



# F2J REMAN CHAUMONT & RADOM

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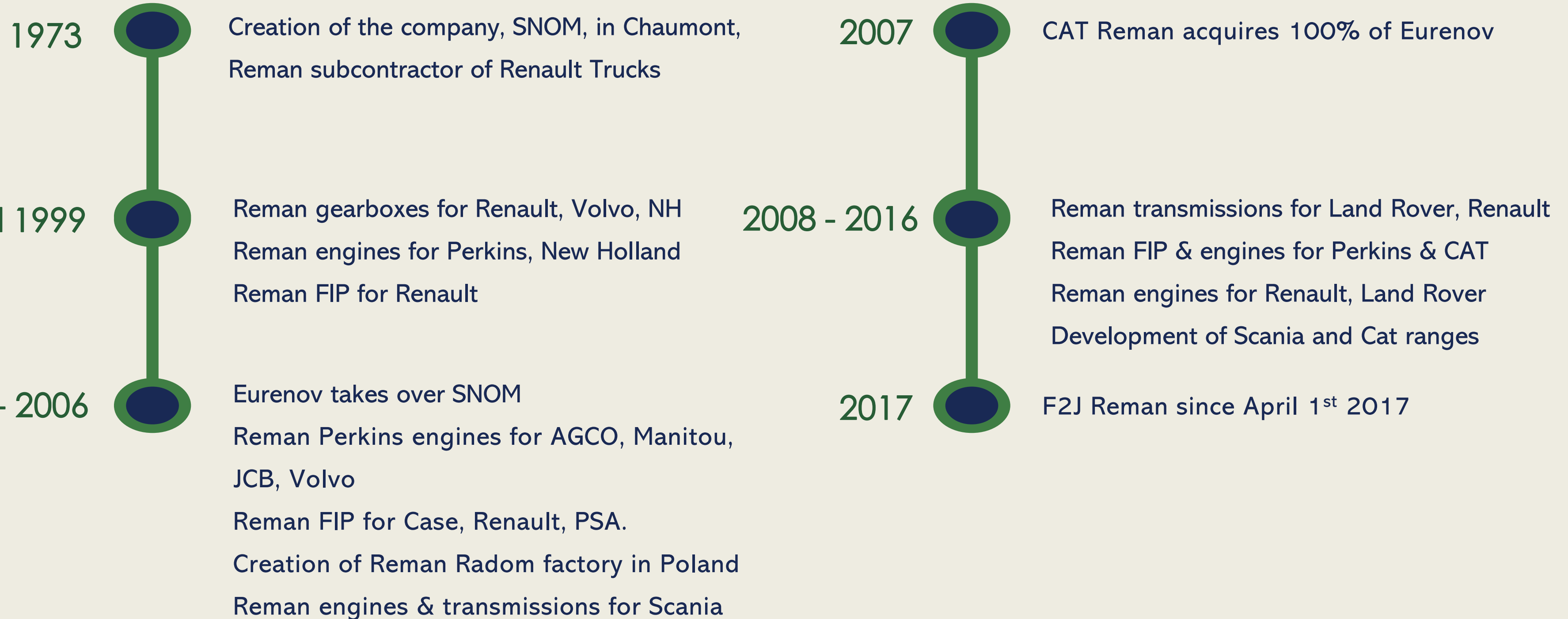




