



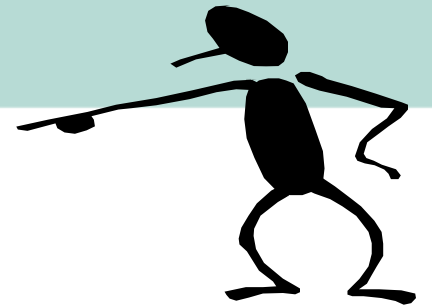
National IT and Telecom Agency

Ministry of Science  
Technology and Innovation

# OASIS UBL Danish Localization Subcommittee



Ole Madsen  
IT-Architect,  
Danish National IT and Telecom Agency



# Danish Deliverables

Website with:

- Document-information
- Code lists
- Guidelines
- Schematron (for validation)
- Online-Validation
- HTML-style sheets
- PDF-style sheets

In the future also:

- Online-presentation
- Spreadsheet input and other input-solutions
- Web Services
- Execution Process



# 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
- Dispatch 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

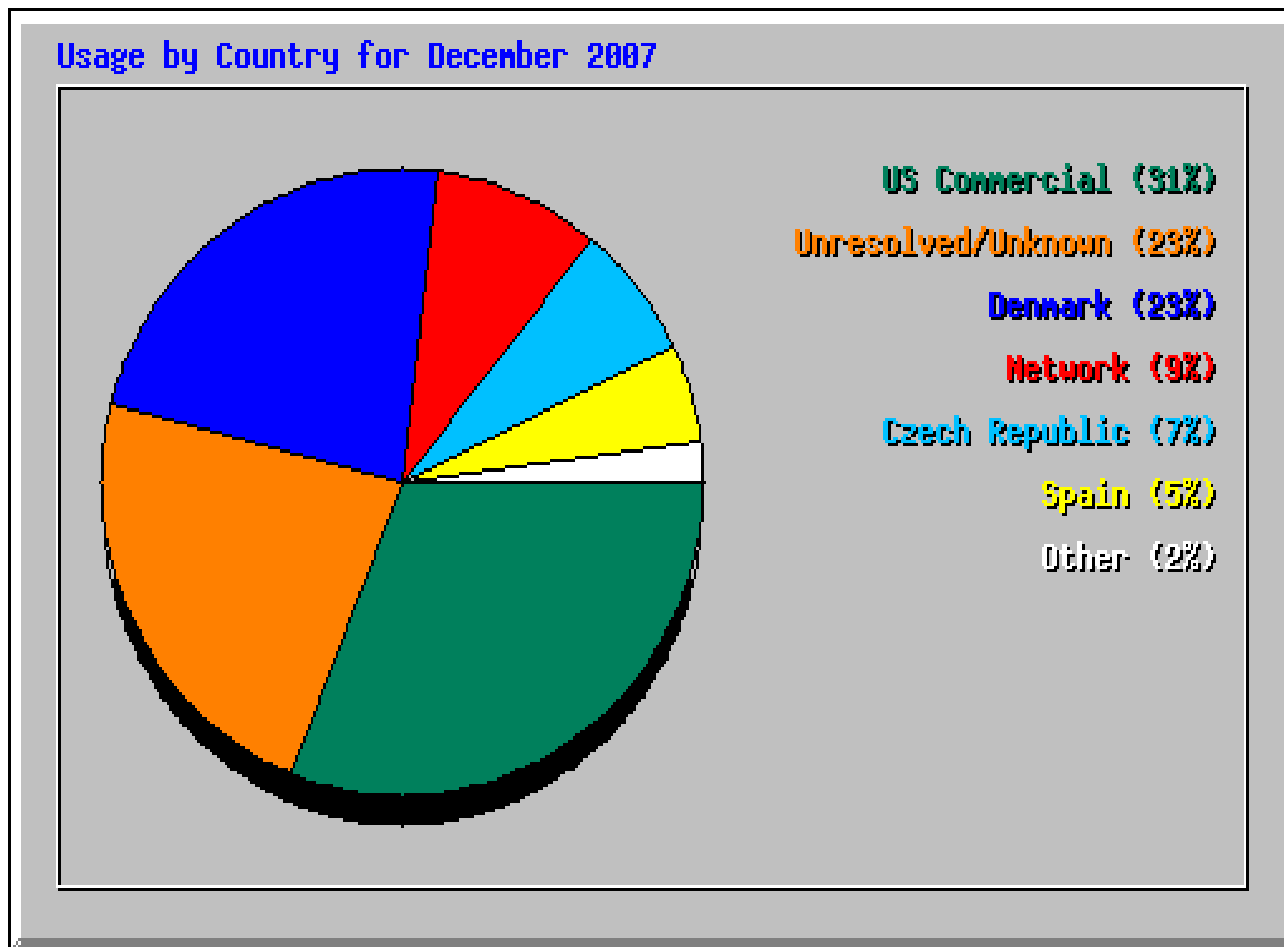


# What is used on oioubl.info

- ✂ [/classes/da/](#)
- ✂ [/Classes/da/Invoice.html](#)
- ✂ [/validator/default.aspx](#)
- ✂ [/Classes/da/ApplicationResponse.html](#)
- ✂ [/Classes/da/Address.html](#)
- ✂ [classes/en/](#)
- ✂ [/Classes/da/CommonLibrary.html](#)
- ✂ [/Classes/da/Order.html](#)
- ✂ [/HTMLstyling/Default.aspx](#)



