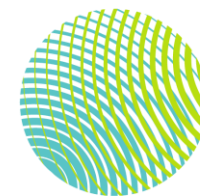




**WE ARE  
CREATING  
VALUE**

Customer focused



**Techniplas**

Destination: ne>>xt level

# Our Core Assets

Techniplas is inspired to be a leader in providing products and services to its customers in the most environmentally friendly and socially responsible manners. Our products are based on sustainable, energy efficient, clean and optimized processes to protect our environment while providing cost efficient solutions. These efforts are demonstrated through

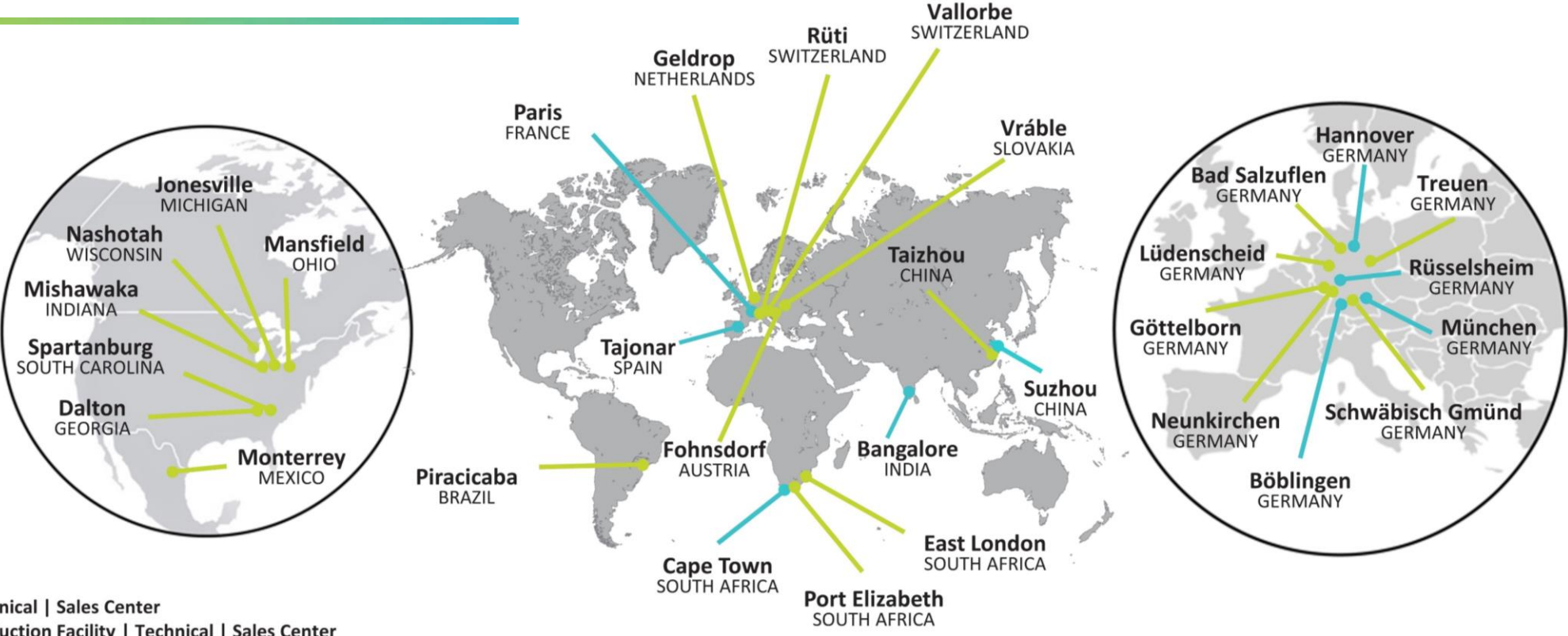


- 📍 ColorFuse, painting and metallization technology
- 📍 Smart functional surfaces
- 📍 Light weight energy efficient systems
- 📍 Innovative solutions for illuminated & decorated surfaces

While our main focus remains in the automotive market, Techniplas continues to participate in consumer, industrial and medical industries.

