

Presented by

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Airbus Executive Overview

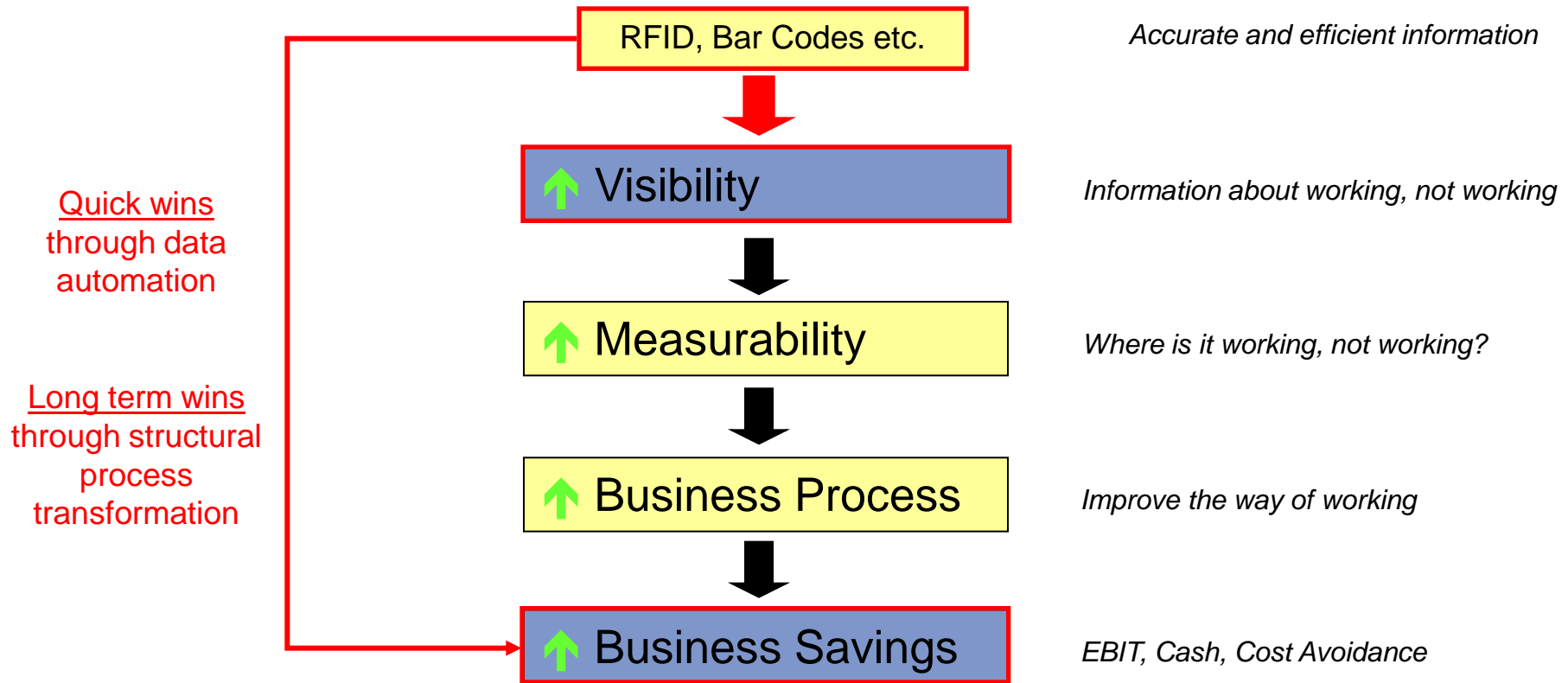
Value Chain Visibility & Auto-ID

MACRO CHALLENGES

- 18 design/manufacturing/assembly sites across the world
- Exchange rate pressures
- New aircraft programmes (A380, A400M, A350, tanker/transport)
- Production rate increases
- Power 8+ programme
- Clear focus on enterprise eco-efficiency

Constant pressure for continuous improvement and innovation

Why Increase Visibility? Why RFID?

