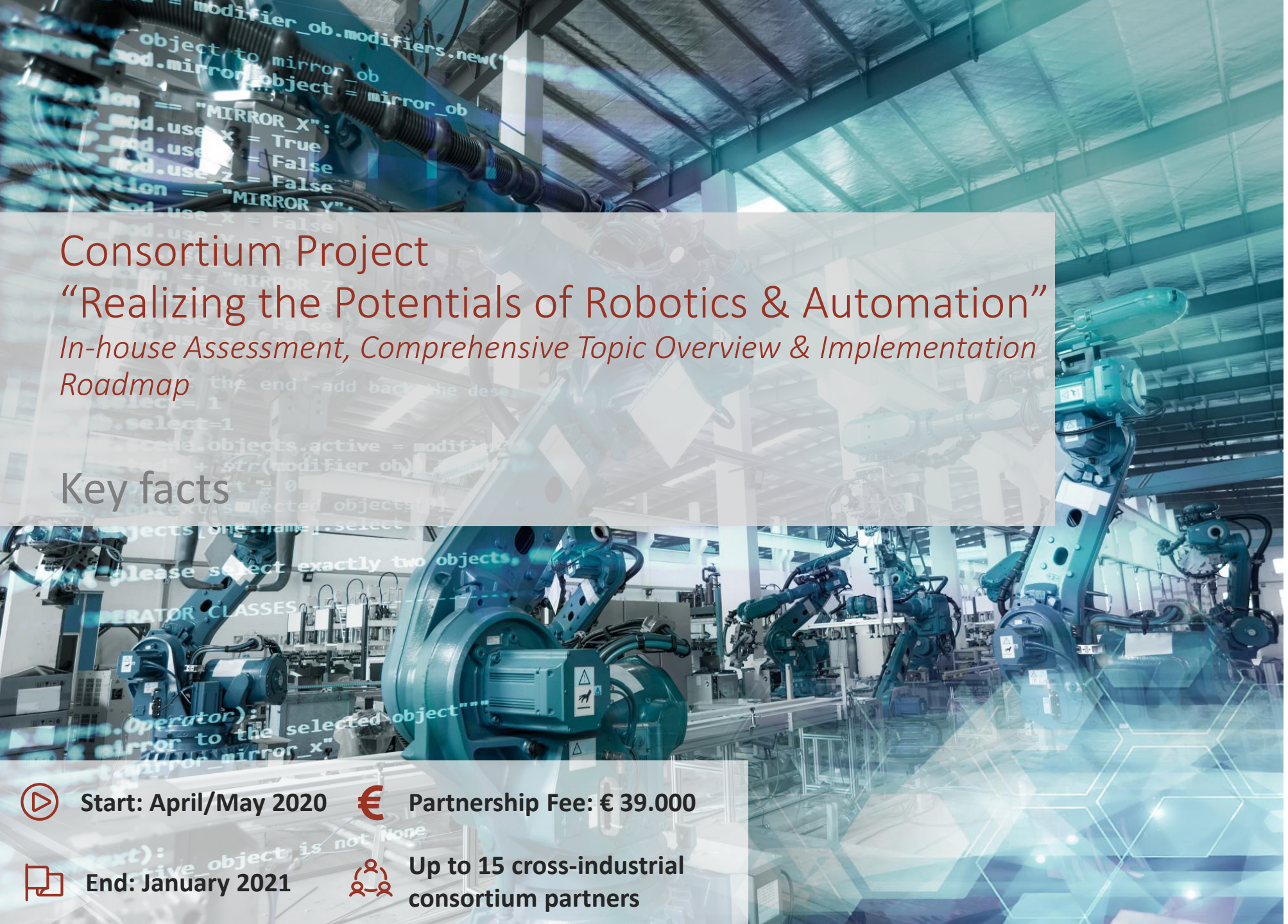

Consortium Project
“Realizing the Potentials of Robotics & Automation”

In-house Assessment, Comprehensive Topic Overview & Implementation Roadmap

Key facts

Start: April/May 2020

Partnership Fee: € 39.000

End: January 2021

Up to 15 cross-industrial consortium partners

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Fraunhofer IPT

Fraunhofer IPA

WZL | RWTH AACHEN UNIVERSITY

MOTIVATION

Realizing the Potentials of Robotics & Automation

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Initial Situation

The Smart Factory is the vision that promises self-regulating and self-optimizing production. **Robotic and Automation** is a very important aspect for the realization of the Smart Factory. Due to the multitude of possibilities and applications, **the question of where and how to start and with which production process to begin** is not easy to answer for many companies:

- Where do I stand in comparison with other companies?
- What holistic approach does my company need to implement in order to increase automation in the short term as well as in the long term?
- Which process should I start with?
- What are present solutions and what is currently happening in research regarding robotics & automation?
- Are there companies with similar questions and can we join forces to save costs?

