SmartProduction\_management

Improves maintenance and operations by providing required and the latest information at right time and place

**Basis**
- Mobile availability of technical documentation
- Creating virtual layout of plant and data
- Presenting documents and data location based on mobile devices
- Tracking via QR Codes, RFID, OCR

Further packages available on request

**Package 1: Indoor navigation / PLC online information**
- Creating an interface to PLC for live information about technical devices
- Plant indoor navigation → user-friendly directions

**Package 2: Augmented Reality asset recognition**
- Augmented Reality support
- Identification of and focus on point of interest

Transparency  Availability  TCO
**SmartProduction** by KUKA enables manufacturers of smart products and services to produce **efficiently, flexibly and sustainably.**

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## SmartProduction get connected

### Get informed
Why should you care about Industrie 4.0? Learn about what Industrie 4.0 entails, its enablers and new business models.

### Get aware
A two-sided medal, Industrie 4.0 can be both risk and opportunity. Identify your own potential!

### Get inspired
How do others do Industrie 4.0? Learn from KUKA’s experience with smart production, its manufacturing EcoSystem and human machine interaction.

### Get ready
Innovation Workshop: Use KUKA’s methodology to develop innovations from ideas for your own strategy.

Interested to learn more? Contact us directly or via smartproduction.systems.de@kuka.com
SmartProduction_optimization

Smart analysis tool to identify bottlenecks and optimize according to individual preferences, e.g. cycle time, material, etc.

- Monitoring of real-time data, recognition and prevention of weak-spots and reduction of downtime
- Optimization based on results of SmartProduction_monitoring
- Decreasing of cycle time and increasing of overall production efficiency
- Avoiding material inefficiency, e.g. optimize glue cleaning cycles
- Reduction of CO$_2$ and energy consumption
Cloud-based system that collects process data from the PLC to analyze errors, performance, technical availability, cycle time, long-term trends, and much more.

- Use SmartProduction_monitorying in order to optimize the ramp-up phase
- Reporting tool for your production performance
- Different views: From Management Cockpit to shop floor level

Transparency
Cycle Time
Uptime
Your benefits...

**Quality**
Our solutions enable you to identify areas of improvement quickly and preemptively identify areas of improvement, thereby allowing you to continuously raise your level of quality.

**Flexibility**
The world is changing quickly because of digitalization. Thanks to our experience, being at the pulse of industry innovation, our solutions help keep you flexible and able to quickly adapt to changes.

**Uptime**
Produce more efficiently by decreasing your downtime/increasing your uptime. With our solutions you could decrease your downtime by up to 10%*.

**Transparency**
Our solutions collect and comprehensively visualize all significant areas of your production, thereby increasing overall transparency. This is the basis for our optimization processes.

**Cycle time**
Significantly increase your productivity through SmartProduction_optimization, which has shown to decrease cycle time by up to 10 – 20%*.

**TCO**
Optimize your Total Cost of Ownership (TCO) through efficient resource allocation and accurate predictive planning.

**Time to production**
The ramp-up phase can be accelerated considerably through e.g. Virtual Commissioning, even more so with our solutions, which use real production data.

**Connectivity**
The connection of all production data, from materials to production processes, allows for transparency and thus optimization.

* KUKA internal test

Find more information about KUKAs use cases in our brochure “Hello Industrie 4.0_we connect you”
The Matrix Production is an answer to many challenges in production:

- Production of increasing amount of variants and models in fluctuating quantities
- Economical production of small batch sizes in volatile and global markets
- Short time scalability

**Basic Matrix components:**
- **AGV Pool:** “parking garage” of production
- **Warehouse:** all relevant components are stored here
- **Toolstore:** type-specific tools and process means are stored here
- **Production cell:** easily adapted and converted to meet versatile needs
Specifications regarding the characteristics and usability of the products do not constitute a warranty of properties. They are intended to serve informative purposes only. Solely the respective contract of sale shall be binding in respect of the extent of our services and supplies. Some items of equipment depicted in the illustrations are optional and are not included in the standard scope of supply. Technical Data and illustrations are not binding for the delivery. Subject to change without prior notice.