



The European Adoption Programme: EPC deployment in Europe

Steve Hodges

17th September 2003





EAP – THE EUROPEAN ADOPTION PROGRAMME

- Vision and approach
- End user objectives and plans
- Technology support
- Mechanics

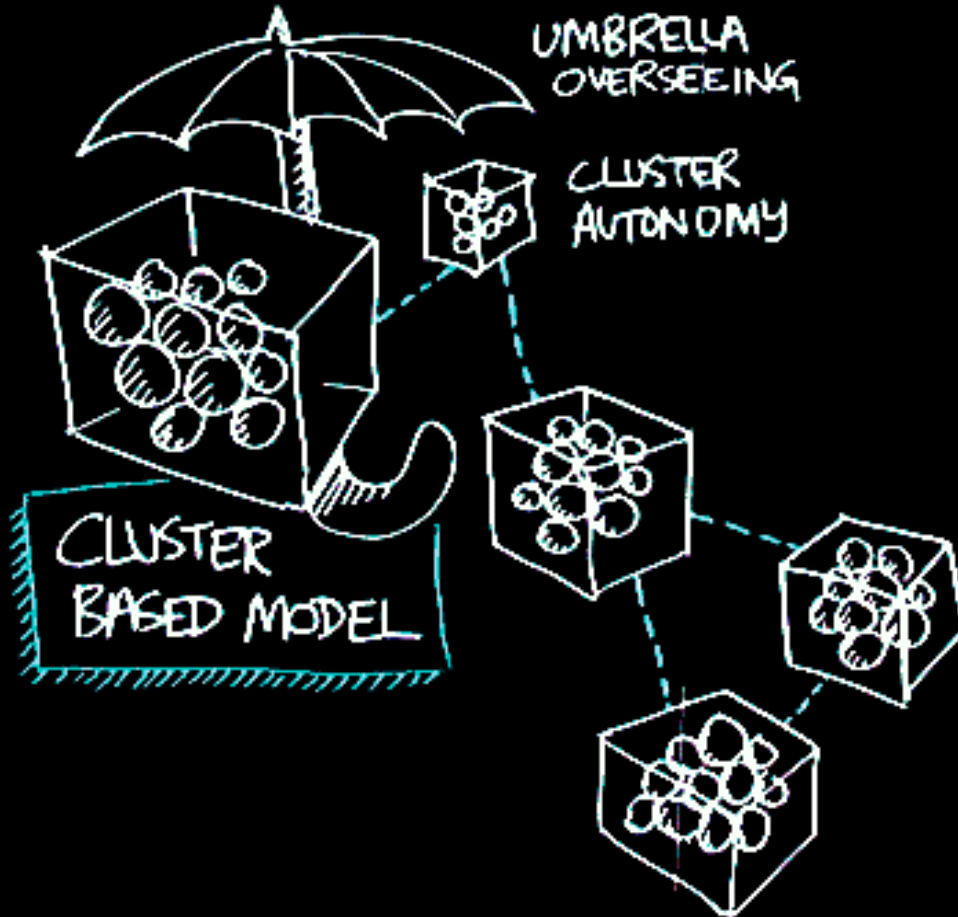


EAP VISION

- Develop and test Auto-ID technology
- Develop, understand and verify business models
- Deploy Auto-ID technology
- European focus



