

# InvoiceX - The Spanish interconnection and interoperability model

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Observatorio del Notariado  
para la Sociedad de la Información

UBL

cen  
European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Madrid Network  
CLUSTER  
SEGURIDAD

AENOR  
Asociación Española de Normalización y Certificación

FORO  
evidencias electrónicas

Certificados

AENOR  
ER  
Seguridad Información  
UNE-ISO/IEC 27001  
SI-0094/2009

ISO 9001  
BUREAU VERITAS  
Certification  
7226/ER/11/07

ISO 14001  
BUREAU VERITAS  
Certification  
1526/MA/08/07

Munich, October, the 13th 2010

# Albalia

- <http://factoffice.codeplex.com/> Open Source. Ribbon for Word 2007. facturae format, XAdES-XL signature
- <http://offinvoice.codeplex.com/> Open Source. Ribbon for Word 2010 and Excel 2010, formats: facturae, UBL, CII, XAdES-XL signature
- [http://efactura.asimelec.es/media/file/e\\_factura/ManualFacturaElectronica.pdf](http://efactura.asimelec.es/media/file/e_factura/ManualFacturaElectronica.pdf) spanish “official book” about electronic invoice.
- <http://www.faccil.com> Cloud Computing eInvoicing platform (SaaS) facturae XML format and XAdES-XL signature
- <http://www.backtrust.net/> Electronic signature server based on OASIS DSS. zBackTrust version for Mainframes (IBM zOS, zLinux, zEnterprise)
- <http://web.pimefactura.com/> Catalan Association for Small and Medium Enterprises
- <http://guia.efactura.asimelec.es/> ASIMELEC Directory of companies wishing to accept electronic invoices (and their preferences about it)
- <http://www.digitalizacioncertificada.info/> Certified Scanning and electronic invoice Auditors
- **ISO 27001** for Certification Services

# Members and stakeholders

## ➤ Avanza I+D:TSI-020512-2009-69 (Government grant)



**Core:** Albalia Interactiva (coordinator), ASIMELEC, Atos Origin, Camerfirma, DyR, eurobits, Invinet Sistemas, pimec y SERES

**Participants:** Adquira, AECOC, Agencia del Conocimiento y la Tecnología de La Rioja, AOC, BBVA, Caixa Galicia, Doc on Time, EDICOM, EJIE, GVA, Indra, MITyC, Telefónica, T-Systems. Others invited.