**We are dedicated to serving our global customers with local experts.**

# Global Techniplas Footprint



30 sites worldwide



Global R&D, test centers and sales offices



3'700 employees



750 m\$ annual sales



> 100 patents



# Global Prime Network

Extending our production capacities, we rely on a global production network, which enables us to operate worldwide in desired locations for our customers.

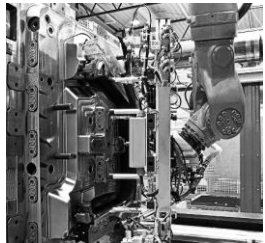
- 📍 **End-to-end supply chain solutions**
- 📍 **Design and engineering know-how**
- 📍 **Advanced manufacturing technology**
- 📍 **Local customer support**

We offer a one-stop shop for localized automotive design-to-manufacturing services tailored to our customer needs!



# Group Technologies Overview

	Austria	Czech Republic	Germany	Italy	Netherlands	Slovakia	Spain	Switzerland	United Kingdom	Brazil	China	Mexico	North America	South Africa
Thermoplastic	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
Thermoset								✓				✓	✓	
ColorFuse			✓					✓			(✓)		(✓)	
Painting / Coating	✓		✓		✓					✓			✓	
Physical Vapor Deposition (PVD)			✓										✓	
Physical Foaming / MuCell			✓					✓			✓		✓	✓
Integrated Smart Surfaces / Backinjection of Foils	✓		✓					✓					✓	
Low and high pressure forming (carpet)													✓	



# Full-Service Supplier

## Innovation

Innovation management  
Centers of excellence  
Design of experiments

## Material & Testing

Material laboratory  
Technical Validation Centers  
Prototyping

## Surfaces

Process Know-How  
Enhance Surfaces in various processes  
Wide diversity of Functions and Designs

## Customer

One face to the customer / KAM



## Manufacturing

Global production capabilities

## Quality

0 ppm | Design for Six Sigma  
Inline quality control  
Traceability

## Product Development

Product design  
Simulation  
Tool management  
Post processing & automation

# Manufacturing Capabilities

## Material Expertise



- ✔ All common technical polymers in use
- ✔ Thermoplastics and thermoset
- ✔ Regrinds
- ✔ High variety of colored and transparent materials for A-class applications

## Production Capabilities



- ✔ Multi-shot injection molding
- ✔ ColorFuse™ manufacturing
- ✔ Insert molding
- ✔ Injection compression
- ✔ Thermoset molding
- ✔ IML/IMD
- ✔ Physical foaming e. g. MuCell
- ✔ Low & high pressure forming (carpet)

## Secondary Operations



- ✔ Assembly (automated or manual)
- ✔ Robotic application of foam
- ✔ Welding / glueing
- ✔ Integration of electronics & Lighting
- ✔ End of line testing
- ✔ Pad photogravure
- ✔ Hot stamping

## Surface Engineering



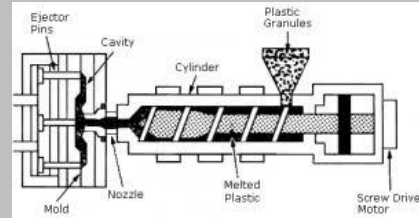
- ✔ Best in class paint expertise
- ✔ Automated PVD metalization
- ✔ Clean rooms and robotics enabled
- ✔ Surface functionalities; illumination, sensing, self-healing, chrome replacement



# Technologies & Products

## Technologies

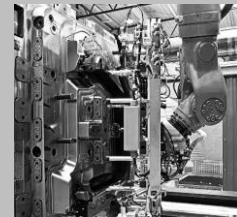
Multiple Component / Injection Molding



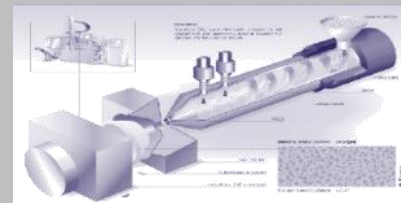
ColorFuse (Direct Coating)



