



# Environmental Sustainability Roadmap

Let's make mobility sustainable together



We make it **possible**

# Moving forward together



“ Mobility on land, at sea and in the air are our main fields of action.

We have the technology, capabilities and global reach to embrace the Electrification and Sustainability challenges and opportunities.

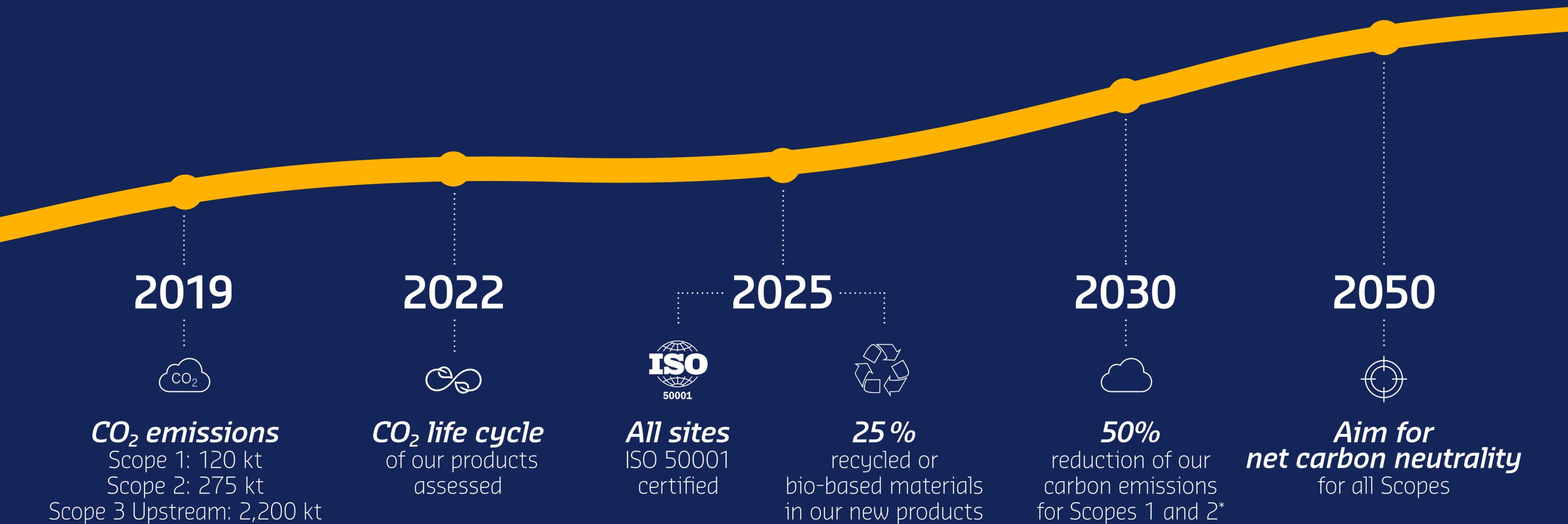
Together with our 38,000 employees, customers, suppliers and all stakeholders, we want to achieve 50% reduction of our carbon emissions for Scopes 1 and 2 by 2030 and we aim for net carbon neutrality for all Scopes by 2050. ”

**Helene Moreau-Leroy**  
Chairman and CEO

## Summary

Our assets and contribution .....	P.4
Providing sustainable solutions to our customers .....	P.9
Reducing our environmental impact .....	P.14
Partnering with our suppliers.....	P.19
Let's make mobility sustainable together .....	P.21

