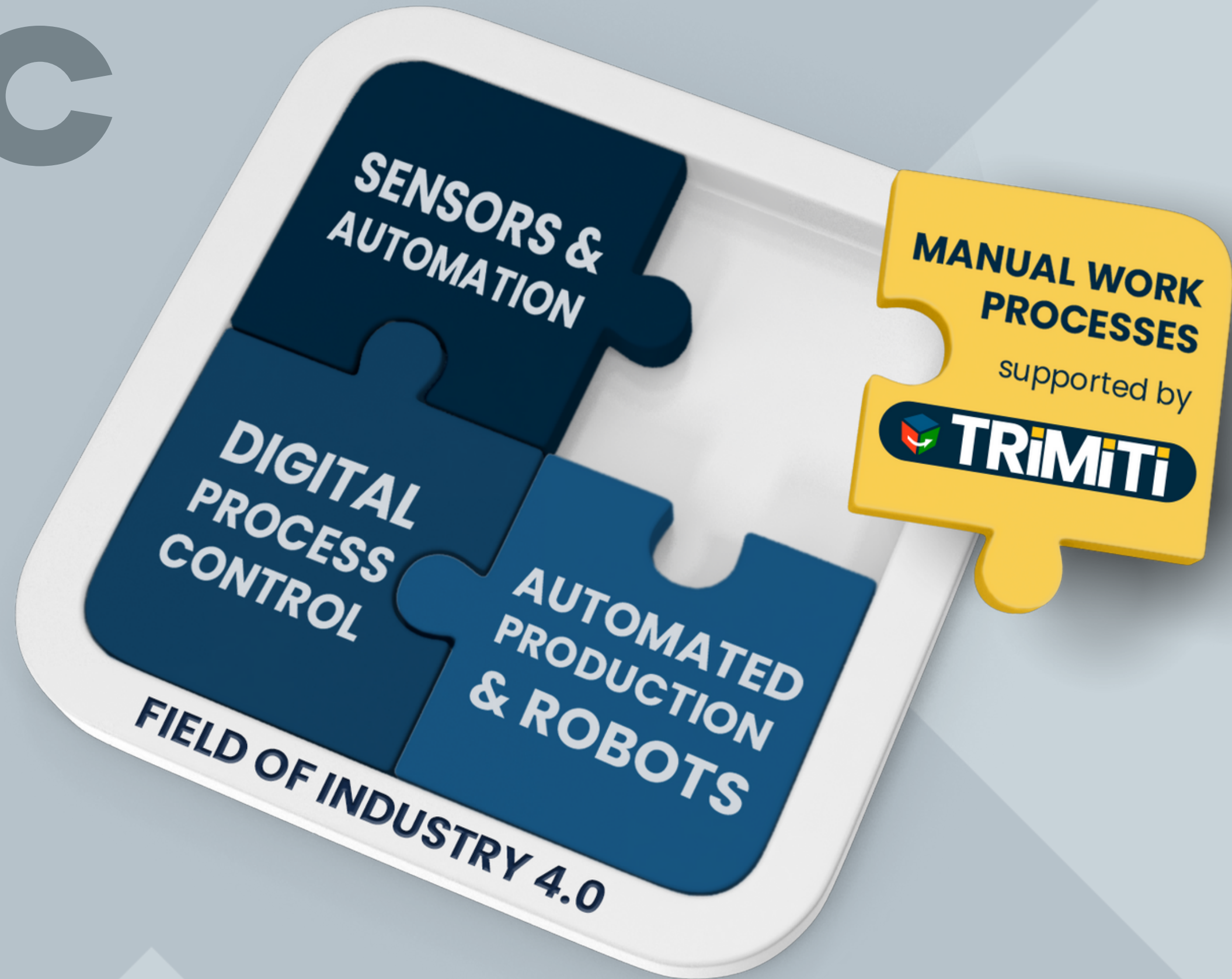


NEXUSTEC

MANUAL WORK
complies with
INDUSTRY 4.0 paradigms



EXECUTIVE SUMMARY



“Humans are, and will remain, integral to the manufacturing process. 72% of tasks in the factory are performed by humans.” (A.T.Kearney)

Nexustec brings manual work into Industry4.0

=> This is achieved by camera- & machine learning-based software:

- **First-time-right-production & higher added value**
- **Process control & assurance of manual work**
- **Automated data generation for ERP/MES**
- **Strong tool for Industry4.0-initiatives**
- **ROI per working station within 12 months**

WHO ARE WE, WHAT'S OUR CAPABILITY?

