



RFID supply chain standards

Brussels, 24 October 2007

Henri Barthel, GS1 Global Office

The global language of business

www.gs1.org



GS1 in a nutshell



**The global
language of
business**

GS1 is a not-for-profit organisation that develops global standards for the identification of goods and services.

GS1's standards foster **cooperation** and encourage **information-sharing** worldwide.





GS1 Products

GS1 has a full portfolio of **products**.



Global standards for automatic identification

Rapid and accurate item, asset or location identification



Global standards for electronic business messaging

Rapid, efficient & accurate business data exchange



The environment for global data synchronisation

Standardised, reliable data for effective business transactions



Global standards for RFID-based identification

More accurate, immediate and cost effective visibility of information





GS1 Services

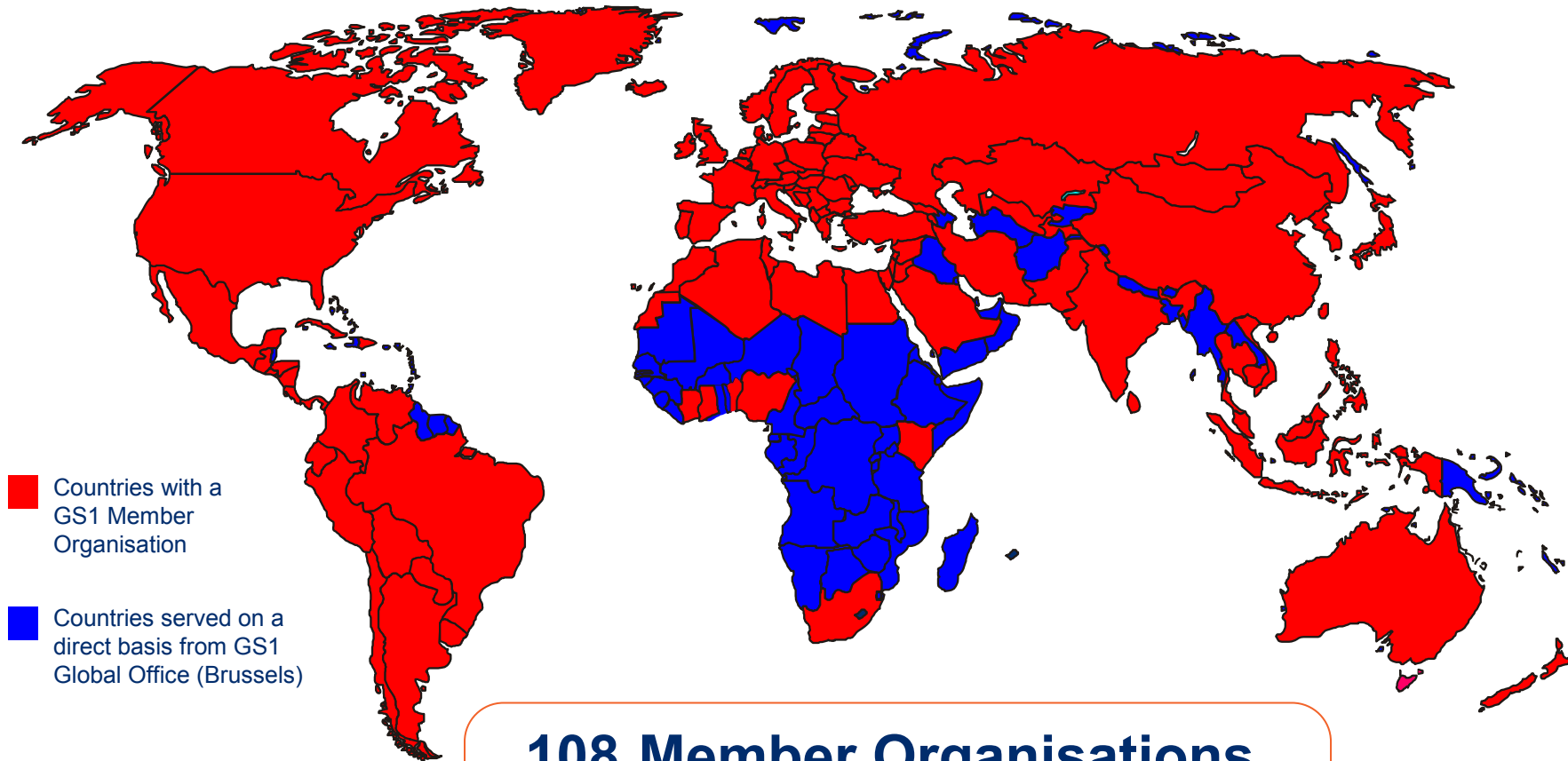
GS1 provides a wide variety of **services** to its user companies.

- Implementation support
- Benchmarking
- Verification tools and calculators
- Consulting services
- Software
- Guides and manuals
- Training and education
- Helpdesk
- And more...





