

A stylized world map in shades of blue and cyan, overlaid with a network of white lines and dots, suggesting global connectivity. The map is centered on the Atlantic Ocean, with Europe and Africa visible.

November 2021

# Investors Presentation

Andreas Müller (CEO), Mads Joergensen (CFO) and Daniel Bösiger (IR)

# Pioneering industrial technology

for more than 200 years

**+GF+**

1802

## GF Corporate

GF founded in Schaffhausen



1864

## GF Piping Systems

First piping systems product



1897

## GF Casting Solutions

First automotive part



1921

## GF Machining Solutions

First machinery



1802: Johann Conrad Fischer | 1864: Malleable iron fitting | 1897: As of 1900 GF develops wheels made of cast steel for trucks and cars | 1921: GF acquires the Machine Factory Rauschenbach for agricultural machinery

# Today GF stays at the forefront

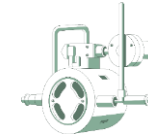
of new technologies

**+GF+**



**23%**

GF Casting  
Solutions



**54%**

GF Piping  
Systems



**23%**

GF Machining  
Solutions

- Sales 2020 CHF 3.184 billion, EBIT before one-offs CHF 185 million and 14'118 employees
- Our core strength lies in applying **state-of-the-art industrial technologies**
- We specialize in developing tailored solutions to meet the **needs of our customers**
- We operate in markets with high technology, complex processes and certification requirements