Procedure

A three stage approach is conducted in this project

Stage I - 3 days on-site automation assessment

The status quo and the automation potential are **evaluated by automation experts** in cooperation with each participant.

Stage II - Global & structured overview

Overview of the current research **trends** and **best practice applications** in the area of robotics and industrial automation is conducted

Stage III – Implementation roadmap

Tailored to one of your company's production sites. This enables you to bring your production to a higher level of automation.

- **Network** with **cross-industrial players** and **RWTH Aachen research experts** to discuss future potentials and benefits for your business
- Evaluate the opportunities for **joined follow–ups** in terms of **demonstrators** and **trials** at RWTH Aachen campus

Major Outcome

- **Assessment** of the current degree of automation in your production
- **Benchmarking** among the consortium participants
- **Structured overview** of trends and current solutions
- Individually tailored **implementation roadmap** for the production process
- **Networking** with other consortium participants and research partners

➢ We support you in the automation of your production!

TIMELINE & POTENTIAL RESULTS

Realizing the Potentials of Robotics & Automation

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Kick-off
May 2020

1st Report
September 2020

2nd Report
November 2020

Final Meeting
January 2021

STAGE 1

4 months
On-site assessments

- Conduction of a 3-day **on-site workshop**
- Assessment of the **process chain of one product**
- Determination of the **current degree of automation**
- Evaluation of the **automation potential**

➢ *Basis for the structuring and evaluation of the applications in Stage 2*

STAGE 2

2 months
Application Scanning

- **Structured and pre-evaluated overview** of industrial robotics, intralogistics and automation solutions
- Assessment of **relevant technology trends** and consortium needs
- Scanning & scouting for **cross-industrial best practice and research applications**

➢ *Basis for the selection of the individual roadmaps in Stage 3*

STAGE 3

2 months
Implementation Roadmap

- Development of an **individual implementation roadmap** for each participant
- Evaluation of the **achievable degree of automation**

Cross-industrial workshops

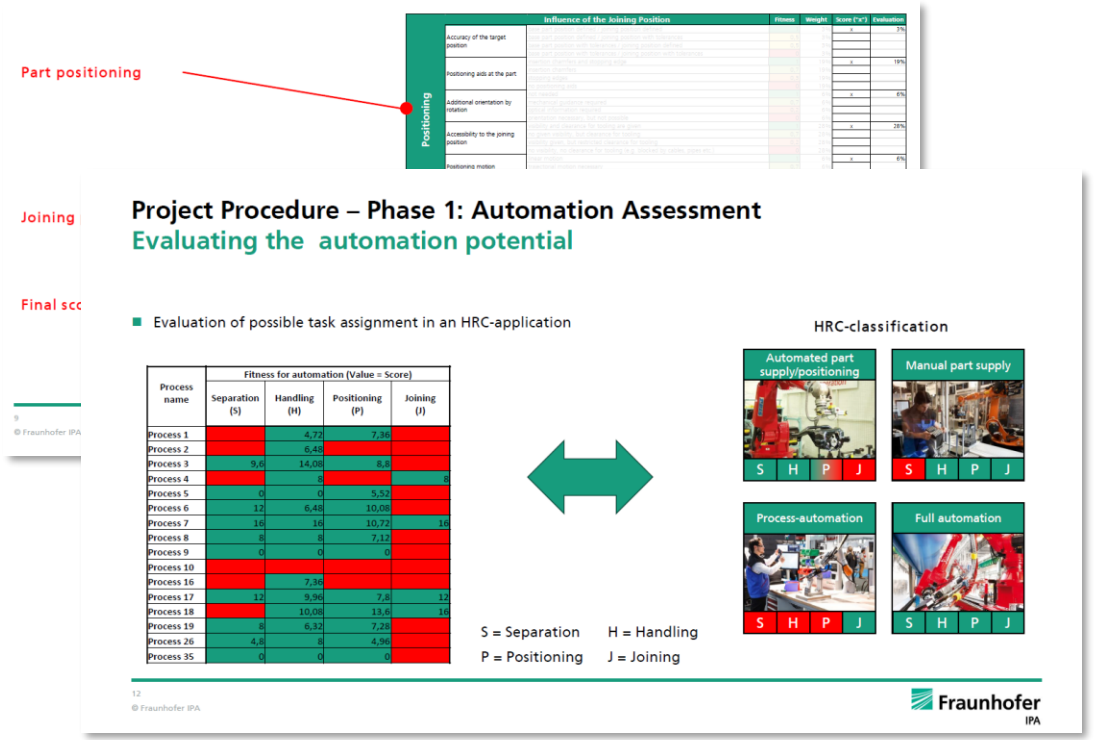
- Cross-linking of compatible partners from different industries in a facilitated workshop
- Derivation of clusters of common problems and derivation of possible common solutions