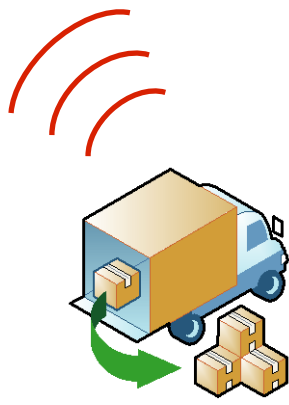


Improving visibility is a pre-requisite to improve the “way of working” and deliver business savings

RFID + PROCESS MONITORING

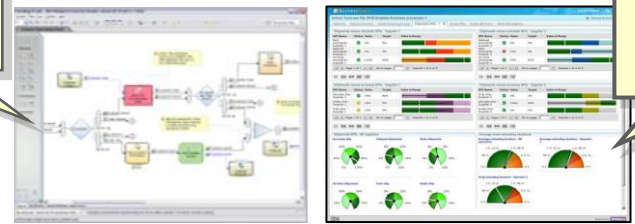
Enables Process Improvement

RFID

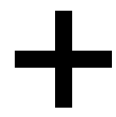


Set Alert parameters for process steps

Process Monitoring



Monitor performance against targets



KPI trend and prediction



Automation

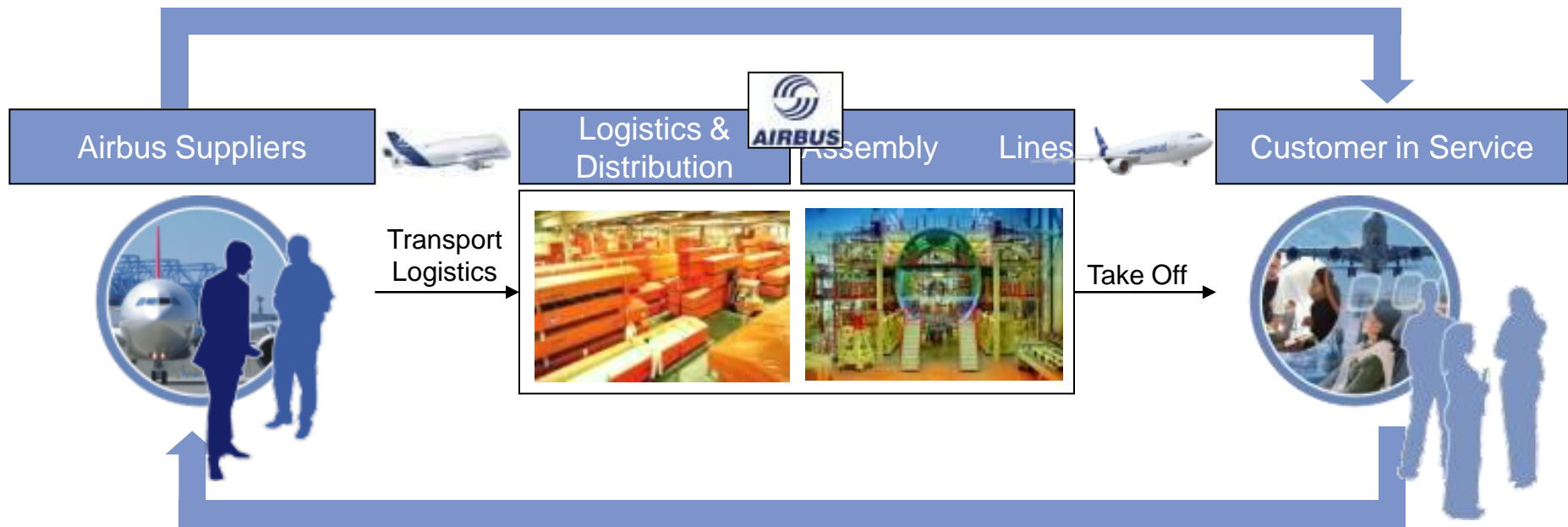
- ↑ Productivity
- ↑ Quality
- ↓ Cycle time

Real time reporting

- ↑ Process Optimisation
- ↓ Identify Variations
- ↓ Automated Alerts

RESULT = Leaner and more competitive business processes

What is Value Chain Visibility and Auto-ID?