Physical Vapor Deposition



Integrated Smart Surfaces / Back Injection of Foils



Lightweighting / Physical Foaming

Coating / Painting

Low & high pressure forming

## Products

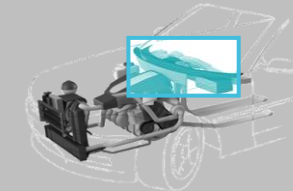
Decorative & Lighting Solutions



Functional Components



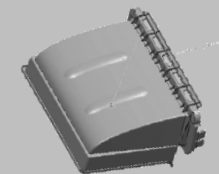
Energy & Thermal Management



High Precision Parts



CO<sub>2</sub> Reduction Solutions





# ColorFuse™



This direct surface coating process combines injection molding and painting in a single process step



Ecofriendly, sustainable, CO<sub>2</sub> reducing



Durable and resistant to scratches, light and weather



Completely new design possibilities



Minimal wall thickness



Cost efficient and resource saving process



Various customers worldwide are already using our serial applications



# PVD – Chrome replacement



Automated proprietary process for in-chamber metalization with look and feel of chrome



Ecofriendly, no toxic Chromium-6; REACH compliant



Durable and resistant to scratches, light and weather; meeting OEM's interior testing specs



Novel functionalities include light and radar transmission (for sensors) and capacitive touch



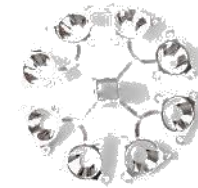
Minimal layer thickness creates flexibility of coated parts



Cost basis at or below conventional chrome



Patent pending





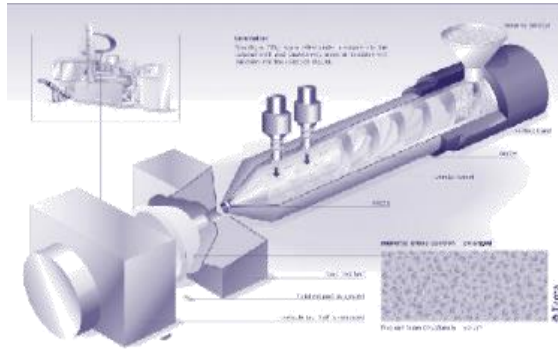
## Lightweighting & physical foaming

### Thin Wall Technology



- 📍 Simulation for optimized filling situation
- 📍 Sequential injection

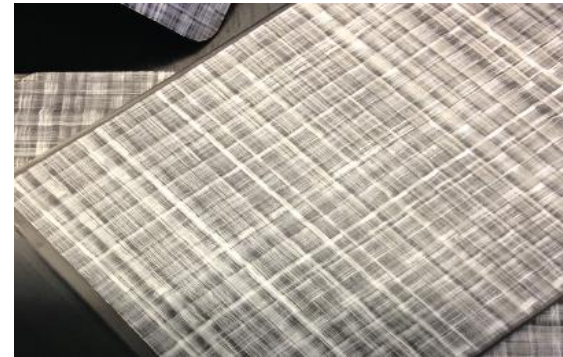
### Foaming



#### Physical / MuCell® or Chemical

- 📍 Weight reduction
- 📍 Less deformation
- 📍 Reduced sink marks
- 📍 Smaller machine because of less pressure

