



PEPPOL Deliverable D4.1 Standard Basic eOrdering Format and Data Structure



Version 1.2



PEPPOL WP4 2009-07-07



Borderless eProcurement
Let's make it happen!

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Pending EC approval

6 AS-IS Situation in eOrdering

The following chapter comprises the analysis undertaken by WP4 with regard to the respective existing national eProcurement landscape in the WP4 member countries. In this analysis, focus was not only put on the actual (technical) applications but also on the other dimensions of the European Interoperability Framework (e.g. political support, stakeholders, organisational and legal issues etc.).

6.1 Country-specific analysis

6.1.1 Austria

6.1.1.1 Overview

6.1.1.1.1 Stakeholders

BBG's e-Shop²¹ infrastructure is hosted by the Federal Computing Center (BRZ) and managed by the Federal Procurement Agency (BBG). The eOrdering infrastructure is hosted by BRZ and operated by BBG. Operation includes managing the e-Shop content (catalogues, frame contracts, user and organisation data), providing 1st and 2nd level support to the e-Shop users and taking care of the continuous development and improvement of the e-Shop system.

e-Shop users fall into two groups. Whereas the first group (users from federal government institutions) is legally obliged to use the e-Shop, the second group may chose to use the e-Shop. This group accounts for more then 50% of e-Shop's purchasing volume and comprises regional government institutions, state-owned organisations, universities and schools.

e-Shop is used by 15.000 users from 2.000 different purchasing departments all over Austria.

BBG is a non-profit organisation that has to report to the Austrian Ministry of Finance.

The shop contains more than 300.000 items from about 200 suppliers in 30 product categories.

Although BBG conducts a large number of tenders per year, it does not operate an eTendering solution itself. A central eTendering solution (focusing on the publication of tenders) is operated by another central organization - "auftrag.at".

Austrian's eProcurement approach is centralized – there are no regional Procurement Agencies. BBG therefore covers Austria on a federal and regional level.

6.1.1.1.2 Business Model

Initially, the set-up of BBG and the e-Shop has been financed by the Austrian Ministry of Finance.

In order to cover the cost of operations for the e-Shop, BBG charges:

- The suppliers based on their revenue volume (percentage of the revenue conducted over BBG contracts)
- The customers that voluntarily opted to use the e-Shop based on user fees.

6.1.1.1.3 Application

The managed infrastructure e-Shop (e-shop.gv.at) is an eProcurement system that allows BBG's customers (central and regional government institutions, state-owned organisations, universities, and schools) to call off from electronic frame contracts. The purchasing process - from raising a purchase requisition, approval workflows, completing the purchase order to dispatching the PO to the vendor – is covered within the e-Shop. It also comprises a staging tool to manage eCatalogues and a reporting

²¹ <http://e-shop.gv.at>, BBG-Homepage: <http://www.bbg.gv.at>

tool. On a federal level, the e-Shop application is connected to the ministries' finance and controlling systems.

e-Shop Goals:

- One stop shop for BBG's customers
- Full transparency and auditing acceptability for purchases via e-Shop
- Reporting module enables pro-active management of frame contracts
- Built-in flexibility to cover a number of different procurement scenarios depending on the organizational and technological set-up of BBG-customers and suppliers
- BBG can attract additional customer groups in the public sector

The eOrdering module is the core module of the e-Shop application. Basically, it covers the complete post-awarding procurement cycle:

Ordering:

- Purchase requisition and Purchase Order (both with reference to e-Catalogues and free-text positions)
- Electronic Approval workflows (due to heterogeneous user base, the approval workflows have to be defined manually by the requisitioner/purchaser within the application; no rule-based deduction of approval workflows)
- Supplier Portal: Supplier receives e-Mail notification about new orders and can download the order from within the application. Additionally, he can submit an order confirmation.

Delivery:

- Supplier can submit delivery notice.
- Purchaser can confirm (partial) delivery.
- Purchaser can raise a complaint (faulty delivery).

Invoice:

- Purchaser can confirm invoice receipt.

The main e-Shop functions are included in the following illustration:

E-Shop Process

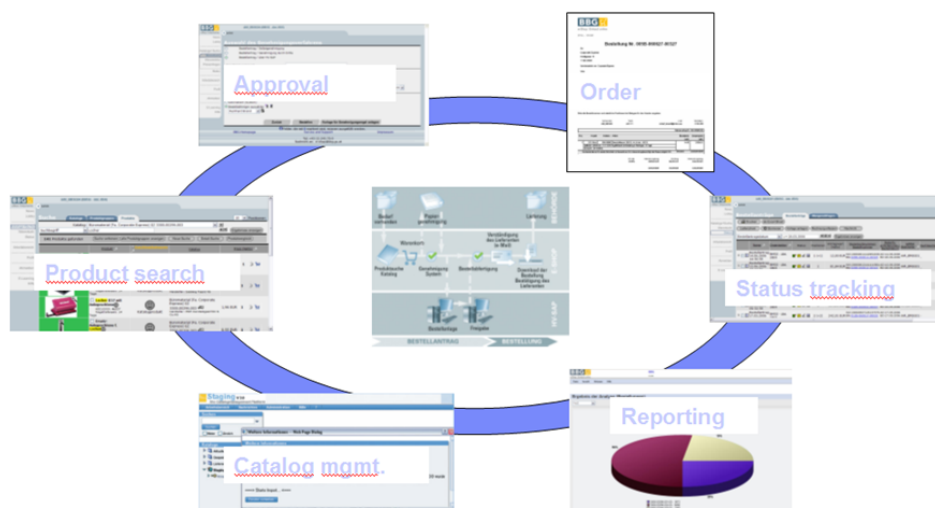


Figure 5: Austria BBG e-Shop Capabilities

6.1.1.1.4 Information Exchange with Suppliers

Currently, suppliers have access to their business documents via a supplier portal that is integral part of the e-Shop application (pull principle).

