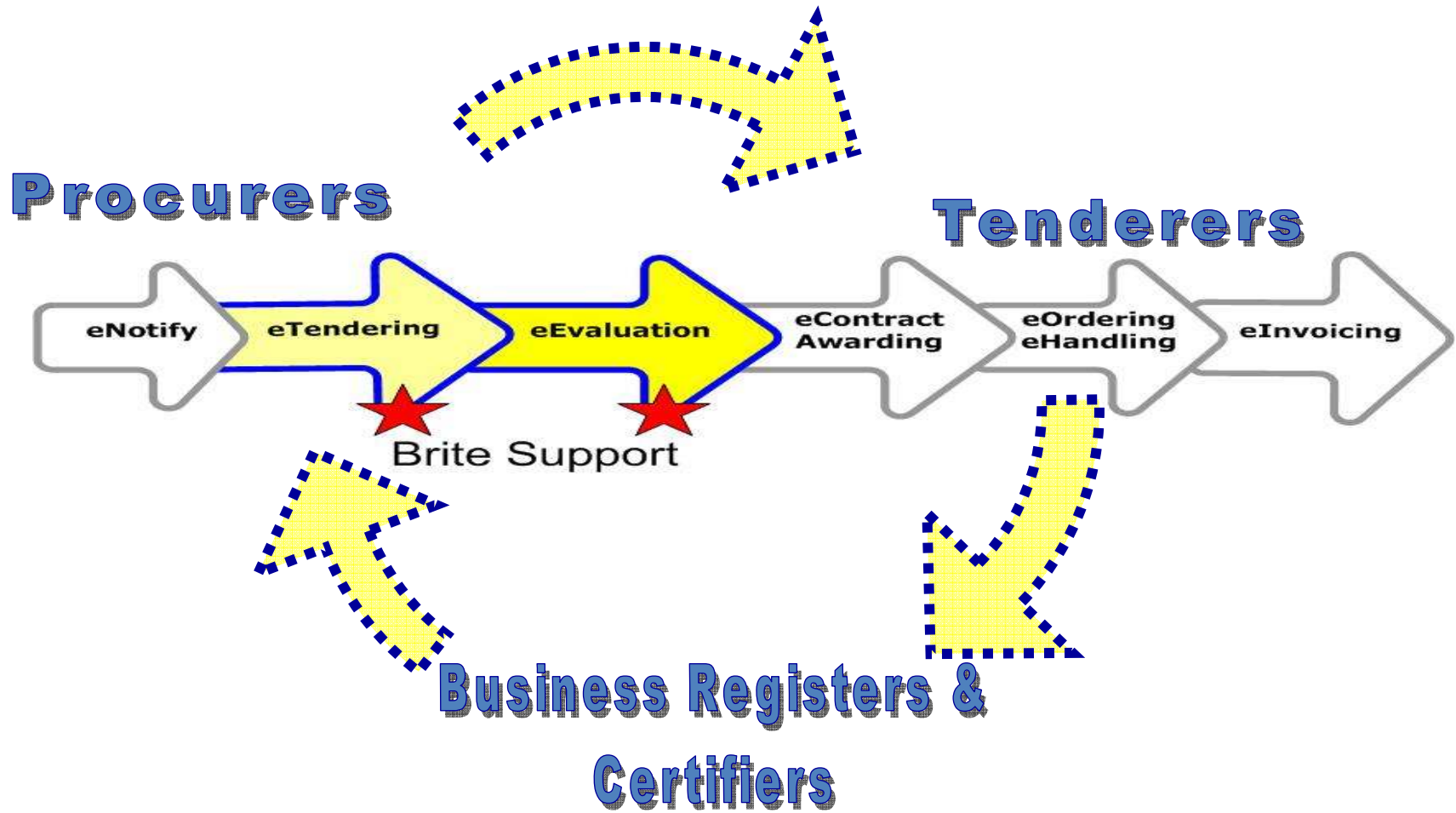
Brite cooperation in running administrative processes

- BRITE **transforms** and **harmonizes** isolated administrative processes into **cooperative** and **coordinated actions** through four service activities:
 - Transfer of registered offices across Europe
 - Cross border “Branching” and “Monitoring”
 - **Cross border public eProcurement support**

Public Procurement Procedures

- From Directive 2004/18/EC of 31/03/2004 on the **coordination of procedures for the award of public works contracts**, public supply contracts and public service contracts:
 - **Article 46**, concerning suitability to pursue the professional activity under bid, requires a bidder to provide **proof of registration** in his **home business register**;
 - **Article 47**, concerning **proof of financial standing**, requires the bidder to furnish documentation such as bank statements and/or **balance sheets**.

joining the eProcurement value-chain



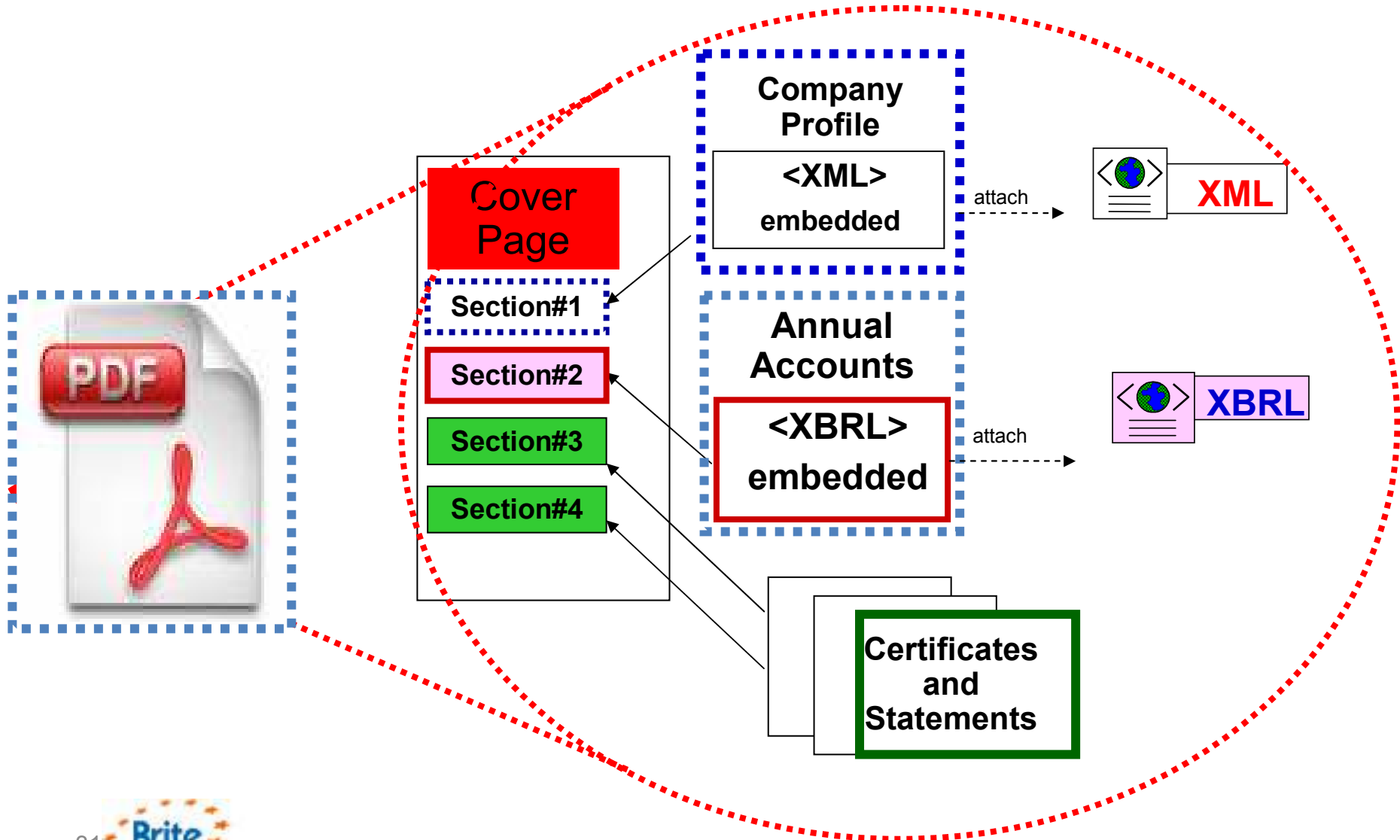
interoperability calls for mediation

- eGovernment context shows an increasing number of *data resources* and *heterogeneities* at all levels
 - Resolving *mismatches* and *interoperability* problems requires *mediation* techniques.
 - Mediation requires *matching mechanisms* to work on a structural level, based on *resources descriptions*.
 - Ontologies allow mediation techniques on a semantic level by providing semantic descriptions of resources

Mediation levels

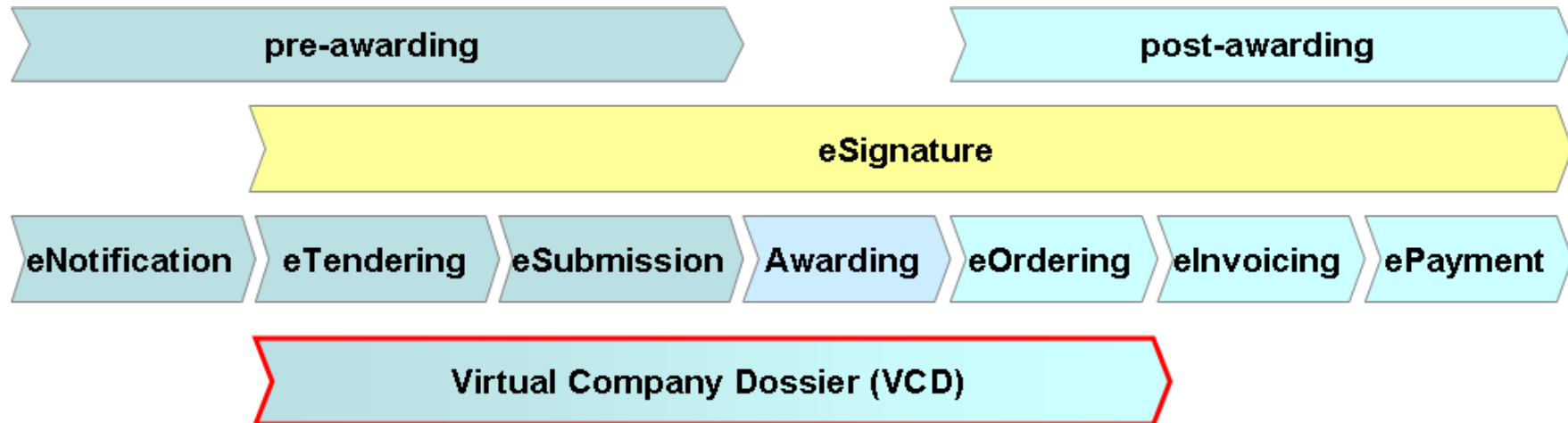
- **Data level mediation**
 - On representation formats, terminology
- **Service level mediation**
 - Getting a good match between service on offer with those on demand
- **Process level mediation**
 - Adding semantic annotations to WebServices
 - Adopting a powerful language for semantic description (OWL-S)

Brite “dossier” structure



Vision of the VCD

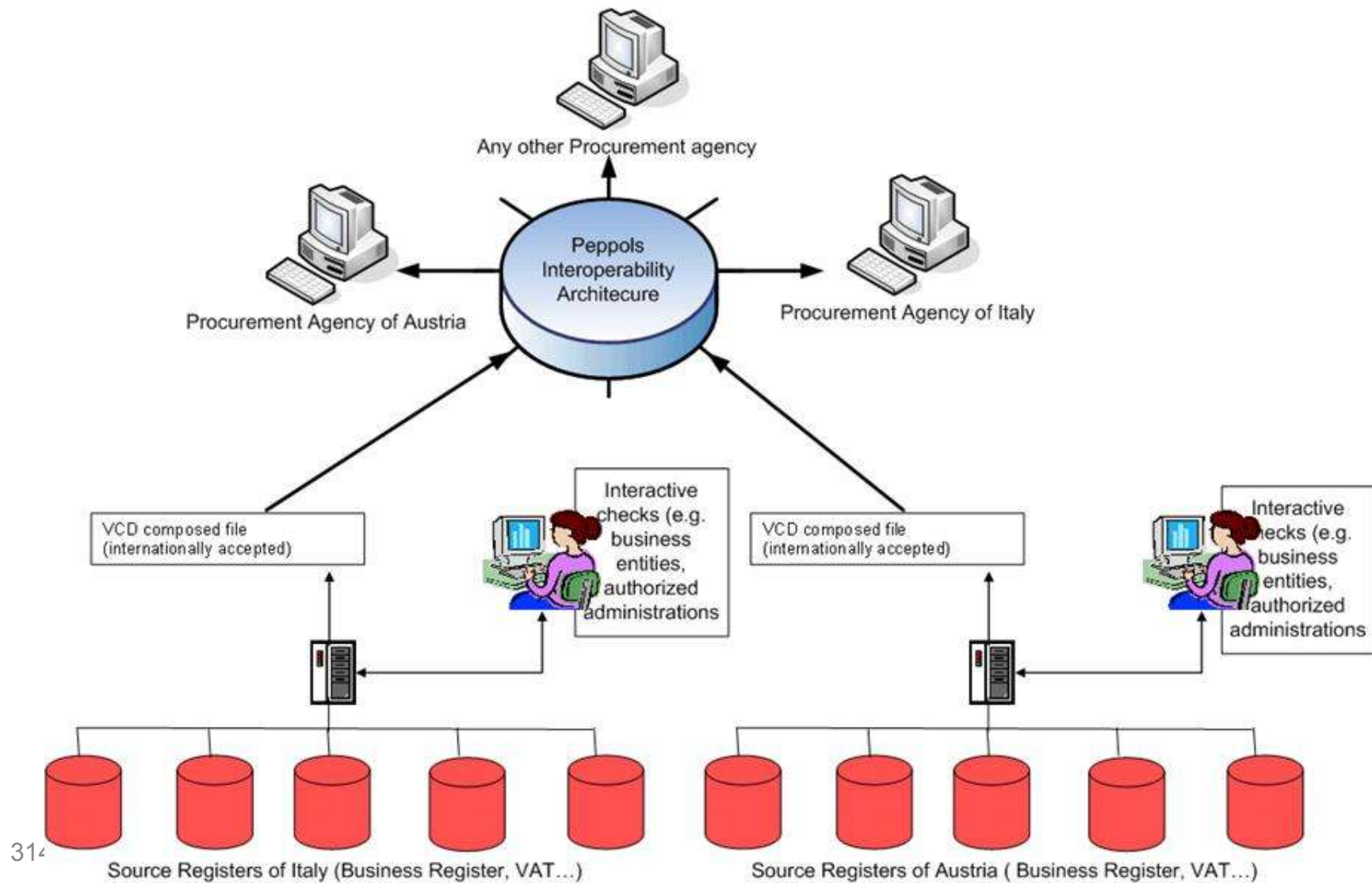
- Support pre-awarding, awarding and post-awarding phase
- Support tenderers to create/check a qualified information package
- Facilitate bidder qualification provisions for cross-border eSubmissions to a public sector awarding entity
- support procurers to check and acquire data about tenderers and to evaluate their bids



Objectives of VCD

- **VCD as qualified information package about business entity**
- **VCD enables the business entity to utilise company information already registered somewhere**
- **VCD as interoperable document solution supporting the exchange of all relevant information and documents in electronic format**
- **✿ VCD will enable submission of the information package electronically to any European public sector awarding entity in Europe**
- **VCD will uniquely describe data among tendering companies and make cross-border bids comparable for the public sector awarding entity**

Context of VCD vision and pilots



Intended contents of the VCD

- **General information about a tendering company to prove its MS enrolment**
 - E.g. Company Profile.
- **Documents to assess the economic and financial standing of a tendering company, e.g.**
 - statements from banks,
 - annual turnover,
 - evidence of relevant professional risks,
 - balance sheet.
- **Numerous certificates, business documents and evidences e.g.**
 - Criminal Records,
 - ISO certificates,
 - Quality assurances,
 - Licences & Patents.

Approach to the VCD

- **Analyse, synthesize and assess relevant dossier structures of MS, projects (e.g. BRITE) and initiatives (e.g. eCertificates on Public Procurement)**
- **Consolidate existing solutions**
- **Develop an interoperable specification of the VCD in a standard schema format on a technical, organisational, semantic and legal level**
- **Implement and pilot the VCD in two countries (AT, IT)**
- **Develop an easy to use implementation and application guideline, settle a maintenance process and develop respective training material**
- **Define rollout masterplan and give recommendations incl. the identification of essential pan-European barriers for VCD interoperability among MS**

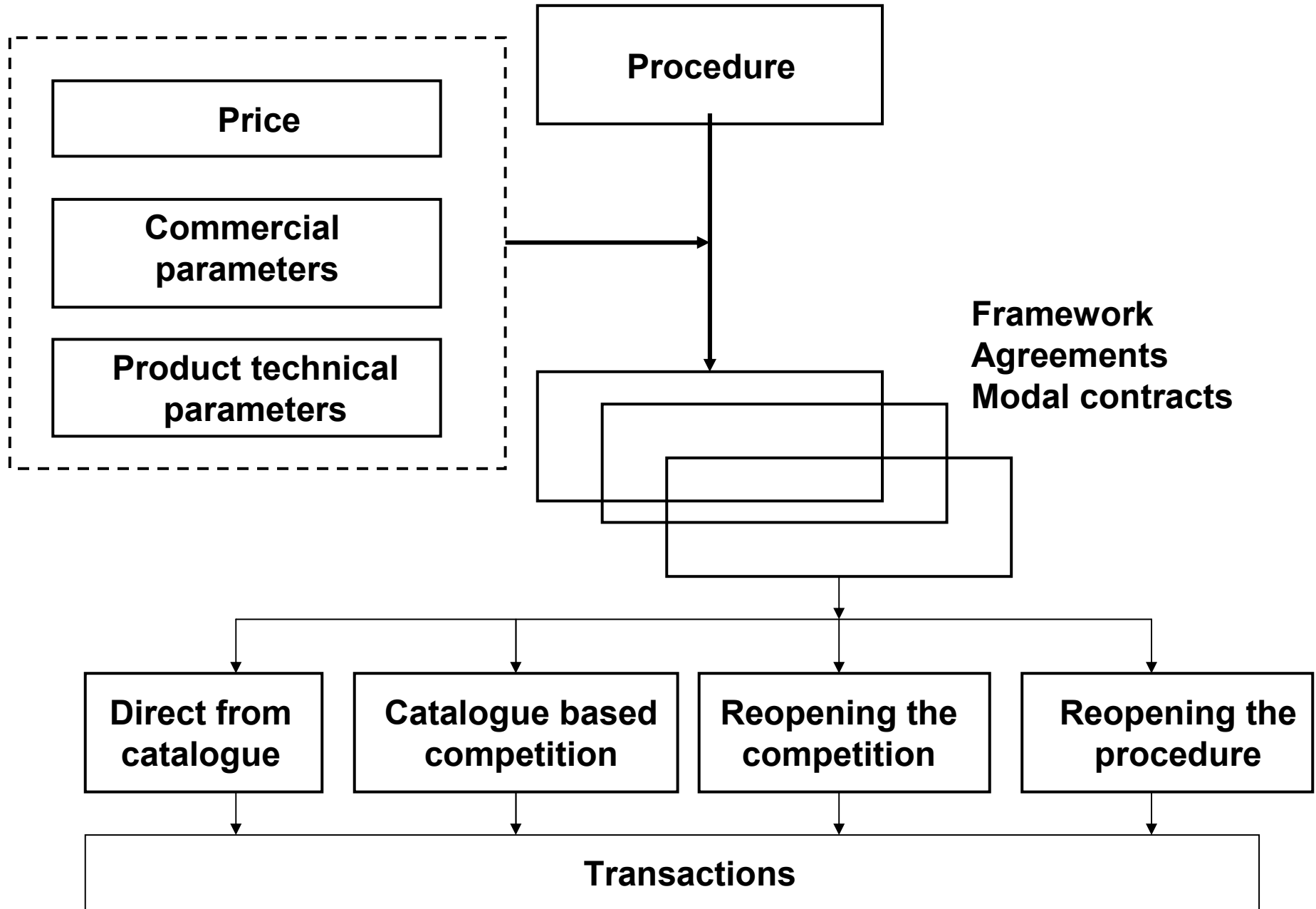
Electronic Catalogues

e-CAT in repetitive procurement:

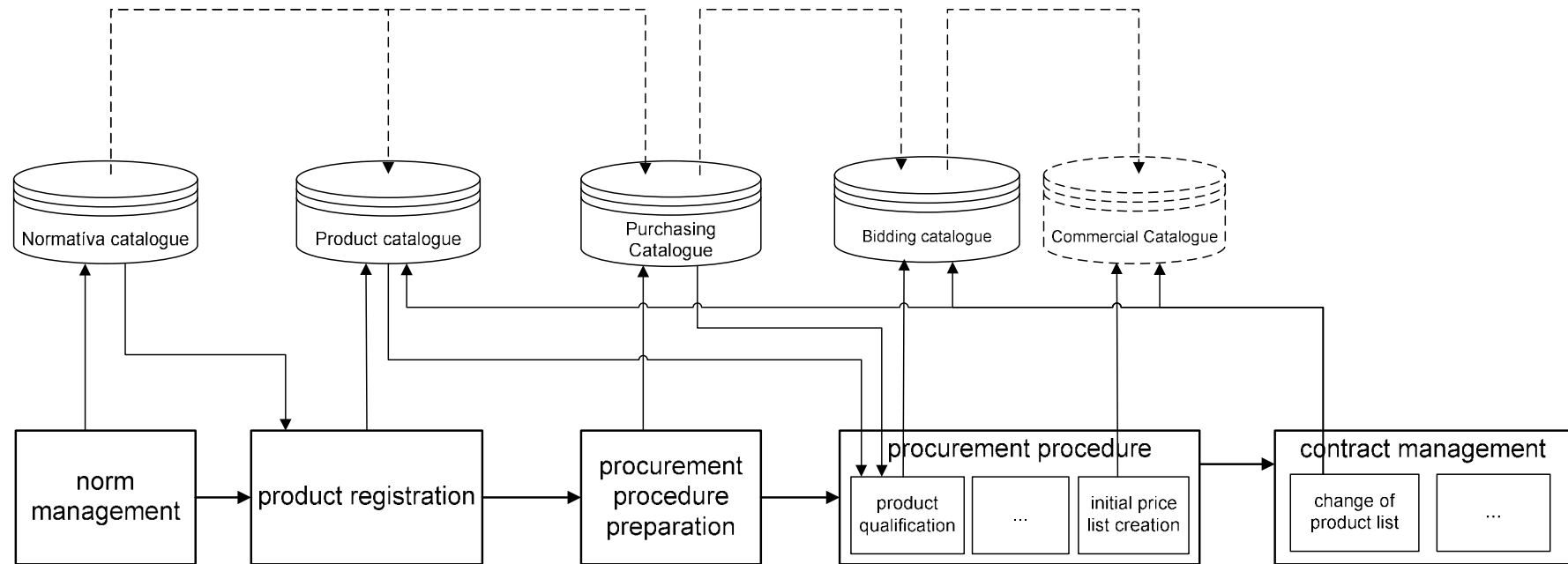
- Framework Agreements**
- and Dynamic Procurement
Systems**

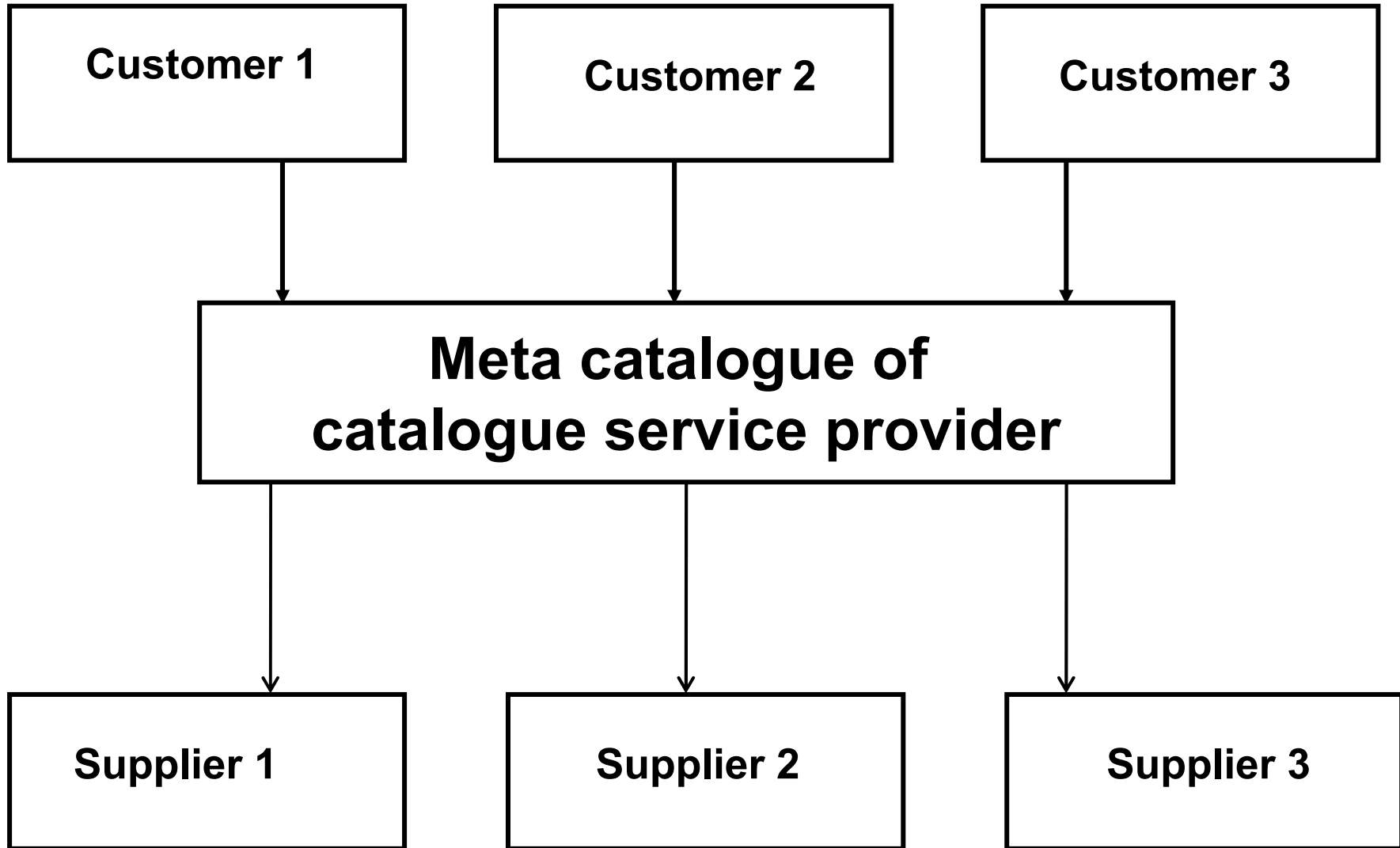
Planning catalogues

- I. Planning procedures**
- II. Planning lots**
- III. Planning Contracts**
- IV. Planning transactions**