➢ *Optional: Get implementation support to start the transformation in your business*

Questionnaire | Consortium meeting | Optional workshops with partners/experts | Optional network/platform meetings

PROCEEDING – EXAMPLE OF A PREVIOUS PROJECT

Stage 1: On-Site Automation Assessment



On-Site Automation Assessment

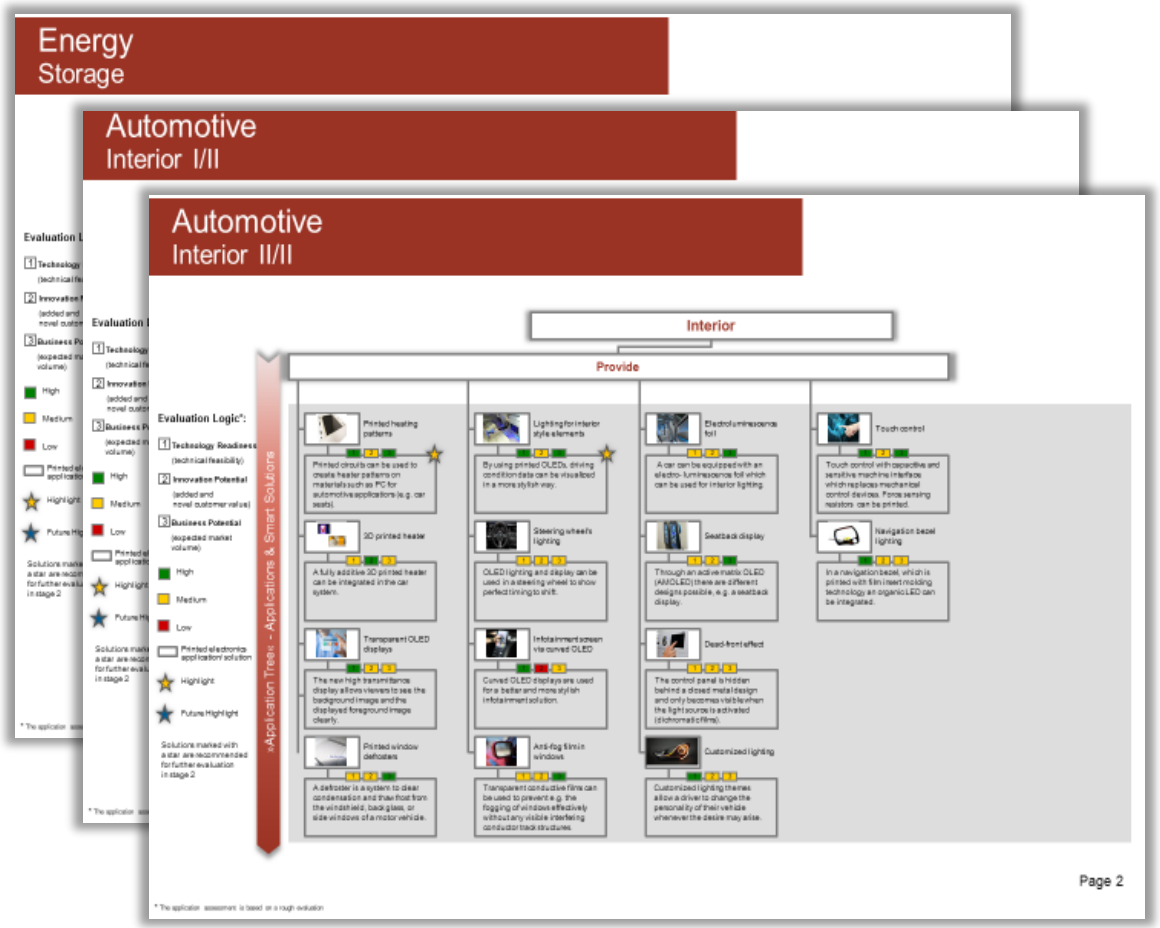
- Conduction of an **on-site workshop (3 days)**
- Assessment of the **process chain of one product**
- Determination of the **current degree of automation**
- Examination of the **production line** by experts

