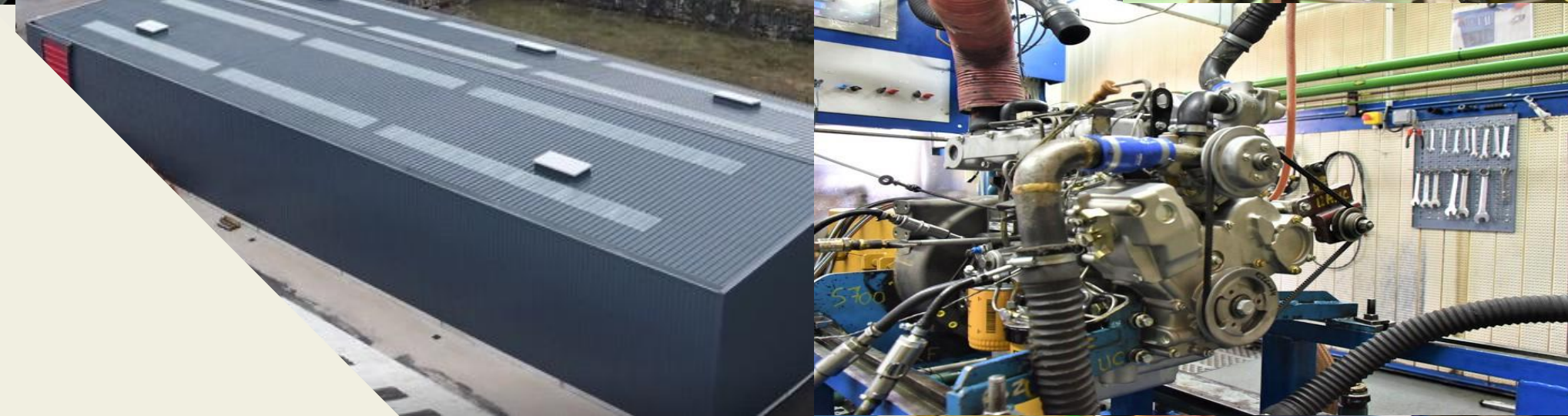




F2J REMAN CHAUMONT & RADOM

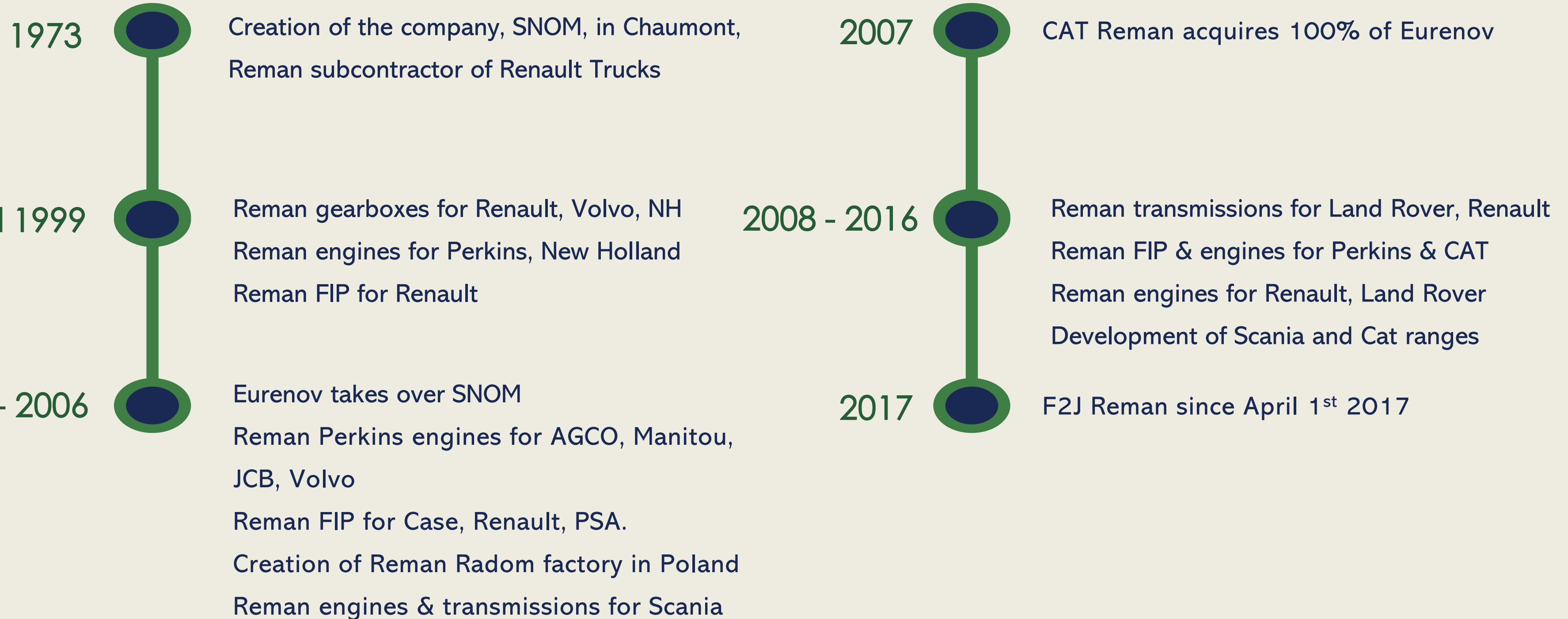




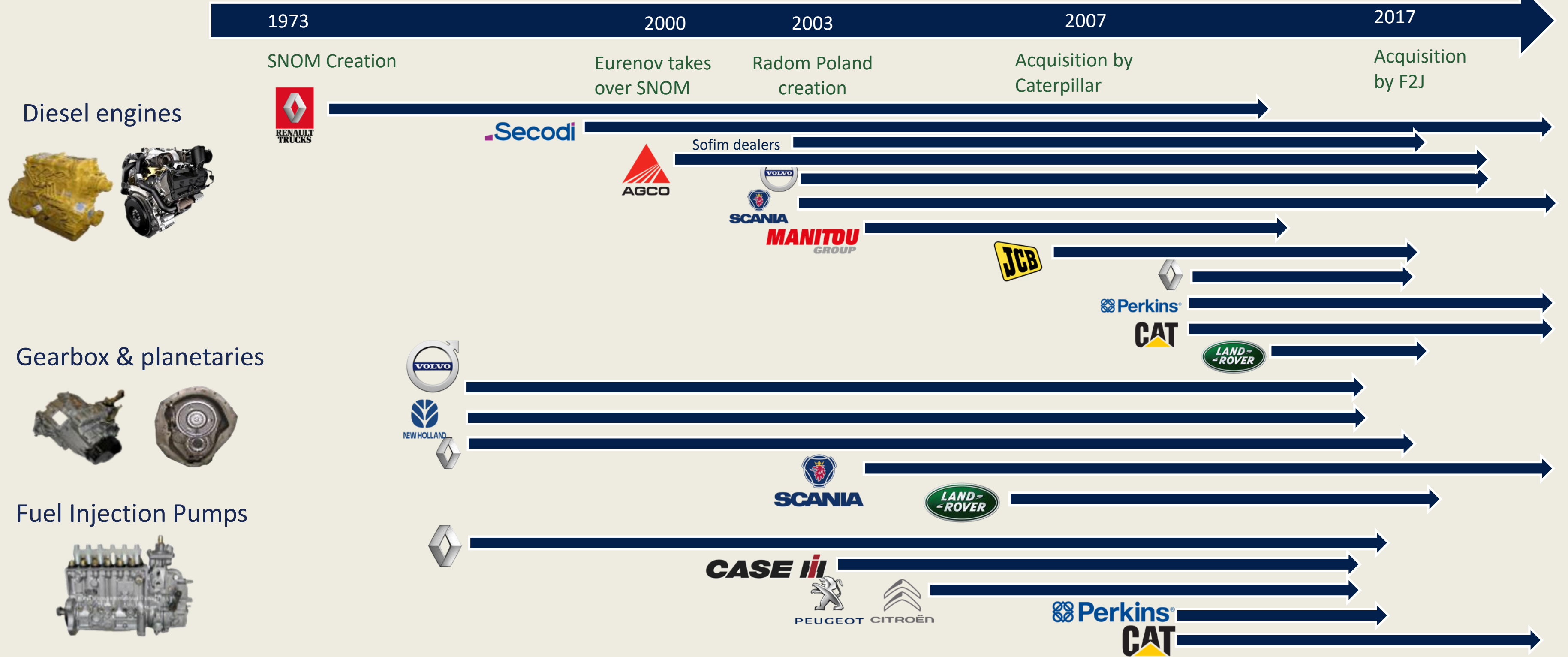