Once a business document is ready for processing for the supplier, he receives an e-Mail with a link to the respective business document. The business document itself, however, has to be collected / downloaded / processed by the supplier from within the e-Shop application.

The following business processes are currently supported by e-Shop from a supplier's perspective:

Business Process	Stand-alone Business Document	Function within e-Shop Application	Comments
Order	x	x	Order is a business document that can be downloaded by the supplier in PDF and/or xCBL 3.5. Additionally, the order can be viewed and processed directly from within the e-Shop application via GUI.
Order Confirmation		x	Supplier can enter an order confirmation with reference to the order in the e-Shop application (including different quantity and delivery date)
Dispatch notice		x	Supplier can enter a dispatch notice with reference to the order in the e-Shop application (including different quantity and delivery date)

On a pilot basis, the order document can alternatively be attached as XML (xCBL 3.5) or PDF to an e-mail which is sent automatically to the supplier once a new order has been generated (push principle).

6.1.1.1.5 Information Exchange with Customers / Buyers

Generally, buyers have to access e-Shop in order to process their requisitions. However, e-Shop provides an interface to transfer the order into the backend (ERP-) systems of the buying organisation.

The following business processes are currently supported by e-Shop from a supplier's perspective:

Business Process	Stand-alone Business Document	Function within e-Shop Application	Comments
Order	x	x	Order is a business document that is sent to the buyer's ERP system. Reasoning: delivery and invoice are usually processed within the buyer's ERP system (i.e. not in e-Shop). The transferred / duplicated order in the buyer's ERP system acts as basis for these process steps. The format of the order document is based on an XML-adaption of SAP IDOC's standard.

Order cancellation		x	Buyer can cancel the order – depending on the specifications of the underlying frame contract.
Order receipt		x	Buyer can process order receipt with reference to the underlying order
Invoice		x	Buyer can process invoice with reference to the underlying order
Order Status		x	Order status is continuously updated within the application

6.1.1.1.6 Technology / Infrastructure

e-Shop is a Java application that can be used with any standard web-browser.

- eOrdering and Staging modules are based on the standard software “Impact Ordering” of the German company Healy Hudson and has been adapted to BBG’s requirements.
- The Monitoring module is based on MS Analysis Server.

The following illustration gives an overview of the different e-Shop components:

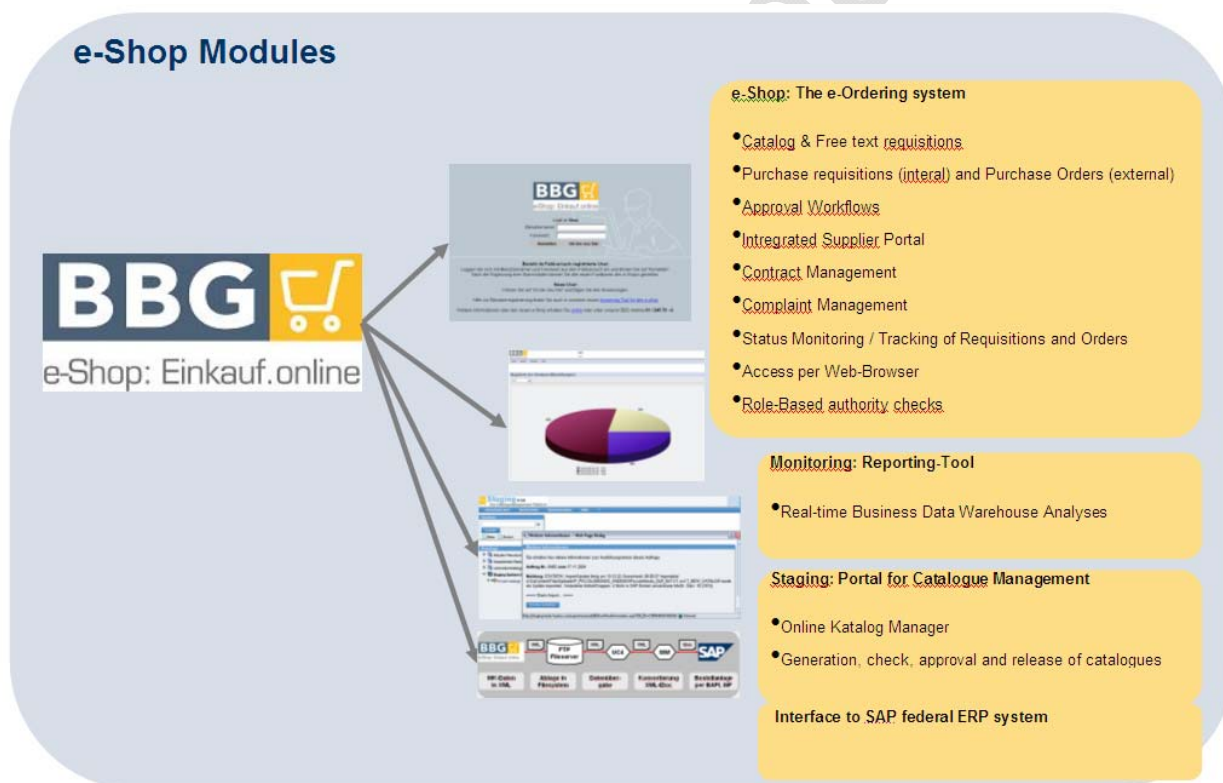


Figure 6: Austria BBG e-Shop Application Components (Modules)

6.1.1.1.7 Remarks

Austria follows an eProcurement centralized model.

Order data submitted to the e-Shop system can be accessed by suppliers through a Web Based Interface, logging into a Portal and using specific functions, or by receiving electronically as a mail attachment.

Generally, the basic requirements (processes and technical infrastructure) are in place to enable the exchange of electronic business documents.

