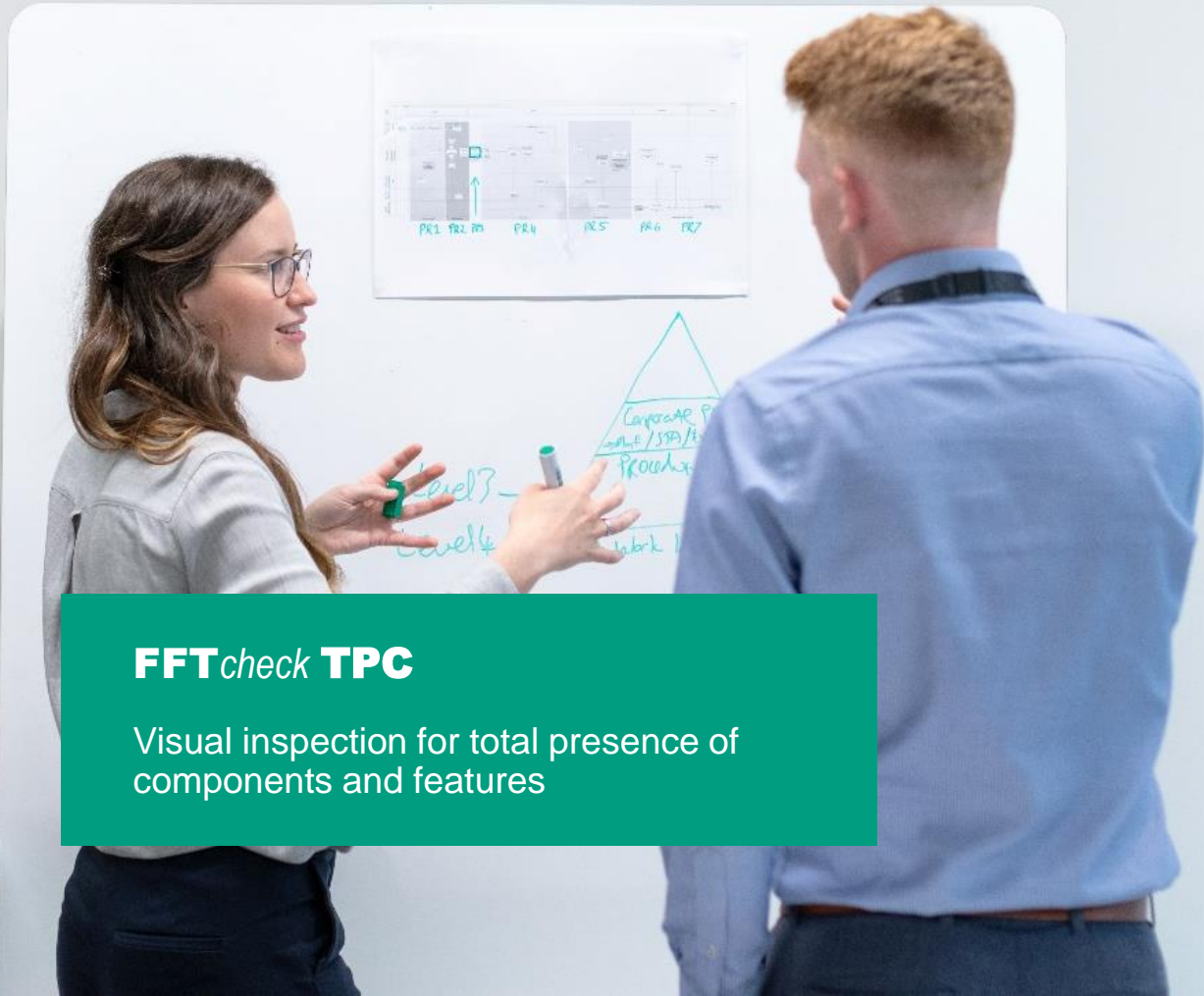




FFT *check*
**Total Presence
Check (TPC)**

one step ahead in **INTELLIGENT** production systems



FFTcheck TPC

Visual inspection for total presence of components and features

1

FFTcheck TPC

Introduction, the process of FFT TPC

2

Advantages

Stable process evaluation, fast and accurate determination of components and specific characteristics

3

Recognizable features

Shapes and positions of components, measuring tasks

4

Equipment

Hardware / Software

1 **FFT**check **TPC** - Process

Introduction

one step ahead in **INTELLIGENT** production systems

FFT*check* TPC - Process

Introduction

- Objective:
 - To check with high reliability the presence of components and certain features.

- Problem:
 - If components and certain features are not properly present, major damage can occur if this is not detected at an early stage

- Solution by FFTcheck TPC
 - Optical system to detect the placement in 2D or 3D
 - Ensuring the placement and application of components, materials and features

FFT *check* TPC - Process

Introduction

The FFT TPC Sensor



The FFT TPC sensor can be installed stationary, on a robot or on a rotating unit.

