



Towards a Global Interoperability Framework

Chris Welsh, Board Member- ConnectONCE, USA &
Tim Cole, Causeway Technologies, Chair of Interoperability, EESPA, Europe

Towards a Global Interoperability Framework

Chris Welsh

Part 1: The Need

Tim Cole

Part 2: The Components



Chris Welsh

CEO OFS Portal

Board Member- ConnectONCE, USA

Vision

To make cost effective implementations of B2B eCommerce a reality and the common practice for oilfield suppliers and operators.

Mission

To engage Suppliers, Buyers, and Third-Party Networks in implementing the common interoperability model which includes enforcement of proper data protection & ownership and the use of standards in a cost-effective manner.

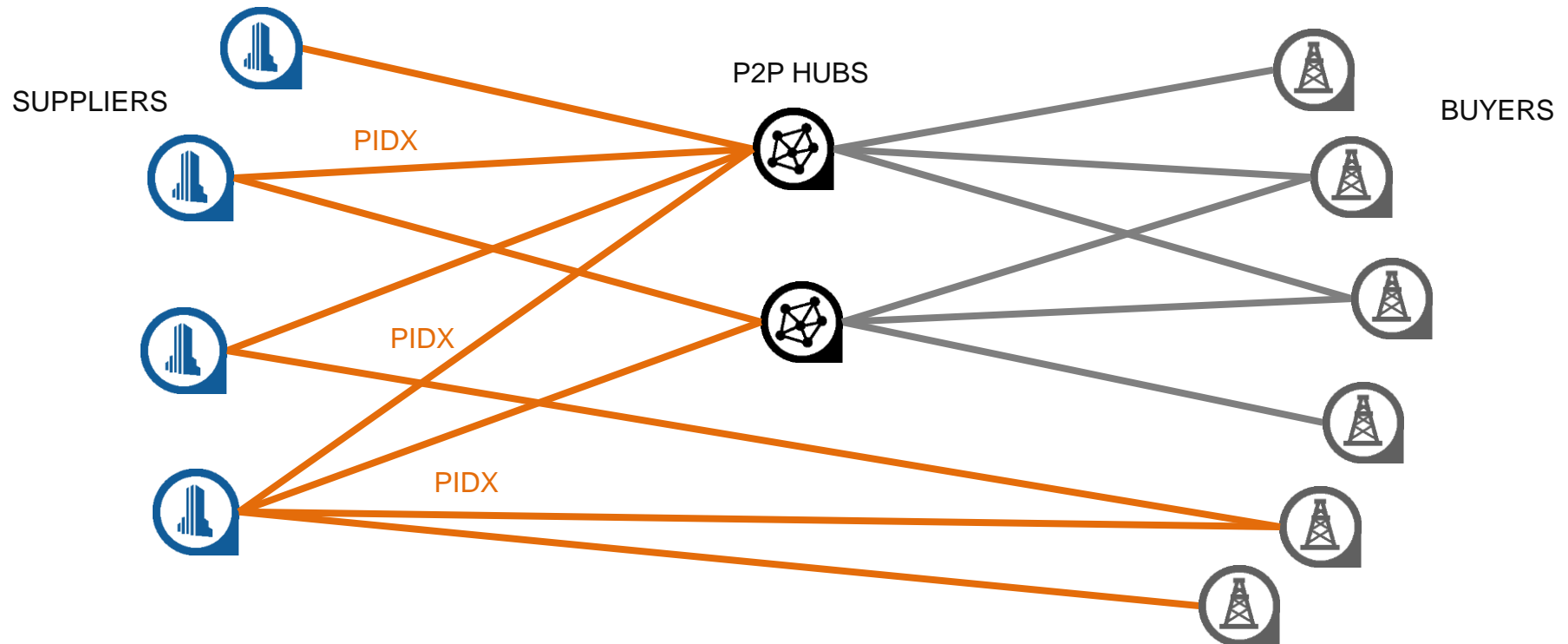


OUR MISSION

Network - Advocate – Respond