The role of the Catalogue Factory in Public Procurement





Supply Chain aiming public sphere

Supplier of manufacturer

Manufacturer

Distributors

Dealer

Integrator/Value added reseller/Service provider

TRANSPARENCY

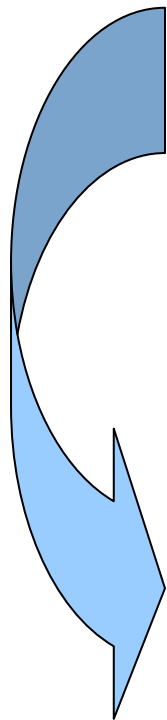
Contracting agency

Budgetary entity

Functional operator

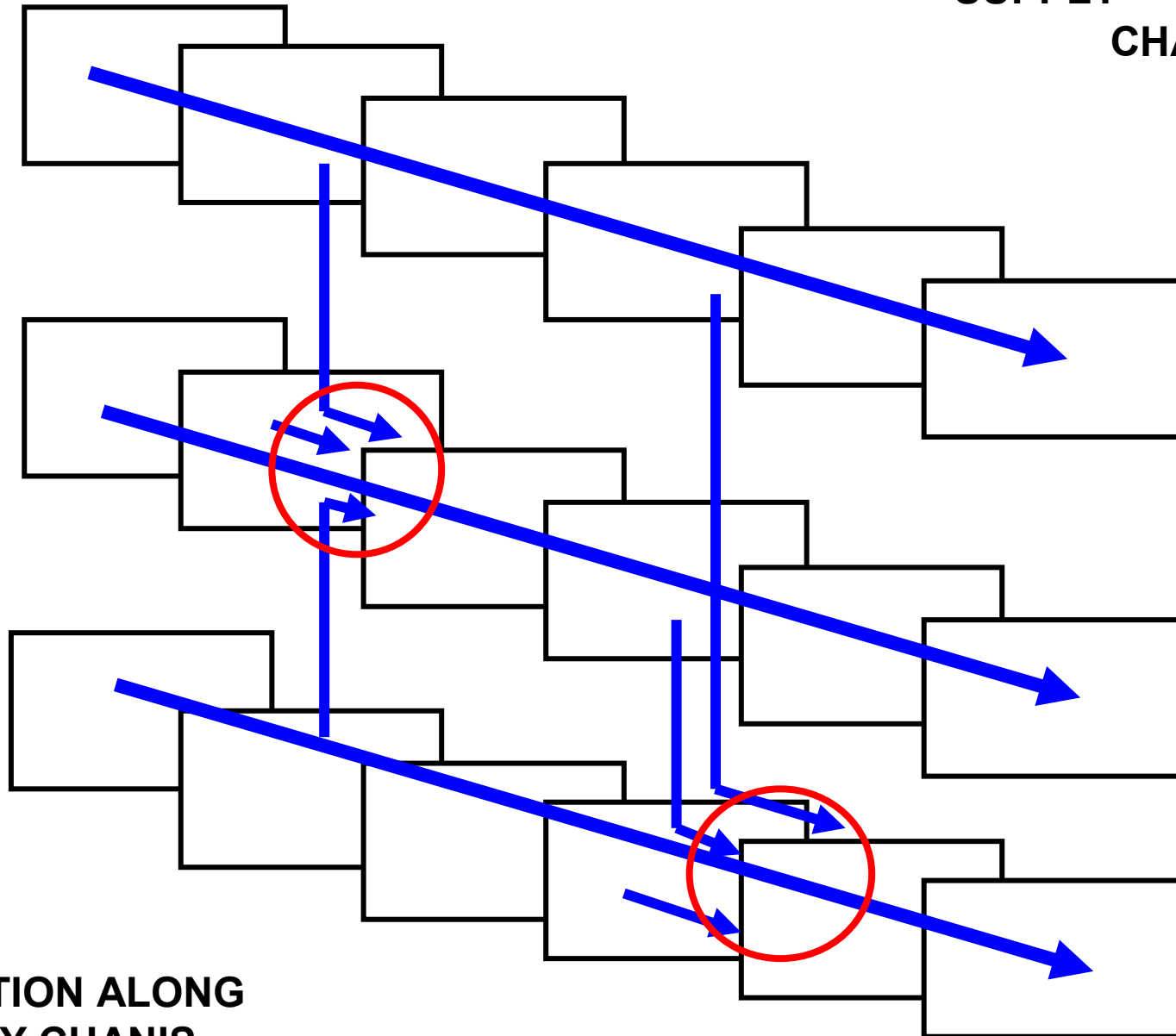
End user

Service level



ADAPTIVE

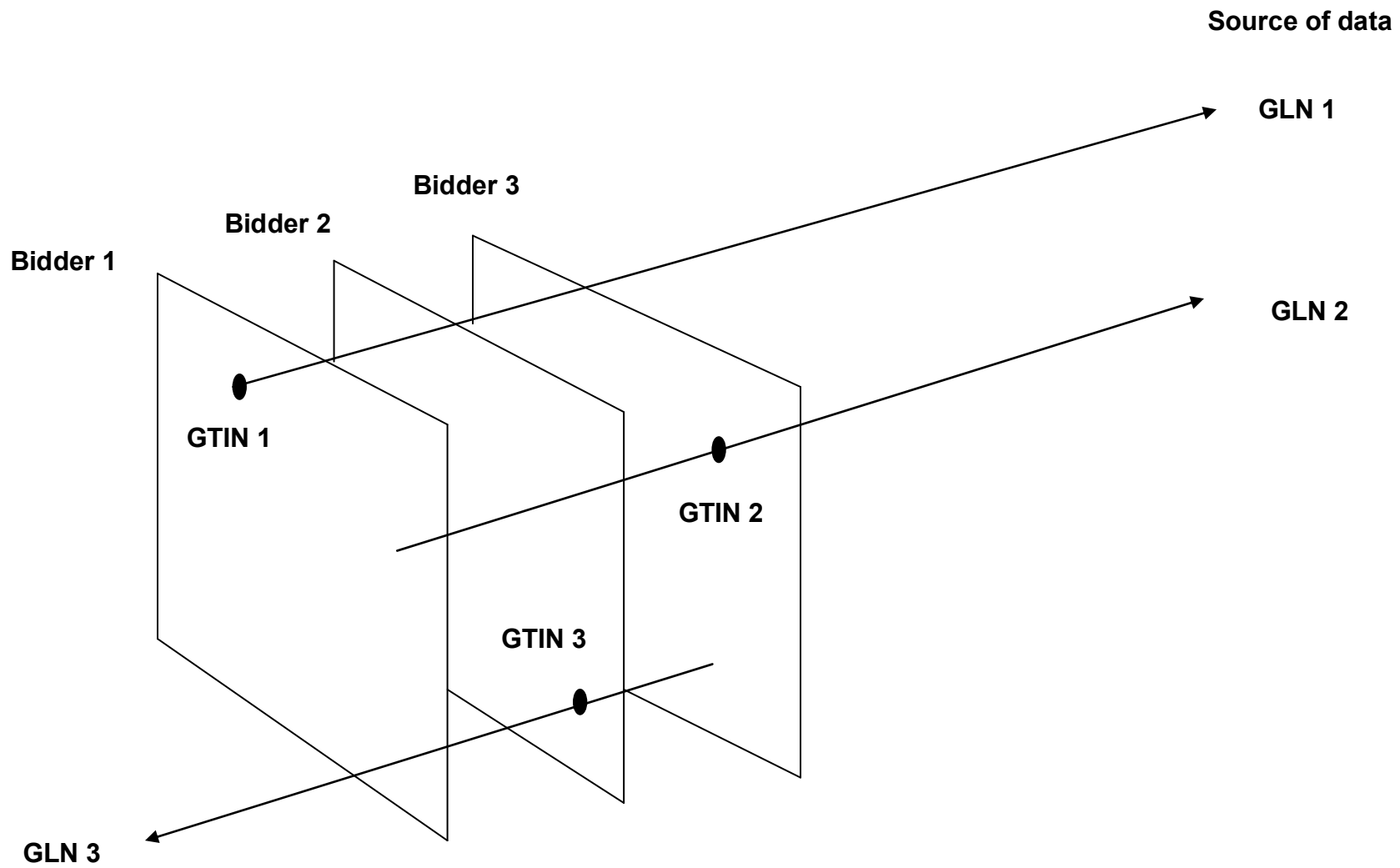
**SUPPLY
CHAINS**



**COMPEATITION ALONG
THE SUPPLY CHANIS**

Catalogue for every actor upstream and downstream

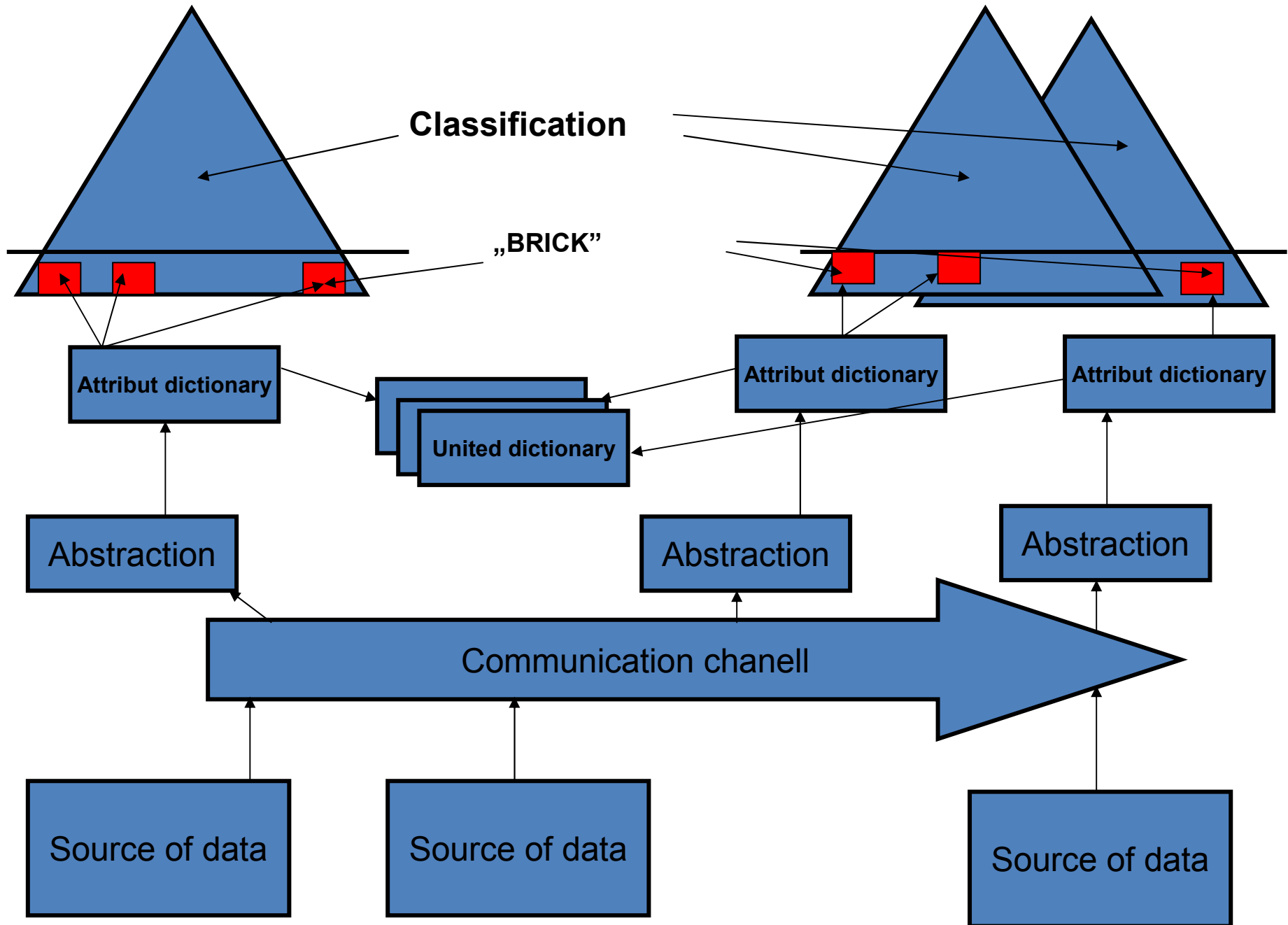
- **For the manufacturer**
- **For the supplier of the manufacturer**
- **For the distributor**
- **For the dealer**
- **For the VAR and service provider**



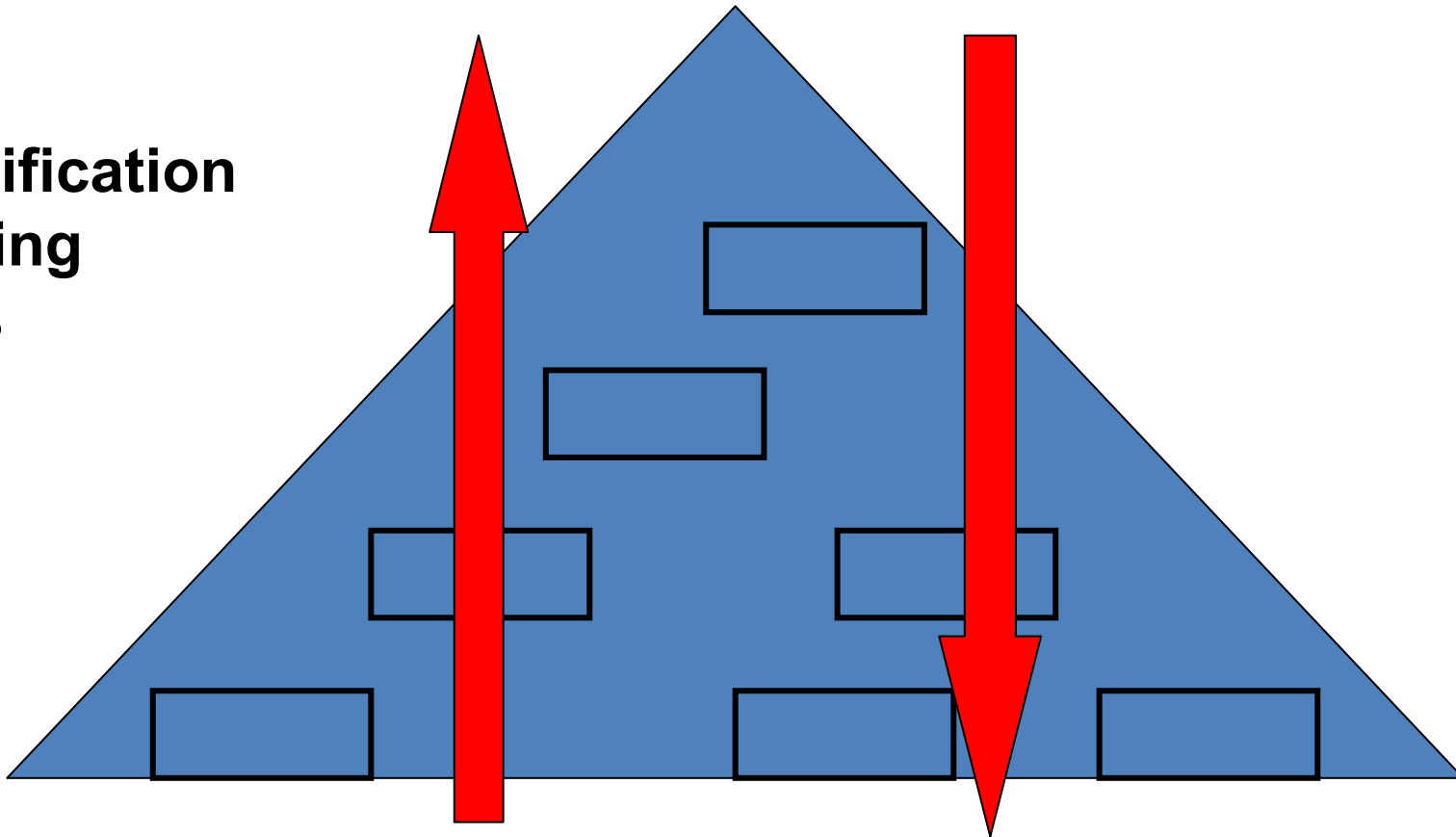
Catalogue views (Supplier, manufacturer)

**The building blocks of a
catalogue:**

The product attributes



**Classification
Building
Rules**



**Abstract
categories**

Class1

Class2

Communication standard

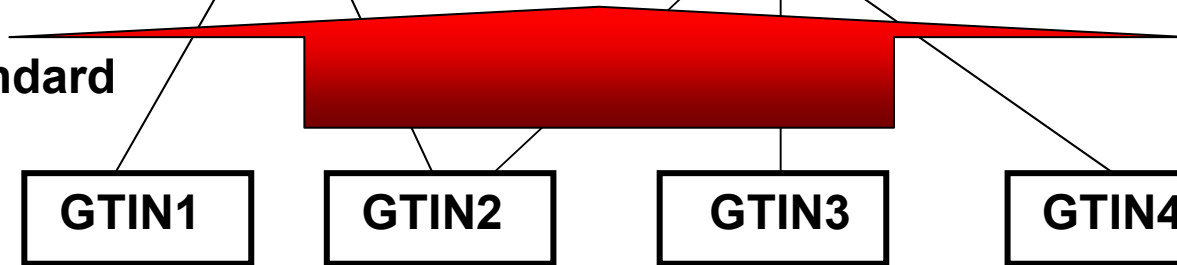
**Commercial
products**

GTIN1

GTIN2

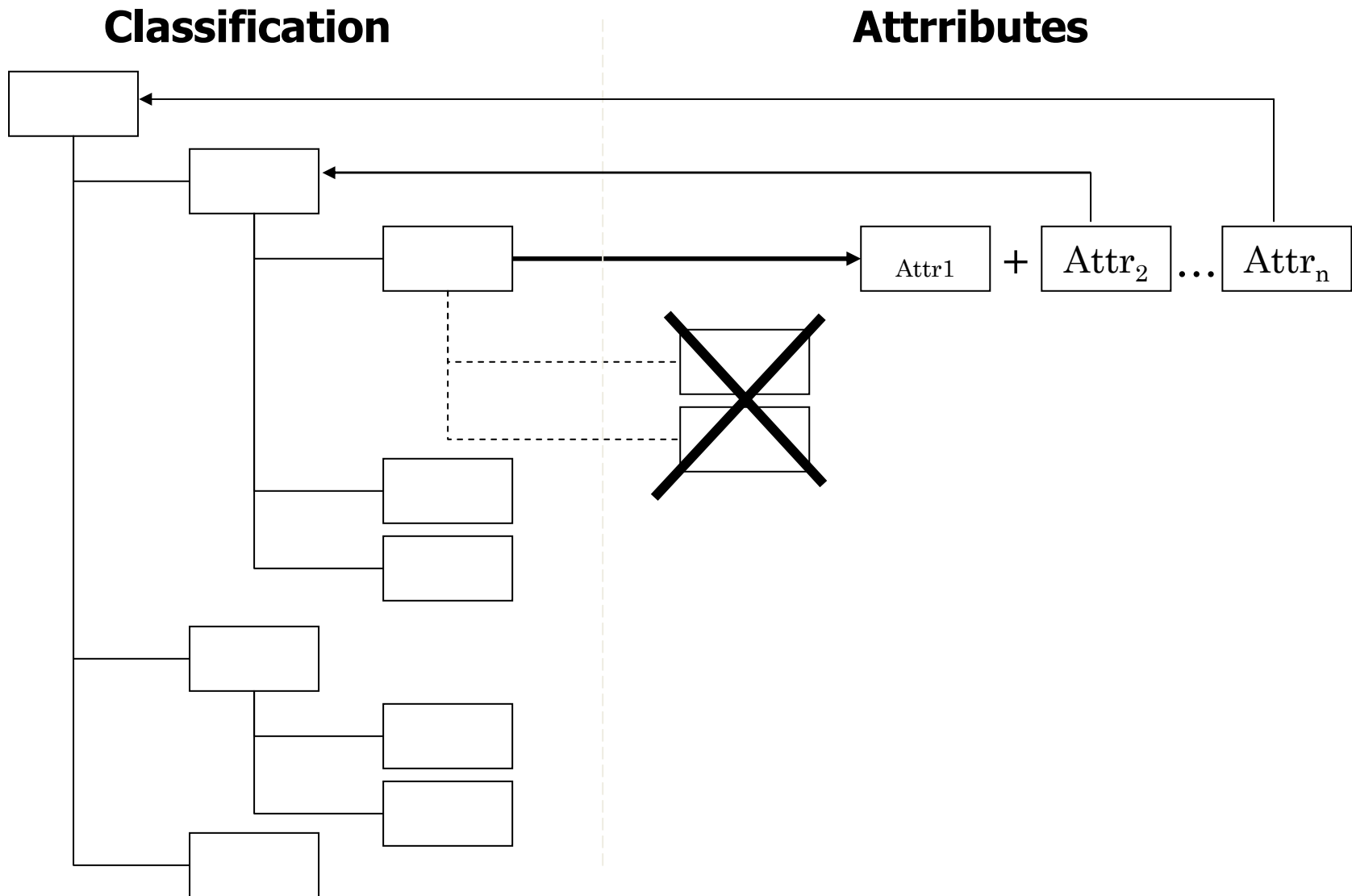
GTIN3

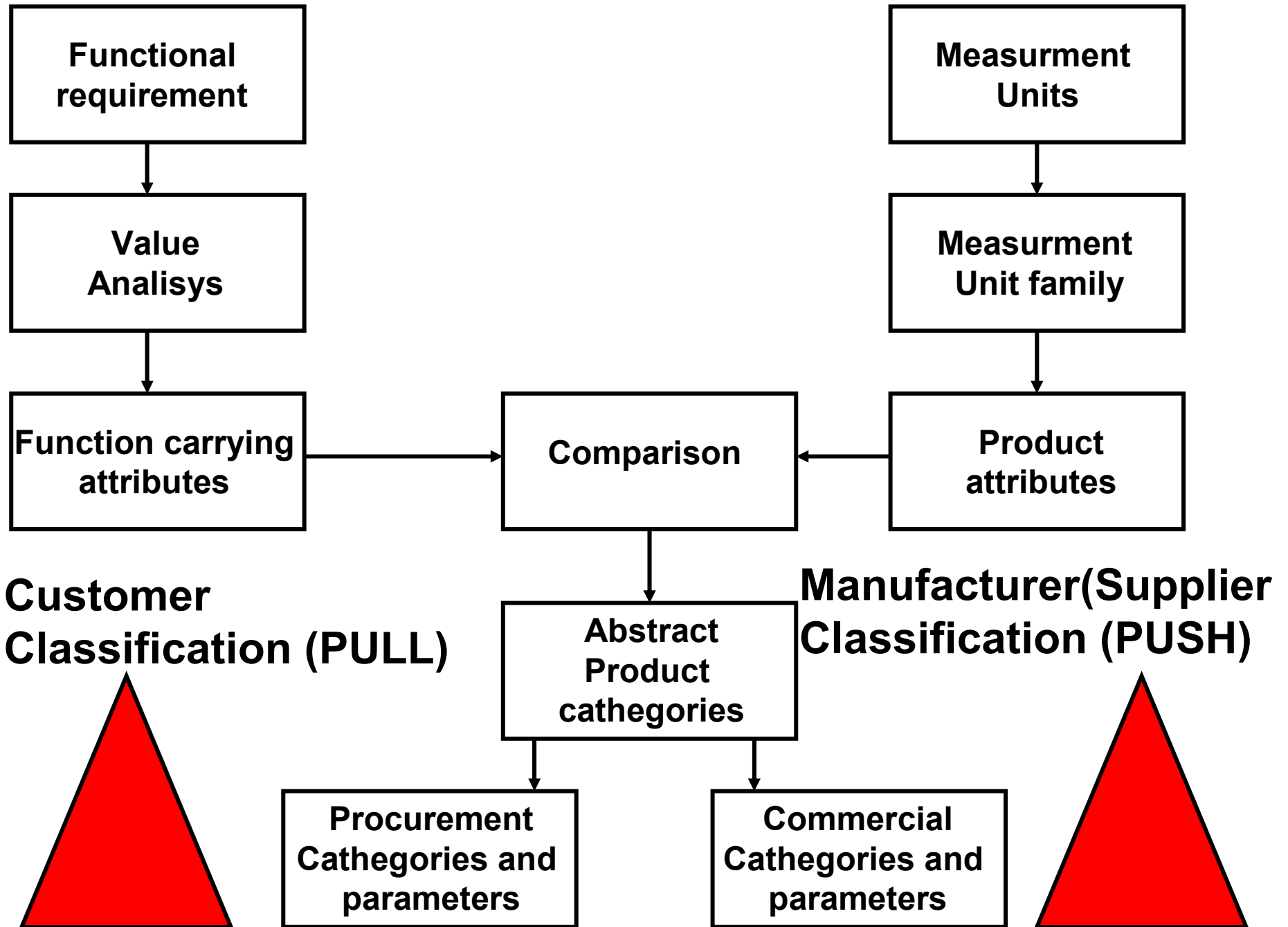
GTIN4



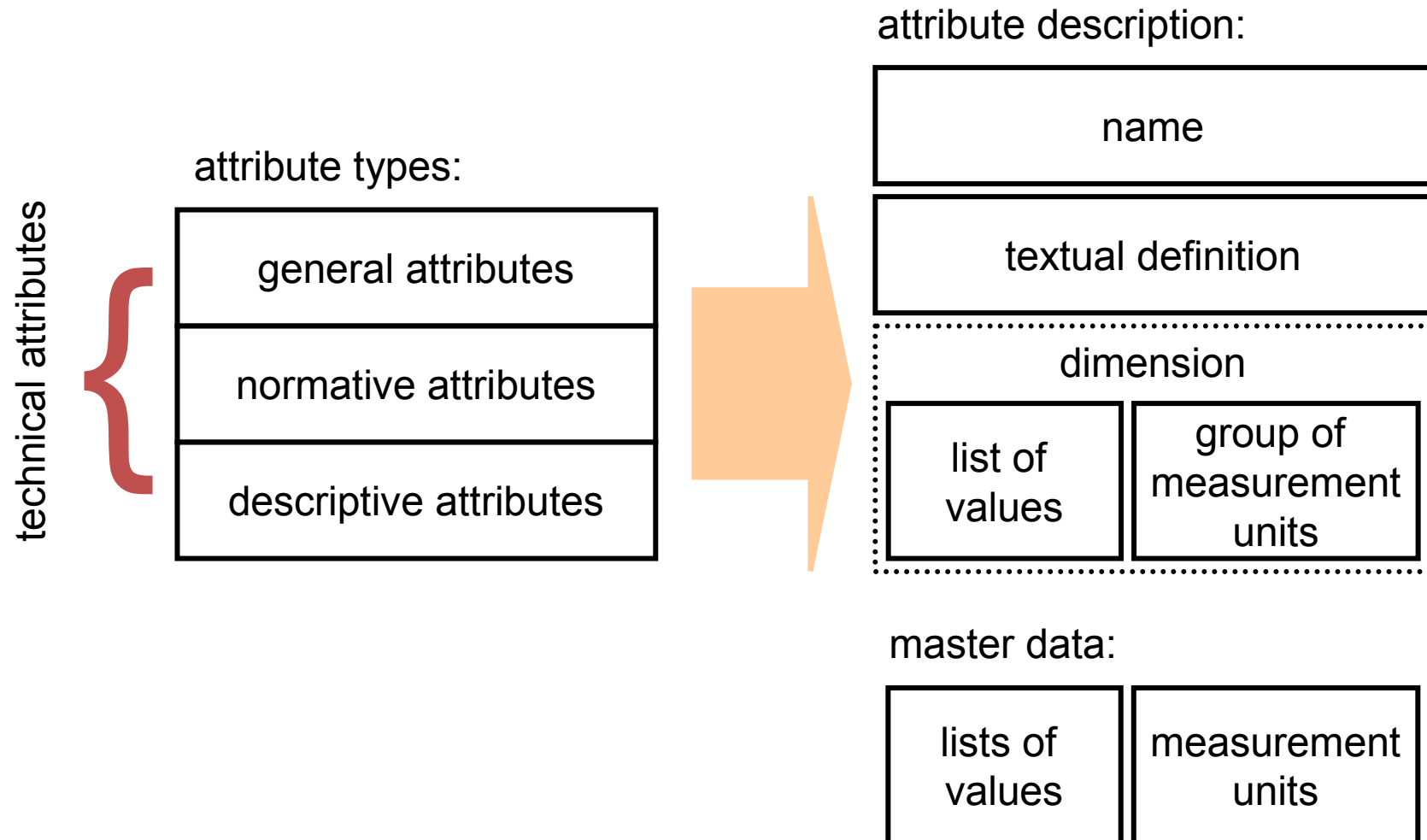
**Bricks for the catalogues
are the bricks for the
classification**