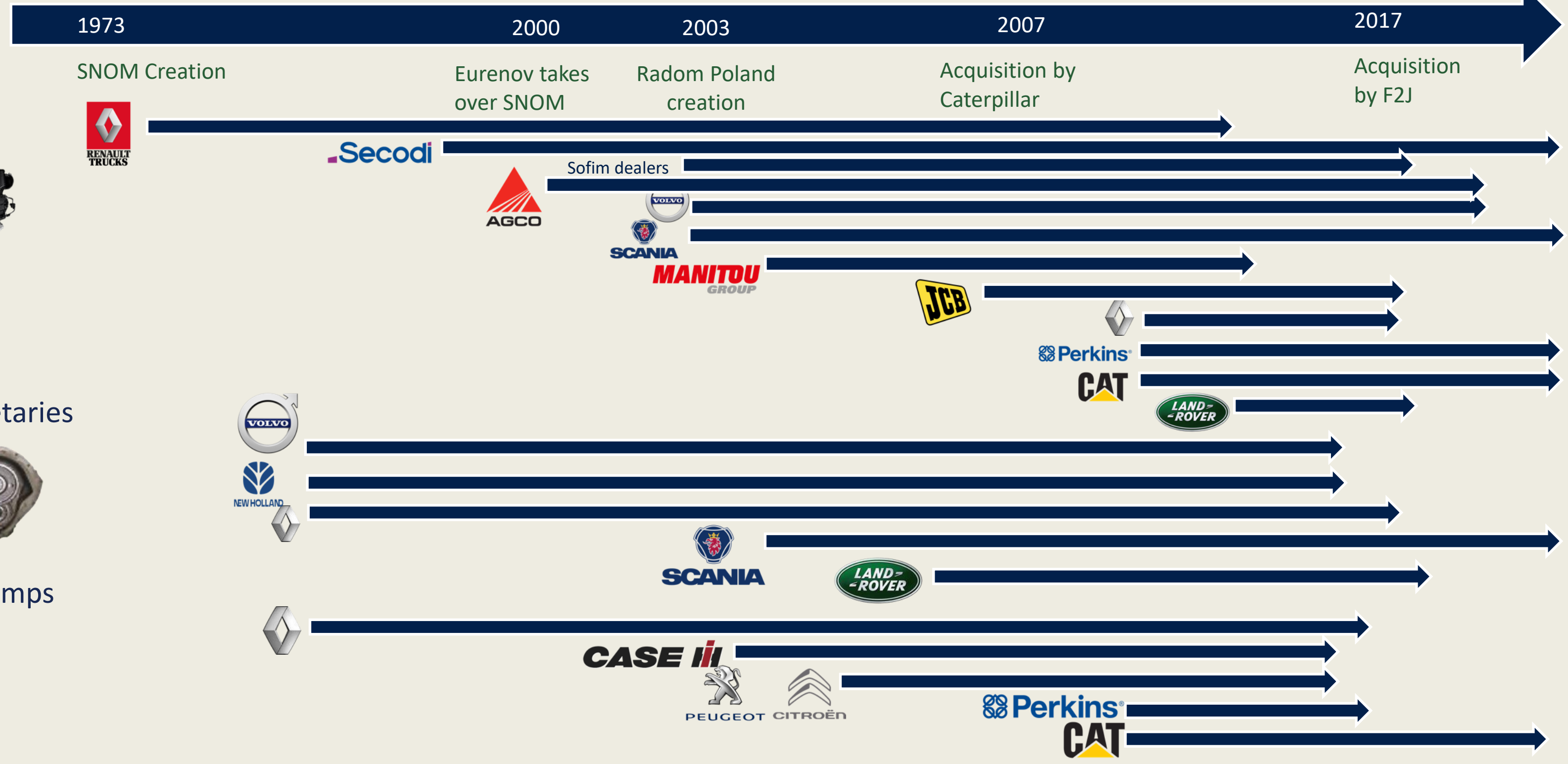
# Overview presentation

PART 1	ABOUT F2J REMAN & HISTORY WITH CUSTOMERS
PART 2	TWO PLANTS : CHAUMONT & RADOM
PART 3	KEY FIGURES
PART 4	REMANUFACTURING
PART 5	REMAN PRODUCTS & APPLICATIONS
PART 6	RANGE OF PRODUCTS & APPLICATIONS
PART 7	F2J REMAN PLANT'S MODERNIZATION
PART 8	ABOUT F2J INDUSTRY

