

The SELIS electronic invoicing solution

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Topics

- ◆ *Introduction*
- ◆ *eInvoicing requirements*
- ◆ *SELIS architecture & services*
- ◆ *Standards & technologies*
- ◆ *Business Issues*
- ◆ *Policies*
- ◆ *Screenshots*

Directive 2001/115: *EU Directive on VAT legislation on e-invoicing & e-storage of invoices*

“... 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: by means of an advanced electronic signature...”

Evolution of SELIS

- ◆ Requirements set by Directive 2001/115/EC
- ◆ eInvoke 2003 -prototype, publications-
- ◆ “CEN/ISS e-Invoicing Focus Group” (2004)
- ◆ SELIS_v1 (2004)
- ◆ SELIS_v2 (1/1/2006)

Objectives of SELIS

- ◆ Assessing the viability of **deploying** an eInvoicing service to SMEs
- ◆ Finalising certain aspects of the service pertaining to its **definitive deployment**
- ◆ Addressing **scenarios for deployments** and seeking remedies for adverse eventualities
- ◆ Shortening time to **market**

Consortium / Roles in SELIS

Technical Providers (TPs)

- University of Pireaus (Project Manager)
- Expertnet (Technical Manager)

Service Providers (SPs)

- Athens Chamber of Commerce and Industry
- Paris Chamber of Commerce and Industry
- Brasov Chamber of Commerce and Industry

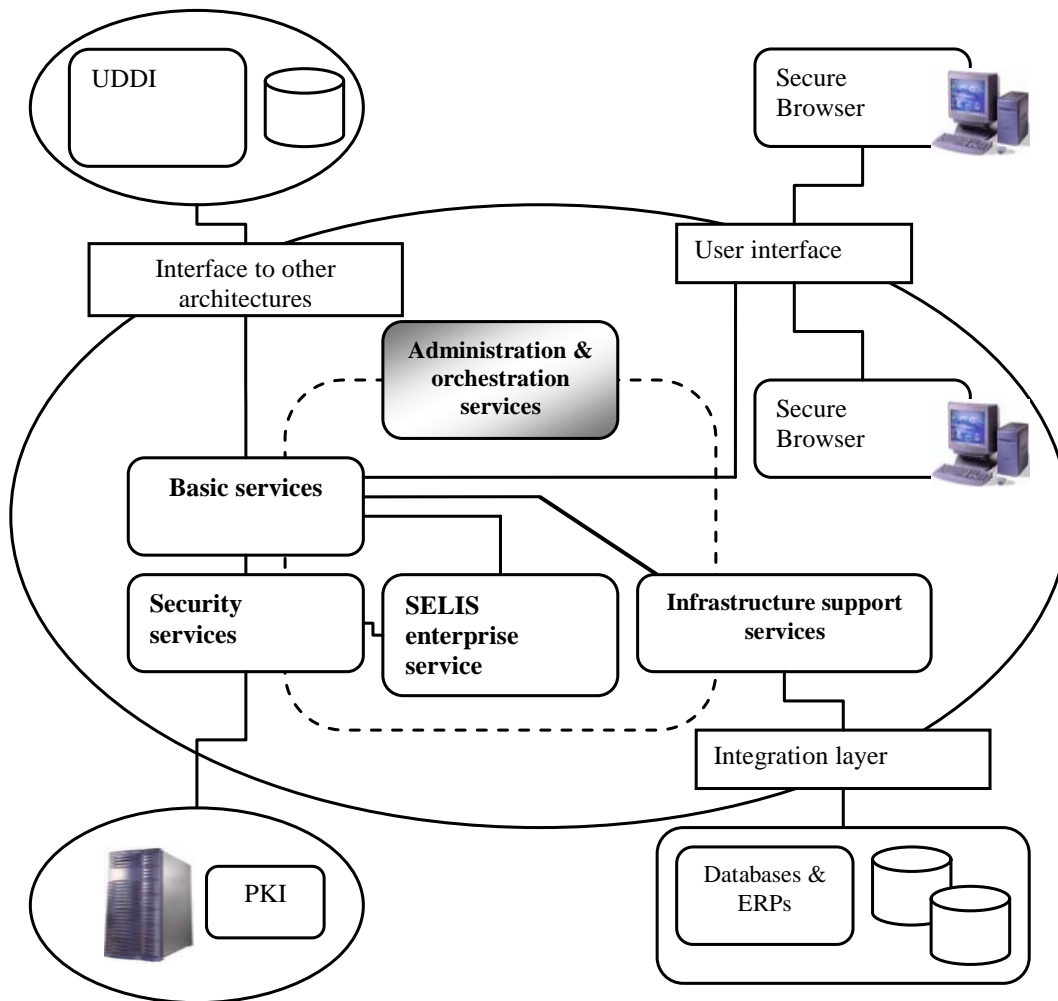
External Trial Users : 8 SMEs

Market Analysis-Interviews: 500 SMEs (up to now)

