



ivii

ivii.smartdesk

ivii.eu

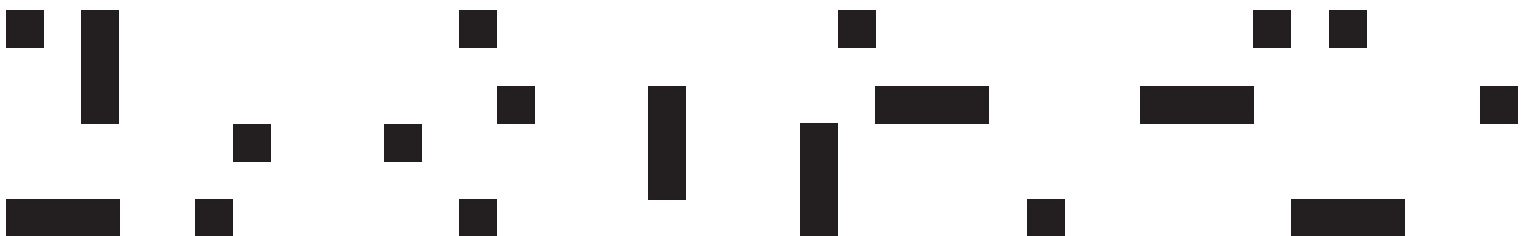
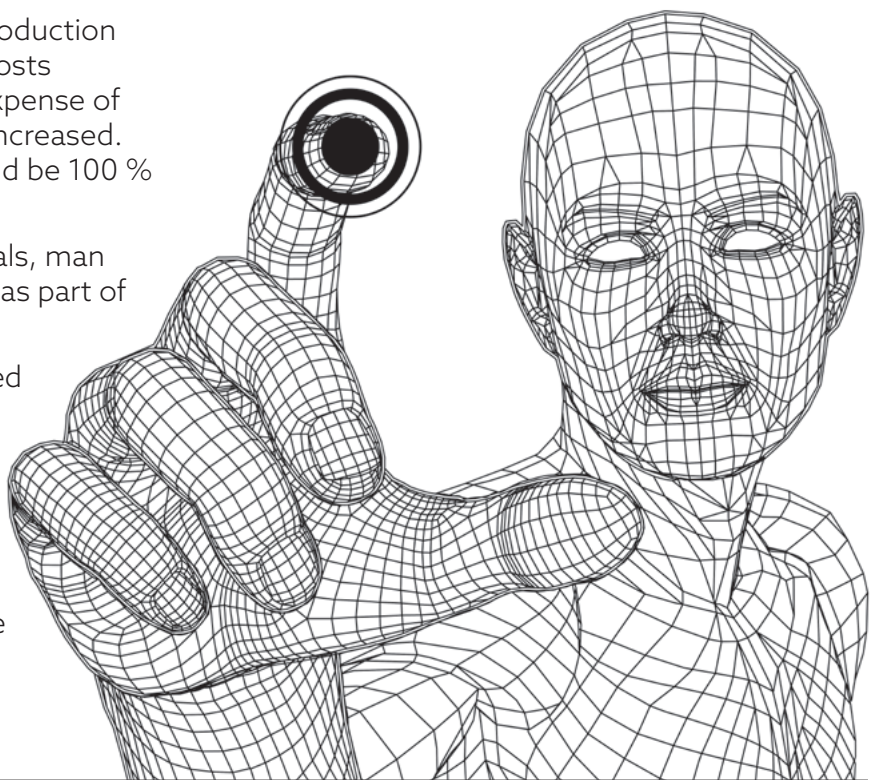
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## The digital transformation has begun

The requirements placed on production facilities today are immense. Costs should be cut, but not at the expense of productivity, which should be increased. At the same time, quality should be 100 % guaranteed.

To achieve these ambitious goals, man and machine work side by side as part of smart production.

Our solutions at ivii are designed to support the worker in smart production. Implementing new technologies, innovations and the technical expertise of ivii employees ensures that all the criteria of smart production are met while focussing on the worker.







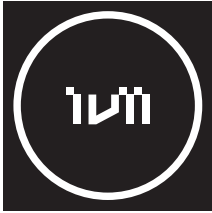
## Smart production: focusing on the person

The objectives of smart production are cutting costs, raising quality and increasing productivity.

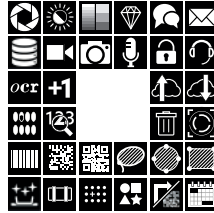
Thanks to ivii.smartdesk, it is possible for the first time to fulfil these conflicting requirements at the same time. Besides quality, performance is also increased. As a result, the employee is certain that they will not make mistakes and our solutions boost operational success. At the same time, process costs are permanently reduced. Finally, employee experience is incorporated into the system to cultivate a transfer of knowledge within the company. **We make smart production a reality.**



**ivii.core**



**ivii.apps**



**ivii.cockpit**



## **ivii.software: it's your solution**

The ivii.software comprise three areas – **ivii.core**, **ivii.apps** and **ivii.cockpit**.

