



# Material Scouting and Landscape & Ecosystem Analysis

Case Study

<b>Client</b>	Leading automotive and component manufacturer
<b>Industry</b>	Automotive
<b>Products</b>	Premium cars and commercial vehicles

### Context

- With an increasing focus on the growing environmental concerns and difficulties in raw material sourcing, the client was aiming to reduce primary raw material requirements. The client specifically wanted to limit its reliance on materials that are available in limited quantities and have a substantial environmental impact when used and extracted from the Earth.

### Key Business Questions

- What are the latest recyclable/renewable/bio-based materials developed for electric vehicles and their applications in the automotive industry?
- Which automotive components are expected to be produced from these new alternative materials?
- Who are the leading material/technology developers innovating in the space of these materials?
- What are the latest product/material launches?
- Who are the potential suppliers of these materials?

## Engagement Scope

### 1 Material Scouting & Landscape

- Sustainable materials identified from within the automotive industry
- Materials identified from other industries such as textiles, chemicals, aerospace, etc.
- Material properties
  - Mechanical properties (strength, toughness, brittleness, etc.)
  - Chemical properties (corrosion resistance, pH resistance, etc.)
  - Energy required to manufacture/recycle respective materials
- State of maturity of materials
- Material processing requirements

### 2 Ecosystem Analysis

- Key players involved in the development of sustainable materials for automobiles
  - Automotive OEMs
  - Tier 1/tier 2 suppliers
  - Material manufacturers/technology developers
  - Startups
  - Universities/research institutes
- Player vs. material vs. component mapping
- Collaborations/partnerships and M&As
- Recent activities
- Potential suppliers of renewable materials

## Research Methodology

### Secondary Research

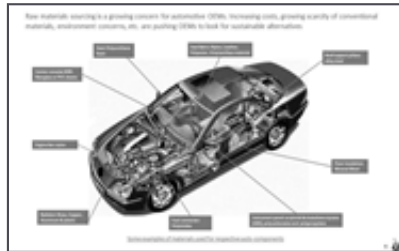
- Conducted desk research to gain insights with regard to sustainable materials currently used in automobiles and development of new automotive materials
- Referred to paid databases for obtaining information on patents pertaining to new technology and sustainable material development

### Primary Research

- 10+ telephonic interviews conducted with material suppliers, OEMs, tier 1 & 2 suppliers, industry experts, etc.

## Sample Analysis

### 1 Industry Analysis



In view of growing OEM requirement, material suppliers are also introducing new solutions based on renewable / recyclable materials for automotive applications.

Supplier	Product Description	Sustainable Application
	SEPRAL has developed a new generation of high-strength, lightweight, and cost-effective plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	SEPRAL's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.
	faurecia is a combination of faurecia's expertise and its innovative technology to develop high-performance and sustainable plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	faurecia's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.
	Sabelmat is a combination of Sabelmat's expertise and its innovative technology to develop high-performance and sustainable plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	Sabelmat's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.

## Benefits to Client

- The client received inputs on the extent of research conducted on sustainable materials used for the development of automobiles.
- The client also gathered knowledge regarding automotive components that are expected to be designed and manufactured using sustainable materials in the near, medium, and long-term.
- The client also obtained critical information on key players in the ecosystem, market strategies adopted, and innovations and initiatives undertaken by them.

### 2 Competitive Intelligence

OEMs, suppliers are continuously innovating to develop renewable / recyclable material-based solutions for automotive component manufacturing.

Supplier	Product Description	Sustainable Application
	TOTAL is a combination of TOTAL's expertise and its innovative technology to develop high-performance and sustainable plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	TOTAL's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.
	DTEC is a combination of DTEC's expertise and its innovative technology to develop high-performance and sustainable plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	DTEC's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.
	Dover is a combination of Dover's expertise and its innovative technology to develop high-performance and sustainable plastic injection molding parts for automotive applications. The product is made from a combination of recycled and virgin plastic, offering a sustainable solution for automotive parts.	Dover's products are used in various automotive applications, including interior and exterior components, and are designed to meet the stringent requirements of automotive OEMs.

Market Share (Q1)

Market Share (Q1) chart showing a pie chart and bar chart.

Market Share (Q2)

Market Share (Q2) chart showing a pie chart and bar chart.

Market Share (Q3)

Market Share (Q3) chart showing a pie chart and bar chart.

Market Share (Q4)

Market Share (Q4) chart showing a pie chart and bar chart.

# Thank you

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