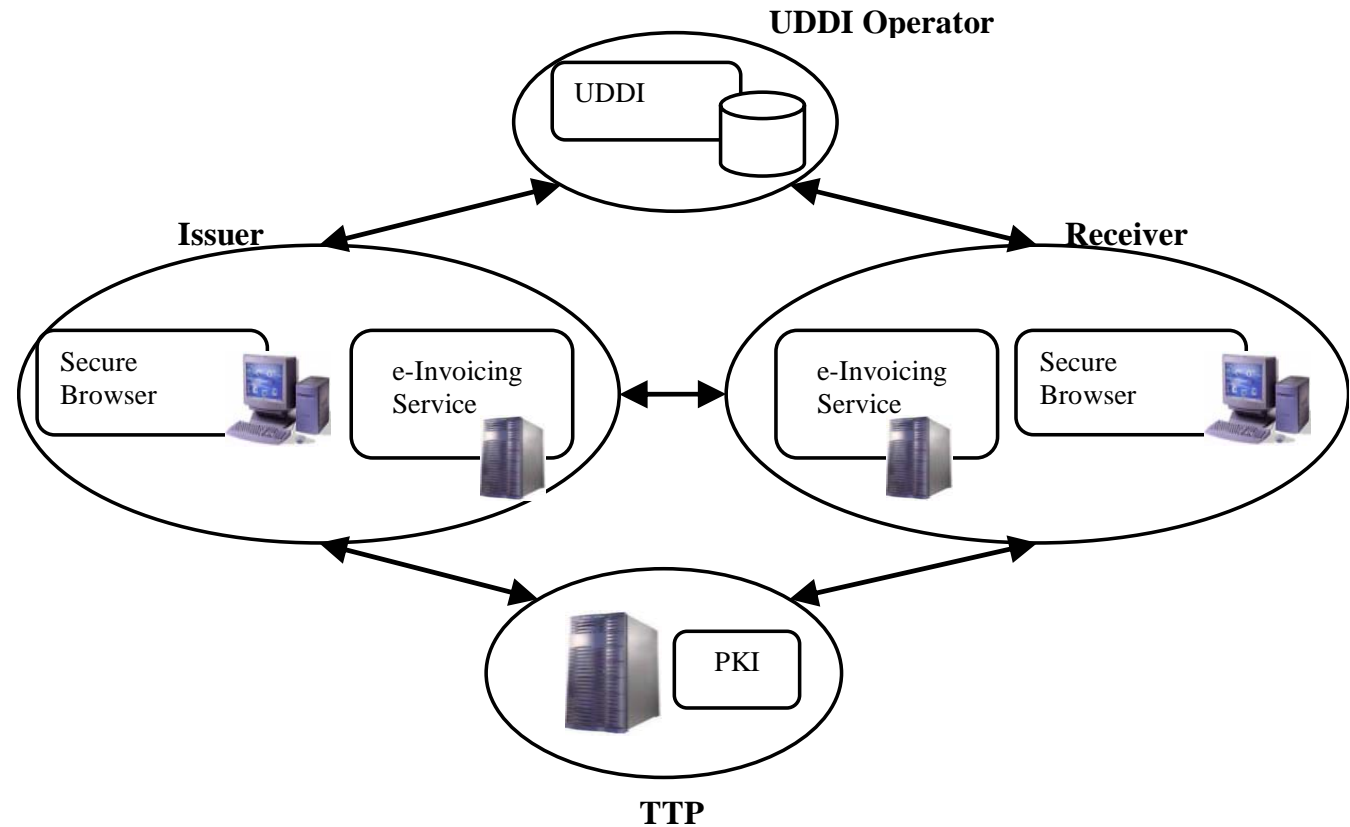
eInvoicing requirements

- ◆ *Interoperability*
- ◆ *Security*
- ◆ *User friendliness*
- ◆ *Compliance with the legal & policy framework*

Overall high level architecture



Entities & actors



User types:

- Accountants (invoice issuance and management)
- Administrators (configuration and publishing)

Supported functionality

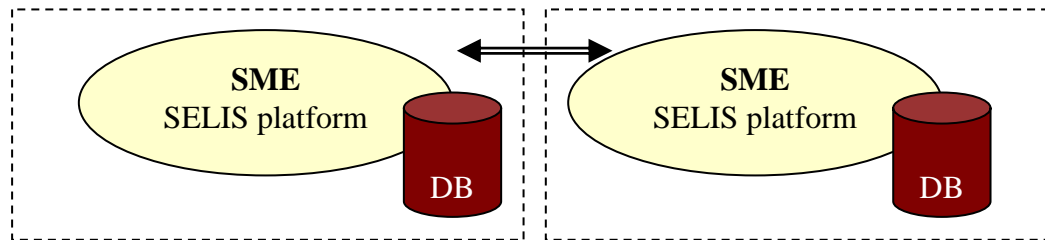
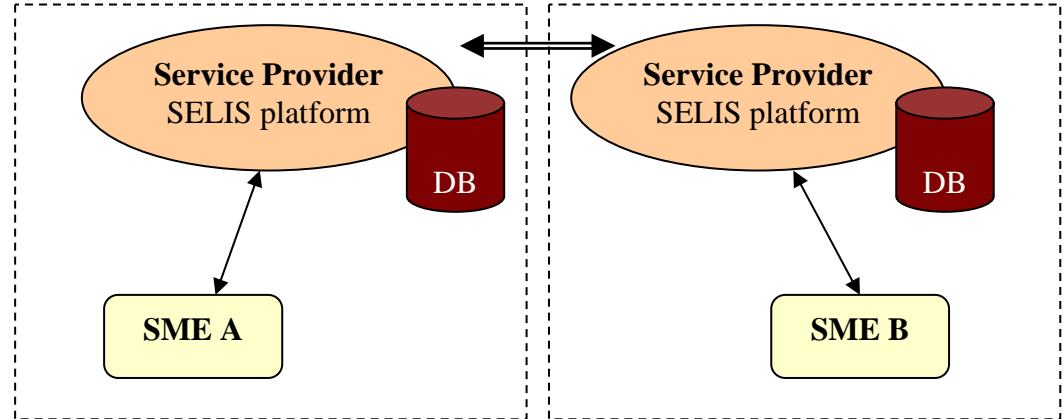
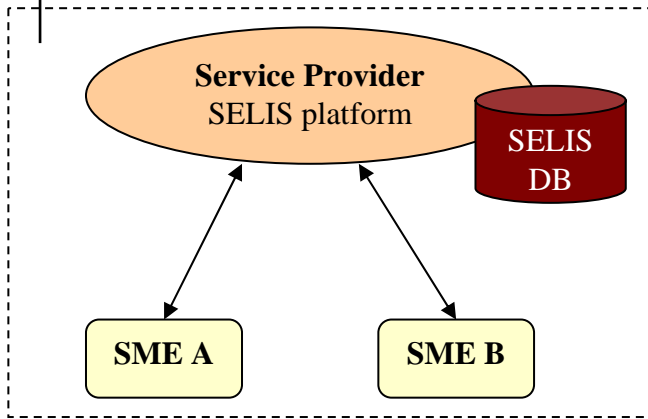
Basic Functionality

- ◆ Invoice creation, signing & distribution
- ◆ Searching / reviewing of issued / received invoices
- ◆ Management of “customer / buyer” organizations
- ◆ Management of services / products
- ◆ Setup & publishing of company to UDDI

