



Latin American Logistics Challenges and the EPC Revolution

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The global language of business

www.gs1.org



The Challenge worldwide

What is this Challenge all about?



Is this about logistics efficiency?



Is this about fully utilizing resources?





The Challenge worldwide

- The Rules of the Game are drastically changing....even the game is different!
- PC is only 25 yrs old
- Internet less that 20 yrs
- Mobile phones exponential expansion
- Multiplicator factor of new technologies
- From handling and processing data to handling and processing objects
-
- This is not about Latin America challenge alone: **Does Latin America want to be a key player in the new game with the new rules?**





Future Trends - Trade logistics (1)

- **Mobile internet** means anytime, anywhere, cost payment from mobiles, individual recognition, ability to download anything
- **Nanotechnology** is becoming a reality. There are chemical sensors, electro-optical devices, bio sensors (used to identify people or to monitor environment). These sensors are to be integrated with products
- **Intelligent Freezers** will become the norm. Consumers will buy 60% of their goods in an Automatic Replenishment mode. As a consequence, the whole SC will need to be re-engineered to get it adapted to shipments at “consumer reach”
- **Wireless stores.** RFID enabled carts that allow payment automatic.



Future Trends - Trade Logistics (2)

- **Trade structure is going to be whole integrated** across all the SC, from consumers to suppliers' suppliers (**from land to plate**)
- Transportation will fully changed compared to today. Fewer JV companies, owned or managed by retailers and manufacturers, whose purpose is to deliver goods in a CR model to consumers houses (or community centers to be created)
- The whole flow of goods from manufacturers to retailers will be centrally optimized and **planned in a MANY TO MANY way**
- The products manufactured from all sectors will go through a huge effort of **standardization of dimensions** to make them transport efficient. This effort will imply huge changes in Manufacturers and retailers. But the savings are even bigger. Many warehouses will disappear and be replaced by Joint Cross docking depots, where goods are fast moved from trucks to vans. Then to retailers shops and to homes. **All products will be identified by RFID tags and nanotags**, so that traceability is to the hour if not the minute.





GS1 has an answer

- GS1 is a not-for-profit organisation
- GS1 is neutral from our business partners
- GS1 is user-driven and user-governed
- GS1 serves all companies: from multinationals to SMEs
- GS1 is a platform for collaborative agreement between partners
- GS1's employees and associates are our most important asset





GS1: Vision



"GS1's goal is clearly aimed at the **simplification** of global commerce by **connecting** the flow of information with the flow of goods.

Global commerce is multi-faceted and the complexities innumerable; however, GS1 has **focused its mission** at the core of the challenge.

GS1 will lead the design and implementation of global standards to improve the supply and demand chain."

Tim Smucker, GS1 Chairman 2003-2006

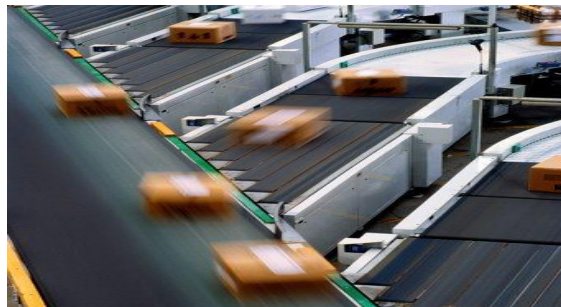
Miguel Lopera, President and CEO





GS1

GS1:
Leading the design and implementation
of global standards to improve
the supply and demand chain





Why are global standards important?

Reduce complexity

- Within organizations
- Between organizations
- For H/W and S/W production and purchase decisions