Strong know-how for product development in:

- software development
- vision technology
- industrial production

Whole team is located and works in Munich

NEXUSTEC GmbH has a certified QM according to ISO9001:2015

Several projects especially in the automotive industry (Tier n, OEM):



Since 2023 enlarged focus on other industries like machine builders and medtech:



OUR SOFTWARE



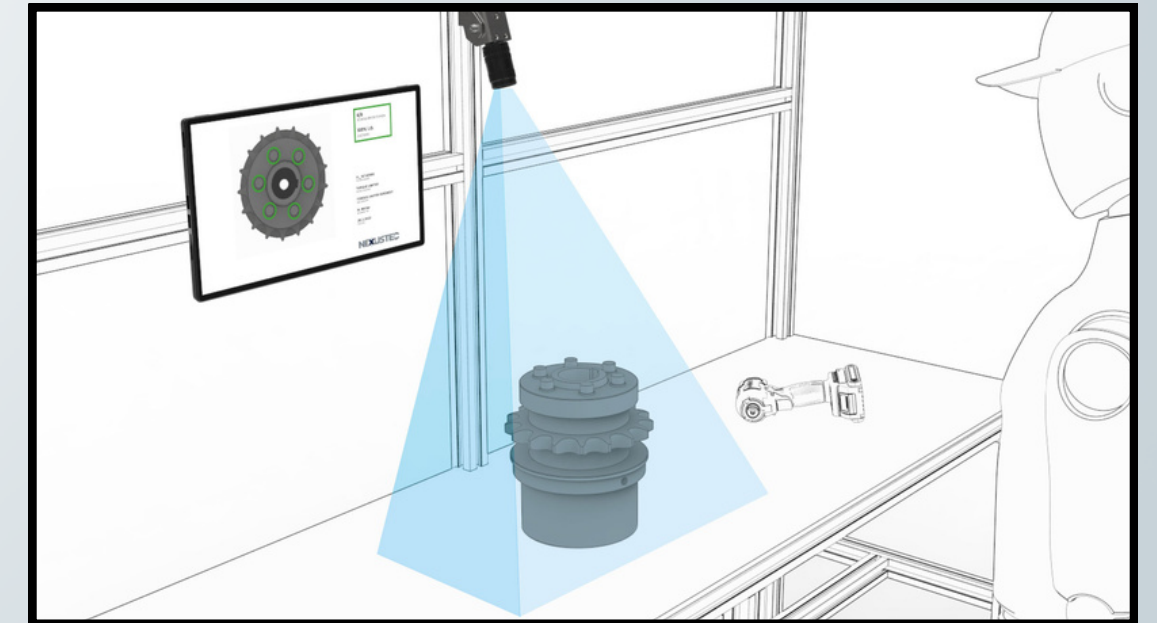
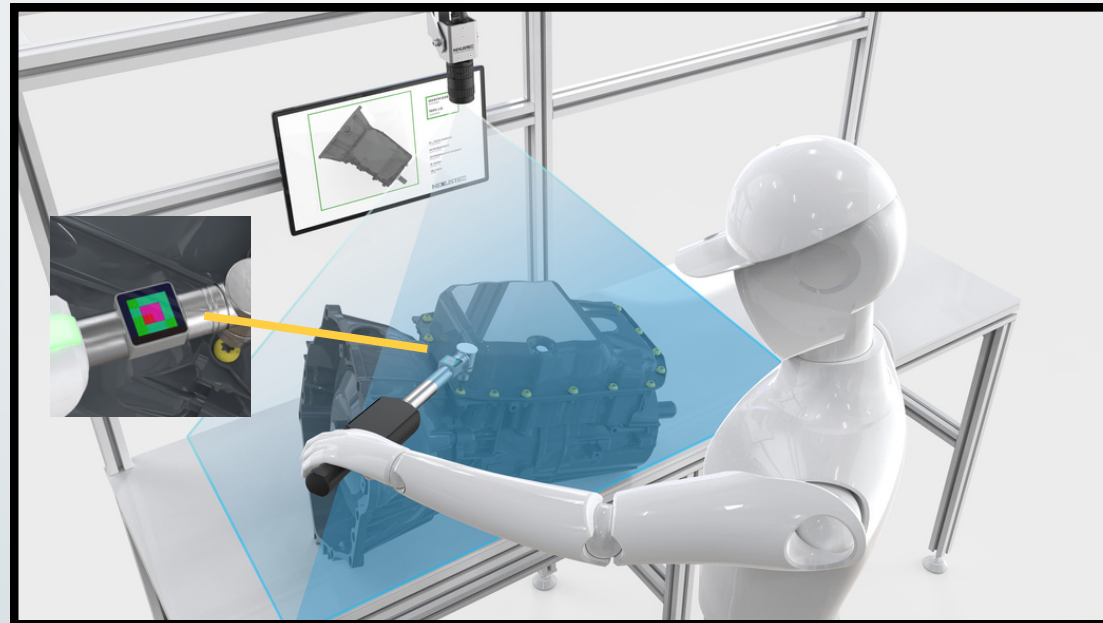
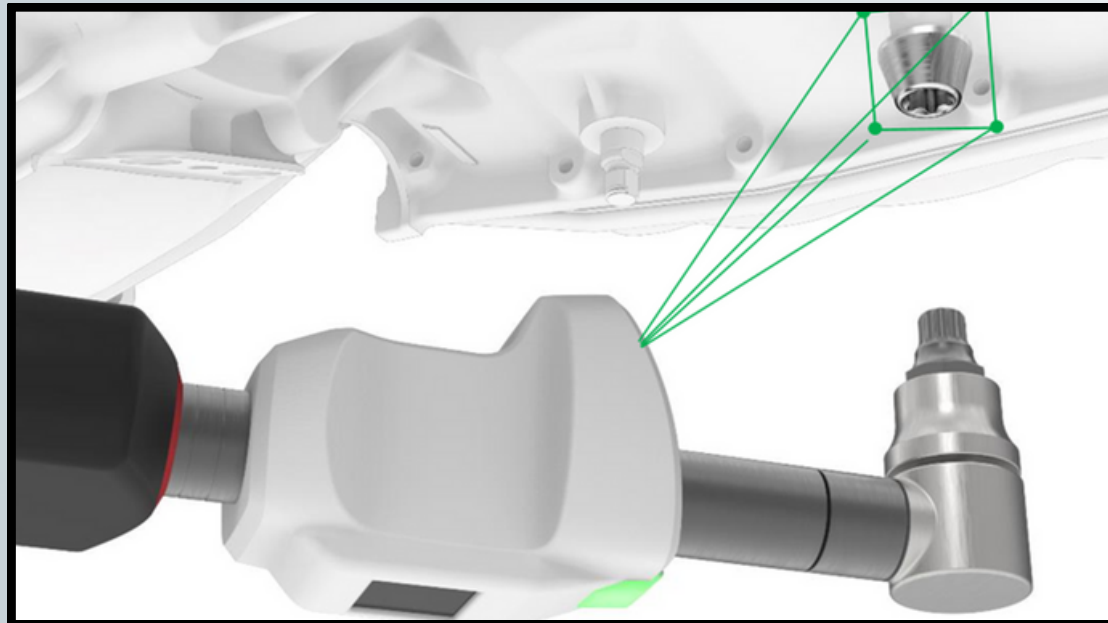
IN PRINCIPLE