# A global footprint with local services

**+GF+**

Present in 40 countries



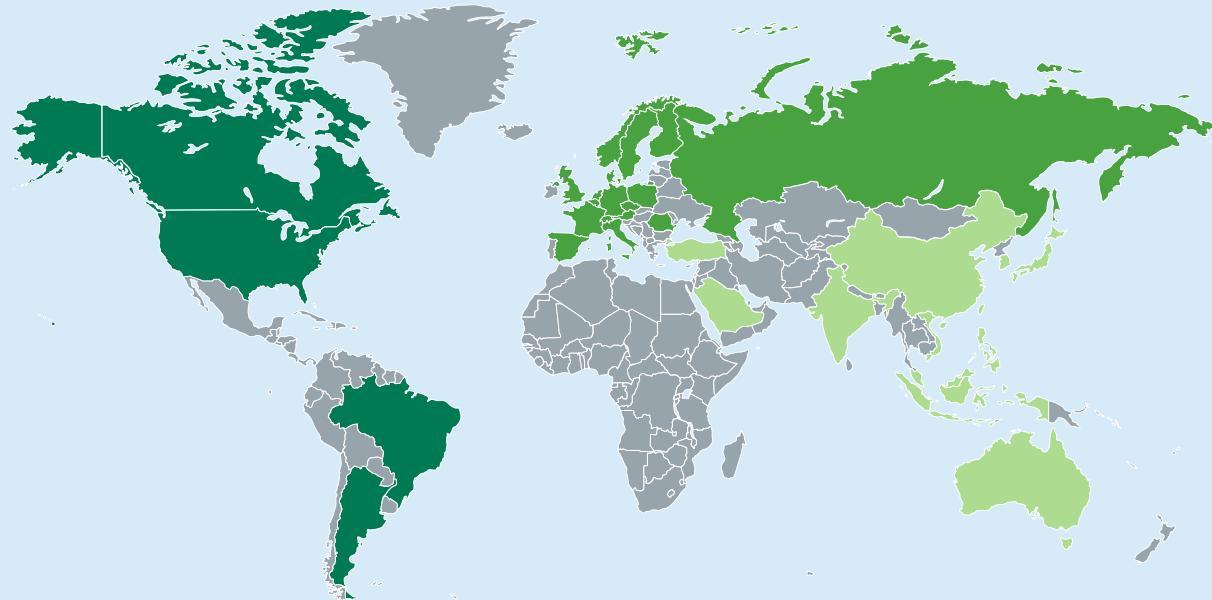
83 production sites



113 sales sites



11 R&D centers



## Americas



12



13



2

## Europe



32



43



7

## Asia Pacific



39



57



2



# We have an impact on every day life

**+GF+**



6 am



7 am



9 am



2 pm



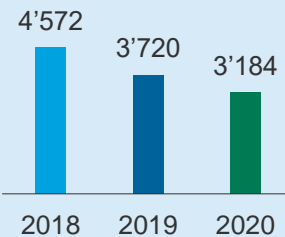
8 pm

# FY 2020 key financial figures – three years overview



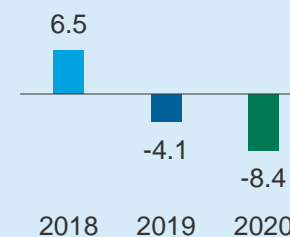
**3'184**

**Sales**  
in CHF million



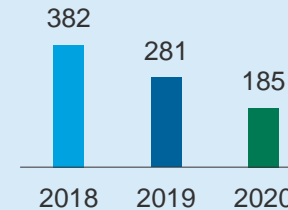
**-8.4**

**Organic growth**  
in %



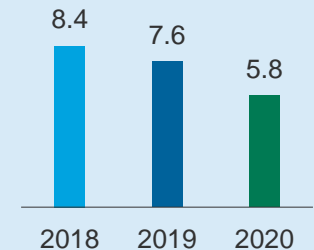
**185**

**EBIT**  
before one-offs in  
CHF million



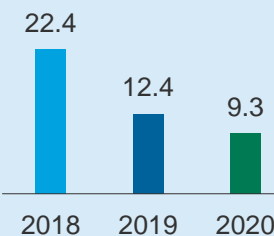
**5.8**

**EBIT margin**  
before one-offs in %



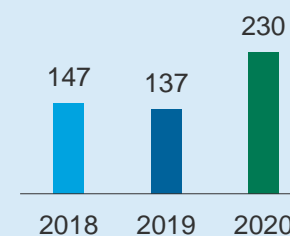
**9.3**

**ROIC**  
in %



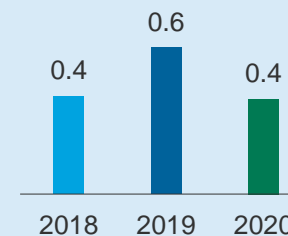
**230**

**FCF bef. acq./divest.**  
in CHF million



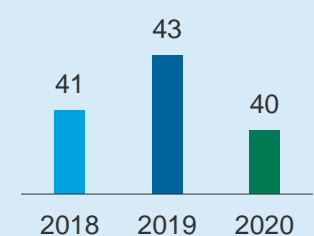
**0.4**

**Net debt / EBITDA**  
(multiple)



**40**

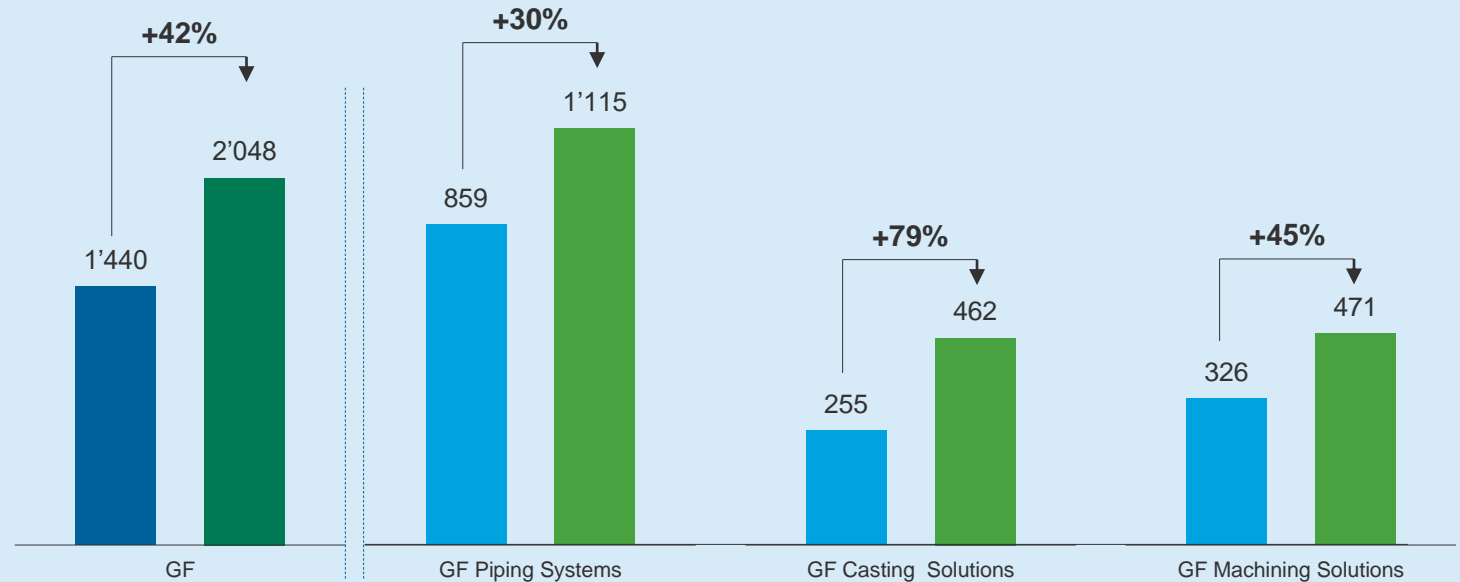
**Equity ratio**  
in %



# Strong order intake in all divisions per H1 2021



**Order intake**  
in CHF million



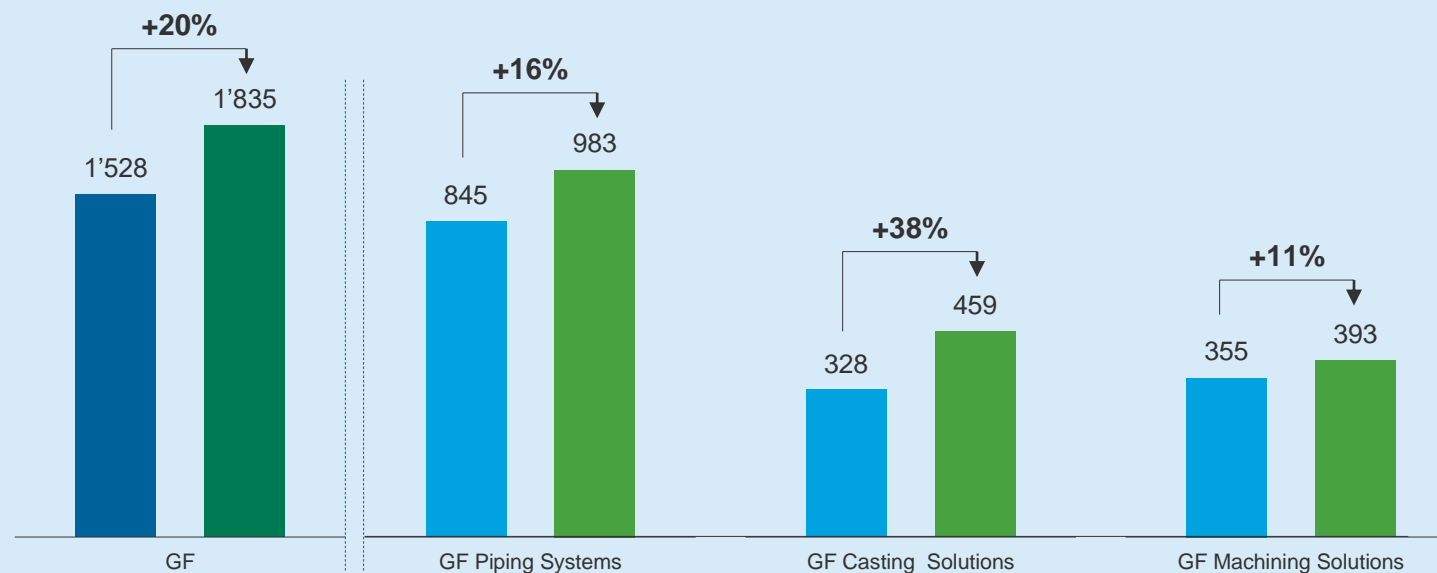
■ H1 2020 ■ H1 2021 — Organic growth

# Strong recovery in all divisions per H1 2021



## Sales

in CHF million

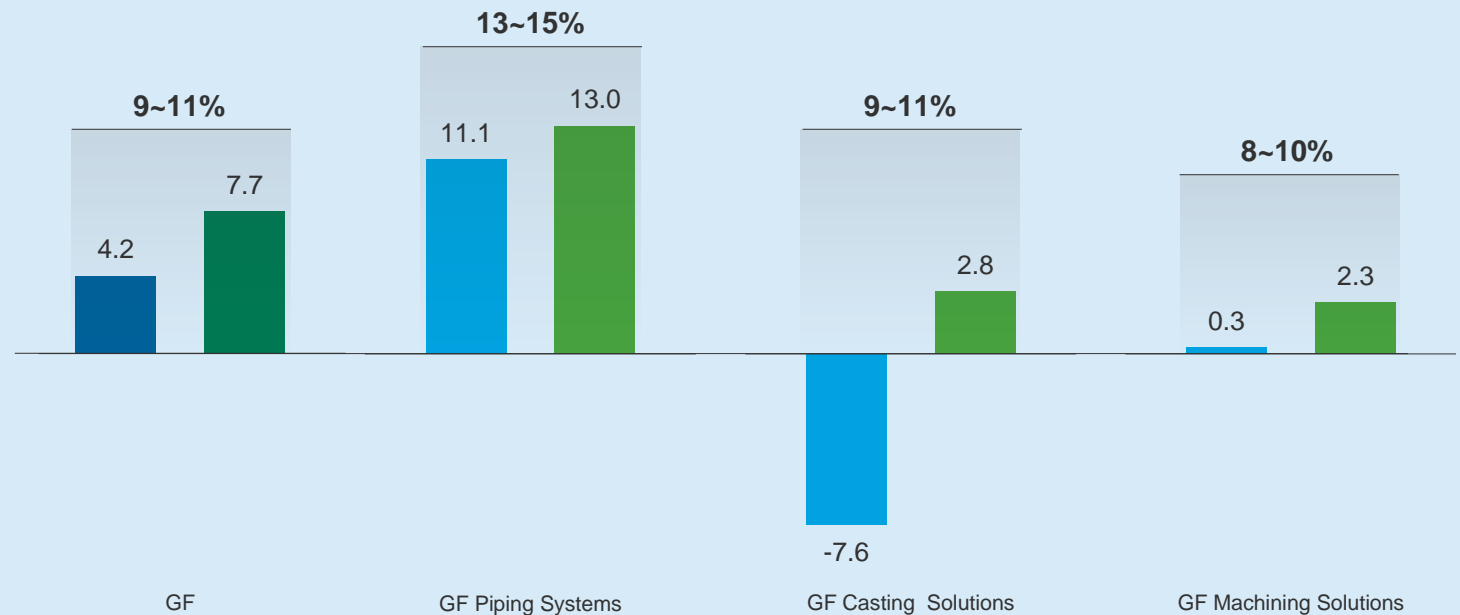


■ H1 2020 ■ H1 2021 — Organic growth

# Significant increase in profitability per H1 2021



EBIT margin  
in %



■ H1 2020 ■ H1 2021 — Strategic objectives in 2025 \* before one-offs in H1 2020



# Our Vision

**+GF+**

**#1**



**GF is a sustainability  
and innovation leader**

providing superior customer value



**Our strategy is about  
profitable growth**  
with emphasis on resilience and learning

## Piping Systems

Sales  
**CHF 2.2 bn**

Return on sales  
**13 – 15%**

Return on invested capital  
**20 – 24%**

## Casting Solutions

Sales  
**CHF 1.1 bn**

Return on sales  
**9 – 11%**

Return on invested capital  
**18 – 22%**

## Machining Solutions

Sales  
**CHF 1.1 bn**

Return on sales  
**8 – 10%**

Return on invested capital  
**20 – 24%**

## Corporation

Sales  
**CHF 4.4 – 5.0\* bn**

Return on sales  
**9 – 11%**

Return on invested capital  
**20 – 22%**



- 1 **Drive profitable growth**  
through intelligent and sustainable solutions
- 2 **Increase robustness**  
through resilient portfolio and operational excellence
- 3 **Evolve culture**  
towards more performance and learning

