



EPCglobal Overview

UConnect 2007

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EPCglobal North America

The global language of business

www.gs1.org

EPCglobal's Promise

“An investment in EPCglobal delivers more measurable, hard-dollar benefits for your organization than any other RFID investment”

EPCglobal's Mission

**“Reduce the risks and costs
of implementing RFID
through a portfolio of
high-value subscriber
Offerings”**

GS1: a diversified portfolio

GS1 has a full portfolio of products and solutions



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



The EPCglobal Approach *Supporting Supply Chain Convergence*

Trusted business partner to shepherd industry transformation

- Neutral third-party status guarantees no misuse of information or breach of confidentiality
- No commercially-motivated agenda

Industry priorities and needs

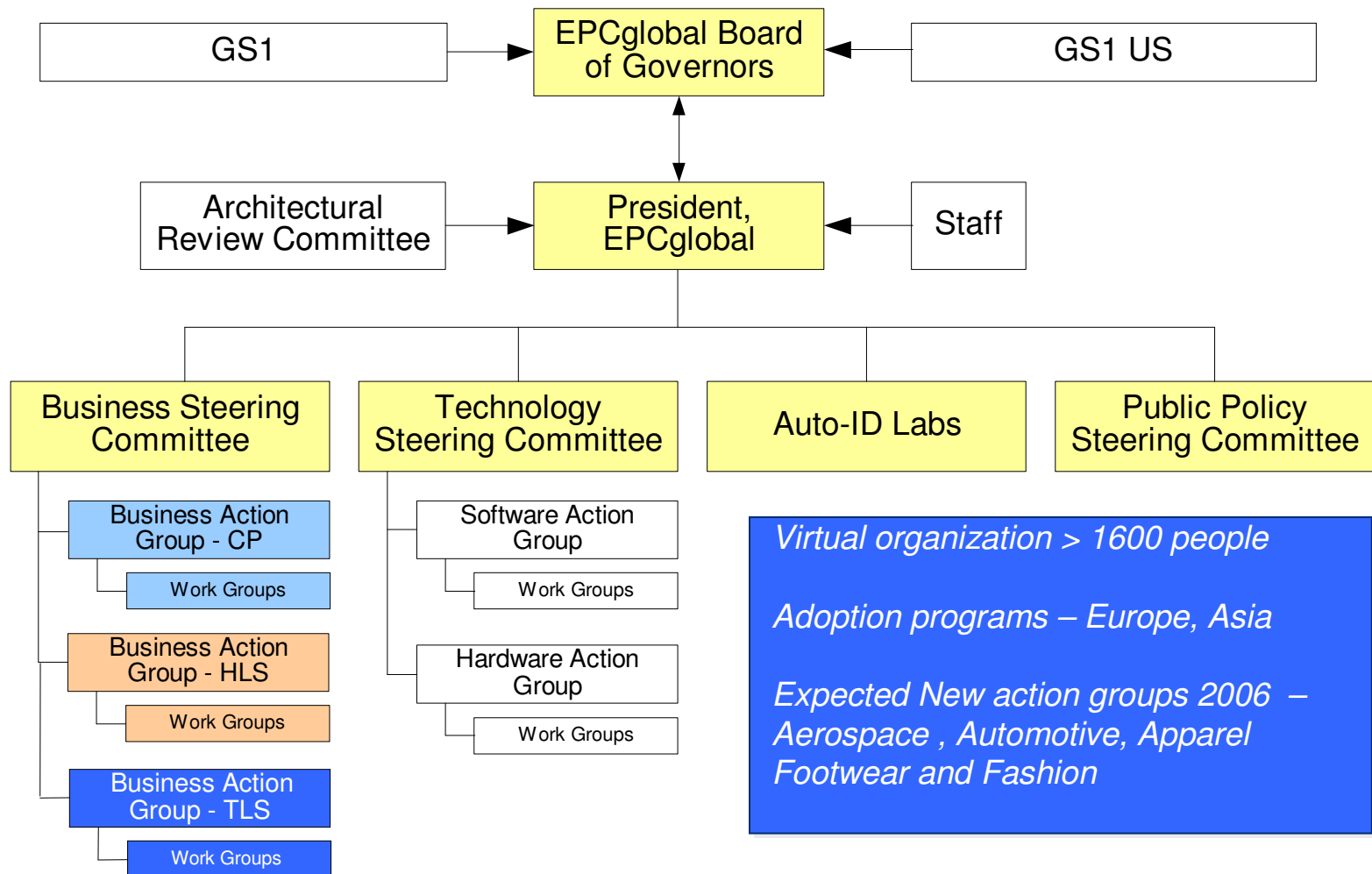
- “By industry, for industry” is the crucial success factor
- Avoidance of fragmented approaches is a must

The only successful path is a global approach

- Subscribers determine priorities and initiatives, not EPCglobal
- Directly engage industry associations, standards bodies, and governments (i.e. ISO, FDA, China, etc.)