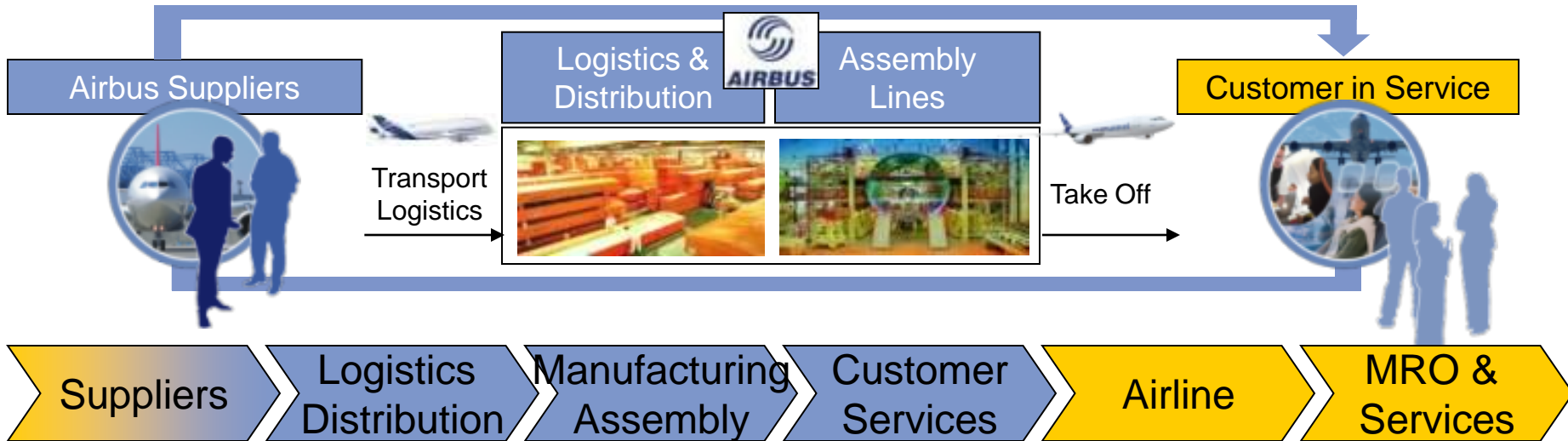


- Company approach to improve business processes through better visibility
- Scope is focused on big picture; Airbus value chain not functional silos
- RFID is seen as a key enabler to improve visibility & business processes






Airbus is taking an integrated and value chain approach for the potential application of Auto-ID across its business processes

VALUE CHAIN VISIBILITY






Two categories of Visibility



NON-FLYABLE VISIBILITY

-  Warehouse Logistics and Inventory Management
-  Generic Asset Tracking (Containers, Spares, Tools, Jigs)
-  Global Transport Network
-  As-Built Configuration Management and Attestation
-  Tool Loans and Consignment Stock

FLYABLE VISIBILITY

-  As-Flying Configuration Management Processes
-  Optimized Maintenance Repair & Overhaul Process
-  Luggage operation
-  Cargo operation
-  Catering operation

BENEFITS

Increasing Visibility Through RFID

Strategic

Supply Chain

- Real time delivery confirmation
- Global automated transport tracking
- Improved demand stability
- Increased visibility of inventory

Logistics/Distribution

- Automated data entry and tracking
- Faster processes, less inventory
- More accurate inventory, ↓ stockchecks
- Improved inventory management

Production

Reduce production cost of aircraft

- Automated data entry
- More accurate & efficient configuration
- More accurate & efficient attestation
- Faster cycle times