Reduce cost

- Implementation
- H/W, S/W and Integration

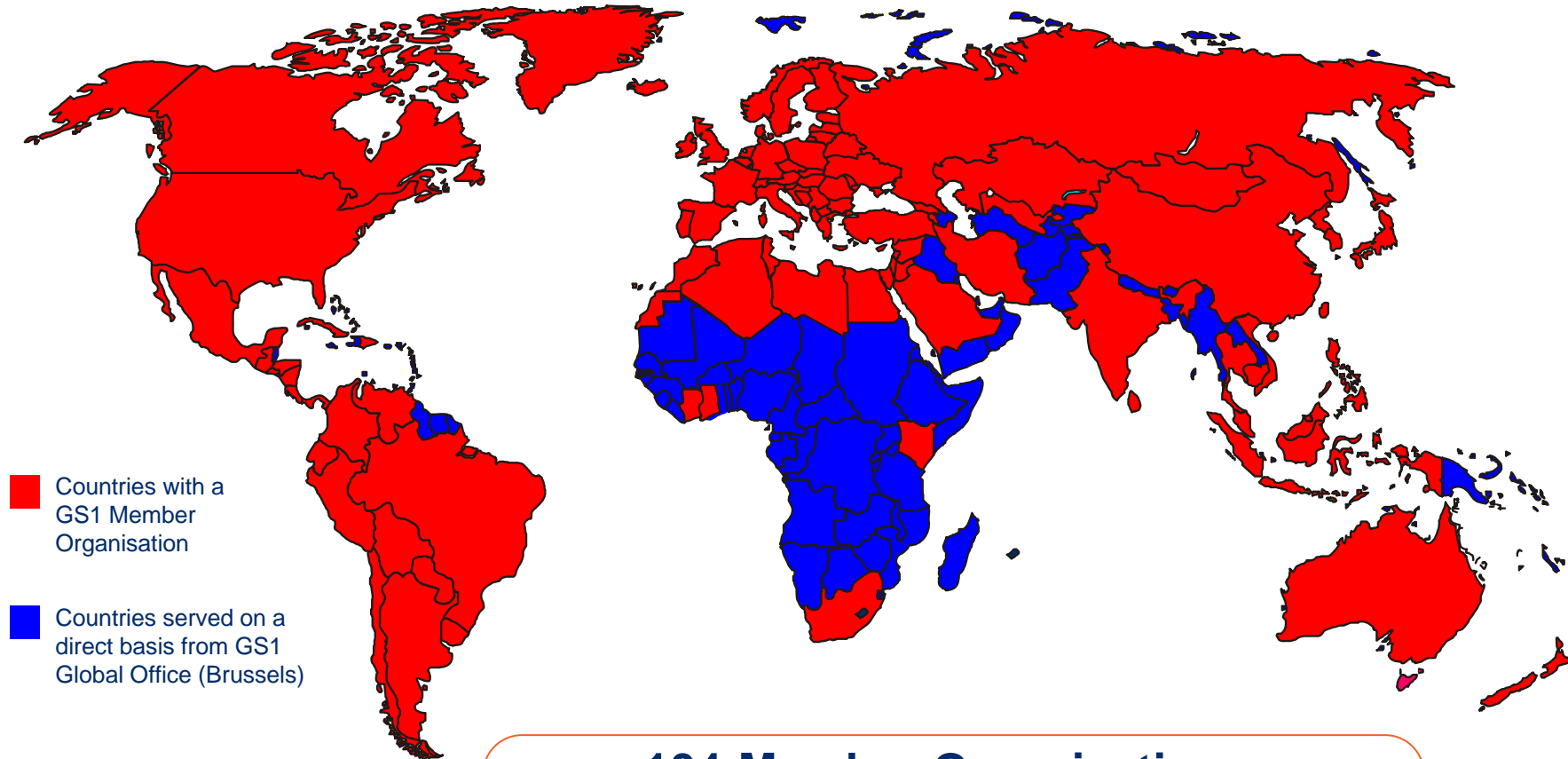
Facilitate trading partner collaboration