# Our path towards net carbon neutrality



1

*Our assets*  
and contribution



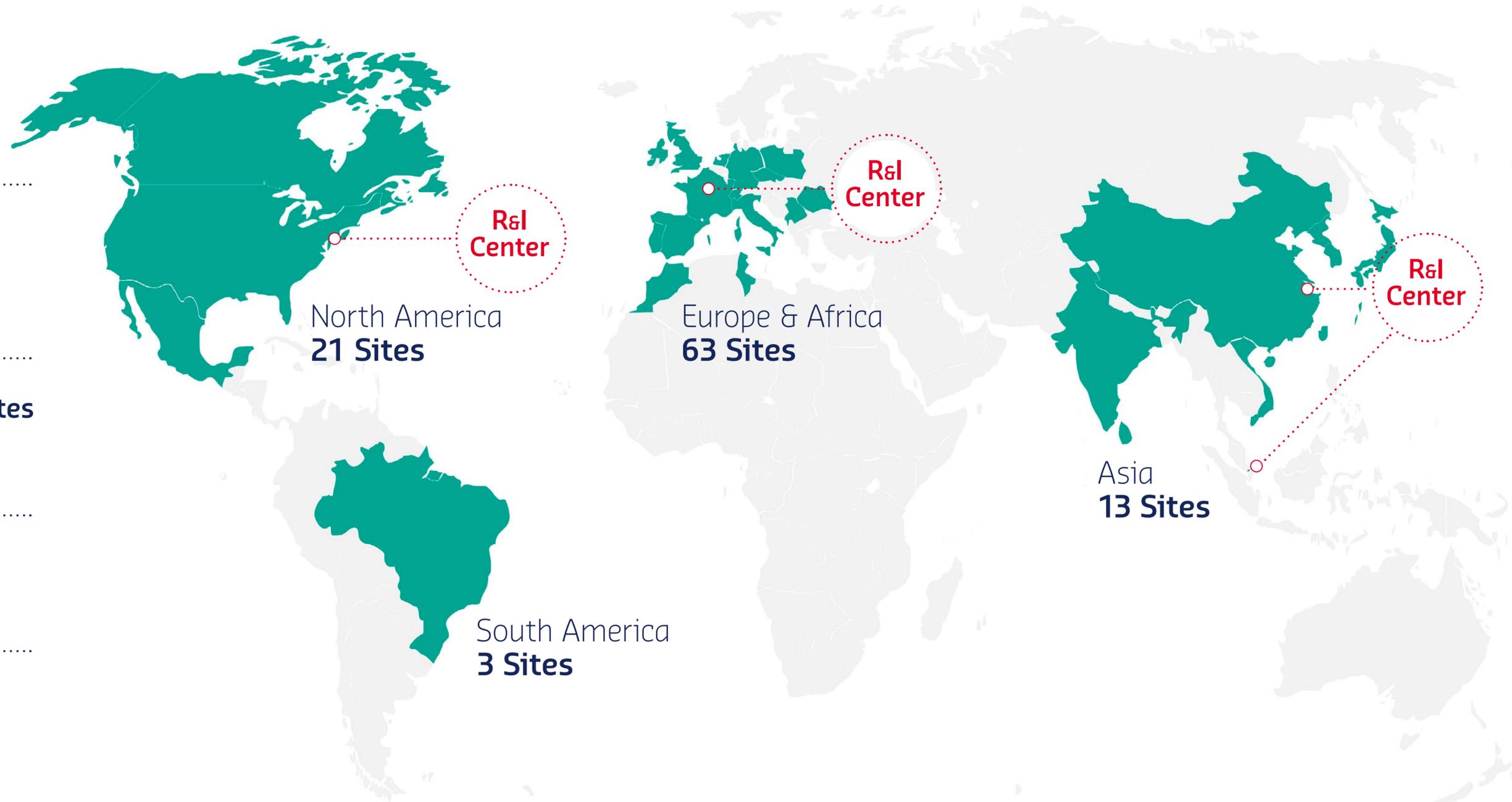
# *Together* with our employees, customers and suppliers