Attributum linked classification

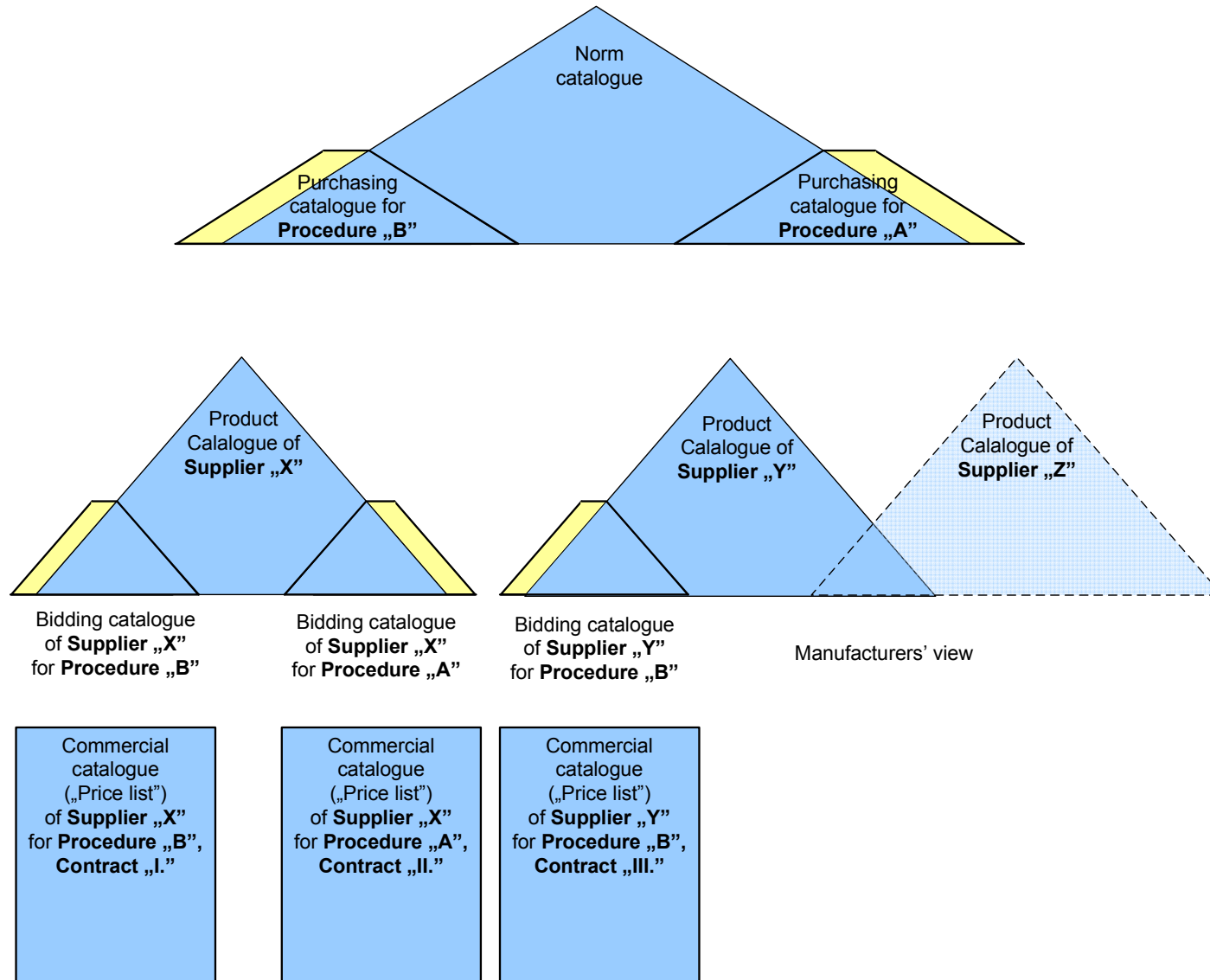




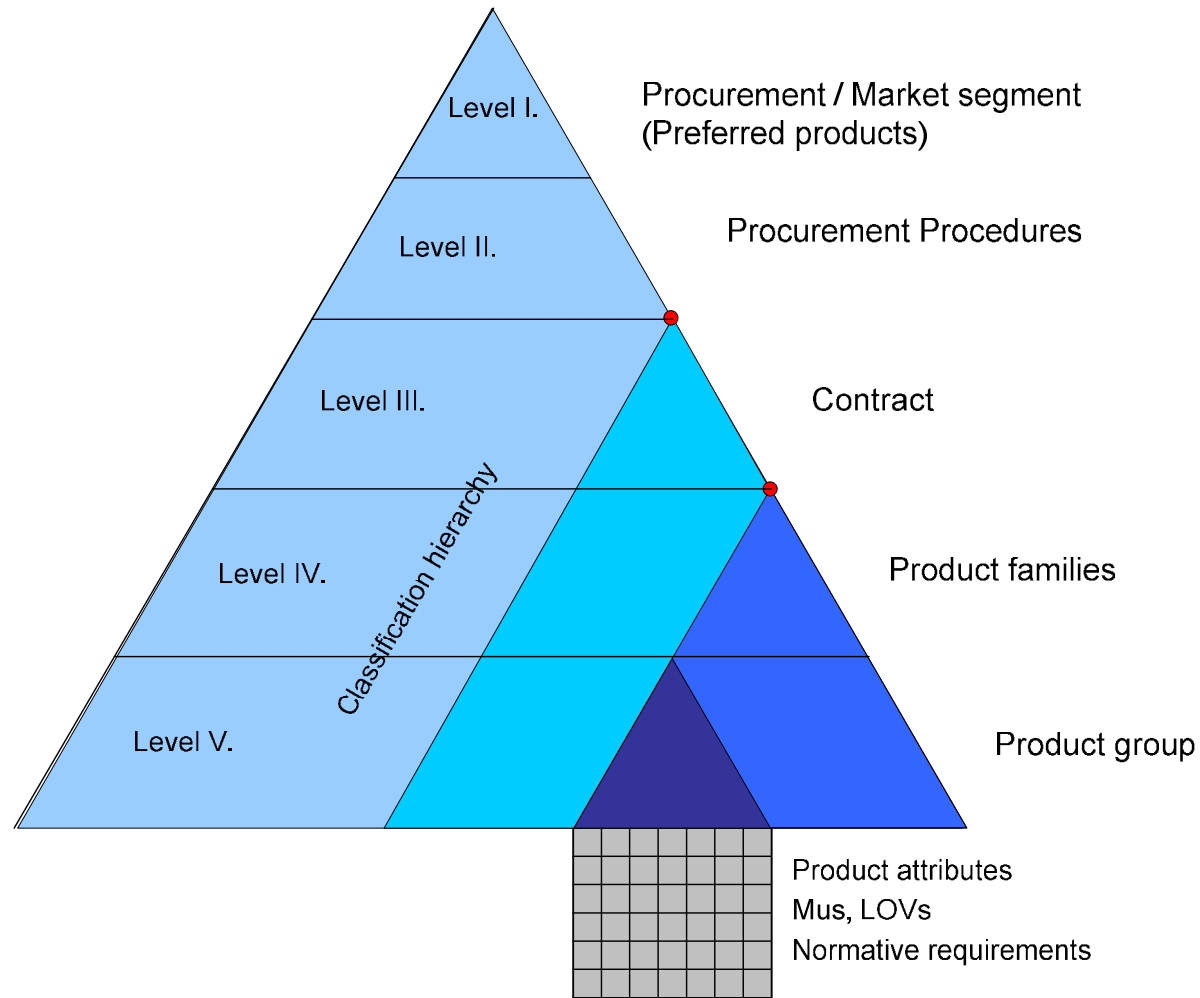
Norm catalogue attributes

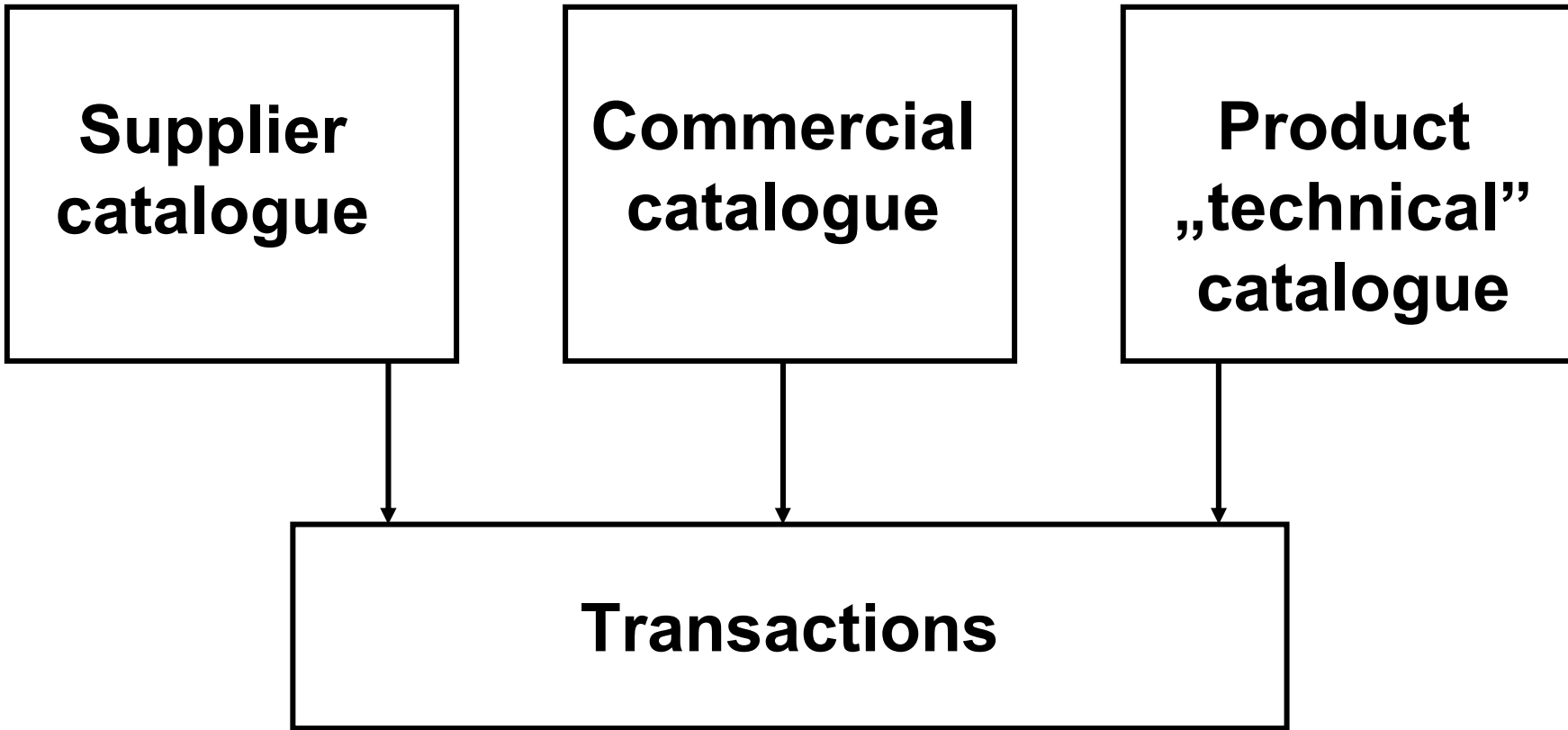


Relations of catalogues



Classification and product hierarchy





...unique ID-s, uniformised structure; classification.

Összes adat

Individual ID-s

[Nyomtatás](#)
HP Magyarország (5990088889001)
HP LaserJet 2500 L nyomtató (2000000001241)



± Termékadatok

Termék azonosítás (010)

[oldal tetejére](#)

GTIN azonosító: 2000000001241

Termék neve:

Termék neve	Nyelv
HP LaserJet 2500 L nyomtató	Magyar

Privát (nem publikus) adat: nem

Termék besorolás / Termék attribútum (050)

[oldal tetejére](#)





Vámtarifaszám: 8471604000 Printer más célra
CPV: 30233231_9 Laser printers.
UNSPSC: 43172510 Lézer nyomtatók
Közbeszerzés: 0101010302 Színes lézer munkacsoportos nyomtató
Termékjellemző(k): igen

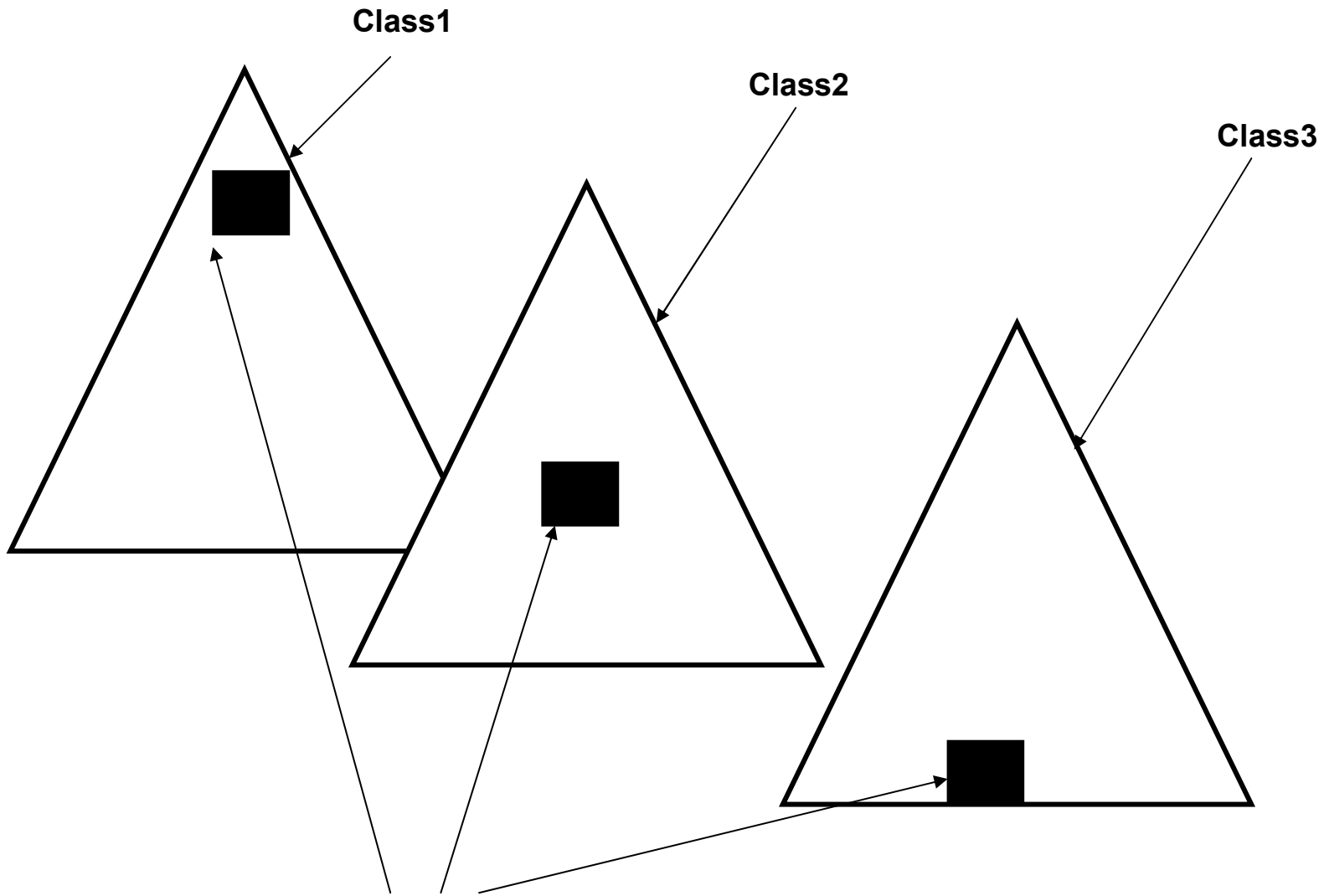
Megnevezés	Érték	Mértékegység
Nyomtatási technológia	négyemenetes lézer	
Terhelhetőség	30000	oldal/hó
A4-es fekete szöveg nyomtatási sebesség -normál	16	lap/perc
A4-es teljesen színes oldal nyomtatási sebesség - normál	4	lap/perc
Nyomtatási minőség fekete	600x600	dpi

Uniformised structure

The tool for classification and comparison

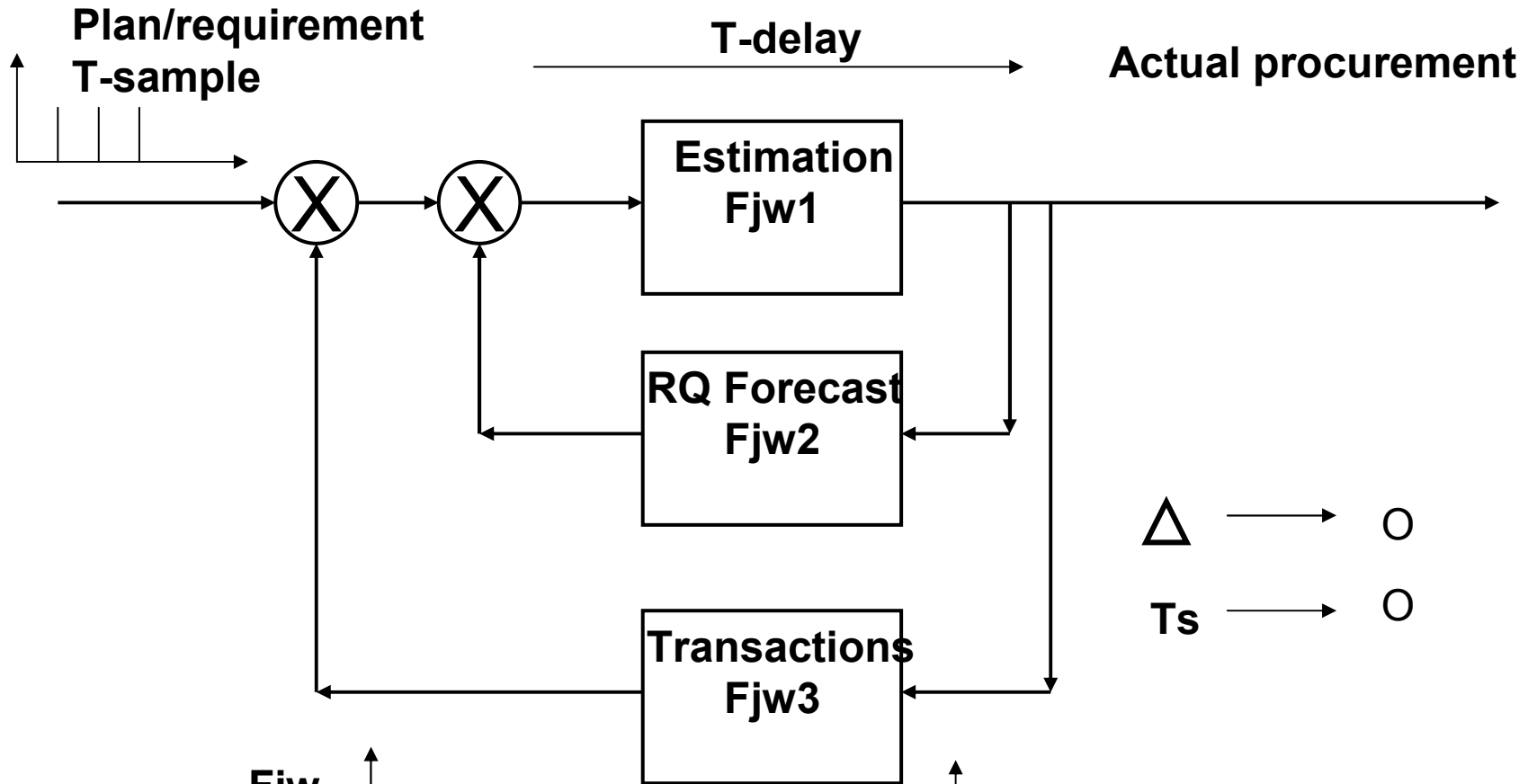
Mező	Keresett érték	Keresés típusa
Kiegészítő besorolás (Közbeszerzés)	lézer	Karakterorozat bármely része
Tartozékok	CD-ROM nyomtató szoftver	
Tonerkazetta névleges kapacitása 5%-os lefedettséggel 2000 oldal		>=

Kiegészítő besorolás (Közbeszerzés)	Termék azonosítója	Bemeneti papírtálca max. kapacitása - normál	Kimeneti papírtálca max. kapacitása - normál	Legnagyobb helyigény - szélesség	Legnagyobb helyigény - magasság	Legnagyobb helyigény - mélység	Kép
0101010302 Színes lézer munkacsoportos nyomtató	2000000001241	120 lap	125 lap	482 mm	325 mm	451 mm	
0101010303 Színes lézer nagyteljesítményű/részlegszintű nyomtató	2000000001258	100 lap	250 lap	577 mm	640 mm	740 mm	
0101010304 Színes lézer dokumentumkezelő nyomtató	725184846984	3100 lap	3600 lap	683 mm	600 mm	633 mm	
0101010402 Tintasugaras személyi nyomtató	2000000001197	100 lap	50 lap	445 mm	197 mm	380 mm	

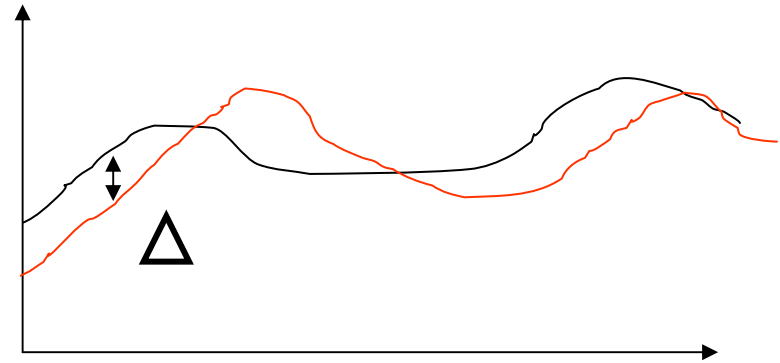
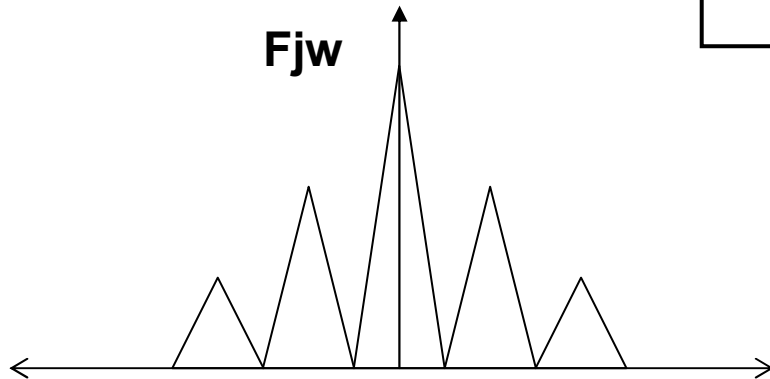


GTIN

Dynamic Classification System



$\Delta \longrightarrow \bigcirc$
 $T_s \longrightarrow \bigcirc$



Procedure

- **LOT**

- **Contract**

- **Procurement category**

- **Abstract product**

- **Physical product**

Build 1070 - Microsoft Internet Explorer provided by Clarity Consulting Kft
 http://konancia.sisco.hu:8080/CatalogController/

Bejelentés-kezelés Normatíva-kezelés Termékkatalógus Eljáráskezelés Ajánlati katalógus Adminisztráció

Normatíva-kezelés

Klasszifikáció-struktúra

Megjelölés: Alapértékek

Név:

Megjelölés:

Verzió: 002 (Punkta)

- 00 Szolgáltatások
- 01 Kommunikációs eszközök és szolgáltatások
- 02 Informatika rendszerek
 - 02.01 Szerver rendszerek és elemek
 - 02.01.01 Operációsrendszerek
 - 02.01.01.00 Operációsrendszerek
 - 02.01.01.00.00 Operációsrendszerek
 - 02.01.01.02 Jogi szoftverek
 - 02.01.01.03 Levelező- és információkommunikációs rendszerek
 - 02.01.01.04 Adatkezelő rendszerek
 - 02.01.01.05 Csapatszámítógépes támogatási alkalmazások
 - 02.01.01.06 Portál alkalmazások
 - 02.01.01.07 Rendszer-egytémködéselt támogatási szoftveralkalmazások
 - 02.01.01.08 Célokalkítások
 - 02.01.01.09 Segédprogramok
 - 02.01.01.10 Felosztóeszközök
 - 02.01.01.11 Elektronikus kézikönyvek
 - 02.01.01.12 Visszvédelmi szoftverek (IT biztonság)
 - 02.01.01.13 Tartalomzároló (DCM) szoftverek (IT biztonság)
 - 02.01.01.14 Adatosság- és hozzáférés-vezérlő szoftverek (IT Biztonság)
 - 02.01.01.15 Hálózati biztonság szoftverek (IT Biztonság)
 - 02.01.01.16 Biztonság- és sérülékenység kezelési szoftverek (IT Biztonság)
 - 02.01.01.17 Egyéb biztonsági szoftverek (IT Biztonság)
 - 02.01.01.18 Elektronikus aláírás létrehozó és ellenőrző szoftverek