# Global trends offer great opportunities



Urbanization



Renewable energy



Data centers



Water treatment



E-Mobility



Digitalization



Global trends driven by  
**sustainability needs**



# Sustainability is an integral part of our strategy



## Product Portfolio

70%

of sales with social or environmental benefits



## Climate & Resources

12.5%

absolute CO<sub>2</sub> emissions footprint reduction



## People & Well-being

30%

accident rate reduction





# Sustainability is fully integrated and part of our culture

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We support our customers' success with **innovative, energy-saving solutions** to make the **collective global footprint** more **sustainable**

In our 219 years of history, we have continuously pioneered quality and standards. Our innovations, not limited to technology, apply also to the way we **conduct our business** and **care for society**

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## GF Piping Systems

Safe & hygienic transport of water



## GF Casting Solutions

Reduction of CO<sub>2</sub>-emission through lightweight design & materials



## GF Machining Solutions

Highest machining precision leads to more energy-efficient and safer components



# Sustainability investments in production facilities world-wide...



Focus on **energy efficient capex** – electric injection molding machine at GF Piping Systems in Schaffhausen (Switzerland)



New **energy efficient LED lights** installed throughout the production facility at GF Harvel, Little Rock (USA)



Employees and product affected by high and low temperatures > Roof upgrade to include weather coating to **reduce cold/heat fluctuations** at GF LLC, Irvine (USA)



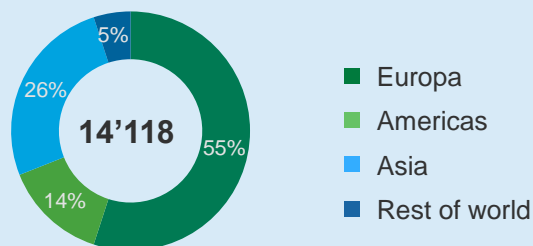
**Silver certification** under the **LEED** rating system to be applied for by GF Casting Solutions site in Shenyang North China (China)

# ... and social responsibility is at the heart of GF



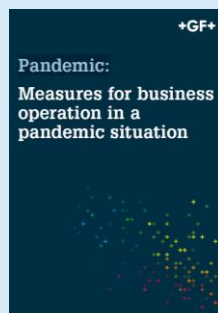
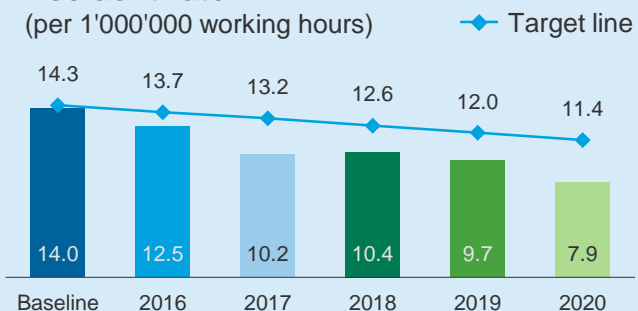
## Safety first!

### Employees per region



### Accident rate

(per 1'000'000 working hours)



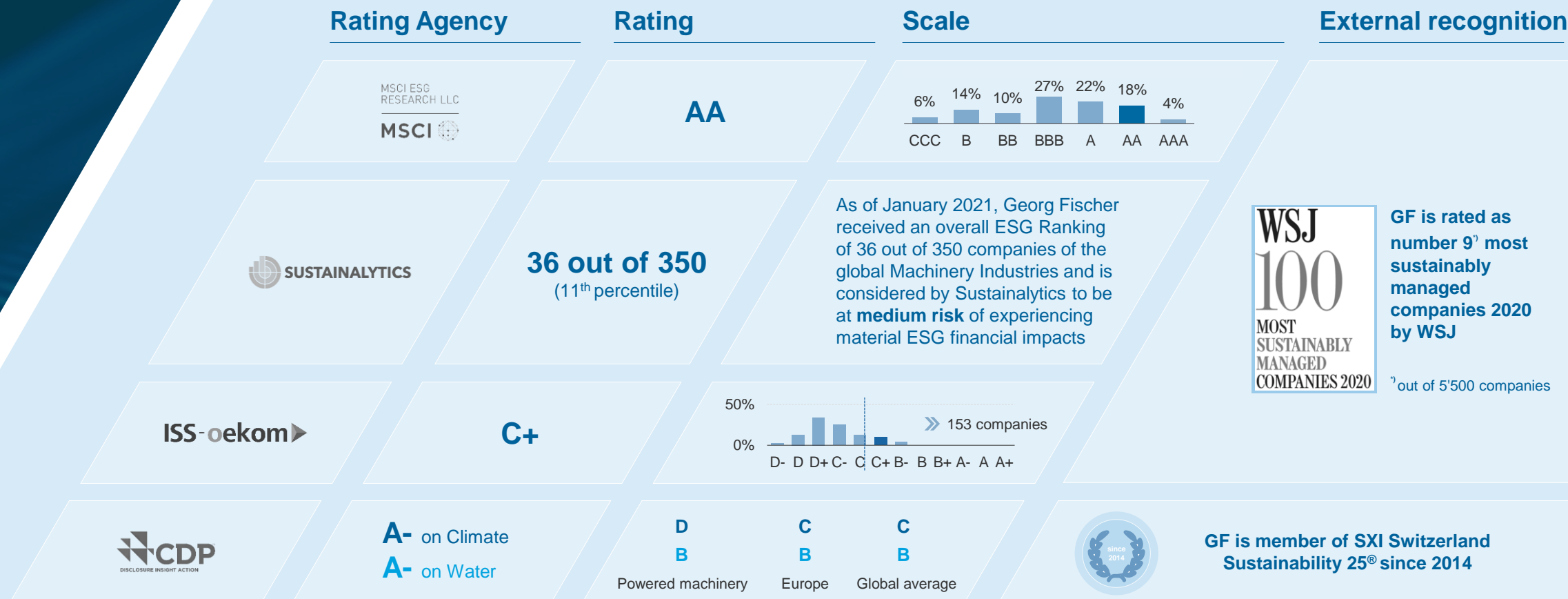
## Employer attractiveness

Efforts to enable flexible working models and support employees in balancing family & work

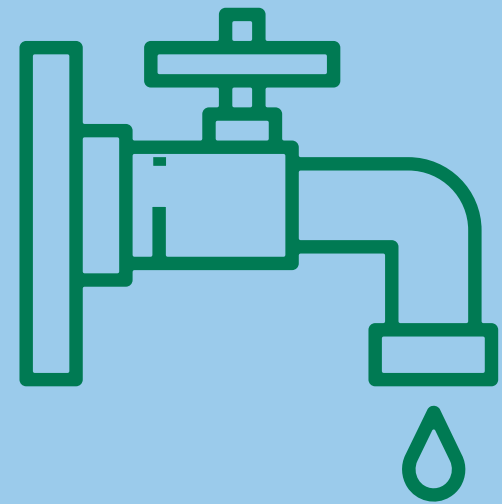
Continuous work on modernizing the production and working facilities to create ergonomic and collaborative spaces