# Visitors to oioubl.info



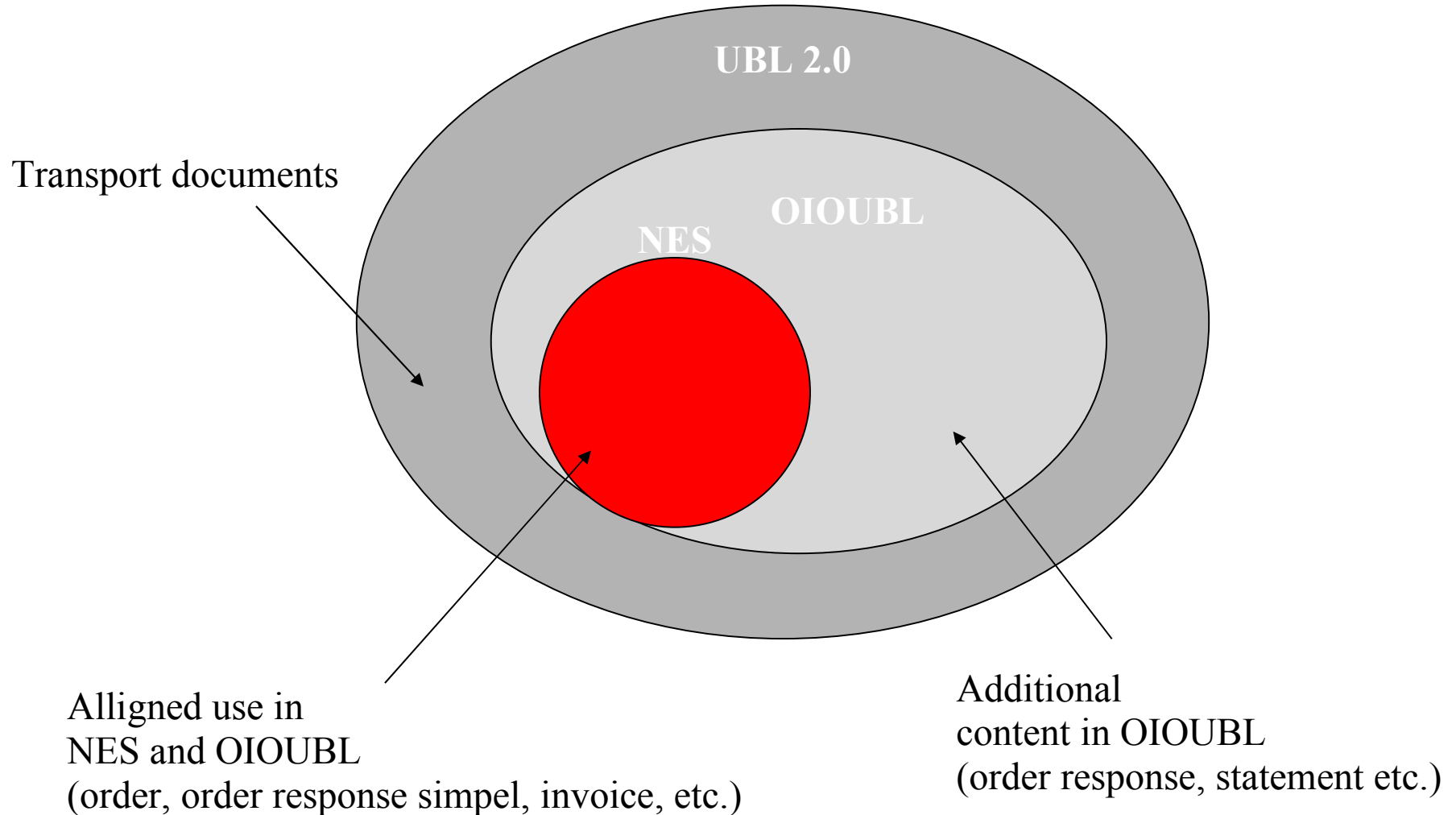


# How many users

- ✂ 93 unique visit pr. Day in December
- ✂ 2913 unique visit pr. Month in December



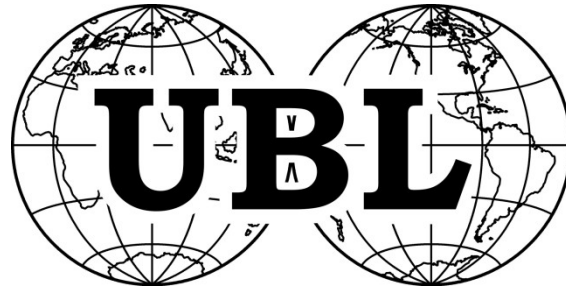
# NES – OIOUBL content alignment





# UBL 2.0 in Denmark

What is needed around UBL?







# Human Interface

## ✂ Output

- XSLT -> XHTML
- XSL-FO -> RTF + PDF (+ODT?)