### Organo Sheets



- 📍 Minimized wall thickness
- 📍 Improved weight to stiffness ratio

### Material



- 📍 Optimized density
- 📍 Regrinds
- 📍 Biobased materials



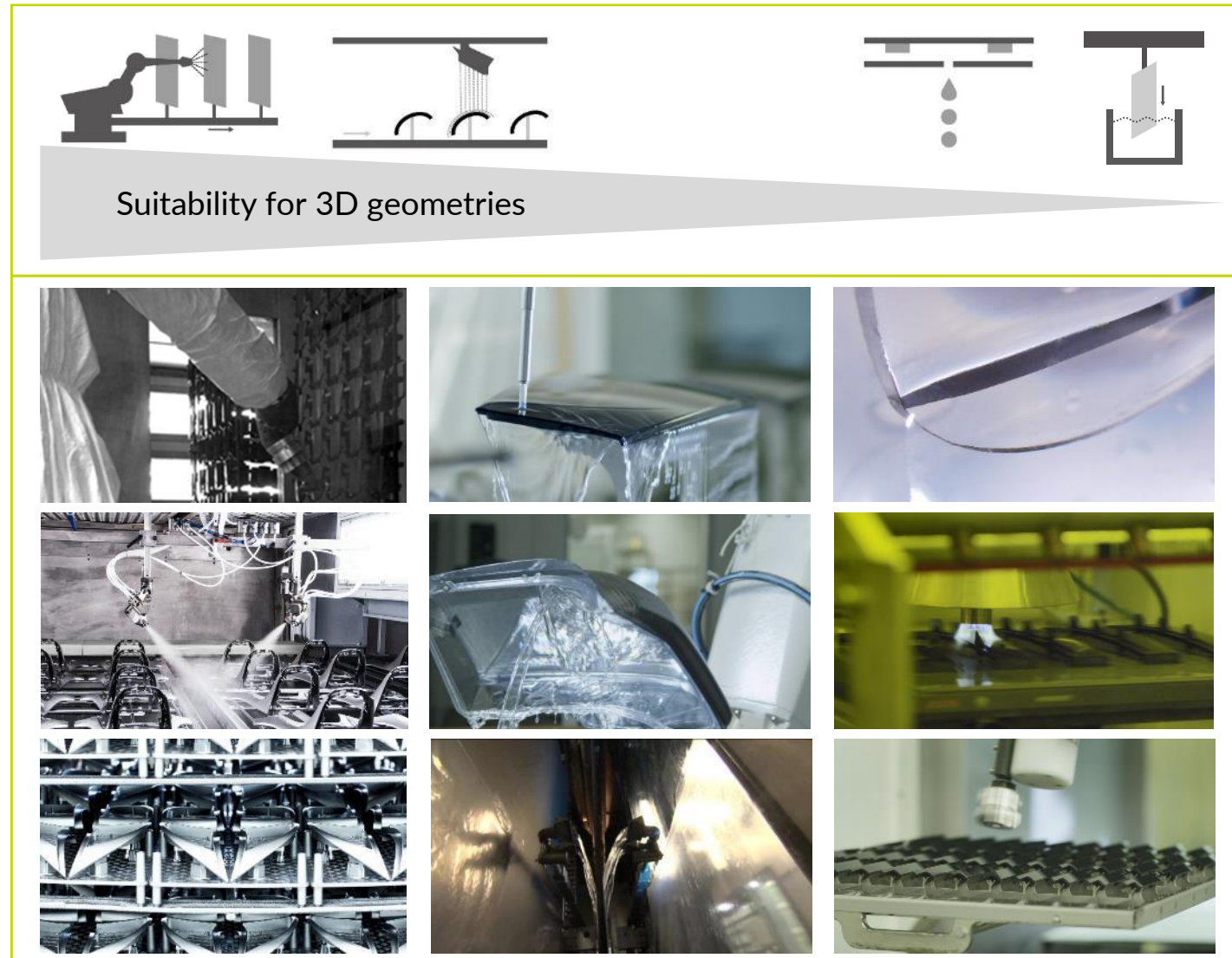
# Coating / Painting

## Established application processes

- 📍 3D Spray application (robotic / manual)
- 📍 2D Flat bed spray application
- 📍 Dip coating
- 📍 Flow coating
- 📍 Inkjet printing

## Coating materials

- 📍 Conventional lacquers (clear & pigmented)
- 📍 Hybrid sol-gel hardcoats
- 📍 1K / 2K systems
- 📍 UV and thermal curing (IR / convection)
- 📍 Multi-layer stacks





