

# TREASURE Project Spring School

24 April 2024

# About PFA

- Who do we represent ?



**PFA BRINGS TOGETHER THE AUTOMOTIVE INDUSTRY IN FRANCE TO DEFINE AND EXECUTE THE INDUSTRY'S STRATEGY AND TO DEFEND ITS INTERESTS**



# About PFA

## • About the automotive industry in France

- **800,000 DIRECT JOBS AND 1.4 MILLION INDIRECT JOBS**, I.E., 8% OF THE ACTIVE POPULATION WORKS DIRECTLY OR INDIRECTLY FOR THE AUTOMOTIVE INDUSTRY
- **MORE THAN €6 BILLION IN R&D** EXPENDITURE
- **1ST INDUSTRY** IN TERMS OF PATENT FILINGS
- **1,350,000 VEHICLES** PRODUCED IN FRANCE
- **30 ASSEMBLY SITES** (POWERTRAINS, CARS AND TRUCKS)
- **€44 BILLION** IN EXPORTS
- **€72,4 BILLION IN TAX RESOURCES** FROM THE AUTOMOBILE SECTOR (EXCLUDING VAT)

### THE AUTOMOTIVE INDUSTRY IN FRANCE

BRINGS TOGETHER

**4,000 COMPANIES AND  
350,000 EMPLOYEES IN PRODUCTION**



# About PFA

## Specialised committees and commissions\*



## Presidents' Council

**Luc CHATEL**  
President

**Marc MORTUREUX**  
General manager

**Florence BOYER**  
executive assistant

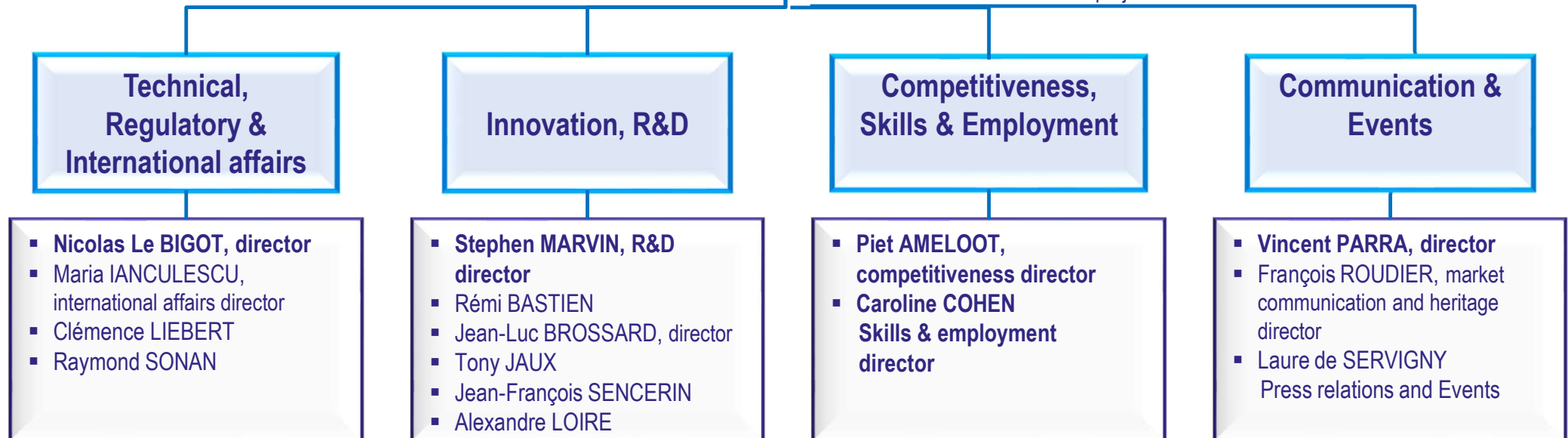
**Mathieu COULAUD**  
General secretary

**Juliette RODRIGUES**  
Chief project

## Sector committees



**Louise d'HARC**  
Public and parliam



*Cross-functional: coordination of regional network of competitiveness clusters and ARIA*

*\* An International Commission is run by FIEV in name of the entire automotive sector*