GS1 Member Organisations



- Countries with a GS1 Member Organisation
- Countries served on a direct basis from GS1 Global Office (Brussels)

**108 Member Organisations.
140 Countries served.
Local services, global reach.**





Why are global standards important?

Reduce complexity

- Within organizations
- Between organizations
- For Hardware and Software production and purchase decisions

Reduce cost

- Implementation
- Hardware, Software and Integration

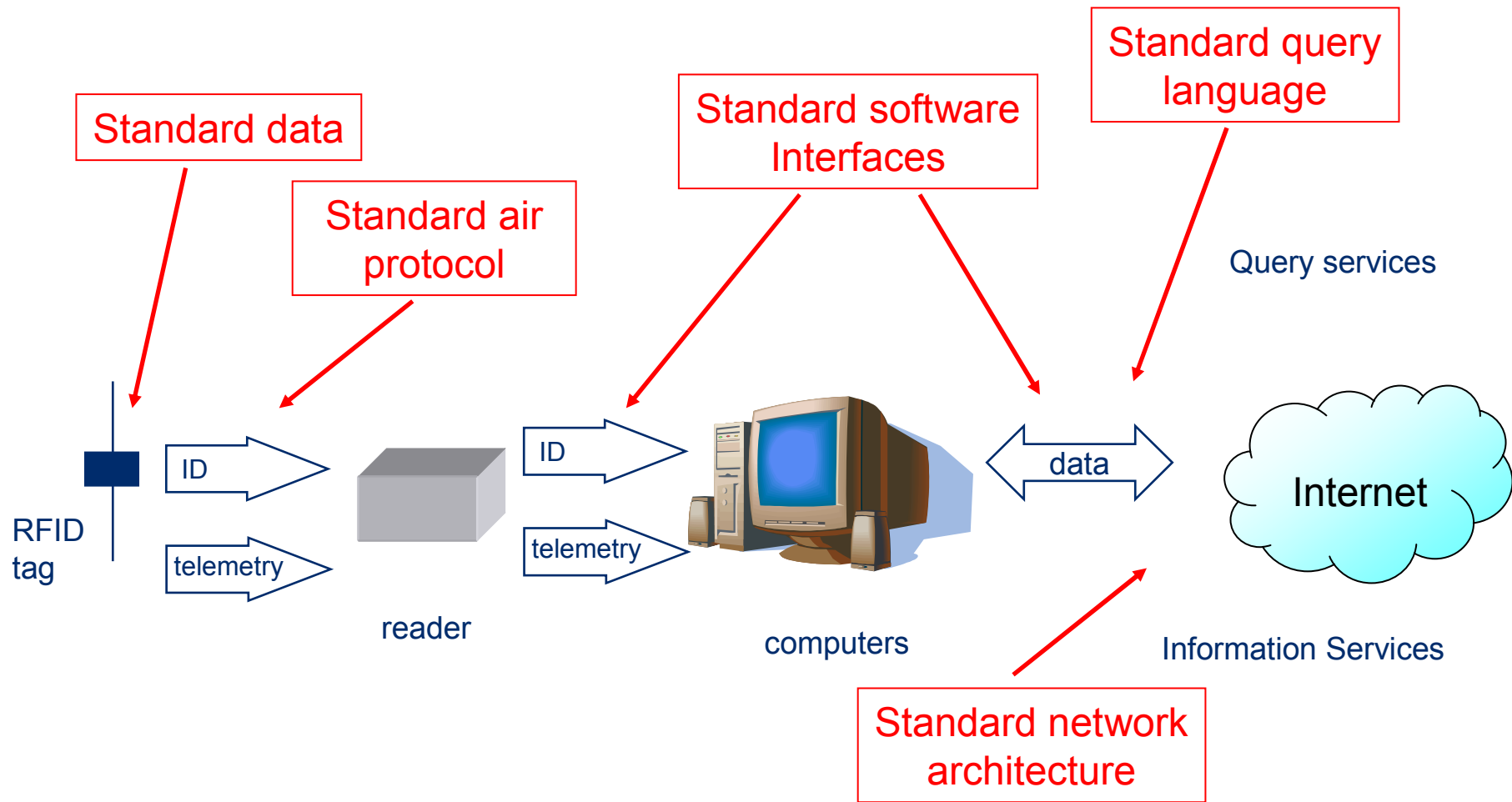
Facilitate trading partner collaboration

Allow organizations to focus more on how to use the information than how to get information