The whole group onboard

**38,000**  
Employees

**3** Research & Innovation Centers      **100** Sites

**40** Development Centers      **3** Fab House



Close to our customers\*



# *A history of innovation* serving all mobility needs

## Elastic suspension

Pioneer in elastic suspension for vibration dampening

1936



## Primary suspension for Trains

On board the first TGV for passenger comfort

1980



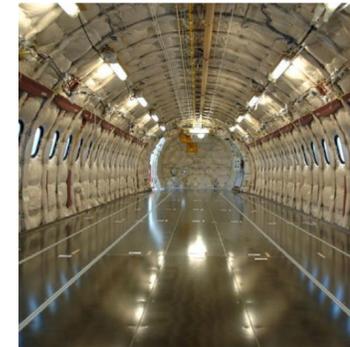
1981



1996



2009



2015



2020



## Hydraulic suspension for engines

Pioneer in hydraulic engine suspension for superior passenger comfort

## Magnetic sensor encoders for ABS

Pioneer in magnetic sensors for accurate rotational speed measurements

## Thermoplastic air conditioning loop

Pioneer for lightweight systems

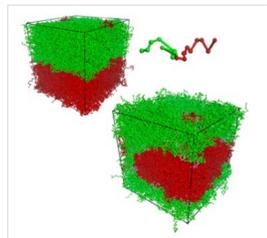
## Elastic belt for electric vehicles

Auto-tension Elastic belt for easy fit and energy saving

# Creating value through Science and Technology

## Internal network of R & D competences

### Multi-material engineering



.....  
Polymer alloy modeling

### Composites



.....  
Fiber placement technology



.....  
Pullforming process

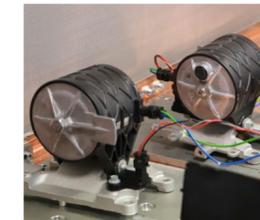
### System characterization

.....  
Aerospace composite duct testing in anechoic chamber

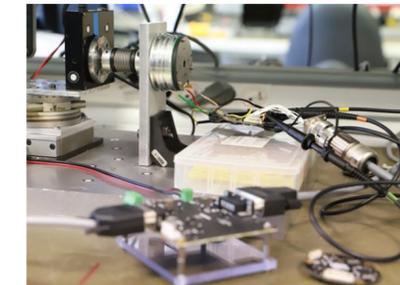


.....  
Vehicle Thermal Management System (VTMS) test bench

### Mechatronics & connected systems

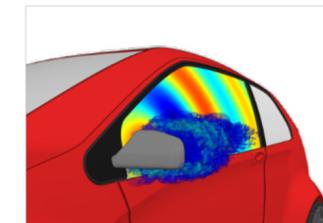
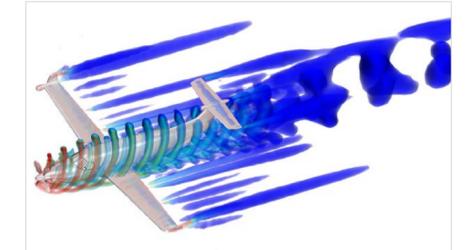


