



*Le journal du RFID*

# RFID Project – Douai

Tracking and following vehicle in plant



# AGENDA

**01**

**RFID Program**  
Programme RFID

**02**

**Uses Cases implemented at Renault**  
Cas d'usage testé/implémenté chez Renault

**03**

**Our target**  
Notre cible

**04**

**Business case Douai Plant**  
Le cas de l'usine de DOUAI

**05**

**Questions**  
Questions

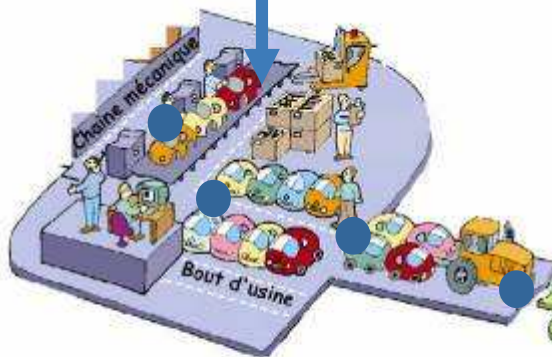
# RFID Program

- Business physical Objects,
- Identification and Auto-identification
- During the life cycle

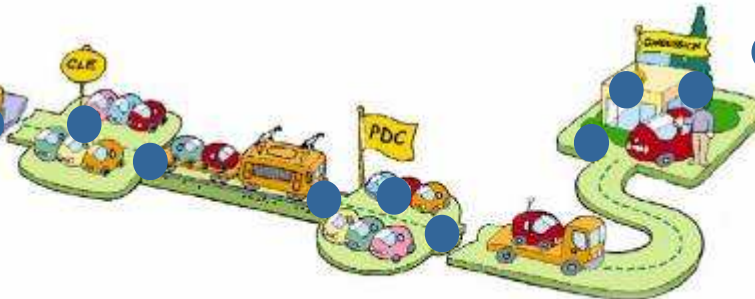


Ex : Vehicle

Only one put on car



And many uses cases ...



- Inventories,
- Acces business information
- Timestamp
- Generation of statements
- Theft control
- Controls and alerts ...

**Challenge :** Improve monitoring and steering of the items on their life cycle

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# Uses Cases implemented/explored at Renault

- ✓ Returnable Container Management

  - Flins – Le Mans (Shop Floor Control and reduce Container)**

- ✓ SCM (JIT/JIS) Processes

  - Flins – Le Mans (Shop Floor Control, Reduce stock on line side)**

- Assembly Information & Control

  - Proof of Concept rares Operations**

- Work in Progress Tracking

  - DOUAI Tracking vehicle in plant**

- Yard Management

  - Douai (Yard Management)**

  - *Stop or completed*

  - ✓ *Industrialization*

- Assembly Automation

  - Current Projet between TCM and MADU**

  - *Run*

- Dealership Finished Vehicle Logistics

  - POC Etoile (Check-in / check-out Trader)**

- Dealership Parts Logistics

  - POC Cergy et Villeroy (Control expedition change parts)**

- Inventory Management

  - Proof of concept OC Production Management System (Active RFID)**

# Uses Cases not explored at Renault

❖ Theft Control

❖ Assembly Documentation

❖ Tool Tracking

❖ Brand Authentication

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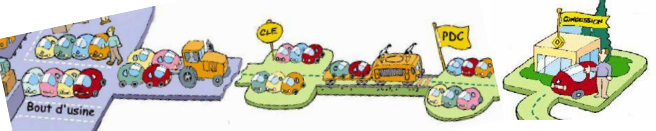





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# The potential Renault RFID

 	<p><i>Reduce Container, reduce stock on line side Inventories, Shop Floor control</i></p>			
	 			
<p><i>Traceability Productivity</i></p> 	<p><i>Automatic captage after TCM, Yard Management, Mobility operator</i></p>  		<p><i>check-in / check Out, Yard Management, Services /control</i></p> <p><i>Is not the object of this study but very potential</i></p> <p><i>Car Sharing</i></p> <p><i>Services</i></p> <p><i>Buy Back</i></p> 	<p><i>Is not the object of this study</i></p>
<p><b>Others Uses</b></p>	<p><i>Is not the object of this study but the potential Follow-up of equipments, followed means of transportation</i></p>			