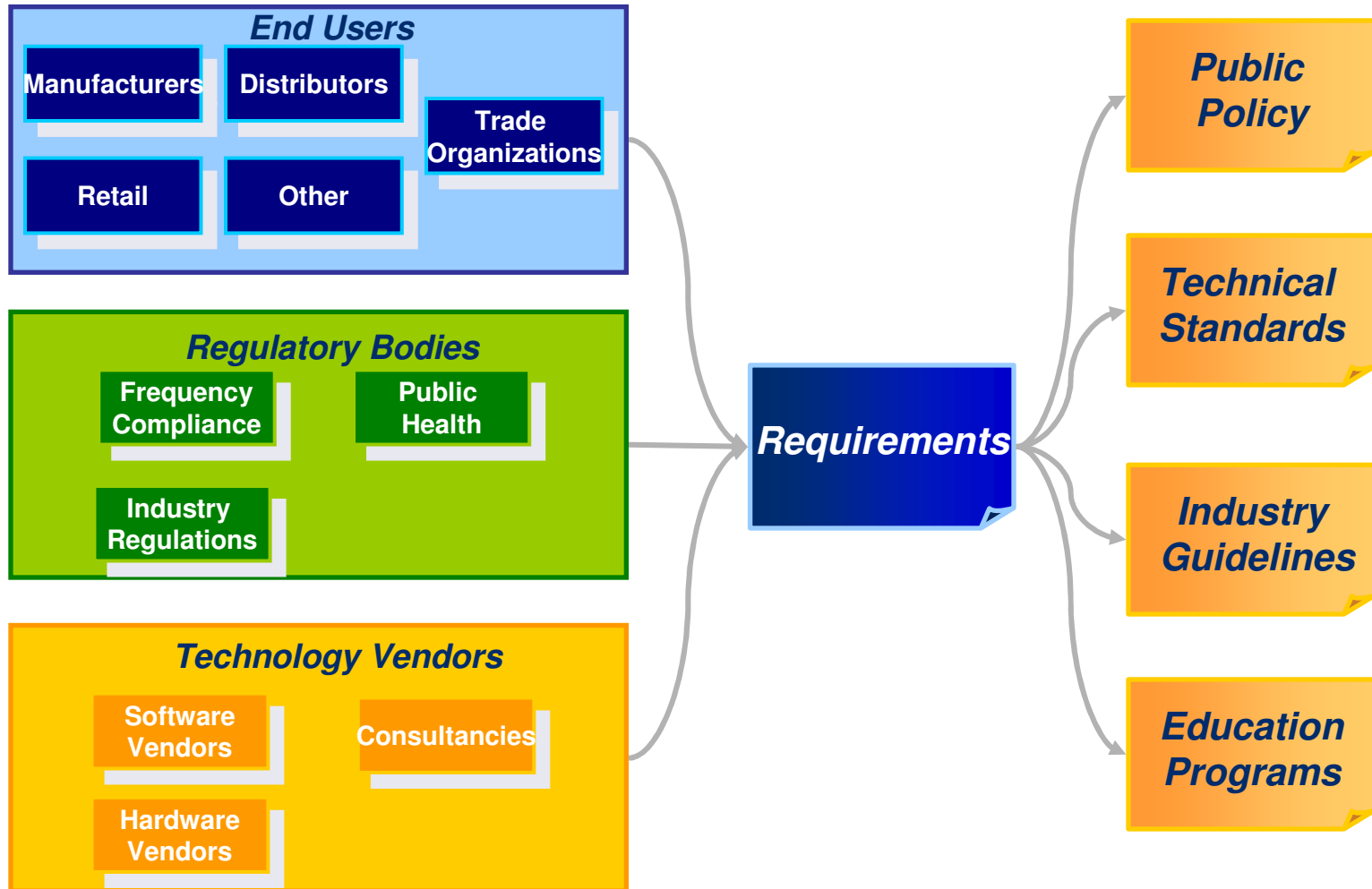


The EPCglobal Approach Supporting Supply Chain Convergence



The EPCglobal Community

Pulling diverse organizations together



Progress in Core Markets



Through New Industries

Aerospace & Defense



Honeywell



Chemical



ExxonMobil



Industrial

3M



Footwear & Apparel

PERRY ELLIS

JOCKEY™

Levi Strauss & Co



Automotive