.....  
Test of active vibration cancellation system



### Multi physics modeling

.....  
Turbulence modeling in fluid dynamics



.....  
Aeroacoustic modeling

Research & Development: 2,300 people, 5% of sales

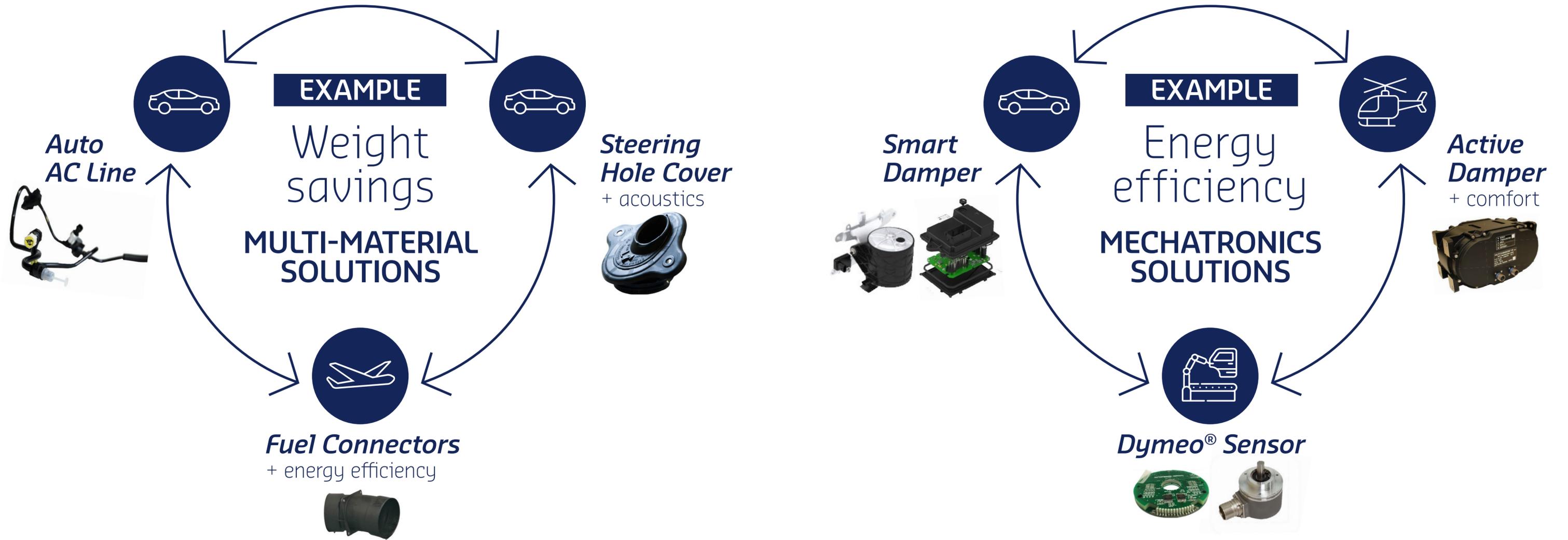
External network of partners



Massachusetts Institute of Technology



# Connecting our technologies to multiple industry applications



**Multi-material Engineering**



**Mechanical Engineering**



**Numerical Modeling**



**NVH\* at System Level**



**Hardware, Software, Sensor Design**

Leveraged expertise

# 2

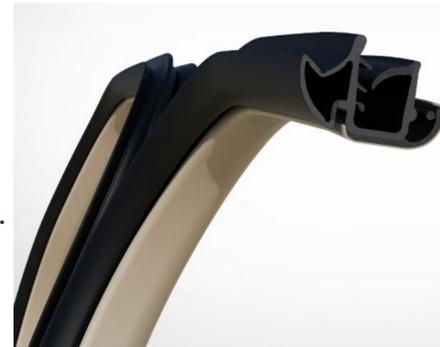
*Providing sustainable*  
solutions to our customers



# Reducing CO<sub>2</sub> footprint

## Multi-material engineering

Automotive door seals .....  
-25% CO<sub>2</sub> over product  
lifecycle



## Composite technologies with function integration

..... Connection rods in aircraft  
30% weight savings



## Multiphysics modeling

Automotive bracket .....  
for engine mount  
40% lighter



..... Multi-way valve  
reduces CO<sub>2</sub> emission  
up to 3%

## Energy efficient thermal management

## Mechatronics & connected systems

..... Data acquisition  
systems for  
predictive  
maintenance

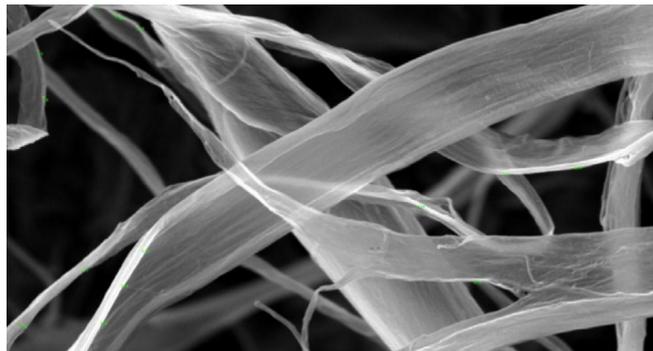


# Fostering the circular economy



**OUR TARGET:**  
25% of recycled or bio-based materials  
in new products in 2025

**Use bio-based materials**  
Bio-based carbon black, cellulose  
fiber and natural rubber



**Use recycled materials**  
95% energy saved compared  
to first fusion aluminum



**Extend operations lifetime**  
Maintenance Repair Overhaul (MRO)  
for aerospace and railway

**Recover, reuse waste and upcycle**

New process to recover & reuse rubber  
waste through micronization of rubber



**Extend product lifecycle**  
Helicopter Lead-lag damper with  
sensor to optimize maintenance

# Developing sustainable products through eco-design



OUR TARGET:  
CO<sub>2</sub> lifecycle assessment of our products serving eco-design purpose