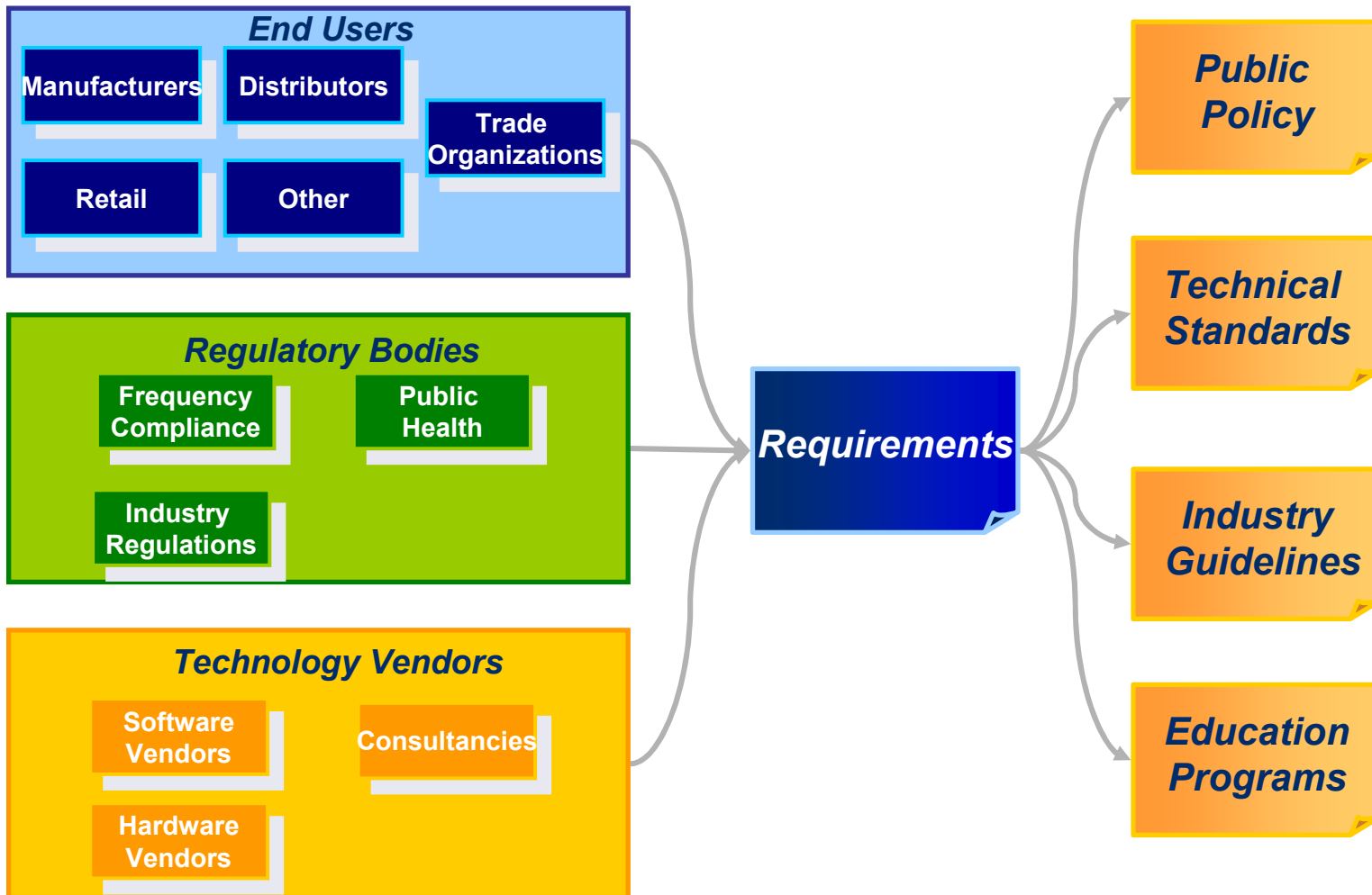
Where are standards required?







The EPCglobal Community





EPCglobal subscribers

September 2007

Asia Pacific	220
Europe	233
Latin America	32
ME & Africa	19
North America	659
TOTAL	