# ABOUT F2J REMAN...



# HISTORY F2J REMAN CUSTOMERS & PRODUCTS



Diesel engines



Gearbox & planetaries



Fuel Injection Pumps



# TWO PLANTS...



## CHAUMONT FRANCE

Established in 1973

270km E of Paris

35K sqm land & 10K sqm building



66 Employees



&



Remanufacturing engines up to 16L

Automotive/Trucks and Industrial engines

High flexibility, strong service skills & complexity management



## RADOM POLAND

Established in 2003

100km S of Warsaw

3,2K sqm covered



34 Employees



&

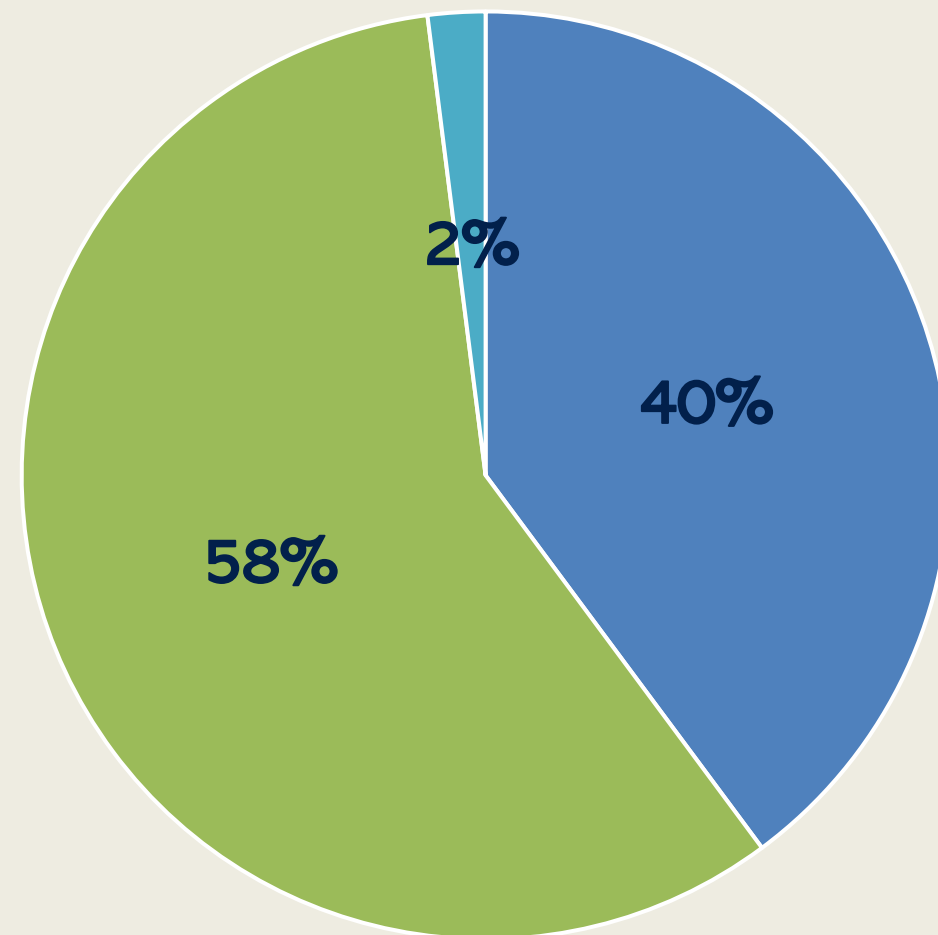


Remanufacturing of engines up to 7L

Remanufacturing of short engines up to 13L

Remanufacturing of transmissions

# KEY FIGURES OF F2J REMAN



- Scania (Scania engines & transmissions)
- Cat - Perkins - Secodi (Perkins engines)
- Others (Coldpad)