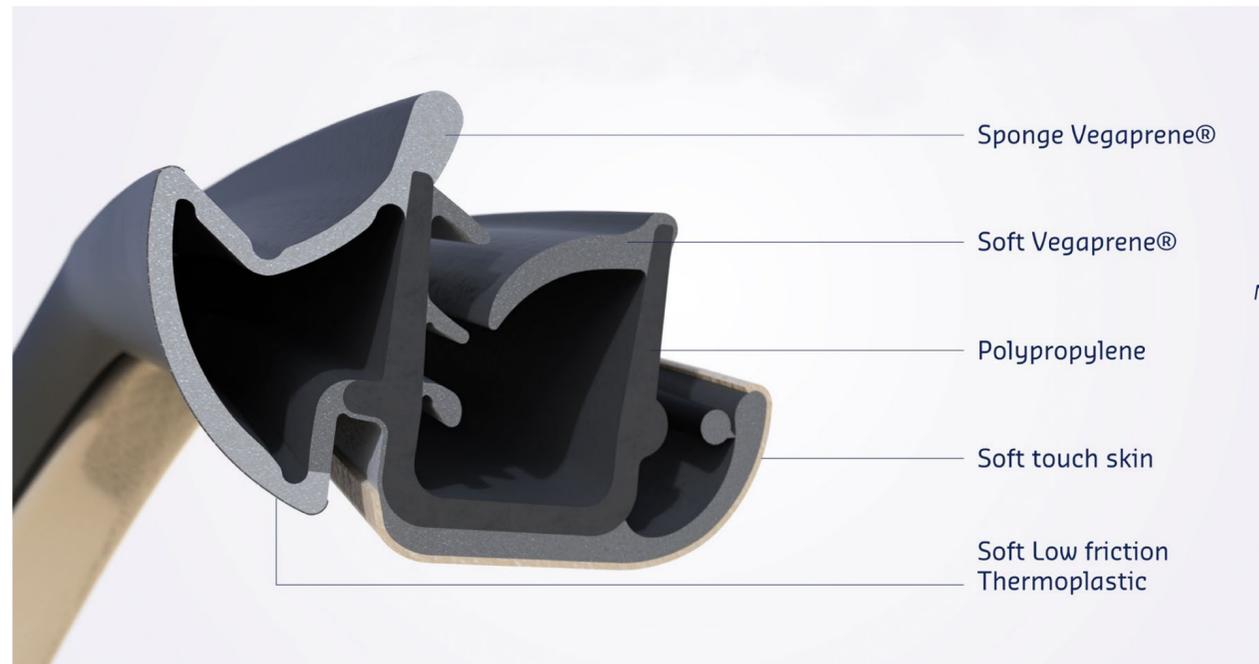
## EXAMPLE

### Full thermoplastic door seal

Weight saving  
**49% lighter**.....  
vs metal insert

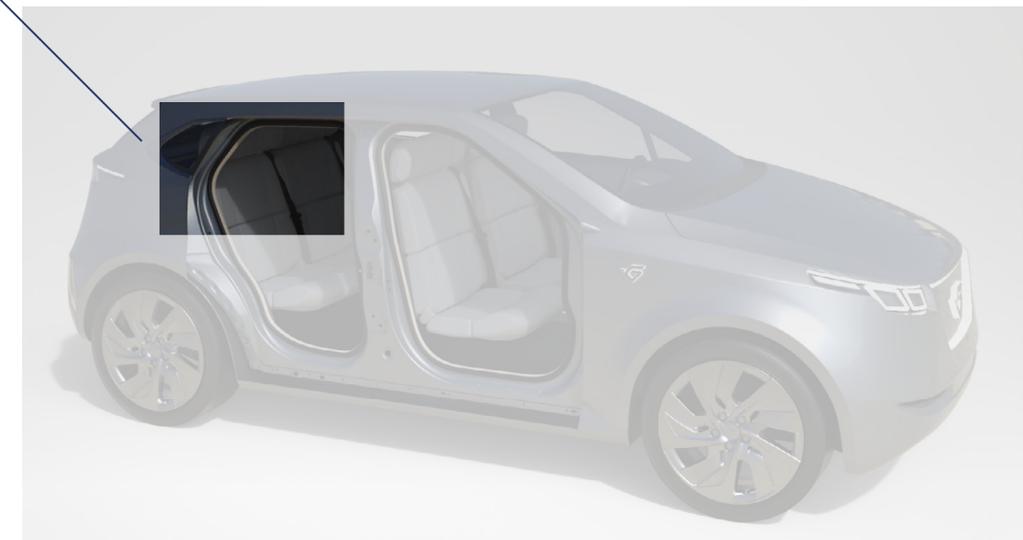
35% CO<sub>2</sub> emission saving .....