Overview presentation

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



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



&

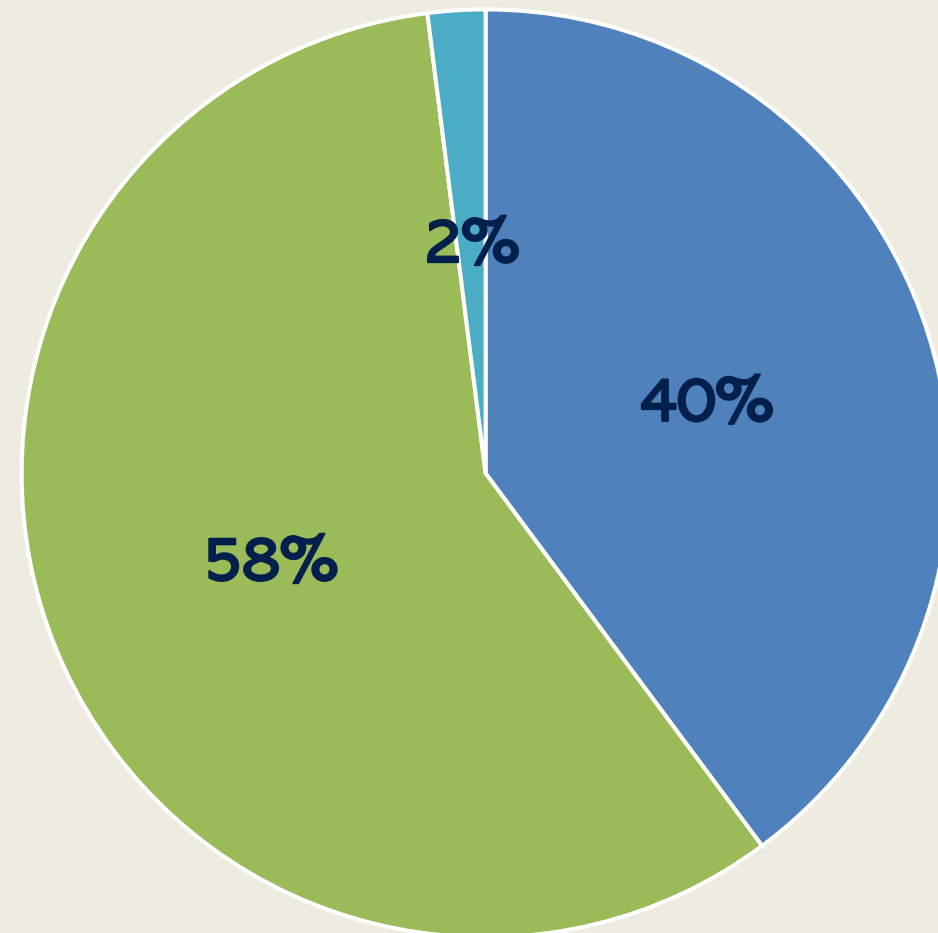


Remanufacturing of engines up to 7L

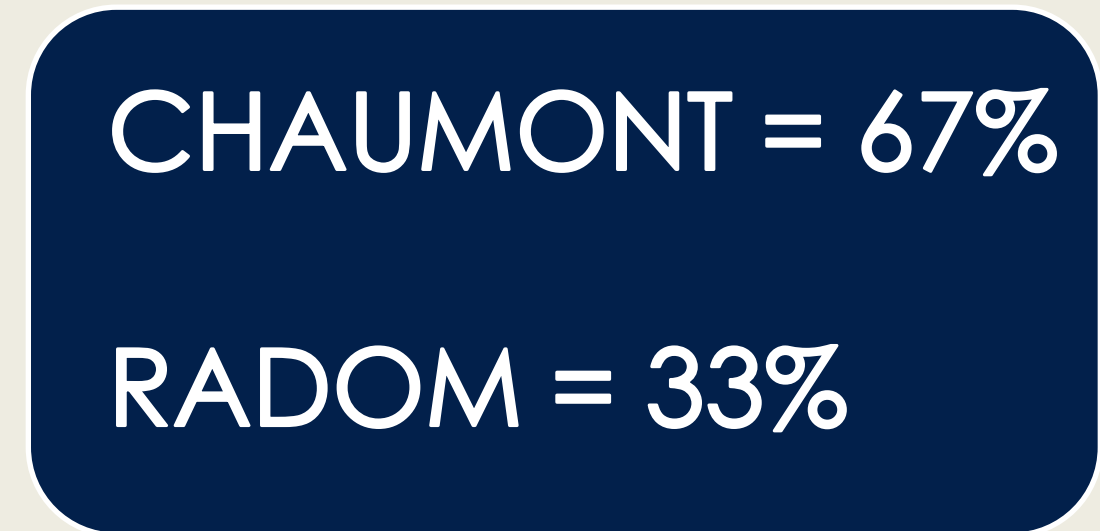
Remanufacturing of short engines up to 13L