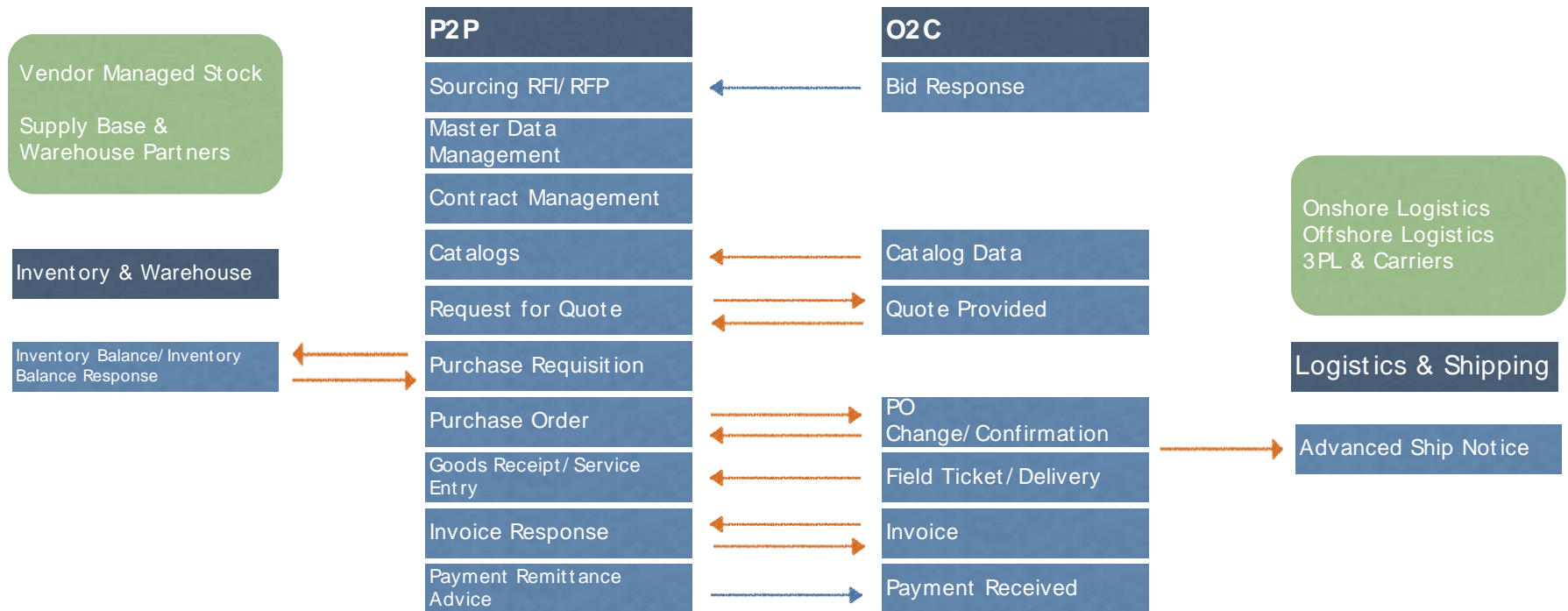
- The Mission of ONCE is to provide marketplace operators, their suppliers and customers, service providers and others dedicated to B2B e-Commerce, a collaborative forum to advance global trade, while being a leading authority and advocate for its Members on issues affecting international electronic commerce. An “on demand” organization dealing with the common issues of its Members as they arise and when there is a need, ONCE is focused on responding to its Members by creating standard solutions that enable the acceleration and growth of online trade.
- ONCE members don’t just participate in the growth of global B2B e-Commerce, they enable it by facilitating hundreds of thousands of electronic transactions and business services daily.