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





GS1 Member Organisations



**104 Member Organisations.
145 Countries served.
More than 1.3 Million user companies
Local services, global reach.**



GS1 Products





GS1: A Broad Portfolio

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

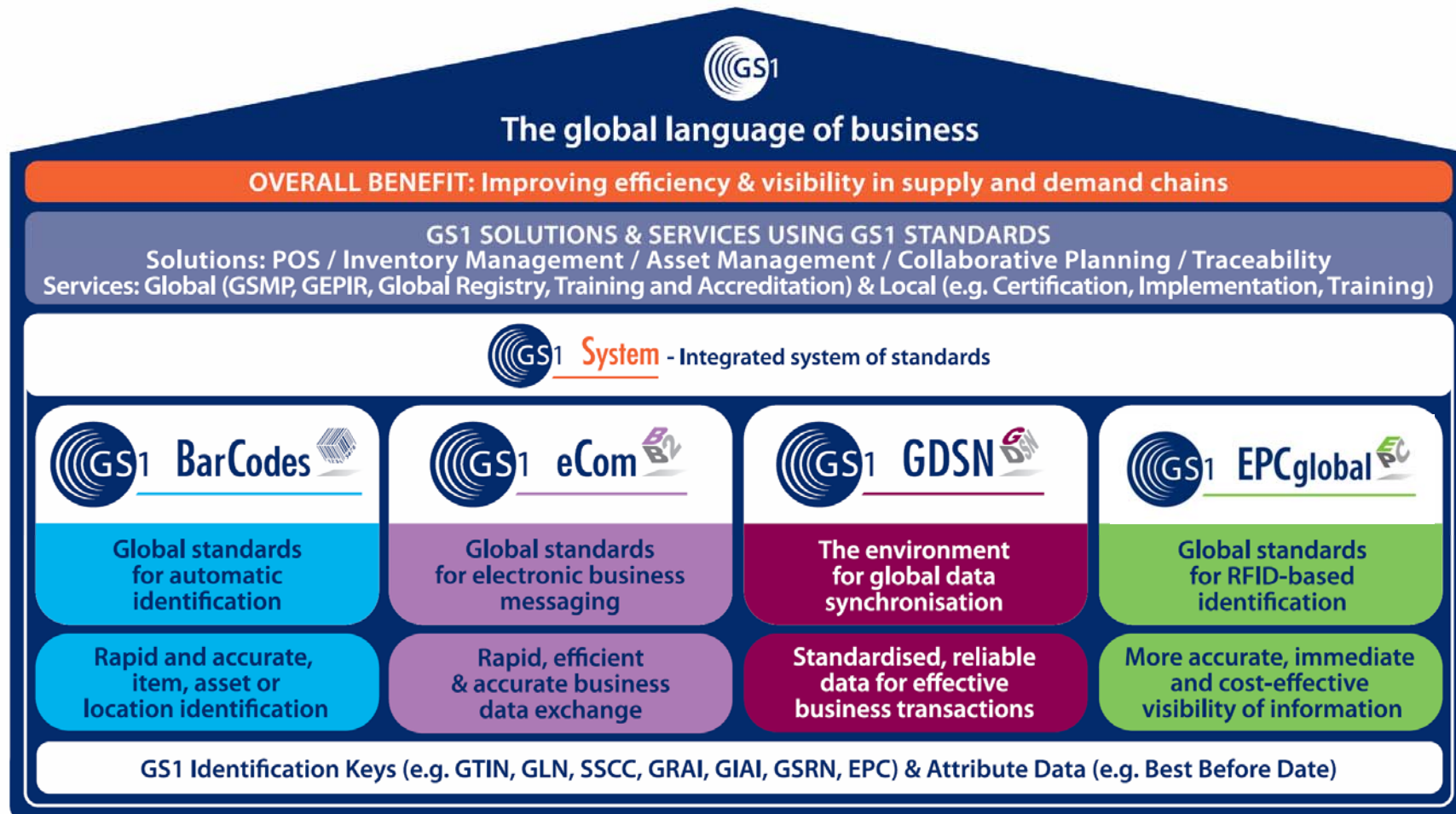


Global standards for RFID-based identification
More accurate, immediate and cost effective visibility of information





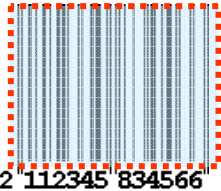
GS1's Brand Architecture





A Future GS1 Product: Reduce Space Symbology (RSS)

Our first generation bar code (EAN/UPC)...



Retailers: "It only carries GTIN"

Manufacturers: "It's too large for many packages"

RSS, the next-generation bar code, carries over 100 different bar code data elements like serial or lot numbers, expiration dates, & measurements

Get **GTIN Plus Serial #**
in the **SAME** space:



Get **GTIN** in **less** space
and pick tall or wide:





RSS Adoption Business Case



Sunrise Date 2010

Benefit Areas

- Enable **category management** and control of a number of products not able to support a standard bar code due to **size of packaging**.
- **Better control** of inventories, shrinkage, and product recalls.
- Better control over products exceeding their **expiry dates**
- Enable **scanning of fresh food products** (i.e. produce) reducing key punch errors, allowing for self check out options, and supplier identification.



Global Data Synchronisation

Data Synchronisation is the continuous alignment of item attributes between two or more trading partners

- Result: static item information becomes the same across all connected systems
- Essential for collaborative supply chain management (CPFR, Price and Promotion, RFID)

GDSN—the Global Data Synchronisation Network is the environment to distribute standards-compliant, reliable item data between regional and global trading partners

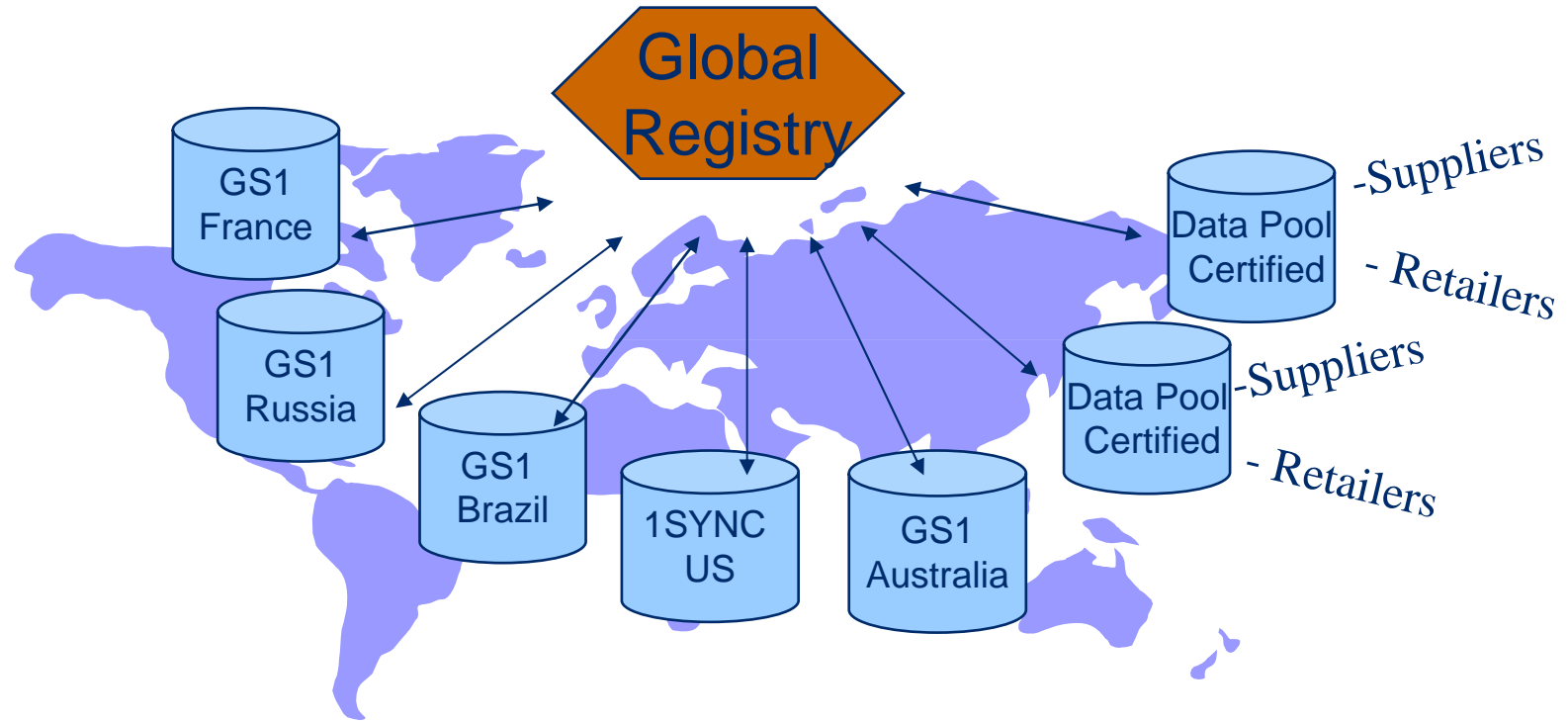
- Components: Global Registry, Data Pools and Trading Partners