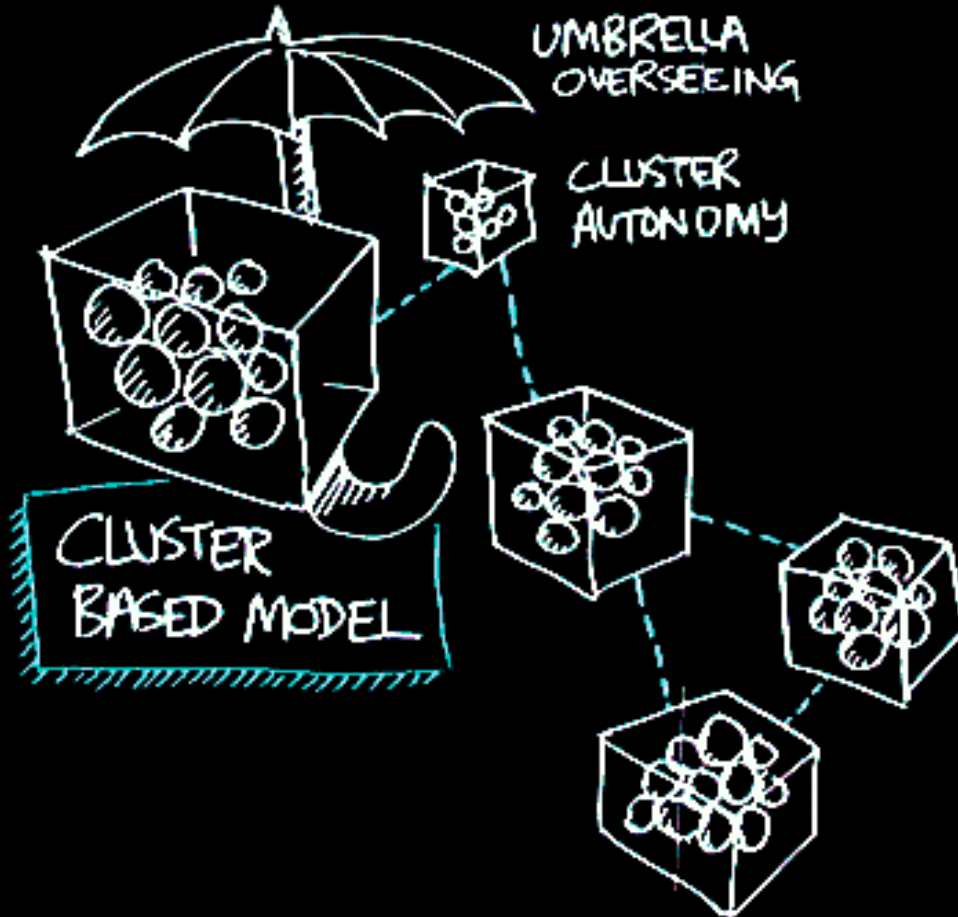
EAP OPERATING MODEL: CLUSTER-BASED ACTIVITIES WITH UMBRELLA COORDINATION



- Pilot activities are set up by groups of companies
- Similar pilot activities may be grouped into clusters
- Work in clusters is autonomous
- Provides a hierarchical approach to coordination
- Supports company ROI whilst furthering higher level objectives of the EAP



EAP OPERATING MODEL: CLUSTER-BASED ACTIVITIES WITH UMBRELLA COORDINATION



- Independent ‘honest broker’ umbrella coordination
- Prevent duplication of effort
- Consistent technical advice
- Information repository for sharing experience/learning
- Consistent and complete external representation
- *Not* project management, implementation



COMPANIES SHOWING INTEREST IN THE EAP

- Accenture
- Ahold
- Alien
- Asda
- BT
- Cap Gemini Ernst & Young
- Carrefour
- Chep
- EMS
- Gillette
- Kimberly Clarke
- Kodak
- IBM
- Intel
- Invensys
- Manhattan Associates
- Markem
- Mead Westvaco
- Metro
- Nestle
- OAT Systems
- Philips
- Proctor and Gamble
- Rafsec
- SAP
- Siemens
- ST Microelectronics
- Tagsys
- Tesco
- Tyco/sensormatic
- Sun Microsystems
- Unilever



EAP – THE EUROPEAN ADOPTION PROGRAMME

- End user objectives and plans
- Technology support
- Mechanics



END USER OBJECTIVES OF THE EAP

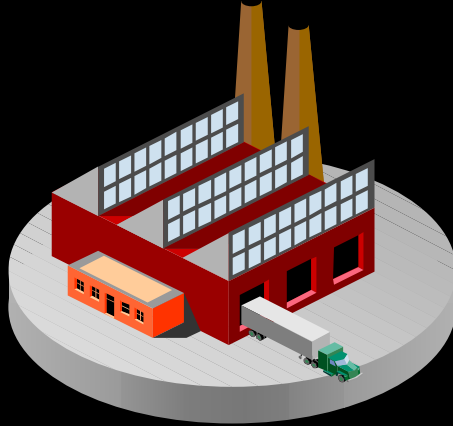
In conjunction with
accenture

- Prove Auto-ID business value at scale
- Jumpstart and promote European adoption of Auto-ID
- Drive standards and compliance with them
- Accelerate understanding of how to deploy Auto-ID
- Leverage the momentum in individual companies
- Motivate suppliers to provide solutions for Europe
- Form consistent viewpoints on issues & coordinate action
- Promote the consumer benefits of Auto-ID technology



