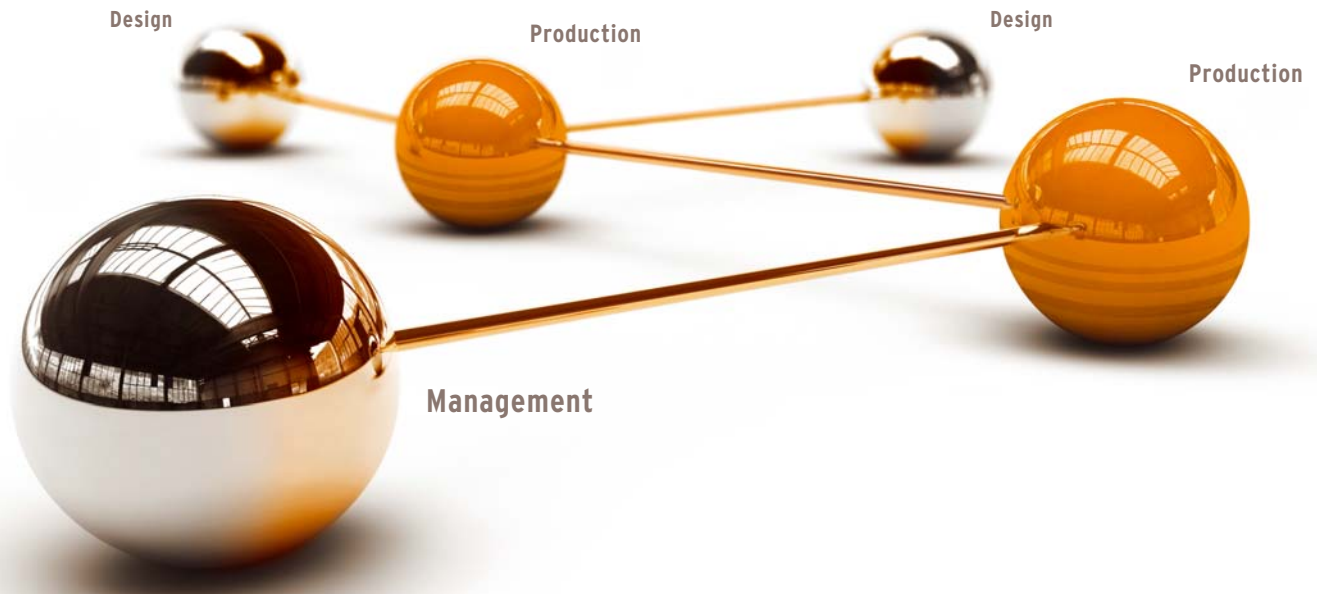


INFORMATION MUST FLOW ...



Process monitoring systems for metal-cutting operations safeguard workflow stability in many production environments. ARTIS is continuously active in research associations working on the optimization of information flows in production processes.

>> Smart Manufacturing Optimizer (SMO)

The Smart Manufacturing Optimizer integrates various approaches to optimize information flows and the interlinkage between different departments. It is an all-embracing idea which can generate a range of different production solutions.

>> CAD Process Monitoring (CADPM)

One sub-project issue is the increasing transfer of process monitoring configurations directly into product development and design. The more parameters that can be incorporated at this stage, the shorter the machine set-up times.

With its CADPM (CAD Process Monitoring) system, ARTIS is developing a solution whose uses include teachless process monitoring during metal cutting operations on individual parts.

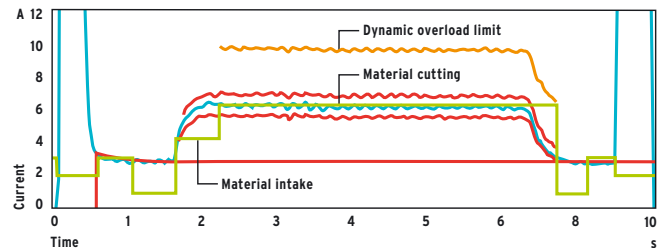
The prototype of the SMO was the result of a recently finished sub-project of the European "Foundation for the Sustainable Factory of the Future" FoFdration.

The graphic features the FoFdration logo at the top, which includes the text 'FoFdration' and 'FOUNDATION FOR THE SUSTAINABLE FACTORY OF THE FUTURE'. Below the logo is a central cloud-like shape containing the text 'Imagine you could.....'. Surrounding this central shape are four smaller clouds, each with a different color and text: a green cloud with '...share production data across company', a yellow cloud with '...increase productivity by utilising machine dynamics', a red cloud with '...monitor key sustainability indicators', and a blue cloud with '...share information in a production-to-enterprise dashboard'. Below this graphic is a quote: 'Addressing productivity and sustainability issues in global manufacturing through a fresh and agile concept' by Jean-Bernard Hentz, Airbus Operations SAS. At the bottom of the graphic is a list of logos for project partners: AIRBUS, Delcam, IKS/TEKNIKER, HIE/CASTRON, ARTIS, CEPPI, CCM, JTC, CENTRE FOR PRODUCTION, SIEMENS, FIDIA, and POSTECH. Below the logos is a box with project details: 'START DATE: 1 JUNE 2010', 'DURATION: 48 MONTHS', 'TOTAL BUDGET: €10.4 MILLION', and 'FUNDING: €6.6 MILLION'. At the very bottom are social media icons for Twitter, Facebook, and YouTube, along with a QR code and the website 'www.fofdation-project.eu | info@fofdation-project.eu'.

ARTIS OFFERS NEW STRATEGIES

>> ARTIS strikes new paths

Teachless process monitoring is needed for the production of large components or single parts. ARTIS is developing a strategy based on dynamic overload limits. These limits are calculated in a process-parallel and model-based approach. The material intake supplies the signal used to determine the dynamic limit. This makes it possible to maintain constant sensitivity down the whole process chain. Manual adjusting is no longer required. An optimized signature safeguards the stability and ruggedness of the processes.



>> Manufacturing Information Pipeline (MIP)

Statistical data on process sequences provide an important platform for management decision-making, e.g. on investments or capacity planning.

The Manufacturing Information Pipeline (MIP) speeds up the transfer of information from process monitoring to the decision makers. The data is also simultaneously prepared for use on mobile devices.

>> ARTIS stands for future-oriented process monitoring

Ever since its establishment in 1983, ARTIS GmbH has been one of the leading companies involved in the process monitoring of metal-cutting operations.

With a special focus on the wants and needs of the aerospace industry, strategies and the functions of systems are developed which are optimally fine-tuned to the requirements. This primarily includes the processing of large components, which requires reliable monitoring and quality assurance right from the very first contact with the material. The ARTIS systems help shorten the ramp-up processes and therefore the incorporation of future-oriented process monitoring.



ARTIS helps improve the interconnectedness of design, production and management. Optimizations in the flow of information give rise to faster ramp-up processes.