SIEMENS
Ingenuity for life

Intelligent Performance Engineering
Drive innovation through simulation

Trends

Trend #1
Consumer-driven demand for highly customized machines.

Trend #2
Smart manufacturing, explosive growth in the number of industrial machines connected via the Internet of Things (IoT).
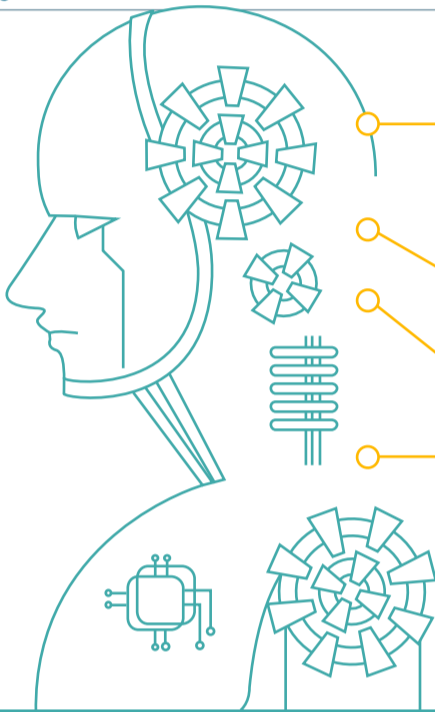
Trend #3
Hyperautomation, the need to integrate silos of data across domains to gain knowledge.

Trend #4
Global competition, advanced technology increases pressure on companies to innovate.

Key Drivers

Increased machine complexity drives a greater need for testing to ensure reliability.

Today's industrial machines need to be highly customizable and adaptable.

Advanced technology enables the creation of smarter machines.

Global competition forces manufacturers to compress cycle times and lower costs.

Achieve Product goals early in the development cycle

Save testing and process time during analysis

Multi-Physics

80% reduction in development time

75% reduction in controls development time
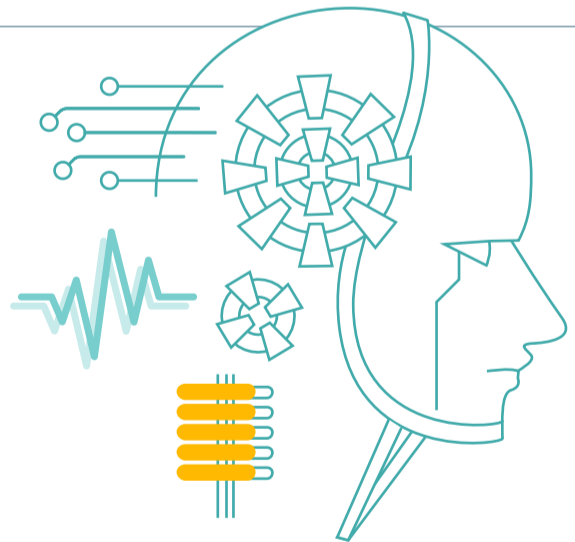
-20% reduced number of prototypes

Integrated design and simulation

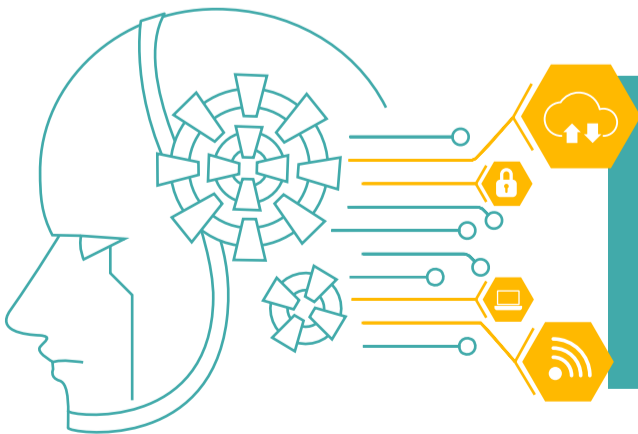Reduce flow analysis time from several days to a few hours

15% Machine productivity increase

We eliminated at least one complete prototype iteration step, which reduced both developmnet duraation and expenditures.
Source: Kristof Roelstraete, Dir. Weaving machine Development Picanol

Closed Loop Validation

30% savings on service maintenance

15% reduction in asset downtime

8% increse in manufacturing output

Build the future of smart machines and boost productivity through simulation with Intelligent Performance Engineering