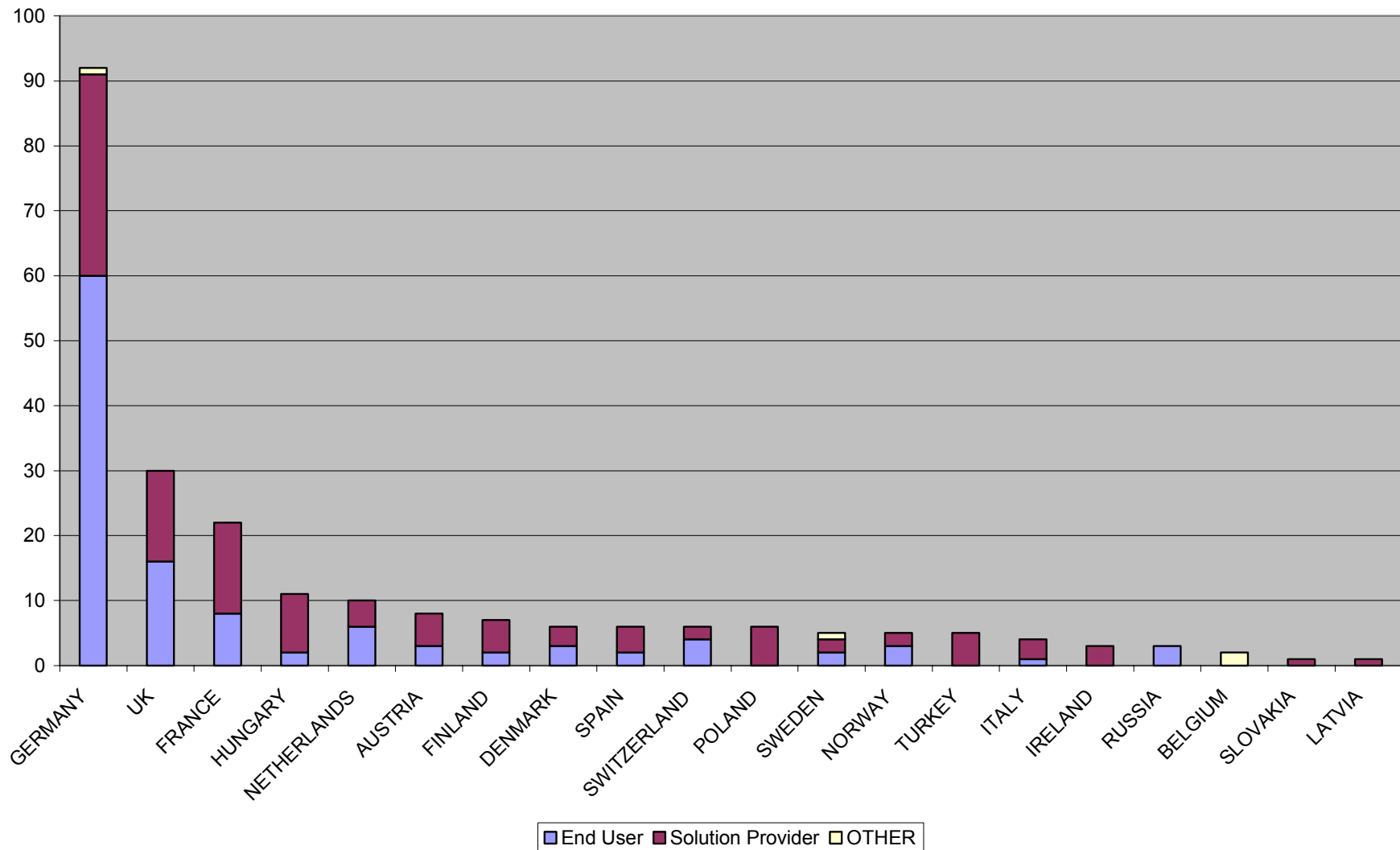
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- Each member joins only once in the location of the global head office