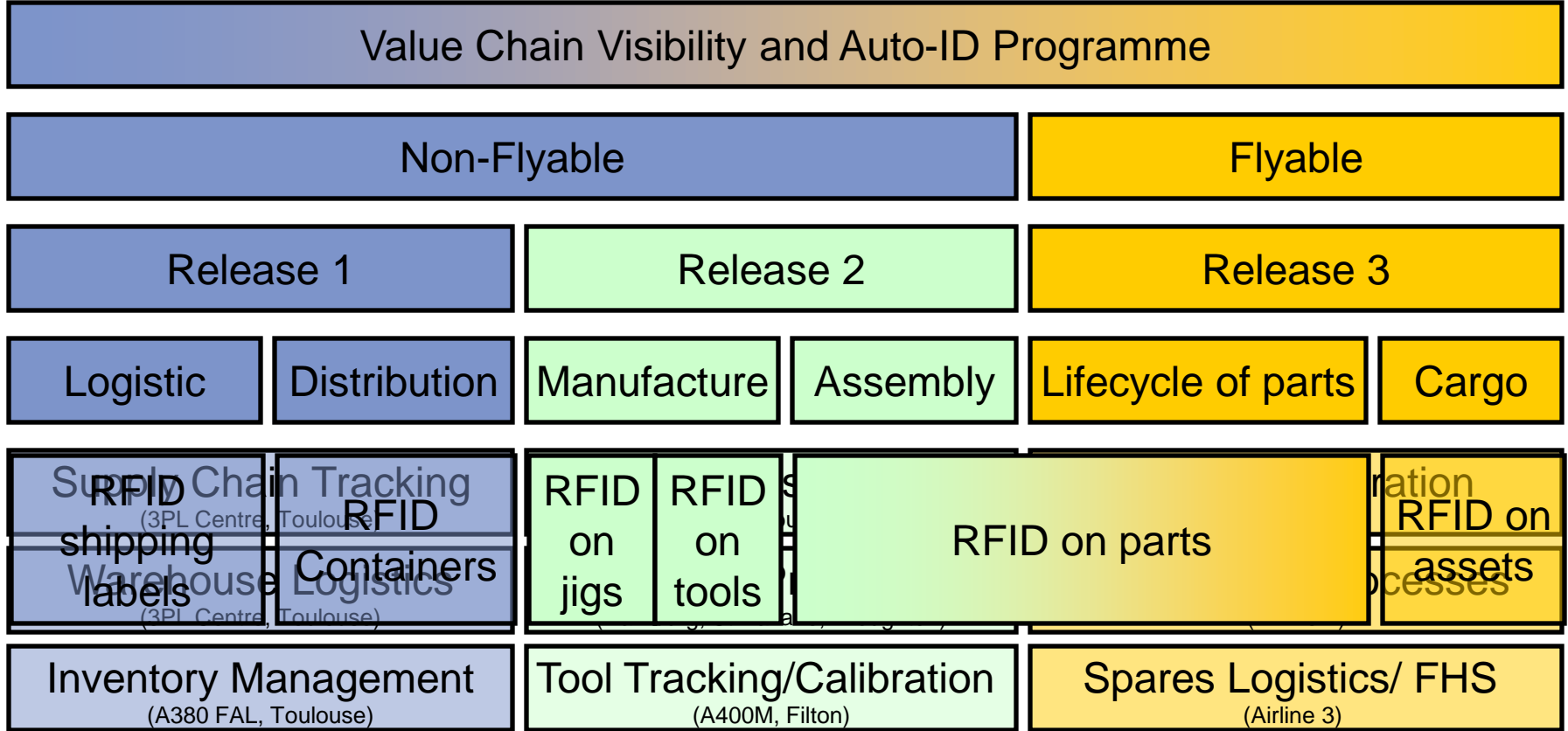
Reduce operating cost of aircraft

- Simplification of as trying configuration
- More efficient/effective lifecycle mgmt
- Faster repair turnaround process
- Automated ULD/baggage/catering tracking