Global Data Synchronisation - Vision

- Registry for Registration of Items and Parties, and Global Search
- Retailers and Suppliers have single point of access via Certified Data Pools
- Standards compliant data and messages





GDSN Growth Jan 2005 – July 2006

	Jan 2005	Feb 2006	11 Aug 2006
Active Data Pools	7	7	11 (20 Certified)
Subscribers / Users	200	3,778 <i>110 retailers</i> 3,668 <i>manufacturers</i>	10,038 <i>116 retailers</i> <i>9,922 suppliers</i>
GTINs (Items) Registered	180,000	479,000	833,000



GS1 & EPC





Membership June 2006

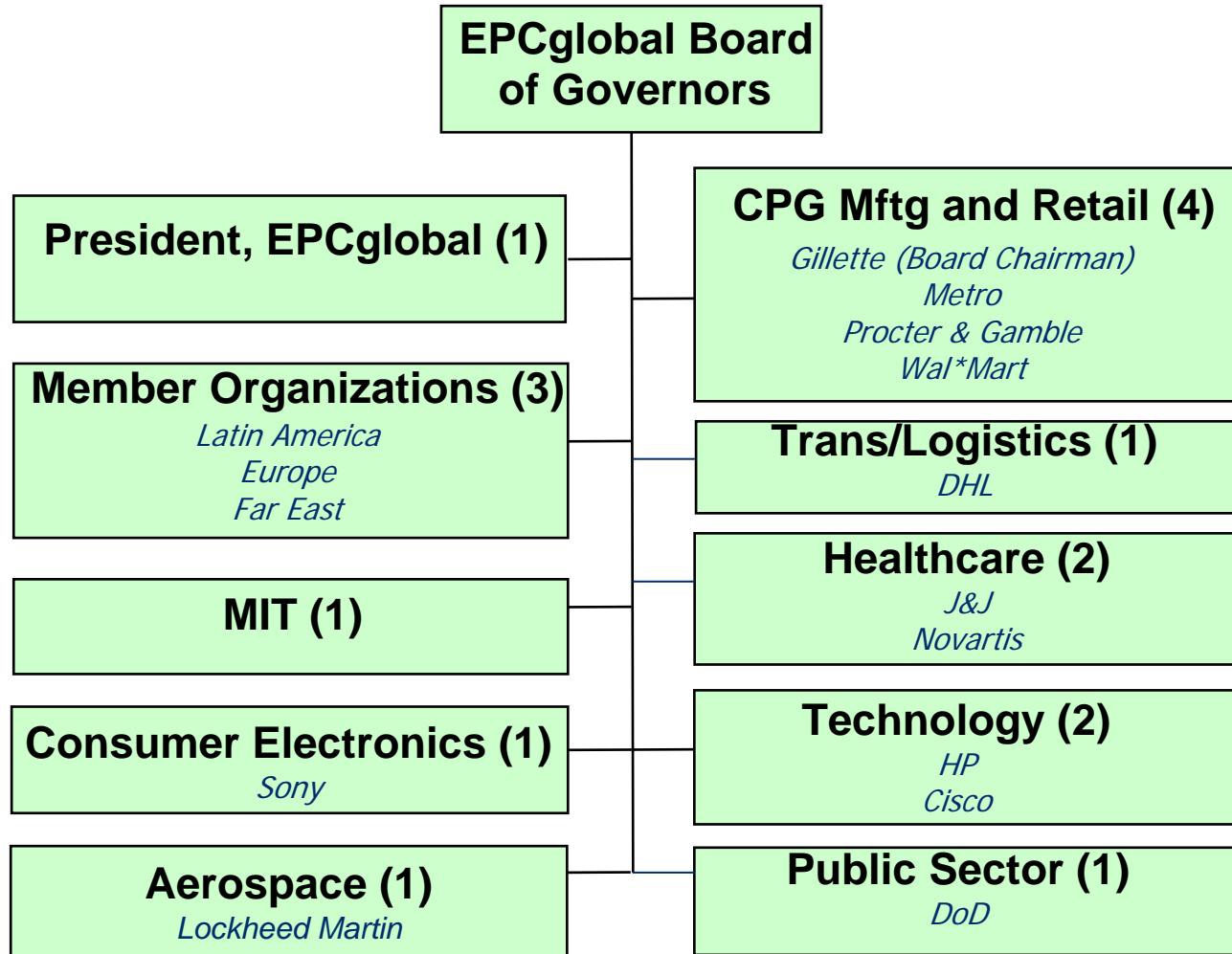
	June 2004	June 2005	June 2006	% Total
Asia	21	117	173	20%
Europe	36	87	166	19%
Latin America	0	5	24	3%
ME & Africa	2	3	13	1%
North America	132	372	499	57%
Total	191	584	875	100%