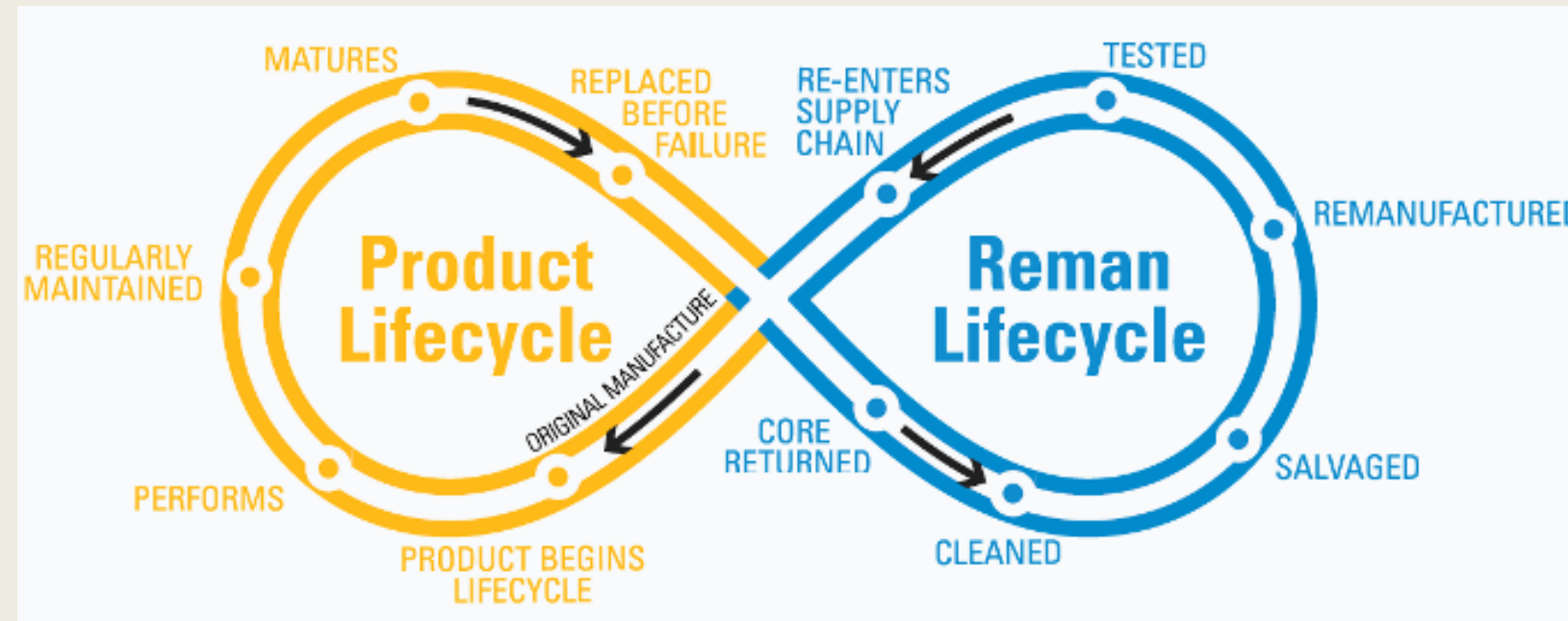


CHAUMONT = 68%

RADOM = 32%



# WHAT'S REMANUFACTURING ?



## BENEFITS ?



LOWER COST



WARRANTY



LOWER IMPACT ON THE ENVIRONMENT

## Remanufacturing :

Rebuilding of a product from a core in such a way that it is functionally identical to new part