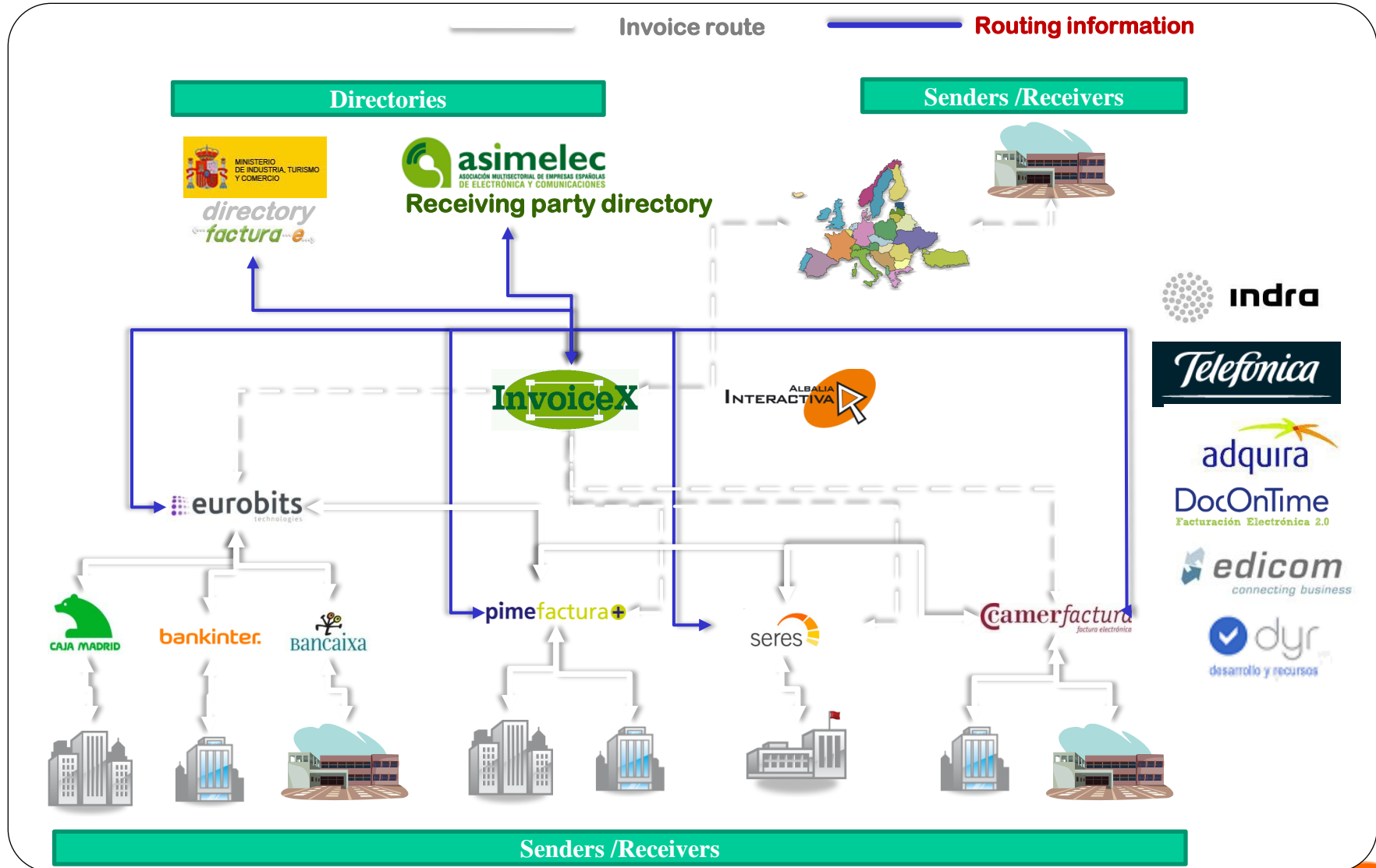
# Interoperability as goal

- In recent years the legislation that allows electronic invoice has been put in place all over Europe.
- Spanish Laws 30/2007 and 56/2007 have gone further, considering electronic invoices mandatory when the recipients are government bodies.
- In many cases, companies have chosen to outsource the service in one of the many providers of electronic invoicing services that have emerged (so-called e-invoicing platform).
- To date, with few exceptions, platforms don't exchange invoices across them and their data communication interfaces to ERP are different.
- The lack of common rules for invoice interchange is probably a barrier to widespread adoption of electronic invoice.
- Some efforts to date are of great help: common format (XML facturae) and directories (ASIMELEC Guia-eFactura ). UN/CEFACT Core Components ,...
- Some regional governments have deployed Central Hubs to receive electronic invoices for government bodies in their jurisdiction: (Catalunya, Euskadi and Valencian Community)