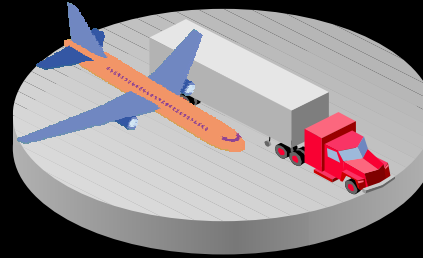
AUTO-ID DEPLOYMENT VALUE EXPRESSED BY END USERS

In conjunction with
accenture



Manufacturer

- On-shelf availability**
- Warehouse efficiency**
- Reduced inventory**



Logistics provider

- Asset Utilization**
- Operational Efficiency**
- Security**



Retailer

- Reduced inventory**
- Lower logistics costs**
- Labour reduction**

Consumer benefits

- Reduced out-of-stocks**
- Targeted promotions**
- Better recalls**

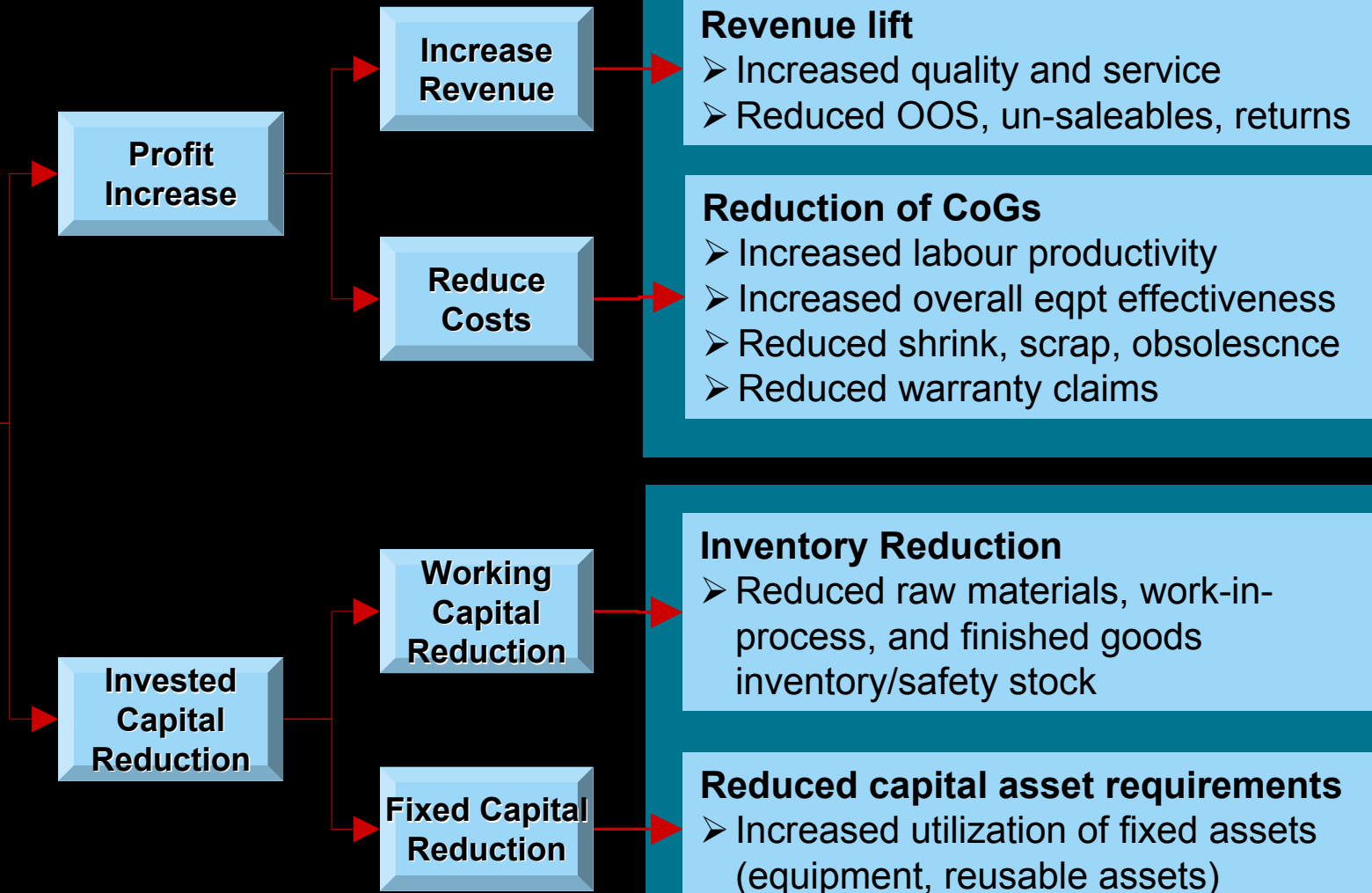


AUTO-ID DEPLOYMENT VALUE EXPRESSED BY END USERS

In conjunction with