# Decorative Solutions Exterior & Interior

## **Exterior parts**

*Radar Emblem, Reflectors, Radiator Grills  
Hood-, Trunk- and Bumper Parts,  
A/B/C pillars, Spoilers, Wheel Arches,  
Headlight and Taillight components,  
Mirror Housings, Sill Plates / Scuff Plates*

- 📍 High quality A-surfaces
- 📍 Functional and light integration
- 📍 Real metal with cool touch
- 📍 Weight reduction
- 📍 Broad range of colors
- 📍 Invisible parting line



# Decorative Solutions Exterior & Interior

## ***Interior parts***

*Decorative panels, Ambient light covers,  
Center console components,  
Door panel switch covers,  
Door handel covers, Door moldings,  
Reflectors, IMD / IML Foils,  
Cockpit decorative elements, Infotainment  
Display Systems, Operating elements*

- 📍 Advanced thin films
- 📍 Integrated electronics
- 📍 Premium design
- 📍 Surface enhancement
- 📍 Broad range of colors
- 📍 High quality A-surfaces
- 📍 Functional and light integration



# Lighting Solutions

*Along with color, shape and material, lighting is increasingly employed to position leading brands and clearly distinguish one vehicle from another – for design, functionality and communication.*

- 📍 Light guide design and simulation in-house
- 📍 Use of microstructures for high homogeneity and increased intensity
- 📍 2D and 3D light guide geometries
- 📍 Integration in interior and exterior parts
- 📍 Supporting technology for future autonomous driving as communicator to other vehicles, pedestrians and the outside world

**Ambient Lighting**



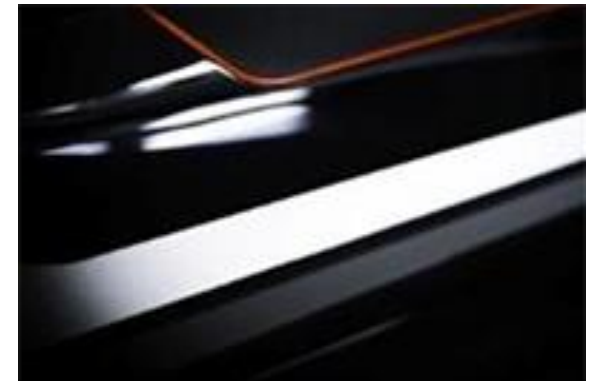
**Communication**



**Signal & Warning**



**Integrated Functions**



# Functional Components

*Under body parts / brackets /  
motor compartment parts / aspirators /  
electrical vehicle components*