PACCAR Inc



EPCglobal research partners – Auto ID Labs

- **Cambridge - UK**
- **MIT – USA**
- **Adelaide - Australia**
- **St. Gallen – Switzerland**
- **Fudan – China**
- **Keio – Japan**
- **ICU – South Korea**

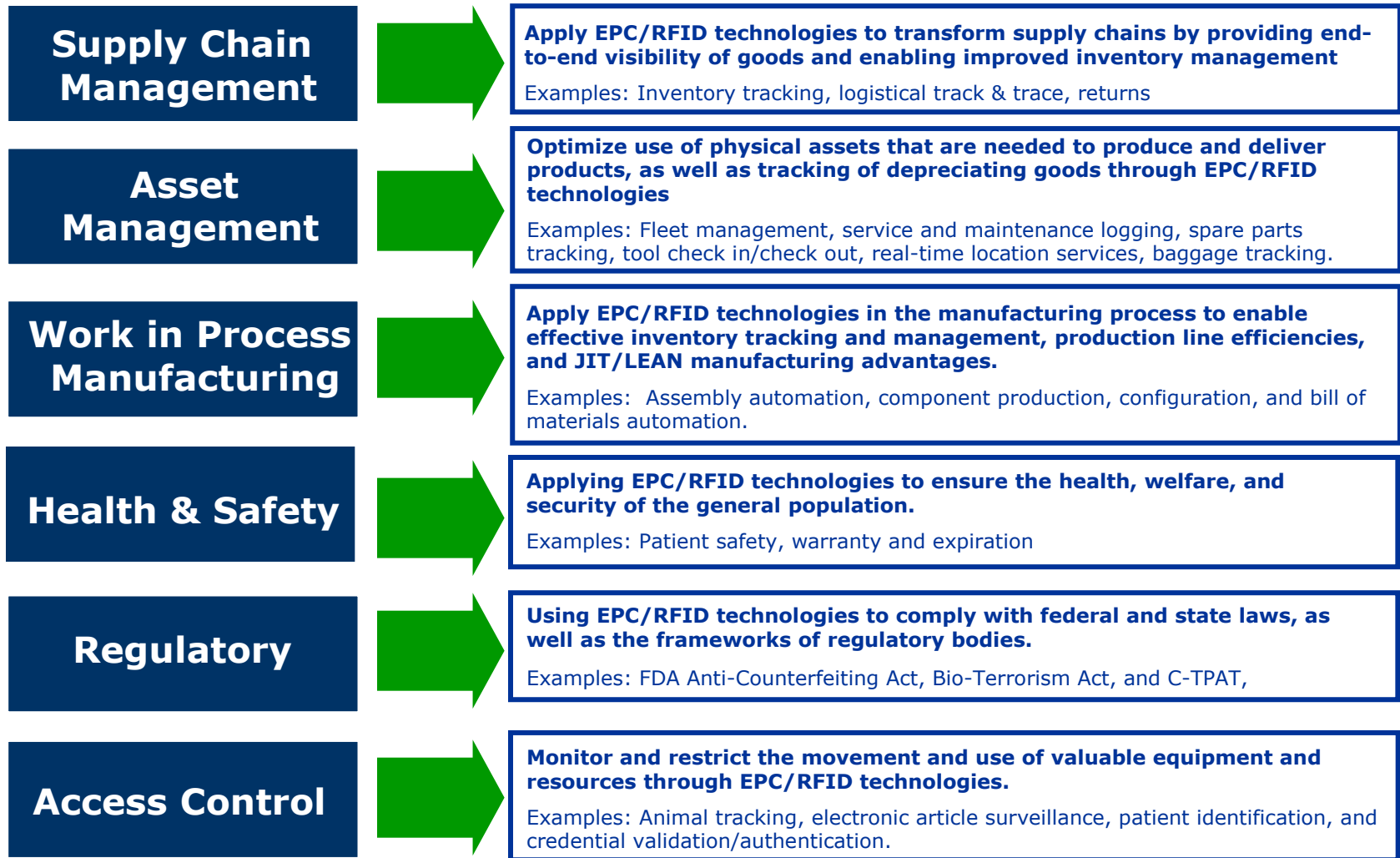


Widening scope to include other research organizations globally.
Academic Convocation, Cambridge (MIT) January 2006