6.1.1.2 Legal Situation

Usage of the e-Shop requires a registration and approval process (both for buyers and suppliers) in which they agree in the general usage terms for the application. For the e-Shop application, users must sign a declaration of utilization that states rules about the “non ambiguity” of eCatalogue data. The service provider, on the other side, has to follow a number of rules concerning data confidentiality and security.

Electronic signature of documents is explicitly required in pre-awarding process only (not covered by e-Shop application). Orders processed in the e-Shop application need not to be signed. The Austrian electronic signature respects the European Signature Directive²².

6.1.2 Denmark

6.1.2.1 Overview

6.1.2.1.1 Stakeholders

- Danish Agency for Governmental Management – owner of IndFak23 and nemHandel24
- National IT- and Telecom Agency (NITA) – managing and developing nemHandel.
- Danish Regions – strategic partner to NITA for piloting and implementing nemHandel.
- Public entities – required to implement nemHandel by 2009.
- Suppliers - may implement nemHandel after 2009.

6.1.2.1.2 Business Model

The business model is based on the assumption that interoperability in general can create effective and flexible cross organizational business processes. In specific, many-to-many interoperability like eOrdering, has a great potential to unleash great savings. Through a combination of legislation, standardization and software development, the adoption of eProcurement, through exchange of electronic business documents, between public entities and their suppliers has been pushed and pulled.

6.1.2.1.3 Application

Functions / Modules

The main requirements for modules for exchanging business documents is the ability to bridge the gap between internal and external (standardised profiles) business processes. On the technical level, the connection to the Danish infrastructure must be done through implementing the technical specifications or use the open source OIOSI (service-orientated infrastructure) client.

Business eOrdering processes and documents

The business processes between public entities and suppliers is part of the OIOUBL²⁵ specifications as profiles. Profiles specify the sequence of business documents and the content of the business documents. For eOrdering, there exist several profiles, where eOrdering is included:

²² <http://www.signatur.rtr.at/en/legal/directive.html>

²³ Electronic Invoicing: <http://www.oes.dk/sw1903.asp>

²⁴ <http://en.itst.dk/>

²⁵ OIOUBL is a customization for Danish business requirements of the international UBL 2.0 standard from OASIS, see also: <http://www.oioubl.info/classes/en/index.html>

Profile	Document														
	Order	OrderResponse	OrderResponseSimple	OrderChange	OrderCancellation	Invoice	CreditNote	Reminder	Statement	CatalogueRequest	Catalogue	CatalogueItemSpecificationUpdate	CataloguePricingUpdate	CatalogueDeletion	ApplicationResponse
www.nesubl.eu-profiles:profile8-ver1.0						X	X								X
Procurement-BilSim-1.0						X	X	X							X
Procurement-PayBas-1.0									X						X
www.nesubl.eu-profile-profile7-1.0	X		X			X	X								X
Procurement-OrdSim-BilSim-1.0	X		X			X	X	X							X
Procurement-OrdAdv-BilSim-1.0	X	X	X	X	X	X	X	X							X
Procurement-OrdSel-BilSim-1.0		X	X	X	X	X	X	X							X
www.nesubl.eu-profiles:profile1-1.0										X					X
Catalogue-CatBas-1.0										X				X	X
Catalogue-CatSim-1.0									X	X				X	X
www.nesubl.eu-profiles:profile5:ver1.0										X	X	X			
Catalogue-CatExt-1.0										X	X	X	X	X	X
Catalogue-CatAdv-1.0									X	X	X	X	X	X	X

Figure 7: Danish Profiles

The documents are specified in the OIOUBL specifications (www.oioubl.info). OIOUBL 2.1 is a subset of UBL (OASIS standard) and a superset of NESUBL. In eOrdering, the following documents are used:

- Order
- Order Response Simple
- Order Response
- Order Change
- Order Cancellation

6.1.2.1.4 Infrastructure

The Danish infrastructure is a combination of connected VANS and an open service oriented infrastructure OIOSI.

OIOSI is developed by National IT- and Telecom Agency and is based on web service technology on top of the Internet. Interconnection to other infrastructures like bank networks and VANS is done through gateways. The central components in the infrastructure are:

- Registries for routing documents i.e. converting EAN numbers to endpoints (IP-addresses).
- Digital certificates to ensure document authenticity, integrity and non-repudiation.
- The Internet as the carrier and base technology.
- Web service stack e.g. SOAP²⁶ as the technology for implementing services.

The infrastructure is document oriented and document neutral. The objective is to exchange all types of business documents between business applications “as easy as sending an email”.

²⁶ SOAP, originally defined as Simple Object Access Protocol, is a protocol specification for exchanging structured information in the implementation of Web Services in computer networks.

6.1.2.1.5 Remarks

Denmark follows an eProcurement de-centralized model but with a major application implemented at federal level. The technical and organizational structure is based on the exchange of electronic documents. There is a fully operating transport infrastructure and a standard regarding the syntax and the semantic of business documents in place.

6.1.2.2 Legal Situation

There is no specific legal requirements related to electronic documents exchange; the electronic signature is not mandatory in the purchasing processes.

6.1.3 Finland

6.1.3.1 Overview

6.1.3.1.1 Stakeholders

The State Treasury's Administrative Management division is the sponsor. It has a dedicated group monitoring defining and monitoring the process handled by the eOrdering system.

The eOrdering system comprising several individual applications are run from server cluster in Finland. The computing centre is privately run and managed according to the national IT security and systems operation standards for outsourced government IT operations. The eOrdering system is managed by a "base crew" that is augmented by additional IT service personnel depending on the actual service load (i.e. no. of active suppliers and customers, no. of individual end users, no. of ongoing procurement transactions).

Customers are all Finnish government agencies.

Suppliers are private sector companies in Finland and the EU. Suppliers get selected on the basis of an (open) procurement competition and submit an electronic catalogue to the eOrdering system. Authorised government employees then initiated purchases. After the delivery, suppliers invoice the purchasing organization.