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## **PFA ROADMAP ON CIRCULAR ECONOMY**

# PFA Roadmap on circular economy

## • Recycled content

- Technical position of sector on **Generic specification for recycled plastic material integrated in automotive parts – PP**
  - Share, with main plastic and recycled players, some technical data, including main key characteristics of polypropylene material based in automotive parts, and accordingly to be able to sort future proposal of recycled plastic material.
  - This document targets polypropylene material based, as main plastic material family in automotive parts.
- Technical position of sector on **Methodological guide to evaluate the content of recycled materials in a vehicle**
  - To implement the new obligation to inform consumers in France about the recycled content of products (Circular Economy Law – AGECE), necessity to have a harmonized calculation methodology within the French industry to be able to position itself legitimately and transparently on this environmental criterion (terminology, calculation rules and communication methods)
  - Proposal to develop a standard at CEN TC 301 based on PFA guidance

### GENERIC SPECIFICATION FOR RECYCLED PLASTIC MATERIAL INTEGRATED IN AUTOMOTIVE PARTS POLYPROPYLENE

#### 1. INTRODUCTION

Aware of the challenges and opportunities of the circular economy, the automotive industry has for many years integrated this logic into its supply chain. With nearly 30% by mass of recycled materials (all materials combined) on average in French branded automobiles, the automotive industry is one of the industries that consumes the most recycled materials. Almost 50% of the production of recycled polypropylene is now consumed in France by the automotive industry.

The players in the automotive industry are experienced in the efficient use of resources and in achieving recyclability targets for their products. They rely on their partners in the downstream recycling sector. The implementation of solutions aimed at extending the life of vehicles and components and preserving the use of resources is guided by environmental and economic factors and is already part of the intrinsic values of our industry.

For more information on the use of plastics in the automotive sector, we invite you to visit the Plastic Forge website: <https://www.plasticforge.com/fr/actualites/actualites>.

The objective of the automotive sector in the framework of the circular economy roadmap is to continue this dynamic. The French automotive industry has thus validated a generic specification for various plastic parts, making it possible to define the main characteristics expected from recycled materials. This work could be cross-cutting with other industrial sectors.

These specifications target recycled materials Polypropylene for automobile parts.

This document has been written by the entire French automotive industry: original equipment manufacturers (COA, PSA GROUP, RENAULT GROUP), tiers and plastics industries (FAURECIA, FEV, GFA, PLASTIC-OMNIUM, VALEO). On the basis of these specifications, the sector will study the materials proposed for validation in automotive parts.

otive Platform

### METHODOLOGICAL GUIDE TO EVALUATE THE CONTENT OF RECYCLED MATERIALS IN A VEHICLE

#### 1. BACKGROUND

Like the industry as a whole, the automotive sector has long since integrated the issue of rational use of resources by optimizing the recycling of end-of-life vehicles but also by seeking to increase the recycled content of the various materials that composed an automobile. In order to limit the environmental impact of our products and to support the development of recycling channels, the French automotive industry is now at the forefront of the circular economy.

The French automotive industry is committed to going even further by making this strategy an argument for differentiation and competitiveness on European and international markets that are increasingly concerned about the environment.

Following the publication of the law n°2020-105 of 10 February 2020 on the fight against waste and the circular economy, new obligations have been introduced in France to improve consumer information<sup>1</sup>. As of 1 January 2023, producers and importers will have to communicate on the qualities and environmental performance of their products, including the recycled content. In the case of M1 and N1 category vehicles, the legal provision will enter into force on 1 January 2024.

#### 2. CHALLENGES

For several years, the French industry has been working and communicating on the integration of recycled plastics with, in particular, the voluntary commitments made by French OEM on the incorporation of recycled plastics in their vehicles on an European and global scale. Plastics represent one of the many challenges for achieving the recycling objectives for the EV sector.

With the introduction of this new obligation to inform consumers in France about the recycled content of products, it is important to have a harmonized calculation methodology within the French industry to be able to position itself legitimately and transparently on this environmental criterion.