- Each EPCglobal member joins once in the location of their head office





EPCglobal Board of Governors





Rapid progress continues

Standards and Technology

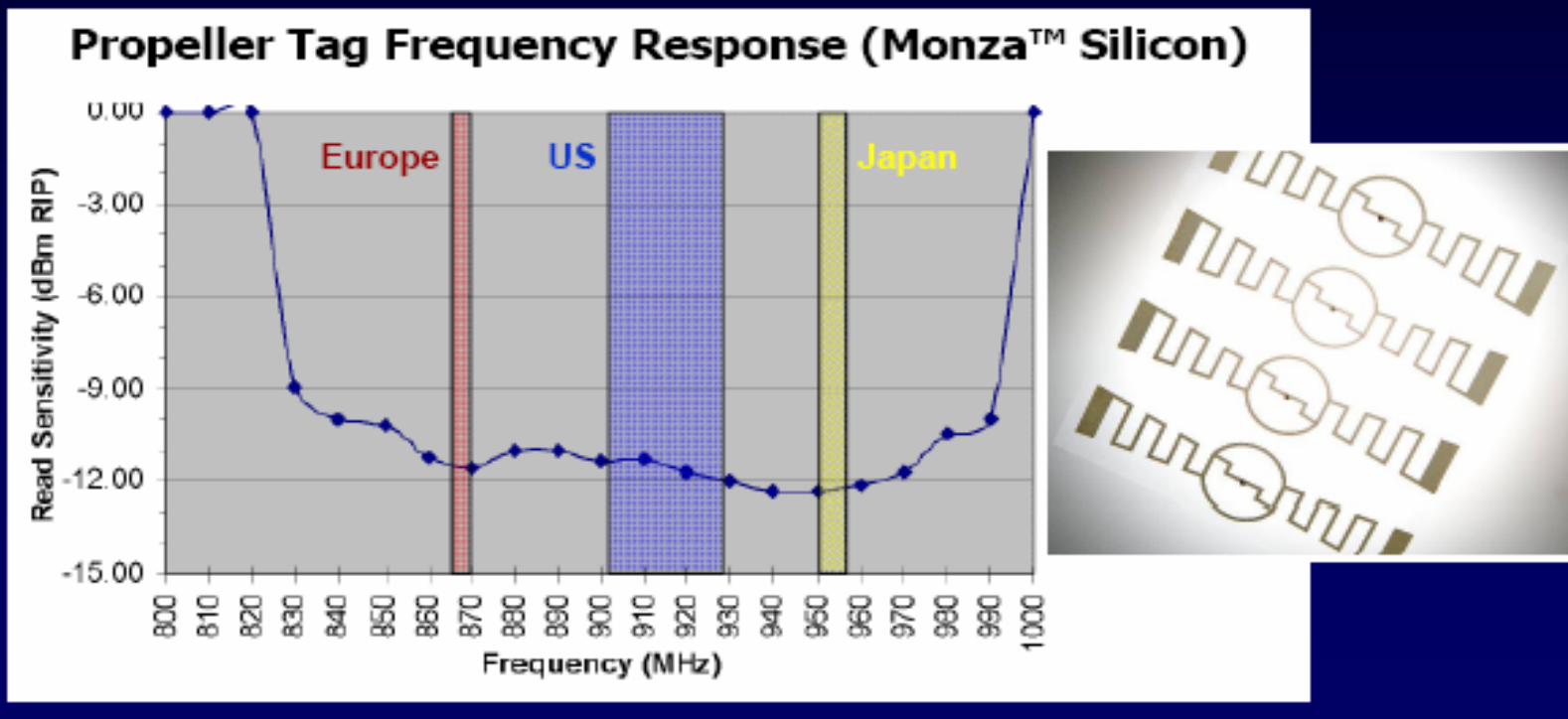
- **Gen 2 expectations**....the global standard for UHF
 - Global regulatory compliance
 - Fast read speed (>1000 tags/sec)
 - Memory write (>7tags/sec)
 - Dense reader operations
 - Kill security (32 bit password)
 - Low cost potential





Gen 2 can operate globally

- **Gen2 tags can operate worldwide**
 - Same tag operates in Asia/Europe/US
 - Have exceptional sensitivity across all regions
 - No need to use different tags for different locations