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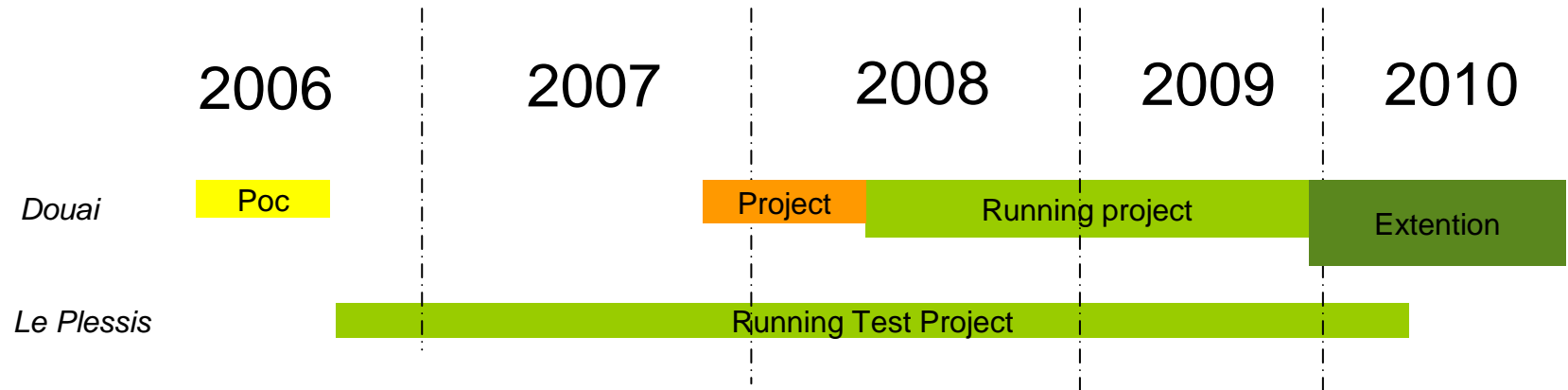
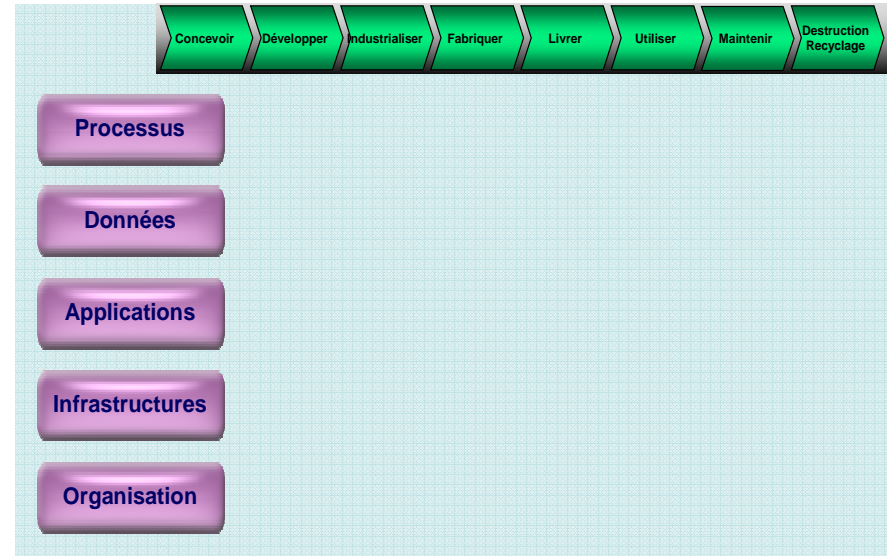
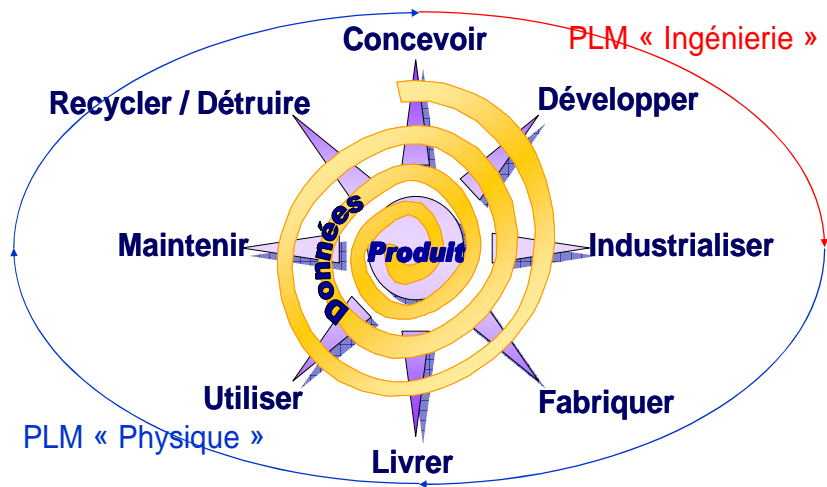