Altova StyleVision - [invoice.sps / InvoiceMiniMax.xml]

File Edit View Insert Table Authentic Properties Tools Window Help

Normal B I U

Schema Sources

- cac:PaymentExchangeRate
- cac:PaymentMeans
- cac:PaymentTerms
- cac:PrepaidPayment
- cac:PricingExchangeRate
- cac:ReceiptDocumentRefer
- cac:SellerSupplierParty
- cac:Signature
- cac:TaxExchangeRate
- cac:TaxRepresentativeParty
- cac:TaxTotal
- cbc:AccountingCost
- cbc:AccountingCostCode
- cbc:CopyIndicator

Design Tree

- invoice.sps
  - Namespaces
  - Parameter
  - Schema Sources
  - Modules
    - party.sps
    - signature.sps
    - documentparameter.sps
    - documentreference.sps
  - Indirectly Imported Modules
  - Scripts
  - Main Template '1'
  - Global Templates
  - Design Fragments

# FAKTURA

<b>Fakturaafsender</b> Tavleverandøren Leverandørvej 11 1. sal th Postboks1523 DK- 2870 Dyssegård Salgsafdelingen DK12457845 (DK:CVR, EndepunktID) DK16356707 (DK:CVR, Juridisk) DK16356706 (DK:SE, Moms)	<b>Kontaktoplysninger</b> ID: 23456 Hugo Jensen Tlf: 15812337 Fax: 15812330 E-mail: Hugo@tavl.dk	<b>Leverandør</b> Value Facturing A/S Bredgade 40 DK- 1260 København K DK73624570 (DK:CVR, EndepunktID) DK73624570 (DK:CVR, Juridisk)
--	---	--

---

<b>Fakturamodtager</b> Den Lille Skole Fredericiavej 10 DK- 3000 Helsingør 5798000416604 (GLN, EndepunktID) DK16356709 (DK:CVR, Juridisk) DK16356709 (DK:SE, Moms) Dimensions konto: 5250124502	<b>Kontaktoplysninger</b> ID: 9000000005 Hans Hansen Tlf: 26532147 Fax: 26532140 E-mail: Hans@dls.dk	<b>Køber</b> Value Facturing A/S Bredgade 40 DK- 1260 København K DK73624570 (DK:CVR, EndepunktID) DK73624570 (DK:CVR, Juridisk)	<b>Faktureringsadresse</b> Value Facturing A/S Bredgade 40 DK- 1260 København K DK73624570 (DK:CVR, EndepunktID) DK73624570 (DK:CVR, Juridisk)
--	---	---	---

Leveringsoplysn.

Design Authentic **Preview HTML** Preview RTF Preview PDF

invoice.sps

Style Repository

Please switch to Design to do modifications.

Style Repository Styles

Properties

Please switch to Design to do modifications.

Done

UBL21 Altova StyleVision - ... Internet Explorer ca... Microsoft PowerPoi... CAP NUM SCRL DA 08:17



Altova StyleVision - [invoice.sps / InvoiceMiniMax.xml]

File Edit View Insert Table Authentic Properties Tools Window Help

Normal B U L

Schema Sources

- cac:PaymentExchangeRate
- cac:PaymentMeans
- cac:PaymentTerms
- cac:PrepaidPayment
- cac:PricingExchangeRate
- cac:ReceiptDocumentReferen
- cac:SellerSupplierParty
- cac:Signature
- cac:TaxExchangeRate
- cac:TaxRepresentativeParty
- cac:TaxTotal
- cbc:AccountingCost
- cbc:AccountingCostCode
- cbc:CopyIndicator

Design Tree

- invoice.sps
- Namespaces
- Parameter
- Schema Sources
- Modules
  - party.sps
  - signature.sps
  - documentparameter.sps
  - documentreference.sps
  - Indirectly Imported Modules
- Scripts
- Main Template '7'
- Global Templates
- Design Fragments

Search Web

# FAKTURA

Fakturaafsender	Kontaktoplysninger	Leverandør
Tavleverandøren	ID: 23456	Value Facturing A/S
Leverandørvej 11 1. sal	Hugo Jensen	Bredgade 40
th	Tlf: 15812337	DK- 1260 København
Postboks1523	Fax: 15812330	K
DK- 2870 Dyssegård	E-mail: Hugo@tavl.dk	DK73624570
Salgsafdelingen		(DK:CVR, EndepunktID)
DK12457845		DK73624570
(DK:CVR, EndepunktID)		(DK:CVR, Juridisk)
DK16356707		
(DK:CVR, Juridisk)		
DK16356706		
(DK:SE, Moms)		

Fakturamodtager	Kontaktoplysninger	Køber	Faktureringsadresse
Den Lille Skole	ID: 9000000005	Value Facturing A/S	Value Facturing A/S
Fredericiavej 10	Hans Hansen	Bredgade 40	Bredgade 40
DK- 3000 Helsingør	Tlf: 26532147	DK- 1260 København	DK- 1260 København
5798000416604	Fax: 26532140	K	DK- 1260 København
(GLN, EndepunktID)	E-mail: Hans@dls.dk	DK73624570	K
DK16356709		(DK:CVR, EndepunktID)	DK73624570

1 of 8

Design Authentic Preview HTML Preview RTF **Preview PDF**

invoice.sps

Style Repository

Please switch to Design to do modifications.