Remanufacturing of transmissions

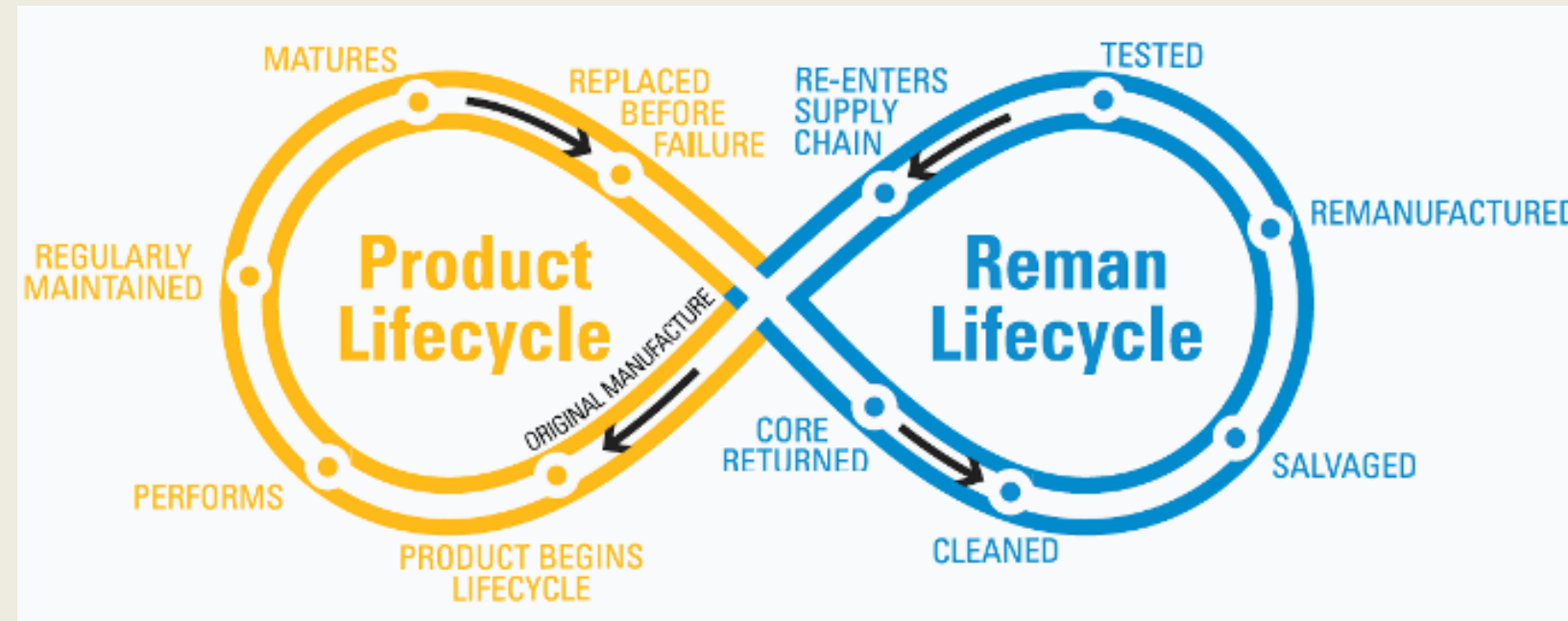
KEY FIGURES OF F2J REMAN



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



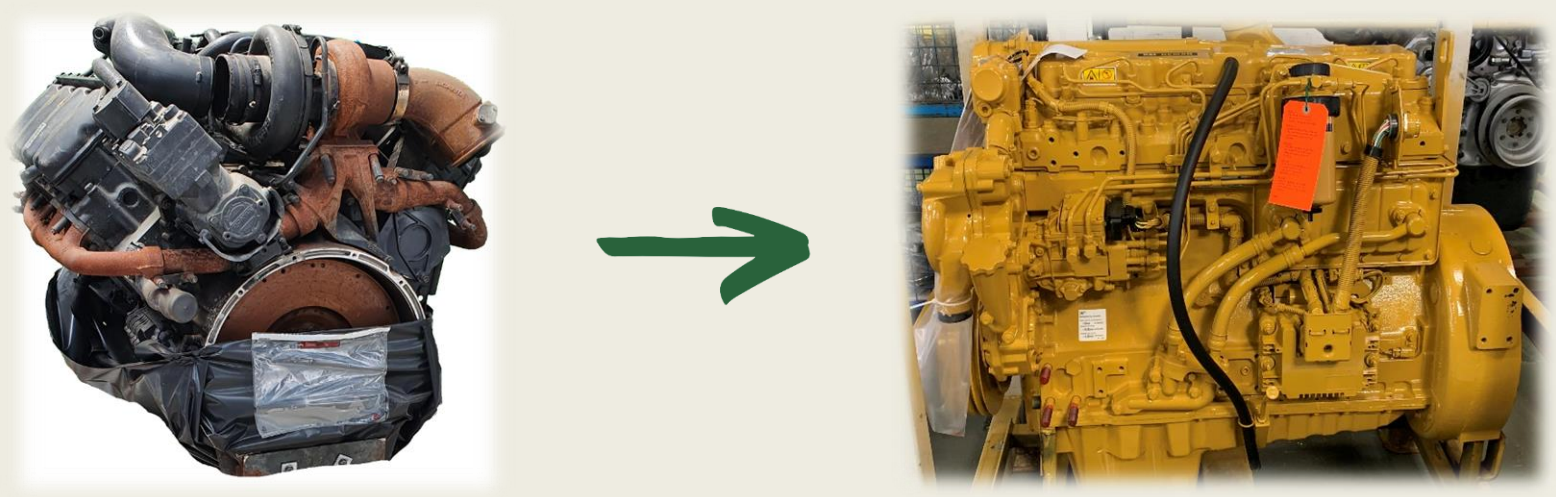
WHAT'S REMANUFACTURING ?