Component is moved relative to the laser

Sensor is moved by robot over component

Measurement result is stored with measurement position

2

Advantages

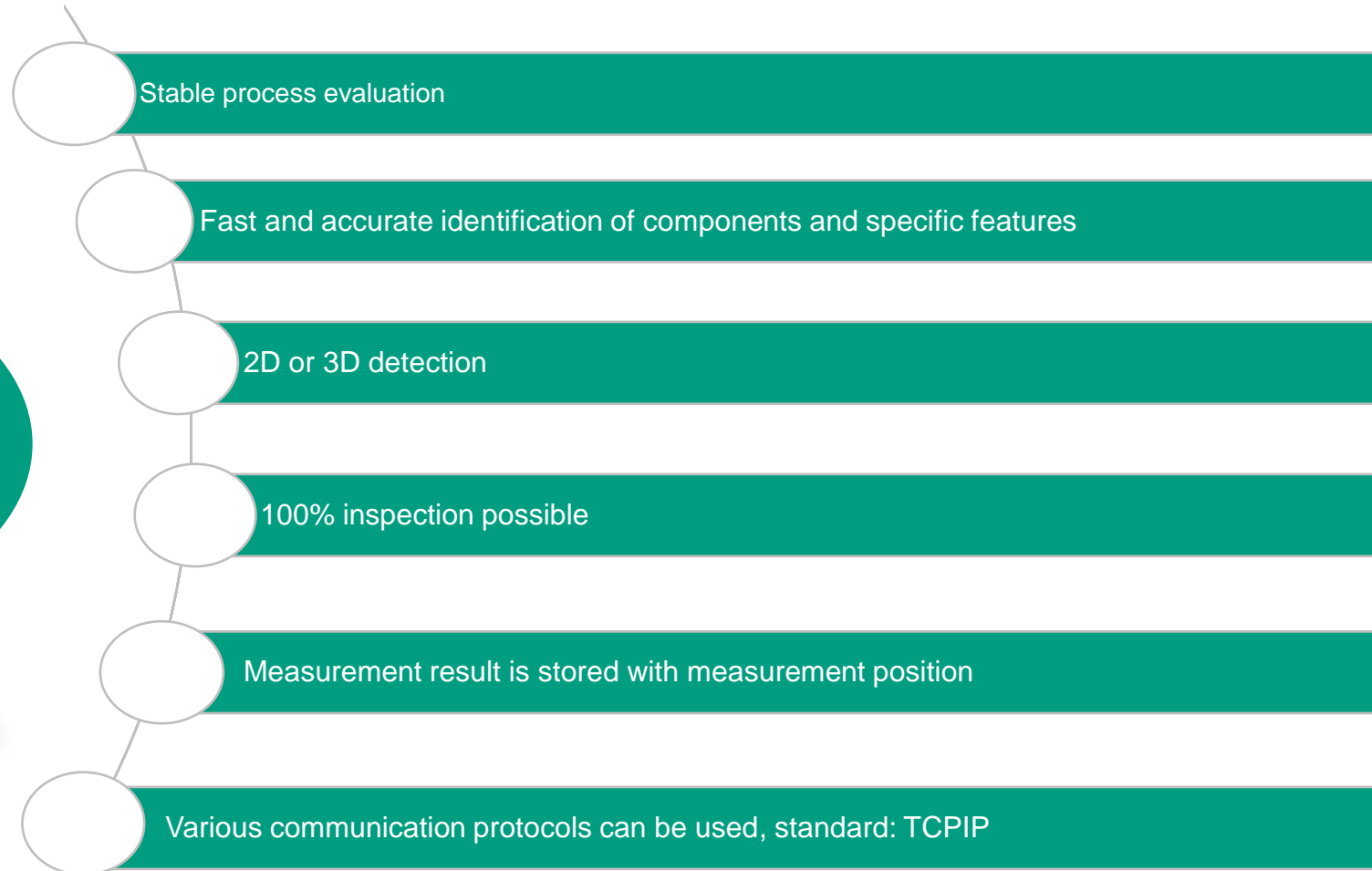
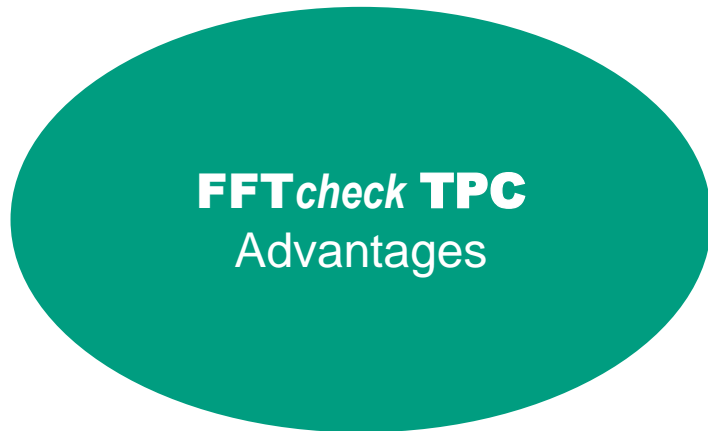
Stable process evaluation, fast and accurate determination of components and characteristics