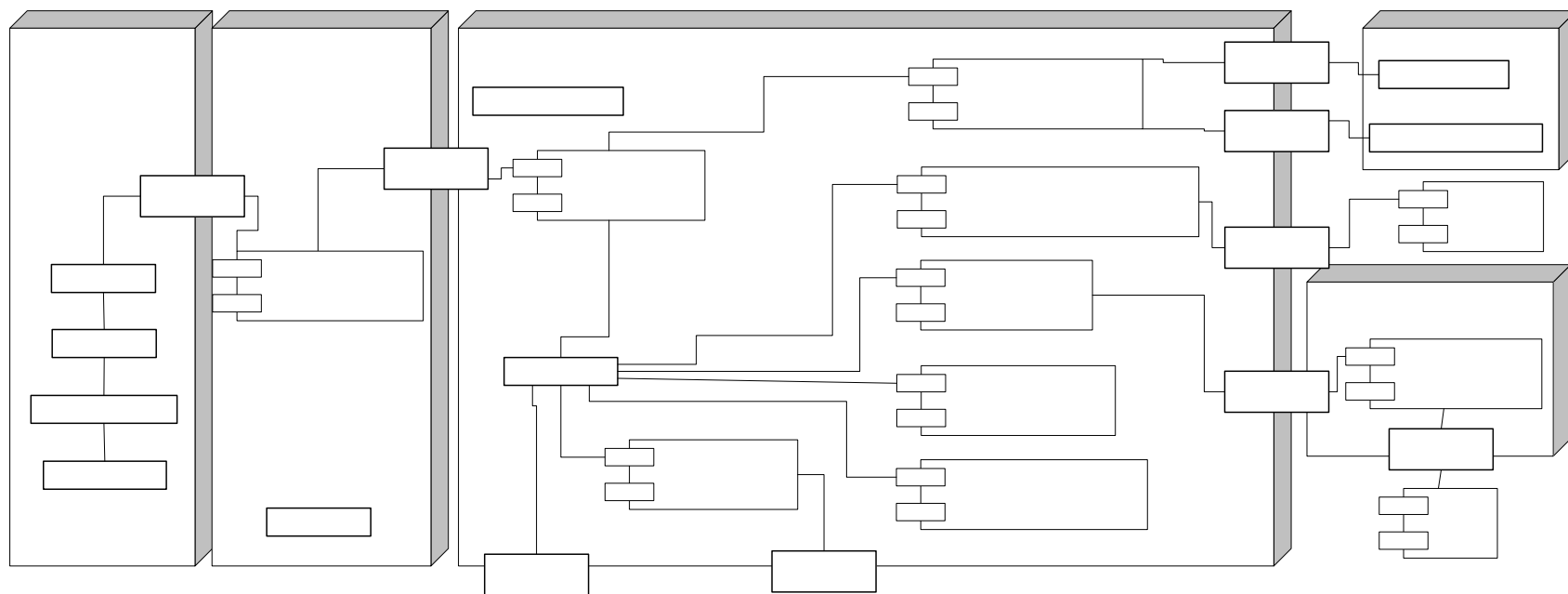
Added-value Functionality

- ✓ Importing / exporting to ERPs
- ✓ Role based access control & WS policy enhancements
- ✓ Invoice archiving
- ✓ Compatible with national auditing procedures

Supported scenarios of use



SELIS components & technology viewpoint



- ◆ 4 Tiers: Client Tier, Interaction Tier, Enterprise Tier & Integration Tier
- ◆ Support for a subset of xCBL schemas library

Standards & Technologies

◆ *Interoperability*

- ✓ SOAP for message exchange
- ✓ UDDI service publishing and retrieval
- ✓ WSDL for services description
- ✓ The XML Common Business Library (xCBL) as core invoice format
- ✓ XSL for transformation between formats

◆ *Security*

- ✓ XML Signatures
- ✓ Advanced electronic signatures
- ✓ Time stamping
- ✓ WS-Security extensions
- ✓ Online certificate status revocation protocol support

◆ *Server infrastructure*

- ✓ Apache http server
- ✓ Apache tomcat server
- ✓ eXist Native XML database
- ✓ UDDI: tested with Apache jUDDI and the Sun UDDI impl. (included in JWSDP)

◆ *Privacy*

- ✓ WSPL for policies definition
- ✓ XACML for access control

SELIS Draft Policies

◆ *Signature policy*

✓ Based on

- ◆ *ETSI TS 102 733 Electronic signature formats*
- ◆ *ETSI TR 102 041 Signature Policy Report*

◆ *Application policy*

✓ Describes terms of use for the SELIS applications:

- ◆ *what they must, may and should offer*
- ◆ *how users must, may or should interact with them*

◆ *Security policy*

✓ Defines the measures that should be taken by an organization adopting the SELIS service to ensure confidentiality, integrity and availability of the service

◆ *WS privacy policy*

✓ Describes non-functional attributes of the e-invoicing service, such as confidentiality mechanisms and authentication characteristics

Screenshots

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Invoice Details

Number: T15639
 Issue date: 2004-11-23
 Purpose: Original
 Type: Commercial Invoice
 Currency: Euro
 Due date: 2004-11-29
 Receipt Date: 2004-11-10