6.1.3.1.2 Business Model

The State Treasury of Finland has initiated the definition, setup and implementation of the eOrdering system. The eOrdering system is built by a private sector company and made available under a SAAS²⁷-type contract. The service is paid by public authorities using it.

²⁷ SAAS is a model of software deployment where an application is hosted as a service provided to customers across the Internet. By eliminating the need to install and run the application on the customer's own computer, SaaS alleviates the customer's burden of software maintenance, ongoing operation, and support.

Conversely, customers relinquish control over software versions or changing requirements; moreover, costs to use the service become a continuous expense, rather than a single expense at time of purchase. Using SaaS also can conceivably reduce the up-front expense of software purchases, through less costly, on-demand pricing. From the software vendor's standpoint, SaaS has the attraction of providing stronger protection of its intellectual property and establishing an ongoing revenue stream.

The SaaS software vendor may host the application on its own web server, or this function may be handled by a third-party application service provider (ASP). This way, end users may reduce their investment on server hardware too.

Source: http://en.wikipedia.org/wiki/Software_as_a_Service

6.1.3.1.3 Application

Main modules to support the standard procurement lifecycle in the eOrdering system:

- Basware Purchase Management (PM)
- Basware Business Transactions Service (BT)
- Basware Supplier Portal (SP)
- Basware RFX Management

Basware Purchase Management (PM)

Basware Purchase Management (PM) offers a cost-efficient way to manage and control an organization's procurement. This system supports a fully automated workflow from requisition generation to approval, ordering and goods receipt. Basware PM also enables catalogue and free-text purchasing and efficient contract management. Additionally, its reporting capabilities cover all necessary facets of procurement management.

Basware Business Transactions Service (BT)

Business Transactions is a monitored transfer and conversion service for electronic business documents including purchase orders. The sender interface purchase orders to Business Transactions service, which routes them to suppliers. Supplier responses are routed via BT to the customer's eOrdering system.

Basware Supplier Portal (SP)

The Basware Supplier Portal (SP) uses real-time connections to integrate organizations with selected, authenticated supplier and partner networks. This application provides a secure portal that is accessible through an organization's website.

The Basware SP streamlines information-sharing between organizations and suppliers. It gives suppliers immediate access to their order and invoice records via a secure environment.

Basware RFX Management

Basware RFX Management is a browser-based solution for electronic sourcing. Detailed controls in Basware RFX support compliance with regulations such as those on European Union public sector procurement.

6.1.3.1.4 Information Exchange with Suppliers

- Access to information via secured website (i.e. online)
- Sending of notification messages via e-mail (unprotected)
- Delivery of purchase order messages and purchase order-related communications via SFTP (Secure File Transfer Protocol) or HTTP (Hypertext Transfer Protocol) in a VPN (Virtual Private Network) to a 3rd party ERP (Enterprise Resource Management) system (for example: from SAP or Oracle).

6.1.3.1.5 Information Exchange with Customers / Buyers

- Access to all information via secured websites and individual user authentication.

6.1.3.1.6 Technology / Infrastructure

The eOrdering system is operated and maintained in an outsourced computer center managed by Basware.

Customer and suppliers have access to the eOrdering system through:

- Websites providing secured access with individual user authentication for working with the eOrdering system user interfaces,
- Secure routing of purchase order messages from the eOrdering system to suppliers' ERP system and vice versa,
- Notification messages sent via e-mail,
- User support through e-mail and call center-managed phone lines.

6.1.3.1.7 Remarks

The Finnish Central Government owns a central eProcurement application which is open to all Finnish government agencies, but some municipalities may have their own solutions.

The organizational and technical structure is based on private networks interoperability. Those networks are managed by intermediaries, some of which offer additional application services.

6.1.3.2 Legal Situation

There are no specific legal requirements related to electronic documents exchange; the electronic signature is not mandatory in purchasing processes. An order, when accepted by the receiver, is considered legally valid.

6.1.4 Hungary

6.1.4.1 Overview

6.1.4.1.1 Stakeholders

Computing centre: The Hardware and Software infrastructure is owned by the Central Services Directorate General (CSDG) but is operated in a hosting construction by outsourced capacity at the server farm of "ECONET Hungary Holding Company".

Customers: The beneficiary costumers of the services provided by CSDG are defined by the act on public procurement and in the secondary legislation on centralized public procurement.

Sponsors: The Minister of the PMO.

Suppliers: Contracts are being signed - with the prosperous bidders as winners of centralized public procurement procedures and with their subcontractors, co-operating in the performance of the valid contract - after successful public procurement (PUP) procedures.

Various organisations as voluntary collaborators might join the PUP procedures.

6.1.4.1.2 Business Model

The "Act on Public Procurement" in the Hungarian republic delegates further regulations to 3 secondary legislations:

1. One describes the advertising obligations of contracting authorities and requirements towards the service provider for assisting in composing and forwarding the notices electronically. This service provider - the "Public Procurement Advertisements" - exists only electronically nowadays. The National Advertising Agency interconnects local authorities to TED as e-sender.
2. One for the electronically conducted PUP
3. One for the Centralized PUP and the service provider (KSZF, the Central Services Directorate General)

The act also enables the institute for “Locally Centralized PUP” to be further regulated by local governments, with no special restrictions and rights for service provider

These above described general cases are being modeled on the scheme focused onto KSZF's position as service provider interconnecting contracting agencies and economic operators acting as central contracting agency providing centralized public procurement services and will be obliged to provide it electronically from beginning of 2010 (as scheduled in the actual legislative documents).