Style Repository Styles

Properties

Please switch to Design to do modifications.



Altova StyleVision - [invoice.sps / InvoiceMiniMax.xml]

File Edit View Insert Table Authentic Properties Tools Window Help

Normal B I U

Schema Sources

- cac:PaymentExchangeRate
- cac:PaymentMeans
- cac:PaymentTerms
- cac:PrepaidPayment
- cac:PricingExchangeRate
- cac:ReceiptDocumentRefer
- cac:SellerSupplierParty
- cac:Signature
- cac:TaxExchangeRate
- cac:TaxRepresentativeParty
- cac:TaxTotal
- cbc:AccountingCost
- cbc:AccountingCostCode
- cbc:CopyIndicator

Design Tree

- invoice.sps
  - Namespaces
  - Parameter
  - Schema Sources
  - Modules
    - party.sps
    - signature.sps
    - documentparameter.sps
    - documentreference.sps
  - Indirectly Imported Modules
  - Scripts
  - Main Template '1'
  - Global Templates
  - Design Fragments

Home Insert Page Layout References Mailings Review View Developer

Clipboard Font Paragraph Styles Editing

Times New Roman 12

FAKTURA

Fakturaafsender	Kontaktoplysninger	Leverandører
Tavleverandøren	ID: 23456	Value
Leverandørvej 11 1. sal th	Hugo Jensen	Facturing A/S
Postboks1523	Bredgade 40	
DK- 2870 Dyssegård	Tlf: 15812337	DK- 1260
Salgsafdelingen	Fax:	København K
DK12457845	15812330	DK73624570
(DK:CVR, EndepunktID)	E-mail:	(DK:CVR, En
DK16356707	Hugo@tavl.dk	depunktID)
(DK:CVR, Juridisk)		DK73624570
DK16356706		(DK:CVR, Jur
(DK:SE, Moms)		idisk)

Words: 724 83%

Design Authentic Preview HTML Preview RTF Preview PDF

invoice.sps

Style Repository

Please switch to Design to do modifications.

Style Repository Styles

Properties

Please switch to Design to do modifications.



# Human Interface

## ✂ Input

- ▣ Java
- ▣ C#
- ▣ XForms
- ▣ XML .....



**Form2** \_ □ ×

### NemHandel - Opret Faktura

Modtager				Afsender			
EAN	5712345678901			Person	Ingrid Slot		
Person	Hans Jensen			E-mail	islot@ganloesejern.dk		
Virksomhed	Københavns Kommune IT-kontoret			Virksomhed	Ganløse Jernhandel		
Vej	Rådhuspladsen		2 B	Vej	Gadekæret		3
Stednavn				Stednavn	Bavnehøj		
Postnr.	1164	Kbh K		Postnr.	5644	Ganløse	
Tlf.nr.	33 66 33 66	Cvr.nr.	12345678	Tlf.nr.	67 56 43 78	Cvr.nr.	12345678

Reference  Fakturanr.  Fakturadato  ▾

Varenr	Varenavn	Stykpris (eksl. moms)	Antal	Rabat (%)	Netto total (eksl. moms)	Moms (%)			
1102	Hyldeknaegte	51,50	150	15	6566,25	25	*	×	+
1222	Skruer	0,50	600	15	255	25	*	×	+
0001	Fragt	250	1	0	250	0	*	×	+

Faktura totaler

Eksl. moms	<input type="text" value="7071,25"/> kr	Moms	<input type="text" value="1705,31"/> kr	At betale	<input type="text" value="8776,56"/> kr
------------	---	------	---	-----------	---

Betaling

Bankoverførsel Reg.nr.  Konto nr.

Giro indbetaling Art  ▾ Giro nr.

Noter

[Tilbage](#) [Næste](#)