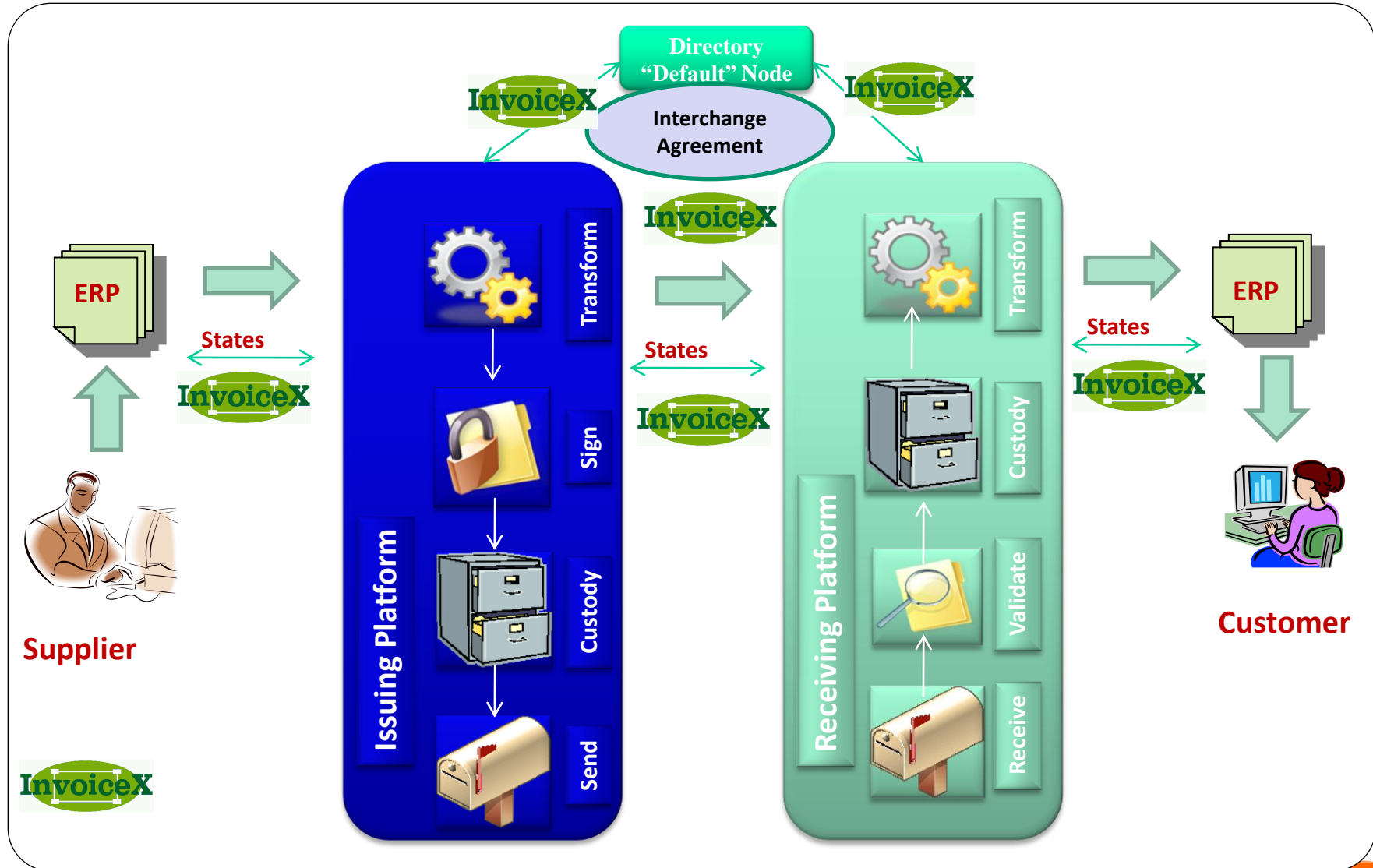
# Project objectives

- Specify the addressing system that allows a company to send an invoice through one platform while the destination party is connected to a different platform.
- Platforms can connect each other directly or through an optional neutral node (also useful for crossborder connectivity).
- System could allow in the future the interchange of other documents
- ERPs should be able use the same interface to connect to different service providers.
- Establish a compensation system between the various participants in the system that has little impact on rates to end users, and that would ensure the economic viability of the solution.
- Implement a prototype, with the participation of the platforms attached, to test benefits and resolve deficiencies.
- Define a proposal for the establishment of an entity with legal personality that could be be responsible for the subsequent operation of the service

# Initial Model



# Interoperability system



# Work Groups

- The activities are governed by two management groups:
  - **Core:** Trafficking project administrative issues
  - **Plenary:** Governing the major project decisions
- There are two working groups:
  - **Technical:** High-level requirements, Architecture, Identity and Addressing. Traceability, Security, Semantic Models, Transport
  - **Operations:** Basic criteria, Interconnection models, Business Models, Contracts Model, Good management practices and recommendations, Proposal for dissemination and Communication
- Some documents are available now (most of them in spanish). **Peppol** results are reused in the project
- Prototyping begins on november 2010 with firts bilateral conexions scheduled for february 2011

# Directory: Asimelec Guía efactura

- <http://guia.efactura.asimelec.es/>
- [http://guia.efactura.asimelec.es/Manual\\_de\\_Usuario\\_Guia\\_eFactura\\_2\\_0.pdf](http://guia.efactura.asimelec.es/Manual_de_Usuario_Guia_eFactura_2_0.pdf)
- [http://guia.efactura.asimelec.es/WEB\\_SERVICE\\_GERFE\\_ASIMELEC\\_1\\_0.pdf](http://guia.efactura.asimelec.es/WEB_SERVICE_GERFE_ASIMELEC_1_0.pdf)

**ASIMELEC**  
ASOCIACIÓN MULTISECTORIAL DE EMPRESAS  
ESPAÑOLAS DE ELECTRÓNICA Y COMUNICACIONES

Guía-eFactura

**factura ELECTRONICA**

**Bienvenido a guía eFactura**

Es el "Directorio de empresas receptoras de factura electrónica"

La guía eFactura es un directorio de empresas que admiten la recepción de facturas en formato electrónico.