The **ivii.core** is the basic module of the software, serving as the foundation for all apps and installations. It can be easily integrated in your software landscape with a single standard interface.

The modular **ivii.apps** serve as the building blocks for specific functions. Depending on customer requirements, the apps can be combined with one another to form the perfect solution.

The **ivii.cockpit** is the user interface of the ivii.software and ensures that the entire solution is easy to use. With the help of ivii.cockpit, your employees are able to maintain the system themselves and get to grips with new features, making the self-learning organization a reality.

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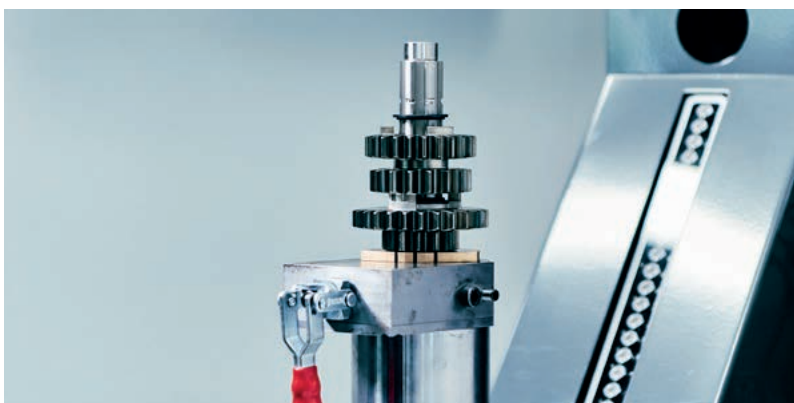
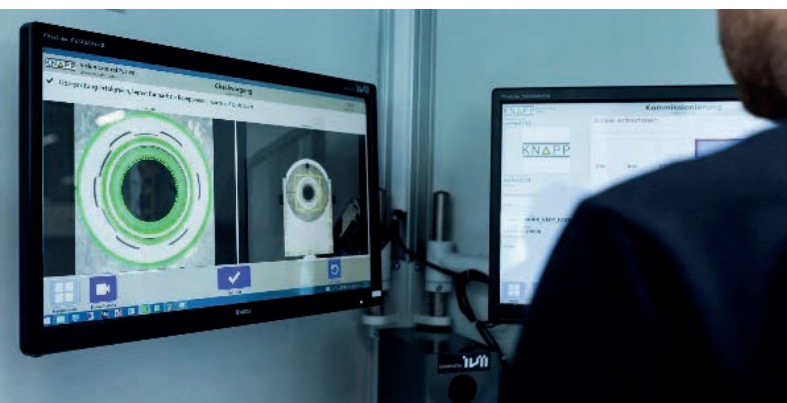
### **Image Processing**

The technology behind every ivii solution is intelligent image processing. It is the key technology in smart production and the collaboration between workers and machines. Image processing extracts information that was previously impossible to obtain.

### **zero defect**

The complete ivii.software, whatever the individual design, follows the zero-defect philosophy. That means that our image processing solutions avoid or even prevent errors. Automatic checks within the process ensure maximal quality with optimal efficiency.



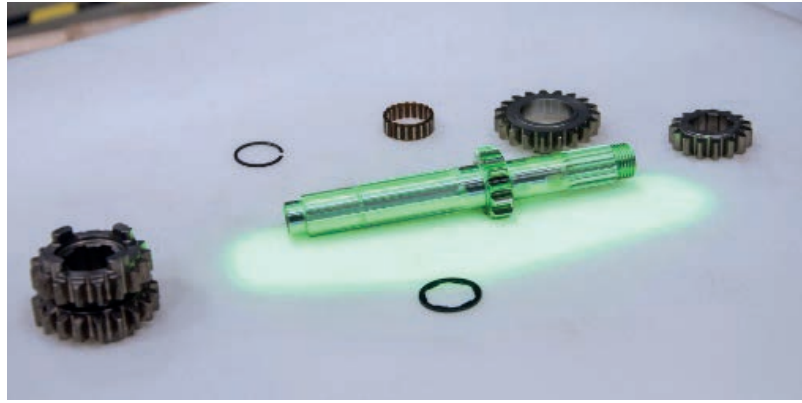


## **ivii.smartdesk** **100 % quality check**

The ivii.smartdesk enables a 100 % quality check to take place during the assembly process. The image recognition and image processing system of the ivii.smartdesk records every component used during assembly. The check is started at the press of a single button. Each individual work step is validated. The next step can only be carried out once the previous one has been classed as „OK“. Thanks to a real-time feedback system, personnel receive an immediate evaluation of the quality of the step taken. Error-free production becomes a reality.