# Code lists

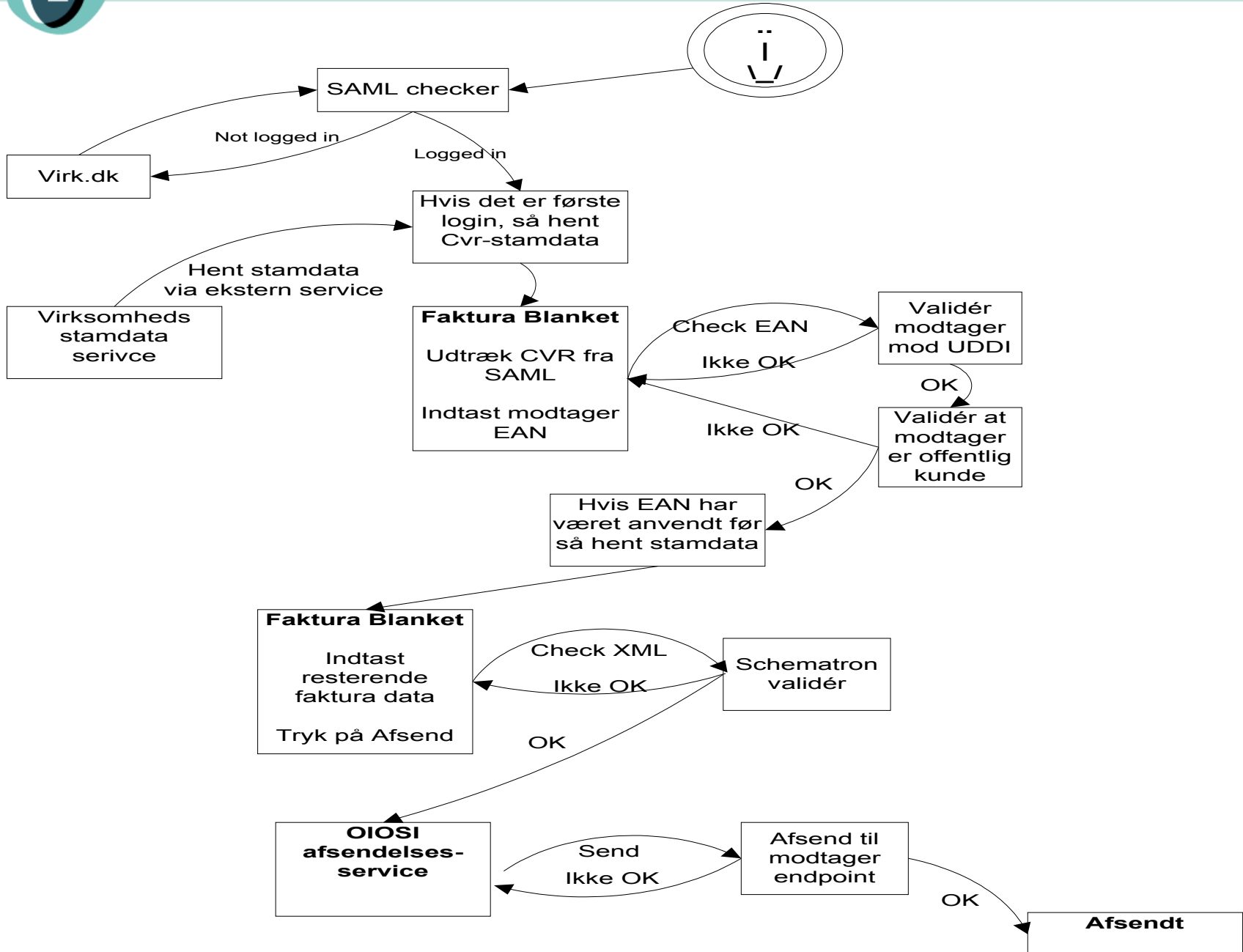
- ✂ How do we handle code lists in the future:
- ✂ Used directly in programming.



# Workflow and Business Processes

- ✂ How do we handle processes?
- ✂ How do we model?
- ✂ How do we use execution language?

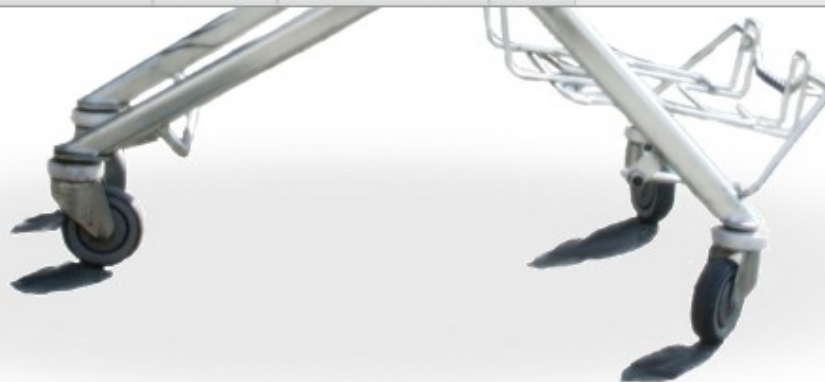






# Open Source software exchange

- ✂ The Danish National IT and Telecommunications Agency (NITA) under the Ministry of Science, Technology and Innovation has established and operates an Open Source software exchange, 'Softwarebørsen' (literally, 'The Software Exchange'), a public sector repository which gives public institutions a framework with all the necessary project management tools for sharing Open Source software.



## Seneste blogindlæg

- [Podcast om Videnscenter for Software og Softwarebørsen](#)
- [Softwarebørsen på IT-arkitekturkonferencen 2007](#)
- [Open source-cases fra det offentlige Danmark](#)
- [Første version af Anskaffelsesguiden er publiceret på Softwarebørsen](#)
- [Softwarebørsen er i luften](#)

[Flere indlæg](#)

## Seneste projekter

- [VistA EPJ - open source elektronisk patientjournal](#)
- [Receiptserver og Medicinprofil](#)
- [OpenUDDI Client](#)
- [OpenUDDI Server](#)
- [Serviceorienteret Infrastruktur: WS Profiler](#)

## Velkommen til Softwarebørsen

Softwarebørsen er Videncenter for Softwares tilbud til it-beslutningstagere og udviklere i det offentlige Danmark.

Her finder du ressourcer til anskaffelse og udvikling af software, herunder open source-software målrettet den offentlige sektor.