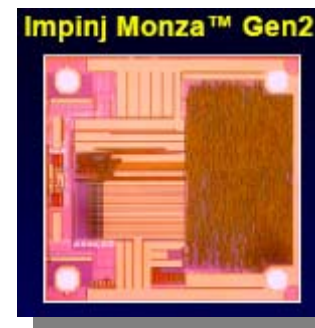




Gen 2 – the global standard for UHF

Standards and Technology

- **Costs**
 - Tag inlays < \$0.10 and coming down further
 - Not only about cost but also performance
- **Example:** Impinj Gen 2 Monza™ Tag
 - 10mtr read range, 8mtr write range
 - Writes 800 tags/minute
 - Over 100mm Monza tags shipped
- **Wide ranging feedback**
 - Gen 2 has exceeded expectations
 - Gen2 is becoming the implemented global standard (UHF)
- **ISO – 18000-6 Type C** now a published standard





Industry Development

2006 – discussion groups

- Aerospace and Defence
- Apparel, Footwear and Fashion
- Consumer Electronics
- Automotive
- Chemical

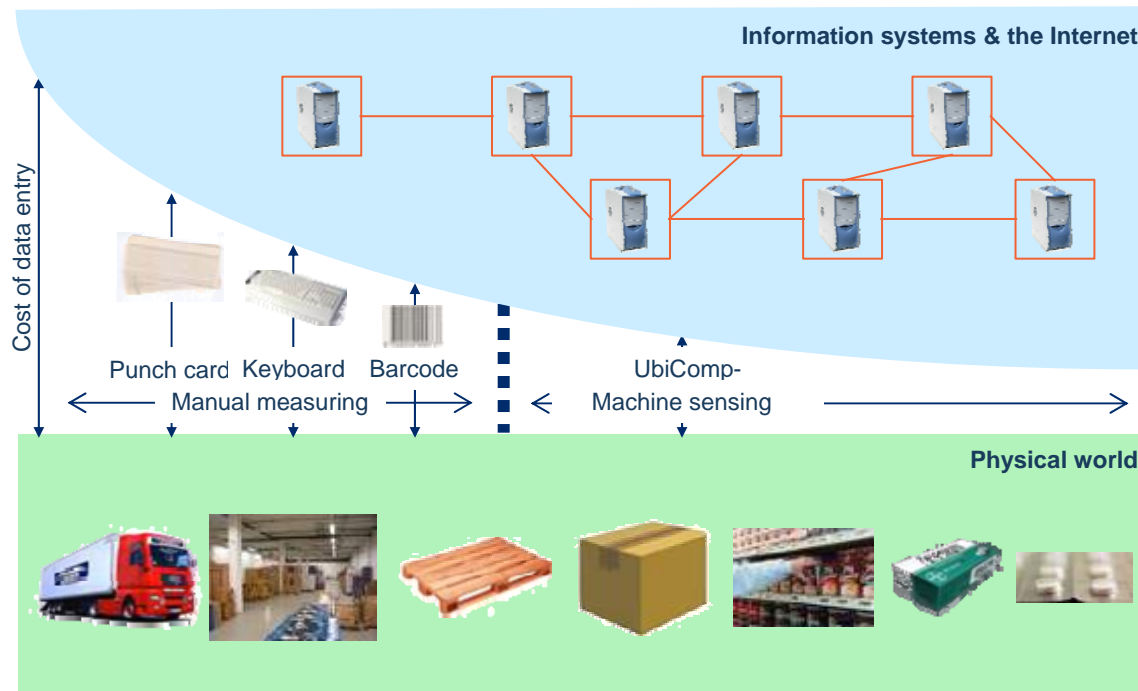
2007 – discussion groups

- Food and Beverage
- Oil and Gas
- Postal



We can only manage what we can measure.

- The lack of automatic measurement of the real world causes many business challenges