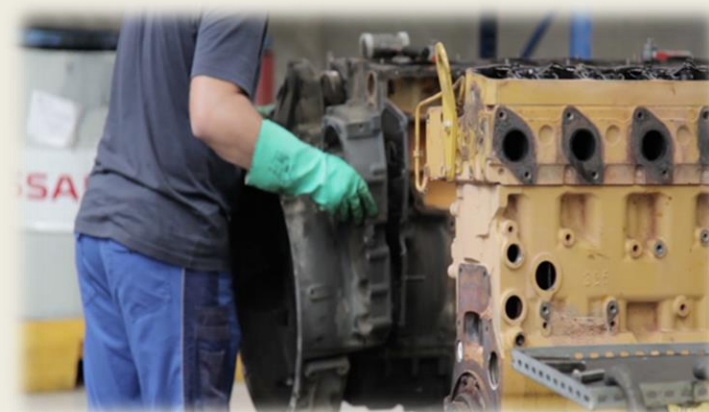
# REMANUFACTURING PROCESS



CORE  
RECEPTION



CORE  
DISASSEMBLY



PARTS  
CLEANING



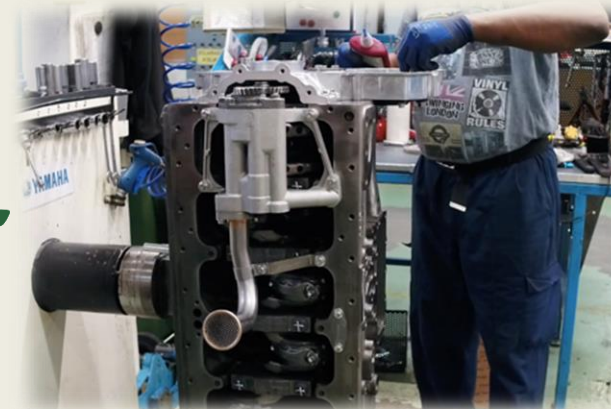
PARTS  
MACHINING



PARTS SORTING



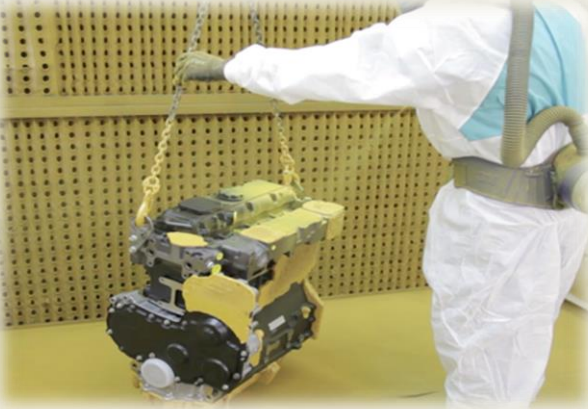
PARTS KITTING



ASSEMBLY & CONTROL



TESTING



PAINTING & PACKAGING



# REMAN PRODUCTS



## ENGINES



Complete new



Complete reman



Long engine reman & new

## ENGINE COMPONENTS



Water pumps



Cylinder head



Crankshaft

## TRANSMISSIONS



Gearbox Truck



Differential



Gearbox Car

## INJECTION



In-line FIP Bosch/Zexel



Delphi DPA, DPC, DP 200



Bosch VP, VE

# REMAN APPLICATIONS



Construction equipment



Agriculture equipment



Material handling



Trucks & Bus



Commercial vehicles



Passengers vehicles





# RANGE OF PRODUCTS & APPLICATIONS



## PERKINS ENGINES

For CAT Grimbergen, Perkins Irlam, OE Customers

Tier 0, 1, 2 & 3

3 to 6 cylinders

SubAssy, Short, Long, Complete engines

Reman & New assembly

Small Medium size, up to 6.6L, 925Nm 150kW

Test bench in Chaumont



## SCANIA ENGINES

For Scania Oudsbergen

9 to 16 L

5 & 6 cylinders in line

8 cylinders in V

SubAssy, Short & Complete engines

Reman & New Assy

Medium – Large, up to 430kW



# RANGE OF PRODUCTS & APPLICATIONS



PRODUCTION AT F2J REMAN R A D O M

## PERKINS ENGINES

For CAT Grimbergen

3 to 4 cylinders  
Long block & Complete engines Reman

Reman & New assembly

Small size, up to 4L, 190Nm 38kW  
Test bench in Radom



## SCANIA TRANSMISSIONS

For Scania Oudsbergen

Gearboxes  
Planetary  
SubAssy

Reman & New Assy



## SCANIA ENGINES

Short engine, 6 cylinders in line, 13 L

Reman & New Assy



# YEARLY QUANTITY



## SCANIA

SHORT ENGINE	150
EXCHANGE ENGINE	200
NEWMAN ENGINE	50
NEW ENGINE	100



## CAT / PERKINS

SHORT ENGINE	50
LONG ENGINE	450
EXCHANGE ENGINE	1350



# F2J REMAN PLANT'S MODERNIZATION



## → FRONT BUILDING MODERNIZATION

Absestos removed / front building	12/2017	✓
Front building finished	12/2017	✓
Absestos removal for the other areas of the plant	04/2018 – 12/2018	✓
New locker rooms	02/2021	✓
New living area	> 05/2021	



## → MACHINING EQUIPMENT MODERNIZATION

CNC 3 axis	12/2017	✓
Washing machine	01/2018	✓
Honing machine SV410	10/2019	✓
Metal spray	11/2019	✓
CNC for Crankshaft	12/2020	✓
Servo control / positioning	> 06/2021	