[Læs mere](#)

## Vælg din situation

- [Jeg skal anskaffe software](#)
- [Jeg leder efter et softwareprojekt](#)
- [Jeg er leverandør](#)
- [Jeg er bruger af software i Softwarebørsen](#)
- [Jeg søger eksempler på brug af open source](#)

  
**søg**

[Avanceret søgning](#)

### Log ind

Brugernavn

Adgangskode

**log ind**

[Glemmt adgangskode?](#)

[Log ind](#)

[Bliv oprettet som bruger](#)



# Commercial dimension

- ✂ Open to commercial vendors who can offer additional services to the projects in 'Softwarebørsen' in competition with others and make a profit.
- ✂ And we support projects with up to 600.000 DKK



## **National web service (SOA) infrastructure**

- ✂ National service-oriented infrastructure to support the reliable, secure and asynchronous exchange of business messages across heterogenous networks within the public and private sectors. The infrastructure consists of a number of government controlled replicated UDDI registries and interoperability profiles



## **National open e-business framework**

- ✂ In 2007 the NITA launched a national e-business framework 'NemHandel' (literally 'EasyBusiness'), based on a new national service-oriented infrastructure (described above) and utilizing state-of-the-art open standards



## **Open Source application for the exchange of e-business documents**

- ✂ In conjunction with the establishment of the national e-business framework 'NemHandel', NITA has developed an Open Source 'NemHandel' application for the exchange of e-business documents, e.g. electronic invoices, via the internet. The Open Source application is freely available through the Open Source software exchange to public sector institutions, private businesses, and IT vendors who may incorporate the technology in their own commercial products.



# A simple client

**POC klient** [Minimer] [Maximer] [Luk]

Funktioner Opsætning Hjælp

**Dokumentmapper**

- Udgående dokumenter
  - Ikke afsendte dokumenter (8)
  - Under afsendelse (1)
  - Kvitterede (250)
  - Returnerede (0)
- Indgående dokumenter
  - Indbakke
- Slettede dokumenter

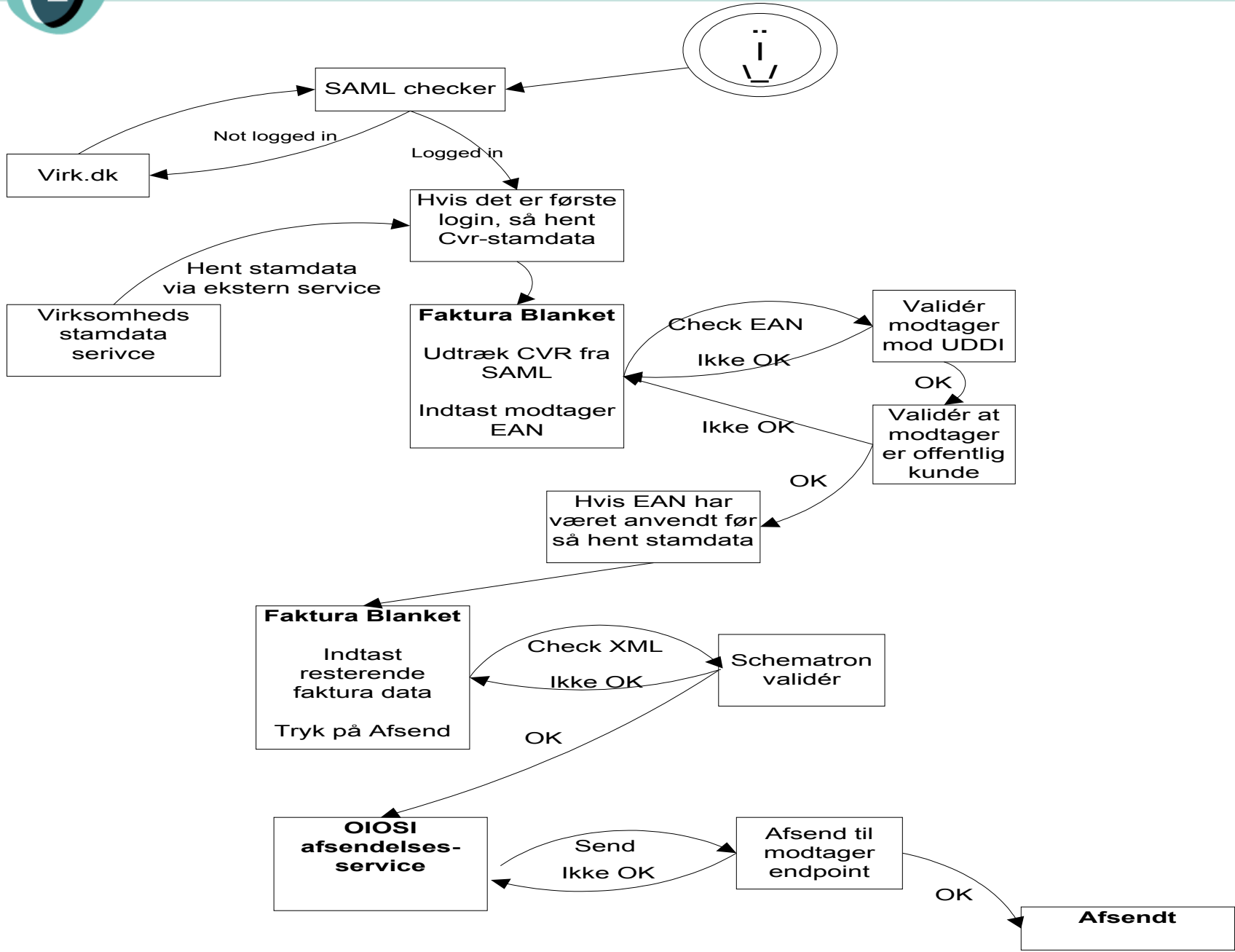
Afsend valgte dokument(er) Slet Vis Udskriv