EPCglobal's Areas of Focus

High-Impact Areas of EPC/RFID Implementation



Subscriber Tools

Products & Services Available to the Subscriber Community

Getting Started

Mastering EPC/RFID: The basics from how to assemble your own EPC to the functionality of RFID components.
How to Get Started with EPCglobal

Financial Planning

Financial KPI Guidelines
Current and Future State Assessments
ROI Assessment and Business Case Planning
EPC Value Models
Industry Issues and Drivers Overviews
RFID Cost Tutorial

Internal Implementation Planning

Implementation Project Plan, Process and Quick Guide
Critical Path Planner
Blueprint and timeline to implement in phases and define deliverables
Papers addressing specific technical challenges
Learnings from the Field

Vendor Selection

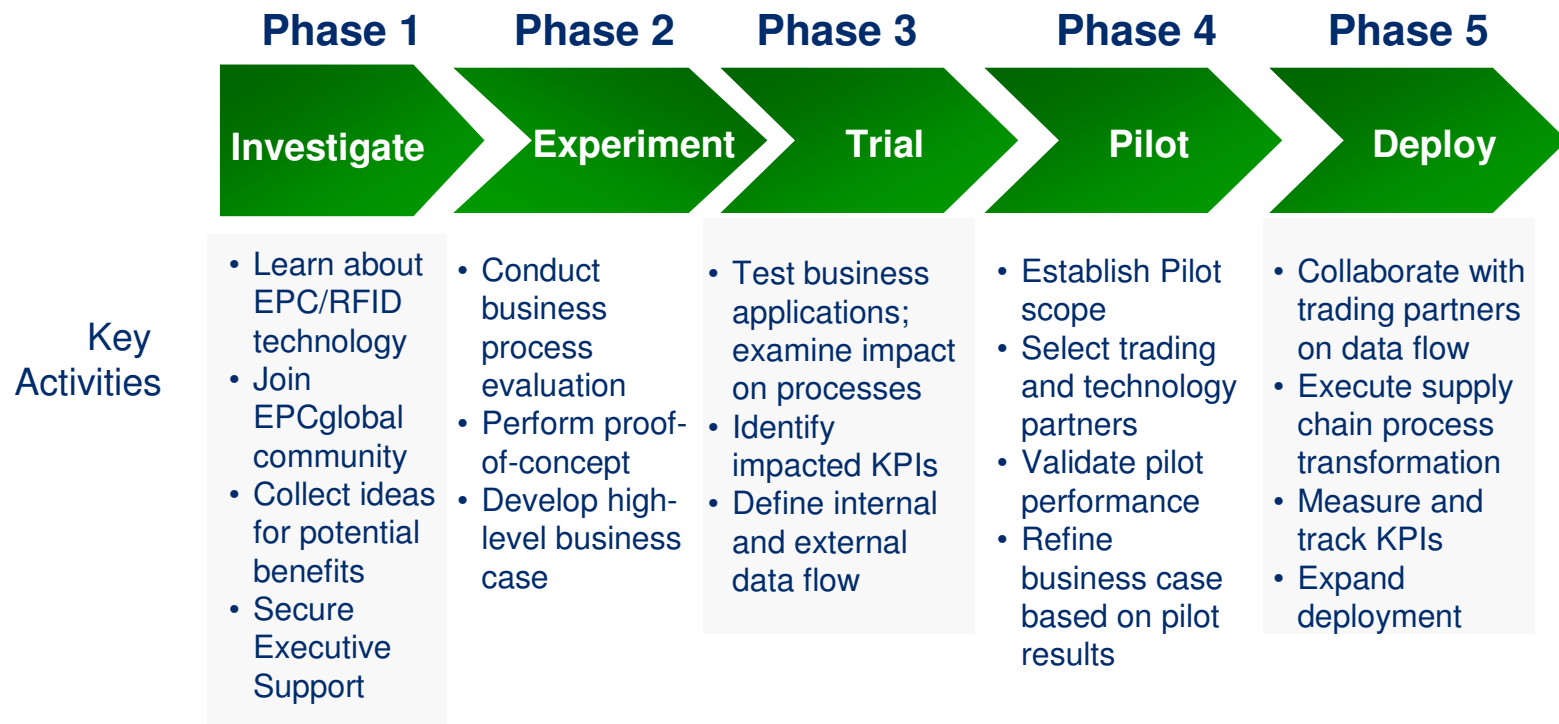
Guidelines on selecting Tags, Readers, Consultants
Sample RFP / Checklists
System Integration Project Plan
Vendor Marketplace