# Our ESG efforts are clearly recognized by leading agencies



# GF Piping Systems

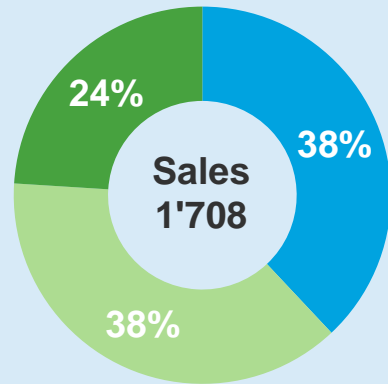




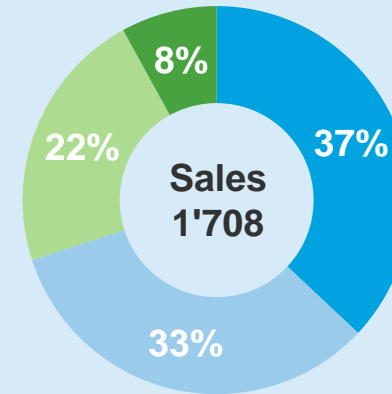


# Business Overview

(Sales 2020 in CHF million)



- Utility
- Industry
- Building Technology



- Europe
- Asia
- Americas
- Rest of world

## Utility

**Market Trend:**



**Position:** World #1 for PE electrofusion fittings

**Major competitors:** Aliaxis, Mexichem (Wavin), Agru

## Industry

**Market Trend:**



**Position:** International market leader

**Major competitors:** Simona, Aliaxis, Spears, Watts Water, Sekisui, Asahi, Yukizai, Agru

## Building Technology

**Market Trend:**



**Position:** Switzerland #1, Leading in selected markets

**Major competitors:** Simona, Aliaxis, Spears, Watts Water, Sekisui, Asahi, Yukizai, Viega

# Sustainability drives business



GF Piping Systems



NeoFlow Pressure  
Regulating Valve



Global **drinking water loss** per year:  
126 billion litres



Neoflow – The Solution of GFPS  
for **pressure management**



- 75% reduction in **pipe bursts** by decreasing excess pressure by 25%
- 5% reduction of **water leakage** can save up to 225k mt of CO<sub>2</sub> annually
- Savings on **installation time** by up to 40%



# Groundbreaking customer solutions

1

We are a **leading supplier** of piping systems made of plastics and metal

2

We focus on system solutions and **high-quality components** for the **safe transport** of water, chemicals and gases

3

Our product portfolio of fittings, valves, pipes, automation and jointing technologies covers all **applications** of the water cycle



