



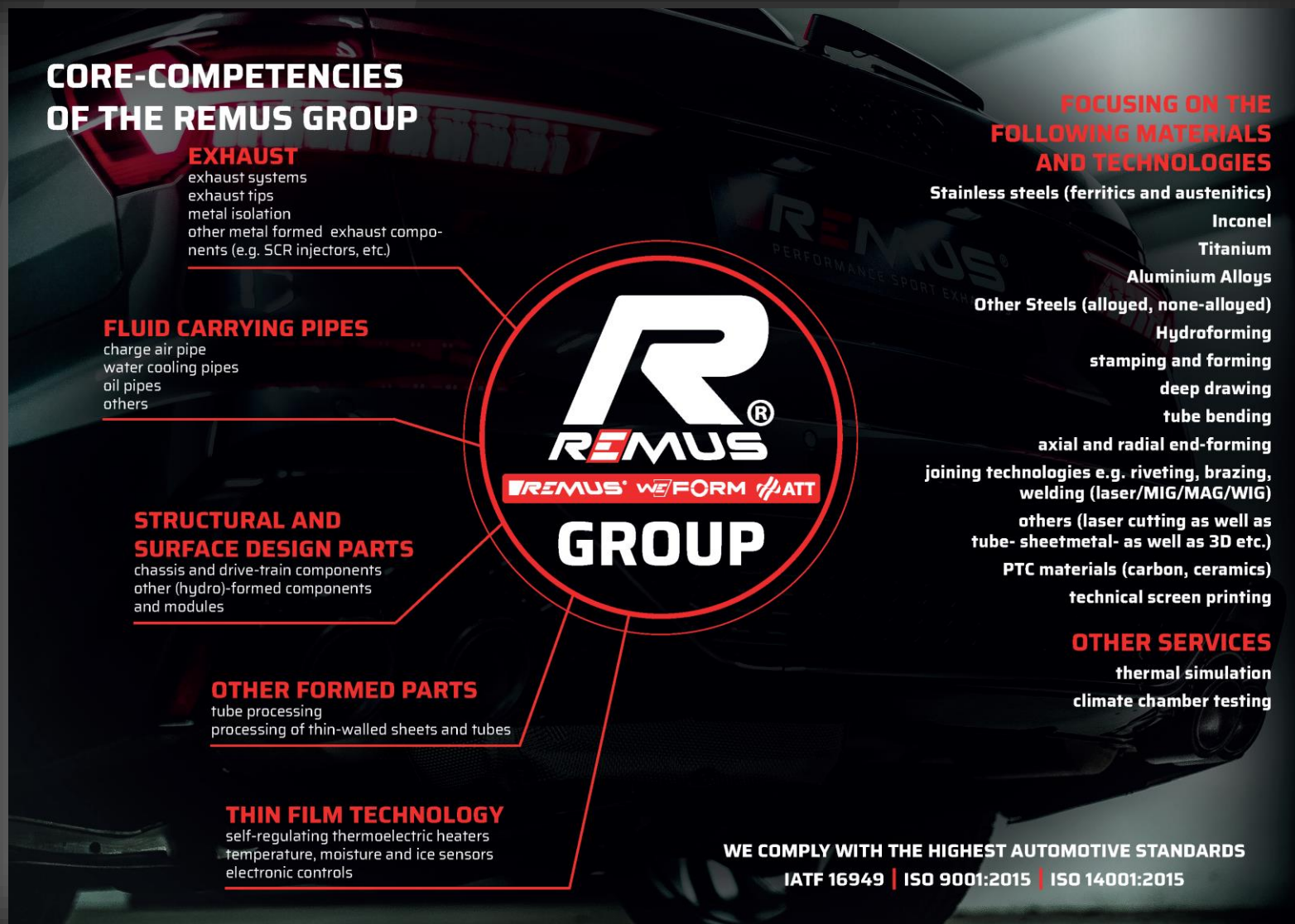
heating science

# ■ Introduction ATT I

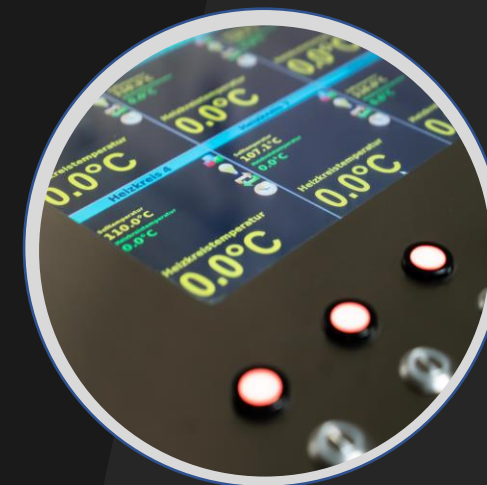
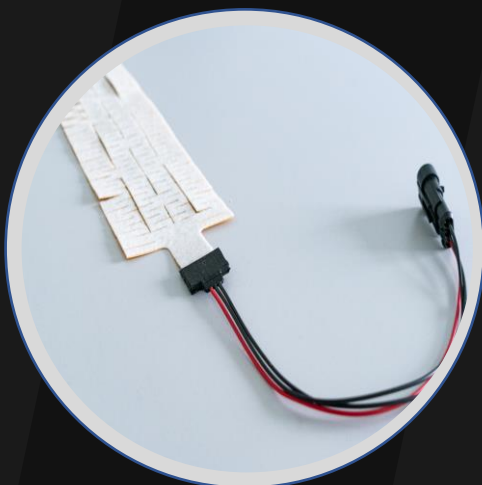


ATT is member of the REMUS-Group

- Employees: ~850
- Turnover: ~170 Mio.
- Production: Austria & Bosnia



# Introduction ATT II



## Printed Electronics Solutions

- Printed Flexible PTC-Heaters
- Printed Flexible Sensors
- Electronics
- Battery Thermal Management
- Thermal Comfort Optimization
- ADAS Sensor & Camera Heating Systems
- Heated Floor Panels
- Vehicle Cabin Heating
- Flexible Printed Circuits (FPCs)
- Sensors & Systems

## Manufacturing

- Prototyping
- Series Manufacturing

## Thermoforming

- High Performance and best-in-class heating systems for thermoforming of plastic foil
- Food and Medical
- Hardware & Software

We are a **solution provider, developer and manufacturer** of **intelligent heating & sensing systems in the field of printed electronics.**

We support our customers in specifying what they need, deliver prototypes in a very short time and beyond that we can also offer series parts.