Standard Oil & Gas Interoperability Model

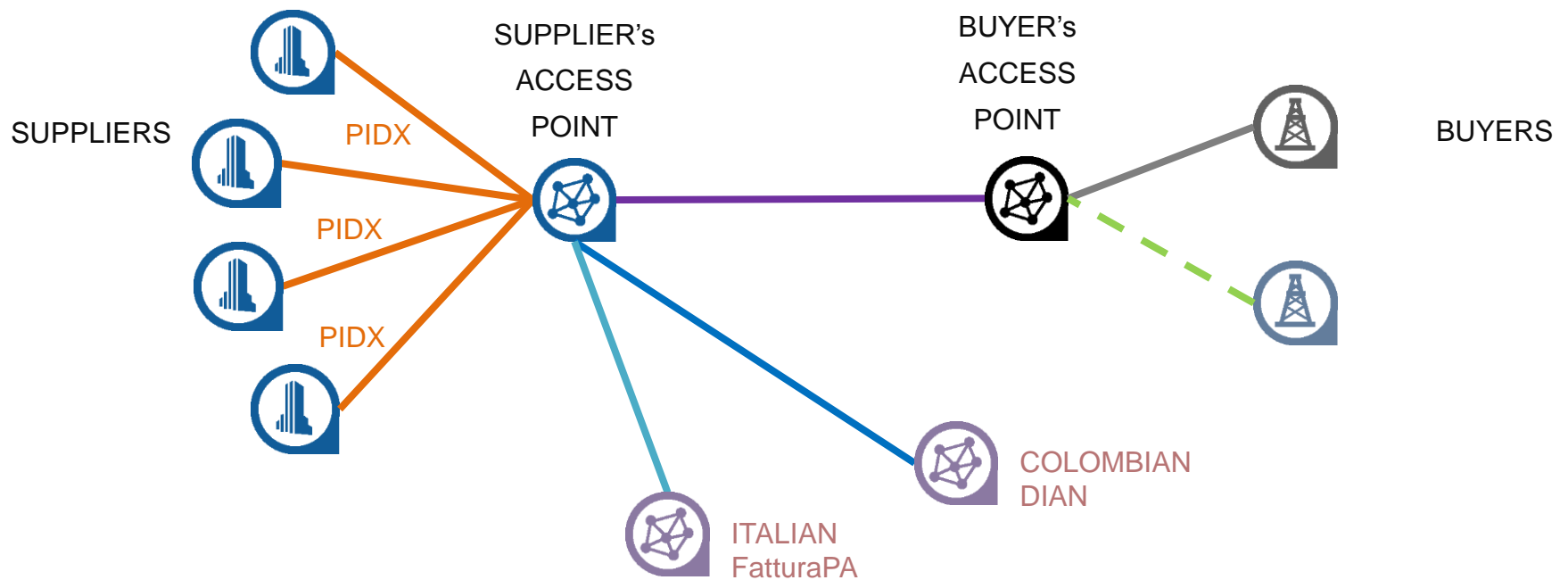


Industry Standards Deployed

eBUSINESS IS ALREADY ENABLED



TAX REPORTING AND REGULATORY INVOICE COMPLIANCE – EARLY ADOPTERS



KEY TAKEAWAYS

INTERNATIONAL eINVOICING

Needed stronger push for enforcement of our industry standard (PIDX) – customer pays maybe

Has been costly to implement due to variability of business model and technical development

We have maintained single PIDX interface with suppliers – many four corner models

Tax compliance will add more to the existing costs since each government runs by its own rules/ standards – even in Europe

Push back: Drive the message back to the governments to make them realize the cost everyone faces with the varied way of connecting/ reporting

Highlights the need for a global interoperability framework (GIF) between service providers and we need to work with Government agencies to harmonize tax reporting processes

GIF Workgroup Charter

Parties Involved to Date

- Agreement between **EESPA**, **ConnectONCE** and **OpenPEPPOL**
 - to combine efforts and to develop a Global Interoperability Framework

GIF-WG Purpose

- The purpose of the GIF-WG is to work on strategic issues including but not limited to:
- The development of common views, understandings and recommendations for the establishment of a Global Interoperability Framework for use by supply chain service providers in meeting the needs of their customers in the B2B and B2G space.
- Consideration of the potential role that could be fulfilled by supply chain service providers and other actors in support of common global approaches to governmental fiscal compliance initiatives including the delivery, reporting, registration and clearance of electronic invoices on behalf of tax-paying customers.





EESPA

European E-invoicing Service Providers Association

Tim Cole

Chair of Interoperability, EESPA, Europe
Digital Business Advocate - Causeway Technologies

What is EESPA?

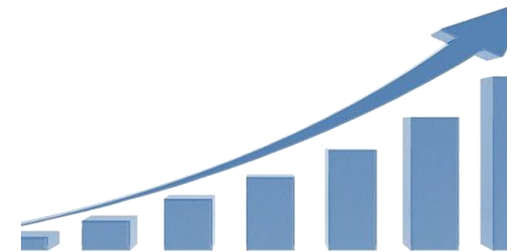
- ▶ **EESPA** is the **E**uropean **E**-Invoicing **S**ervice **P**roviders **A**ssociation
 - ▶ An International Not-for-Profit Association
 - ▶ organised under Belgian law founded in 2011
 - ▶ A trade association at European level
 - ▶ for the community of E-Invoicing Service Providers, drawn from organisations in network, business outsourcing, financial, technology and EDI services



**Over 70
Members**



**Spanning 25
Countries**



**Handling over
1.9 billion Invoices**

EESPA Vision & Objectives

► Our vision:

- *To be a strategic asset for our members delivering industry leadership, influence and a framework of support.*



► Our Objectives:

- To represent the industry
 - engaging in public policy debates and recommending best practice
- To promote interoperability
 - Including the creation of an interoperable eco-system
- To be an advocate
 - For the wide adoption of supply chain automation, e-invoicing and its benefits
- To promote networking
 - To provide networking and shared services forum for our members



EESPA Working Groups

Interoperability



Public Policy & Compliance



Marketing



What is the **Global Interoperability Framework (GIF)**?