# Our customers



GF Piping Systems

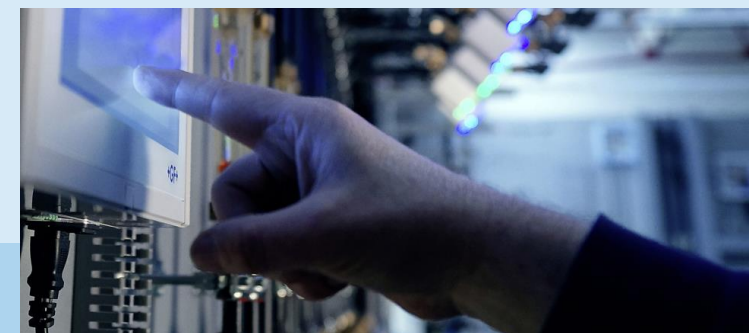
## Industry



## Utility



## Building Technology





# Providing quality to our customers through safe and secure piping systems



**WBI Weld Bead Inspection**  
(WBI) Tool

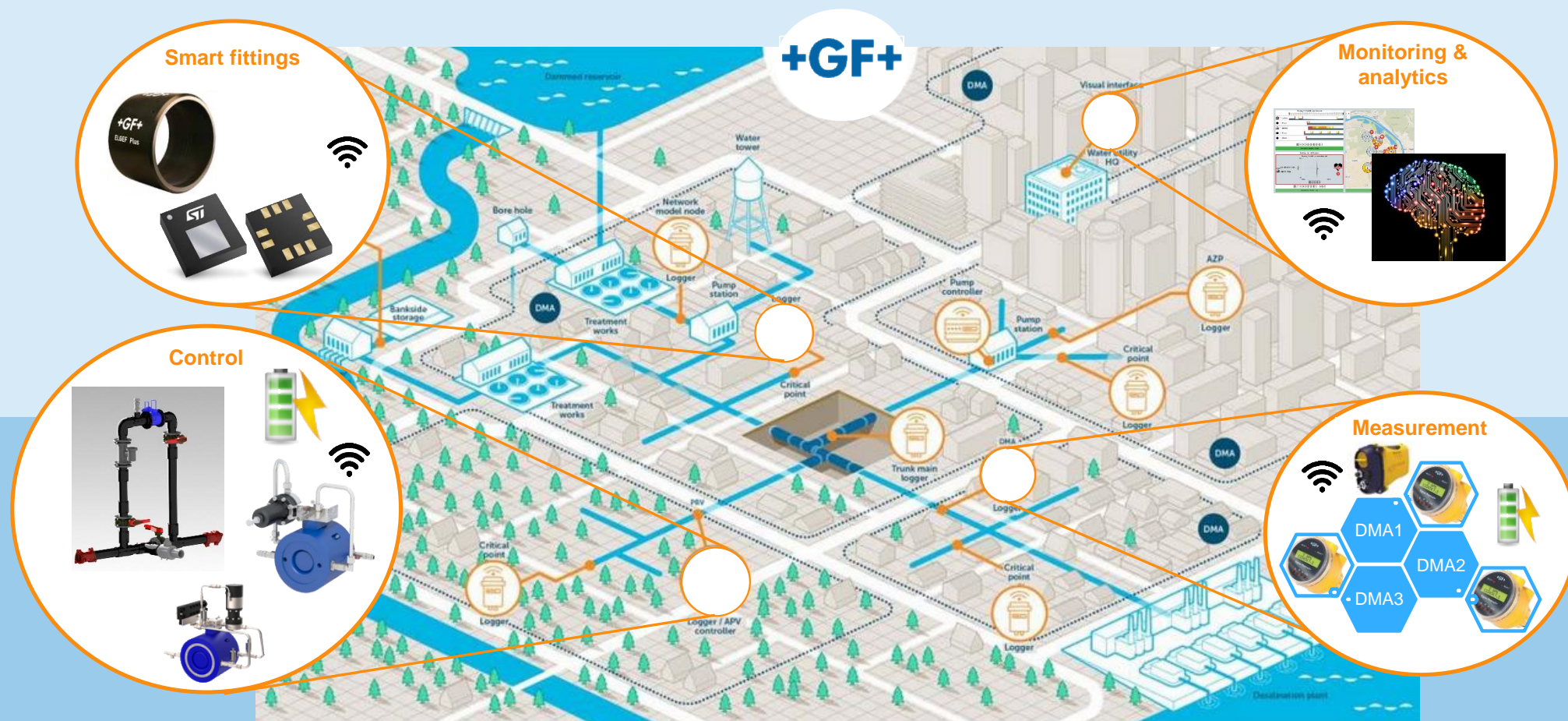


**Water treatment**  
(advanced process automation)





# Plant and network monitoring processes will become more connected







# Water treatment offers enormous potential

## Membrane Bioreactor



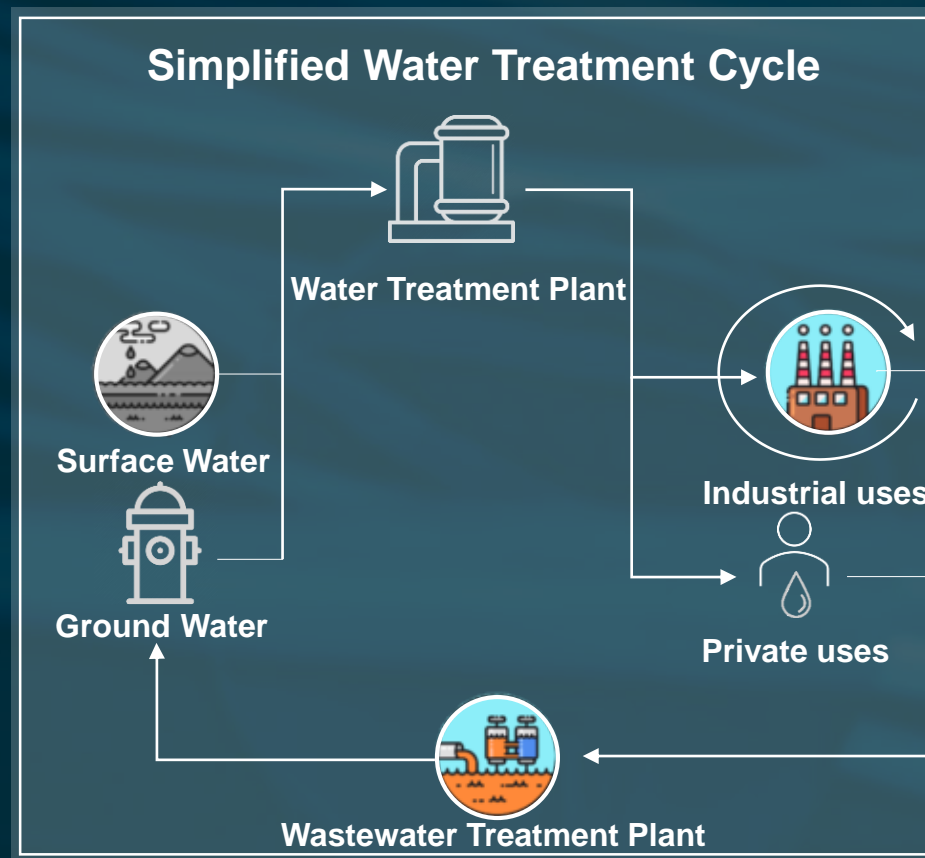
## Membrane systems



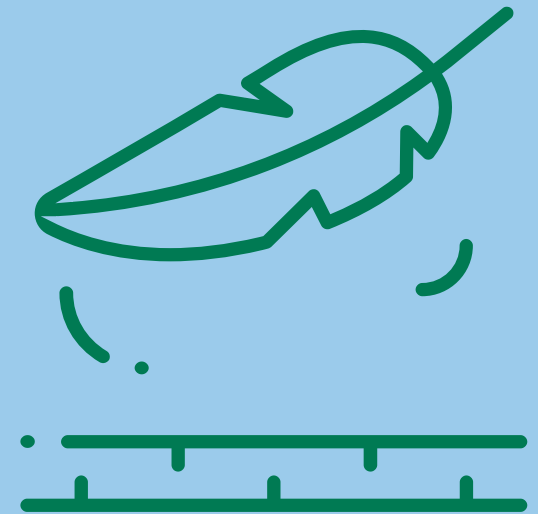
## Chemical dosing



## Filtration



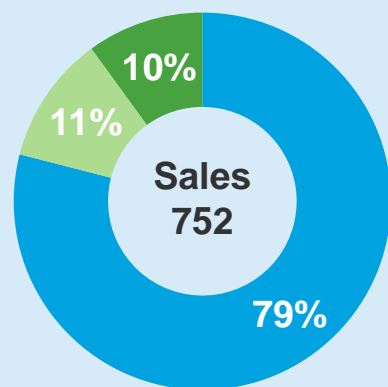
# GF Casting Solutions



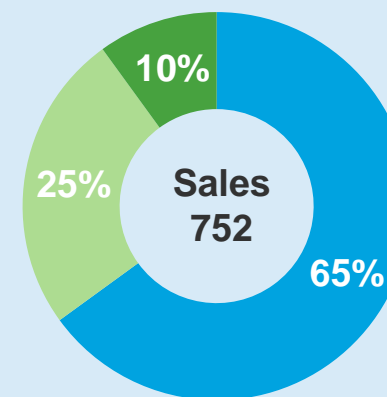
# Business Overview

(Sales 2020 in CHF million)

GF Casting Solutions



- Automotive
- Industrial Applications
- Aerospace / Energy



- Europe
- Asia
- Americas

## Automotive

Market Trend:



Position: Europe Top 3

**Major competitors:** Nemak, Handtmann, DGS, KSM Castings, Shiloh (Aludyne), Bocar, Ryobi, Meridian

## Industrial Applications

Market Trend:



Position: Europe Top 3

**Major competitors:** Leipzig: Eisenwerk Martinlamitz, Luitpoldhütte, Arrowcast, Kunshan: Fujiwa Machinery Industry, Infun (acquired by GIS)

## Aerospace / Energy

Market Trend:



Position: Europe Top 3

**Major competitors:** EU: CPP, Howmet,, Doncaster, US: PCC

# Increased CO<sub>2</sub> regulations drive demand for lighter components

GF Casting Solutions

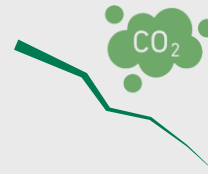


Lightweight  
Aluminium Battery  
Housing



Lightweight  
Magnesium Cross  
Car Beam

EU CO<sub>2</sub> regulations  
for passenger cars

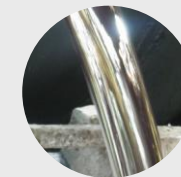


Approx. 50% CO<sub>2</sub> reduction  
between today and 2030 target

Sustainable  
logistics through  
local for local



100%  
recyclable  
material



Source: ICCT – Briefing August 2020



# Driving future technologies

1

We are a **technologically pioneering development partner** and manufacturer of cast and additive components for the global **automotive** industry, aerospace and **energy** markets, off-highway vehicles and for industrial applications

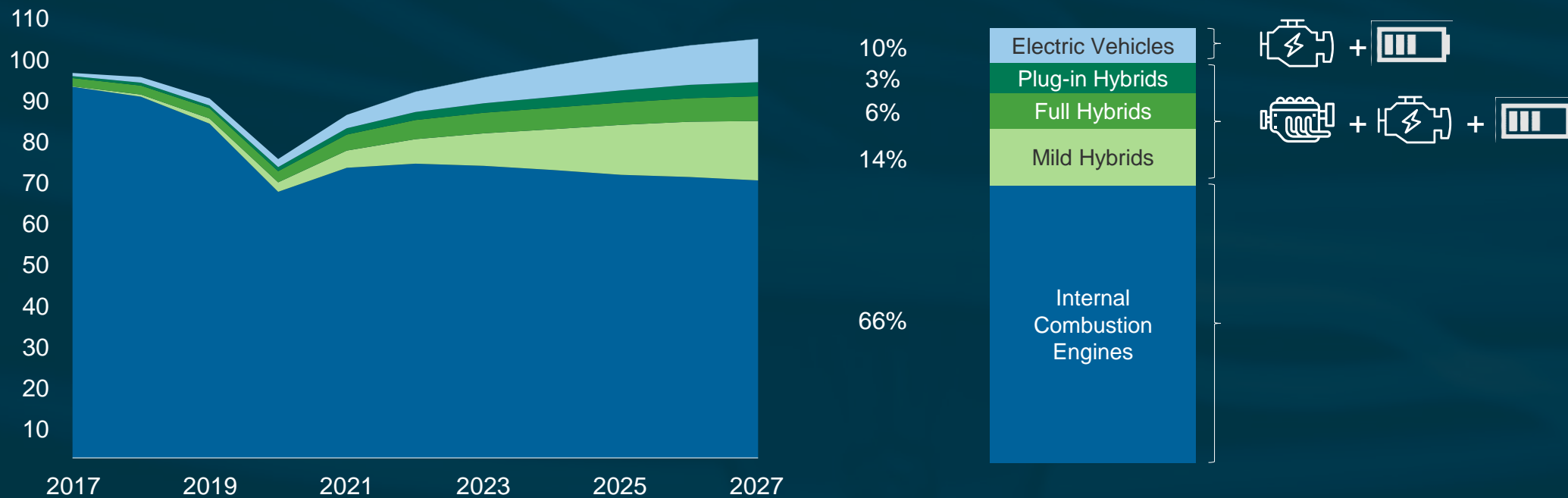
2

Our highly complex **lightweight components** are produced using state-of-the-art manufacturing technologies – from the development to the ready-to-mount solution



