USING SMART SERVICES TO CREATE NEW BUSINESS MODELS
The digital transformation of industry is everywhere you turn today. Once again, companies are wrestling with the challenge of staying competitive in the international environment. In addition to selling products, complementary services are emerging as an increasingly important opportunity. These data-based services are creating long-range changes in the industrial value creation.

“Anyone who thinks only in terms of steel will miss out on the opportunity to make money with services.”
Wilfried Schumacher-Wirges
IoT-Solutions @ Heidelberger Druckmaschinen AG

Profit from new digital business models

Mountains of data per se are not worth a whole lot. But things change once the data has been analyzed and the results have been evaluated and interpreted in terms of new, value-creating application areas. Big data suddenly becomes valuable smart data.

Smart services are digital services that use data to optimize existing business models, complement them or replace them with new, scalable concepts. Smart services can be broken down into three usage categories.

**TECHNICAL SMART SERVICES**
- Predictive maintenance
- Smart condition monitoring
- Performance optimization

**ECONOMIC SMART SERVICES**
- Smart technician assignment planning
- Reduced energy consumption
- Supply chain optimization

**SALES SMART SERVICES**
- Pay-per-use
- Peer group comparisons
- Recommendation engines
OUR STRATEGY

Make use of our big data analytics platform and our related project experience for fast and flexible analysis of your data. Our experts in data science and software engineering will convert your big data into valuable smart data in a three-step process and use it to design smart services: working with you and on your behalf.

Step 1: USE CASE – What needs to be optimized?
—— We will work with you and your domain experts to create an individual use case to improve your machines or IT systems. During an initial discussion, we will determine which errors or faults need to be identified from a data perspective and what should be improved. Our data scientists and your domain experts will then discuss and assess the results of the analysis. The outcome of this important first step will be the business value definition of the use case.

Step 2: PROTOTYP – Will it work?
—— Our data scientists will then prepare your data especially for your use case. Our core skill is developing algorithms that use methodologies from statistics, signal processing and machine learning to spot patterns, irregularities and outliers and to uncover hidden links. The foundation for optimization has now been laid.

Step 3: SERVICE – Now the practical part!
—— Transformation to the Katana platform now takes place. To do this, our software engineers migrate the prototype algorithm so that it can be used effectively and reliably with large amounts of data. The subsequent integration into your target environment facilitates continuous development and optimization. This approach will help you to add other smart services to your data-driven portfolio. This can include increasing the productivity of your machines through the use of predictive maintenance or optimizing the effectiveness of your entire operation with the help of analysis results from peer group comparisons.
What makes domain knowledge so important?

Domain knowledge and more in-depth interdisciplinary discussions with subject-matter experts are essential for the process of data analysis. First, these discussions help ask the right questions – that is, they determine the methods that should be used to draw conclusions from the data. Second, the specialist knowledge is used to interpret the analysis findings and separate the relevant correlations from the non-relevant. The inclusion of this knowledge helps reduce the highly complex nature of the analysis process, which often makes it possible to solve a specific problem in the first place.