Home Base  
Graz



We have a strong focus on Automotive industry, because that is where most of us come from. But our technologies and products can be used in many other industries as well. We see ourselves as solution providers and our technologies get integrated into a wide range of different applications.

### AUTOMOTIVE

50%

### AEROSPACE

20%

### RAILWAY

15%

### LIFE SCIENCE

10%

### DEFENCE

5%





# intelligent heating & sensing systems

Heating + Sensing + Electronic Control

*We offer a unique Approach to inject intelligence into plastic components. **Ready for the Future.***

# Introduction ATT VI

## Heaters

Our heaters are tailor made for each specific application. Material layers are individually selected based on requirements.

- AC/DC (1000V+)
- up to 350 kW/m<sup>2</sup>
- Extremely light
- Very thin & flexible
- Strong PTC effect
- Stress resistant
- Injection Molding
- Individual connectors
- Automotive certified
- Aerospace certified
- Customizable

## Electronic Control



We design specific ECUs for each application with individual interfaces to existing architectures. We offer the full scope of Electronics development

- Concept Development
- Circuit Design & Simulation
- Layout
- Assembly
- Firmware Development
- Graphical User Interface
- Testing
- Certification

## Smart // Surface // System

*The combination of heating, sensing and controlling offers completely new possibilities to bring functionality to components. Make them Intelligent.*

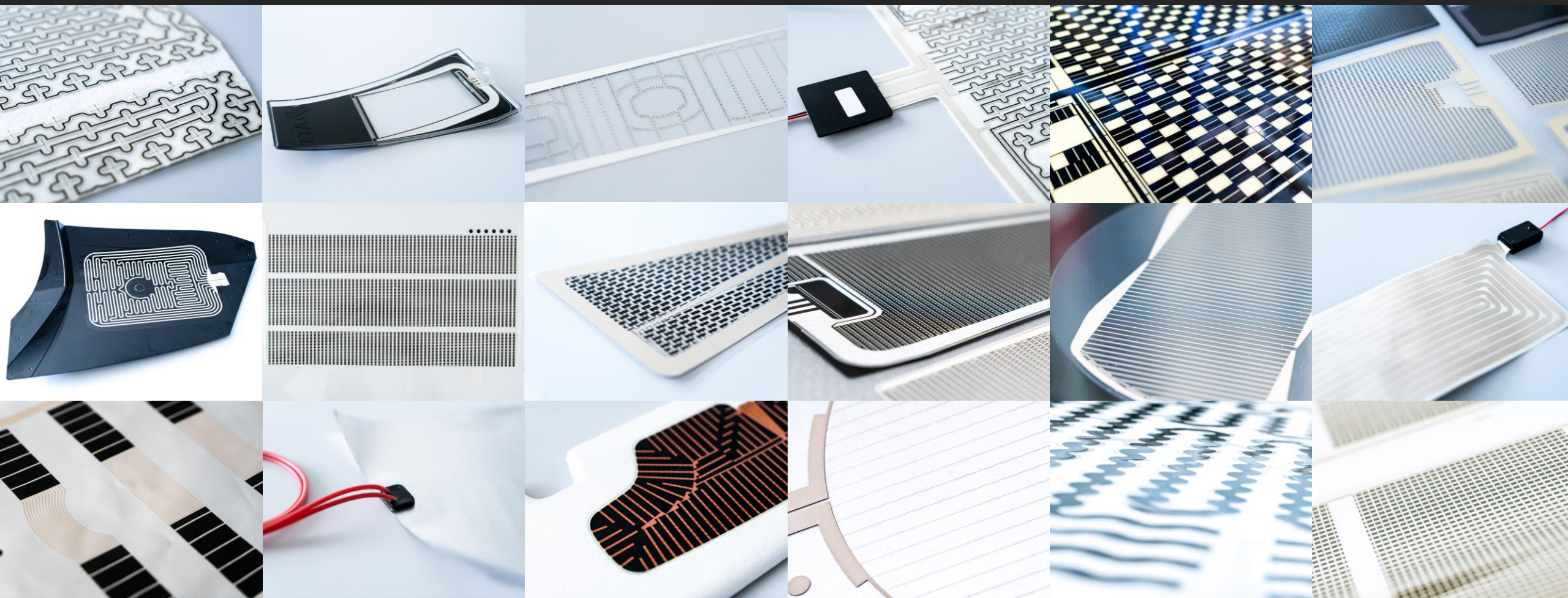
## Sensors

Our sensors fully integrate into the heaters or can be used stand alone.

- Temperature Sensors
- Humidity Sensors
- Ice Sensors
- Capacity Sensors
- Pressure Sensors

# ■ Introduction ATT VII

## Insight Printed Electronics



# ■ Introduction ATT VIII

## Inside Manufacturing & Testing





# contact us



Gewerbeparkstrasse 77, A-8143 Dobl



+43 664 8816 5693



hello@thermaltech.at



www.thermaltech.at



@advancedthermal



ATT advanced thermal technologies