- Vendor Profiles
- Hardware Certification
- Software Certification
- Accredited Performance Test Centers
- Interoperability Test Results

Trading Partner Adoption

Trading Community Adoption Scorecard: assess your suppliers
Trading Community Implementation Planner projects steps to meet agreed-upon tagging and data sharing needs
Trading Community Portal

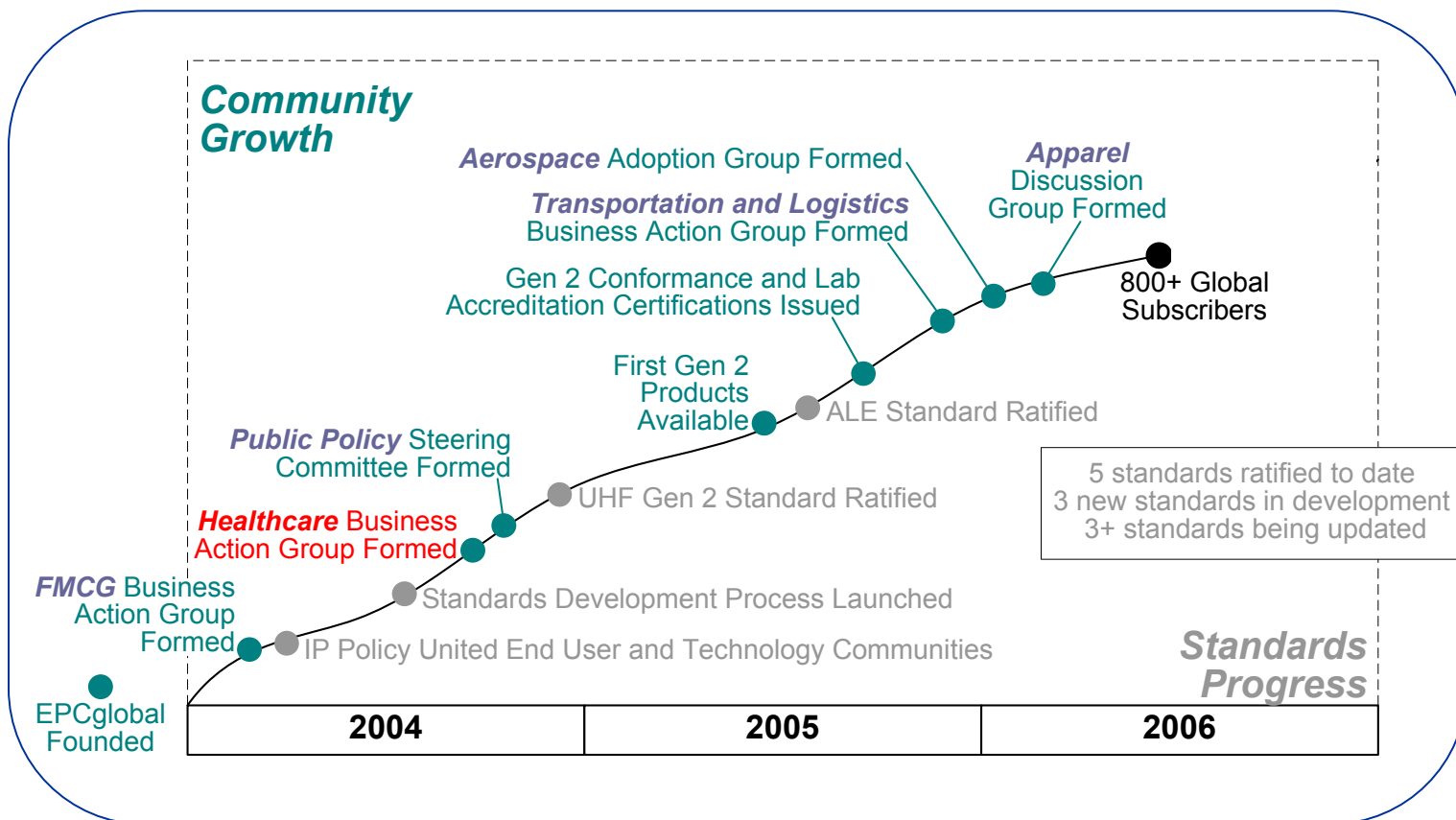
The EPCglobal Adoption Framework



Developed by the community from the experiences of our Subscribers, the EPCglobal Adoption Framework is a proven pattern for successful implementation.

EPCglobal Evolution & Execution

Rapidly Commercializing EPC/RFID



HLS Global Priorities

- Electronic Pedigree
- Item Level Tagging
- Serialization