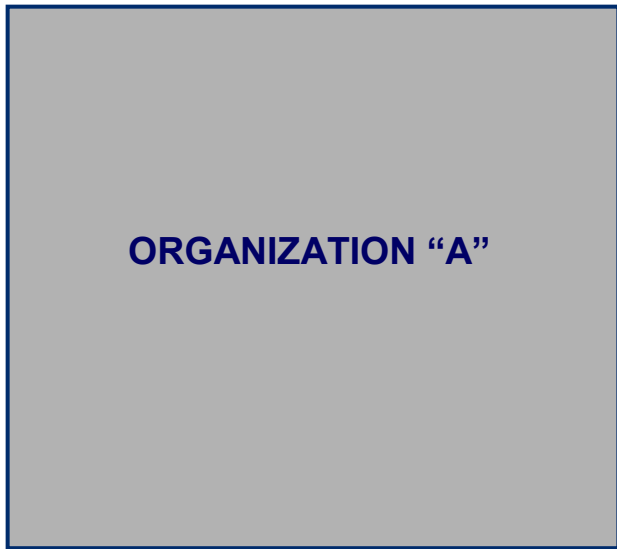


233 Members across Europe (September 2007)





The EPCglobal Network

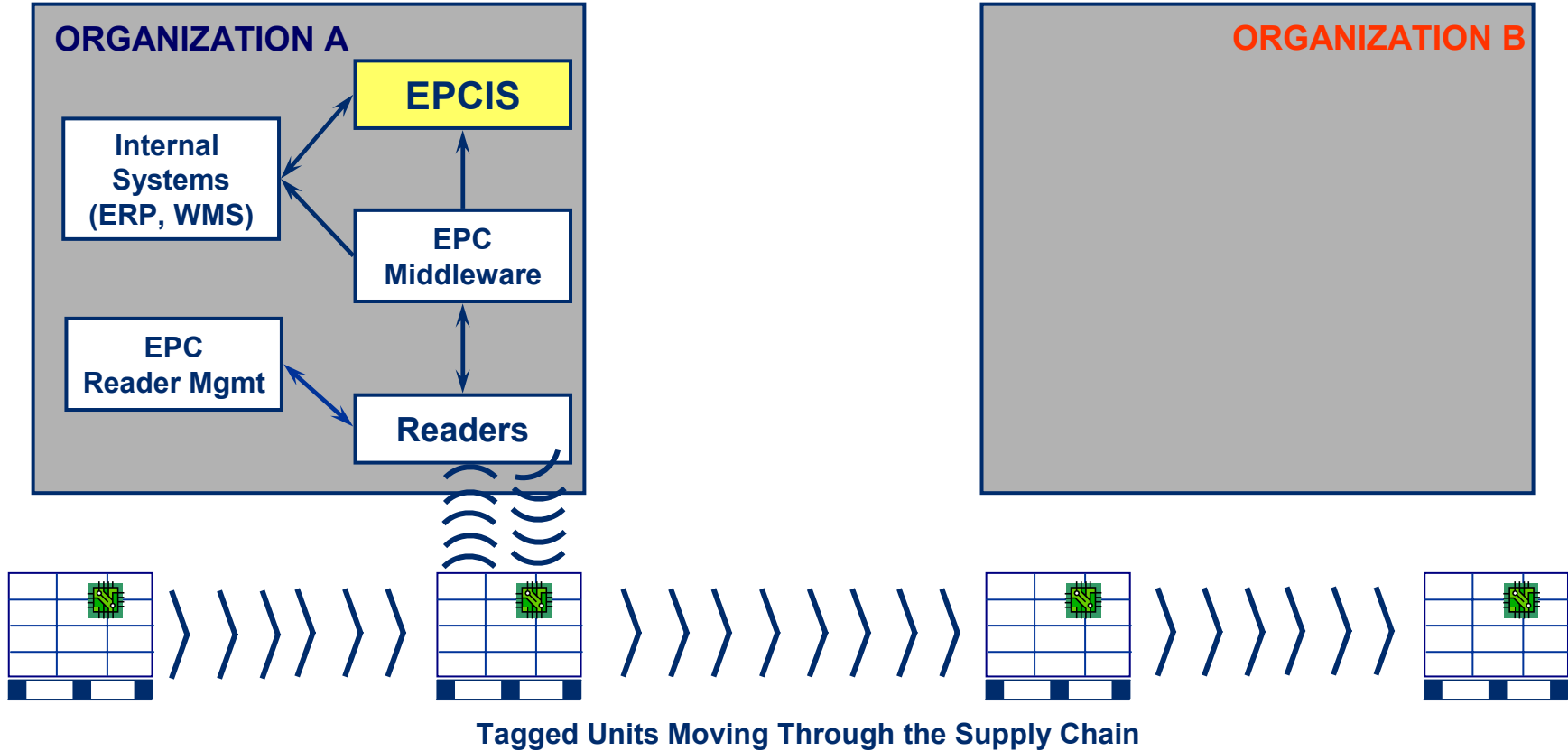


Tagged Units Moving Through the Supply Chain



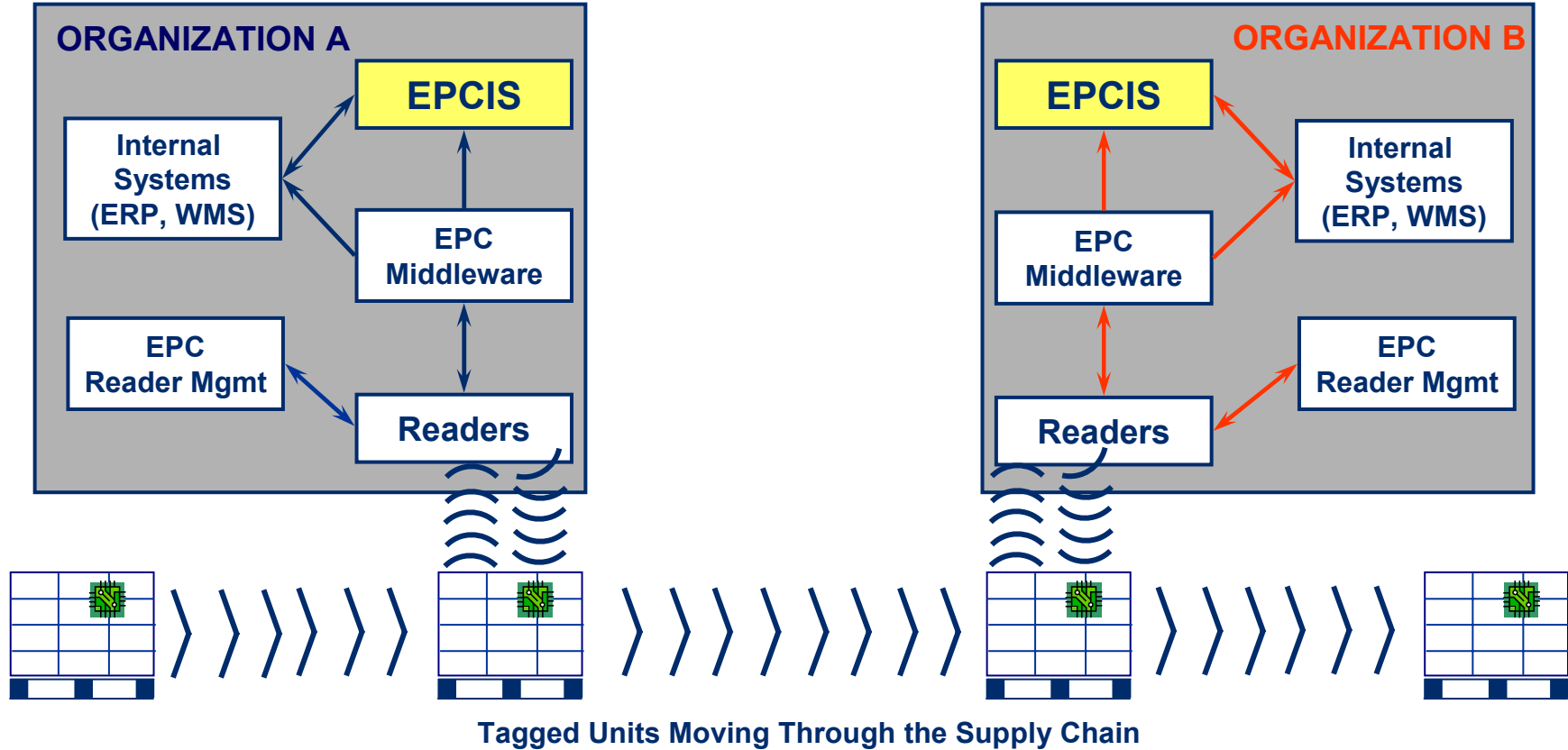


The EPCglobal Network





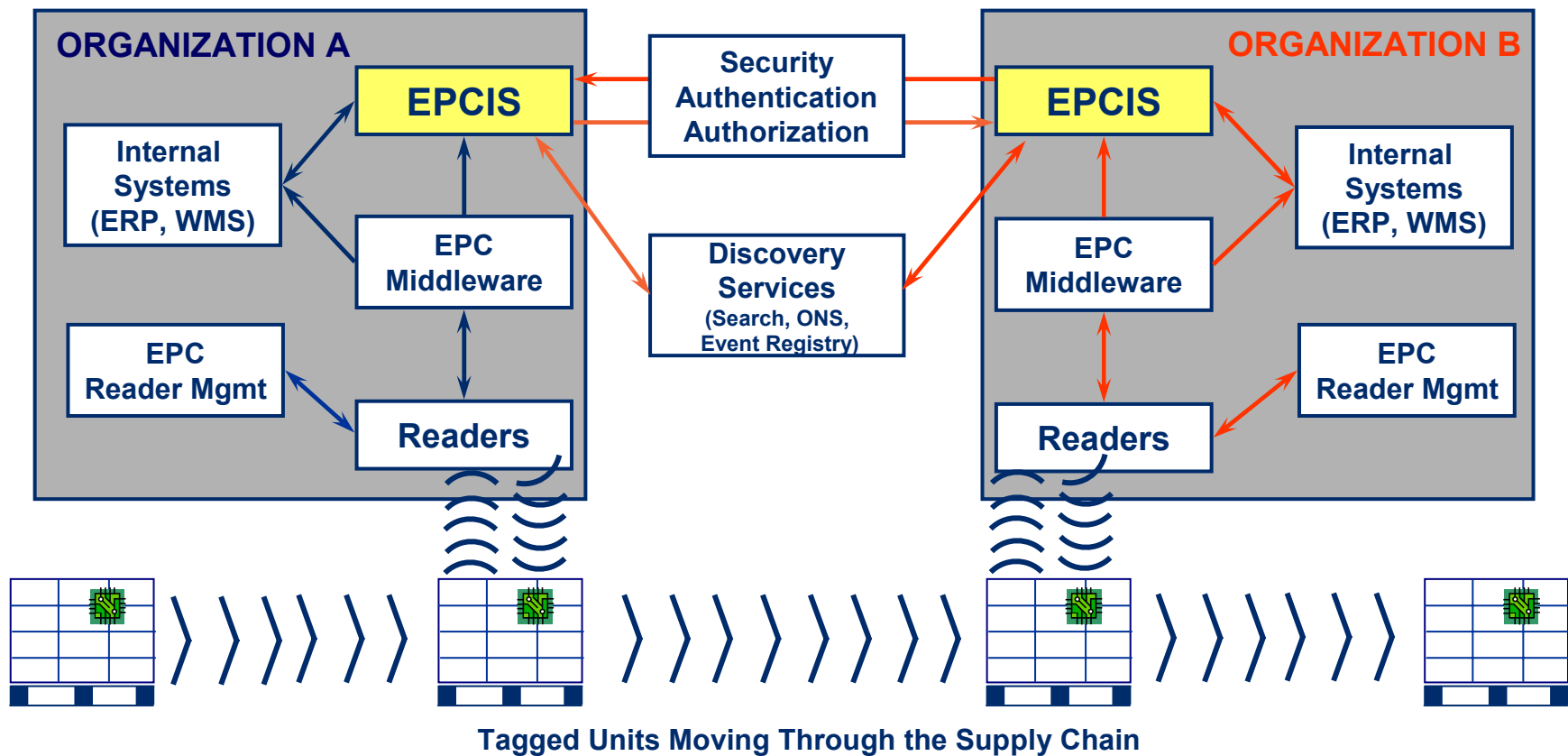
The EPCglobal Network





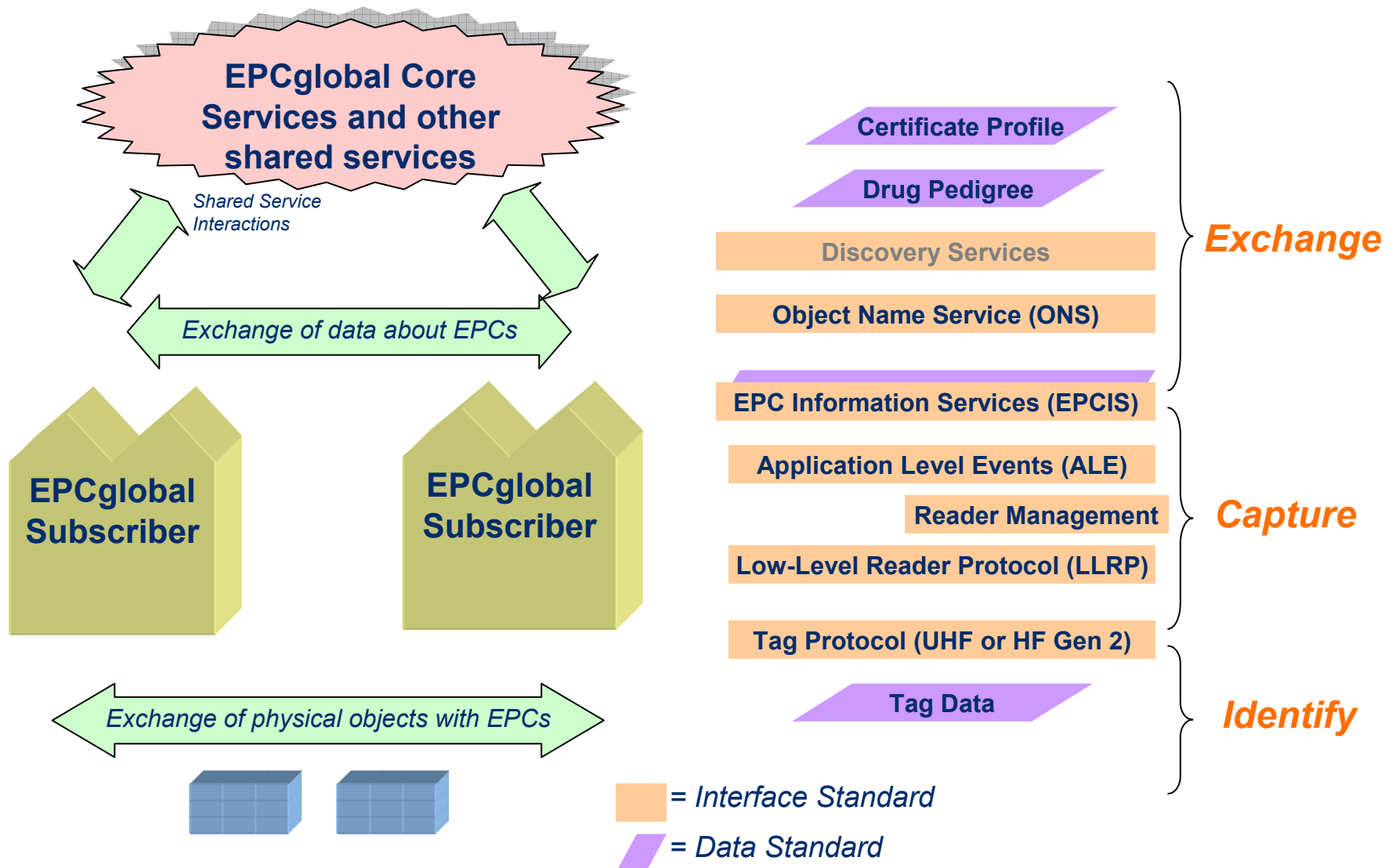
The EPCglobal Network

Supply Chain Visibility
Event Related Information





EPCglobal Standards Overview





EPCglobal at a crossroads

- Achievements:
 - 11 ratified standards = initial standards set complete
 - Certification services expanding
 - Regulatory infrastructure established (UHF – 91.8% GNI)
 - Public policy under control
- Crossroads:
 - First 3 years – had to focus on standards
 - Internal resistance in some companies
 - Commitment to move beyond pilots - tough decisions
- EPCglobal needs to shift focus further towards supporting adoption and implementation





Core barriers to adoption

- End user conviction of benefits
- Capability to support adoption and implementation
- Fee structure
- Engagement strategy with solution providers
- Some technical challenges