A manual learning process is only required if the software is unable to determine certain properties. An expert is consulted remotely who then settles the case. This expert knowledge flows into the future decision processes of the ivii.software, making the learning organization a reality.





## Features of the ivii.smartdesk

The ivii.smartdesk has numerous features for quality assurance and for assisting the employee during the assembly process.

### Technical hardware equipment

- Ergonomic work table
- Standard industry cameras with selected lenses
- Infrared lighting
- Daylight filter
- Individual ivii.software platform (industrial PC, customer infrastructure or cloud)
- Indicator unit for real-time feedback
- High-resolution beamer

### Visual guidance for the worker

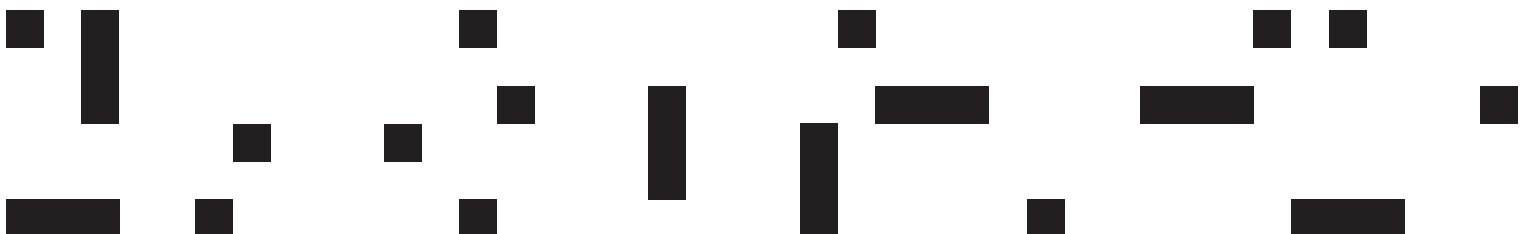
- Part recognition
- Scanning 2D codes
- Visual instructions for the worker
- Real-time feedback

### Quality checks

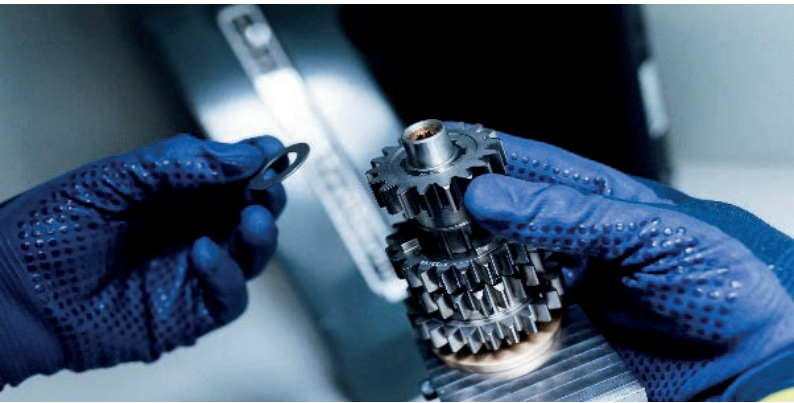
- Comparison with reference values
- Geometric measurement
- Surface analysis

### Inspection of the work steps

- Programming work steps
- Automatic sequence of steps
- Track & Trace
- Big data analytics







## Intelligent products require intelligent assembly

Pankl High Performance Systems was on the lookout for a smart solution on the path to achieving a zero-error strategy in drivetrain production and found it with the ivii.smartdesk.

**The challenge:** 100 % monitoring of the assembly steps requires precision down to elements with a thickness of just 0.3 mm. The system must report the quality of the work step immediately and must not be disrupted by natural fluctuations in daylight. A key challenge was programming the correct assembly without prior knowledge of image processing and without the support of the ivii experts.

**The ivii solution:** Our software combined with a customized camera and lighting concept provides the employee with immediate feedback on the quality of the current work step. 100 % personalized traceability and quality control is guaranteed. New drivetrains can be programmed easily. The ivii.smartdesk does not require employees to complete any training, which makes it easy to integrate in the existing work process.



## we are dynamic – agile – passionate

In April 2016, ivii GmbH was founded as a 100 % subsidiary of KNAPP AG. The name ivii stands for **intelligent visual image identification**. Our goal and mission is to capture optical data and make it usable for the operator and customer with the help of image processing solutions.

At ivii, our passion is developing new and innovative technologies for intelligent image processing. Our objectives, a sense of responsibility and openness for new ideas and

perspectives are at the heart of all our actions. In our day-to-day work, we make sure that the focus remains firmly on people – may that be our colleagues, our customer or our partners.

Vitality, agile workflows and crystal-clear transparency are the hallmarks of our corporate culture. Our open communication serves as the basis for our customer projects. We work towards solutions with innovative approaches. We share your vision to find the ideal solution to your needs.

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intelligent  
visual  
image  
identification