- Track and Trace
- Supply Chain Integrity
- Tag Data Standard

Legislation for pedigree to prevent counterfeiting and diversion, product recalls (FDA and State).

Initiatives seeking to control regulated prescription drugs and track controlled substances

Participation from members, solution providers, regulatory agencies, trade associations



HLS IAG Participants

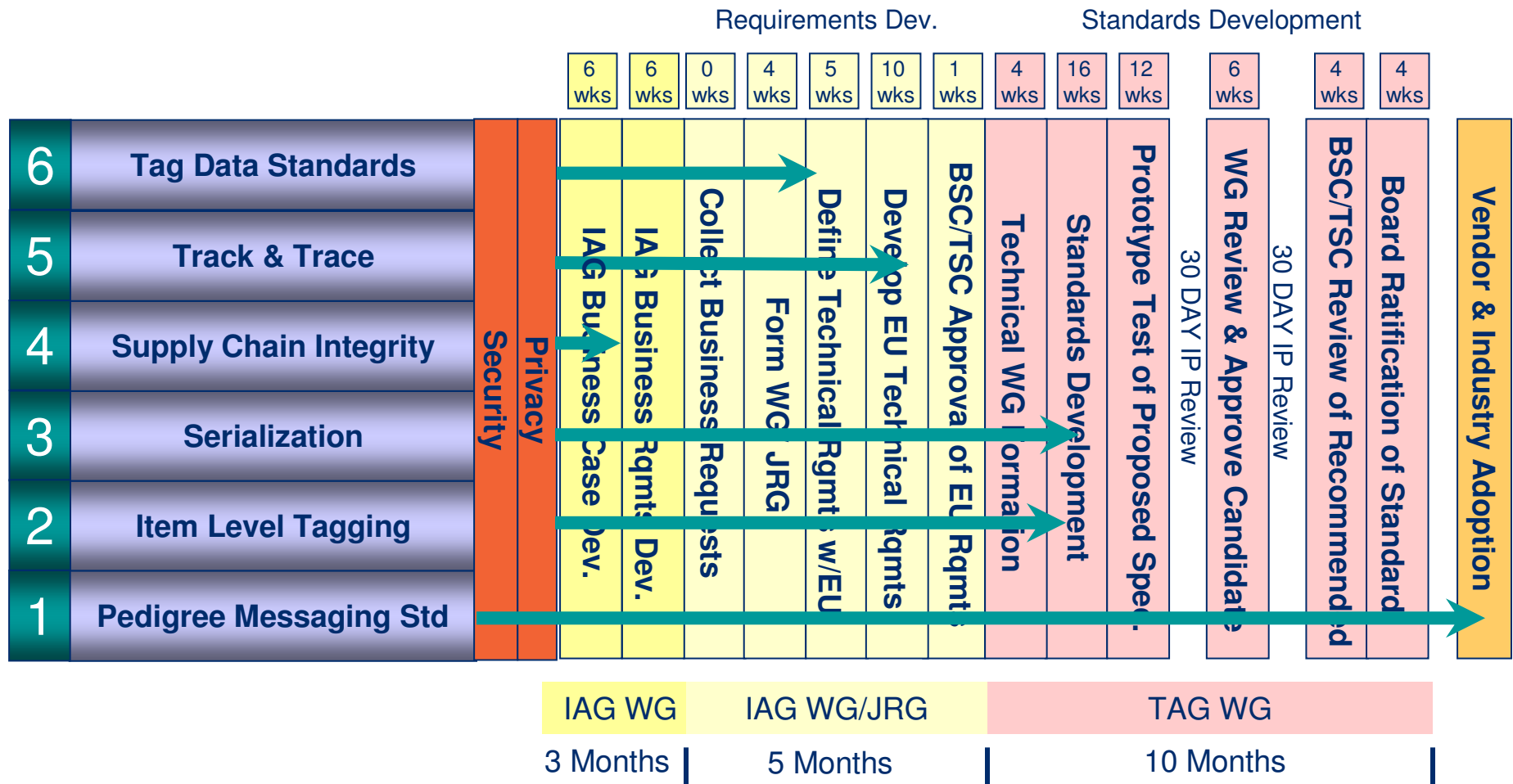
3M Pharmaceuticals
Abbott Laboratories
Ahold
Alcon
Amerisource Bergen
AstraZeneca
Aventis
Avery Dennison
Barr Laboratories
Baxter Healthcare
Bayer Healthcare LLC
BearingPoint
Becton Dickinson
Berlex Laboratories
Boehringer Ingelheim Pharma
GmbH&Co.KG
Cap Gemini Ernst & Young
Cardinal Health
CVS
Daiichi Pharmaceuticals
Endo Pharmaceuticals