Normatíva-kezelés

A normatíva-struktúra karbantartása, valamint lehetőség van felülről/oldaltól beállításokat, illetve ezekhez tulajdonságokat rendelni

Tulajdonság-definíció

Műveléskezelés

Értékelés-kezelés

Felhasználó:

Új elem felvétele

Név:

Elhelyezés: AB Utólag

Bevétel-karbantartás

Bejegyzés:

Asztalos (jelölés):

Asztalos (száma):

Név:

Létesítés:

Központ:

Összeállítás követelmények

Összeállítás követelmények

Tulajdonságok **Követelmények**

Negnevezés: Értékelés:

Jelleg:

Kötelező:

Normatív tulajdonság:

Hierarchia-ábrák:

Töröl:

Létesítés:

Név	Norm. tul.	Kötl.
1. Automatikus frissítés	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. Interaktív frissítés, javítás	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. Csoportkezelés, disztribúció lista	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Biztonsági protokollok	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. Jelzés-vevő	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6. Csapatszámítógépes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>


Sorok száma: 6

Internet 100%

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Bejelentés-kezelés Normatíva-kezelés Termékkatalógus Eljáráskezelés Ajánlati katalógus Adminisztráció Kijelentkezés

Normatíva-kezelés



Normatíva-kezelés
A normatíva-struktúra karbantartása, -ajánlati lehetőség van felülről/oldaltól beállításokat, illetve az ezekhez tulajdonságokat rendelni

Tulajdonság-definíció
Mintatulajdonság-kezelés
Értéklista-kezelés

Felhasználó: a

Klasszifikáció-struktúra

Megjelölés **Alapértékek**

Név:

Megjelölés: ▼

Verzió: 002 (Munka)

- 00 Szolgáltatások
- 01 Kommunikációs eszközök és szolgáltatások
- 02 Informatika rendszerek
 - 02.01 Szerver rendszerek és elemek
 - 02.01.01 Operációsrendszerek
 - 02.01.01.00 Operációsrendszerek
 - 02.01.01.02 Jódó szoftverek
 - 02.01.01.03 Levelező- és információsrendszerek
 - 02.01.01.04 Adatkezelő rendszerek
 - 02.01.01.05 Csoportmunkát támogató alkalmazások
 - 02.01.01.06 Portál alkalmazások
 - 02.01.01.07 Rendszerek együttműködését támogató szoftveralkalmazások
 - 02.01.01.08 Célalkalmazások
 - 02.01.01.09 Segédprogramok
 - 02.01.01.10 Felosztóeszközök
 - 02.01.01.11 Elektronikus katalógusok
 - 02.01.01.12 Visszélési szoftverek (IT biztonság)
 - 02.01.01.13 Tartalomzáró (DCM) szoftverek (IT biztonság)
 - 02.01.01.14 Adatosság- és hozzáférés-vezérlő szoftverek (IT biztonság)
 - 02.01.01.15 Hálózati biztonság szoftverek (IT biztonság)
 - 02.01.01.16 Biztonság- és sérülékenység kezelési szoftverek (IT biztonság)
 - 02.01.01.17 Egyéb biztonsági szoftverek (IT biztonság)
 - 02.01.01.18 Elektronikus aláírás létrehozó és ellenőrző szoftverek

Bevétel-karbantartás

Megjelölési beállítások **Ország/ tulajdonságok/ értéklista**

Azonosító (jelölés):

Azonosító (száma):

Név:

Létes:

Kidőzigzés időt:

Név	Norm. tul.	Köt.
1. Automátikus frissítés	✓	✓
2. Internetről frészthető, javítható	✓	✓
3. Csoportkezelés, distribúció lista	✓	✓
4. Biztonságos protokollok	✓	✓
5. Jelzésre valószínű	✓	✓
6. Csoportjelzők	✓	✓

Sorok száma: 6

Frissítés **Törölés** **Rögzítés** **Összeállítás**

Kiválasztott tulajdonságra vonatkozó követelmények megadása

Tulajdonságok **Követelmények**

Megnevezés: ▼

Értéklista-elem							
1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Típus: <input type="text" value="A legkisebb értékelési"/></td> <td>Nincs ilyen lehetőség</td> </tr> <tr> <td>Darab: <input type="text" value="1"/></td> <td>Felhasználói létrehozás és beavatkozással</td> </tr> <tr style="background-color: #f0f0f0;"> <td></td> <td>Felhasználói beavatkozás nélkül is az felhasználói létrehozás</td> </tr> </table>	Típus: <input type="text" value="A legkisebb értékelési"/>	Nincs ilyen lehetőség	Darab: <input type="text" value="1"/>	Felhasználói létrehozás és beavatkozással		Felhasználói beavatkozás nélkül is az felhasználói létrehozás
Típus: <input type="text" value="A legkisebb értékelési"/>	Nincs ilyen lehetőség						
Darab: <input type="text" value="1"/>	Felhasználói létrehozás és beavatkozással						
	Felhasználói beavatkozás nélkül is az felhasználói létrehozás						
2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Típus: <input type="text"/></td> <td>Nincs ilyen lehetőség</td> </tr> <tr> <td>Darab: <input type="text"/></td> <td>Felhasználói létrehozás és beavatkozással</td> </tr> <tr> <td></td> <td>Felhasználói beavatkozás nélkül is és felhasználói létrehozás</td> </tr> </table>	Típus: <input type="text"/>	Nincs ilyen lehetőség	Darab: <input type="text"/>	Felhasználói létrehozás és beavatkozással		Felhasználói beavatkozás nélkül is és felhasználói létrehozás
Típus: <input type="text"/>	Nincs ilyen lehetőség						
Darab: <input type="text"/>	Felhasználói létrehozás és beavatkozással						
	Felhasználói beavatkozás nélkül is és felhasználói létrehozás						
3	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Típus: <input type="text"/></td> <td>Nincs ilyen lehetőség</td> </tr> <tr> <td>Darab: <input type="text"/></td> <td>Felhasználói létrehozás és beavatkozással</td> </tr> <tr> <td></td> <td>Felhasználói beavatkozás nélkül is és felhasználói létrehozás</td> </tr> </table>	Típus: <input type="text"/>	Nincs ilyen lehetőség	Darab: <input type="text"/>	Felhasználói létrehozás és beavatkozással		Felhasználói beavatkozás nélkül is és felhasználói létrehozás
Típus: <input type="text"/>	Nincs ilyen lehetőség						
Darab: <input type="text"/>	Felhasználói létrehozás és beavatkozással						
	Felhasználói beavatkozás nélkül is és felhasználói létrehozás						
4	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Típus: <input type="text"/></td> <td>Nincs ilyen lehetőség</td> </tr> </table>	Típus: <input type="text"/>	Nincs ilyen lehetőség				
Típus: <input type="text"/>	Nincs ilyen lehetőség						

Frissítés

Build 1070 - Microsoft Internet Explorer provided by Clarity Consulting Kft.

http://konancia.sysco.hu:8080/CatalogController/

Bejelentés-kezelés Normatíva-kezelés Termékkatalógus Eljáráskezelés Ajánlati katalógus Adminisztráció Kijelentkezés

Normatíva-kezelés

Tulajdonság-definíció

Név	Jelleg	Jelleg/megnevezés	Több	Leírás
Dokumentáció internetes hozzáférése	Értékelési	Bdöntendő kérdés		A szoftver kézikönyve, használati útmutató és egyéb fontosabb dokumentációja hozzáférhető-e magyar nyelven az Interneten?
Egyéni karantén kezelés	Értékelési	Bdöntendő kérdés		Az alkalmazás karantén kezelése funkcionális tartalma-e az egyéni karantén kezelés magvalahtóságát?
Előnyös megvásárlás	Értékelési	Bdöntendő kérdés		Az internetről több rendelkező-e előnyös megvásárlás funkcióval?
Ehernet csatlakozás sebessége	Értékelési	Ehernet csatlakozás sebessége		A beépített hálózati kártya sebessége.
Egyedi vízjel	Értékelési	Bdöntendő kérdés		Egyedi vízjel elhelyezését biztosítja-e a rendszer.
Asztali nézet asztali típusa	Értékelési	Asztali nézet asztali típusa		Asztali nézet asztali típusa, hogy a leendő felhasználó melyik oldalra kell a nagyobb munkafelület lehet jobban vagy balra.
Asztali nézet hosszúság (-10)	Mértékegység-cso	Nincs		Az asztali nézet hosszúságának mérete. 0 (nulla) esetben a beállítás irányára nem figyel.
Bélyegzethatár megtele	Értékelési	Bdöntendő kérdés		Számbélyeg bélyegzethatár megtele az alkalmazás szolgáltató szoftverrel való elvártatás.
Fik beállítás megtele	Értékelési	Fik beállítás megtele		A Fik beállítás megtele funkció szoftver megtele.
Karantén fők típusa	Értékelési	Karantén fők típusa		A karanténban található fők típusa, amely lehet karanténfők, hagyományos fők, karanténfők, nyitott fők.
Glóbusz	Értékelési	Bdöntendő kérdés		MSZ EN 590/2004 szabványnak megfelelő-e az üzemanyag.
Gépjármű motor szolgáltatás vásárlás	Értékelési	Bdöntendő kérdés		A gépjármű motor -, fűtés motor.
335/2005. (XII. 29.) Korm. Rendelet meg	Értékelési	Bdöntendő kérdés		Megfelel a 335/2005. (XII. 29.) Korm. Rendeletnek a közfeladatot ellátó szolgáltatók közfeladatának általános követelményéről.
Archiválás képességek	Értékelési	Archiválás képességek		A rendszer archiválás képessége. Archiválás az adatok kora alapján (A régi logokat archiválásba helyezi.), Archiválás leírása alapján (A régi logokat csak akkor mozgatja).
Állományok egyszerű védetté tétele	Értékelési	Bdöntendő kérdés		Az állományok egyszerű védetté tétele egyszerűen felhasználóbarát környezetben, védetté tehető-e a felhasználó által.
Agent nélküli autentikáció	Értékelési	Bdöntendő kérdés		Agent nélküli autentikáció, valószínűleg, ahol nem rendelkezik autentikáció agent-tel, ott egy előre beállított interakciót lefolytatva képes autentikálni a felhasználót.
Beépített lemezrendező	Értékelési	Bdöntendő kérdés		Van-e beépített lemezrendező?
Beépített nyomtató	Értékelési	Bdöntendő kérdés		A táblázatoló rendelkezik-e beépített normál papírral nyomtatóval?
Tanúsítvány visszavonási lista (CRL) ke	Értékelési	Tanúsítvány visszavonási lista (CRL) ke		A tanúsítvány visszavonási lista (CRL) ke kezelésére milyen funkciókat támogat (CRL publikus (pl. LDAP, Microsoft Active Directory, stb.), CRL érvényességét szabályozza, stb.).
Csoporthoz tartozó, direktívák lista	Értékelési	Bdöntendő kérdés		Képes-e a szoftver felhasználói csoportokhoz tartozó, szabványos, előre beállított szabványokhoz tartozó?
Hirevetés bővíthetőség	Értékelési	Hirevetés bővíthetőség		A hirevetés bővíthetőség mérete.
Teljes RAIN kapcsolat	Mértékegység-cso	Mérete - MB, GB, TB		A maximális méret, amelyre a legnagyobb méretű fájl tárolható.
Hirtelenség	Értékelési	Hirtelenség		Egyéb szoftver hirtelensége, amely lehet jobban, balra vagy visszahívható.

Sorok száma : 1741

Név:
Jelleg:

Mértékegység-csoport:
Érték típus:
Érték:
Több:

Definíció:

Internet 100%

Build 1070 - Microsoft Internet Explorer provided by Clarity Consulting Kft

http://konancia.svsop.hu:8080/CatalogController/

Bejelentés-kezelés Normatíva-kezelés Termékkatalógus **Eljárások-kezelés** Ajánlati katalógus Adminisztráció

Kijelentkezés

Eljárások-kezelés

Eljárások listája

Eljárásadatok

Beszerezési katalógus

Kiválasztott beszerzői kód:
Beszerezési katalógus létrehozása,
beszerzői követelmények szerkesztése

Beszerezési katalógusok

Felhasználó: s

Művelet **Töröl** **Letöltés**

Kiválasztási-struktúra

Megnevezés **Alapértékek**

Név:

Megnevezés:

Csak a kiválasztott beszerzők

Verzió: 1 (Hatalmas)

Eddig kiválasztott beszerzők száma:

+ Megnevezés

- 00 Szolgáltatások
- 01 Kommunikációs eszközök és szolgáltatások
 - 01.01 Beszerzési kapcsolók és kábelhálózatok
 - 01.02 Átviteli és postai hálózati elemek
 - 01.02.01 Helyi számítógép-hálózati (LAN) elemek
 - 01.02.01.01 Desktop switchek
 - 01.02.01.01.01 Nem menedzselhető desktop switchek
 - 01.02.01.01.02 Menedzselhető desktop switchek
 - 01.02.01.02 Moduláris switchek
 - 01.02.01.03 Content Delivery Network
 - 01.02.02 Helyi társasági hálózat (WAN) elemek
 - 01.02.03 Optikai átviteli eszközök (DWDM, SD-WAN)
 - 01.02.04 Beszed-átviteli társasági IP alapú hálózatok
 - 01.02.05 Vezeték nélküli (Wireless) eszközök
 - 01.02.06 Biztonsági szűrőberendezések (IT Biztonság)
 - 01.02.07 Hálózati menedzselési rendszerek
 - 01.02.08 Passzív hálózati elemek
 - 01.03 Internet szolgáltatás
 - 01.04 Nyílt mobil kommunikációs eszközök és szolgáltatások
 - 01.50 Kommunikációs eszközökhez kapcsolódó szolgáltatások
 - 02 Információtudományi rendszerek

Sorok száma: 1/28

Név:

Kapcsolat:

Státusz:

Művelet **Töröl** **Letöltés**

Beszerezési tulajdonságok megtekintése

Azonosító (Vevő): **Név** **Norm.** **Köt.**

Azonosító (szájt): 1167. Televíziós kábelhálózat

Név: 1168. SNMP menedzselés

Gyakori termék: 1169. SYSLOG támogatás

Azonosító	Név	Norm.	Köt.
1167	Televíziós kábelhálózat		
1168	SNMP menedzselés	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1169	SYSLOG támogatás	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1170	Radius támogatás	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1171	RMON funkciók	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
1172	Moduláris	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Sorok száma: 1/2

Művelet **Beszerezési követelmények**

Kiválasztott tulajdonságra vonatkozó beszerzői követelmények hozzáadása

Normatív követelmények **Beszerezési követelmények**

Megnevezés **Értéke**

Jeleg

Kötés

Normatív tulajdonság

Hierarchia-típus

Töröl

Követelmények kapcsolata

Leírás

Típus

Darab

Művelet

Catalogue operations

Punch out

Request

Send

Manage

The CEN/ISSS Workshop

on business interoperability interfaces for public procurement in Europe (CEN/ISSS WS/BII) is established in order to

- **identify** and document the required business interoperability interfaces related to pan-European electronic transactions in public procurement expressed as a set of technical specifications, developed by taking due account of current and emerging **UN/CEFACT** standards in order to ensure global interoperability;
- **co-ordinate** and provide support to pilot projects implementing the technical specifications in order to remove technical barriers preventing interoperability

A profile description is a technical specification describing

- a business processes, i.e. a detailed description of the way trading partners intend to play their respective roles, establish business relations and share responsibilities to interact efficiently with the support of their respective information systems,
- the business rules governing the execution of that business process,
- possible run-time scenarios and the business commitments achieved,
- the electronic messages exchanged as part of the business process and the sequence in which these documents are exchanged,
- the information content of the electronic messages exchanged.

Name (2)	ID (1)	Type (3)	Disseminat- ion level (4)	Delivery date (5)
Tender Publication Basic	BII14	TS	P	Aug. 15. 2008
Tender Publication Advanced	BII10	TS	P	Aug. 15. 2008
Pre-qualification and tender Invitation	BII11	TS	P	Aug. 15. 2008
Tendering Simple	BII12	TS	P	Aug. 15. 2008
Catalogue only	BII01	TS	P	Oct. 31. 2008
Catalogue with update	BII02	TS	P	Oct. 31. 2008
Basic Order only	BII03	TS	P	Oct. 31. 2008
Basic Invoice only	BII04	TS	P	Oct. 31. 2008
Basic billing	BII05	TS	P	Oct. 31. 2008
Basic procurement	BII06	TS	P	Oct. 31. 2008
Simple procurement	BII07	TS	P	Oct. 31. 2008
Simple billing with dispute and reminder	BII08	TS	P	Oct. 31. 2008
Punch-out	BII18	TS	P	Oct. 31. 2008
Request for Quotation	BII20	TS	P	Oct. 31. 2008
Catalogue deletion	BII16	TS	P	Oct. 31. 2008
Multi party catalogue	BII17	TS	P	Oct. 31. 2008
Advanced Procurement	BII19	TS	P	Oct. 31. 2008
Statement	BII21	TS	P	Oct. 31. 2008
XSD generation for each TS		O	P	Oct. 31. 2008
Phase 3 summary report		R	P	Nov. 13. 2008
Update to TS based on pilot input		TS	P	Feb. 28. 2009
WG1 final report.		R	P	Mar.

•References

- UN/CEFACT Modelling Methodology (CEFACT/TMG/N090R10, November 2001)
- UN/CEFACT ebXML Core Components Technical Specifications version 2.01 – ISO 1500-5
- UN/CEFACT Business Requirements Specification version 1.5 (CEFACT/ICG/005)
- OASIS UBL 2.0 Specification (docs.oasis-open.org/ubl/os-UBL-2.0)
- Unified Modelling Language (UML version 1.4)

NES UBL V02 profiles

Profile 1: [Catalogue Only](#)

Catalogue

Application Response

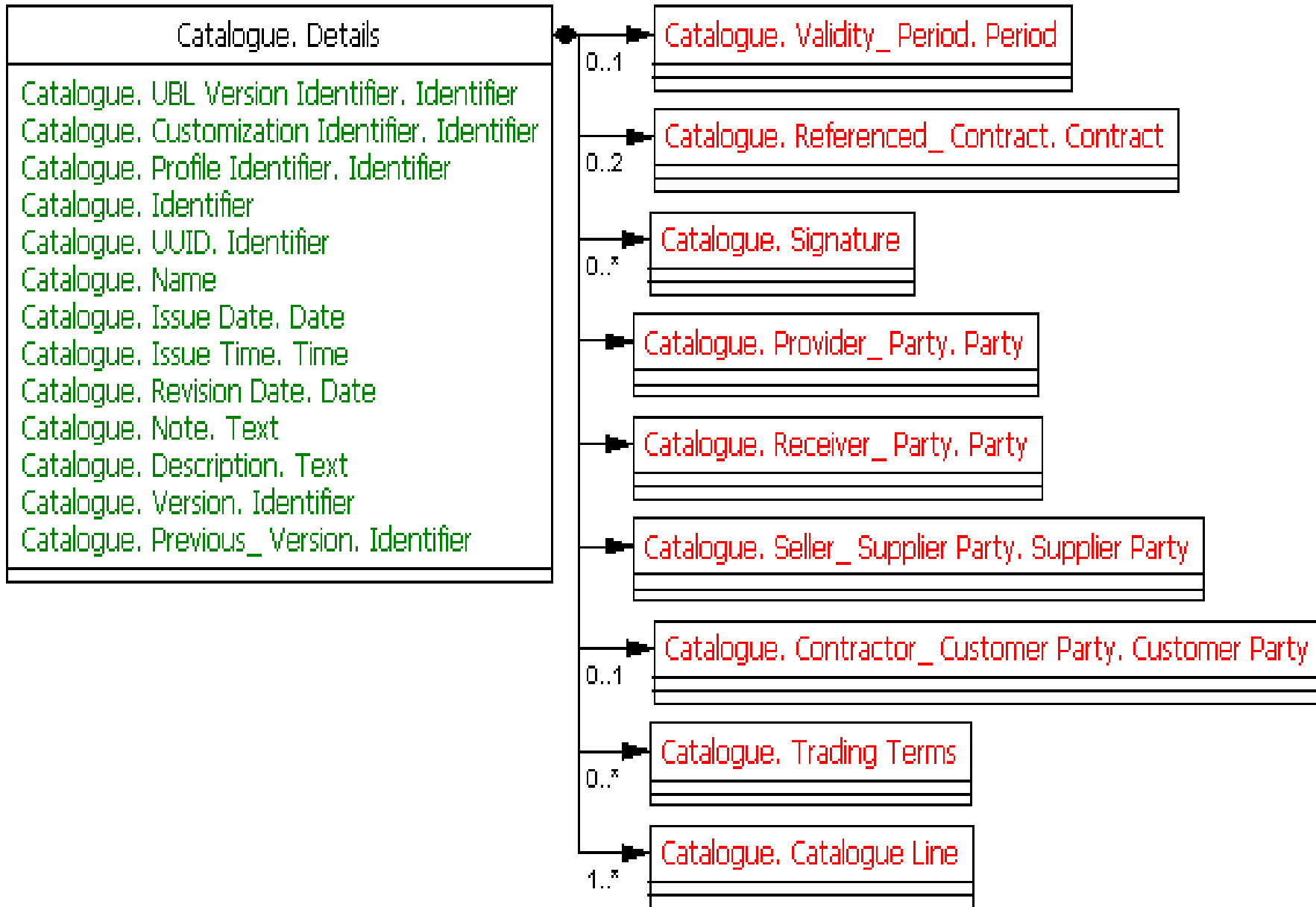
Profile 2: [Catalogue with Updates](#)

Catalogue

Catalogue Item Specification Update

Catalogue Pricing Update

Application Response



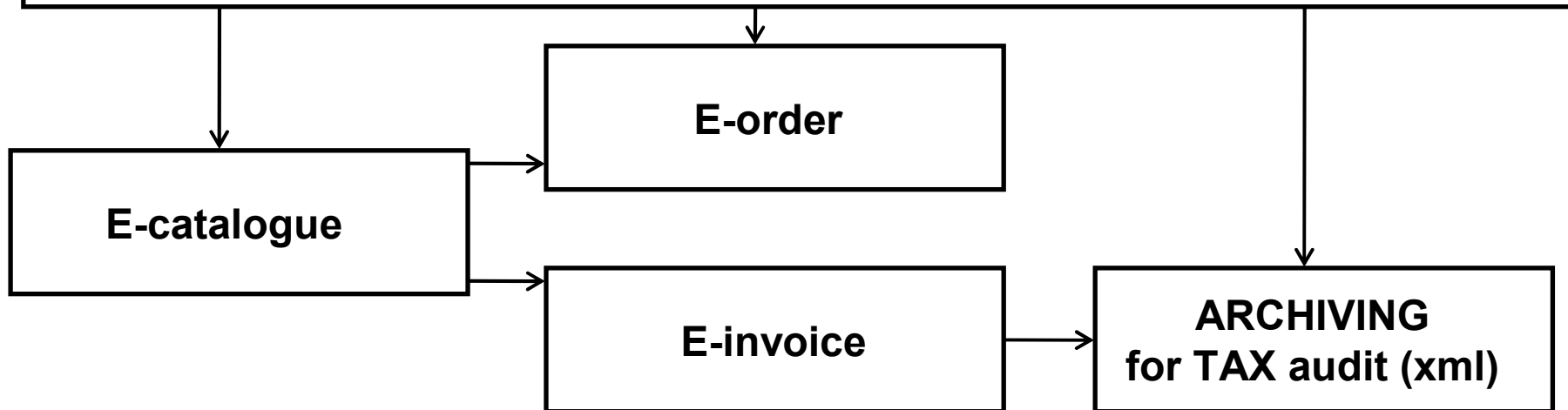
Contract performance

eOrdering
and
eInvoicing

Functions required

**PUP administration, workflow
and PUP specific service portfolio**

Classic e-Commerce service provider



Internal ERP service portfolio

Financial subsystem

Credited, confirmed RQ

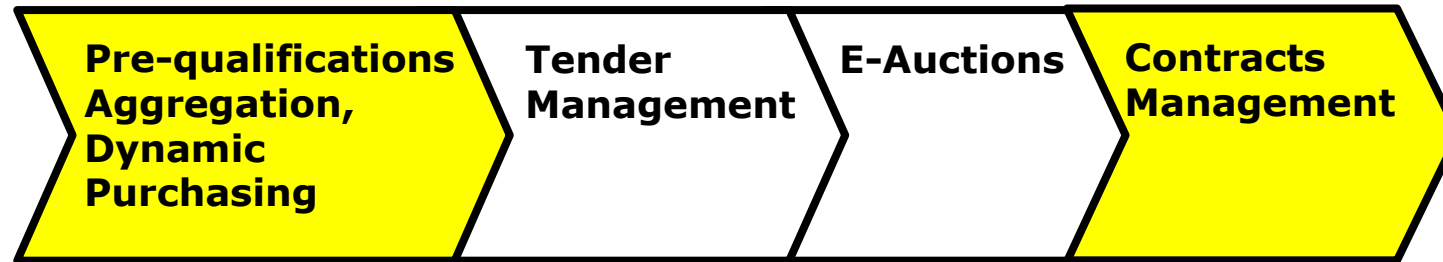
Delivery and service

Supply

Inventory management

Internal service provider

Supplier Management System (SMS)



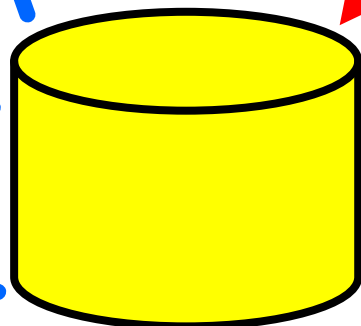
Suppliers can be prequalified and encouraged to maintain their data on the SDB in any pre-defined structures, folders and formats