In this context, it is necessary to:

- To agree with all the professions concerned on the terminology used
- To have a methodology for calculating the recycled content on the scale of an automobile
- Harmonize the methods of communicating information on the recycled content of vehicles

# PFA Roadmap on circular economy

## • Contribution to ADEME studies

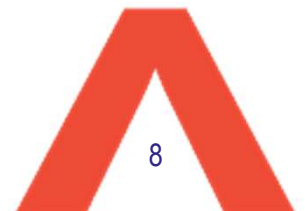
- Impact of the electrification of the vehicle fleet on the ELV EPR sector
- Technical and economic study on the recycling of rare-earth magnets in ELVs
- Non-metallic content of spare parts from ELVs
- Impact on the reuse of spare parts from ELVs
- European benchmark on tire recycling channels
- Remanufacturing (common practices in France/Europe and identification of obstacles/incentives)



# PFA Roadmap on circular economy

## • Regulatory framework

- **Proposal for a regulation on circularity requirements for vehicle design and on management of end-of-life vehicles**
  - PFA Contribution communicated during COM public consultation
  - PFA Amendments proposals on draft regulation
- **Regulation on batteries and waste batteries:** analysis of legal provision regarding the management of waste batteries
- **Critical Raw Material Act (CRMA)** and legal provisions regarding permanent magnets







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**AUTOMOTIVE SPECIFIC SECTOR  
CONTRAT**

# PFA Specific sector contrat

## • Fostering the circular economy

- **Develop the eco-design of vehicles and components:** companies in the sector are committed to developing the eco-design of vehicles, their parts and components, in line with customer specifications, particularly concerning the durability of parts (electronics, batteries), their weight reduction, reparability and recyclability.
- **Develop the use of reuse parts and remanufacturing:**
  - Increase the potential supply of reuse parts by increasing the flow of ELVs to EPR scheme dismantlers and by combating the illegal trade
  - Increase the use of reuse parts & certified and guaranteed reconditioning parts, in line with the objectives of the ELV EPR scheme
  - Carry out communication actions within the framework of ELV EPR scheme to promote the use of reuse/refurbished parts
- **Increase recycling of metals (steel and aluminum):**
  - Increase the proportion of recycled steel by one-third by the end of the contract, from 15% to 20%, based on new production capacities and a multiparty study on the conditions for collecting steel from ELVs
  - Define collection routes for shredded aluminum contained in ELVs and the conditions for directing it to the new aluminum recycling sites currently being set up



# PFA Specific sector contrat

## • Fostering the circular economy

- **Develop and support the incorporation of recycled plastics, composites, rubber and textiles in new vehicles and their components**
  - Identify shortages in the availability of recycled plastics, composites and rubbers (RRMs) in the automotive sector
  - List the essential criteria for validating an RRM for the automotive sector
  - Identify the sources of RRM from manufactured parts present in ELVs and not currently exploited (non-disassembled parts), and assess their technical, economic and environmental relevance
  - Aim is to obtain quantified targets for increasing the amount of RRM incorporated into new vehicles by 2030, and to raise public authorities' awareness of the need to establish national criteria for the EoW status of the primary and secondary materials required.
- **Set up a complete battery recycling chain:**
  - Support the recycling unit projects underway in France to process part of the production scraps from battery gigafactories, and develop all the stages required to transform blackmass (the residue from crushing batteries at the end of their life) into critical materials (Li, Ni, Co) that can be incorporated into new batteries
  - Ensure the development of a regulatory framework favoring a circular economy approach, notably by preventing the risk of blackmass leakage outside the EU



# PFA Specific sector contrat

## • Fostering the circular economy

- **Setting up a recycling waste stream for electronic components:** the use of electronic components continues to grow with the introduction of electrified and increasingly connected vehicles. Recycling these components will become an important issue, both ecologically and economically, and in terms of sovereignty
  - Identify measures that could be implemented to develop the recycling waste stream for these components
- **Set up a recycling and circular economy channel for industrial vehicles**
  - Work with manufacturers and professional players in the sector to develop the potential for reuse and labelling/certification
  - Implement EPR scheme for industrial vehicles to create a recycling network
  - Secure automakers' ability to give electric trucks a 2<sup>nd</sup> life by upgrading the battery mid-life