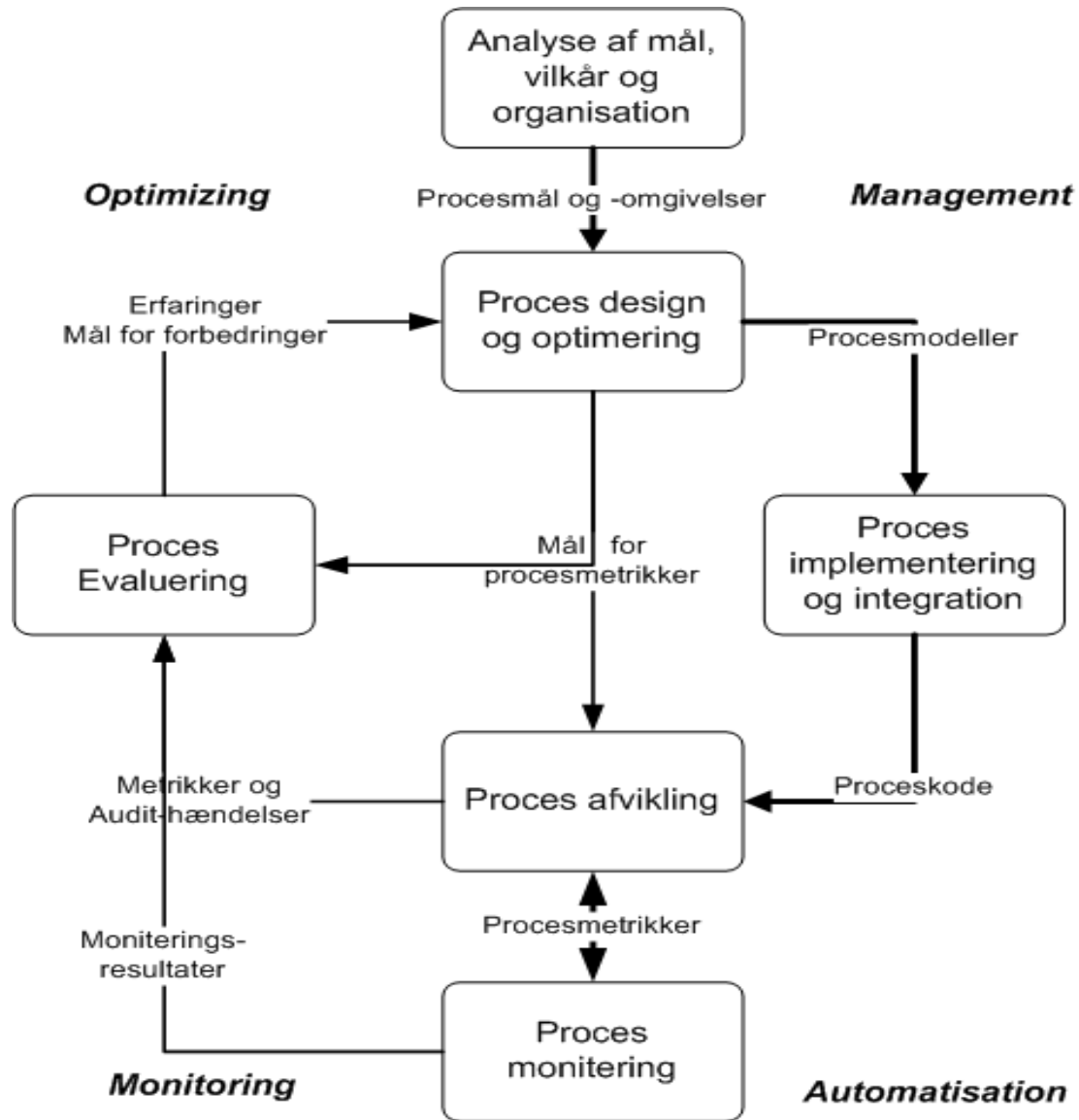
Type	Dok ID	Til	Adresse ID	Tidspunkt
Faktura	1001	Økonomistyrelsen	CVR 35744796	10-08-2006 08:51
Faktura	1002	Finansministeriet	CVR 63637828	10-08-2006 09:21
Faktura	1003	Globaliseringsrådet	EAN 15396572	10-08-2006 11:15
Kreditnota	75	Erhvervs- og S		08-08-2006 15:43
Kreditnota	76	Skat		08-08-2006 16:11
Ordre	110	Kontorforsynin		07-08-2006 13:00
Ordre	111	IDA-kantine		08-08-2006 10:37
Ordre	112	Frugt distribution	EAN 81321629	09-08-2006 11:59