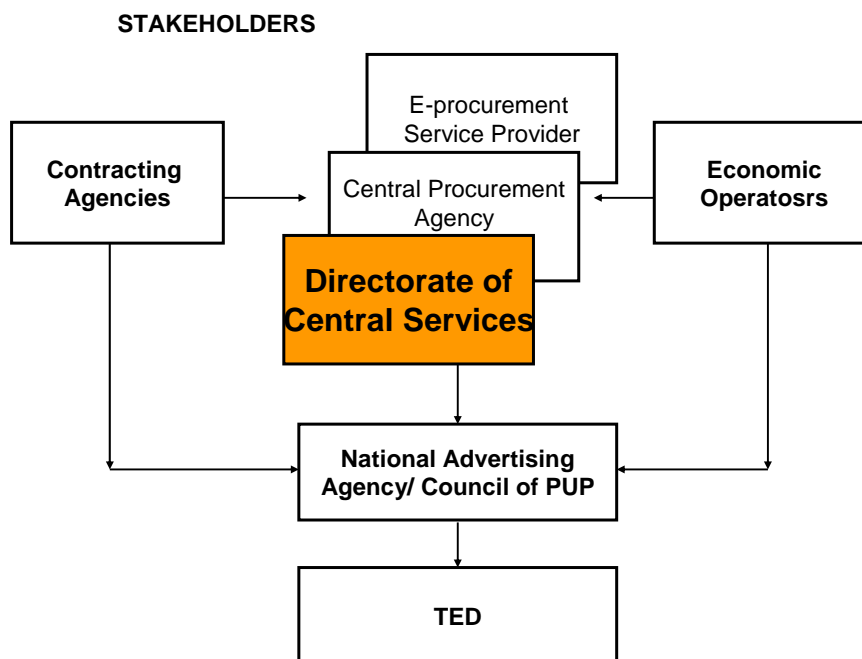


Figure 8: Hungarian National Stakeholders

6.1.4.1.3 Application

Functions / Modules

The electronic support for centralized public procurement is being supported in two applications:

- 1) For Procedure planning and contract management the “**PORTAL**” offers the following functions:
 - Organisation and user registration
 - Organisational data management
 - Organisation and user administration
 - Web-site administration (documents, pop-up, and log)
 - Legal and organisational (general) information (legal, organisational).
 - Data of registered organisations with search option
 - Actual information on centralized public procurement (news, documents, forum, links, FAQ)
 - Product direct search and navigation along classification
 - Forecasting (procurement plan, procurement requirement, requirements of voluntary collaborators)
 - Procedures and procedure planning
 - Contracts, valid contracts

- Transactions (placing order, confirmation of order, provision of invoice ID and confirmation of delivery, confirmation of payment).
- Report of procurement fees
- Contract and catalogue management, supplier uploads (Offered catalogue, price list, change request in catalogue, reports on transactions).

2) Classification and meta-catalogue management is handled in the “**Catalogue Factory**”:

- Classification management, management of versions
- Meta catalogue
- Supplier catalogue section creation in META catalogue
- The creation of buyer catalogue segment (dedicated to PUP procedure) in the META catalogue
- Automated support of response to buyer catalogue from the supplier catalogue segment
- Fine tuning of supplier catalogue
- Offer with price list

6.1.4.1.4 Information Exchange with Customers / Buyers

Information exchange during the transaction is focused on actions done on the PORTAL.

Legally valid orders can only be done on paper form, so PORTAL application is to be used to provide help in preparing the order form as it can be downloaded from the system and attached to conventional offline communication between buyer and supplier. The procedure of creating an order:

- Create a customer basket
- Put products into the basket
- Assign the required peaces of product (no other modification is allowed)
- Complete basket (any number of baskets can be created).
- Place the order

6.1.4.1.5 Technology / Infrastructure

The functional block diagram of the PORTAL (the catalogue factory is still in late test phase) is shown in the following illustration:

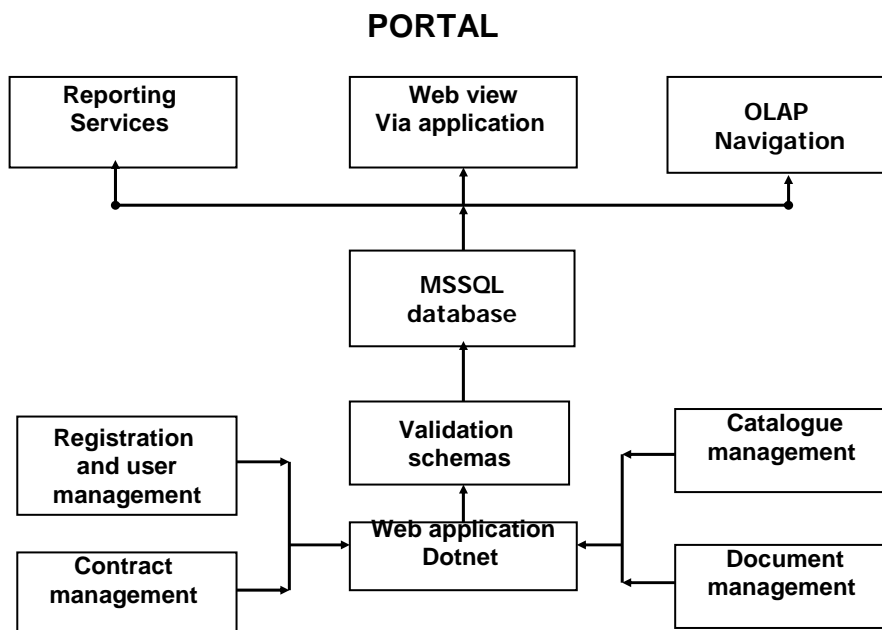


Figure 9: Hungarian Infrastructure (PORTAL)

6.1.4.1.6 Remarks

Hungary follows an eProcurement centralized model. The system is based on Web Interface and manages static documents that can be down- and uploaded.

Electronic documents are not managed yet. The eCatalogue process management is supported in terms of format and classifications standardization.

6.1.4.2 Legal Situation

The major legal constraints are connected to digital signature that is mandatory in the eProcurement transactions. In addition, the users need to be registered to the central services (ensuring the users' identity by providing them with a unique identifier that is valid at national level).