RESULT = Leaner and more competitive business processes

DIFFERENT TYPES OF RFID

Total Lifecycle Traceability



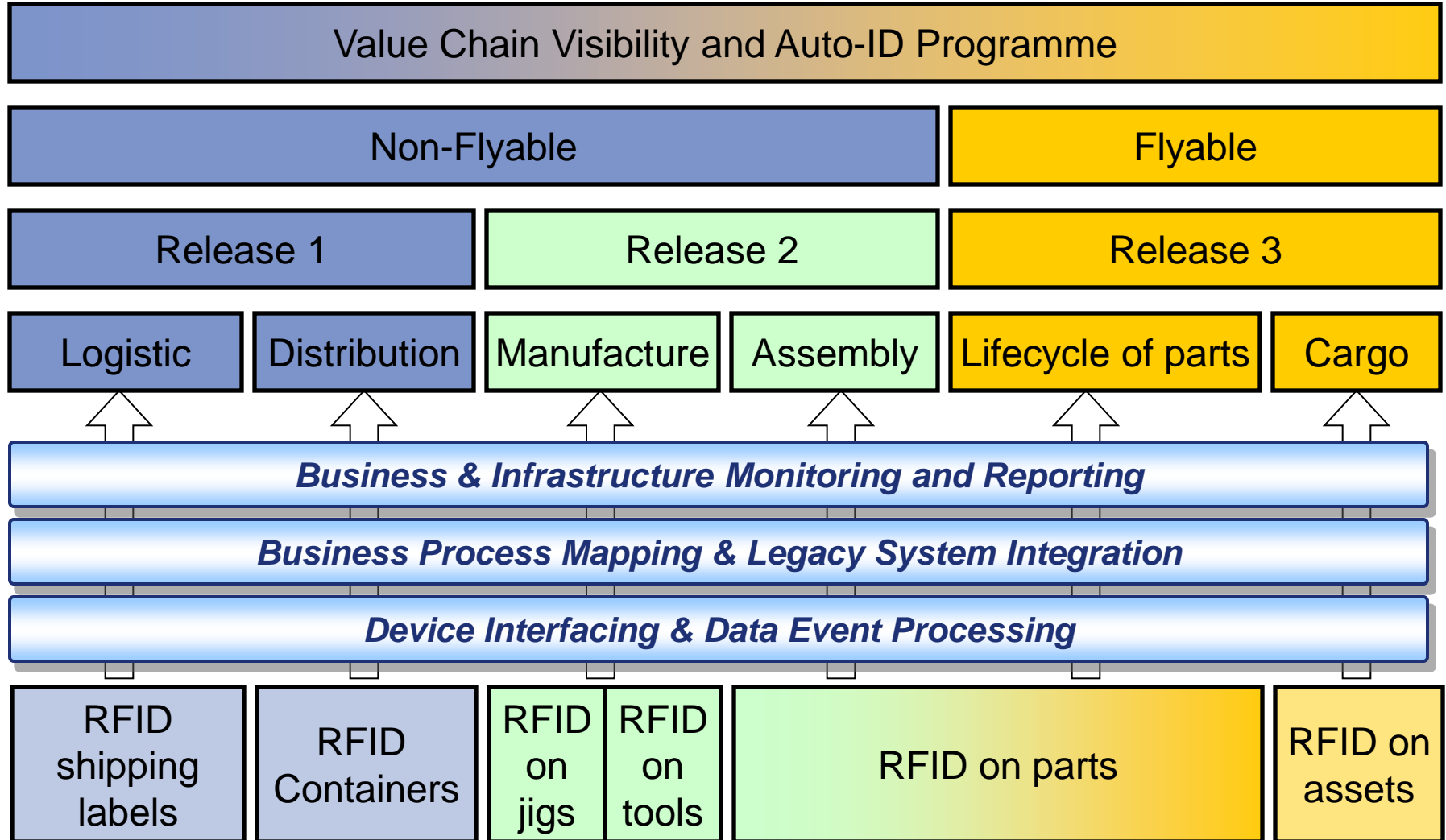
There is no one size fits all solution

Different RFID enablers are used for different processes

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DIFFERENT TYPES OF RFID

Integrated into a standard corporate s/w platform



RELEASE 2 (NON FLYABLE)