A woman with long brown hair and glasses, wearing a light blue button-down shirt, is writing on a whiteboard with a white marker. The whiteboard has some handwritten notes and diagrams. A man in a blue shirt is partially visible on the left side of the frame, looking towards the whiteboard.

one step ahead in **INTELLIGENT** production systems

Advantages

Stable process evaluation, fast and accurate determination of components and characteristics



3

Detectable features

Shapes and positions of components,
measuring tasks

A woman with long brown hair and glasses, wearing a light blue shirt, is writing on a whiteboard with a white marker. The whiteboard has some handwritten notes and diagrams. A man in a blue shirt is partially visible on the left side of the frame, looking towards the whiteboard.

one step ahead in **INTELLIGENT** production systems

Detectable features

Shapes and positions of components, measuring tasks

examples of recognizable features

- Clips
- Foam rings
- Holes
- Bolts
- Nuts
- Adhesive
- Insulation

Depending on the task, the following properties can also be determined

- Installation position
- Dimension (length, width, height)

4 Equipment

Hardware / Software

one step ahead in **INTELLIGENT** production systems

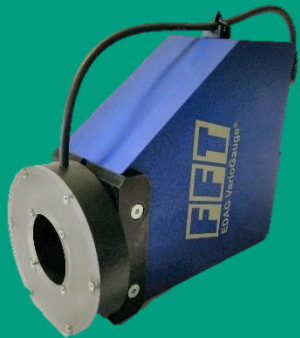
Equipment

Hardware / Software



Hardware

- VarioGauge Vx → 2D, 2,5D, FFTBlue 3D
- Panel PC, BoxPC
- Ethernet, TCP/IP Communication
- Various robots and controllers can be used



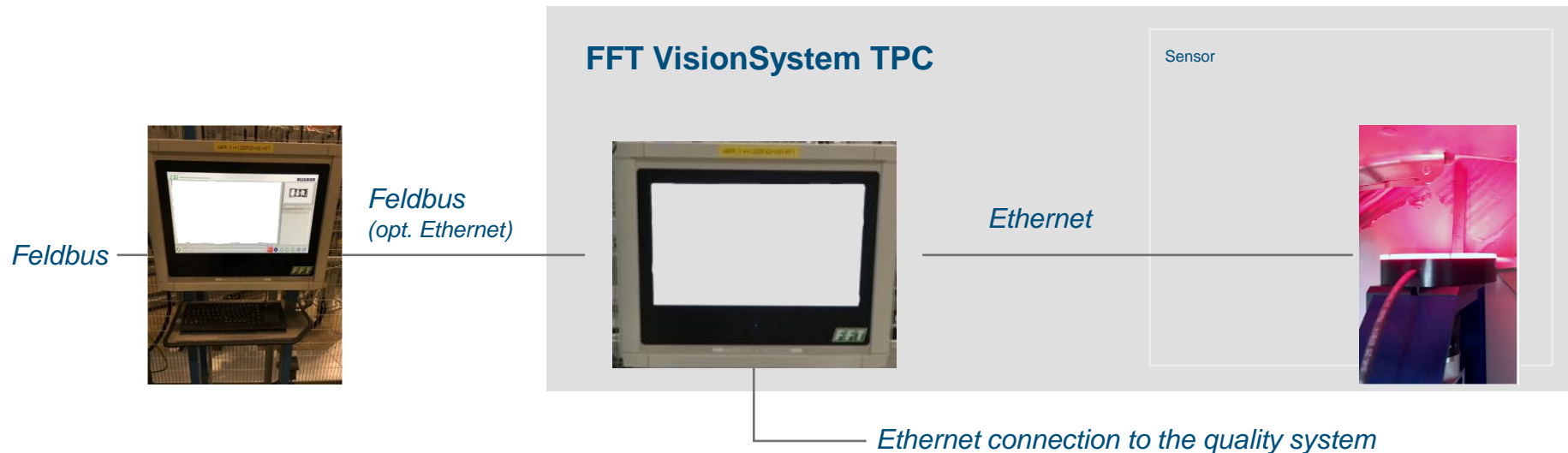
Software

- FFT VisionCheckup TPC

Equipment

Hardware

- PC based vision system
- Standard Ethernet communication hardware
- Fieldbus (LWL) communication interfaces
- Intelligent sensor technology
- Very fast measuring



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Creation of individual solutions



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Successful manufacturing with modern technologies



Documentation

Clear and logical




Conformity

Compliance with standards and regulations



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Competent service through FFT



We support our customers in efficiently implementing their production systems according to their specifications.

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DO YOU NEED AN
INDIVIDUAL SOLUTION
FOR YOUR TASK?



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