accenture

Value Drivers

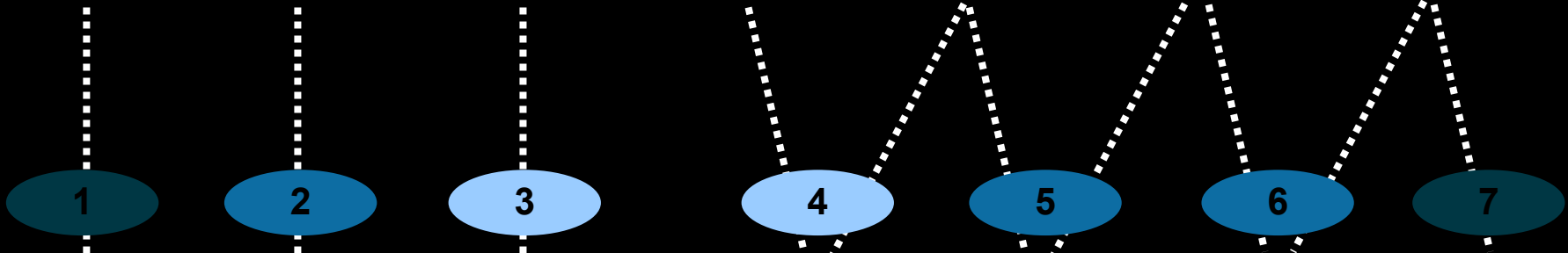
Value Levers





STAGES OF THE FMCG RETAIL SC AND INTEREST FOR EAP DEPLOYMENT

In conjunction with
accenture



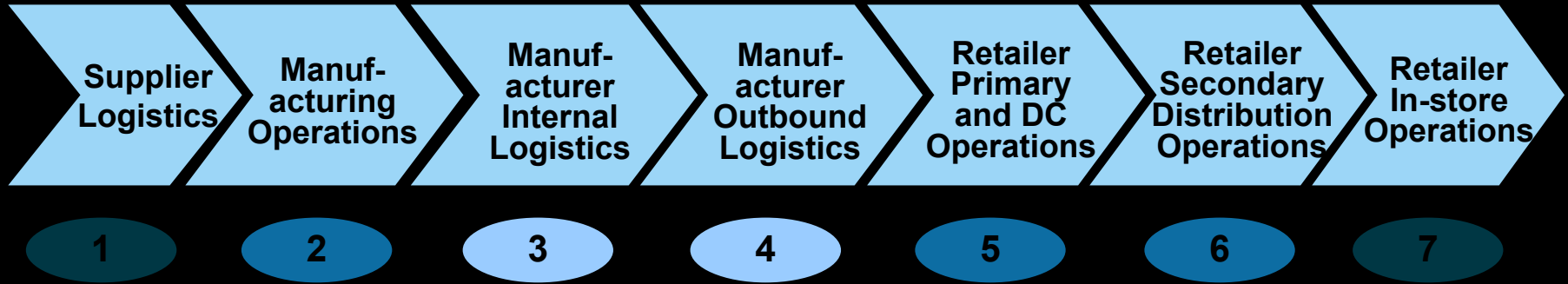
Supplier raw material shipping & manufacturing; Site stores receipt	Internal manufacturing plant operation	Manufacturing plant outbound logistics	Manufacturer DC shipping to retailer DC	Retailer DC operation	Retailer DC shipping to retailer store and delivery processing	Store merchandising to shelf & customer purchase
---	--	--	---	-----------------------	--	--