# Share of electrified vehicles will increase within the next years...

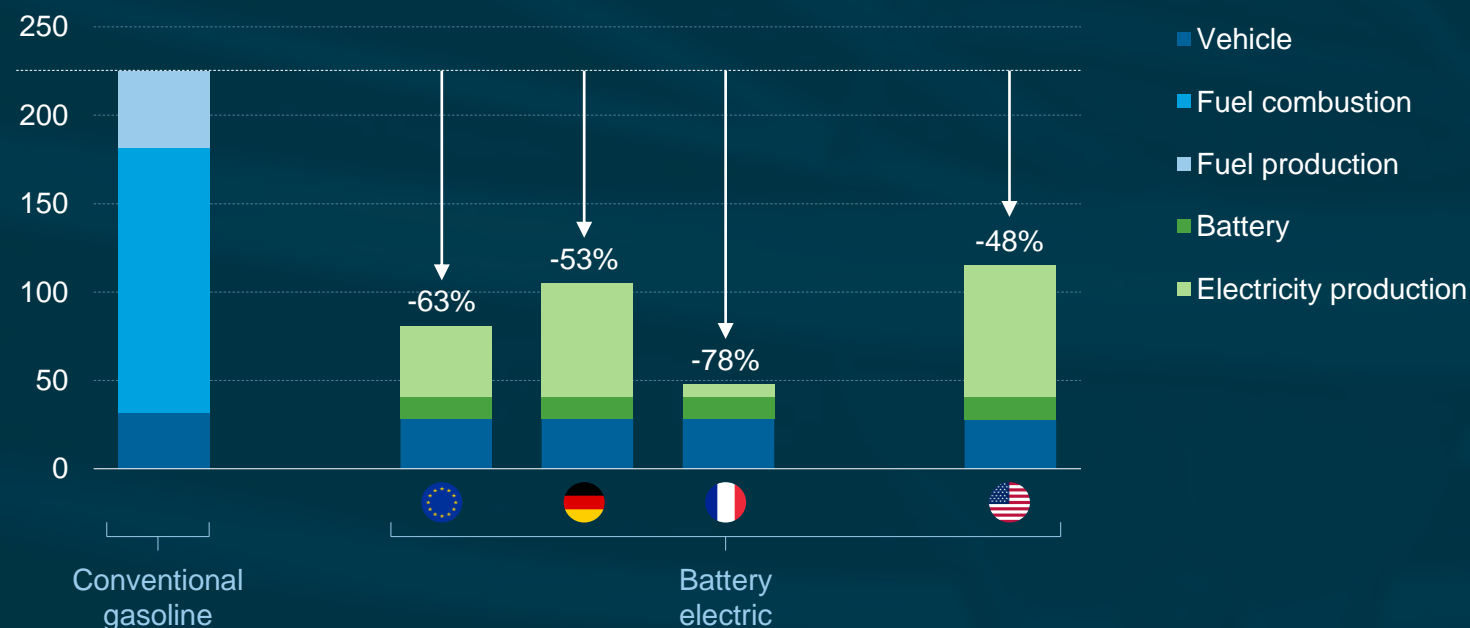
Global Light vehicle production in million units



Source: LMCA Q3 2020

# ... and EV cars will significantly reduce CO<sub>2</sub> emissions over lifetime

## Life-cycle greenhouse gas emissions of gasoline and battery-electric vehicles (gCO<sub>2</sub> eq./km)



Even in countries where the electricity used for charging still comes mostly from non-renewable sources

Source: ICCT 2020.12.02, <https://theicct.org/cards/stack/explaining-electric-vehicles>



# New plant in Shenyang almost completed

GF Casting Solutions



Plant from a birds eye – solar panels to be installed



First test run successfully completed in September 2021  
(Left: Cross Car Beam | Right: Shock tower)