Supplier profiles available where required in RFTs

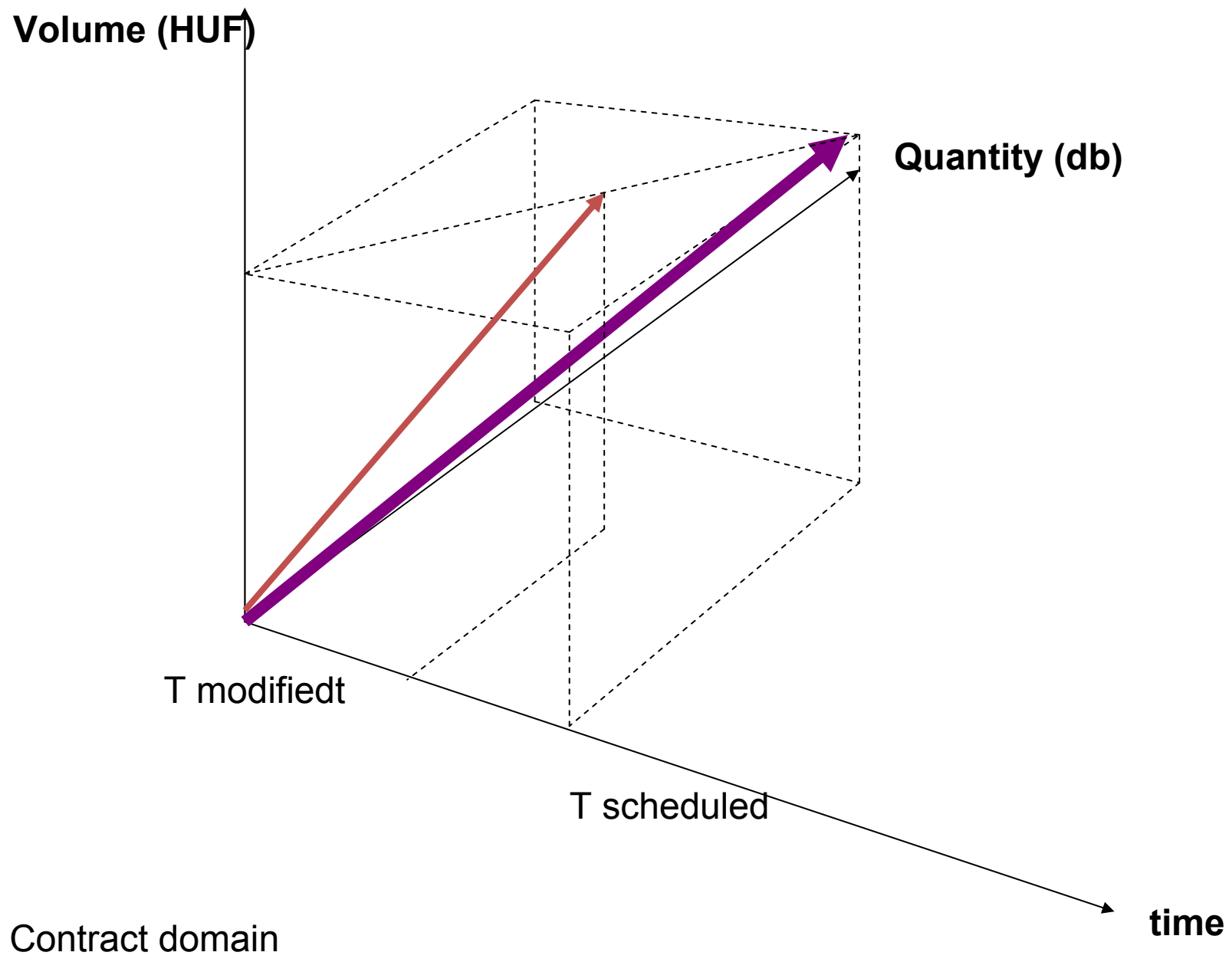
Performance evaluations

Vendor Rating

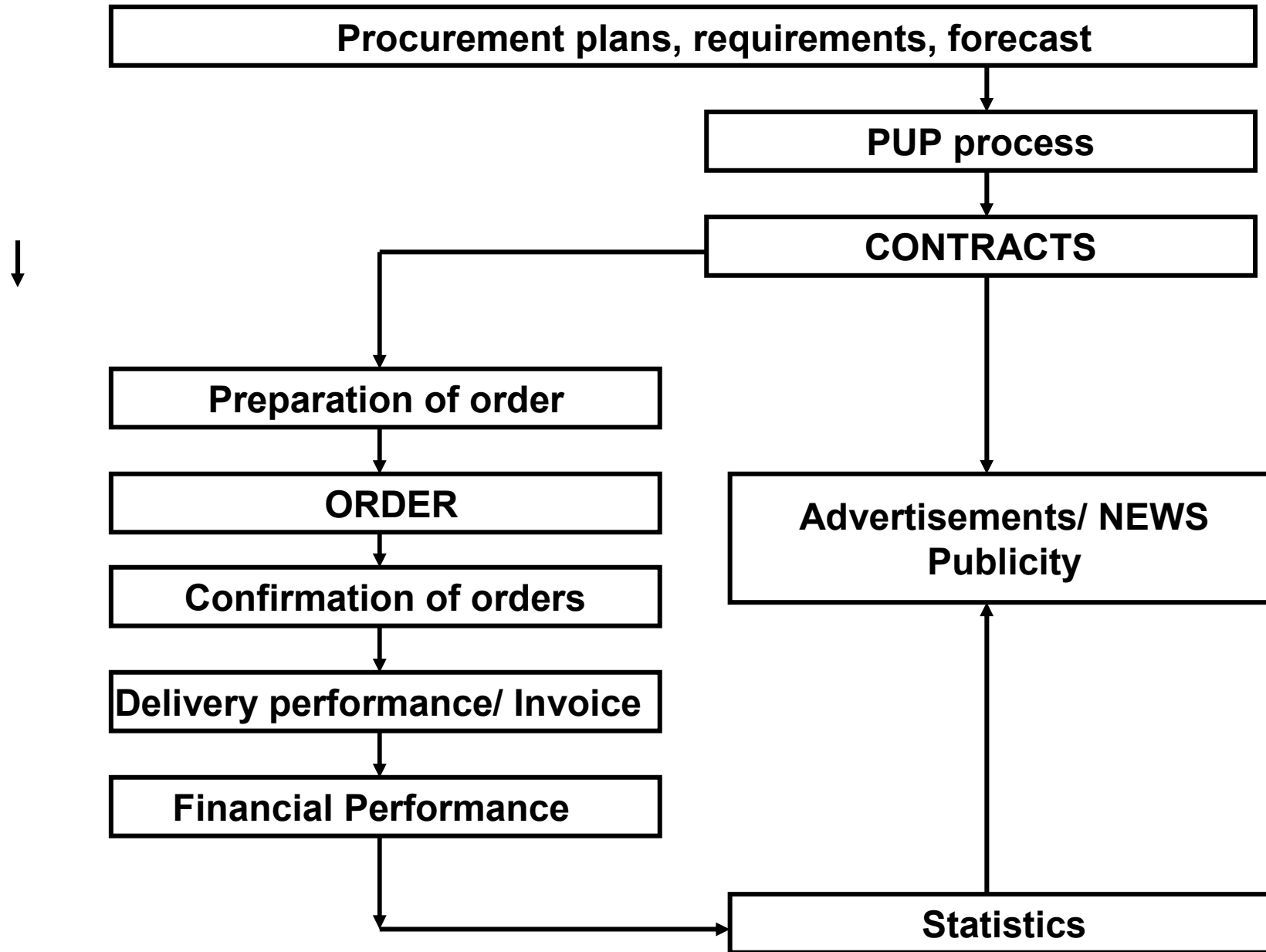
- Management reports:**
- Benefits tracking
 - Usage statistics
- Reports to vendors:**
- "Alcatel feedback"
 - Ratings vs averages per category, etc

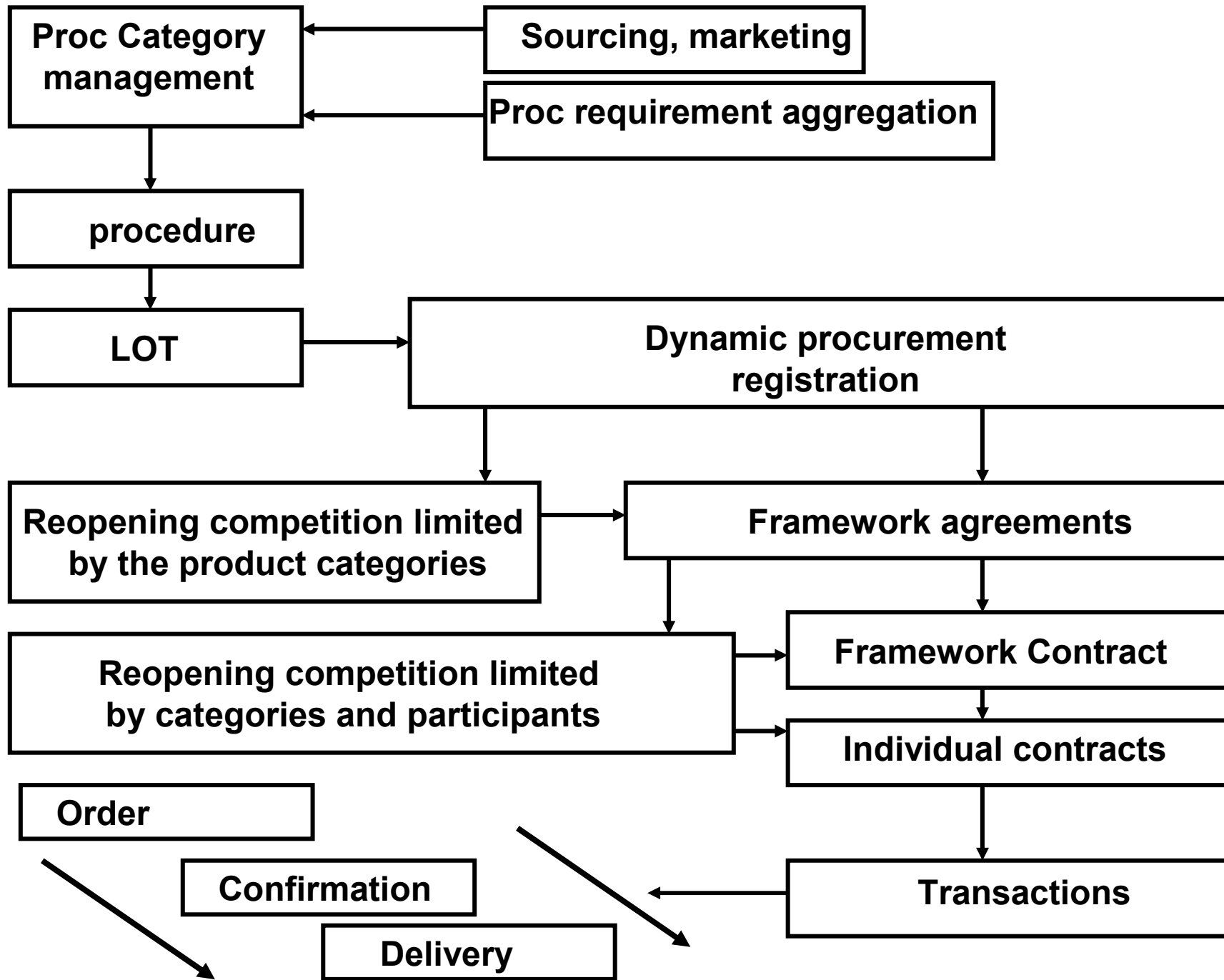


- Supplier Data Base (SDB), incl**
- Ratings per category
 - Supplier profiles
 - Pre-Qualified/Approved folders
 - Aggregated statistics per supplier
 - Previous contracts, performance



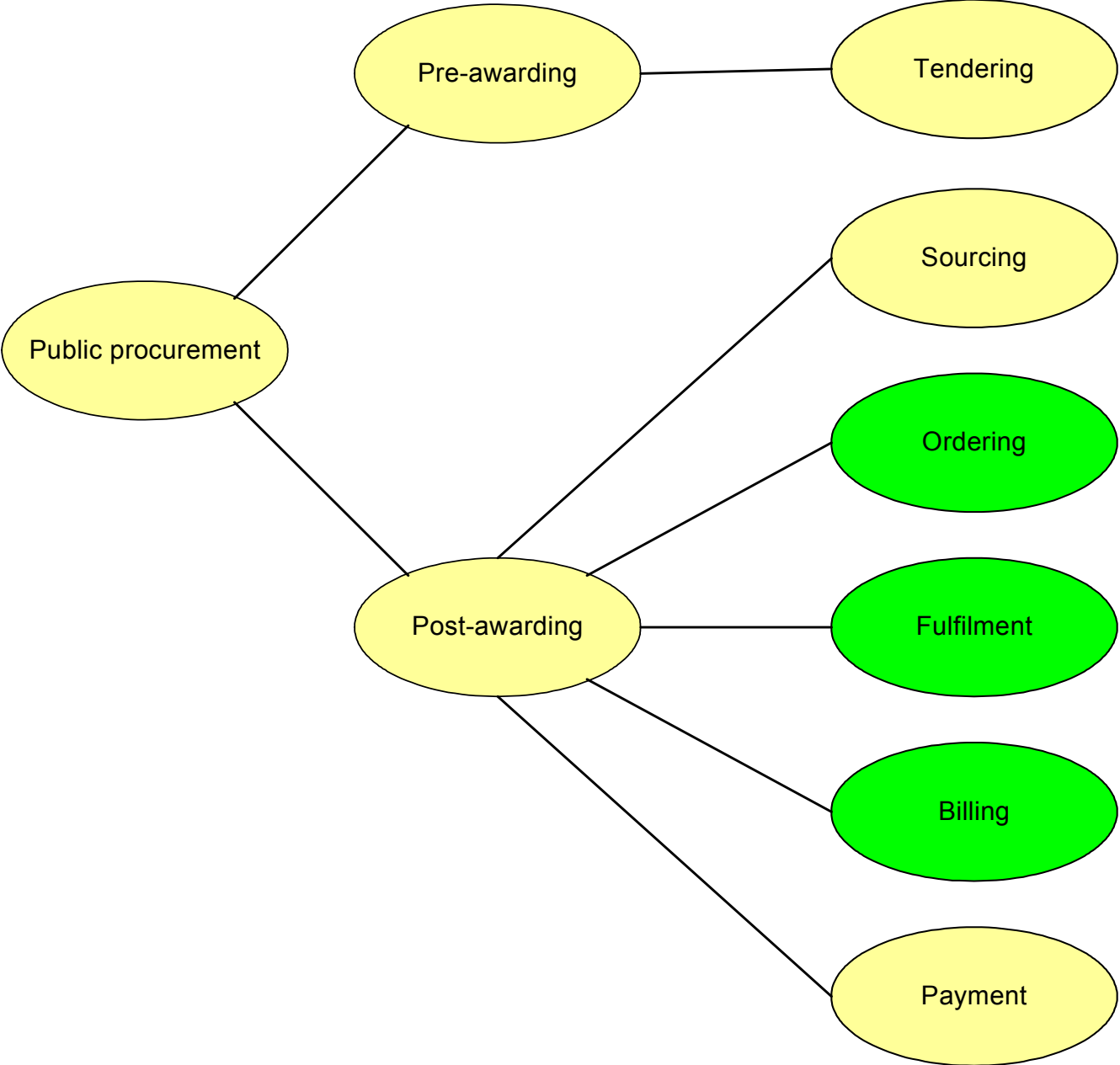
Available Services on the PORTAL since 2004 Aug.



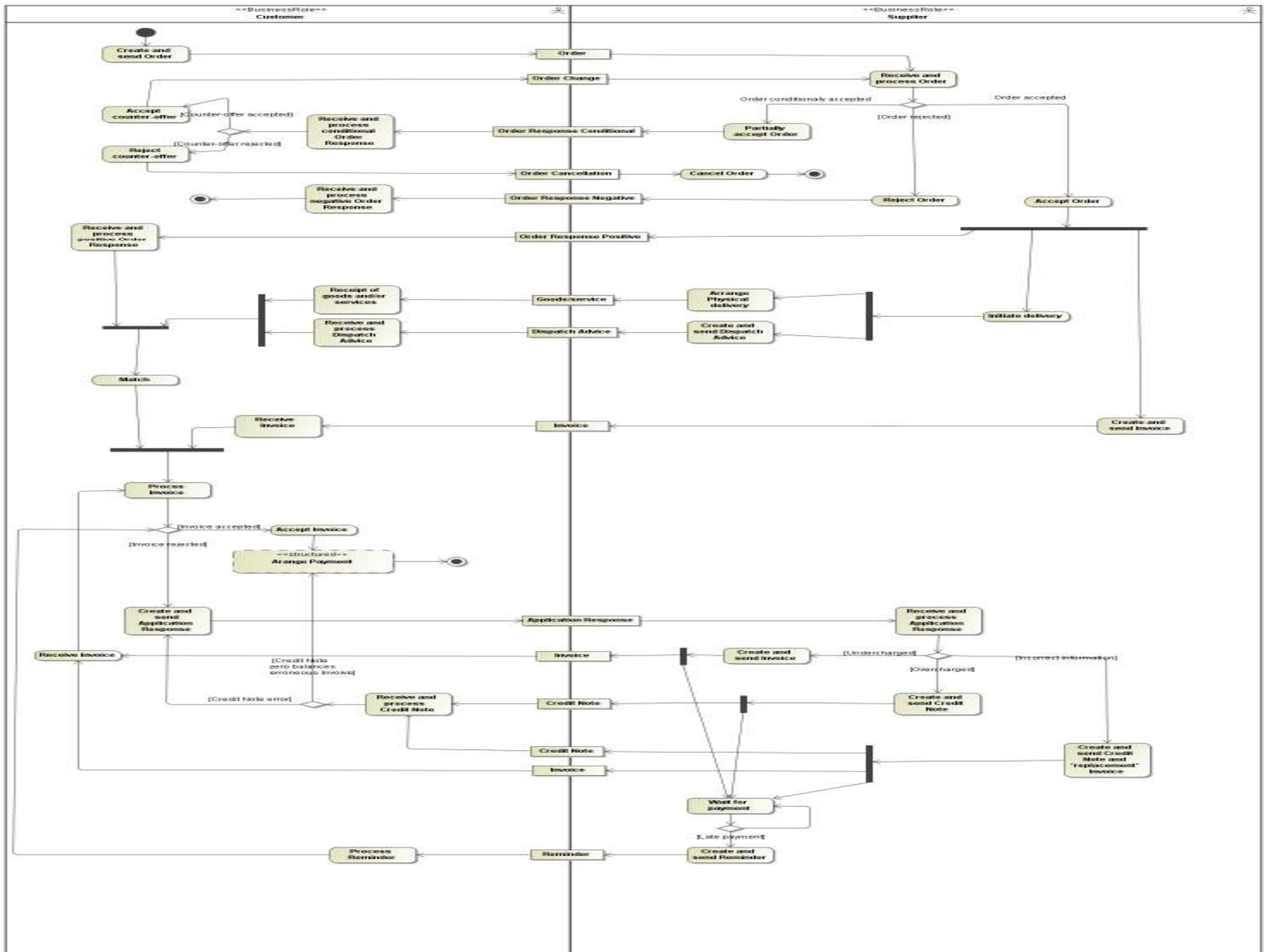


eOrdering

Aspect	Beneficiary	Benefit
Process automation	Customer	systematic acquisition process
Automated Order Processing	Supplier	electronic delivery of the Order allows automated Order processing and facilitates redeployment of resources
Automated goods receipt	Customer	receipt of an electronic Dispatch Advice allow for better efficiency in goods receipt
Line level matching	Customer	matching of order, dispatch and invoice at line level allow for better control and improved data quality
Automated Invoice Processing	Customer	automated matching of the Invoice with the Order eliminates human keying errors and facilitates redeployment of resources reduced requirement for manual intervention leads to fewer human keying errors automatic Invoice validation potential for systematic Invoice processing resource redeployment
Automated Invoice Transfer	Supplier	faster Invoice transfers electronic notification of Invoice errors potential for shortened payment cycle and improved cash flow
Customer relations	Supplier	closer Customer relations increased trust in received Orders



Business process name	Advanced Procurement
Identifier	CEN/ISSS WS/BII Profile 9
Actors	Customer: Buyer Delivery Party Debtor Supplier Seller Despatch Party Creditor
Description	<p>The Customer sends an electronic Order to the Supplier.</p> <p>The Supplier sends an electronic Order Response to the Customer stating whether the Order and/or individual Order Lines are accepted or rejected.</p> <p>The Supplier sends an electronic Dispatch Advice providing details for the goods and/or services actually delivered.</p> <p>The Supplier arranges for delivery of the goods and/or service</p> <p>The Supplier sends an electronic Invoice and, potentially, an electronic Credit Note to the Customer.</p> <p>In the case of an error in the Invoice, the Customer sends an electronic Application Response to the Supplier</p>
Scenarios	<ol style="list-style-type: none"> 1. If the Order is rejected in full by the Supplier the process will stop at that point. 2. If the Order is partially accepted, the Customer will interpret the received Order Response as a counter-offer and confirm his acceptance by a new Order referencing the Order Response. 3. In the case of an error in the Invoice, the Customer sends an electronic Application Response to the Supplier notifying such errors. To resolve such errors the Supplier may issue a Credit Note or a subsequent Invoice.



The **key aspects** covered by this profile are:

- An Order may refer to a framework agreement for its terms and conditions; otherwise the Customer's terms and conditions apply.
- An Order may contain Items (goods or services) with Item identifiers or Items with free text description.
- Acceptance or rejection of the Order and/or individual Order Lines is communicated by the Supplier to the Customer in an Order Response.
- Delivery of purchased Items is advised by the Supplier by sending a Dispatch Advice with reference to the original Order and Order Line.
- Following purchase and delivery, the Supplier sends the Customer an Invoice that makes reference to the original Order as well as the Dispatch Advice. Rejection of the Invoice is communicated by the Customer to the Supplier with a business level Application Response.
- This profile can be used to handle Invoice factoring arrangements.
- Invoice errors may be resolved by way of a Credit Note and/or a supplementary Invoice.

The **electronic messages** exchanged during the execution of this profile are:

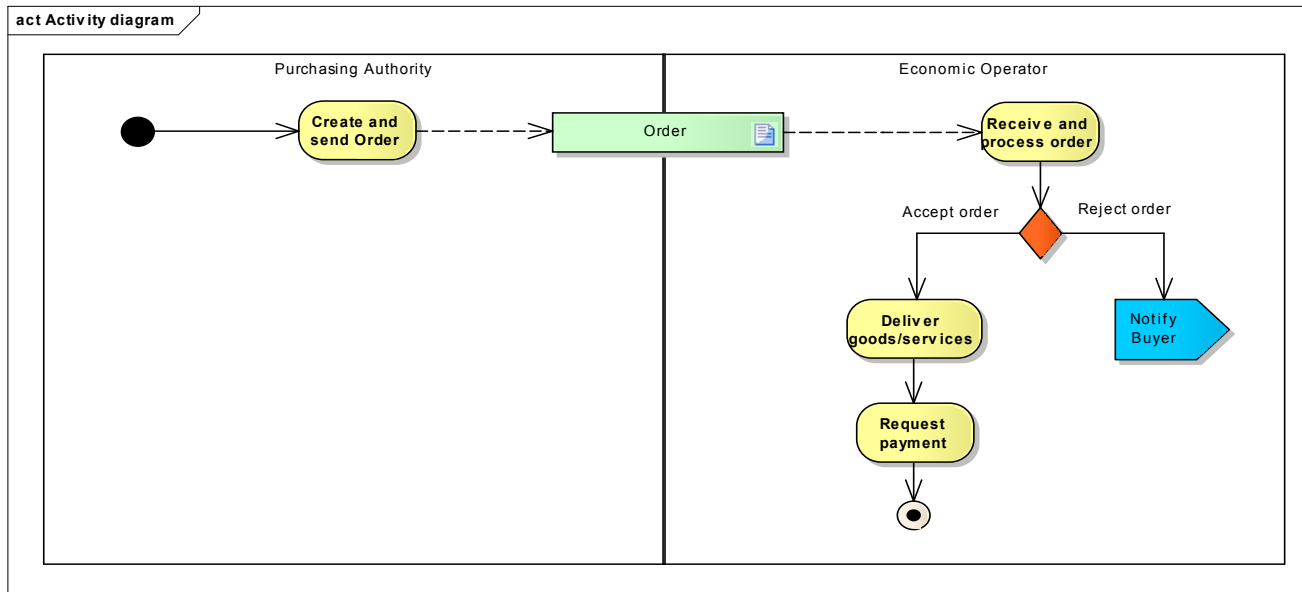
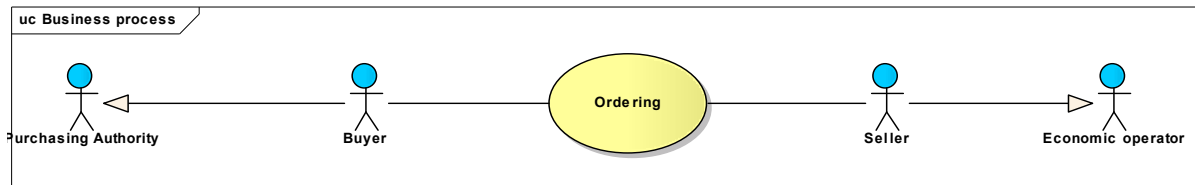
- Order
- Order Response
- Dispatch Advice
- Invoice
- Application Response
- Credit Note

Business requirements

1.Document level

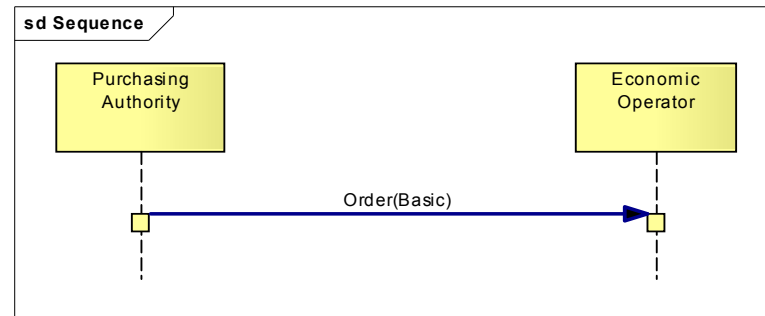
The Customer sends an electronic Order that can be received and processed by the Supplier if the process results in a confirmed Order i.e. a contract is established, the Supplier is obliged to deliver the goods and/or services and the Customer is obliged to pay for those goods and services under the agreed terms and conditions.