Level of interest: weak medium strong



STAGES OF THE FMCG RETAIL SC AND SPECIFIC INTEREST

In conjunction with **accenture**

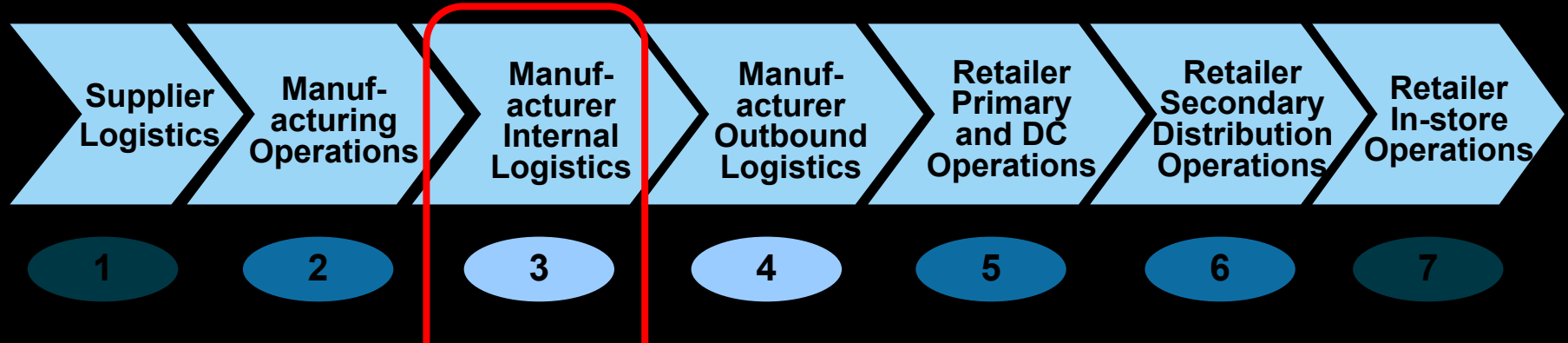


Level of interest: weak medium strong



EAP CLUSTER: TRACKING FG IN MANUFACTURER'S LOGISTICS CHAIN

In conjunction with
accenture



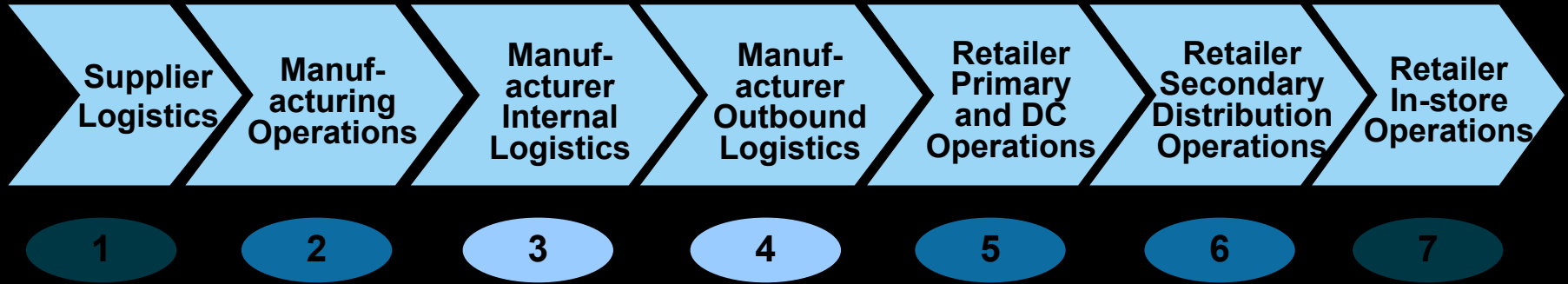
General supplier	General supplier	General supplier				

Interest in cluster involvement:



EAP CLUSTER: 'CLOSED LOOP' REUSABLE LOAD CARRIER TRACKING

In conjunction with
accenture



General supplier

General supplier

General supplier



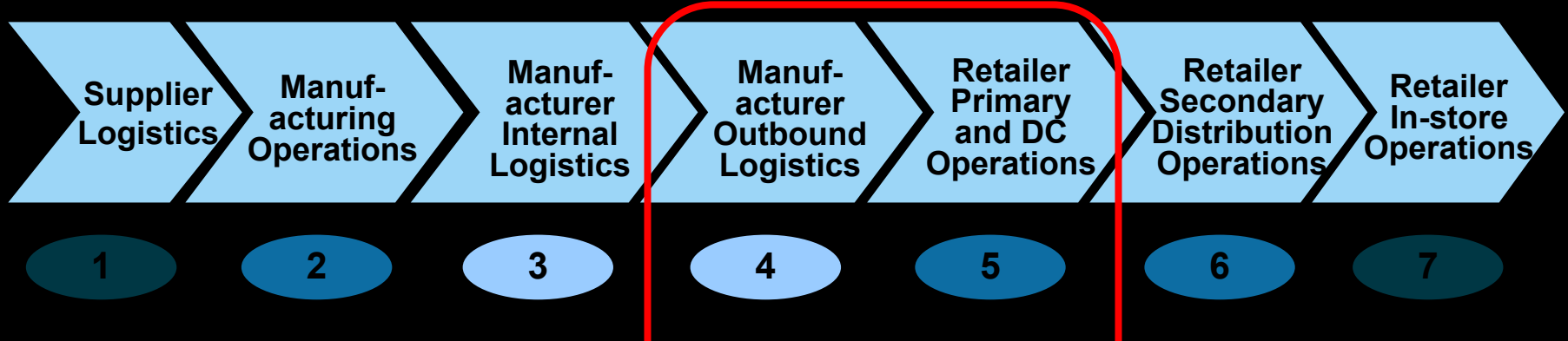
Interest in cluster involvement:





MANUFACTURER DC TO RETAILER DC – ORDER PREPARATION TO RECEIPT CONFIRMATION

In conjunction with
accenture



General supplier	General supplier	General supplier				

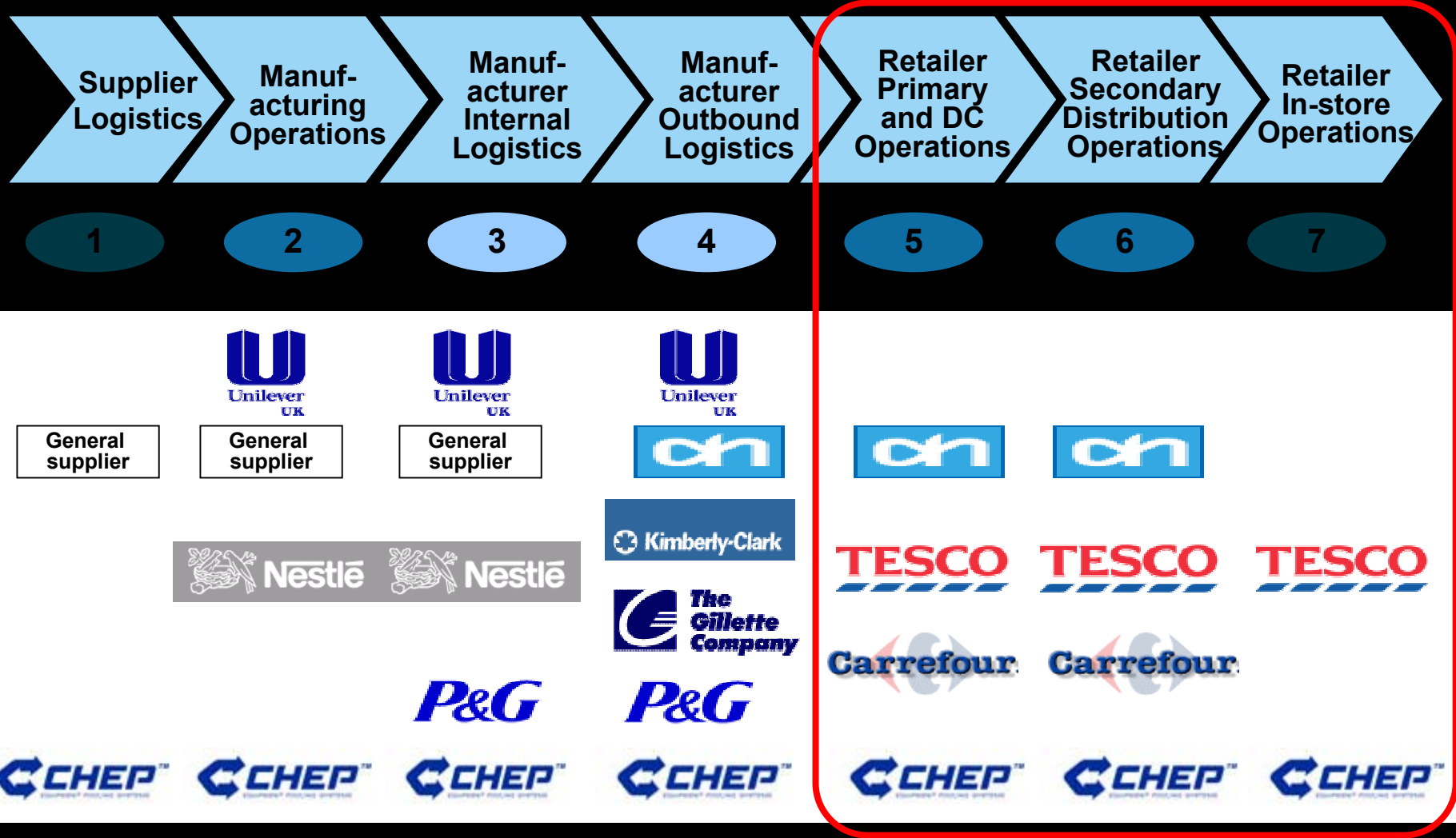
Interest in cluster involvement:





EAP CLUSTER: RECEIPT INTO RETAILER DC AND THROUGH TO BACK OF STORE

In conjunction with **accenture**



Interest in cluster involvement:





ANTICIPATED EAP TAGGING LEVELS

In conjunction with
accenture

Company	Bulk	Pallet	Case	Load Carriers	Item
1	X	X	X		
2	X	X	X		
3			X		
4		X	X		
5		X	X		X
6		X	X		
7		X	X	X	
8		X	X		X
9		X	X	X	

2003-04

2005-06

2007-09

“Do you need the pallet level if you can get to case level?”

“Case level adoption for the majority of cases shipped by 2007”

“I’m not seeing item level as an early phase”



ANTICIPATED EAP TAGGING LEVELS

In conjunction with
accenture

Company	Bulk	Pallet	Case	Load Carriers	Item
1	X	X	X		
2	X	X	X		
3			X		
4		X	X		
5		X	X		X
6		X	X		
7		X	X	X	
8		X	X		X
9		X	X	X	

100-200k pa

5-50M pa

100-300M pa

One view: adoption is ongoing over a decade and the architectures will develop to support high volumes

Another view: high volumes are required to stress test the activity

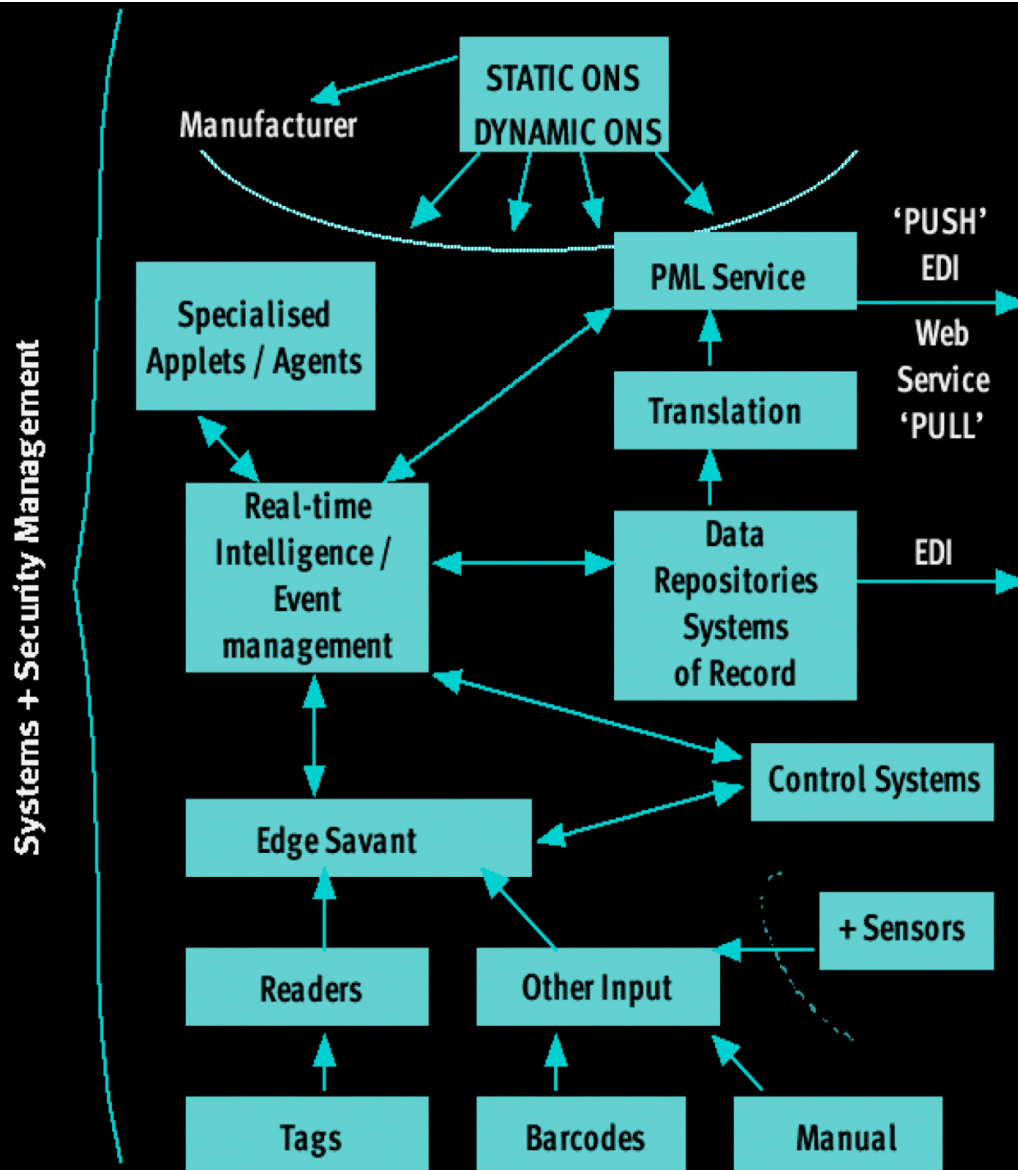


EAP – THE EUROPEAN ADOPTION PROGRAMME

- Technology support
- Mechanics



EAP TECHNOLOGY SUPPORT – THE ARCHITECTURE



- Filtering to turn bleeps into business events
- Events generated
- External interface
- Robust systems and security management throughout



EAP TECHNOLOGY SUPPORT – THE COMPONENTS



		Available Q1 2004?	Proto-type	Beta version	Finished product	Comments
Real time intelligence/ biz process control		✓			✓	Subject to requirements