OUR VALUE PROPOSITION

- **Digitizing tool** for **manual processes** in all fields of industrial manufacturing
- **Manual work** becomes part of **industry 4.0** paradigms
- **A.T.Kearney Survey:** **The human touch:** still crucial in **manufacturing**
- **72% of tasks** in the factory are performed **by humans**

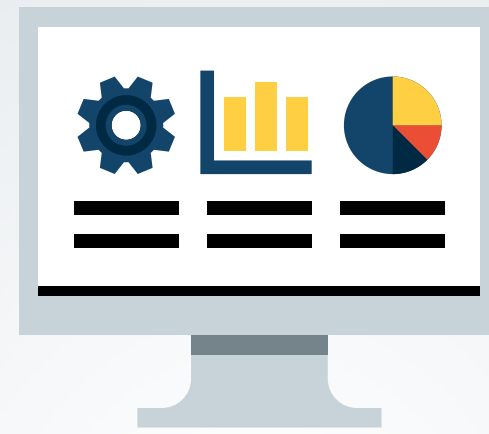
Statement 1:
Human centric automation –
Combination of the best of two worlds



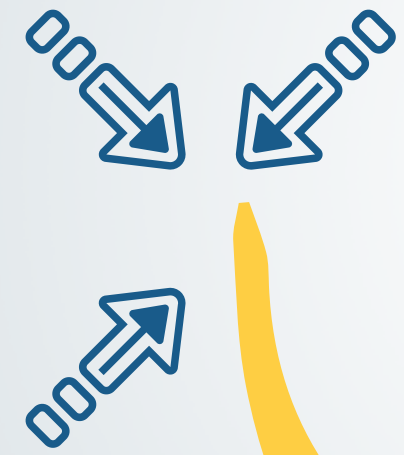
STRENGTHS of **TRiMiTi**



**Process Control of
Production Flows**



Data Generation



**Interfaces with
every device**



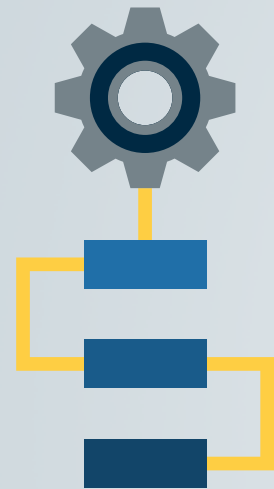
Statement 2:
One key opens all the doors –
quality, OEE, tracability, no rework

BASE FOR IIoT (Industrial Internet of Things)

- Smart Manufacturing
- Process optimization
- Smart Supply Chain
- Traceability
- Blockchain



BENEFITS FOR YOUR PRODUCTION BY ASSISTED WORK



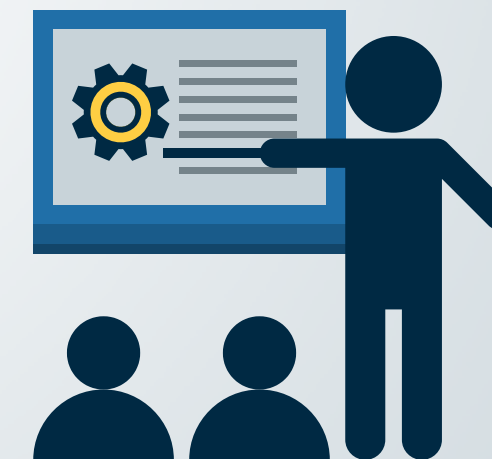
- **Detection of correct assembly work flow**



- **Avoiding of any failures**



- **Check of manual work**



- **Guided training on the product**

Statement 3:
Inline quality assurance –
no rework, scrap, follow-up inspections

No scrap, no faulty production, no rework, no follow-up inspection, ...



OUR PRODUCTS

TRIMiTi APPLICATIONS & PROJECT EXAMPLES

INLINE QUALITY CHECK

END-OF-LINE QUALITY CHECK



ASSEMBLY ASSISTANT



SCREW FASTENING ASSISTANT



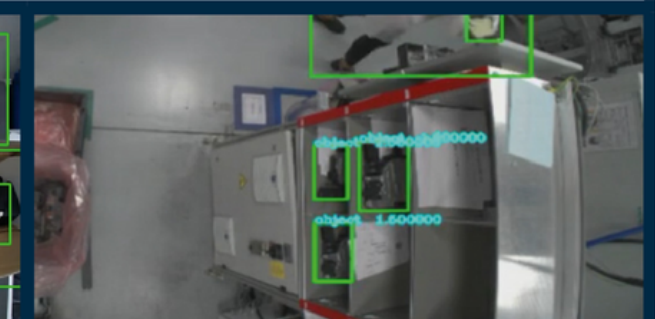
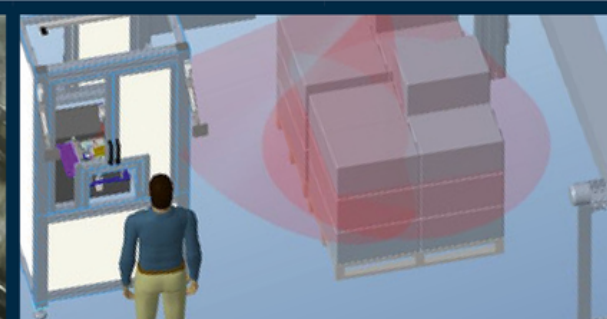
AUTOMATED OPTICAL INSPECTION (AOI)



