

MATERIALS WEEK EUROPE



The next speakers are...



Markus Landl

Business Development
Manager ELAST/LSR

ENGEL



Ruud Herkens

Application
Engineering

ENGEL



Timo Gebaur

Chief Technical
Officer

SIGMASOFT[®]
Virtual Molding



Dr. Thorsten Häuser

Head of
R&D

ELMET[®]
SMART SILICONE SOLUTIONS



Stefan Rönisch

• **APTIV** •

How does AI impact production now and in the future

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Conference
Agenda



How does AI impact production now and in the future

An Impulse Lecture

2026-02-24

How does AI impact production now and in the future

Impulse Lecture

It started with a prompt:

„You have to moderate a Panel Discussion about AI in injection molding processes and you have to explain AI in 5 sentences, Can you please do that for me?“

How does AI impact production now and in the future

Impulse Lecture

A clear 5-sentence explanation of AI in injection molding processes, provided by ChatGPT

Artificial Intelligence (AI) in injection molding refers to computer systems that use algorithms and real-time data to understand, predict, and improve the behavior of the molding process. **AI systems** can continuously **optimize** parameters such as injection speed, pressure, and cooling time to reduce cycle times and improve part quality without constant human adjustment.

They also support **quality control** by detecting defects automatically using machine vision and inline inspection, identifying issues faster and more accurately than manual checks.

Another key benefit is **predictive maintenance**, where AI analyzes sensor data to forecast equipment wear and avoid unplanned downtime, saving time and cost.

AI can even accelerate **design and development** cycles by suggesting optimal mold designs or materials based on past data, shortening time-to-market.

Ultimately, **integrating AI** into injection molding **boosts efficiency, consistency, and sustainability** while allowing human operators to focus on higher-level decisions rather than routine process adjustments.



How does AI impact production now and in the future

Impulse Lecture



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Impulse Lecture



“AI won’t replace injection molding experts — but experts who use AI maybe will replace those who don’t.”