Integration/ business systems		✓			✓	Subject to requirements
PML	language	✓	PML core		PML core	
	service	✓	✓			
ONS						Not necessary considering closed loops or limited info exchange with the product
Edge Savant		✓		✓	✓	OAT are implementing, 3-4 other systems expected in Q1
Readers	868 MHz	✓			✓	Subject to standards + EU requirements
	13.56Mhz	✓			✓ *	*Not EPC standard, Philips will have them in Q1
Tags	868 MHz	✓			✓	
	13.56 MHz	✓	✓ auto-ID standard		✓ *	*Not EPC standard, Philips will have them in Q1b



RF SPECTRUM LEGISLATION WITHIN EAP REGION

- Technical and political considerations
- Iterative path seems the most pragmatic
- Between them, EAP members have a powerful voice
- ETSI EN 302 208-1 is a very good starting point
- Long term goal may be further changes
- In dialogue with European Commission



EAP – THE EUROPEAN ADOPTION PROGRAMME

- Mechanics



EAP – MECHANICS OF OPERATION

- European Auto-ID Centre initiated activity
- Support from consultancies and others
- Working with EAN and MOs
- EAP will likely become a regional activity within UAG
- Some EAP activities will transition to EAN
- Meet (changing) objectives described earlier





EAP – MECHANICS OF OPERATION

- Website

<http://www.autoid-eap.org>

- Next meeting dates (see website)

Wednesday 22nd October 2003, London

Tuesday 2nd December 2003, Geneva

Tuesday 13th January 2004, TBD

- Contact (see website)

as2@eng.cam.ac.uk