Proporciona al emisor de facturas electrónicas la información sobre el consentimiento del receptor para recibir este tipo de facturas.

La guía eFactura pone a disposición del emisor la siguiente información relativa a cada opción de facturación escogida por las empresas receptoras:

- Dirección de envío.
- Formato de factura.
- Formato de firma.
- Protocolo de envío

Sólo los usuarios registrados pueden modificar y borrar la información sobre los estándares de factura que aceptan.

En la guía eFactura se pueden realizar tres operaciones fundamentalmente:

- Receptor. Actualización de los datos de su empresa.
- Emisor. Consulta mediante formulario web.
- Emisor. Consulta mediante web service.

Emisor. Consulta mediante formulario web.

- Para realizar esta operación no necesita ser un usuario registrado.
- En la página principal de guía eFactura (<http://guia.efactura.asimelec.es/>) se accede a un formulario de búsqueda, en el cual se introduce el NIF de la empresa que se desea consultar, y la guía le mostrará los datos de esta empresa.

Emisor. Consulta mediante web service.

- La comunicación podrá hacerse con los protocolos **SOAP** o **XML-RPC**.
- El cliente se generará a partir del WSDL publicado en <http://guia.efactura.asimelec.es/ws/service.wsdl>
- Se pueden consultar ejemplos de peticiones y respuestas en ambos protocolos en la dirección [http://guia.efactura.asimelec.es/ws/invoke\\_method\\_params?method=FindReceivers&service=backend](http://guia.efactura.asimelec.es/ws/invoke_method_params?method=FindReceivers&service=backend)
- Se puede consultar un manual de uso del web service aquí

Para darse de alta deberá acceder a "alta de usuario", tendrá que tener el DNIe para poder firmar los datos. Una vez dado de alta deberá rellenar los datos asociados a la facturación electrónica.

DESARROLLADO POR

**ASIMELEC**  
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**FENITEL**  
Federación de Instaladores  
de Telecomunicaciones  
[www.fenitel.es](http://www.fenitel.es)