# F2J REMAN PLANT'S MODERNIZATION



## → TEST BENCH CELL RENOVATION

Test Bench Cell Renovation

01/2018 ✓



## → FLOW OPTIMIZATION / LAYOUT

Warehouse re-implementation

05/2018 ✓

Building for core storage

01/2019 ✓

Assembly - Dismantling - Test bench areas re-implementation

03/2018 ✓



## → ENVIRONMENT / ENERGIES

Evaporator

01/2021 ✓



# F2J REMAN PLANT'S MODERNIZATION



## INTRODUCTION OF A NEW TECHNOLOGY OF VISION

Automatic tracking / recognition of parts

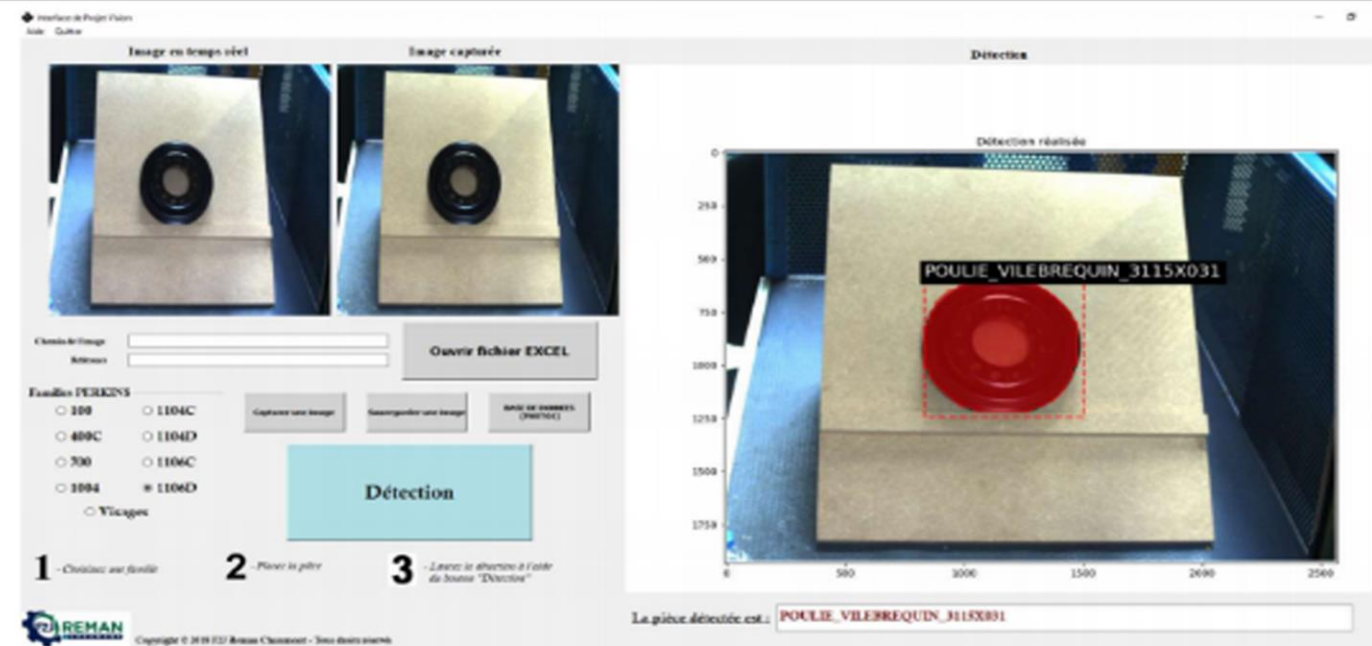
Since 03/2018



Automatic elimination of bad parts (pn, condition)

Next step

### Parts identification: how does it work?



- Identify the part's P/N
- Say if the part is for this engine or not allowed to be used
- Help the operator to check the part
- Feed the ERP with the information





# F2J REMAN PLANT'S MODERNIZATION



## F2J REMAN RADOM NEW PLANT

End of Factory Construction

Start of Factory Operations

Chaumont Test Bench upgrade (container)