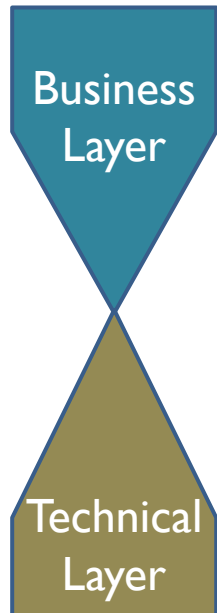
- a. A “**neutral vehicle**” to facilitate open collaboration on common issues and, where possible, to agree common artefacts that are supported on a global, or regional, basis.

Leading to ..

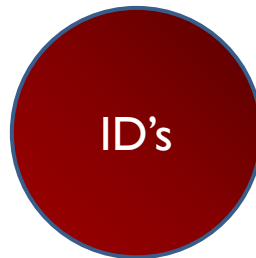
- b. Agreement on common interoperability ‘**building blocks**’, the adoption of which will:
- *Accelerate digital business adoption*
 - *Reduce adoption costs*
 - *Save time*



What's the Problem?



Establishing any digital business connections requires agreement on **many** different **technical** and **business** components.



A recipe for inertia ...

... Most inertia is actually linked with issues that have **NO IMPACT** on the end-user!



Global Interoperability Framework Objectives

To identify and implement common components that can be widely adopted by service providers to

- a. increase automated connections,
- b. reduce the cost of adoption,
- c. accelerate the adoption of digital business and
- d. meet the needs of end-users.



Too many options **not only** lead to inertia but, very often, to poor decisions.



Common Components – The 4 D's!

Directives

e.g. Legislative, Business and Network requirements

Unlocking
Value Added Services

Discovery

e.g. Identifiers, Addressing, Registry.

Delivery

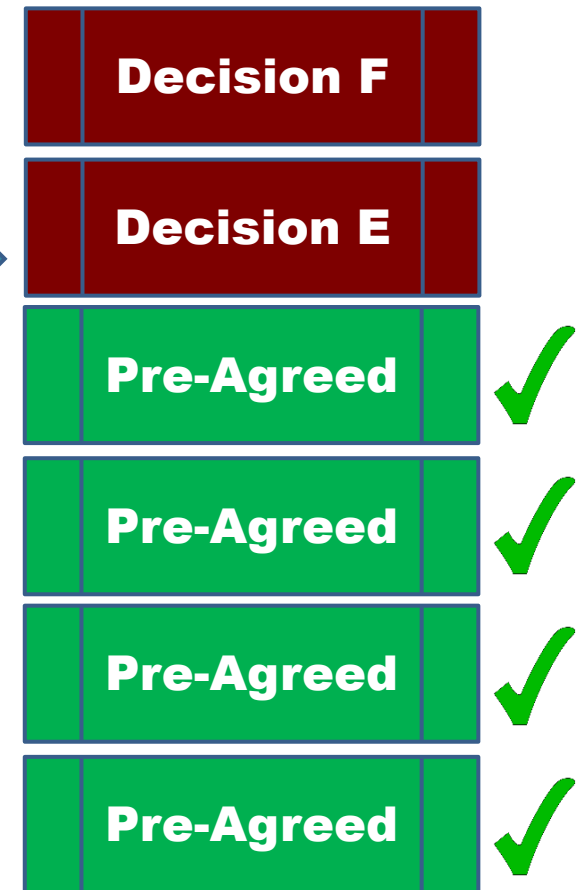
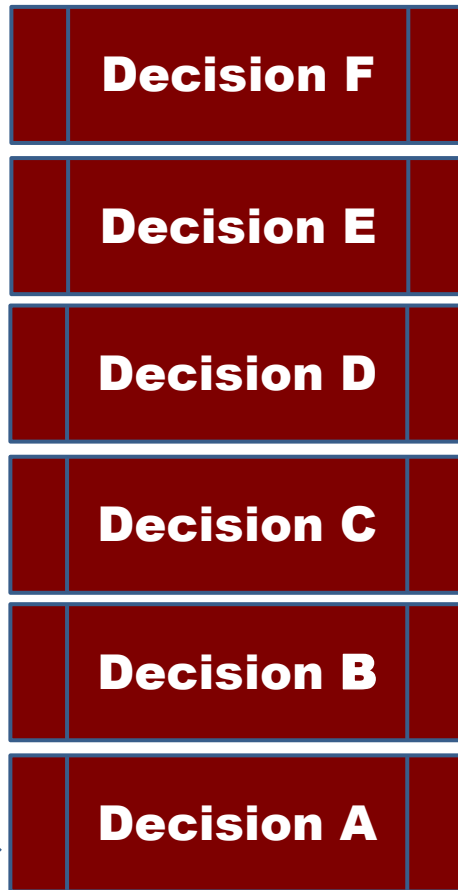
e.g. Envelope, Transfer protocols (e.g. AS2), Response Messages

