



**CENTER
SMART SERVICES**



Internet of Things Bootcamp

Connect your machines in just six weeks!

Your entry into the industrial “Internet of Things” (IoT)

Productivity increases, lower production costs and better resource efficiency are just three of the results that companies hope to achieve by adapting their machinery for the Internet of Things (IoT). However, three quarters of all IoT projects have been proven to fail due to excessively long development times, poor data quality, insufficient internal expertise, lack of integration into the operational process and, finally, too late involvement of the customer in the development process.

Our IoT Bootcamp gets you ready for Industry 4.0. Using our IoT Connector, we connect your existing machines and plants or place additional sensor technology on a trial basis - within a few days, your production data can thus be read out and used. On this basis, it is possible to prepare large amounts of data by means of real-time analyses, which can serve as the basis for new services and operational process improvements - and all this in just 6 weeks!

Which potentials does IoT offer for manufacturing companies or machine and plant engineering?

- **Transparency in production/efficiency gain:**
The basis for active control of production are key figures, such as overall equipment effectiveness (OEE), production quantities and setup or malfunction times. By analyzing the data of your production process, you uncover weaknesses and identify optimization potential.
- **Condition Monitoring and Predictive Maintenance:**
Monitoring the machinery and the conditions of individual machines and plants is the basis for predictive maintenance: conditions that deviate from the norm can be detected at an early stage and the failure of machines can be prevented.
- **Customer loyalty:**
Smart products help you learn how your customers use and work with your products. Use this knowledge to develop tailored offers for your customers or to develop new products and services.
- **New business models:**
Make your products smart and offer your customers digital services around your product. Become a solution provider and instead of selling your customers a product, sell them a customized service.

Your benefit of the IoT Bootcamp

- Regardless of whether you have already identified a specific use case or would like to analyze your company's potential through Industrie 4.0 first: We jointly develop IoT use cases in your company and implement them as prototypes.
- You will see how you can reduce costs, make processes more efficient and develop new business models using practical examples that fit your processes.
- To ensure that the prototype can also be used in your company in a series production to add value, we will provide you with recommendations for action and planning for the sustainable anchoring of the results at the end of the project.

Six weeks to a functional prototype

Our promise to you is a fast, effective project execution with tangible results in just three steps.

We work with you through three stages that take you from the initial company check to the finished prototype.

Stage 1

IoT-Check

approx. 2 weeks before the bootcamp

- **Day 1:** You clarify the technical requirements with our IoT experts.

Stage 2

IoT Bootcamp in your company

1 week

- **Day 2:** Strategy: Together with us, you discuss your existing use cases or develop specific use cases on the basis of industrially proven examples and best practices.
- **Day 3:** Connectivity: Together with you, we develop an initial paper-based prototype and identify the necessary interfaces and data required for implementation based on personas and user stories. In the afternoon, it's "hands-on": We plug in the IoT connector and other sensors in your machinery.
- **Day 4:** We start in parallel with the technical implementation (Sprint I) as well as with the development of a suitable digital strategy.
- **Day 5:** Final Sprint II for technical implementation and development of new business models and their distribution.

Stage 3

Individual presentation of results

approx. 3 weeks after the bootcamp

- **Day 6:** After the IoT bootcamp, our experts will prepare the results and present them to you and your management.
 - Demonstration of the prototype in real use
 - Presentation of the pitch deck to internal stakeholders and, if applicable, external customers
 - Handover of all documentation
 - Roadmap for further scaling of the jointly developed results

Who in your company should get involved?

To ensure that the first prototype is not just a “proof of concept” but rather the basis for operational added value in your organization and for your customers, your experts should be involved in the process right from the start.

What does the ideal project team look like?

- (Executive) management to shape the strategy
- Machine experts and operators as well as production managers as use case owners
- IT staff to realize the technical integration into existing systems
- Service and sales to develop a value proposition
- If necessary, reference customers to test the acceptance of the new solution

Our network of experts:

In the IoT Bootcamp, you benefit from the expertise of the P3 Group, the Center Smart Services and the FIR at RWTH Aachen University, which ideally complement each other in this project. As a provider of the IoT shopfloor management software “NeXonic” as well as by providing the IoT Connector, P3 enables a quick connection of machines as well as the analysis and visualization

of the collected data. With the modules “Performance” for plant monitoring, “Quality” for quality documentation as well as “Maintenance” for maintenance, classic use cases can be implemented in a short time. Based on the use cases and collected data, the experts at the Center Smart Services and the FIR develop customized data-based services and new business models.

Our network of experts



**CENTER
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Center Smart Services

The Center Smart Services develops marketable data-based services together with its members. The offering addresses companies from the mechanical and plant engineering and manufacturing industries that want to tap into new business areas with smart services or use modern methods of data analysis (e.g. machine learning) to put their data to good use. The Center's services include the development and application of methods for designing digital business models, advanced training offerings and industrial services for the introduction of digital business models in companies.

www.center-smart-services.com



P3 Group

Founded in Aachen, Germany, P3 specializes in electromobility, autonomous driving, digital & connected services, and business innovations, making it an ideal partner for the Center Smart Services community! Since its foundation in 1996, P3 has continuously expanded its competencies and today employs more than 1,000 people at 17 locations on 3 continents. P3 projects emphasize creativity, innovation, close collaboration with customers and a hands-on mentality. With this hands-on approach, complex challenges such as digitalization, mobility of the future and innovative services are mastered together with the customers - and not only in the automotive environment.

www.p3-group.com



FIR at RWTH Aachen University

The FIR at RWTH Aachen University is one of the leading institutes for applied research in the field of business organization and corporate development. For more than 60 years, the institute has focused on topics related to increasing competitiveness, opening up new markets and securing and creating new jobs. The FIR at RWTH Aachen University has 130 employees, including 55 scientists. Every year, 40 publicly funded projects and 60 projects with industrial customers are carried out at FIR. The competences are in service management, information management, business transformation and production management. The goal is to create a bridge between science and economy in industrial management.

www.fir.rwth-aachen.de

Your contact

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