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**



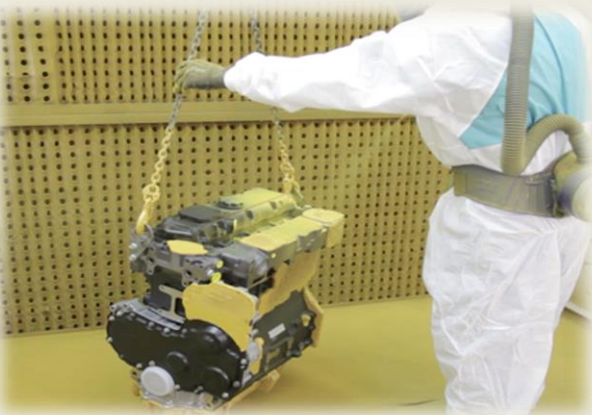
**PARTS
CLEANING**



**PARTS
MACHINING**



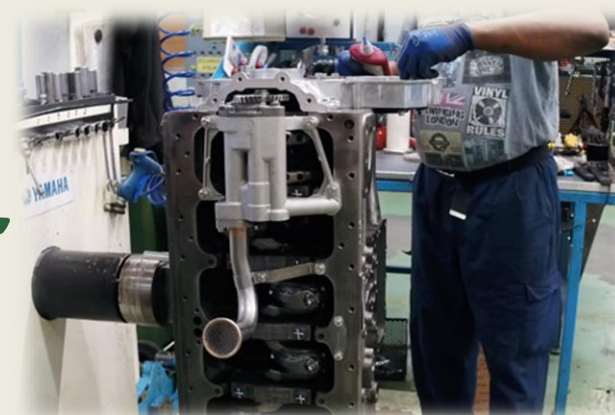
PAINTING & PACKAGING



TESTING



ASSEMBLY & CONTROL



**PARTS
KITTING**



**PARTS
SORTING**



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

PRODUCTION AT 

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 

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

CAT / PERKINS

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