Evolving focus to drive adoption

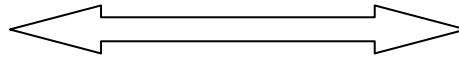
Core choices to create a step change in driving adoption

1. Drive significant pilots through the EPCglobal community to identify values, benefits and learning that can be **communicated broadly** (Examples: Apparel, Transport and Logistics, Electronic Article Surveillance, Media and Entertainment, Healthcare)
2. Enable and support Member Organisations to be increasingly capable of supporting implementation locally
3. Effectively communicate, educate and align plans across all activities in support of 1 and 2 above



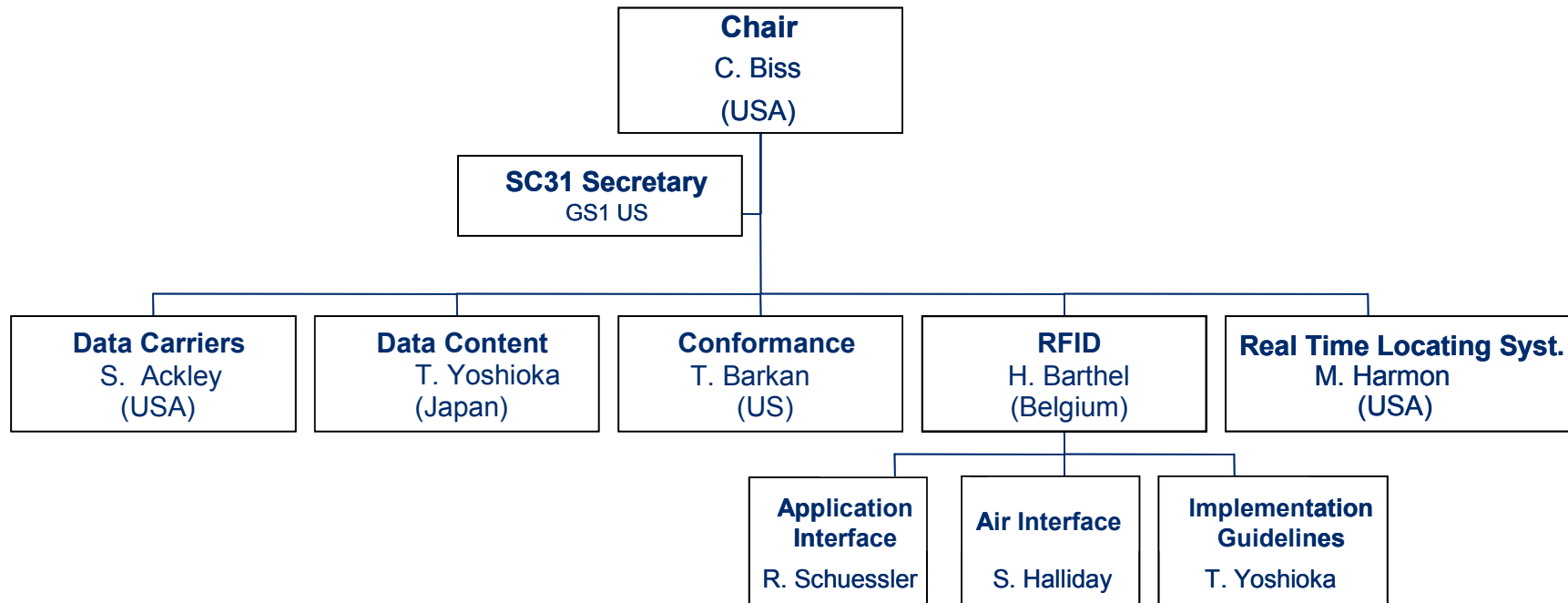


GS1 & ISO





ISO committee responsible for bar codes and RFID: ISO/IEC/JTC 1/SC31



28 Participating countries + 7 Observer countries





SC31/WG4 projects - Standards

- 15961 Data protocol: application interface
- 15962 Data Protocol: data encoding rules and logical memory function
- 24791 Software System Infrastructure
- 24753 Air Interface Commands for Battery Assist and Sensor Functionality
- 15963 Unique Id of RF tags and Registration to Manage the Uniqueness
- 18000-1 Air Interface - Reference architecture and definition of parameters to be standardized
- 18000-2 Air interface for < 135 kHz
- 18000-3 Air interface at 13,56 MHz
- 18000-4 Air interface at 2,45 GHz
- 18000-6 Air interface at 860-960 MHz
- 18000-7 Air interface at 433 MHz

Blue: ISO/IEC standard published

Green: ISO/IEC standard in development





SC31/WG4 projects – Technical Reports

24710 Elementary Tag License Plate Functionality for
ISO Air Interface Definitions

18001 Application Requirements Profiles

24729 Implementation guidelines, 3 parts:

- RFID-enabled labels
- Recycling and RFID tags
- Implementation and operation of UHF RFID Interrogator systems in logistics applications

Blue: ISO/IEC technical report published

Green: ISO/IEC technical report in development



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