100% recyclable .....



From a material point of view, the biggest advantage is the level of recyclability of TPE when compared to EPDM. ”

Jaguar Land Rover engineer



over 1 million pieces sold  
with 4 premium vehicle programs

# *Extending innovation* with partners

Hutchinson innovates with its partners to create new sustainable ways to travel.



Wireless charging

*Wireless charging system of electrical vehicles*

..... Electreon

Battery thermal insulation

*Thermal insulation for batteries in electrical buses*

eCitaro .....



Acoustic solutions

*Multi-material assemblies for VTOL mechanical and acoustic performance*

..... eVTOL partner

# 3

## *Reducing our environmental impact*



# Rolling out an energy efficient roadmap at our sites

## EXAMPLE: CO<sub>2</sub> REDUCTION IN LODZ PLANT (POLAND)

- Energy recovery from VOC burner .....  
**- 100 TCO<sub>2</sub>/year**
- White roof instead of black .....  
**- 1 000 TCO<sub>2</sub>/year**
- Blinds on all windows .....  
**- 20 TCO<sub>2</sub>/year**
- Machine program update .....  
for automatic disconnection  
**- 300 TCO<sub>2</sub>/year**
- 140 oxytrees planted .....  
**- 5 TCO<sub>2</sub>/year**



“ The key success factor with our ISO 50001 certification has been to implement the standard through 4 steps: energy policy design, training & awareness improvement, data collection & analysis, and involvement of all stakeholders for implementation. ”

**Rosario Lerida,**  
Plant Manager Madrid, Spain & Tangier, Morocco



ISO 50001  
certification

Gives a framework to monitor energy management.



**OUR TARGET:**  
*By 2025, 100% of all sites certified with  
ISO 50001 standard*

# Committed to renewable energies

We have started multiple initiatives at our sites worldwide to move to multiple renewable energies.

## Solarization

Install panels on our plants, according to a pluriannual solarization roadmap

### EXAMPLE: WUHAN PLANT (CHINA)

3,280 solar panels  
1,500 MWh produced  
- 900 TCO<sub>2</sub>/year



## Bio gas

Explore contracts with biomethane suppliers to replace fossil gas



CONTRIBUTION TO OUR TARGET:  
50% reduction of our carbon emission  
for Scopes 1 and 2 by 2030

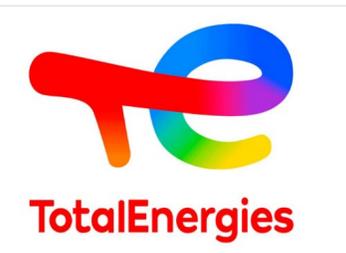
## Wind power

Develop partnerships for existing and future projects to secure long term contracts on renewable power



## Solar PV farm

Contract with existing renewable energy suppliers



## TotalEnergies

As part of TotalEnergies, a world leader of renewable energies, Hutchinson has access to PPA (Purchase Power Agreements)

# Reducing environmental impact - water and waste

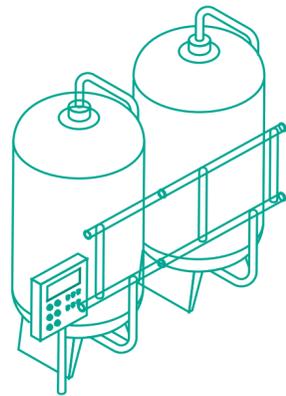
## Water management

Hutchinson is committed to a better use of natural resources: we promote best practices for reducing water withdrawal for our teams around the globe.

**EXAMPLE:  
SOUSSE PLANT (TUNISIA)**

**Avoid withdrawals**

- Rain water →
- Condensation from AC →
- Cooling water →



**Re-use**

- Cooling water
- Gardening
- Toilet flush



**OUR TARGET:**  
-25% water withdrawal by 2025



ISO 14001  
certification

Gives a framework to monitor and improve resource efficiency and waste reduction.

ISO 14001 certification for 100% of our sites by 2025.  
70% of our sites are already certified.