➢ **Goal: Identification of key processes for feasible and cost efficient automation**

Stage 1

PROCEEDING – EXAMPLE OF A PREVIOUS PROJECT

Stage 2: Segmentation & application scanning



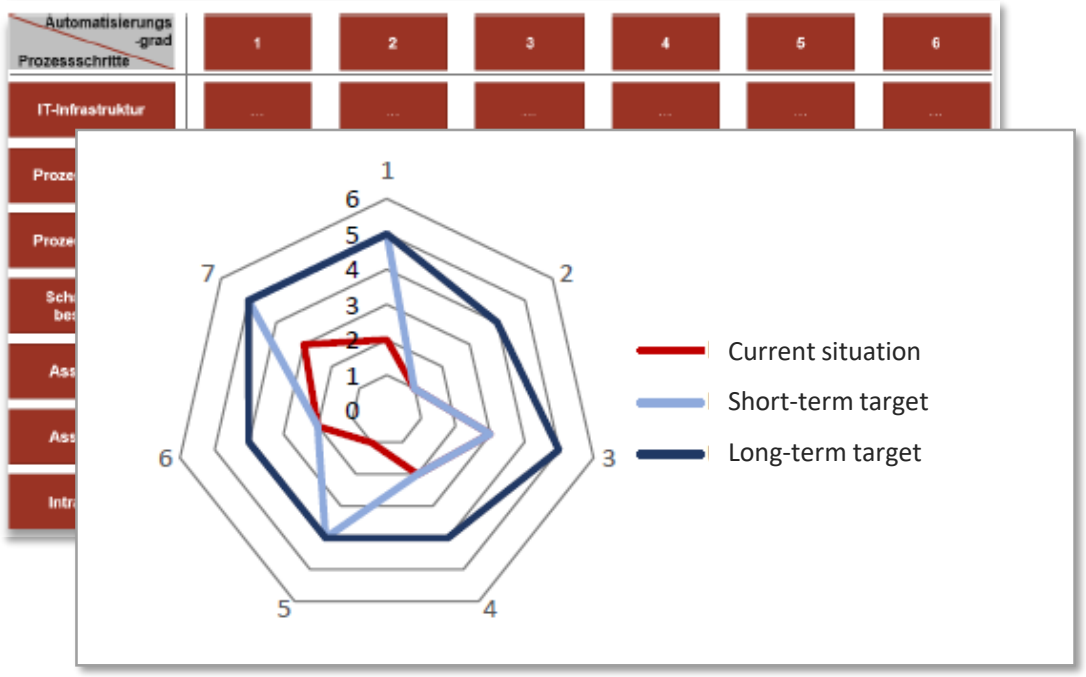
Application trees

- **Structured overview** of current and future solutions in the context of specific applications fields to be presented to the consortium during the 2nd report meeting
- Pre-evaluation of the most relevant applications **(approximately 250 cross-industrial solutions)**
- **Basis for the selection of possibilities in Stage 3**

Stage 2

PROCEEDING – EXAMPLE OF A PREVIOUS PROJECT

Stage 3: Implementation Roadmap



Implementation Roadmap

- Development of an **individual implementation roadmap** for each participating company
- Evaluation of the **achievable degree of automation**
- Estimation for the costs of **automation vs. benefit**
- Overview for **strategic long-term planning** to be able to evaluate its options

Cross-industrial workshops

- **Cross-linking** of compatible partners from different industries in a facilitated workshop
- Derivation of clusters of **common problems** and derivation of **possible common solutions**

Stage 3

EXPERT NETWORK

Realizing the Potentials of Robotics & Automation

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Professional technology and market information provider founded 2012 as a spin-off of the Fraunhofer IPT
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WZL | RWTH AACHEN UNIVERSITY

Knowledge and experience in all fields of production engineering and production management
www.wzl.rwth-aachen.de

External partners:

Fraunhofer IPA

Organizational and technological tasks from production are the main focus of research and development
www.ipa.fraunhofer.de

Campus Melaten

REFERENCE PARTNER

Former KEX Consortium Partners

KEX. Knowledge Exchange®

» More than 250 previous Consortium Partners*

* all mentioned companies are partners of a former consortium project hosted by KEX AG and it´s research partners

YOUR CONTACT PERSON

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