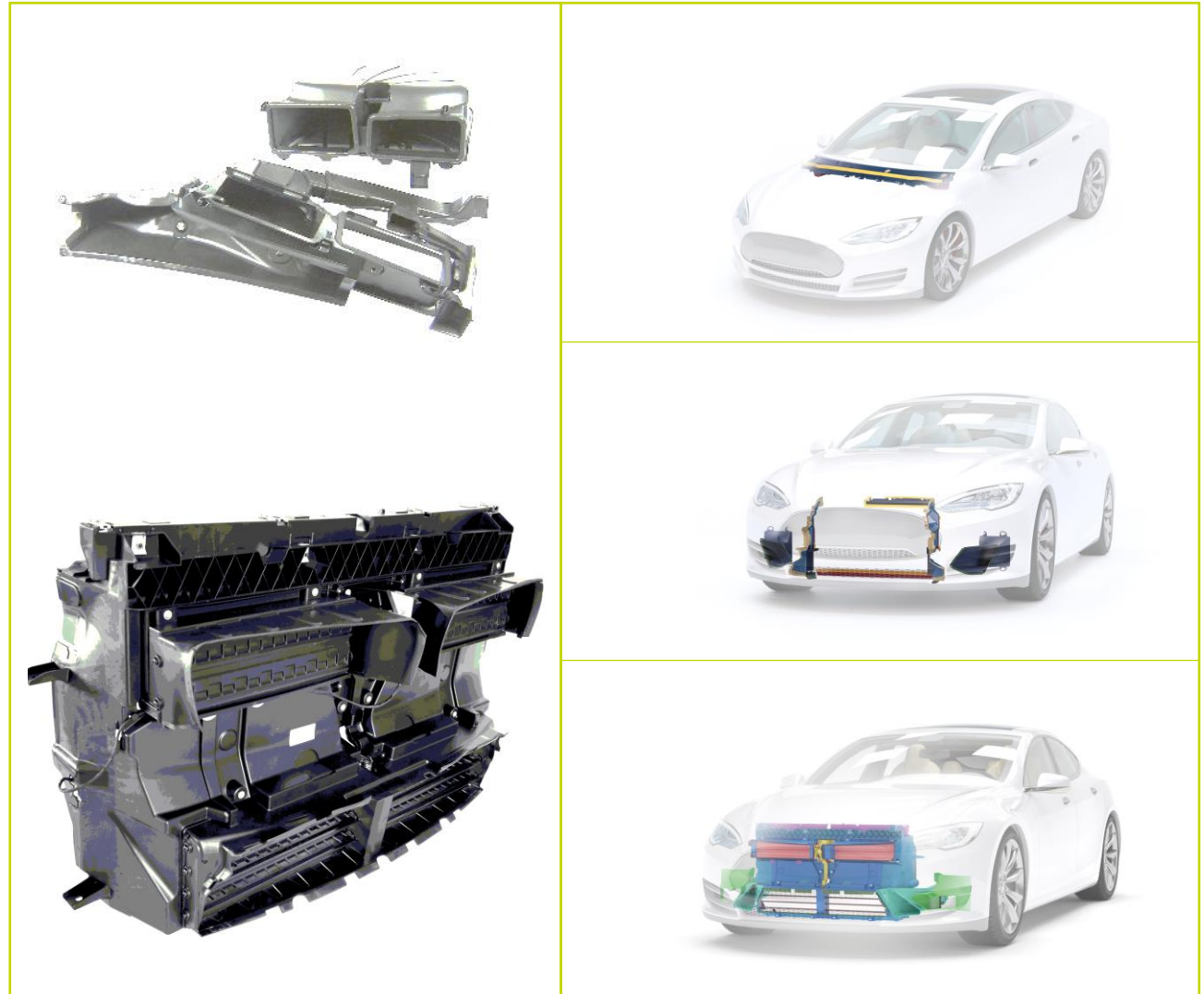
- 📍 Acoustic efficiency
- 📍 Thermal efficiency
- 📍 Lightweight approach
- 📍 Mechatronic / kinetic solutions
- 📍 Material combinations hard / soft,  
organo sheets / inserts, etc.





# Energy & Thermal Management

- 📍 More than 4 million parts produced
- 📍 Long time experience with **open** and **closed** air water separation systems
- 📍 Kinematic inhouse expertise, e. g. active flap control for grille shutters and air ducts
- 📍 Eco friendly due to the use of recycled material
- 📍 With our worldwide competence centers, we provide all necessary tests and validations in-house
- 📍 Reduced energy consumption using our **ENAIRGY**-technology which is one of our multiple product and process patents
- 📍 Good cabin climate by providing 100% fresh air to the AC system



# High Precision Parts

- 📍 Complex shapes
- 📍 Tolerances of +/- 0.004mm
- 📍 Multi cavity molds
- 📍 High precision lapping and honing
- 📍 From die cast aluminum or machined steel parts up to phenolic resins
- 📍 18% worldwide market share



- 📍 Injection molding and injection compression molding with carpet
- 📍 Robot water jet
- 📍 Cutting and trimming with the latest 3D robotic software
- 📍 Ultrasonic welding



# Selected Customers



- OEM Automotive
- Tier-Supplier Automotive
- Other Industries





# Techniplas

Destination: ne>>>xt level

Next generation products,  
systems and surface solutions

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