Business process elaboration and activity diagramm



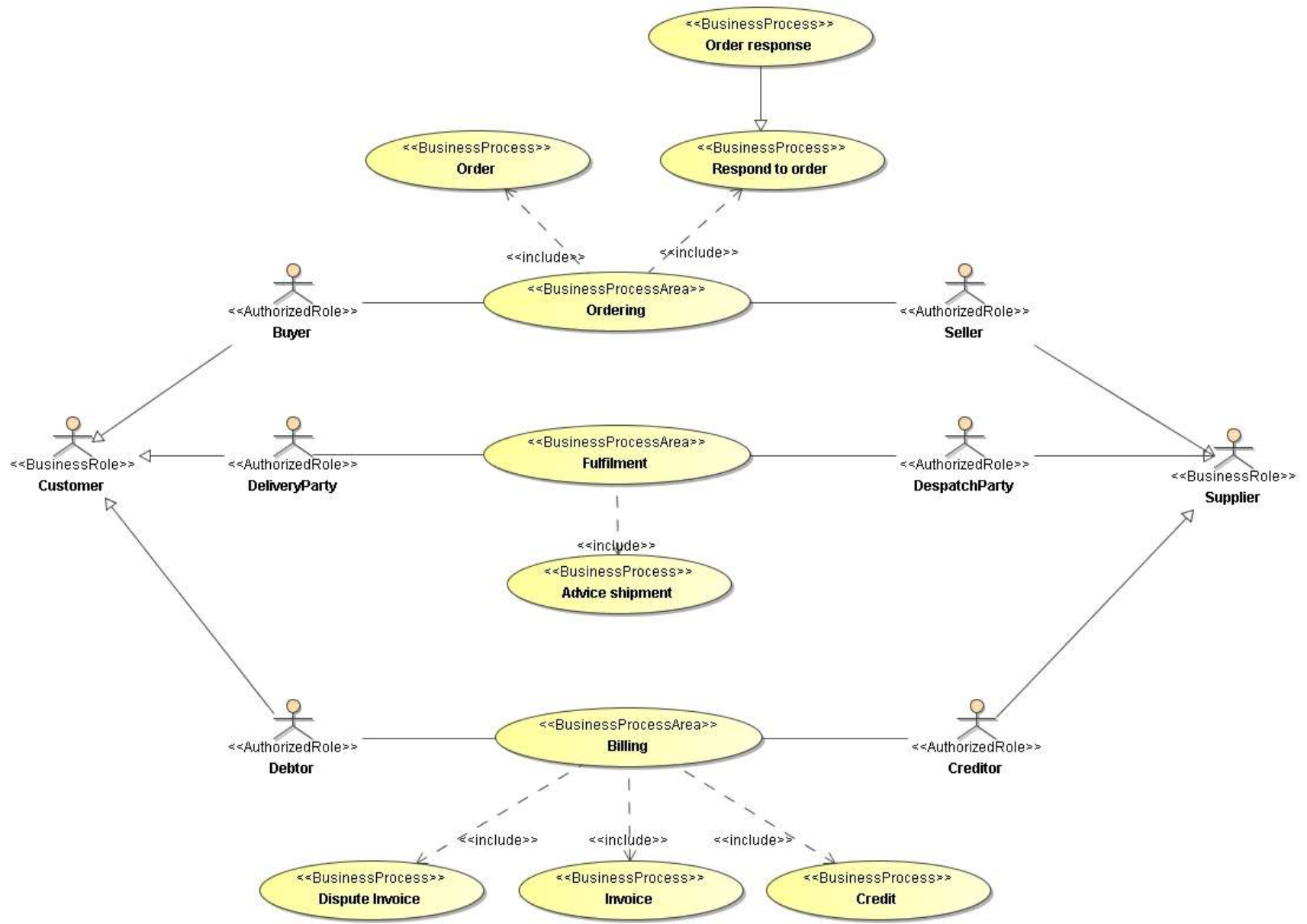
Party	Role	Activity	Description
PA	Buyer	Create and send Order	Buyer creates and sends an Order to the Seller.
EO	Seller	Receive and process Order	Seller receives and processes the Order.
EO	Seller	Accept Order	In accepting the Order in full, the Seller creates and initiates a delivery and payment request process. A contract is established.
EO	Seller	Reject Order	The Seller reject the Order in full, and notifies the Buyer externally.
PA	Seller	Request payment	Implied, billing is external to this process.

1.Information flow definition



• **Business requirements**

- **The Customer sends an electronic Order that can be received and processed by the Supplier.**
- **The Supplier sends an electronic Order Response, stating whether the Order and/or individual Order Lines are accepted or rejected.**
- **The Order Response, providing references to the original Order and/or Order Lines, can be received and processed automatically by the Customer.**
- **If the process results in an accepted Order⁽ⁱⁱ⁾, i.e. a contract is established, the Supplier is obliged to deliver the goods and/or services and the Customer is obliged to pay for those goods and services under the agreed terms and conditions.**
- **The Supplier sends an electronic Dispatch Advice providing details for the goods and/or services actually delivered.**
- **The Dispatch Advice, providing references to the original Order and/or Order Lines, can be received and processed automatically by the Customer.**
- **The Supplier sends an electronic Invoice and, potentially, an electronic Credit Note that can be received and processed by the Customer.**
- **In the case of an error in the Invoice, the Customer sends an electronic Application Response that can be received and processed by the Supplier**
- **By reference to the Order and its Lines, the Invoice enables automated matching by the Customer via a workflow process**
- **The Invoice and Credit Note content enables the Customer's system to route the document to a specific person, department or unit within the organization; this may be required for authorization etc.**
- **The Invoice and Credit Note must comply with the commercial and fiscal requirements of the country where the Supplier is registered**
- **The Invoice and Credit Note content facilitates automatic validation of legal and tax values, tax accounting and payment**
- **Credit Notes refer to associated Invoices**



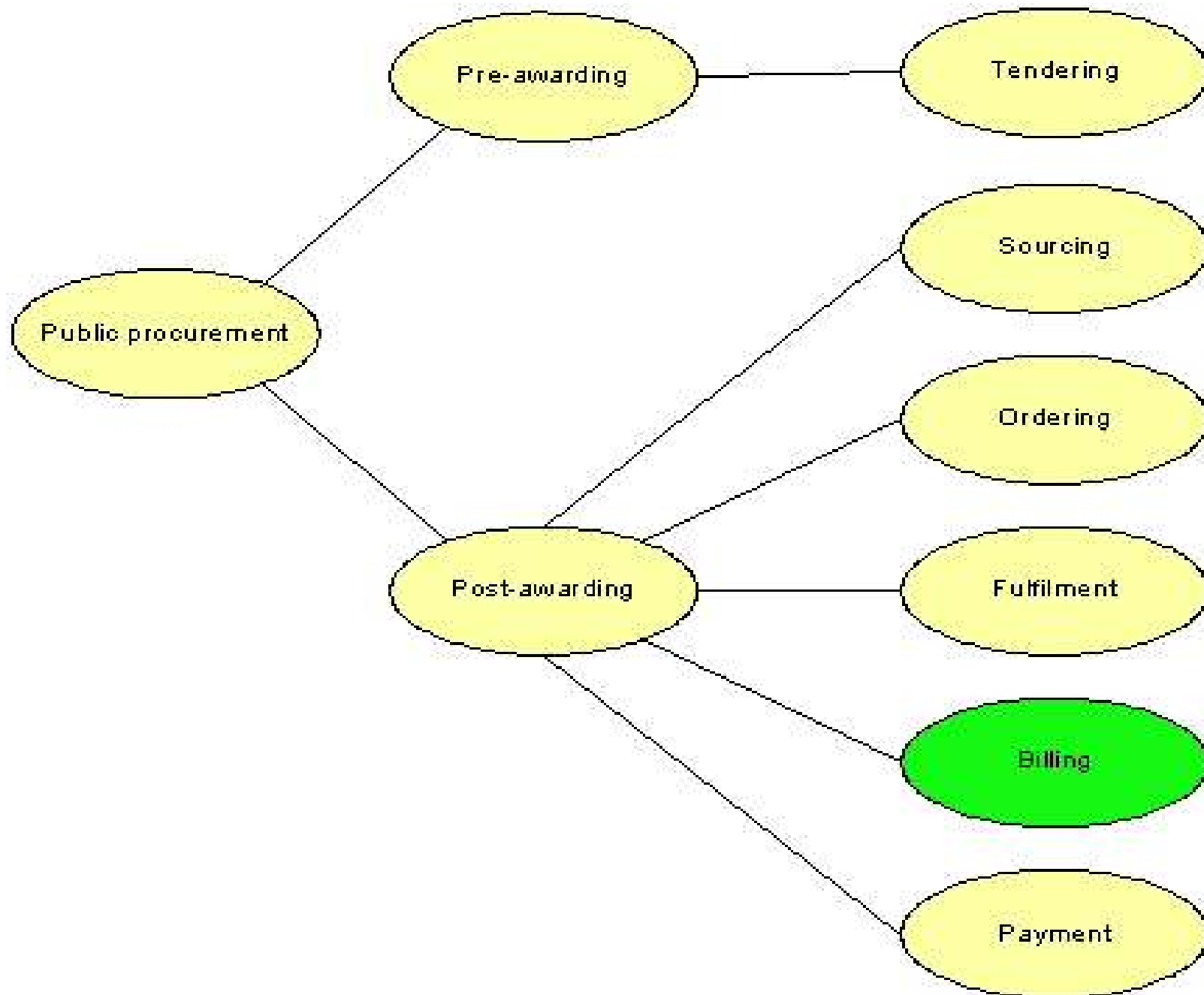
Business Message Type	Order
Identifier	Order
Description	A business document that contains information directly relating to the economic event of ordering products and/or services. The document by means of which a customer initiates a transaction with a supplier for the supply of goods or services as specified, according to conditions set out in an offer, or otherwise known to the customer.
Partner Types	Customer Supplier
Authorized Roles	Buyer Seller
Legal Implications	By sending an Order the Buyer is legally committed by its content, i.e. if the Order is accepted in full a contract is established and the Customer is obliged to pay for those goods and services under the agreed terms and conditions. If the Order is rejected or conditionally accepted no contract is established.
Initial Event	
Terminal event	
Scope	
Boundary	
Constraints	Header level: 1.Reference to a contract or framework agreement may only be made at document level 2.Delivery details stated at document level must apply to all Order Lines 3.Payment Means and Terms stated at document level must apply to all Order Lines 4.Accounting details stated at document level must apply to all Order Lines 5.The purpose of the order document must be stated, e.g. Original order, Acceptance of counter-offer, rejection of counter-offer, etc. Line level: 1.An Order Line may contain an identified Item or an Item with a free text description 2.Quantities must be positive and amounts must not be negative

Business Message Type	Order Response Simple
Identifier	OrderResponseSimple
Description	A business document accepting or rejecting a single Order received.
Partner Types	Supplier Customer
Authorized Roles	Seller Buyer
Legal Implications	<p>If the Order Response Simple gives a full acceptance of the Order a contract is established, the Supplier is obliged to deliver the goods and/or services and the Customer is obliged to pay for those goods and services under the agreed terms and conditions.</p> <p>If the Order Response Simple rejects the Order in full no contract is established and there is no legal implication on any of the parties.</p>
Initial Event	
Terminal event	
Scope	
Boundary	
Constraints	Header level: 1.An Order Response Simple must provide a reference to the Order for which it is a response

Business Message Type	Order Cancellation
Identifier	OrderCancdellation
Description	A business document requesting the cancellation of an established Order.
Partner Types	Customer Supplier
Authorized Roles	Buyer Seller
Legal Implications	
Initial Event	
Terminal event	
Scope	The purpose of an Order Cancellation is for the Buyer to reject a counter-offer received from the Seller in an Order Response. I.e. to negate the establishment of a contract.
Boundary	
Constraints	Header level: 1.An Order Cancellation must provide a reference to the Order being cancelled.

eInvoicing

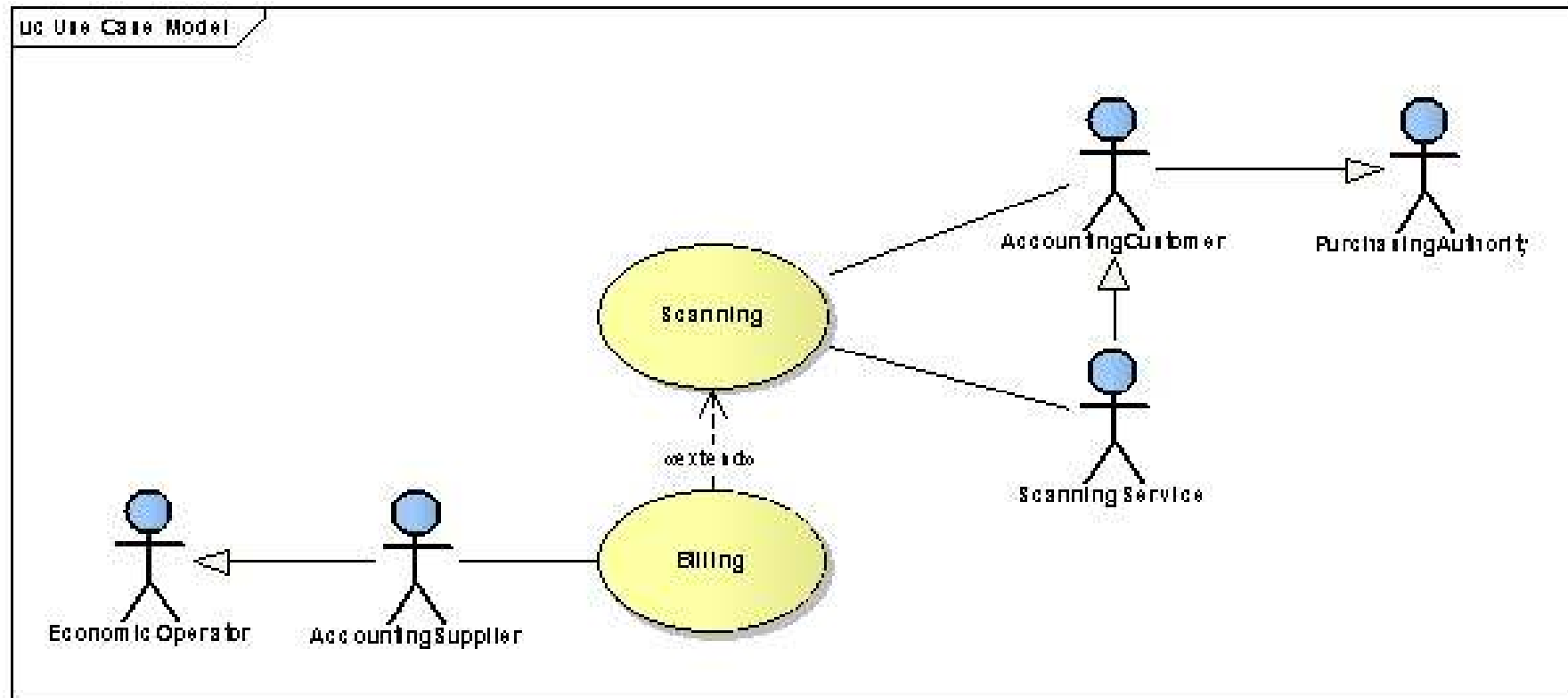
Business Message Type	Invoice
Identifier	Invoice
Description	A business document claiming payment for goods and/or services supplied under conditions agreed between the supplier and the customer. In most cases this document describes the actual financial commitment of goods or services ordered from the supplier.
Partner Types	
Authorized Roles	
Legal Implications	Invoice and Credit Note Line level tax coding is mandatory in some countries
Initial Event	
Terminal event	
Scope	
Boundary	
Constraints	<p>Header level:</p> <ol style="list-style-type: none"> 1.Reference to a contract or framework agreement may only be made at document level 2.Payment Means and Terms stated at document level must apply to all Invoice Lines 3.Accounting details stated at document level must apply to all Invoice Lines 4.Tax information stated at document level must apply to all Credit Note Lines 5.Stated pre-payments must apply to the Invoice as a whole <p>Line level:</p> <ol style="list-style-type: none"> 1.Each line in the Invoice must contain a reference to the corresponding Order Line



Documents included in this profile:

- Invoice (scanned)**
- Creditnote (scanned)**
- Application response (response to scanning provider)**
- The profile includes the following scenarios:**
 - Accepted Invoice**
 - Rejected Invoice**

Business Process Elaboration



Business process name

Scanned invoice

Identifier

CEN/ISSS WS/BII Profile BII15

Actors

- Economic Operator
- Accounting Supplier
- Scanning Service (internal or external)
- Accounting Customer
- Purchasing Authority

Pre-conditions

- The Accounting Customer and the Accounting Supplier have identified each other and a contract between the two or an order exists.
- The Accounting Customer has agreed to accept electronic Invoices and Credit Notes from the Scanning Service, using this profile.

Description

- An Accounting Supplier issues an Invoice or a Credit Note and sends to a Scanning Service that scans it and forwards to the Accounting Customer who processes it electronically.

Post-conditions

- Invoice/Credit Note has been electronically received and processed by the Accounting Customer.

Scenario

- Accepted Invoice

Business rules

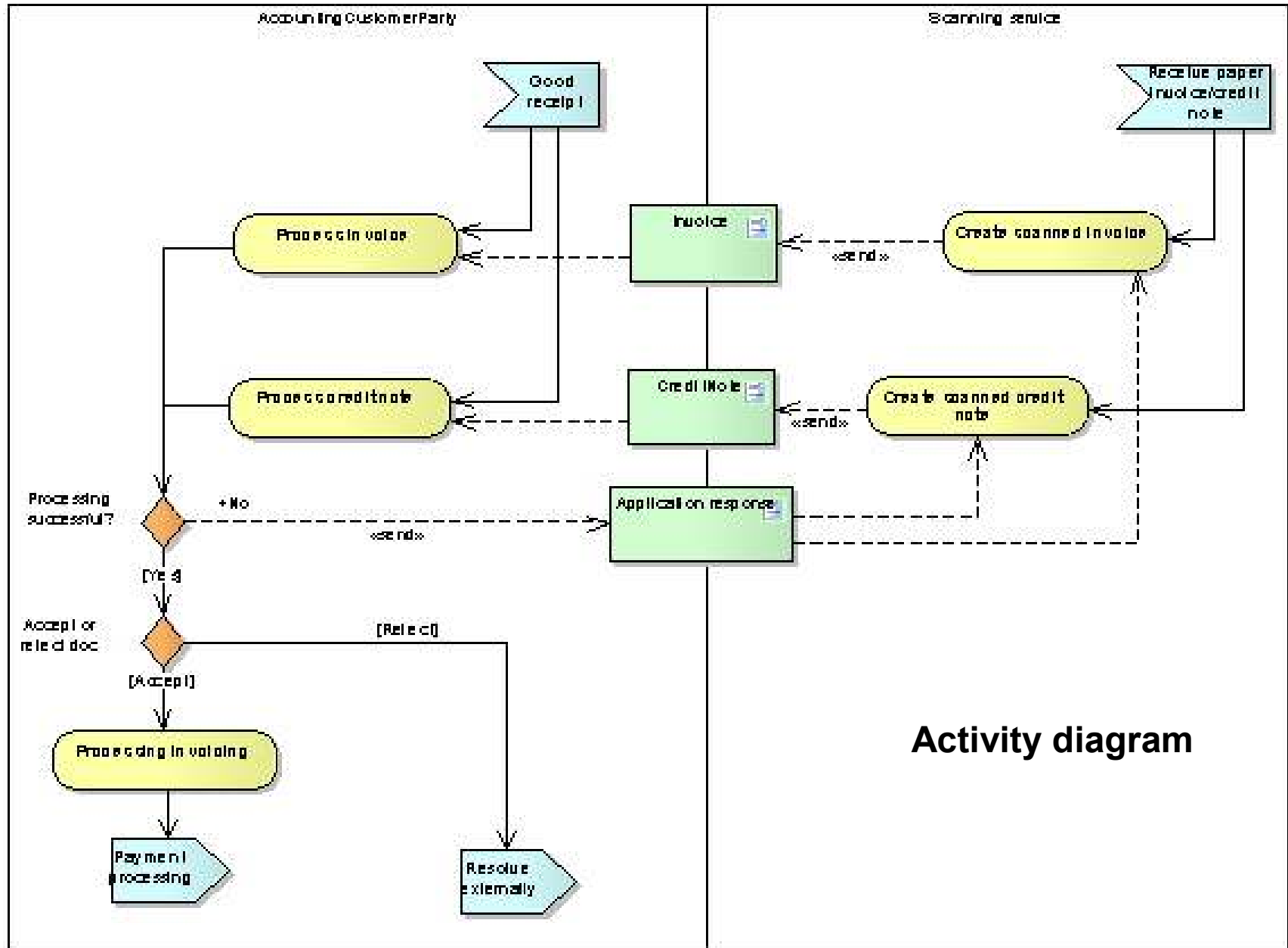
Document level **1. An Invoice represents a claim for payment for specific goods and services or for the provision of goods and services over a defined period of time**

Line level **1. Scanned Invoice does not require line level interpretation**

Exceptions

1. Invoice disputes are handled externally.

an Activity diagram



Activity diagram

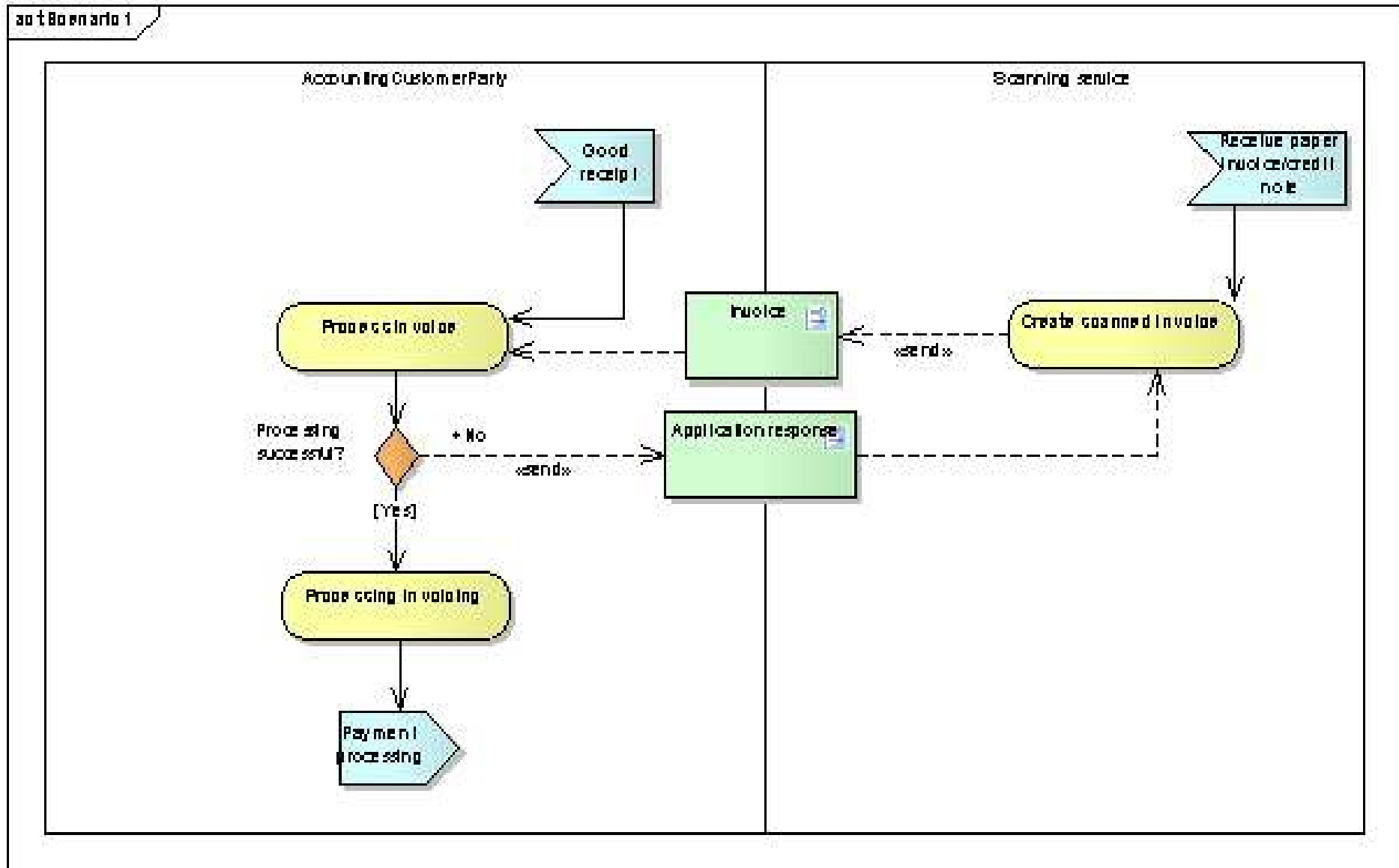
Role/party	Activity	Description
Scanning Service	Receive	Accounting Supplier creates and sends an Invoice to Accounting Customer who directs it to the scanning service. The Scanning Service receives the paper Invoice or Credit Note and prepares for scanning.
Scanning Service	Scan and send.	Scanning Service scans the Invoice or Credit Note and forwards it to the Accounting Customer.
Accounting Customer	Receive and process	Accounting Customer receives and processes the electronic Invoice and/or Credit Note.
Accounting Customer	Request rescan	If processing of the electronic Invoice or Credit Note is unsuccessful the Accounting Customer sends an Application Response message to Scanning Service requesting a rescan of the paper documents.
Accounting Customer	Accept or reject	Accounting Customer accepts or rejects in full the Invoice and the potentially related Credit Note. Acceptance of the Invoice plus Credit Note initiates a payment process.
Accounting Customer	Resolve rejections	In case of rejection the Accounting Customer informs the Accounting Supplier externally.
Accounting Customer	Arrange payment	Implied, payment is external to this profile.

Name

Accepted Invoice

Description

In this scenario the Customer accepts the Invoice.