## Waste avoidance & reduction

We avoid waste by using AI tools, process improvements and breakthrough product design. We also foster reusing, recycling and reducing nonvalue added waste. This is part of the Excellence Production Standards.

**Waste avoided**

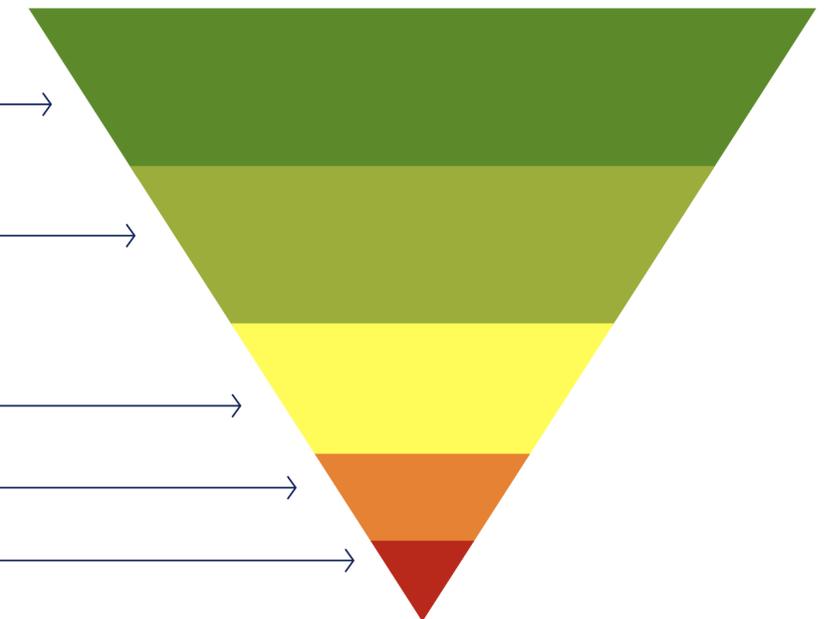
- Prevention →

**Non waste**

- Re-use →

**Waste**

- Recycling →
- Energy Recycling →
- Landfill + incineration →



**OUR TARGET:**  
Zero waste to landfill

# Our employees are engaged with local communities

## Offering staff a new experience based on biodiversity and local economy

The Dovecote area welcomed all the teams to exchange their knowledge on biodiversity. Employees planted 100 fruit trees from forgotten and rare species. During World Bee Day, honey can be harvested.

Chalette-Sur-Loing, France - 2020-2021



## Raise employees awareness to climate change

Each month, employees and their families visit the Earth House, a place that allows visitors to view and observe climate change and environmental issues.

Celaya, Mexico - 2020



## Creating team cohesion through planting of trees

Employees joined to plant Paulownia trees that can capture 10 times more CO<sub>2</sub> and release 4 times more oxygen than ordinary trees.

Lodz, Poland - 2021



## Collecting litter with children

Employees worked with the primary school to pick up 500kg of litter on the roads. This operation helped the young generation develop an awareness of environmental protection.

Lodz, Poland - 2019

“

In Reynosa, employees suggested replacing fluorescent lighting with LED lighting and motion detectors leading to cost reduction and improved lighting. ”

**Víctor Garza,**  
HR Director Reynosa, Mexico

## Agroforest project in Brazil

Employees have planted 30,000 trees around the building over the last 10 years to contribute to reforestation and conservation of the local flora.

Monte Alto, Brasil - 2021

# 4

## *Partnering* with our suppliers



# Acting with our suppliers

Reducing the impact of Scope 3 is essential. We are rolling out an extensive roadmap with our suppliers.