CONFINANCIADO POR

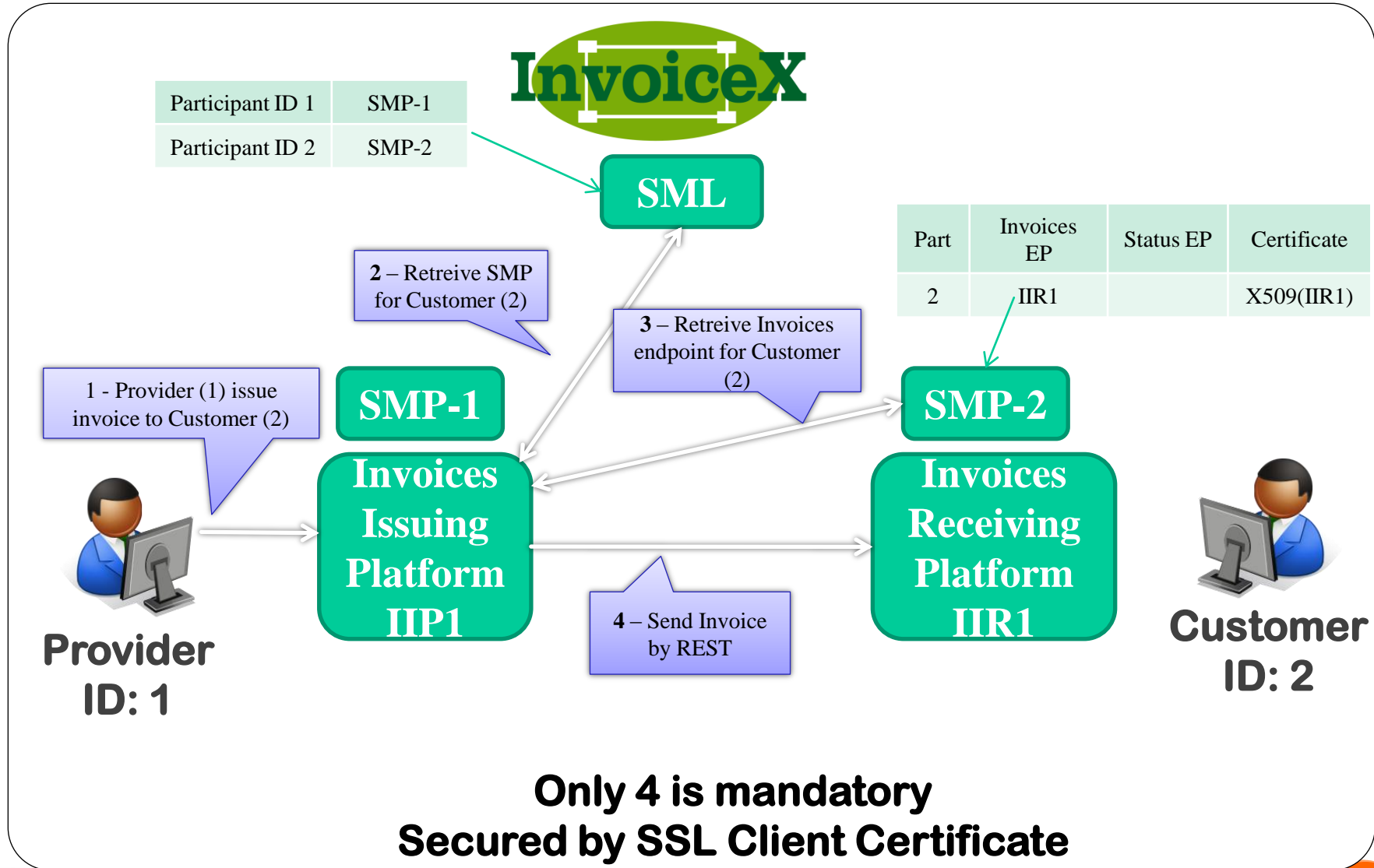
**PLAN AVANZA**

GOBIERNO DE ESPAÑA  
MINISTERIO DE INDUSTRIA, TURISMO Y COMERCIO

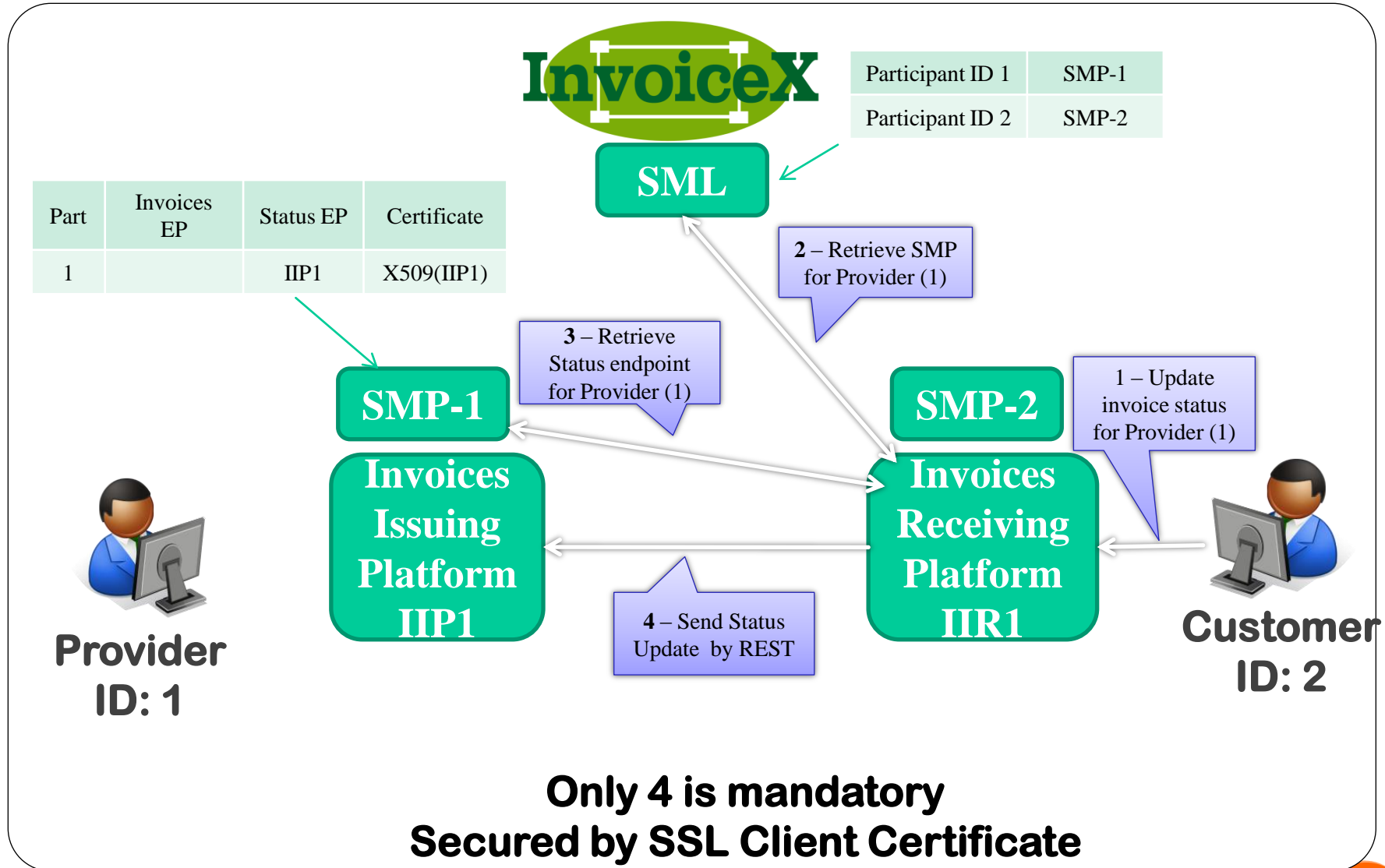
PROYECTO COFINANCIADO POR LA UNIÓN EUROPEA  
FONDO EUROPEO DE DESARROLLO REGIONAL