Eon Labs
Ethicon Endo Surgery
FDA
Genzyme
Glaxo Smith Kline
Hoffmann-La Roche AG
Iapharm Pharmaceuticals
IBM
Janssen-Ortho
Johnson & Johnson
Kimberly Clark
Ligand Pharmaceutical
Mallinckrodt Pharmaceutical
McKesson Corp
McNeil Consumer & Specialty Pharmaceuticals
MeadWestvaco Corporation
MedPointe Pharmaceuticals

Merck & Co., Inc.
MIT/Auto-ID Center
Novartis
Pfizer Pharmaceuticals
Philips Semiconductors
Procter & Gamble Company
Purdue Pharma
Sandoz
Sankyo Pharma
SAP AG
Schering-Plough
SUN
SupplyScape
Unichem Ltd
Unisys
Wal-Mart
Watson Pharmaceuticals
Wegmans
Wyeth
ZF Polpharma SA



EPCglobal / HLS Standards Activity



*highlight activities cross multiple industries



Standards Update

6	Tag Data Standard
5	Track & Trace
4	Supply Chain Integrity
3	Serialization
2	Item Level Tagging
1	Pedigree Messaging Std

Define a standard format for a Pedigree Messaging standard that will meet all current Federal and State Pedigree requirements.

Status:

- All Standards work complete.
- **Ratified standard – 01/2007**
- Certification Program underway



Standards Update

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Define requirements for tagging pharmaceuticals at the item level. Include requirements for manufacturing lines, distribution environments, transportation and Retail environment.

Status:

- Requirements complete. Resulted in a High Frequency technical working group to define the standard.
- HF & UHF initiatives underway to provide uniform air interface protocol at item level.
- HF Standard expected '07.

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Define requirements for the EPC identifier to be encoded on an RFID tag.

Status:

- Requirements complete. Identified 2 GS1 identifiers [Global Trade Item Number (GTIN) and Serialized Shipping Container Number (SSCC)] to be used.
- Collaborating with GS1/HUG via the “Global Healthcare Initiative” -- starting with Serialization.
 - Joint HUG/HLS Work Team

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Define requirements and/or guidelines for authenticating and decommissioning tags consistent with optimizing tag utility and consumer/patient privacy.

Status:

- Work Group has been approved and will start in March 2007
- US Drug Enforcement Agency interest in this capability is extremely high
- Solutions expected to span a mix of hardware, software and process responses
- Potential for this work to expand cross-industry



Standards Update

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Define supply chain use cases, processes and information needs for sharing EPC related data for forward and reverse logistics.

Status:

- Forward & Reverse Logistics (Returns) processes and data exchanges completed
- Common vocabularies and location identifiers drafted
- Additional use cases to be addressed:
 - 3rd Party Logistics Providers & Repackers
 - Product Recall
- Data Sharing Strategy & Guidelines are currently being addressed
- Pedigree-on-Demand concepts being Investigated
- Integrate with GS1 Traceability efforts



6	Tag Data Standards
5	Track & Trace
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Define additional user memory requirements for tags (ie. Lot Number, Expiration Date).

Status: Work underway. Defining common data structure that can be used by all industries.

World beating strategy.....

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



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





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