Test Bench reception & training in Chaumont

Transfer Test Bench to Radom

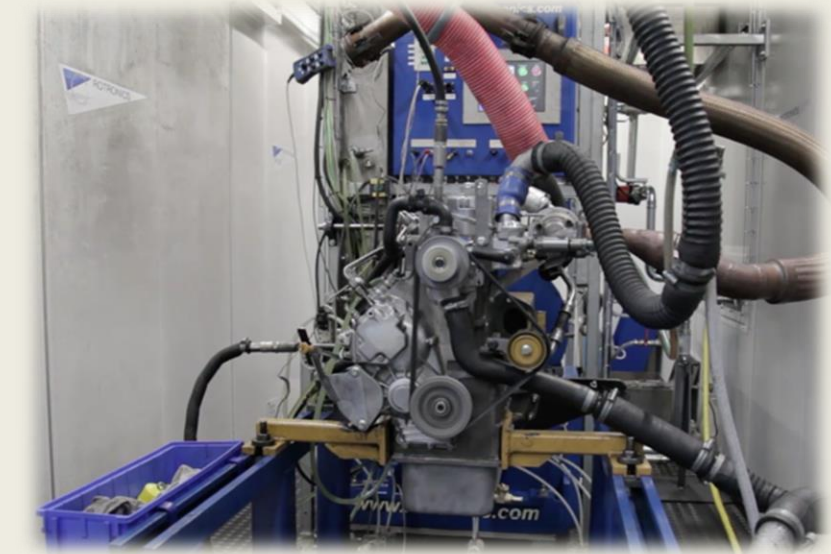
07/2019 ✓

10/2019 ✓

07/2019 ✓

02/2019 ✓

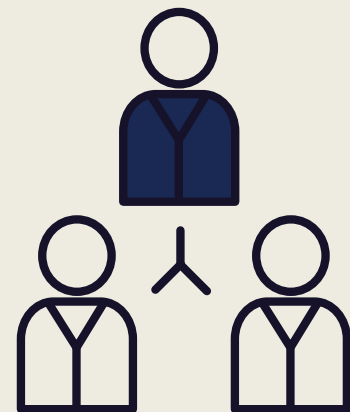
Q4 2020 ✓



# ABOUT F2J INDUSTRY...



Turnover: 231 M€



1 807 employees



4 plants in France  
1 plant in Poland  
3 plants in Argentina  
1 plant in Brazil  
2 plants in Spain  
1 plant in USA



<http://f2jindustry.com>



<https://www.linkedin.com/company/f2jindustry>





# F2J INDUSTRY INDUSTRIAL GROUP OF COMPANIES



**MIASA**

Indiana

Turnover: 8,8 M € / 45 Employees  
5.000 m<sup>2</sup> Factory surface  
Certified IATF 16949



Córdoba

Turnover: 35 M € / 211 Employees  
12.354 m<sup>2</sup> Factory Surface  
Certified IATF 16949 and ISO 14001



Córdoba

Turnover: 38 M € / 328 Employees  
16.000 m<sup>2</sup> Factory surface  
Certified IATF 16949 and ISO 14001



Buenos Aires

Turnover: 9 M € / 159 Employees  
12.000 m<sup>2</sup> Factory surface  
Certified: IATF 16949:2016 and ISO 14001



São Paulo

Turnover: 52 M € / 522 Employees  
22.000 m<sup>2</sup> Factory surface  
Certified IATF 16949



Pamplona

Turnover: 4,7 M € / 34 Employees  
7.000 m<sup>2</sup> Factory surface  
Certified IATF 16949



Zuera

Turnover: 18 M € / 82 Employees  
6.000 m<sup>2</sup> Factory surface  
Certified IATF 16949



Radom

Turnover: 4,5 M € / 33 Employees  
3.200 m<sup>2</sup> Factory surface  
Certified IATF 16949 and ISO 14001



Auxi-le-Château

Turnover: 9,5 M € / 91 Employees  
26.000 m<sup>2</sup> Factory surface  
Certified IATF 16949



Chaumont

Turnover: 15 M € / 66 Employees  
9.700 m<sup>2</sup> Factory surface  
Certified IATF 16949 and ISO 14001



Bessines-Sur-Gartempe

Turnover: 13 M € / 91 Employees  
12.000 m<sup>2</sup> Factory Surface



Valentigney

Turnover: 23,5 M € / 145 Employees  
18.894 m<sup>2</sup> Factory surface  
Certified ISO 16949



Number of employees: **1807**



4 sites in France / 1 site in Poland / 3 sites in Argentina / 1 site in Brazil / 2 sites in Spain / 1 site in USA



Annual TO: **231 M €**



# THANK YOU FOR YOUR ATTENTION