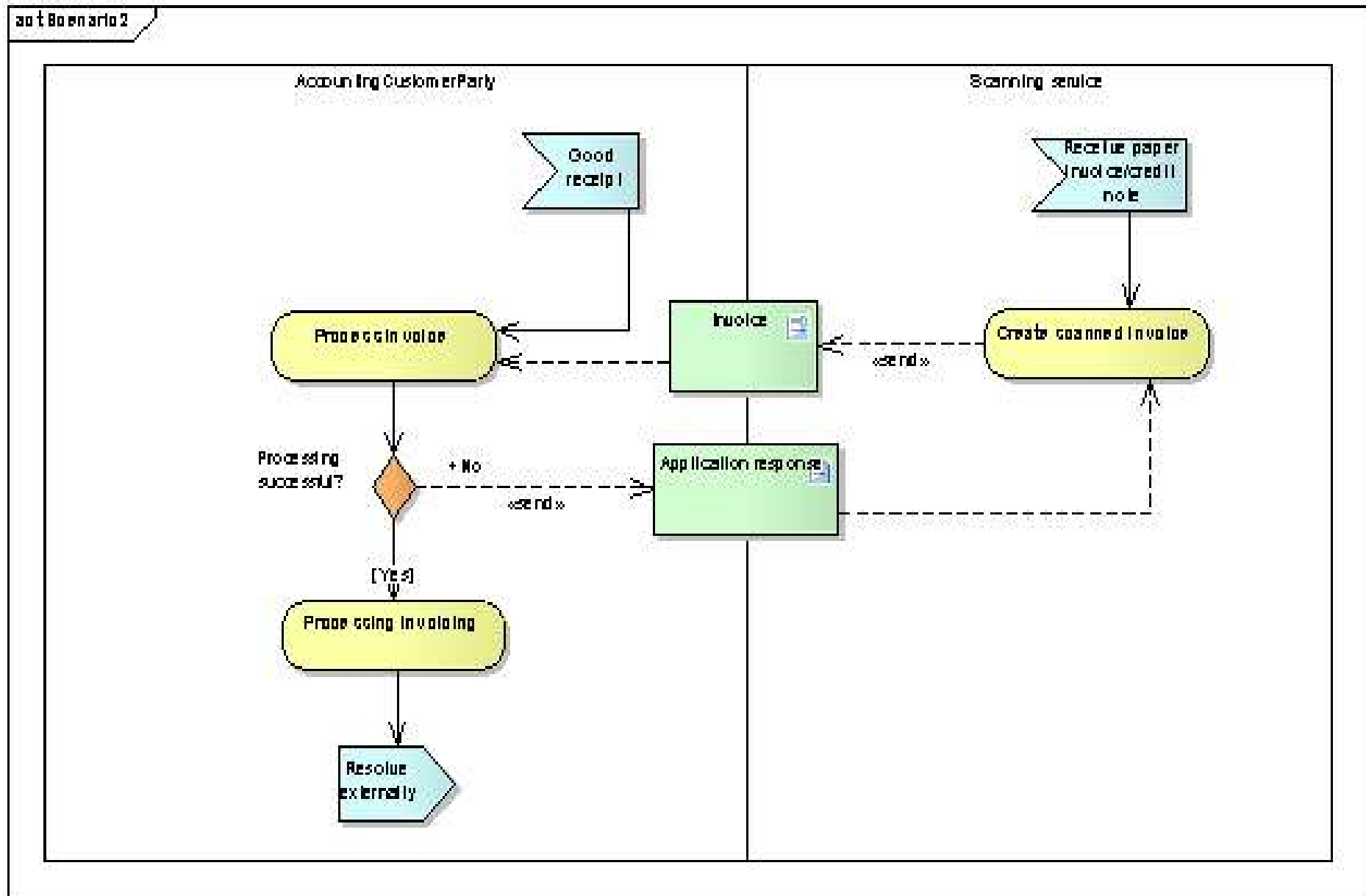


Name

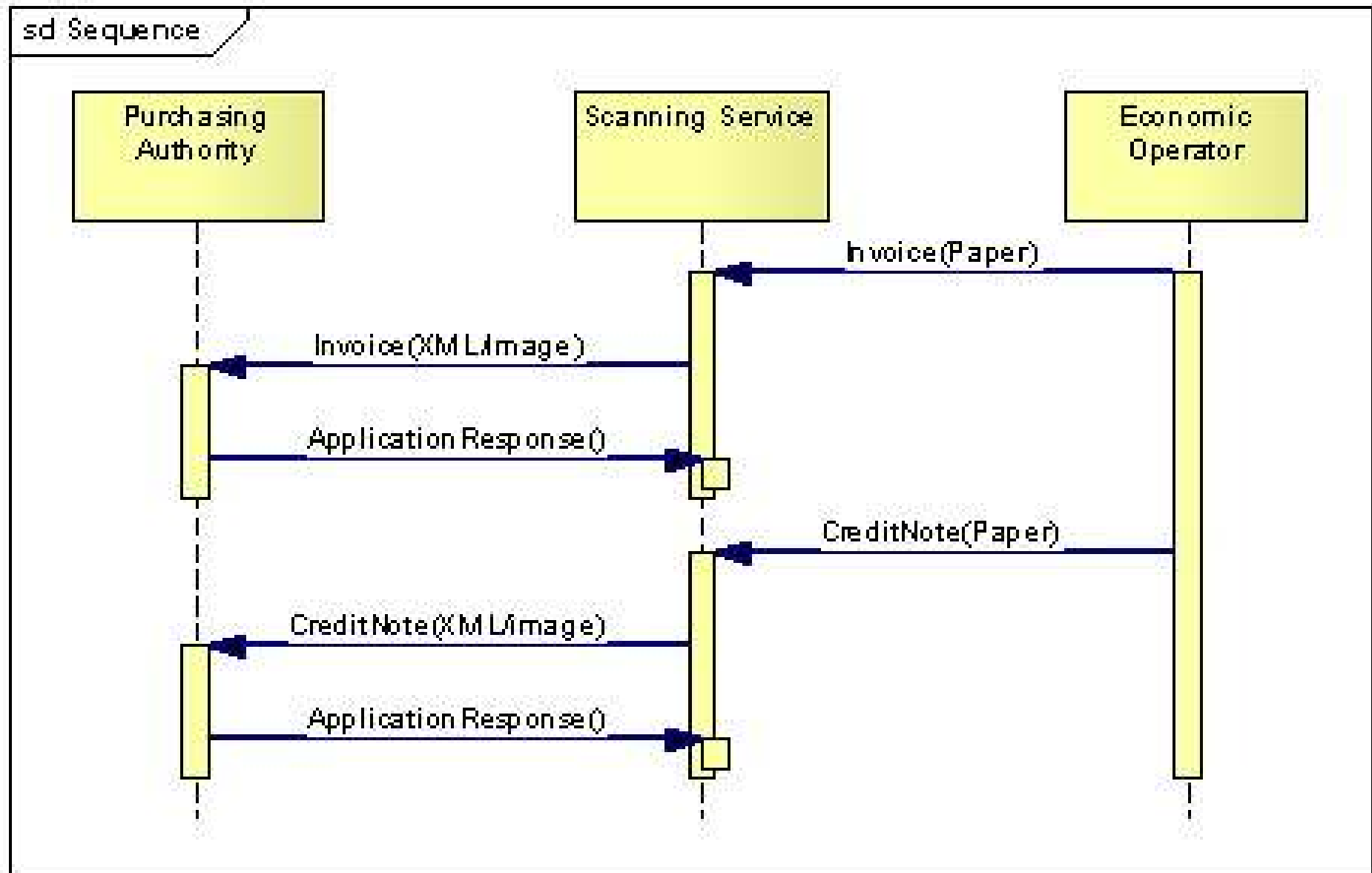
Rejected Invoice

Description

In this scenario the Customer rejects the Invoice.



Information flow definition



Business Message Type**Invoice****Identifier****Description**

An XML structured electronic document claiming payment for goods or services supplied under conditions agreed between the Accounting Supplier and the Accounting customer. In most cases this document describes the actual financial commitment of goods or services ordered from the Economic Operator.

Partner Types

- Scanning service.
- Accounting Customer.

Authorized Roles

- Document scanning.
- Invoice processing.

Legal Implications

- Requirements: The Invoice and Credit Note must comply with the commercial and fiscal requirements of the country where the Accounting Supplier is registered

- VAT can not be calculated in invoice line.

The paper original of the Invoice must be archived and referenced in the scanned documents for later retrieval.

The original paper Invoice dominates the electronic copies.

Initial Event

Scan paper Invoice.

Terminal event

Process electronic Invoice.

Scope

Scanned Invoice is intended to facilitate electronic processing of a paper Invoice.

Boundary

Not intended to carry all purchase oriented content of an invoice but only the financial information necessary for

Improvement of effectiveness

Value creation in PUP procedures

- I. Better conditions achieved in single procedure**
- II. The balance of costs and savings is advantageous**
- III. Created value can only be interpreted as an average of cost and savings of more than one procedure**
- IV. Only indirect benefits can be interpreted**
- V. Achievements are „critical Mass” dependent**

Value creation in PUP procedures

- **Increasing contracting volume by**
 - **Aggregating the requirement of collaborative contracting entities**
 - **Expanding the validity in time**
 - **Keeping high tension of competitive environment**
- **Introducing workflow automation in repetitive administrative procedures**
- **Introducing electronic support (communication, process, information and data management)**
- **Contract management: Keeping everything online, real-time, updated**
- **Business optimalization**

Increased size of number and contracts cannot be managed the classic way

- **Increased number of documents**
- **Increased amount of data**
- **Increased requirement in response time**
- **No delay accepted; everything online, real-time, updated, public**
- **Authenticity, integrity, security and validity management in communication**

PUP market development

by legislation

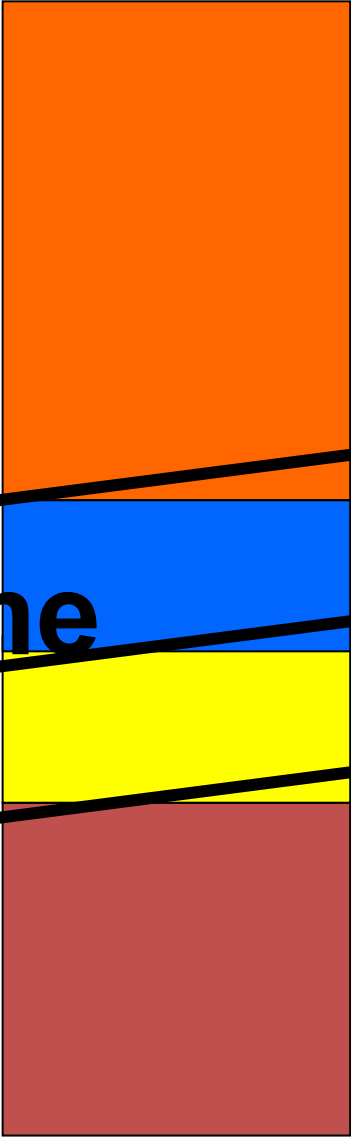
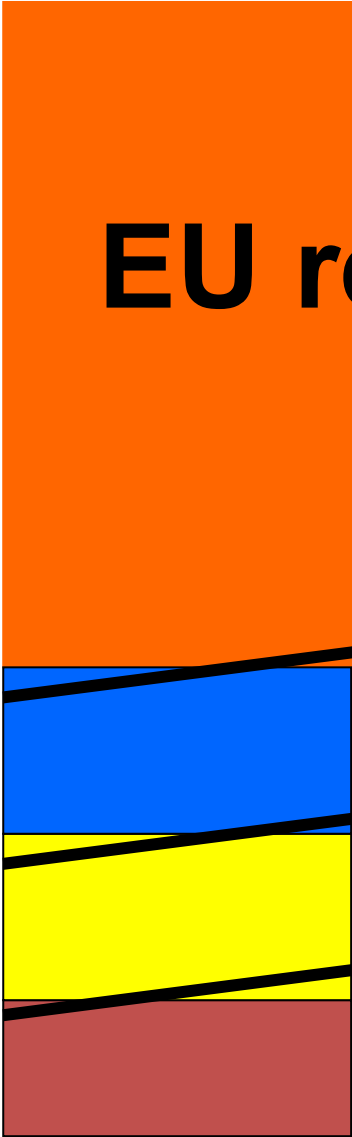
Market development scenarios

**The organization of the
„Critical Mass”**

Goods

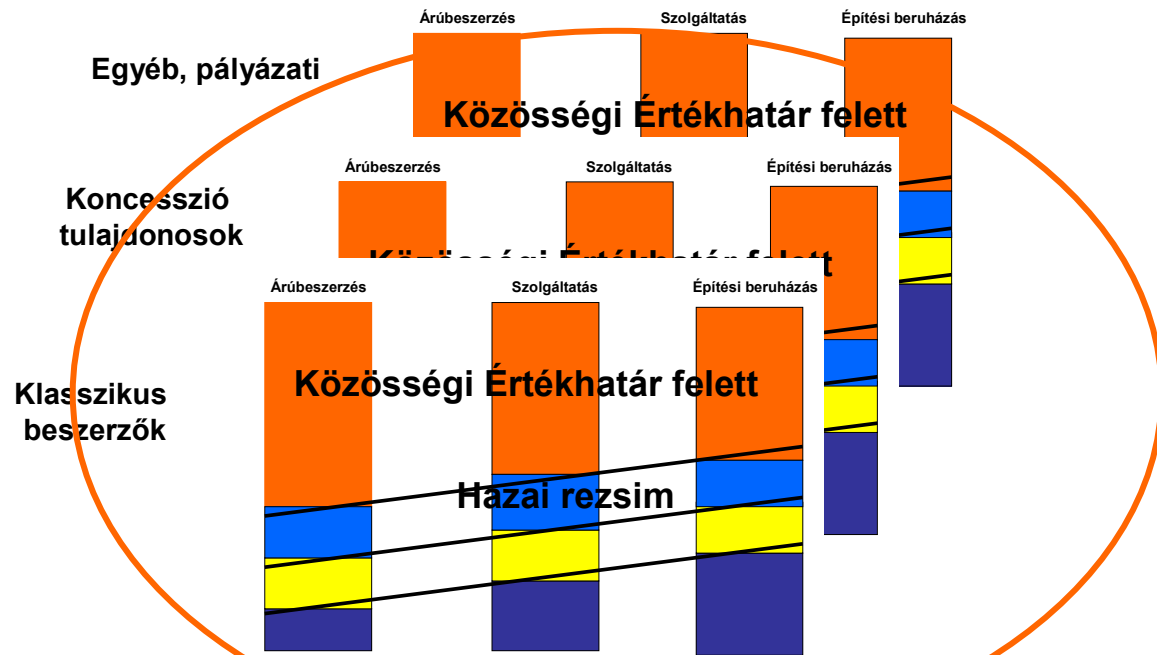
Services

Works

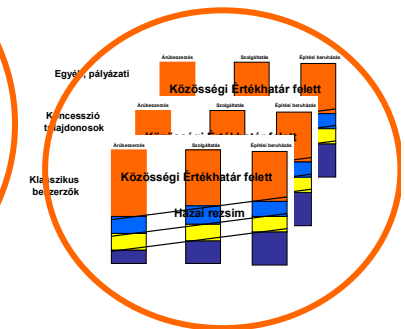
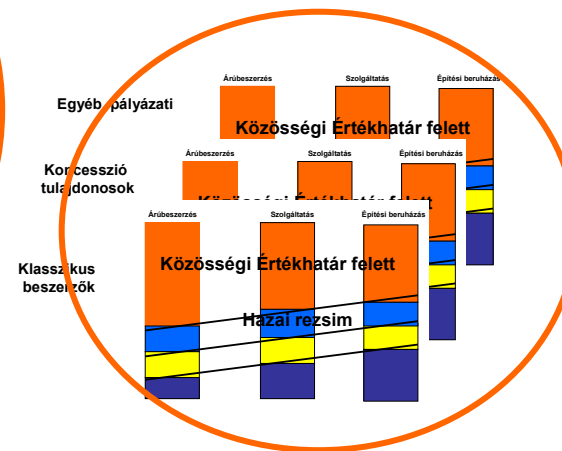
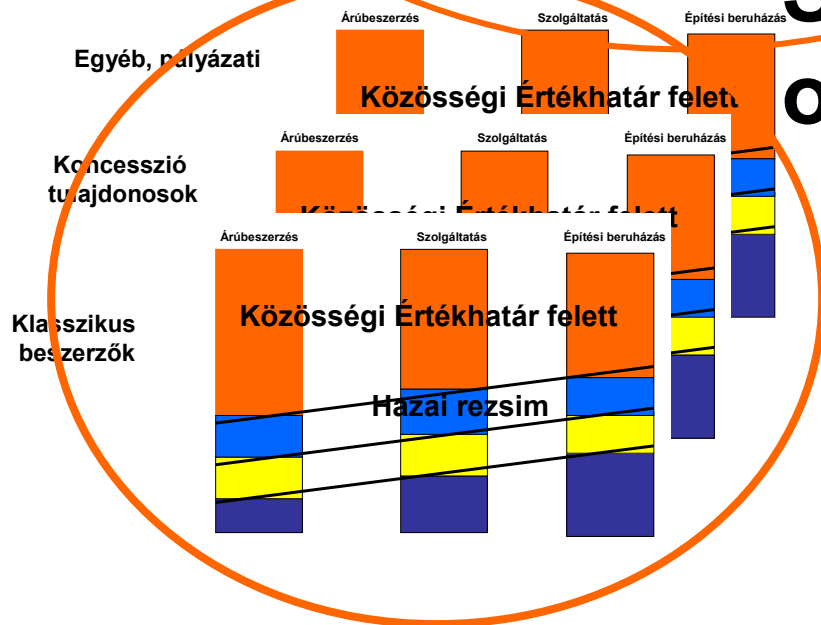


EU regime

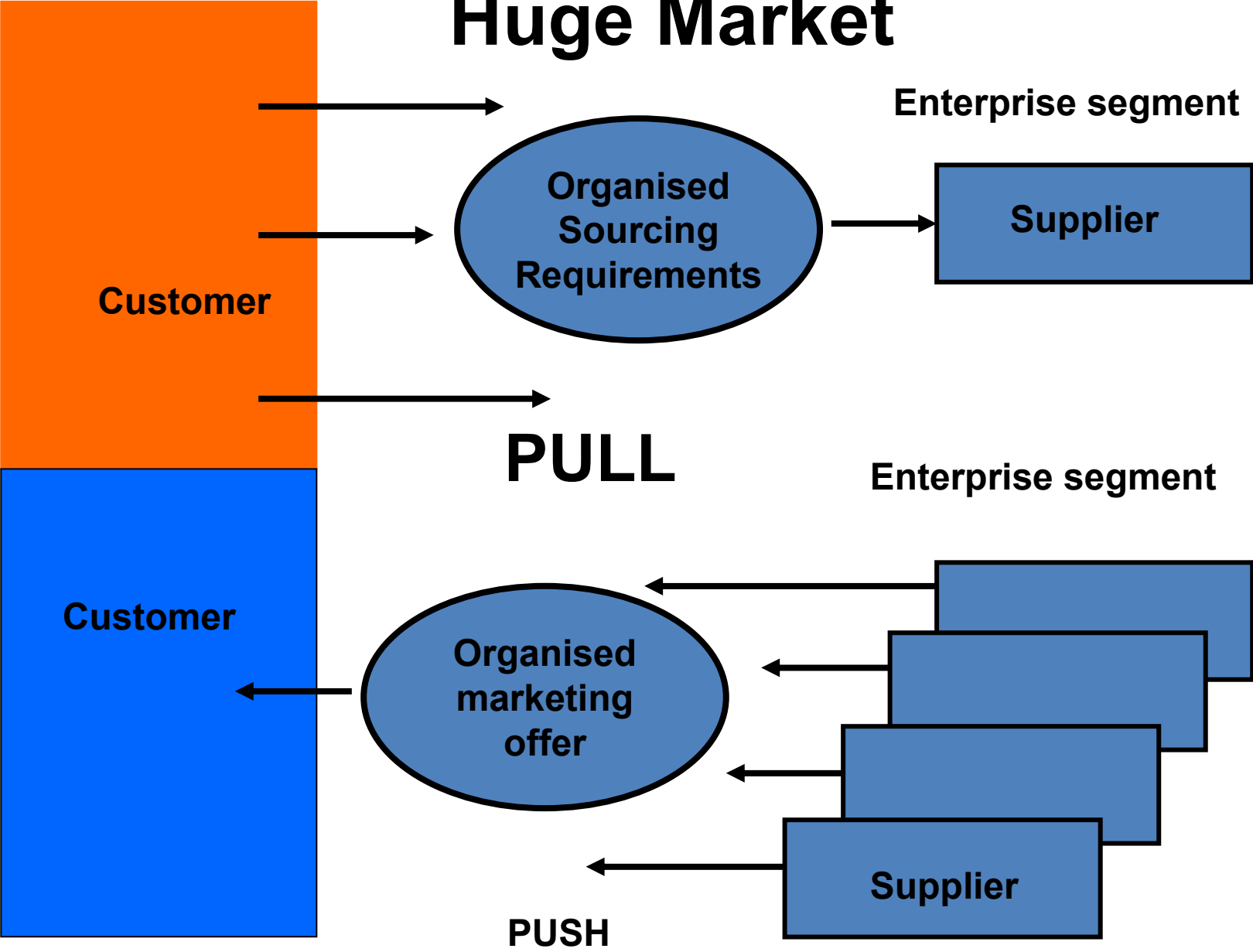
National regime



Size and segmentation of national PUP market



Huge Market



Framework Agreement:

is an agreement between one or more contracting authorities and one or more Economic Operators, to establish the terms governing contracts to be awarded during a given period.

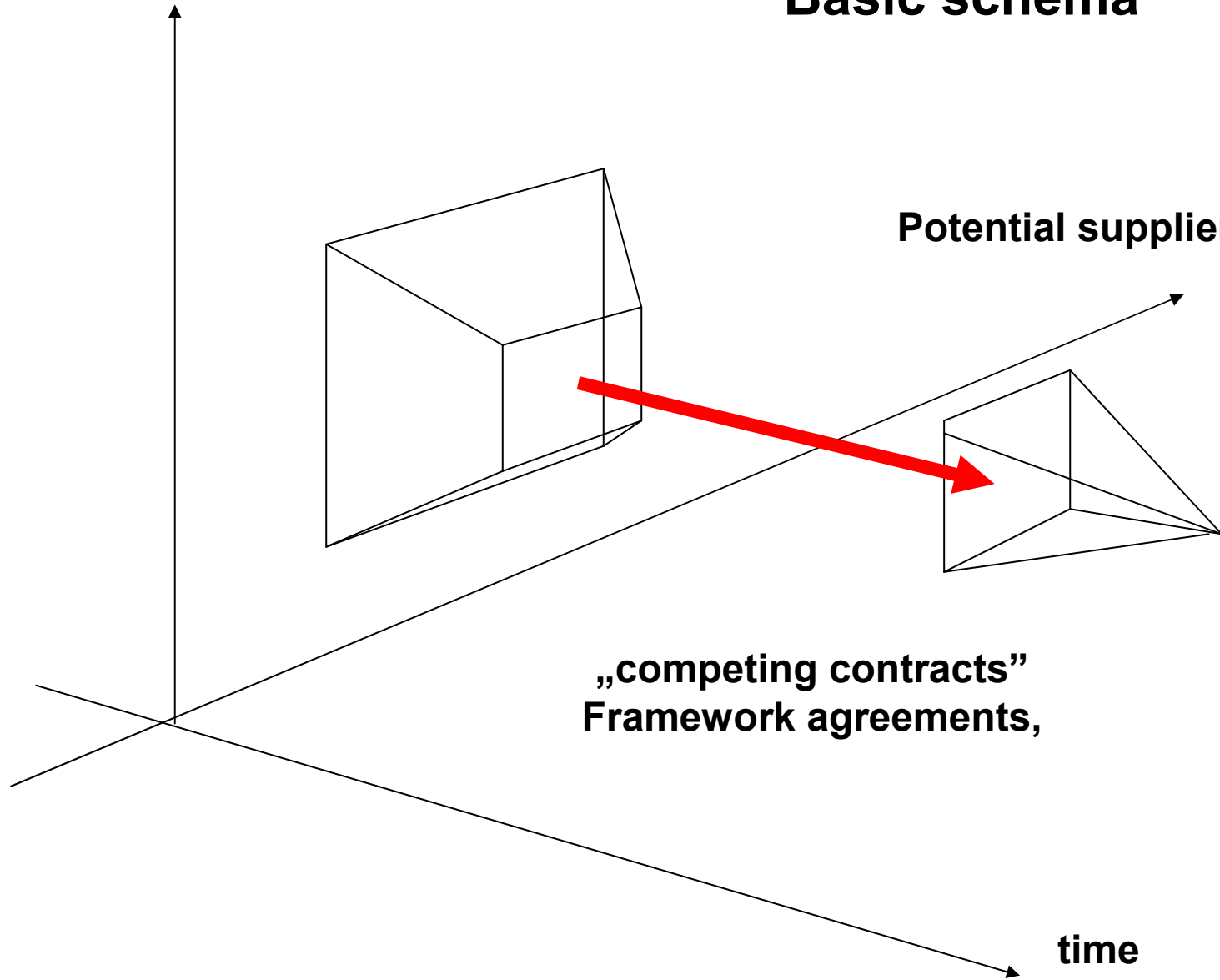
Framework agreement the „e”-way

- I. Planning the structure.
- II. Planning the content
- III. Procedure and contract hierarchy
- IV. Form of tender: the eCatalogue
- V. Catalogue management
- VI. Central and de-central management aspects.
- VII. Planning the competition.
- VIII. The role and room for extensions.