**140 suppliers identified**  
as key contributors

**Raw materials and components:**  
chemicals, textile and metal

**Goods and services:**  
packaging, transport and temporary labor

## 5 requirements to fulfill

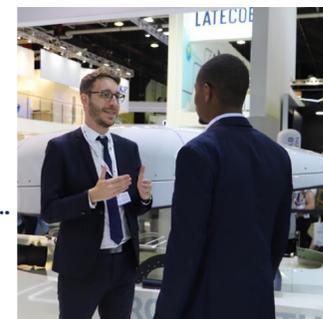


### Short-term objectives

Integration of our requirements in the purchasing strategy



Supplier day to align our supply base with Hutchinson expectations



Suppliers commitment



Monitoring through data and KPIs



### Long term objectives



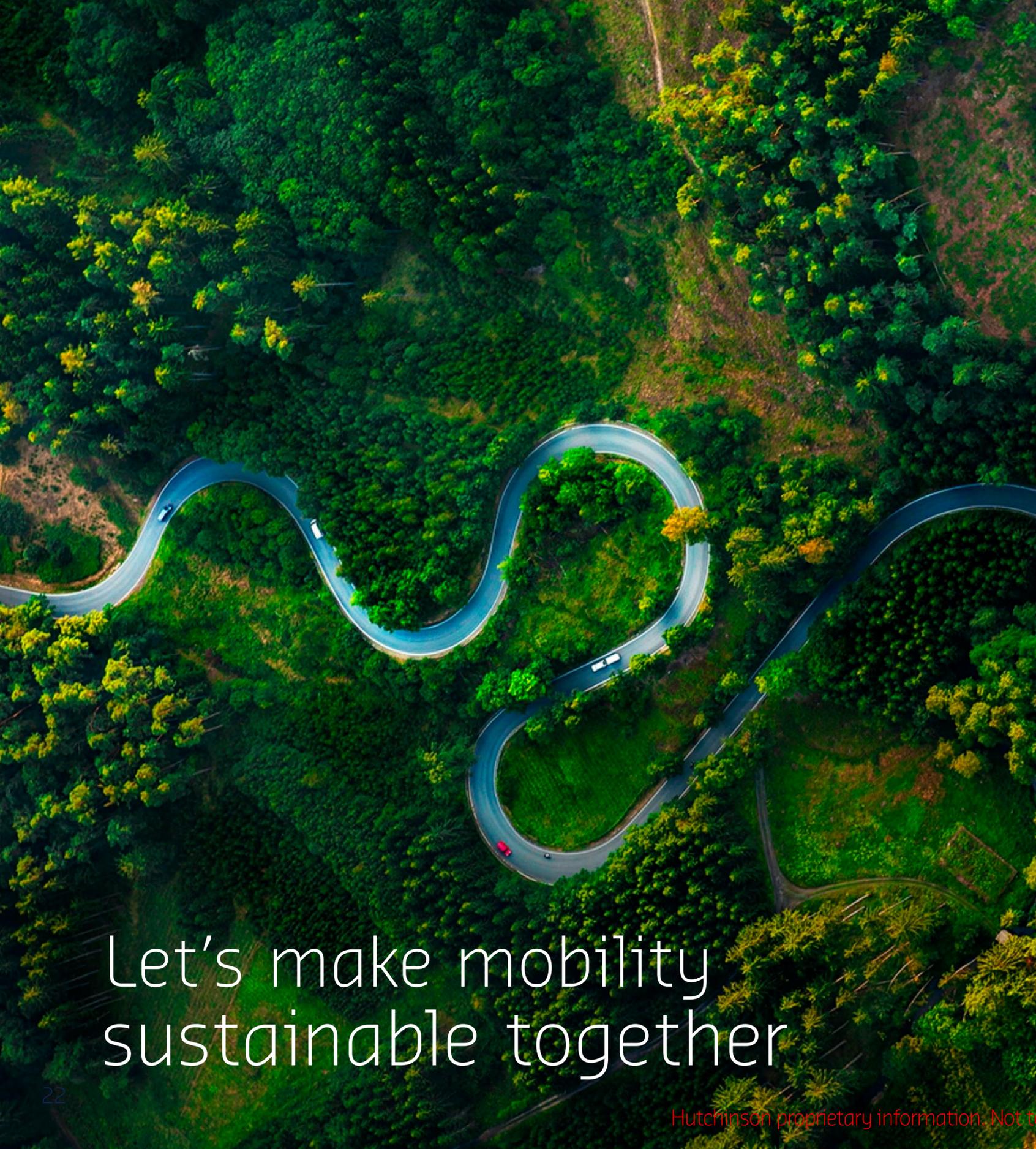
A compliant supply base

# *Let's make mobility sustainable* together

Employees, customers, suppliers and all stakeholders have a shared responsibility to achieve net carbon neutrality.

Let's join forces to continue designing innovative solutions to shape a sustainable mobility.

Because the only way to meet that challenge is together.



Let's make mobility sustainable together