Tooling Management

BENEFITS

Automated tools booking in/out and workers association

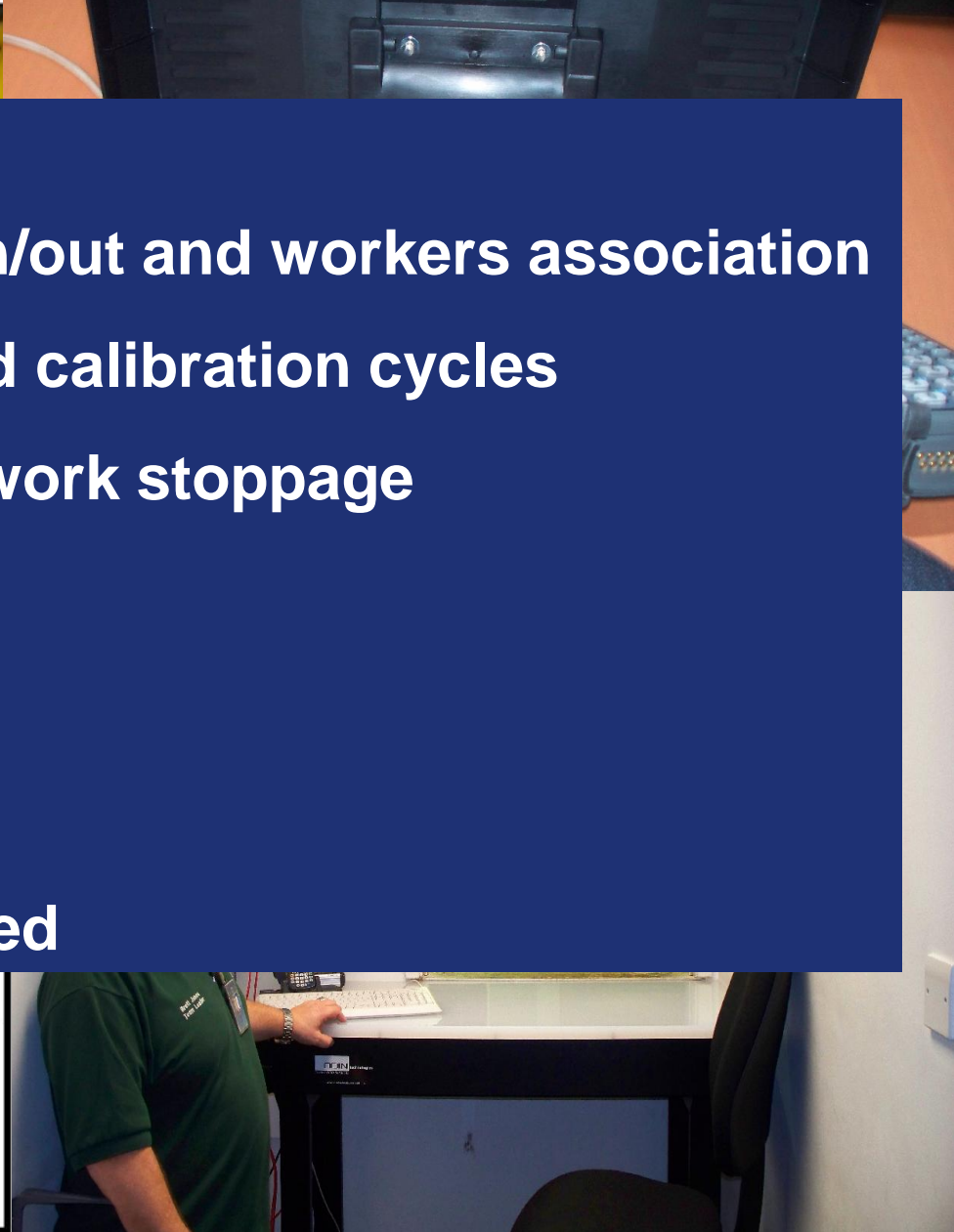
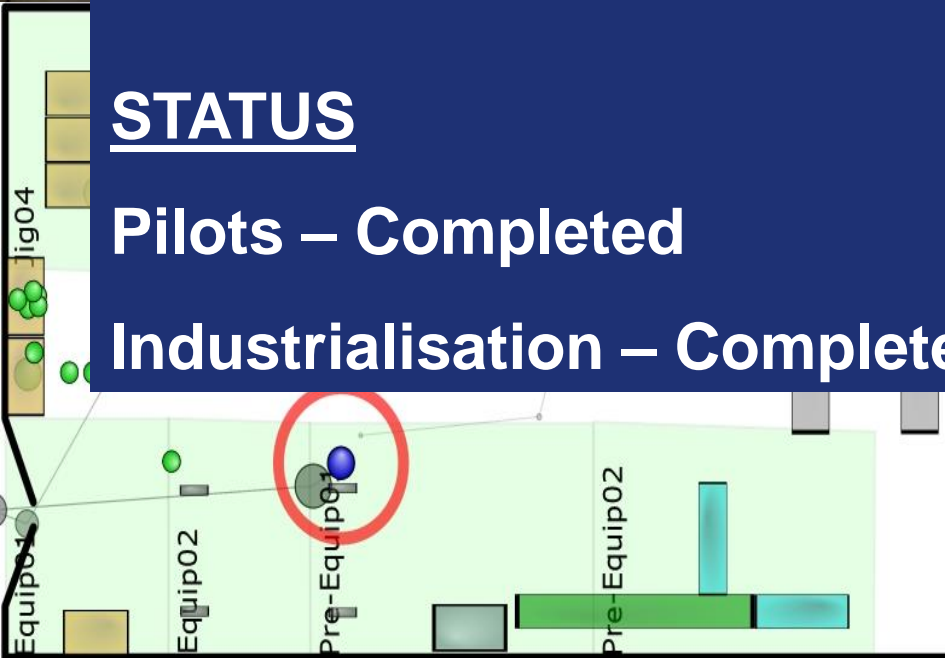
Optimised maintenance and calibration cycles