Proyecto Avanza PYME  
(Soluciones de negocio y factura electrónica)  
PAV-08200-2007-62

# Invoicex - Send Invoice



# Invoicex – Update Status



# Send Invoice by REST

## Envelop

SenderIdentifier	0090:ESB84009240
RecipientIdentifier	0090:ESB84009240
DocumentIdentifier	http://www.facturae.es/Facturae/2009/v3.2/Facturae::Facturae
ProcessIdentifier	BII04
DocumentInstanceIdentification	<code>&lt;ids:SenderIdentifier scheme="busdox-actorid-upis"&gt;0090:ESB84009240&lt;/ids:SenderIdentifier&gt;</code> <code>&lt;ids:RecipientIdentifier scheme="busdox-actorid-upis"&gt;0090:ESB84009240&lt;/ids:RecipientIdentifier&gt;</code> <code>&lt;ids:InvoiceIdentifier&gt;Serial:Number&lt;/ids:InvoiceIdentifier&gt;</code> <code>&lt;ids:InvoiceIssueDate&gt;2010-04-24&lt;/ids:InvoiceIssueDate&gt;</code>
DocumentData	Base64

### •Return HTTP codes for REST

- 200 – Ok – Invoice Successful received.
- 404 – Not found – Participant receiver not found.
- 403 – Forbidden - Required signature not correct.
- 400 – Bad Request – Envelop is not correct.
- 500 – Internal Error – Other errors

# Send Status Update by REST

## StatusUpdate

DocumentInstanceIdentification	<pre>&lt;ids:SenderIdentifier scheme="busdox-actorid-upis"&gt;0090:ESB84009240&lt;/ids:SenderIdentifier&gt; &lt;ids:RecipientIdentifier scheme="busdox-actorid-upis"&gt;0090:ESB84009240&lt;/ids:RecipientIdentifier&gt; &lt;ids:InvoiceIdentifier&gt;Serial:Number&lt;/ids:InvoiceIdentifier&gt; &lt;ids:InvoiceIssueDate&gt;2010-04-24&lt;/ids:InvoiceIssueDate&gt;</pre>
DocumentStatusCode	7 (Adm. Rejected)
DocumentStatusDescription	There isn't any order for the invoice

### •Return HTTP codes for REST

- **200 – Ok – Status Update received.**
- **404 – Not found – Document ID (Invoice) not found.**
- **403 – Forbidden - Required signature not correct or receiver not authorized**
- **400 – Bad Request – Status Update is not correct.**
- **500 – Internal Error – Other errors**

# Conclusions

- Most of the stakeholders of the electronic invoice in Spain seated at the same table: government bodies, platforms, banks, consultants,...
- Hands on pilot with minimum requirements and short term objectives
- After grant, conclusions and results could lead to create the supporting body for future interoperability progression. Maybe a ASIMELEC-AETIC special workgroup.
- Spec. documents for interconnection implementation based on international standards or work on progress (Peppol) and available for future members.
- At this moment pricing among members is “0” (it is expected that in the future every message in one direction is compensated with other on the contrary directions)
- Our approach could be followed by others and once domestic interoperability is reached, other options can be explored: format conversion, crossborder routing,...