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

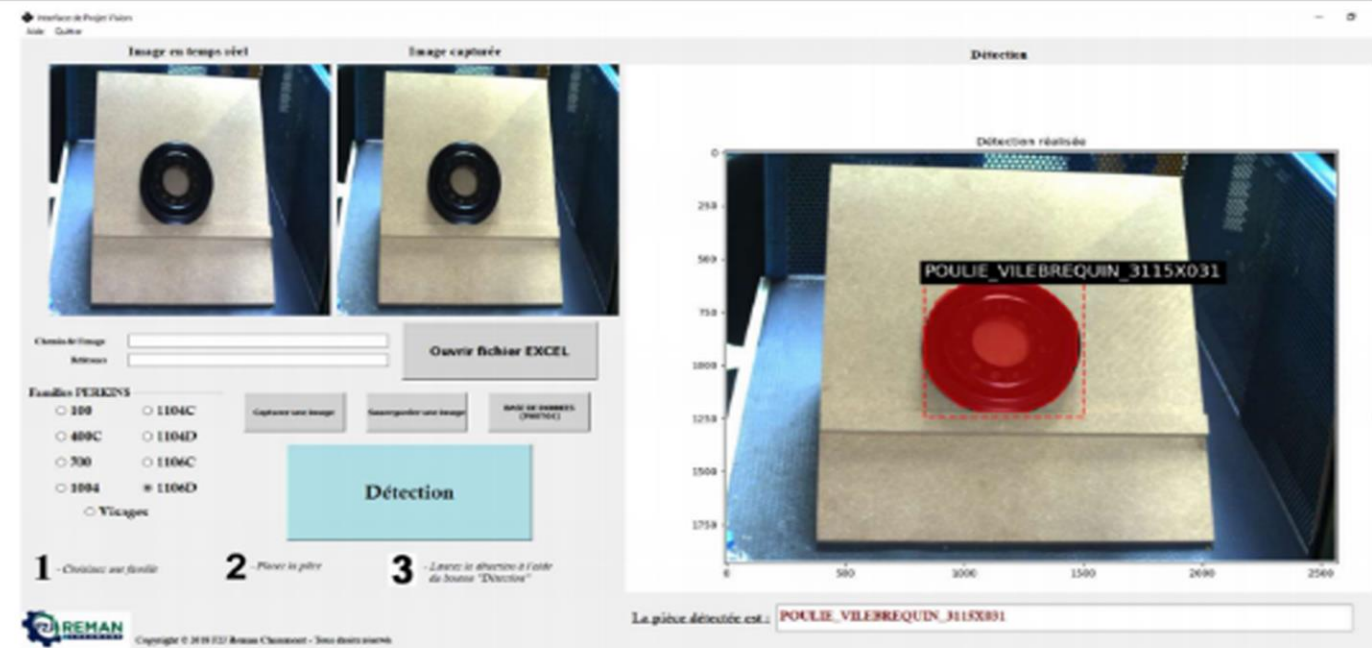
Since 03/2018



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

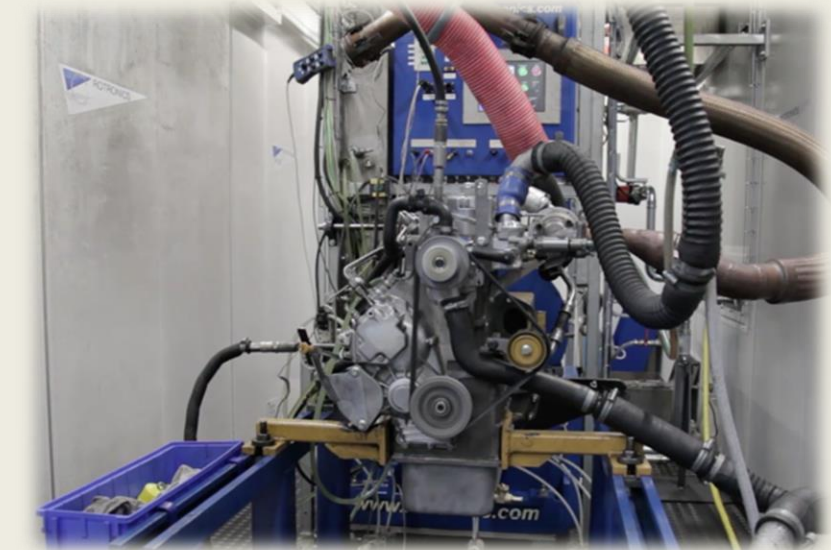
07/2019 ✓

10/2019 ✓

07/2019 ✓

02/2019 ✓

Q4 2020 ✓



ABOUT F2J INDUSTRY...



Turnover: 195 M€



1 650 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



Number of employees: **1650**

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: **195 M€**

THANK YOU FOR YOUR
ATTENTION