No tools search time, less work stoppage

STATUS

Pilots – Completed

Industrialisation – Completed



RELEASE 2 (NON FLYABLE)

Configuration Management

BENEFITS

Automated and Digital Attestation Process

Faster Cycle Time and Reduced Paperwork

Improved Configuration Management

STATUS

Pilot - Completed

Industrialisation – Completed

Seat

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RELEASE 2 (NON FLYABLE)

Work in Progress (WIP)

BENEFITS

Automatic and real-time visibility of industrial processes

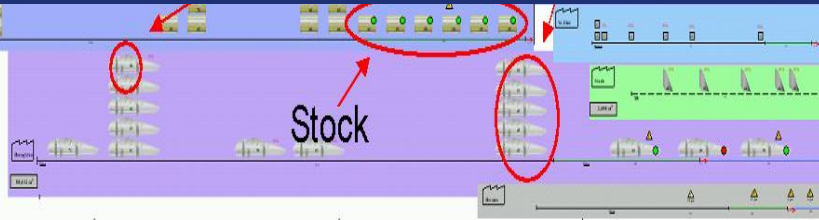
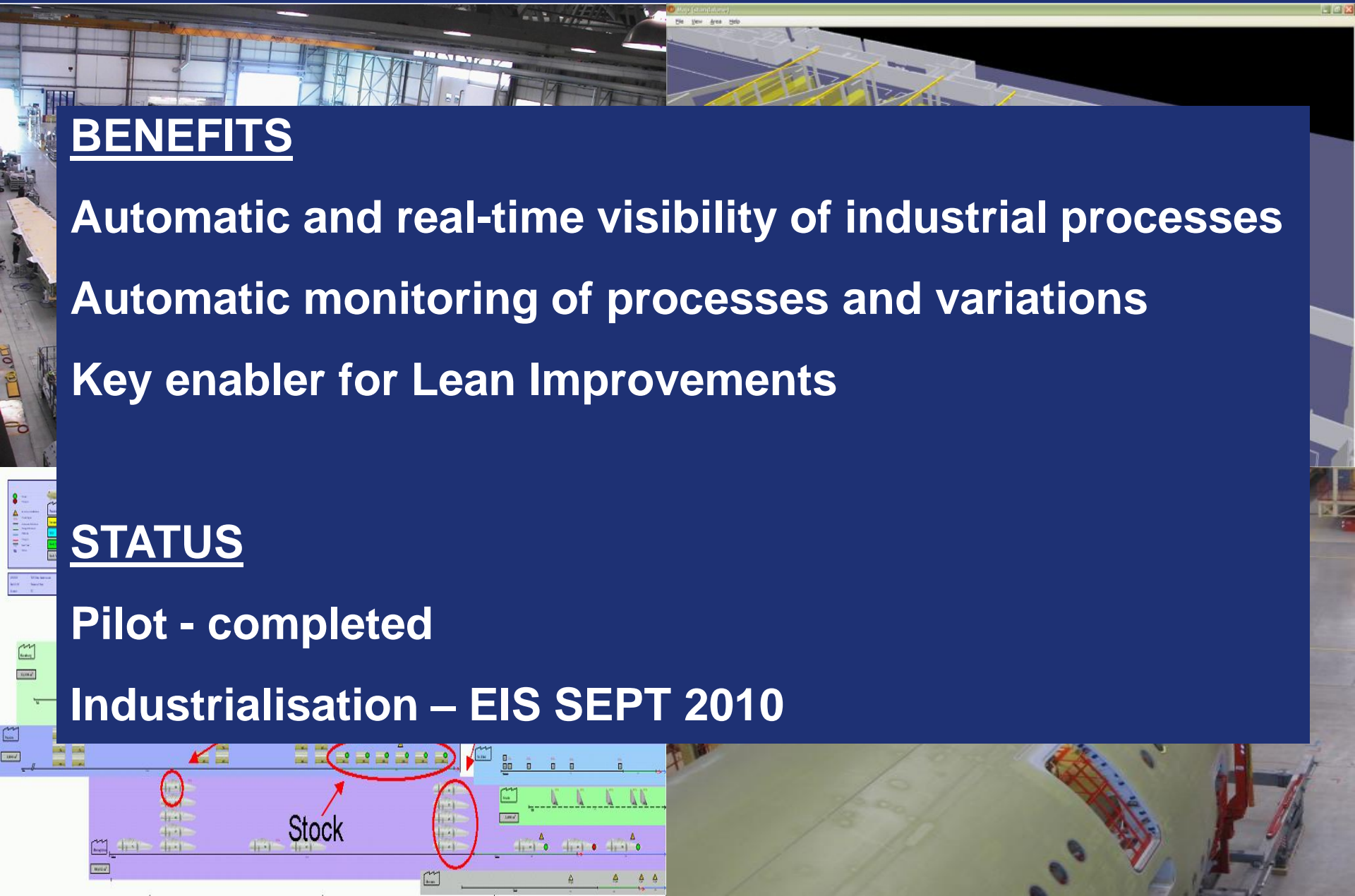
Automatic monitoring of processes and variations

Key enabler for Lean Improvements

STATUS

Pilot - completed

Industrialisation – EIS SEPT 2010



RELEASE 3 (FLYABLE)

Current Status

Use Case Studies

- 4 opportunity studies completed with airline customers and MRO partners
- All payback within 12 months, strong savings (up to multi-million €/year)

A350 XWB RFID Part Marking Specifications

- Distributed to Airbus suppliers in 2008, based on approved standards
- Working with suppliers to deploy RFID solutions for part marking

Aerospace RFID Standards Finalised

- ATA Spec 2000 for data structure and high memory management
- SAE AS5678 for performance minima, test conditions and robustness

The introduction of RFID part marking on A350 XWB will help enable customers reduce their maintenance costs

Summary

- Airbus recognises RFID as a key enabler for improving processes
- Airbus is taking an integrated & end to end approach to the use of RFID across all business processes through a single corporate programme
- Airbus is actively working with airline, supply chain and industrial partners to develop an approach that maximises benefits to all actors
- Airbus is working with major industry players, standards bodies and authorities to ensure inter-operable RFID solutions

Airbus is using RFID as a **BUSINESS RADAR** to help build a **DIGITAL** and **FLY BY WIRE** view of the supply chain and its business operations

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