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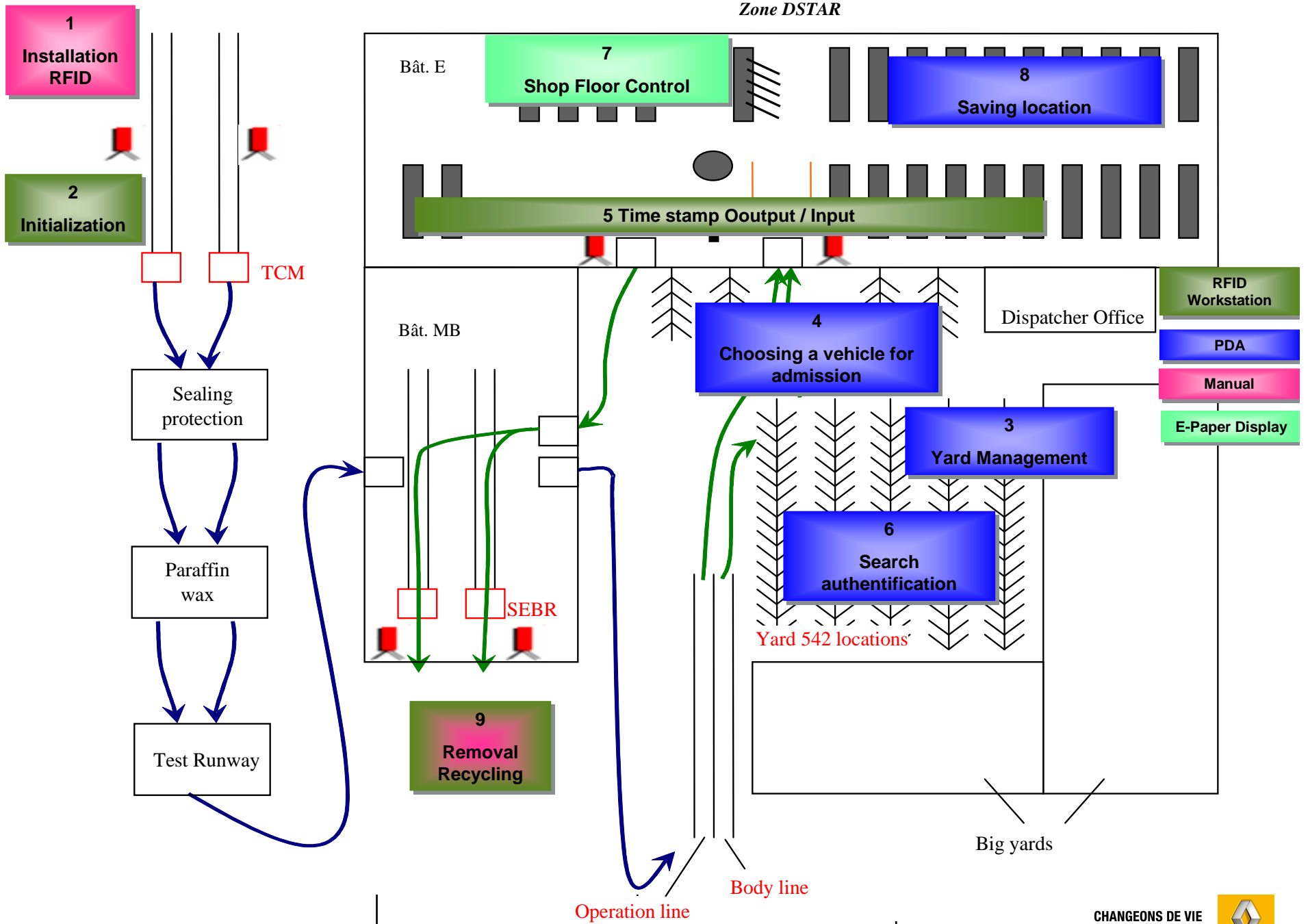
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Zone DSTAR