PACKAGE CONTENT CONTROL



PACKAGE TRACKING



SETUP of

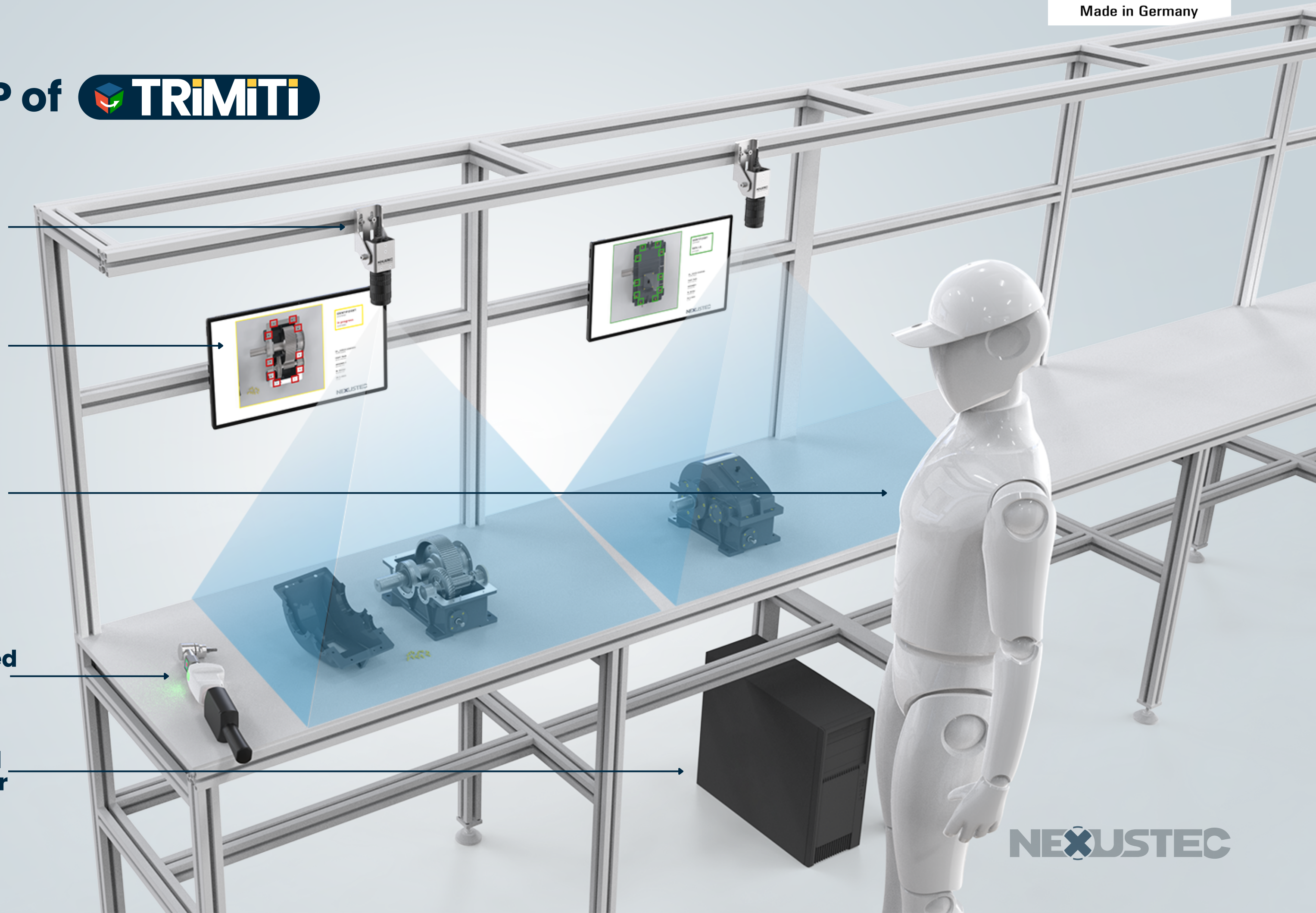
Camera

Screen

Worker

Connected
Tools

Industrial
Computer

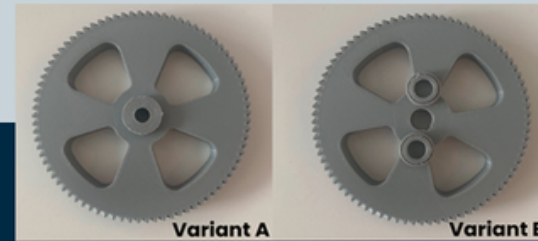




FEATURE EXAMPLES



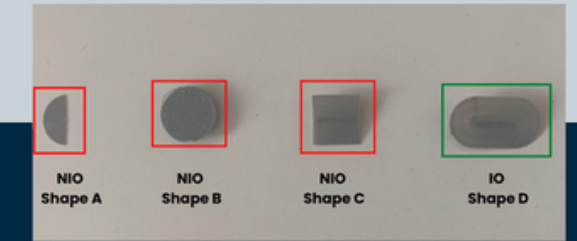
BARCODE/LABEL CHECK



VARIANT DETECTION CHECK



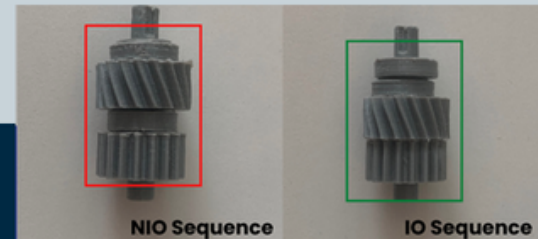
COLOR DETECTION CHECK



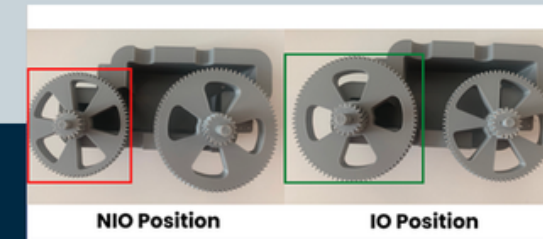
SHAPE DETECTION CHECK



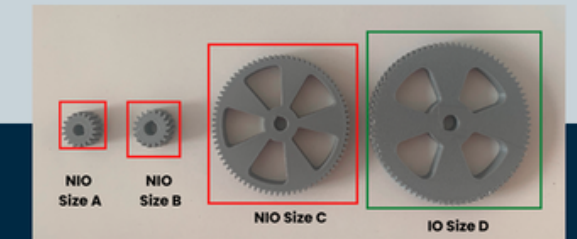
TEXTURE DETECTION CHECK



SEQUENCE DETECTION CHECK



POSITION DETECTION CHECK



SIZE DETECTION CHECK

TRiMiTi

CUSTOMER PRODUCTS

Software characteristics

- **Software** meets particular **customer needs**
- **Very flexible configurability**
- **Modular setup** allows **customized applications**
- Deployed versions **easily to be updated** with latest features

PRODUCTS		INLINE QUALITY CHECK			END-OF-LINE QUALITY CHECK	
		ASSEMBLY ASSISTANT	SCREW FASTENING ASSISTANT	AUTOMATED OPTICAL INSPECTION (AOI)	PACKAGE CONTENT CONTROL	PACKAGE TRACKING
FEATURES	Color check					
	Shape check					
	Size check					
	Position check					
	Variant check					
	Tool calibration check					
	Screw fastening position check					
	Sequence check					
	Tool verification					
	Smart tool integration					
	Tool un-/lock function					
	Barcode / Label check					
AI TECHNOLOGIES USED	MACHINE LEARNING					
	DEEP LEARNING					
	DATA ANALYTICS					
	MACHINE VISION					



SENSITIVE DATA AND GDPR



- **Data** is stored on an **industrial computer** at **customer side** ✓
- Software ensures **personal data protection** & **no data storage needed** ✓
- **Focus** on **production flows**, **employees** are **out of scope** ✓

Thank you!

NEXUSTEC

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