Data

Semantic, e.g. EN16931, & Syntax e.g. UBL (+ CIUS)

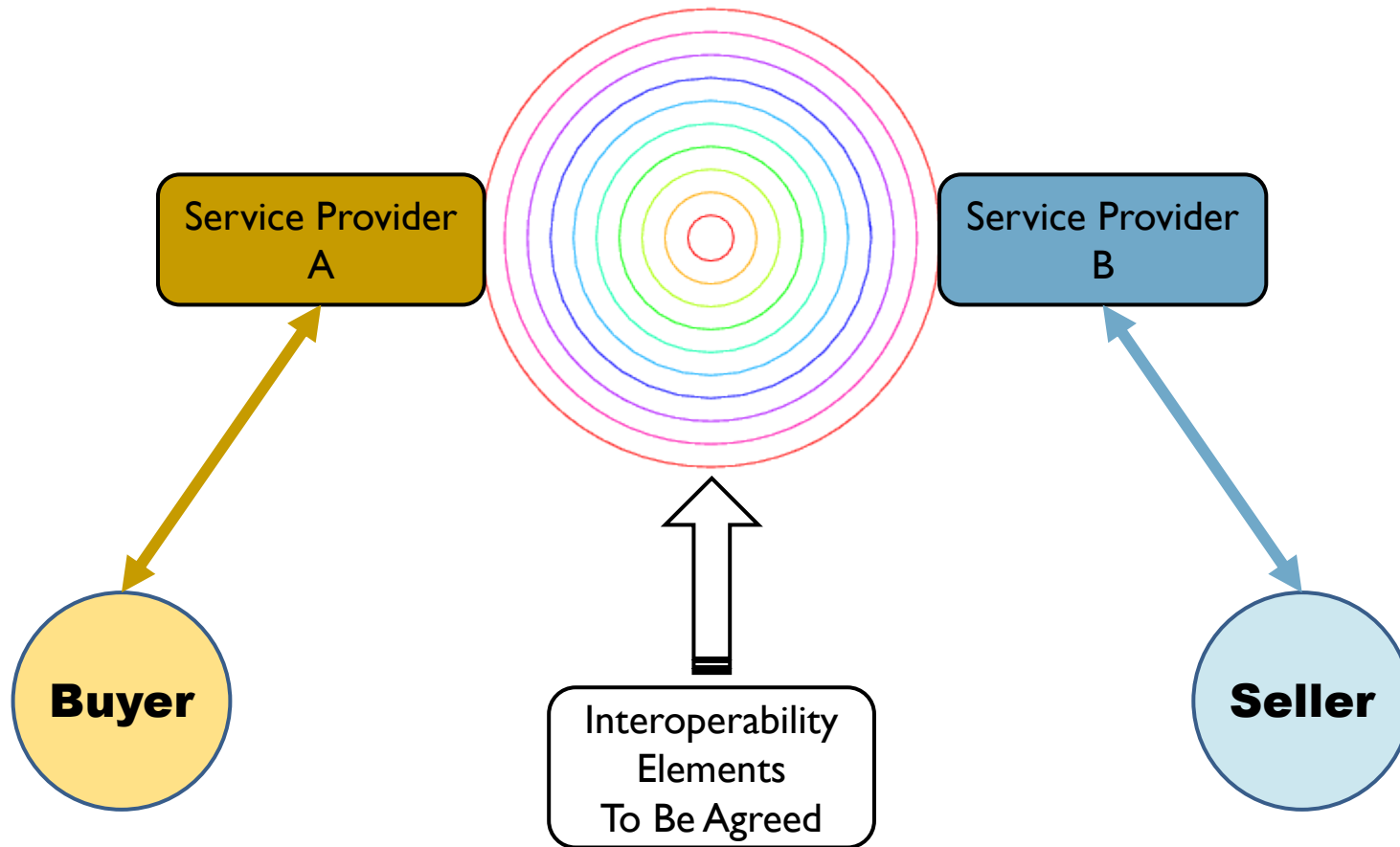


Moving the Starting Point



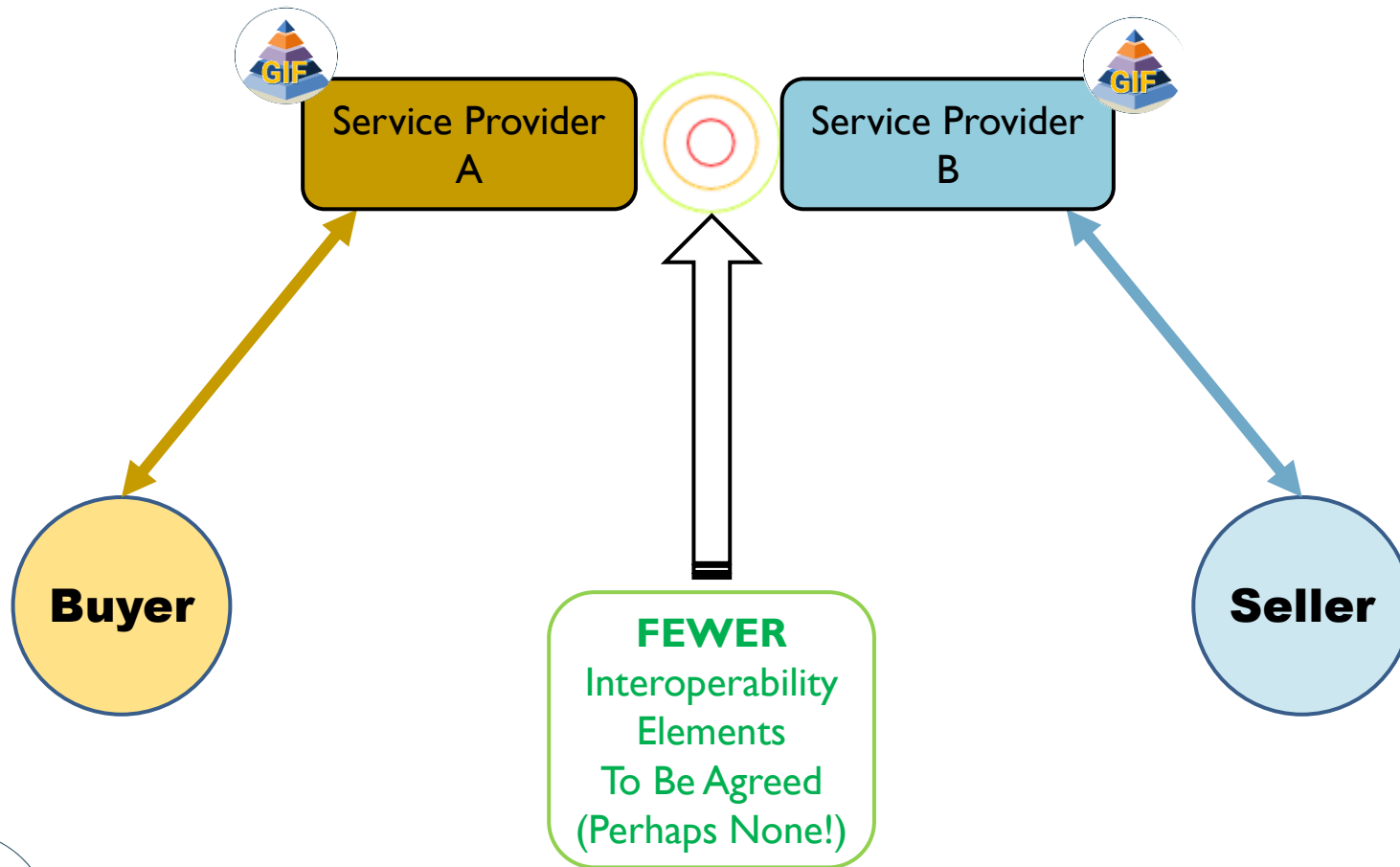
Four Corner Interoperability

-- Without a GIF --



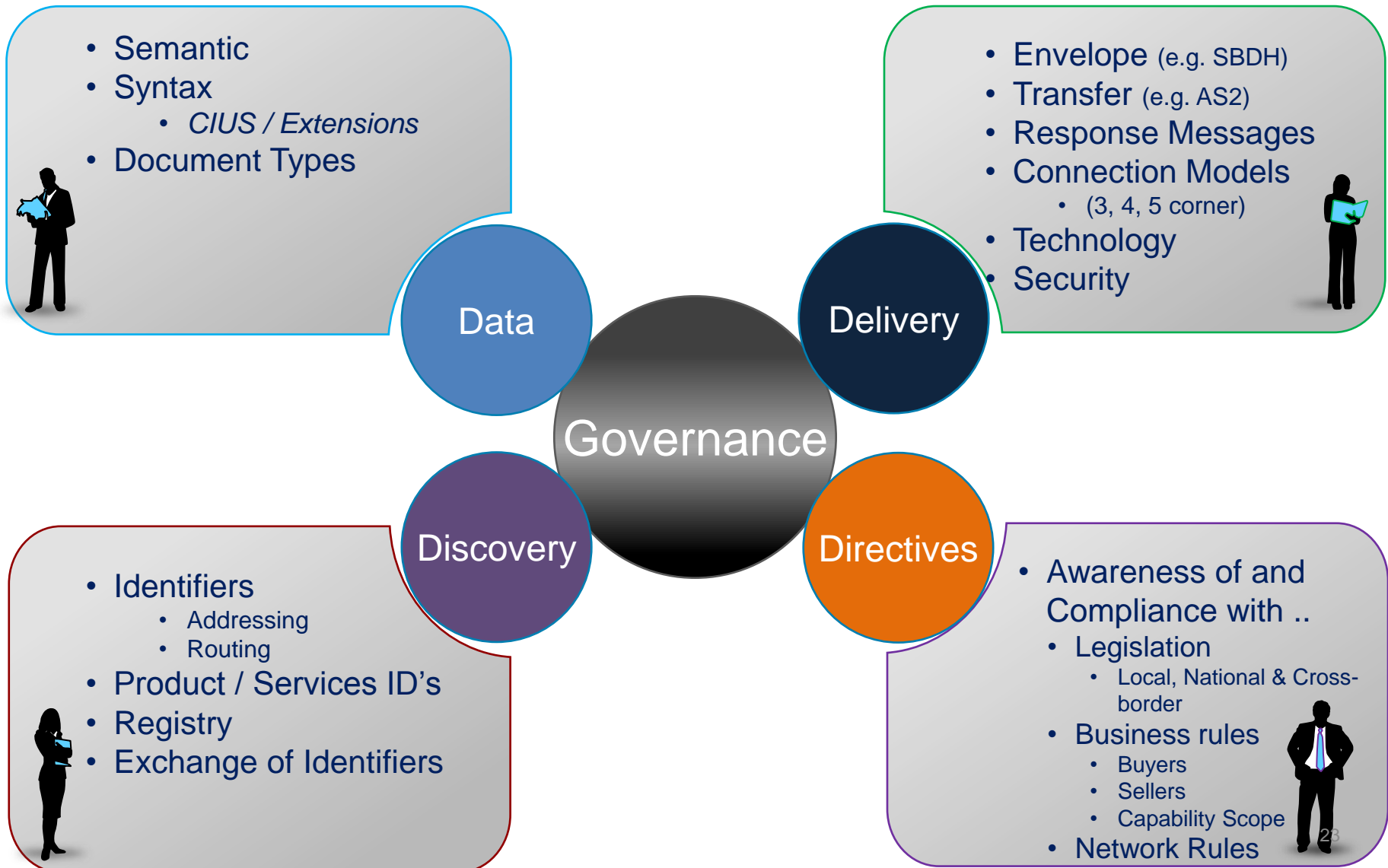
Four Corner Interoperability

-- **With** a GIF --





The 4 D's ... and Governance



The Challenges

Establishing an interoperable connection requires agreement on multiple factors:

- **Data**
 - The format, interpretation and scope of the information to be exchanged
- **Delivery**
 - The means by which the Data is conveyed.
- **Discovery**
 - How companies, services, capabilities and data elements are identified and made accessible to all parties
- **Directives**
 - The local, national, cross-border, network and business rules that have to be accounted for within the exchange process