Vis hjælpetekst

8 dokumenter









# Process design

✂ UML

✂ BPMN



# Process Definition and Execution

- ✂ BPDM
- ✂ XPDL
- ✂ WS-BPEL
- ✂ BPEL4People
- ✂ ebBP
- ✂ WS-CDL

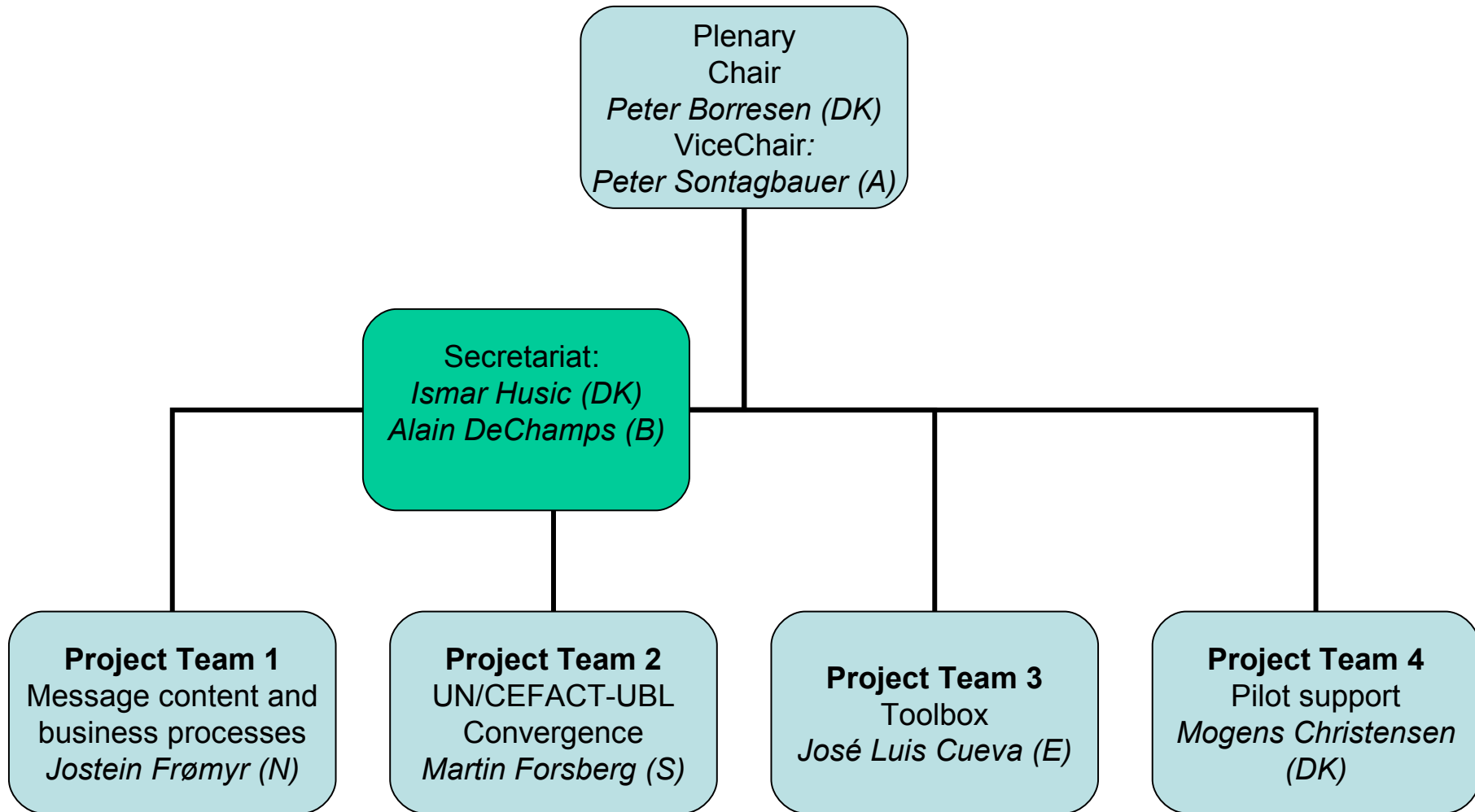


# ***Semantics of Business, Vocabulary and Rules***

- ✂ Metamodel
- ✂ Business Rules
- ✂ Ruleengine
- ✂ -> CAM/Schematron
















# CEN Organization











# CEN BII members so far

- 13 Countries
- 6 Companies

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

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



# About the CIP work



- WP1: eSignature
  - Use of any digital signature
- WP2: Virtual company dossier
  - Utilize company information already registered
- WP3: eCatalogues
  - Provide product information, descriptions and prices in electronic catalogues
- WP4: eOrdering
  - Allow any company or public sector institution to send, receive and respond to electronic orders
- WP5: eInvoicing
  - Allow any company or public sector institution to send, receive and respond to electronic invoices
- WP6: Project administration
  - Administrative aspects of the project
- WP7: Awareness, training and consensus building
  - Preparing non-consortium member states, solution providers, supplier industry (with particular focus on SME's) on taking project deliverables in to use
- WP8: Solutions architecture – design and validation
  - Design and validation of the common specifications and building blocks. Overall architecture for integration and interoperability.





# Link

✂ Link:

✂ [www.oioubl.info](http://www.oioubl.info)

✂ [www.softwareborsen.dk](http://www.softwareborsen.dk)