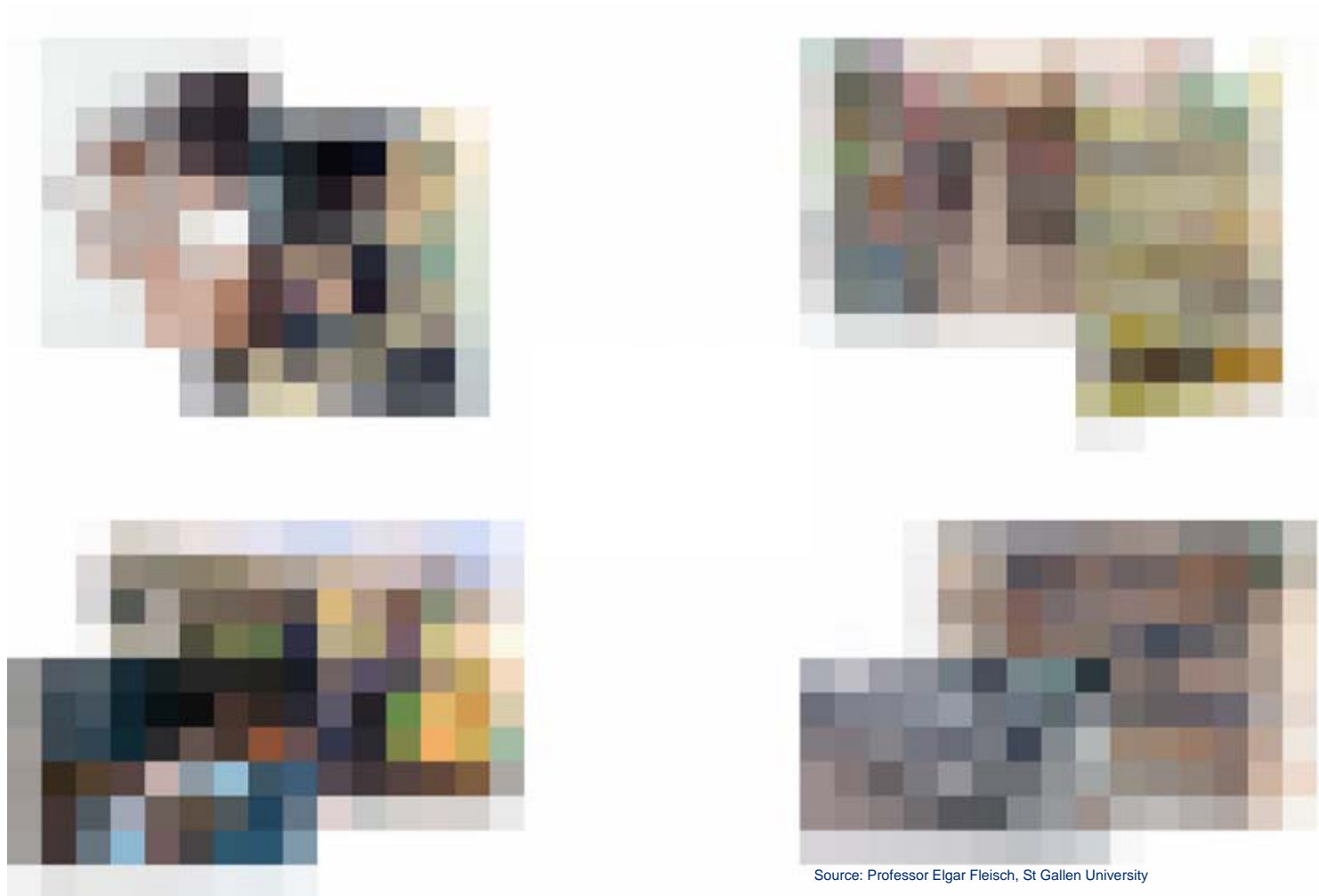


Source: Professor Elgar Fleisch, St Gallen University





Today's computers have no eyes and ears - blurred mapping of the physical world



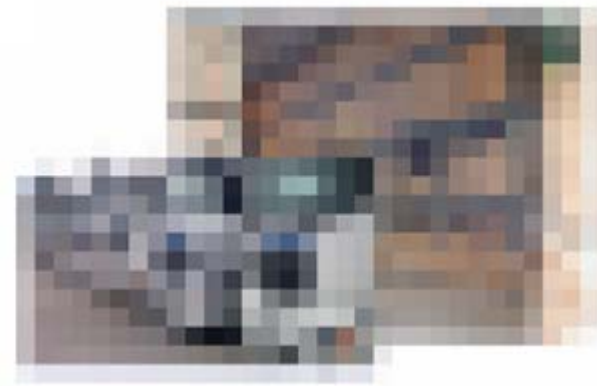
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Better measuring tools change the way we can manage



Source: Professor Elgar Fleisch, St Gallen University

Source: Professor Elgar Fleisch, St Gallen University





New technology improves the focus further



Source: Professor Elgar Fleisch, St Gallen University

Source: Professor Elgar Fleisch, St Gallen University





...machine sensing significantly advances the way we can do business.



Source: Professor Elgar Fleisch, St Gallen University

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Supply chain visibility

Potential to transform business process

The power of event related information - examples

- Improved customer availability
- Demand driven supply
- Reduced inventory and reduced errors
- Increased supply chain velocity
- Electronic Proof of Delivery
- Reduced counterfeit
- Improved ability to track and trace
- Shrinkage
- Returnable Assets

Transformation of commercial relationships



“I don’t skate to where the puck is but to where it’s going to be” Wayne Gretzky





Gillette Fusion Launch

EPC used in EPC-enabled stores to help ensure perfect retail execution to coincide with 2006 Super Bowl launch

The first new product packaging designed to be 'EPC-friendly'

EPC used on Fusion cases, sidekicks, PDQ trays and pallets

Pilot test - Two retail partners, four DC's and over 400 stores

High level of focus on this launch





Gillette Fusion Launch

“Actionable Visibility”





Reducing OOS and Inventory at Wal Mart

University of Arkansas study, October 2005.