1. Semantic

- Describing the meaning and use of data elements and the relationships between them
 - *Such as the European Norm (EN) – a semantic data model of the core elements of an electronic invoice which can be supported by a CIUS – A Core Invoice User Specification*

2. Payload

- Syntax – The document language that conveys the semantic elements within a structured file format.
- Response Messages

3. Scope

- Document Types



1. Interoperability Connection Model

- 3 & 4-Corner exchange & 5 corner (Continuous Transaction Controls)

2. Transmission Standards

- Such as AS2 / AS4
- Messaging Envelopes, such as GS1 SBDH / XHE

3. Communication Protocols

- Response messages
 - *Exchange status information, business rules, queries and rejections*

4. Emerging Technology

- Blockchain, Robotics, AI, etc.

5. Security





Discovery Component

1. Addressing

- Customer / Partner information
- Global identifiers with sufficient flexibility for all operations
- Transferrable ID's

2. Routing

- Global identifiers

3. Product / Services

4. Exchange of Identifiers

- Bilateral exchange (Manual or Automated)
- Directory services (Manual or Automated)



1. Access to and compliance with Directives / Legislation

- Local
- National
- Cross-border

2. Handling business rules

- As applied by buyers and sellers
- Understanding the scope of each company's capabilities

3. Network Rules

4. Presenting and sharing directives





Governance Component

1. Joint governance

- By those parties developing, adopting and maintaining the GIF.