6.1.5 Italy

6.1.5.1 Overview

6.1.5.1.1 Stakeholders

Buyers (i.e. the civil servants who have purchasing power within their administration), who:

- Consult eCatalogues (search for products, compare quality, price and commercial conditions)
- Request offers from suppliers (only to have better conditions than those officially published – Request for Quotation RfQ)
- Purchase (placing a direct order to one supplier, or launching a sort of mini-tender by sending an RfQ to some suppliers, comparing offers received, and placing the order to the one which is most economically advantageous according to the criteria set out in the RfQ)

Suppliers, (i.e. enterprises authorized to display their catalogues within the system), who:

- apply for registration, sending documentation on their personal standing and on the products/services to sell, committed to respect the constraints on minimum quality, delivery conditions, etc. set out in specific qualification notices published by Consip
- update regularly their offer directly on the ePlatform
- answer to buyers RfQ
- process orders

Suppliers may decide the geographical area where they will sell, the minimum range being a Province.

System Manager (Consip), who:

- Implements and manages the system (issues qualification notices on different products and services categories, setting out qualification criteria for sellers, minimum quality standards for products services, eCatalogues formats, security levels, verifies and approves regularly that the eligibility conditions are still met by qualified suppliers, etc.)
- Publishes Catalogues received by suppliers

6.1.5.1.2 Business Model

As shown in the following figure, these actors operate in MEPA²⁸.

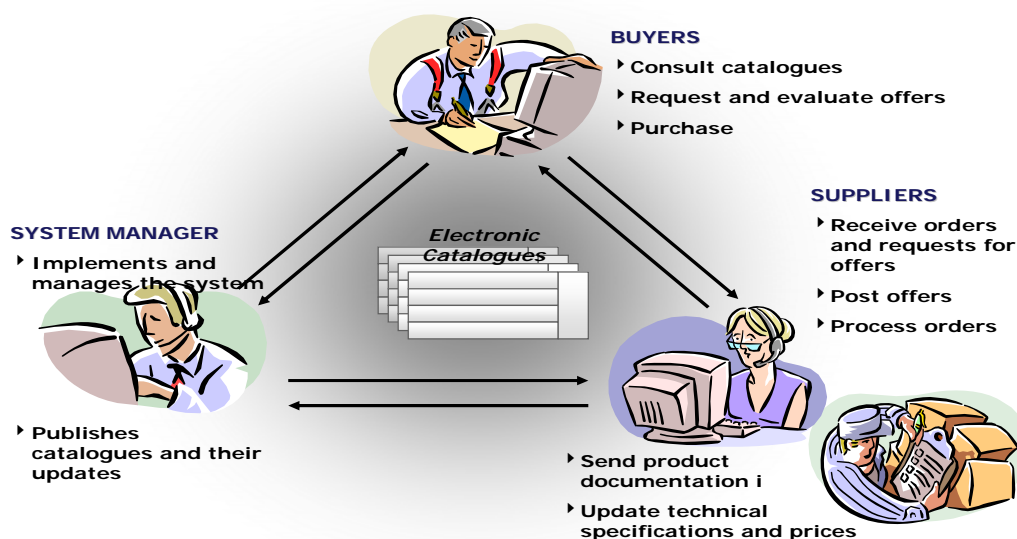


Figure 10: Italian eProcurement Actors

6.1.5.1.3 Application

The Italian PA Electronic Market (MEPA) is a public *eProcurement* marketplace managed by Consip²⁹ on behalf of the Ministry of the Economy and Finance. It is a dynamic tool (in that it allows suppliers to register, post and change their supplies, services and prices at any moment in time) in which products and services are presented in structured catalogues and described according to standard formats.

There is no pre-negotiation on prices by Consip: any economic operator who meets personal and capability criteria set out in the Qualification notice can be “qualified”, i.e. admitted to have his catalogue published, provided that minimum product quality criteria set out in the same Qualification

²⁸ The PA Electronic Market (MEPA) is a public eProcurement tool managed by Consip on behalf of the Italian Ministry of Economy and Finance (MEF).

²⁹ Consip Homepage: <http://www.consip.it>

notice are respected. As a result, an identical product/service may be sold by various suppliers at different conditions (as in the *real* market).

MEPA is supporting mainly two eOrdering functions: 1) direct order; 2) Request for Quotation. In both cases the process is supported by structured eCatalogues that presents public offers from suppliers.

Other functions are:

- searching engine (with advanced searching options and settings)
- eCatalogue browsing through tree-structured categories
- Document management
- Request for Quotation (RfQ) management (open, accept, reject offers)
- Personal settings (e.g. list of preferred suppliers)
- DB of suppliers and buyers
- Statistics

6.1.5.1.4 Information Exchange with Suppliers

eShops and MEPA do not provide interfaces to transfer the order into the backend (ERP) systems of the suppliers organisations.

6.1.5.1.5 Information Exchange with Customers / Buyers

eShops and MEPA do not provide interfaces to transfer the order into the backend (ERP) systems of the customers / buyers organisations.

6.1.5.1.6 Technology / Infrastructure

The technological stack is composed partly by commercial applications, partly by custom made software.

The architecture basically has a classical “three layer” approach, separating the presentation functions from the applications and data functions.

The eProcurement systems is now in a transaction phase, as some functionality will be redesigned, and other functionalities added, (framework agreement and DPS, defined by EU directive)

The ongoing architecture will be more service oriented, and more open for integrations with external systems/applications.

6.1.5.1.7 Remarks

Italy follows a mixed eProcurement model, with a major central eProcurement system and some local platforms. The eProcurement system is based on Web Interface, and at the moment doesn't support any data or document exchange. It supports static documents, uploaded into the systems by the users, after they are digitally signed. In general, a registration is required.

6.1.5.2 Legal Situation

Some national rules give general indications on electronic system usage in purchasing process, mainly based on the European Directive.