# Partnering with leading manufacturers worldwide ...

GF Casting Solutions

## Passenger Cars



## Industrial Applications



## Aerospace / Industrial Gas Turbines





# ... with **strong expertise** in e-drive solutions and lightweight structural parts



**Transmission Housing**  
VW MEB Platform

Source: VW



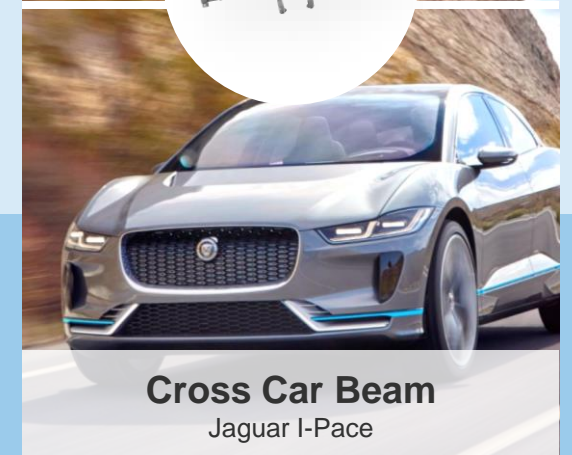
**E-Engine Housing**  
Audi E-Tron

Source: Audi



**Battery Housing**  
VW Golf GTE

Source: VW

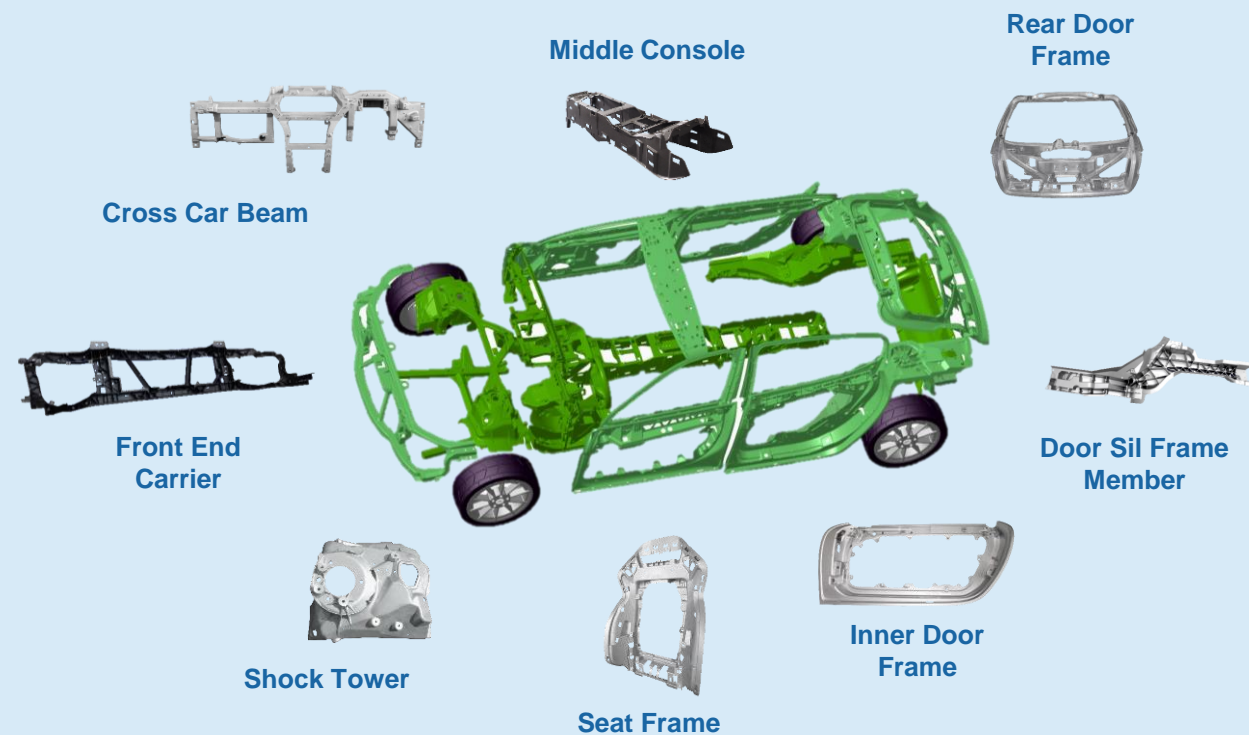
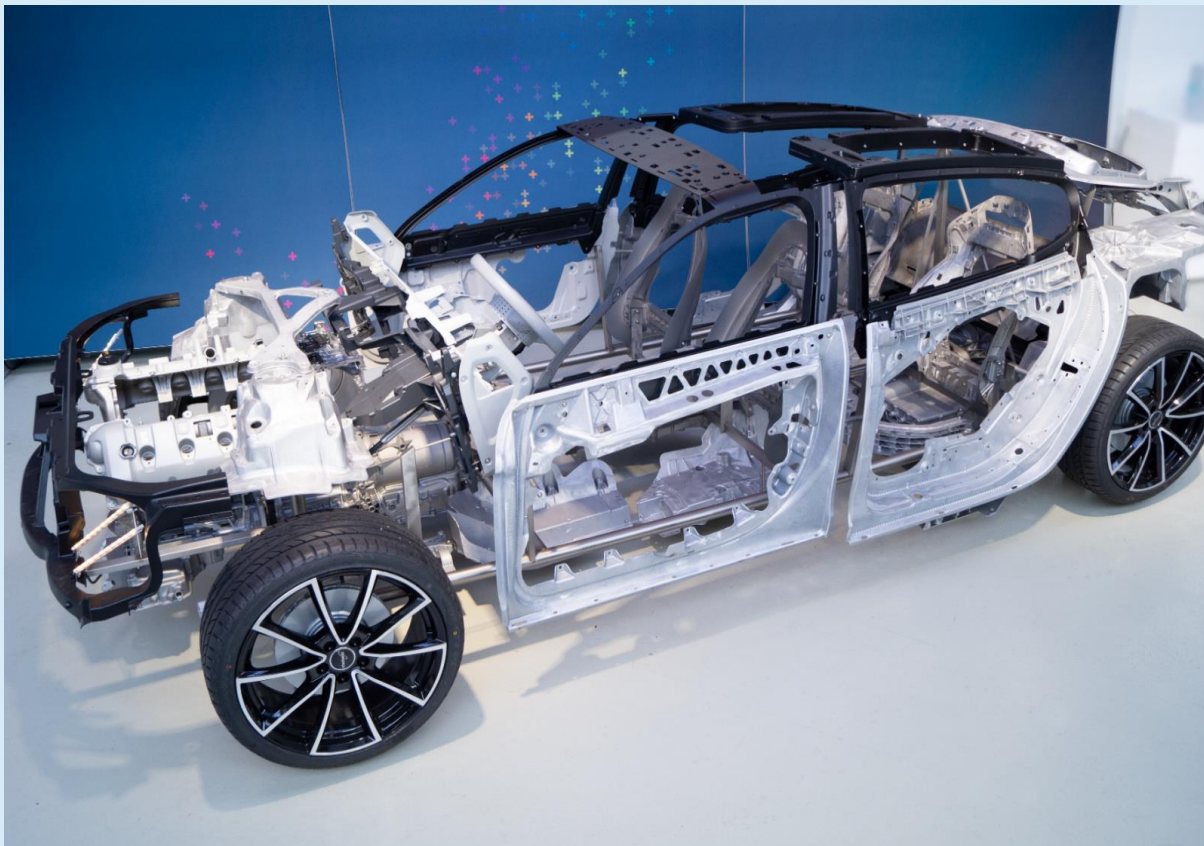


**Cross Car Beam**  
Jaguar I-Pace

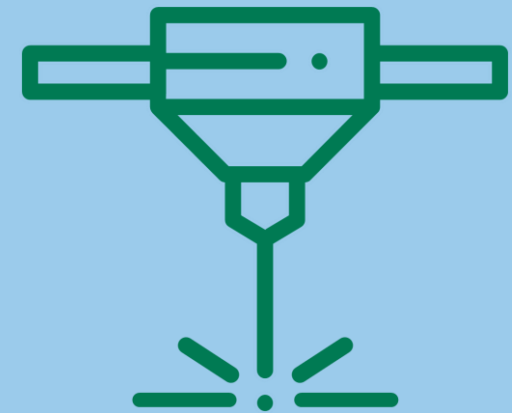
Source: Jaguar

# Nearly every car on the road drives with GF Casting Solutions parts

GF Casting Solutions



# GF Machining Solutions

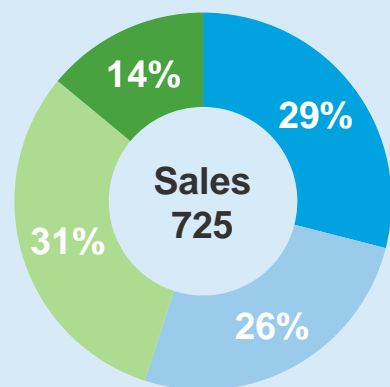


# Business Overview

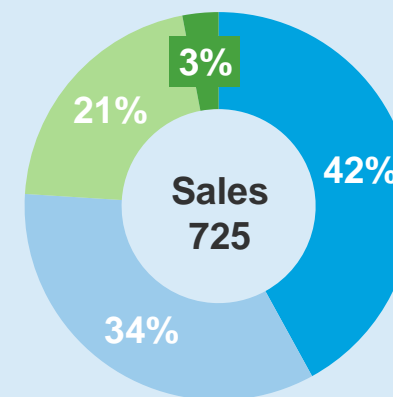
(Sales 2020 in CHF million)



GF Machining Solutions



- Milling
- EDM
- Customer Service
- Adv. Manufacturing / Automation & Tooling



- Europe
- Asia
- Americas
- Rest of world

## Milling

Market Trend:



**Position:** HSM Top 5

**Major competitors:** Makino, Hermle, DMG Mori, Rödgers, Exeron

## EDM

Market Trend:



**Position:** Top 3

**Major competitors:** Sodick, Fanuc, Mitsubishi, Makino

## Customer Service

Market Trend:



**Position:** #1 Coated Wire Sales

## Adv. Manufacturing / Automation & Tooling

Market Trend:



**Position:** World #1

**Major competitors:** Erowa, Hirschmann, F-Tool, Zimmer & Kreim, Fastems



# Digitalization and miniaturization increase need for precision



GF Machining Solutions



ML-10 Nozzle  
ablation



CMC Ventilation micro-  
holes improve performance  
and efficiency



CMC is 2/3 lighter  
with 20% higher  
temperature  
resistance

The GENx is delivering up to **15%** better specific fuel consumption than the engine it replaces

The GENx's emissions are up to **95%** below current regulatory limits, ensuring clean compliance for years to come





# Focus on digitalization

1

We are one of the world's leading providers of complete solutions to the tool and mold making industry and to manufacturers of precision components

2

Our portfolio includes Milling, wire-cutting and die-sinking EDM machines

3

We offer spindles, Laser texturing, Additive Manufacturing, tooling and automation as well as digitalization solutions and customer services

4

Our key customer segments are the aerospace, ICT, medical and traditional mold and die industries