Framework Agreements Basic schema

Potential products

Potential suppliers

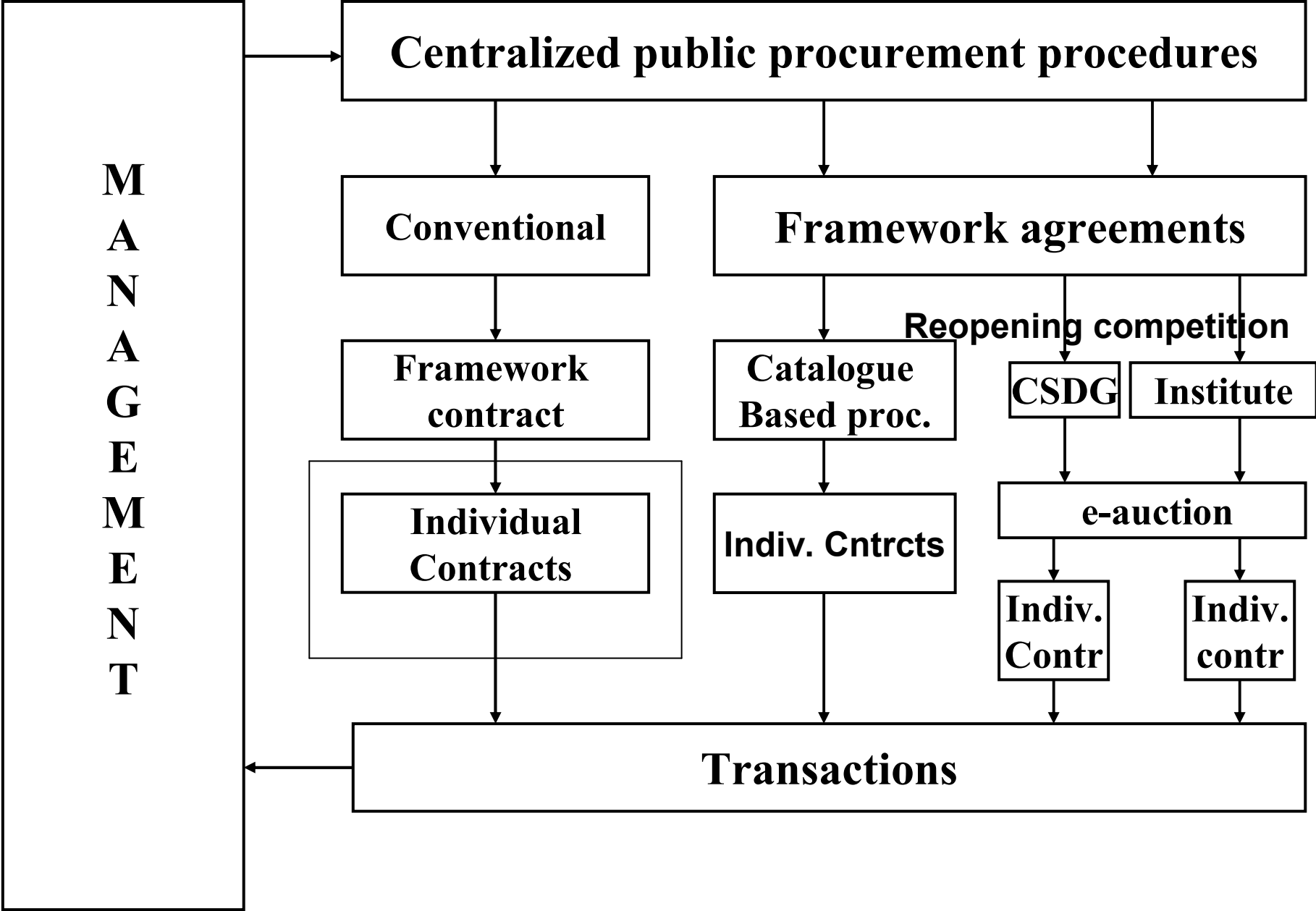


time

Planning the „frames“

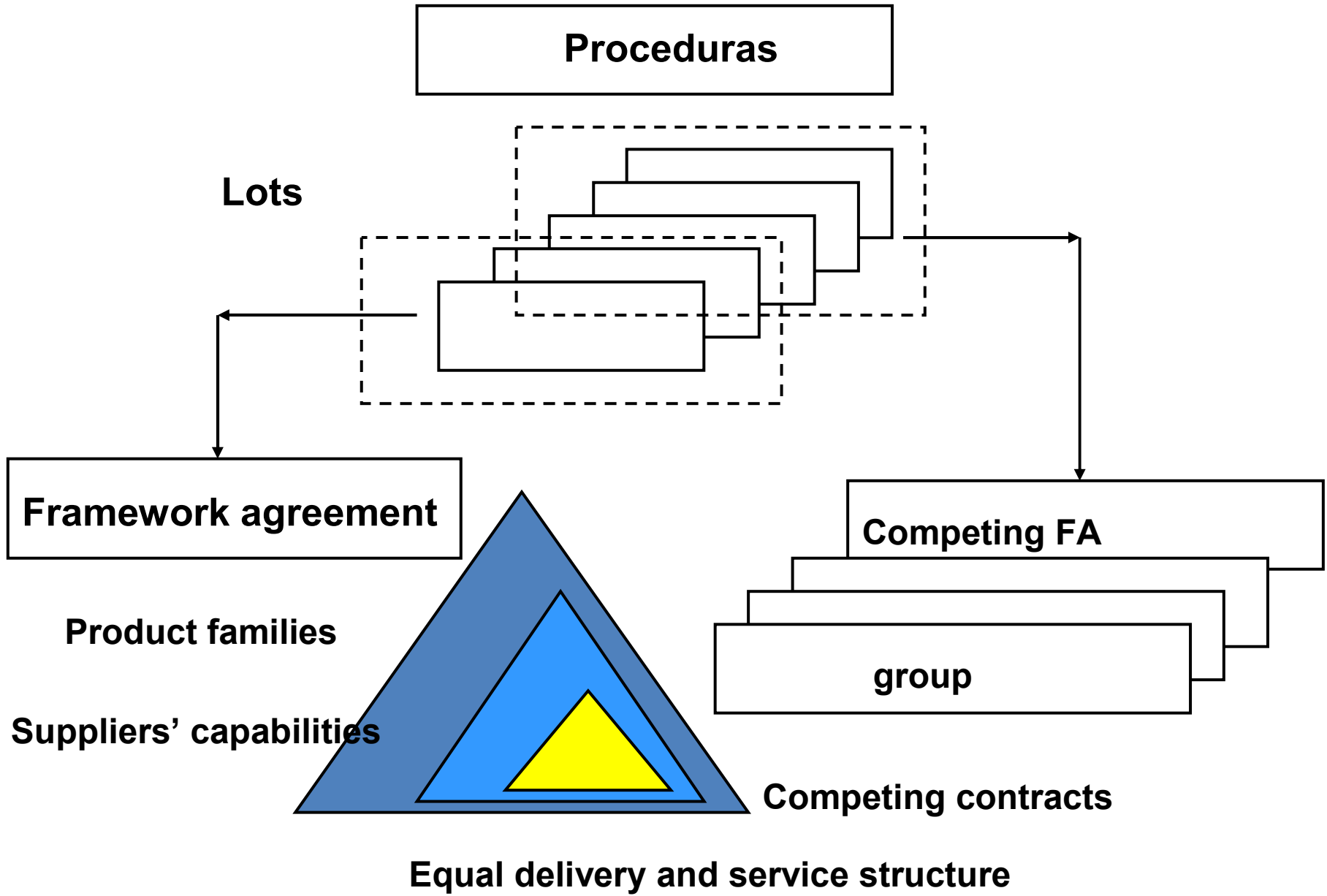
- I. Time (contract active/passive periods)
- II. Volume
- III. Value
- IV. Level of limitation, level of aggregation

Contract management techniques in public procurement



Contract hierarchy

- I. Procedure (the same supplier)
- II. LOT (the same product category), competing agreements (the same rules)
- III. Individual delivery contracts (the same supplier)
- IV. Individual orders (internal confirmation procedure)
- V. Invoice (one shift)



Manageability of FA-s and procurement categories

- I. Aggregation
- II. Catalogue building
- III. Competition
- IV. Evaluation
- V. Statistics
- VI. Benchmarking

Functions to be performed under Framework Agreements

1. **Competition for selected suppliers and selected goods**
2. **Setting up the contract (FA) containing:**
 - The product catalogue
 - The supplier catalogue
 - Contracting rules without reopening
 - And by reopening the competition
 - Including evaluation models
 - And contract models
3. **Management of**
 - Contract and performance
 - Subcontracts
 - Transactions
4. **Control of Volume**
5. **Control of service level (SLA) if that is employed**
6. **Control of fees to be paid if that is employed**

Planning the Framework Agreements

- 1. Analysing the procurement forecast and requirement**
 - Exact, fine, coarse data forecast
- 2. Planning the procurement procedure and its LOTS**
 - Under the same supplier qualification procedure
- 3. The composition of product LOTS**
 - Upon products' life cycle
 - The length of
 - MASTER
 - And SLAVE contracts
- 4. The prosperous bidder**
 - Capabilities contra LOT
 - Qualified product range/market segment
 - Capabilities for shared performance without the risk of forming kartel

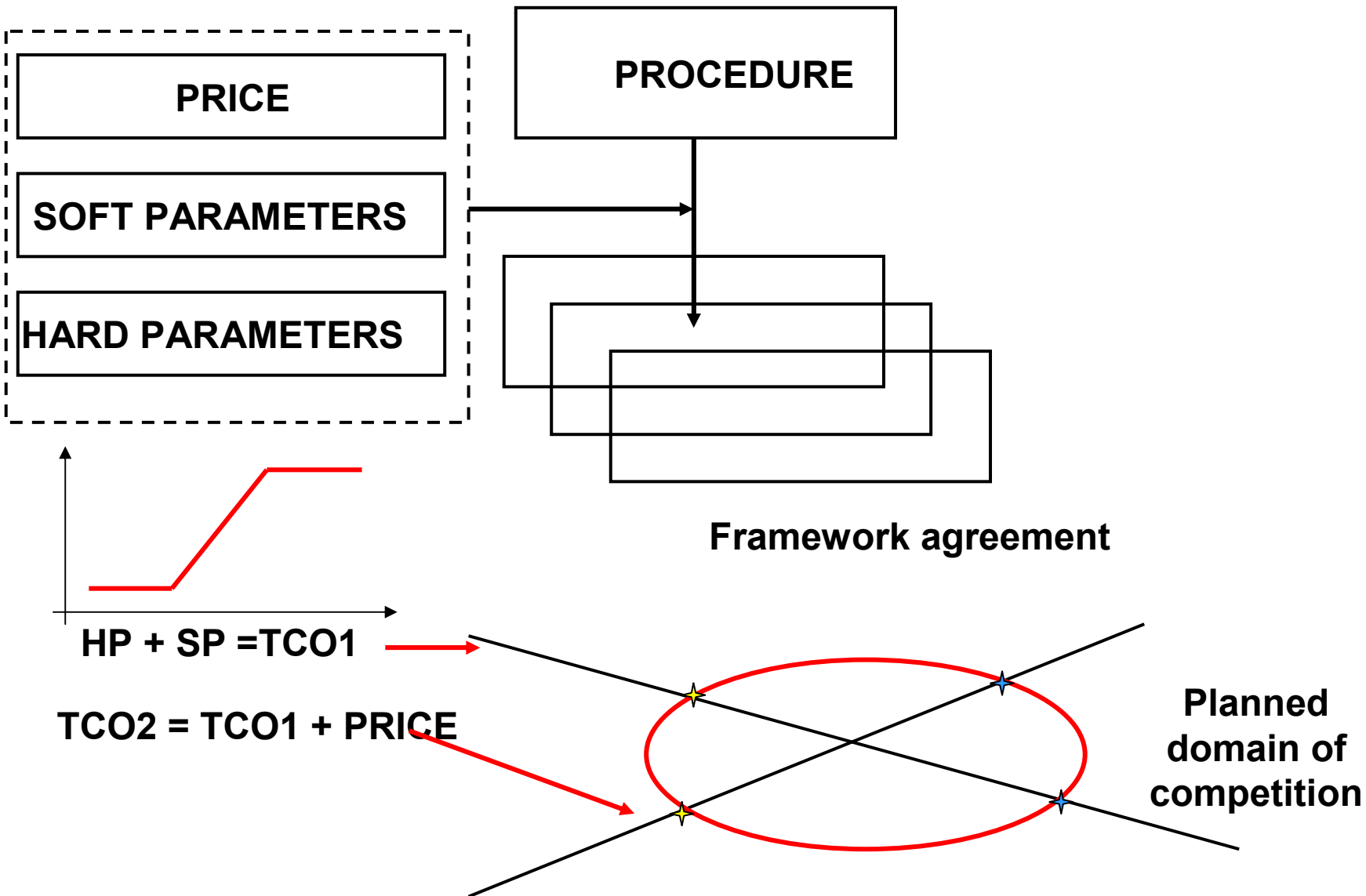
.....follows

Goods Selection Cryterias

- **Attributes may fall into the following categories**
 - **Price**
 - **Soft parameter (part of commercial catalogue)**
 - **Best evaluated**
 - **Worst evaluated**
 - **Hard parameter (part of technical catalogue)**
 - **Best evaluated**
 - **Worst evaluated**

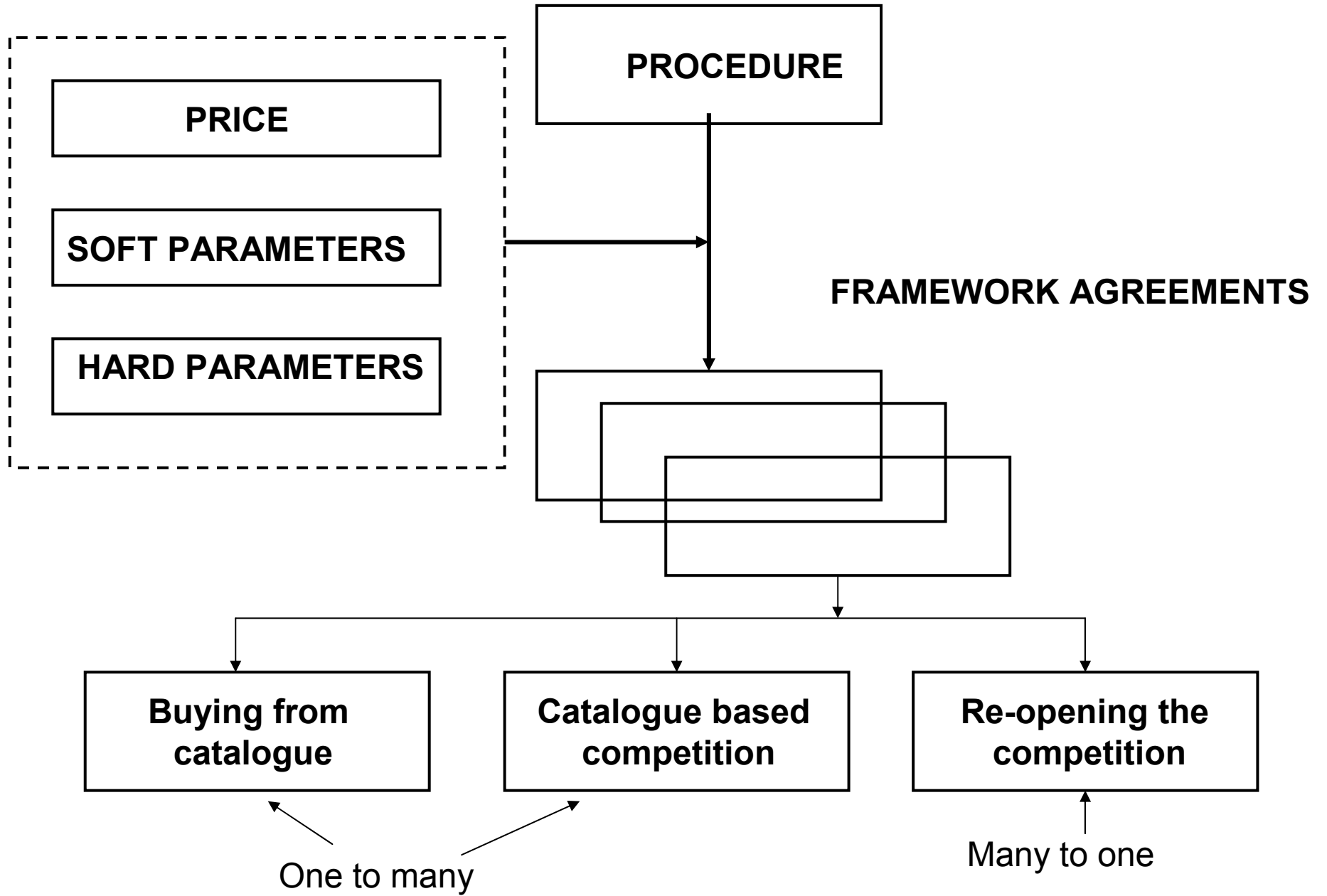
Planning the competition

- Way of expression and presentation
 - Total cost of ownership (TCO)
- Price only ? (TCO 1)
 - Volume adds a touch of natural weighting
- Price + Soft parameters (TCO 2)
- Price + Soft parameters + Hard parameters (TCO3)



Consideration scenarios

- I. Buy one product
- II. Buy a basket of mixed products
- III. Buy a configuration
- IV. There is a leading option of strategic importance
- V. Attachments



Planned domain of competition

- I. Limits in evaluation/the nonlinear effect
- II. Being effective/planning carefully
- III. Model building

Nothing comes free

- I. Contract management costs 4-5% of transaction value
- II. Contract migration costs 8-11 % of transaction values

...in the private sector

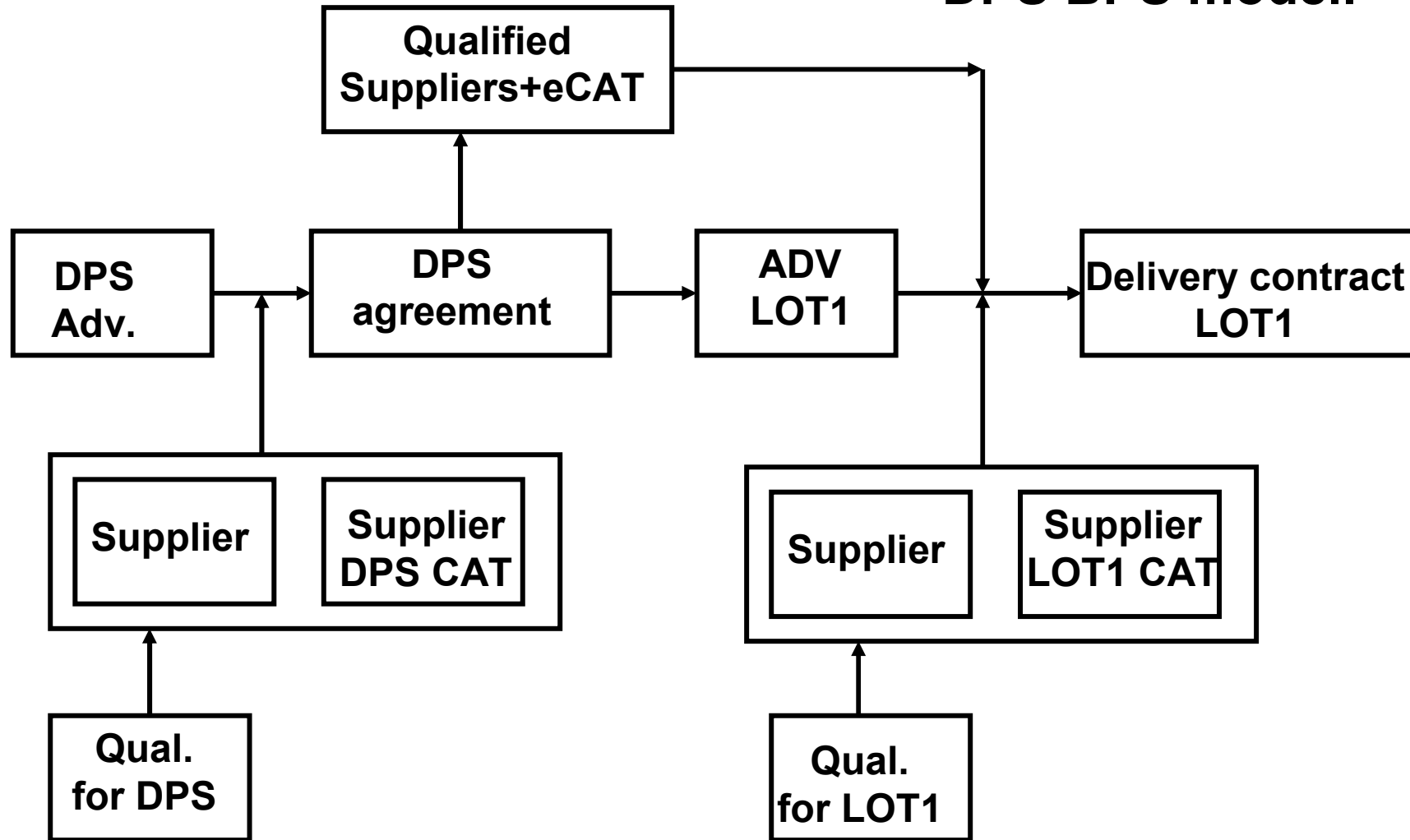
Value creation in PUP procedures

- I. Better conditions achieved
- II. The balance of costs and savings is advantageous
- III. Created value can only be interpreted as an average of cost and savings of more than one procedure
- IV. Only indirect benefits can be interpreted
- V. Achievements are „critical Mass” dependent

Dynamic Procurement System:

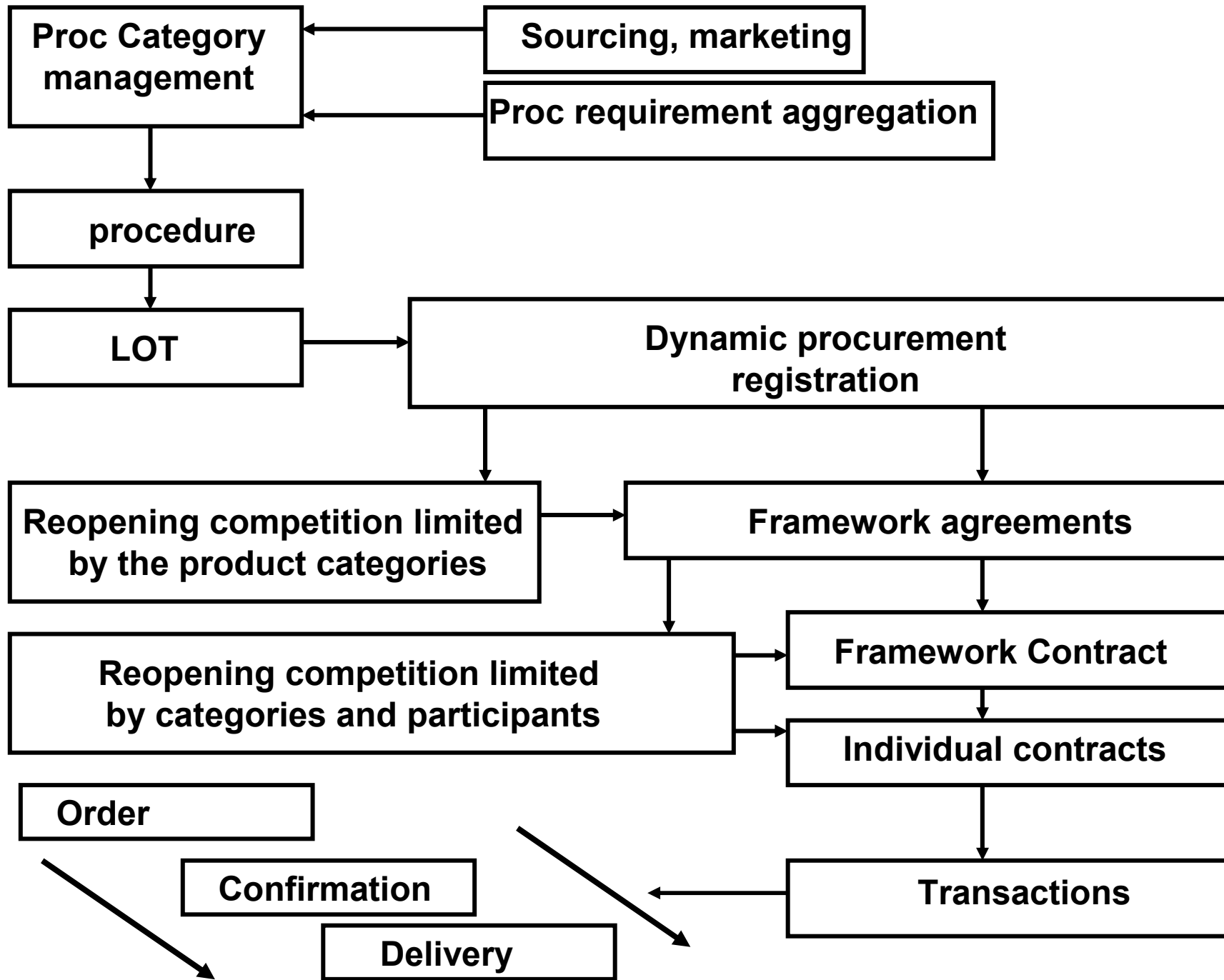
a fully electronic process for contracting authorities for making commonly used purchases, which are generally available on the market and meet the requirements of the contracting authority.

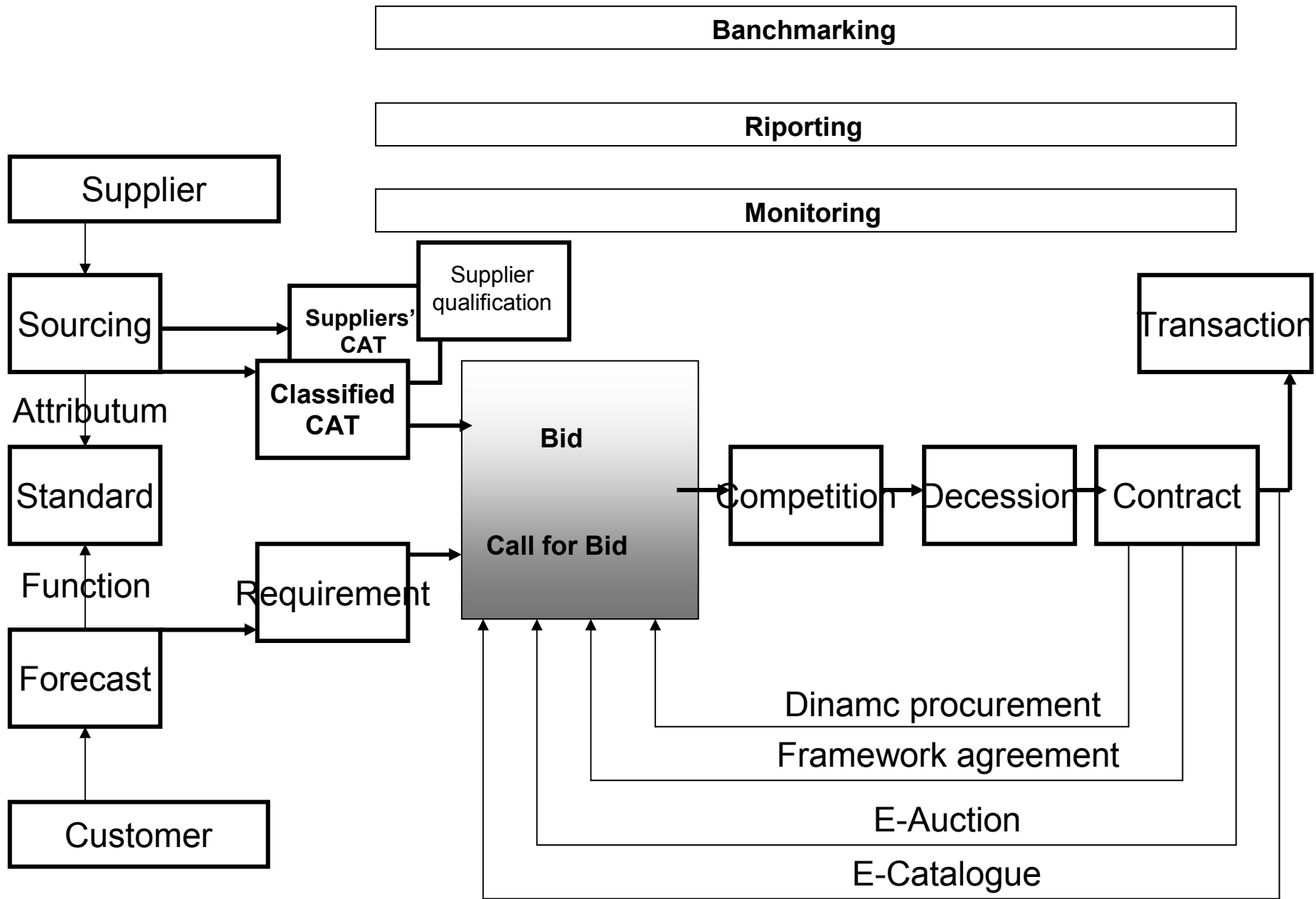
DPS BPS modell



Dynamic Procurement System the „only e-way”

- I. The orientation of the services. (Supplier centric.)
- II. The scope of the system (product range/lot size).
- III. System development (below EU, above EU threshold, mixed)
- IV. Qualification of suppliers (for system and for lot)
- V. Suppliers catalogue
- VI. Product catalogue
- V. Services provided/services enabled





Questions for feedback

- ECommerce business scenarios
- Basic ecommerce activities
- Basic ecommerce documents
- The use of eCatalogue
- The use of classification
- What defines the PUP business scenarios?
- Legislative hierarchy in the EU
- Main elements of electronically concluded PUP
- What is characteristic for eTendering
- Business cases for the pre and post award phases of PUP

The use of standards in eCommerce

- 1. Electronic message standards**
- 2. Classification systems**