The eOrder must in any case respect the general rules valid for traditional contract issuing, and must respect some constraints regarding the non ambiguity of the data.

The Italian law states the equality between paper based and electronic based documents, but electronic documents must be digitally signed using a qualified signature, released by specific

certifying bodies (inserted into a specific list taken by a public entity which verifies that the owner is in possess of the prescribed requirements).

6.1.6 Norway

6.1.6.1 Overview

6.1.6.1.1 Stakeholders

The eProcurement Platform in Norway is hosted by DIFI³⁰ and operated by IBX³¹. IBX have the operational responsibility for establishing, management and development of the services provided through the eProcurement Platform (EPP).

The contracting authorities using EPP are mainly municipalities, health sector and federal government institutions.

There are approximately 500 suppliers with eCatalogues. Line items are approximately 500.000.

6.1.6.1.2 Business Model

In order to cover the costs of operations for the eProcurement Platform in Norway there are user fees:

- The suppliers pay fee based on their revenue volume (percentage of the revenue conducted over the eProcurement Platform)
- The customers pay a user fee based on their potential use of the eProcurement platform.
- Norway does not have any central financing of the services offered on the eProcurement platform.

6.1.6.1.3 Application

Functions / Modules

The eProcurement process includes the following functions:

³⁰ DIFI Homepage: <http://www.difi.no/hovedEnkel.aspx?m=53850>

³¹ IBX Homepage: <http://www.ibx.no/>

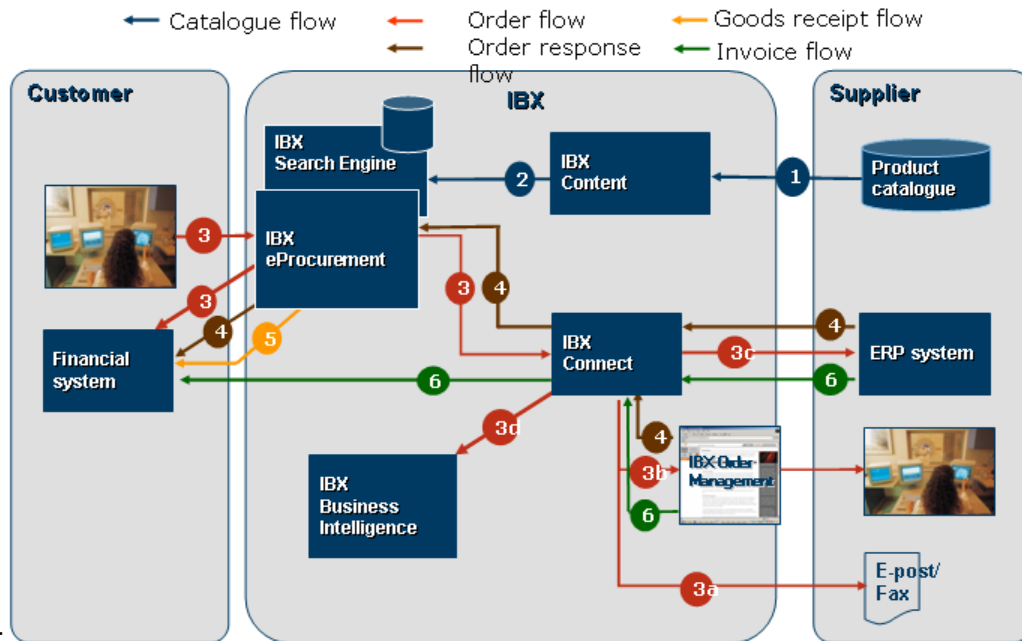


Figure 11: Norwegian Infrastructure – Functional View



Figure 12: Norwegian Infrastructure – Application View

6.1.6.1.4 Information Exchange with Suppliers

Integration between IBX Connect and supplier behind-the-firewall order processing system:

SUPPLIER INTEGRATION

- Description
 - Integration between IBX Connect and a supplier ERP
- Value
 - Connect Once: IBX offer a range of connectivity options enabling suppliers to get access to all IBX buyers with one connection only
- Available channels
 - HTTPS
- Available documents
 - Purchase Order
 - Change Order
 - Invoice
 - Order response
- Standard format
 - xCBL3.5 in SOAP 1.2 envelope
 - MIME structure where all document formats can be attached

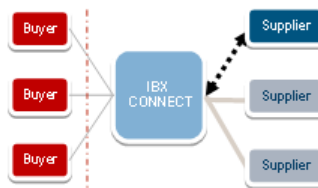


Figure 13: Norwegian Supplier Integration

6.1.6.1.5 Information Exchange with Customers / Buyers

Integration between IBX Connect and ASP e-Procurement or buyer behind-the-firewall e-Procurement:

BUYER INTEGRATION

- Description
 - Integration between IBX Connect and ASP e-Procurement or buyer behind-the-firewall e-Procurement
- Value
 - Connect Once: IBX offer a range of connectivity options enabling buyers to get access to the whole supplier base with one connection.
- Standard channel
 - HTTPS
- Standard documents
 - Purchase Order
 - Change Order
 - Invoice
 - Order response
- Standard format
 - xCBL3.5 in SOAP 1.2 envelope
 - MIME structure where all document formats can be attached

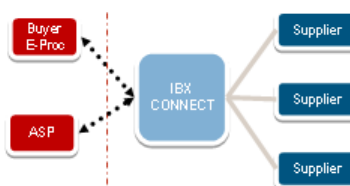


Figure 14: Norwegian Buyer / Customer Integration

6.1.6.1.6 Technology / Infrastructure

In Norway there is not a single vendor for the complete solution.

Technology/Infrastructure is made up from different components, including:

- IBX Connect for business documents
- IBX Content Workbench for catalogue handling

- eProcurement applications:
- Visma Proceedo
- Visma Unique
- Agresso
- Basware
- IBX eProcurement

6.1.6.1.7 Remarks

Norway follows an eProcurement centralized model. The organizational and technical model supports electronic documents exchange, and fully supports the eOrdering processes, managing different business documents. Standards regarding the syntax and the semantic of business documents are also implemented (xCBL).