2. Short Term

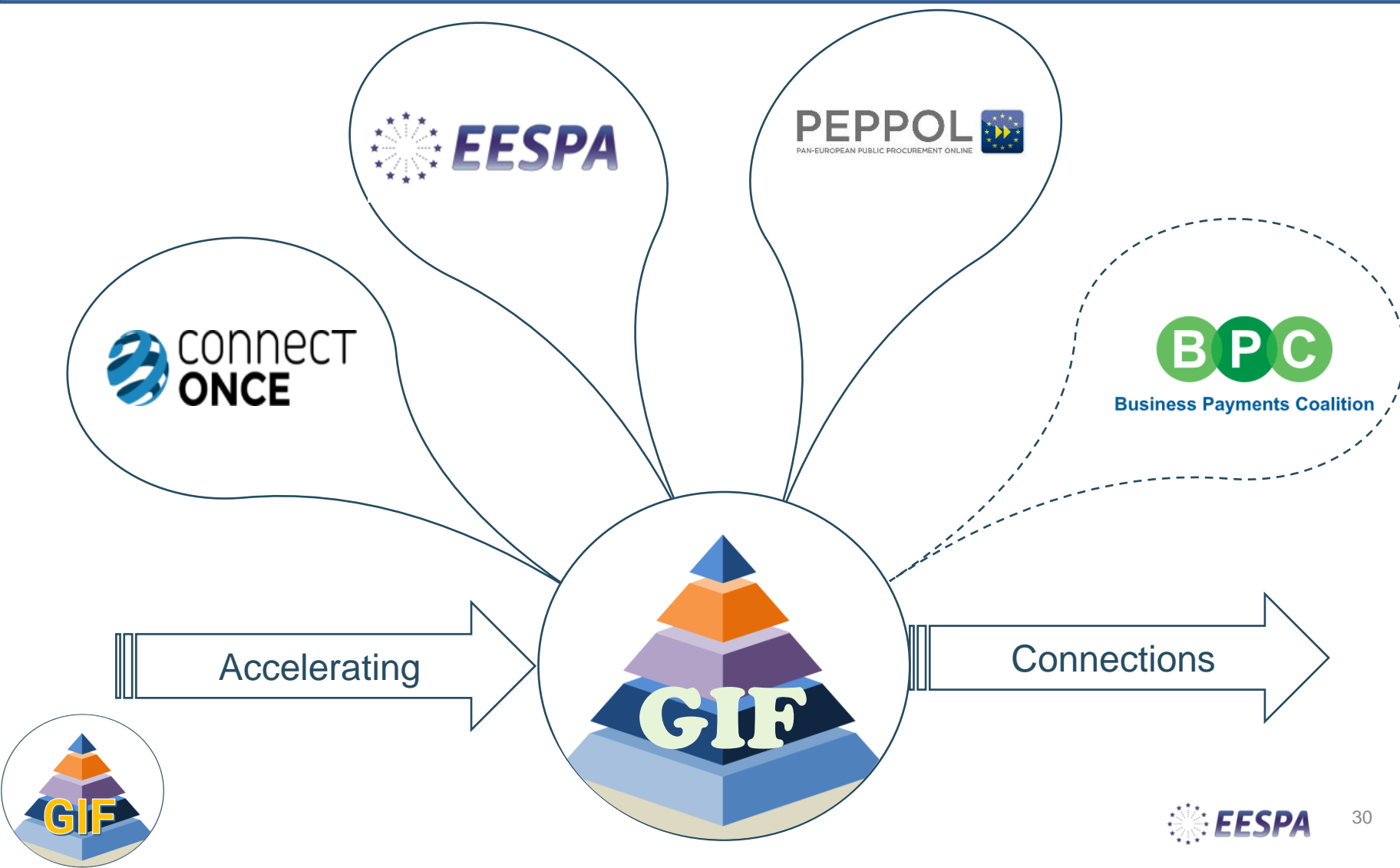
- Agreed adoption rules to ensure the integrity and usability of the GIF.

3. Longer Term

- A process by which elements of the GIF can be reviewed, revised and updated.



Shared Components – Fully Flexible Deployment



Global Interoperability Framework

- *Call to Action* -

To help us build on the agreement between **EESPA**, **ConnectONCE** and **OpenPEPPOL** to combine efforts and to develop a Global Interoperability Framework ... **Please would you all**

- Come and **discuss** this with us at the conference
- Join the **panel discussion** at 4:15pm
- **Engage** your peers in this dialogue
- **Help us** develop the framework and to build on the consensus **by supporting this global movement.**





Thank You

Chris Welsh Board Member- **ConnectONCE**, USA
&
Tim Cole Chair of Interoperability, **EESPA**, Europe