Krauss Maffei

SUSTAINED, EXPONENTIAL PRODUCTIVITY

# The PRIMUS Network for Innovation

PRIMUS NETWORK FOR INNOVATION

# **First** among innovators

**KraussMaffei is the only company in the world with comprehensive expertise in injection moulding, extrusion and reaction processing – the three primary methods for processing plastics and rubber.**

Close cooperation across the different engineering specializations in process development and design at KraussMaffei makes us good at identifying the potential in combined solutions. We form close development partnerships with users to devise customized production solutions.

KraussMaffei conducts comprehensive research and development to back up its developments in injection moulding, extrusion and reaction technology. This R&D is focused on integrated process solutions. KraussMaffei has set up the PRIMUS Network for Innovation as a means of forging interdisciplinary links between its own development resources, research institutes and other industrial partners. PRIMUS stands for Process Integrated Machinery for Unique Solutions and reflects KraussMaffei's ambition as the leading innovator to trailblaze its way to new solutions.

## Network for sustainable solutions

The PRIMUS Network for Innovation concentrates its resources on forward-looking developments, with the emphasis on

- Sustainable production methods
- Use of renewable resources
- Reduction in $CO_2$ emissions through energy-saving products in the construction industry and the use of lightweight components in vehicles and aircraft
- Combined processes for integrating previously separate process steps
- Adding value by developing application-specific process solutions that transcend technological boundaries

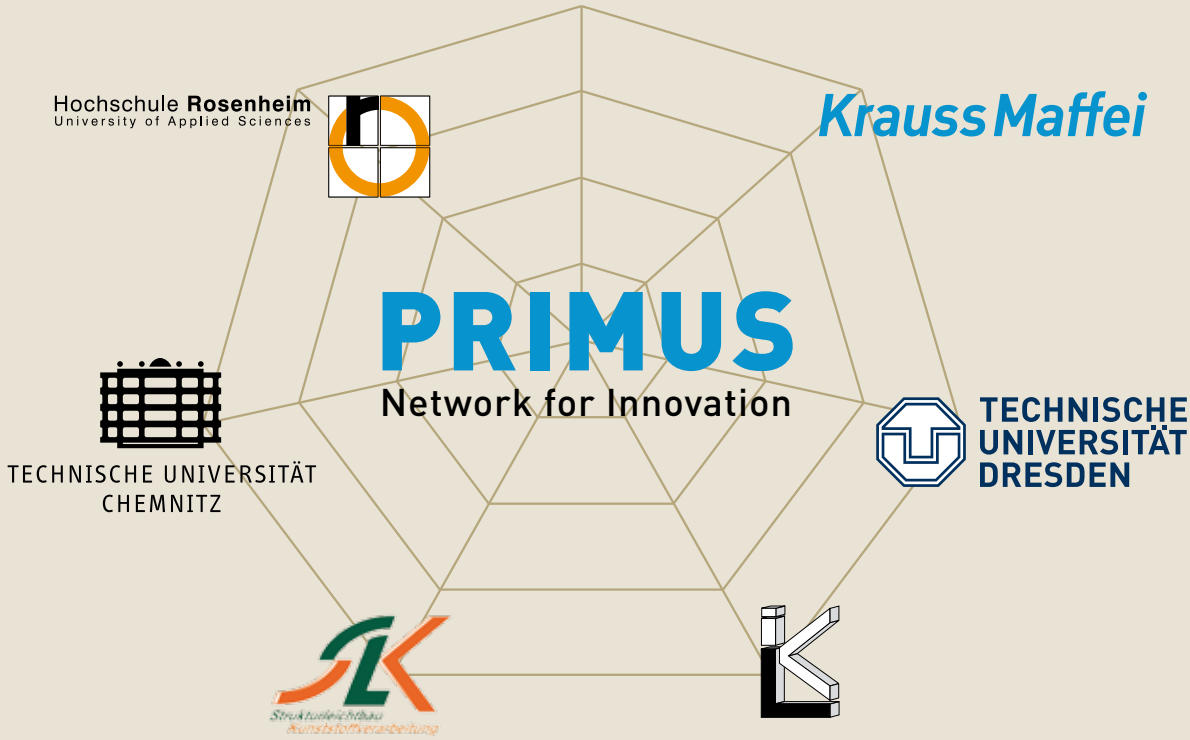
**Innovations for series production**

KraussMaffei channels the results of this strategic development vision into operational innovations, which we integrate directly into the machines and solutions. As a technology leader, KraussMaffei devises production solutions that allow our customers to increase their productivity exponentially. This can be seen in such developments as the Z-toggle clamp for electric injection moulding machines, energy-efficient natural gas heating of plastication systems and high-performance calenders, process solutions such as SkinForm for combined thermoplastic and PUR processing, as well as the combination of compounding and injection moulding in a single machine.