6.1.6.2 Legal Situation

There are no special legal requirements concerning eOrdering relevant processes. Digital signatures are currently not used in Norway. However, a project has been launched in 2008 to implement a common hub for electronic identification (eID)³².

6.2 Requirements

Following the European Interoperability Framework approach, we can focus on four interoperability areas, dividing requirements into those areas.

6.2.1 Legal Interoperability

On the legal side, it seems that the major requirements concerning eOrdering refer to the implementation of digital signature in some WP4 countries' processes (Italy and Hungary). This obviously involves technical problems also, but it especially affects the legal validity of the eOrder documents exchanged by cross border suppliers and public administrations.

From a practical point of view, considering a simple order process that needs a confirmation document, the main problem is on the accept/reject document that a supplier has to send to a public administration in response to an order.

For Italian legislation this document (as it can modify the order status) is not only a (or more than a pure) notification and therefore must be digitally signed.

The logic requirement concerning legal interoperability in a European cross-border context is the harmonization and synchronisation of legislation regarding the use of digital signature in electronic documents exchange. As stated before, this requirement can not be fulfilled by PEPPOL project. However, it is expected that the project will serve as a trigger or starting point for further discussions on that topic.

6.2.2 Organizational Interoperability

On the organizational side, the set-up of cross-border procurement processes requires the alignment and agreement on common process between the participants' countries. In other words, it needs an agreement on the necessary Business Interoperability Interfaces (BII) through which their business processes must be able to interoperate at pan-European level.

³² <http://www.epractice.eu/en/news/284898>

For that reason, PEPPOL project is collaborating with CEN Business Interoperability Interfaces Working Group (CEN ISSS WS/BII) in defining a basic framework for technical interoperability in pan-European electronic transactions. The framework will be expressed as a set of technical specifications that cross-refer to relevant activities, and in particular are compatible with UN/CEFACT in order to ensure global interoperability. The CEN BII Message content and business processes Working Group is responsible for describing the content and business process profiles for the messages in electronic procurement.

A profile is a technical specification that describes a business process, which includes a detailed description of commercial partner interaction, responsibilities and relationships between them. It also describes business rules, use cases, electronic messages exchanged and the data in the electronic messages. Adopting a profile means to fully support processes and documents. It is not allowed to “partially” support a profile, or not support the full set of rules defined in the profile.

After an analysis of processes supported at the moment by all WP4 participants, the work package has agreed to use and support the CEN BII “Basic Order” profile in the first phase of the pilot. More advanced profiles are planned to be implemented and supported in later phases of the pilot (see chapter 7).

The adoption of a profile makes it mandatory to support all the rules defined in that profile. For Basic Order the following rules are defined:

- 1) By sending an Order the Buyer is legally committed by its content, i.e. if the Order is accepted in full within its validity period a contract is established and the Buyer is obliged to pay for those goods and services under the agreed terms and conditions.
- 2) If the Order is rejected or conditionally accepted no contract is established.
- 3) Delivery details stated at document level must apply to all Order Lines.
- 4) Payment Means and Terms stated at document level must apply to all Order Lines.
- 5) Accounting details stated at document level must apply to all Order Lines.
- 6) An Order Line may contain an identified Item or an Item with a free text description.

On an organisational level, the requirement is to identify common profiles and to find agreement between all process participants to support these profiles.

6.2.3 Semantic Interoperability

Semantic Interoperability can be defined as the ability of communicating entities to share unambiguous meaning. In other words, the sender must be able to reliably transmit all sufficient and necessary informations; the receiver must be able to correctly understand its interlocutor; and both must be aware of, and agree upon, each other behaviours for given interactions.

To ensure that the meaning of the exchanged data in the eOrder is shared, defined and preserved between the users, the eOrder related data model documents have to be based on a standard. CEN ISSS WS/BII is working on UBL 2.0 data models, having in mind that in future UBL releases and requirements these will converge in UN/CEFACT standard, preserving the global interoperability. Requirement: Identify a common standard for the semantics of the eOrder related documents.

In general, an electronic document received by a party should be automatically elaborated and loaded into an IT system. In order to understand a document, a system has to be able to parse and validate it, checking, for example, the code lists used. It is possible to code all the parsing and validating processes into the IT systems logic, but it is much more flexible to have tools that could make some validations prior the loading process, avoiding errors in the applications.

It means that there is a need of automatic software tools able to parse and validate documents in a standard way, using standard methodologies.

CEN ISSS WS/BII is working on defining and providing software components for developing this kind of tools. The objective is to answer to some requirements:

- Every electronic business document instance MUST be well formed
- Every electronic business document instance MUST be valid conforming to its related grammar-based language definitions.
- Every electronic business document instance MUST be valid according to its profile rule-based language definition.

6.2.4 Technical Interoperability

In PEPPOL project, most of the issues involving technical specifications for transport infrastructure are being dealt with by WP8. A transport infrastructure will be available, ensuring general technical requirements (i.e. security, integrity, reliability, tracing).

Through the setting up of an infrastructure based on different national Access Points and a distributed Registry of services, the transport of a business document to its final recipient will be ensure.

So, the major technical requirements at documents level can be listed as follow:

- Message level receipts MUST be supported.
- The e-business transport infrastructure MUST compensate for unreliable transport layer protocols by resending business documents following a recognized pattern.
- Authentication of the sender and the receiver of a business document MUST be supported
- It MUST be possible to exchange business document in confidentiality.
- The integrity of business document MUST be supported.
- Both parties in a business transaction MUST be able to prove that the transaction has taken place. Non-repudiation of business transactions MUST be supported.
- Reliability in the exchange of business documents MUST be supported.