Item details

Item ID	Description	Qty	Unit Price	Subtotal	Tax %	Tax	Total
1	872 Placement and supply services of Per	9	1,000	9,000	10	900	9,900
2	873 Investigation and security	6	1,000	6,000	10	600	6,600
3	890 Management consulting service	2	1,000	2,000	10	200	2,200
4	876 Packaging services	4	1,000	4,000	10	400	4,400
5	875 Photographic services	7	1,000	7,000	10	700	7,700

Buyer
 Enter VAT No: EU094485397
 Select buyer: testEUBuyer

Invoice Summary

No of lines	5
Subtotal	29000.0
Total discount	1000.0
Total Tax	2900.0
Total	29000.0

Create & Sign

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Contents of InvoiceDB / Inbox / Iss

MSG ID	Number	From	Title	Date
T15632	11563	i2a	Commercial Invoice	2004-03-02T15:10:19
T15634	11564	i2a	Commercial Invoice	2004-03-05T16:54:39

Invoice Details

Number	Issue date	Purpose	Type	Currency/Language	Due date	Receipt Date
T15632	2004-03-02T15:10:19	Original	Commercial Invoice	EUR	2004-03-12	2004-03-10

Issuer
 VAT no: i2a
 Name: i6, i5
 Address: i7
 Postal Code: i8
 City: i9
 Country: i0

Buyer
 VAT no: d1, d2
 Name: d6, d5
 Address: d7
 Postal Code: d8
 City: d9
 Country: d0

Items

Item ID	Description	Qty	Unit Price	Subtotal	Tax %	Tax	Total
1	887 Services incidental to energy distribut	9	1000.0	9.0	10	0.9	9.9

Summary

No of Lines	1
Subtotal	9.0
Total Discount	0.0
Total Tax	0.9
Total	9.9

Review

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Search Parameters

Search in: i2a
 By VAT no: EU12345678
 By Name: i2a
 By VAT no: EU094485397
 By Name: testEUBuyer
 Issued between: Start date: End date:
 Contained items: x
 Select item type: Advertising services
 Selected items: All
 One Date between: Start date: End date:
 Reset all parameters

Search Results

MSG ID	Number	From	Title	Date
T15632	11563	Invoice issuer	Commercial Invoice	2004-07-05T19:32:44
T15634	11566	Invoice issuer	Commercial Invoice	2004-07-22T14:33:17

Invoice Details

Number	Issue date	Purpose	Type	Currency/Language	Due date	Receipt Date
T15632	2004-07-05T19:32:44	Original	Commercial Invoice	EUR	2004-07-15	2004-07-15

Buyer
 VAT no: EU094485397
 Name: testEUBuyer
 Address: i6, i5
 Postal Code: i8
 City: i9
 Country: i0

Items

Item ID	Description	Qty	Unit Price	Subtotal	Tax %	Tax	Total
1	876 Packaging services	3	1000.0	3000.0	10	300.0	3300.0
2	88442 Printing, publishing	2	1000.0	2000.0	10	200.0	2200.0
3	887 Services incidental to energy distribut	5	1000.0	5000.0	10	500.0	5500.0

Summary

No of Lines	3
Subtotal	10000.0
Total Discount	0.0
Total Tax	1000.0
Total	11000.0

Search

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Buyer Details

Property	Value
ID (VAT no)	EU094485397
Name	testEUBuyer
POBox	
POBox Postal Code	
Street	
House Number	
Postal Code	
City	
Country Coded	GR
Tax Agency Coded	GR-Greek Customs
Tax Agency Description	Greek Customs
Tax Agency Identifier	
Registered Name	
Registered Office	
Company Registration Number	

Tax Details

Property	Value
Tax Type Coded	011 City Tax
Tax Function Qualifier Coded	Total/9/Outlets/Taxes/And/ee/Types/Customs/Declaration
Tax Category Coded	HigherRate
Reason Tax Exempt Coded	Exempt F/forSale
Tax %	10
Tax Percent Unit of Measurement	P1
Tax2% Amount	10
Tax Amount	1

Manage buyer profiles

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Issuer Details

Property	Value
ID (VAT no)	EU12345678
Name	testEUIssuer
POBox	13
POBox Postal Code	14
Street	15
Postal Code	17
City	18
Country Coded	GR
Country Coded Other	Greece
Tax Agency Coded	GR-Greek Customs
Tax Agency Description	Greek Customs
Tax Agency Identifier	113
Registered Name	114
Registered Office	115
Company Registration Number	116