The wealth of expertise owned by KraussMaffei in these key machine technologies puts us in a unique position to provide neutral advice on optimal solutions that is free of the portfolio restrictions which limit suppliers specializing in individual technologies. In addition, combining multiple process technologies into a single process also unleashes substantial productivity potential.

# Centre for Functionally Integrated Lightweight Structures

As a member of the PRIMUS Network for Innovation, KraussMaffei has joined forces with the Technical Universities of Dresden and Chemnitz, Rosenheim University of Applied Sciences and some industrial partners to found the Centre for Functionally Integrated Lightweight Structures. This provides developers, researchers and users from different disciplines with an opportunity to collaborate on new production processes and machine technologies for processing fibre reinforced lightweight components. These high-strength components reduce the weight of vehicles and aircraft and cut $CO_2$ emissions by reducing fuel consumption.




## Plastics engineering for the automotive industry

KraussMaffei has greatly expanded its development labs so as to force the pace of development in innovative processes for combining polyurethane processing and injection moulding. The expanded facilities are available to a network which we founded together with raw materials producers, plastics processors and mould manufacturers. The Centre for the Automotive Industry is also working on ways of optimizing foam moulds for car-interior trim and all post processing technologies, such as pressing, punching and cutting. The development centre in Germany is in constant dialogue with the KraussMaffei development centres in America and Japan.

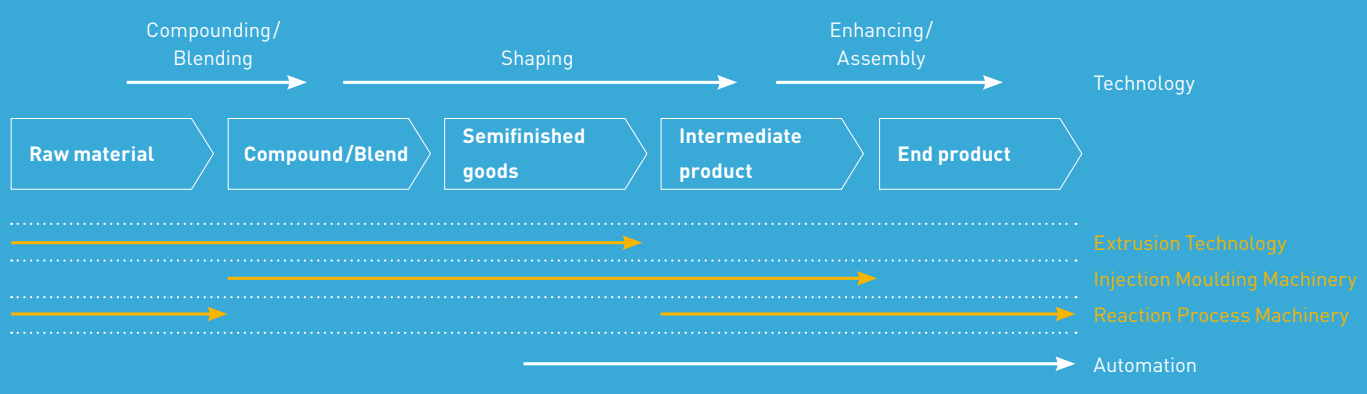
## Joint projects for productive solutions

Each year, KraussMaffei enters into a great many development partnerships with customers. Project goals range from devising complete solutions for complex production systems to finding solutions for one-off problems. These projects can call on a vast worldwide pool of applications experience and a global network of researchers and developers in various disciplines. You, too, can use this network to ensure that your business can master the challenges that lie ahead!

## Maximum value creation: From raw material to end product

The powerful combination of machine engineering and process know-how creates new prospects for getting customized production systems up and running quickly and efficiently. Only KraussMaffei has wide-reaching expertise along the whole value-adding chain for plastic and rubber processing – from compounding and processing of raw materials by extrusion, injection moulding, reaction process technology and multicomponent processing all the way through to robots and post processing systems. We guarantee the interoperability of all the machine and process control technology for maximum productivity.

We also take on responsibility for the entire process chain, involving strategic partners as necessary.
Our one-stop solutions enables our customers to reach their goals faster while conserving their in-house engineering resources. Moreover, thanks to our global network of researchers, raw material suppliers and end-users such as the automotive industry, we are already well aware of the demands that will be made on tomorrow's processes. KraussMaffei exploits this know-how advantage to deliver sustainable solutions that provide maximum protection for your investment.

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KraussMaffei is a worldwide premium partner for the plastics and rubber processing industries.

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