## RFID Installation

- 10 000 tags recyclable on badges suspended
  - 2 endowment



**Hang the tag from the rearview mirror**

## Initialization inlays



# Saving location on yard

- Connected mode or not



## Repair Shop

- E-ink Display



## Choosing an vehicle for admission

- Wifi Access
  - Choose priority vehicle or selection



LISTE STERC					
PJI	Localisation	BI	Gr	MP	Date DSTAR
1520585		0	1	0	2008-04-10 20:20:28
1430287	BOXSE1	0	1	0	2008-04-10 20:22:30
1340648	BOXCOF	0	1	0	2008-04-10 20:24:08
1520135	BOXETA	0	1	0	2008-04-10 20:28:14
1520583		0	1	0	2008-04-16 05:30:46
1640739		0	1	0	2008-04-16 05:35:53
1440577	BOXGME	0	1	0	2008-04-16 05:43:39

2008-04-13 17:19:38 Retour (0)

**FICHE DU VEHICULE 1450082**

Général | **GRET** | Manque Pièces

Localisation : CRET-BOXSPE

Date DSTAR : 2008-04-16 06:32:09

Délai restant : **Avance 2j 13h7**

Critères : NV676-J84-STDRD

Blocage

Manque Pièces

Présence Client

OK (0)

## Search authentication

**PARAMETRAGE**

Site : Douai - CRET

Identifiant Point de Captage :

PDA Jockey 1 (Mobile)

Zones + Travées:

Parking - CIREXT

Environnement :

Prod

Proxy

Envoi Loca vers PSFV



## Acces to the Repair Management Shop

- 2 position detection input / output
- 2 antennas for each monitoring station



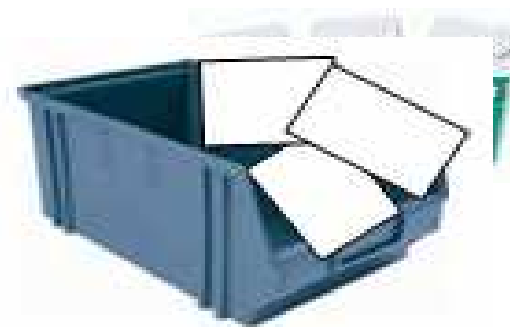
## Saving location assembly shop



Inlays localisation



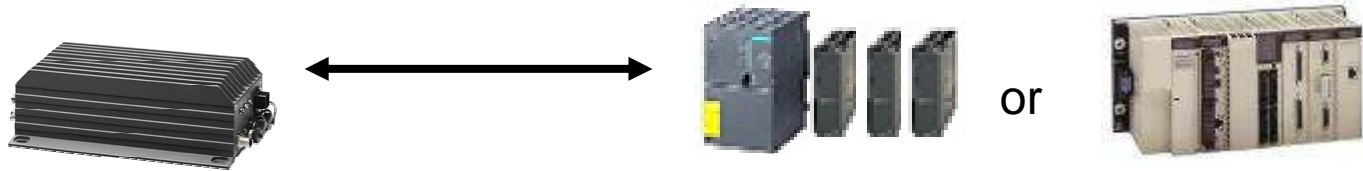
## Inlays recycling



# Three possible architecture

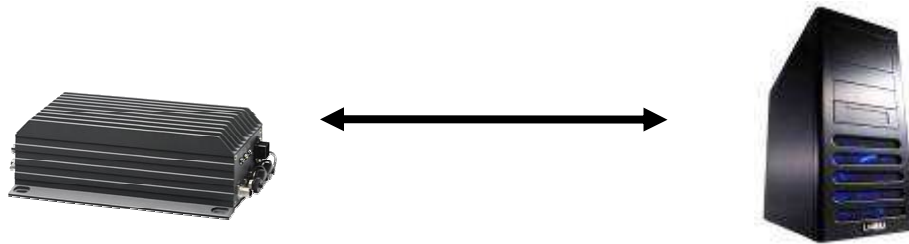
1

➤ A RFID System who communicates with PLC



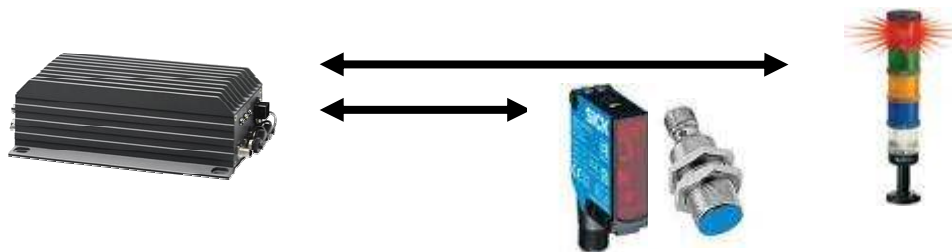
2

➤ A RFID System who communicates with IS/IT



3

➤ A RFID System who communicates with I/O



## Some important data

Initial project  
in **6** months

**6** read/write  
workstations

**6** PDA

*( additional 6 in the future  
basically )*

Simply  
architecture

Development  
low costs

Fiability

- 100% read rate
- Any maintenance in 2 years on workstation

## Profit : Confirmation objectives of our master plan

### Benefits

#### ROI in the first year

- ⇒ Data Reliability : ↗ 20%
- ⇒ Productivity : ↗ 25%
- ⇒ Vehicle refinishing waiting time : ↘ 16%
- ⇒ Other gains nondisclosure

### Project Benefits

- ⇒ Decrease purchasing
- ⇒ Setting up a strong competence in internal

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## Questions/ Answers