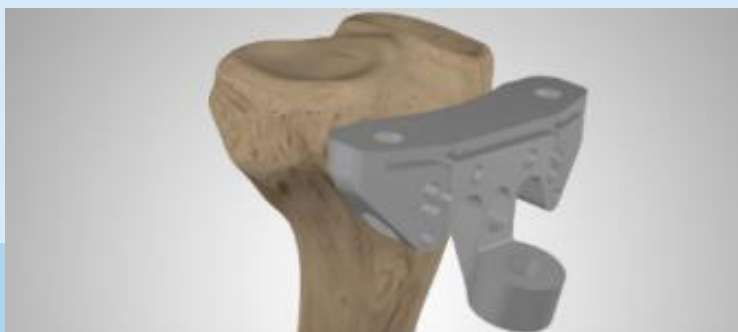


# We offer our customers ...

## ICT



## Medical

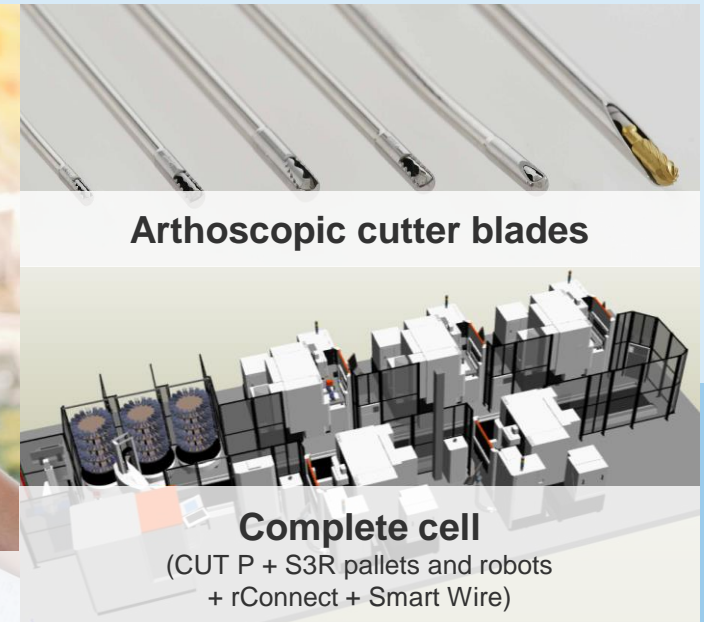


## Aerospace





# ... innovative and advanced technology solutions

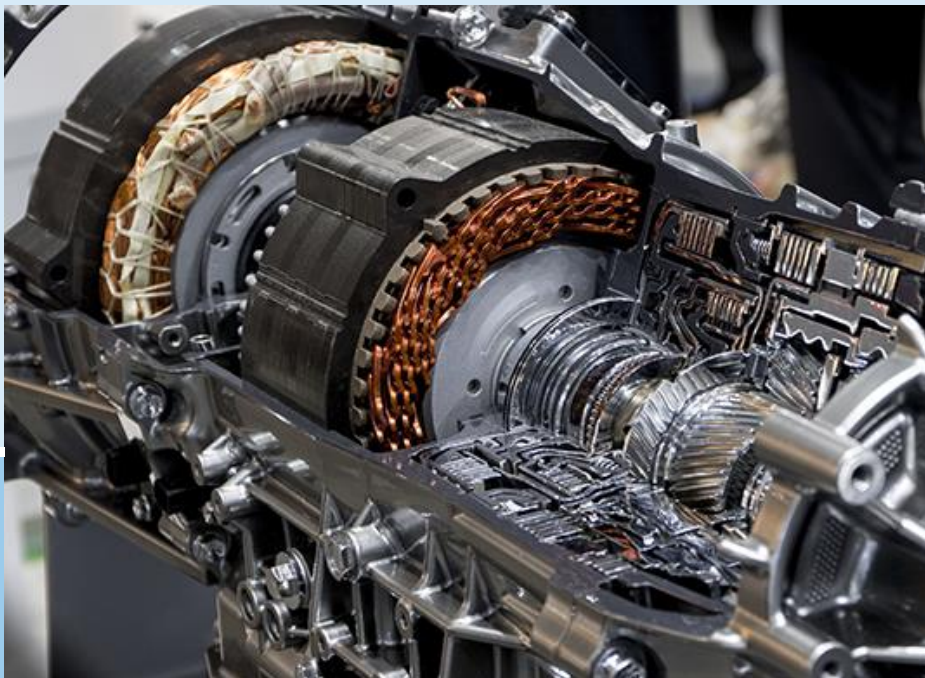




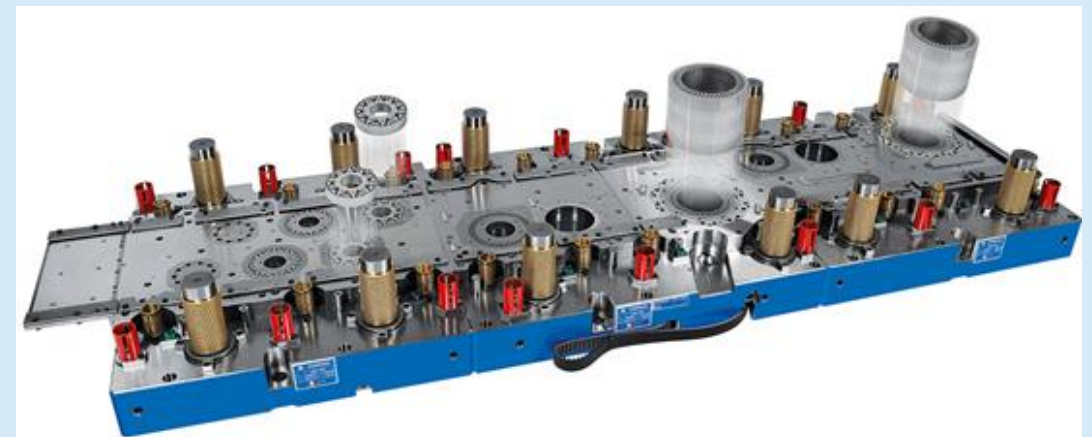


# New market opportunities in E-mobility

GF Machining Solutions



E.g. Electric vehicles motors



Progressive stamping tool – fine stamping for stacked lamination coils for increased motor efficiency



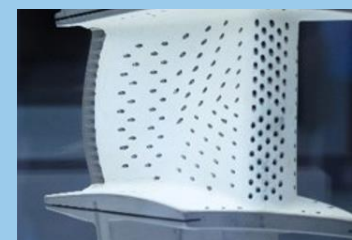


# Higher fuel efficiency through dedicated solutions for **Aerospace & Energy**

## Higher temperatures



Inconel blisks milling



Micro drilling on CMC\*



Seal slot\* + CUT 200 dedic.

\* Ceramic Matrix Composite

## Lightweight design



Antenna horns



Turbine rear vane



CUT AM

**GE9X** This Goliath engine is point-designed for the Boeing 777X. Scheduled to enter into service in 2020 with a backlog of about 700 engines. It will be the most fuel-efficient engine GE has ever produced on a per-pounds-of-thrust basis.

**4<sup>th</sup>** generation composite fan blades

**ONLY 16** fan blades

The **largest fan diameter** in commercial aviation

**8db** margin to Stage 5 noise regulations

**5% better** specific fuel consumption (SFC) than any other twin-aisle engine in service in 2020

**30% NO<sub>x</sub>** margin to CAEP 8 regulations

**10%** lower fuel burn than the GE90-115B

**27:1** compressor pressure ratio  
The highest ever in commercial aviation

E.g. Aero engine



# GF at a glance

**+GF+**

**Investment  
proposition**



**Strategy focus on profitable growth with emphasis on resilience and learning** through intelligent and sustainable solutions, a resilient portfolio, operational excellence and evolving culture towards more performance and learning



**Products and services addressing demand of global mega trends** global mega trends with direct business impact in all three divisions



**Industry-leading technology provider** with more than 200 years of industrial know-how well balanced geographical presence with a Swiss quality brand and technology with worldwide local production



**Focus on solutions for our customers for their sustainable business** creating value to society and contributing to a sustainable development



**Focus on long-term value creation and return on invested capital** value generation for our shareholders and other stakeholders

# Our Purpose

**+GF+**

**Becoming  
better every day**

SINCE  
**1802**



A world map in shades of blue and cyan, overlaid with a network of white lines and dots, suggesting global connectivity. The map is centered on the Atlantic Ocean, with North and South America on the left and Europe and Africa on the right. A semi-transparent white horizontal bar is positioned across the middle of the map.

**Thank you!**

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