EDU Publish Details

Organization: testEUIssuer
 Name: testEUIssuer
 Description: testEUIssuer
 Organization's contact person: testEUIssuer
 Contact e-mail: contact@testEUIssuer.org

Service

Name: Secure Electronic Invoicing Service
 Description: Secure Electronic Invoicing Service
 Binding URL: http://192.168.1.45/WSD/InvoicingWS_soap.wsdl
 Binding Description: Invoicing Service Interface

EDU Classification

Name: Greece
 Scheme: Greece
 Name: Greece
 Value: http://192.168.1.45:8081/Registry/Greek
 Publish URL: http://192.168.1.45:8081/Registry/Greek

Issuer profile & UDDI publish/update

Options: New | Sign & Send | Receive | Save as Draft

Creation | Management | Search | Buyer Profiles | Issuer Profile | Invoice Items

Item details

Property	Value
Part ID	872
Service	872
Description	Placement and supply services of Personnel
Unit of Measurement Coded	08
Unit of Measurement	Person/Day
Unit Price Value	1000
Quantity Significance Coded	Approximately

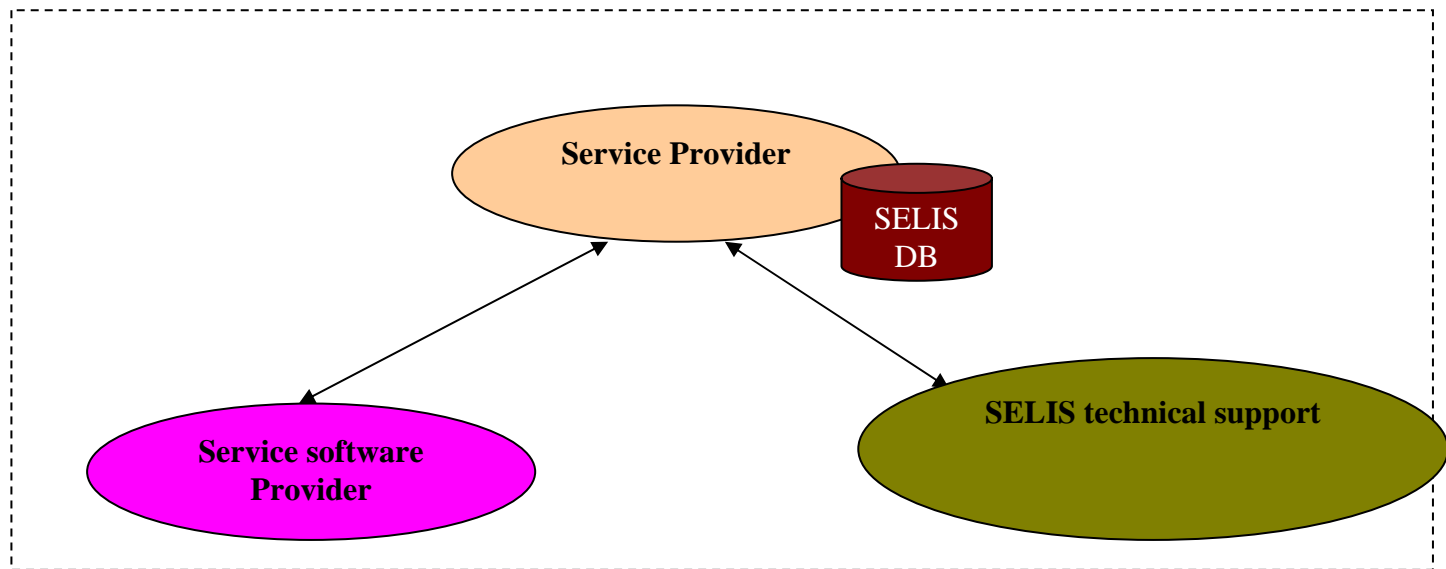
Manage services / products



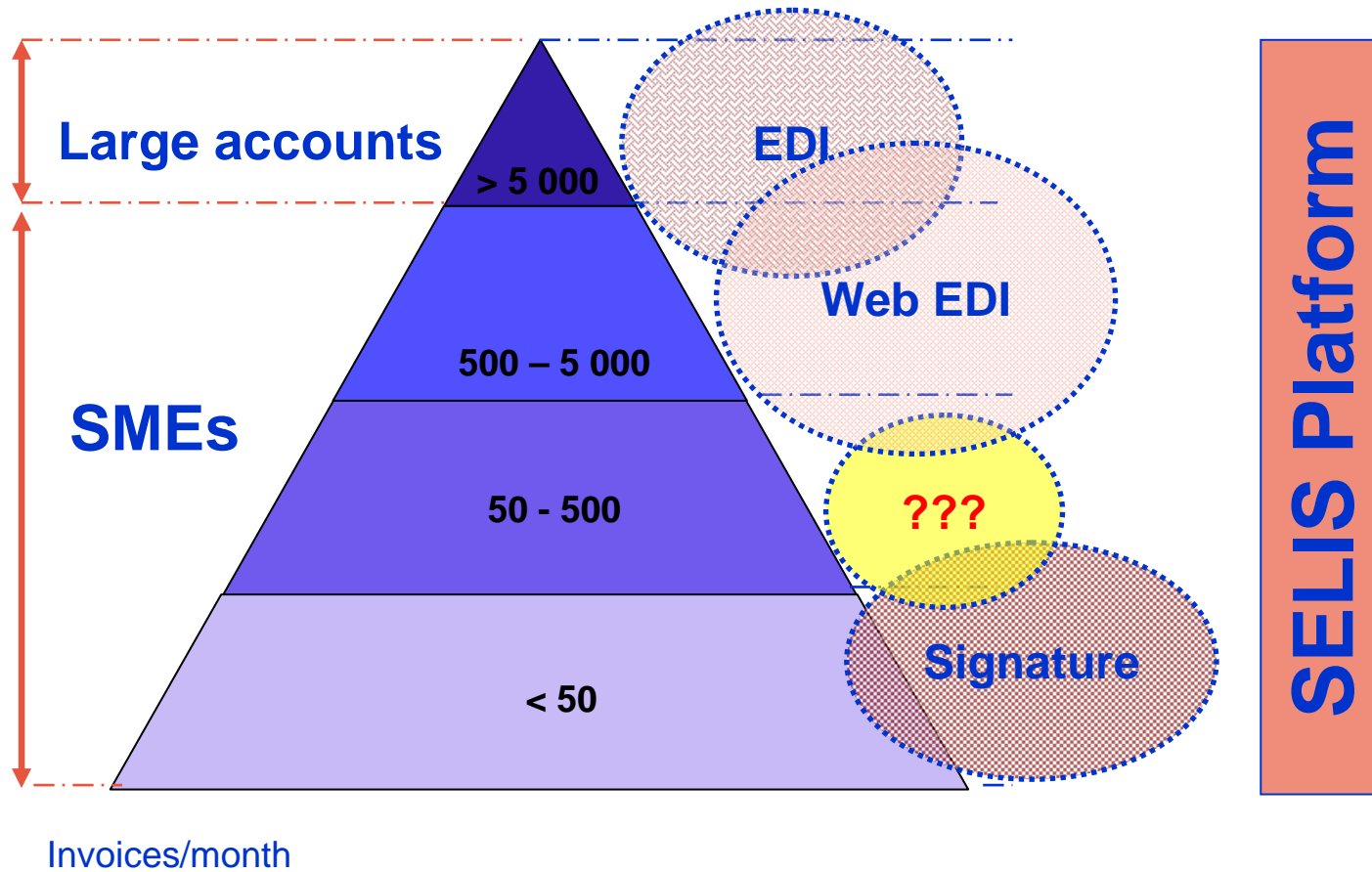
SELIS Business Model



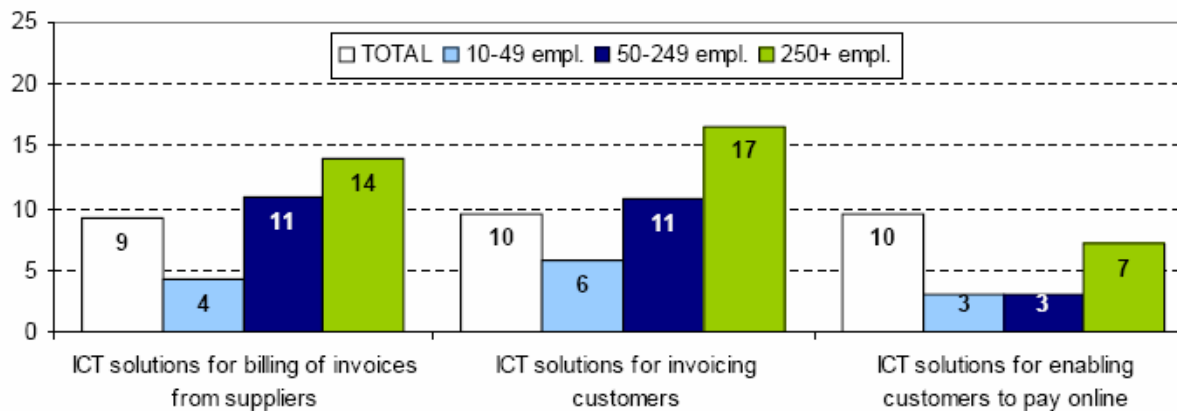
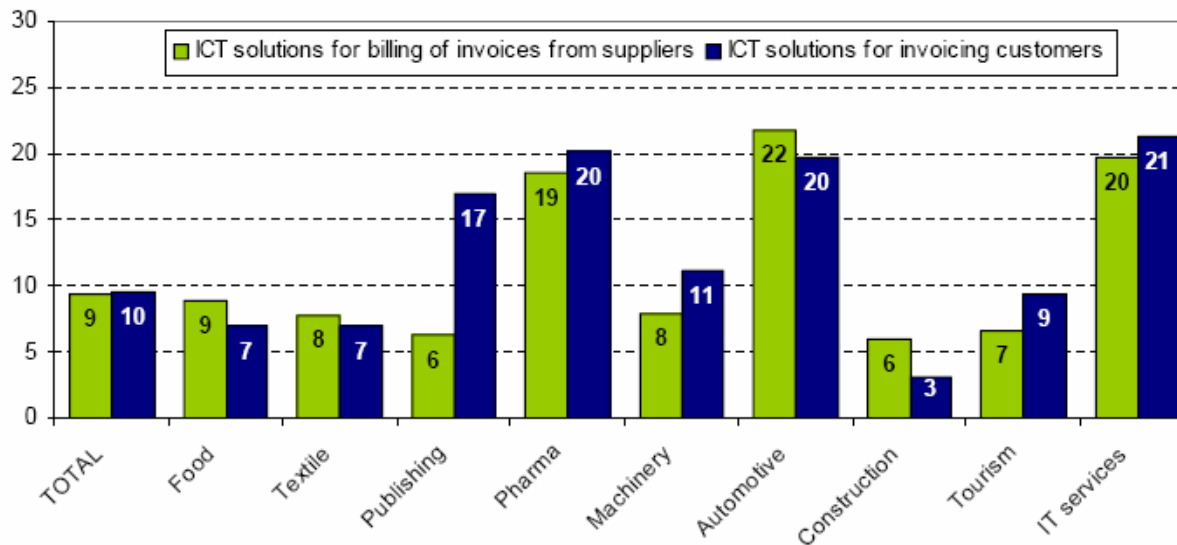
- ✓ **Selis service provider:** Chambers of Commerce
- ✓ **Selis software provider:** University of Piraeus, Research Center
- ✓ **Selis Technical Support:** Expertnet



Market evolution



Expected evolution



% of companies having begun the process

Trends

Market evolution

Sector	E-Invoicing readiness		E-Invoicing potential	Current state of adoption		
	Criteria	ERP & CRM installed base		E-commerce activity	Type of business activity, customer structure	Relative to other sectors
Food and beverages		★★	★	★★(★)	●	~ 2-5%
Textile industry		★★	★	★★(★)	●●	~ 4-8%
Publishing and printing		★★	★★★	★★★(★)	●●	~ 3-6%
Pharmaceutical industry		★★★★	★★	★★★	●●	~ 5-8%
Machinery and equipment		★★★	★(★)**	★★★	●●	~ 3-6%
Automotive industry		★★★	★(★)**	★★★★	●●	~ 4-8%
Aerospace industry		★★★	★(★)**	★★★★	●●●	~ 8-12%
Construction		★	★	★★(★)	●	~ 2-5%
Tourism		★	★★★★	★★(★)*	●●●	~ 5-10%
IT services		★★★★	★★★★	★★★★	●●●●	~ 10-15%

★ = low; ★★ = medium; ★★★ = high; ★★★★ = high, also in SMEs
 Note: "low" / "high" is defined in relation to the average of the sectors monitored.
 ERP = Enterprise Resources Planning; CRM = Customer Relationship Management

SELIS Website

For more information and **trial**
of SELIS service please visit...

<http://selis.unipi.gr>

Thank you!