- 24 Wal Mart stores (12 test, 12 control)
- **16% reduction** in out of stocks at the shelf
- Out of stocks for products with EPCs replenished **3x faster**
- Manual orders by stores **reduced by 10%** - inventory savings

Future plans and rollout

- 500 stores, 5 DCs end 2005. 1000 stores end 2006
- End 05 - >5 mio cases tagged, >77mio EPC reads

“This is no longer a ‘take it on faith’ initiative” *Linda Dillman EVP
and CIO Wal Mart*





Business Case examples

89%

- **DoD**
 - Improving “confidence” in the supply chain



99%

- **Baggage tracking**
 - Improving control and accuracy



20%

- **Apparel**
 - Improving customer availability through improved inventory accuracy and control





In summary...

EPCglobal ..from hope to hype to implementation

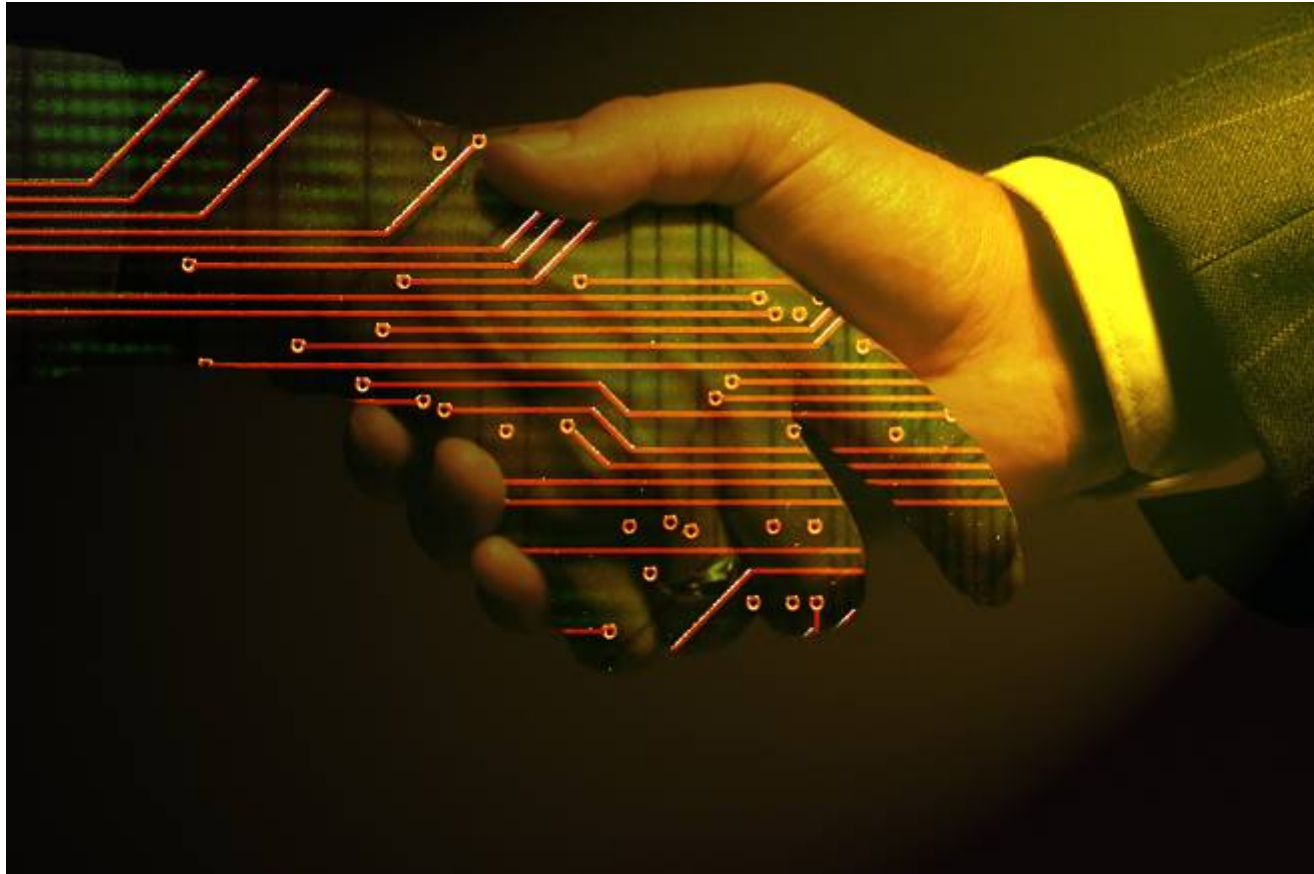
- The EPCglobal community grows stronger every day
- Physics and standards challenges are being overcome
- Prices are going down
- The benefits of “visibility” are starting to be realized
- The EPCglobal community has moved decisively from preparation to implementation

The race for business benefits and competitive advantage is on!!





EPCglobal – where technology standards meet business needs





Working together

Latin America's role

- EPC subscribers
- GDSN subscribers
- Very innovative activities e.g. Cabasnet, Logyca, traceability applications.....
- Role is to be more proactive, create clusters of expertise, centers of excellence.....Influence the World!
- GS1 can help





The challenges for Latin America

1. **Don't wait** for everything to be completed
2. **Use the time now** to prepare for the future
3. **Learn** from those who have already made progress
4. **Seize the opportunity** presented by this technology to make dramatic improvements in business process
5. **Transform** the commercial relationships you have with suppliers and customers



Work out the right balance between people and technology





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CECRAL, Bogota, 20/21 September 2006

THANK YOU!

