

# MMASSIST II

Assistenzsysteme in der Produktion  
im Kontext Mensch – Maschine Kooperation

## Lighthouse project MMAssist\_II

**Assistenzsysteme in der Produktion im  
Kontext Mensch – Maschine  
Kooperation**

**I-KNOW Conference, 12.10.2017, Graz**



FFG

Projekt 858623



# Project- Facts

FFG Number.:	<b>858623</b>
Titel:	<b>Assistenzsysteme in der Produktion im Kontext Mensch – Maschine Kooperation</b>
Acronym:	<b>MMAssist_II (<a href="http://www.mmassist.at">www.mmassist.at</a>)</b>
Coordination:	<b>PROFACTOR GmbH/ University Salzburg</b>
Start:	<b>01.05.2017</b>
Duration:	<b>36 months</b>
Funding:	<b>3 912 568 €</b>
Total Costs:	<b>6 131 405 €</b>
Partner:	<b>25 (10 scientific Partner, 15 Company partner)</b>

# Motivation

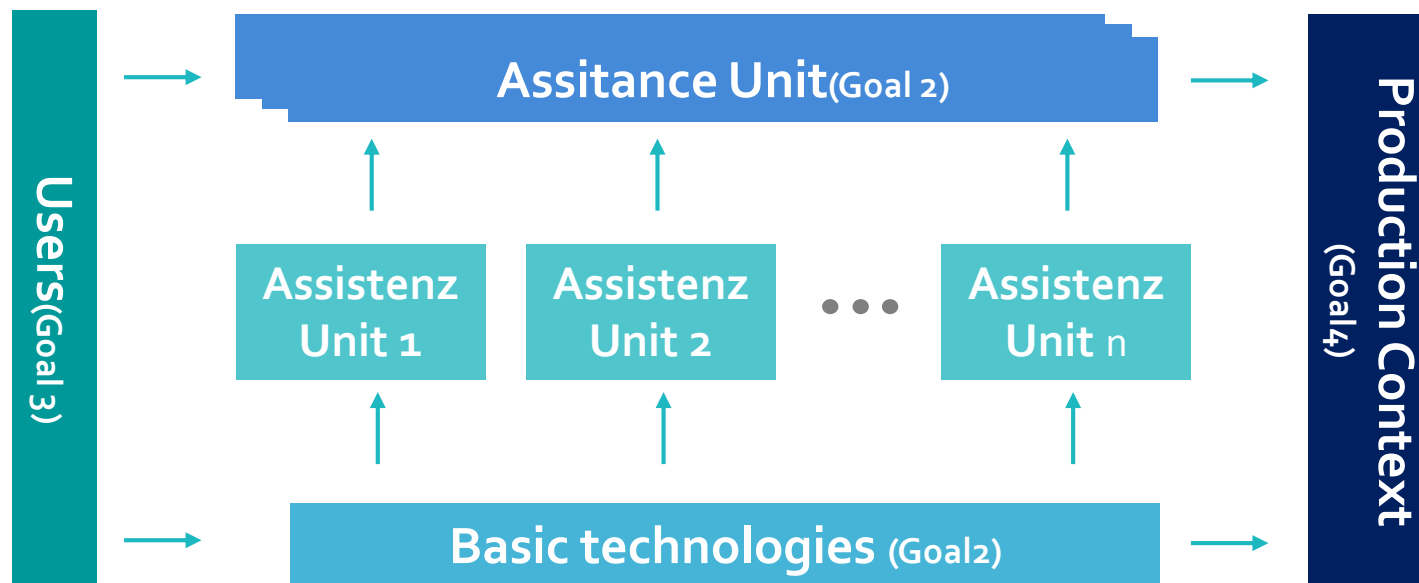
## Challenges for future Production processes

Technical	Sozio Techniscal
Small lot sizes	Stress and work pressure
Common Setup and multiple machine operation	Physische Anstrengung
Physical effort	Knowledge Management
Flexible Assistant systems	High diversity of employees

# Motivation

**Modular Assistance:** Assistance Units

**Central Use Cases:** Maintenance und Repair, Setup and Multi machine Service, Assembly



## Goals:

1. Research on modular, von modular, reusable Assistance systems
2. Context - sensible recognition of assistance needs
3. Improvement of User experience
4. Realization in real production environment

# Parts of an Assistenz Unit

Definition	Example
Name	Show Assembly Instruction
Assistance/ Assistant task (Type)	Step by step guiding through the assembly process
Knowledge source	Static: Assembly Instruction Dynamic: In which step are we currently
Input form	Explicit: UI Element (Help Button) Implicit: Detection (Stress)
Input device	Machine bottom, Camera
Output form	Pictures from Assembly Tasks
Output device	Situated Display

# Workpackage structure

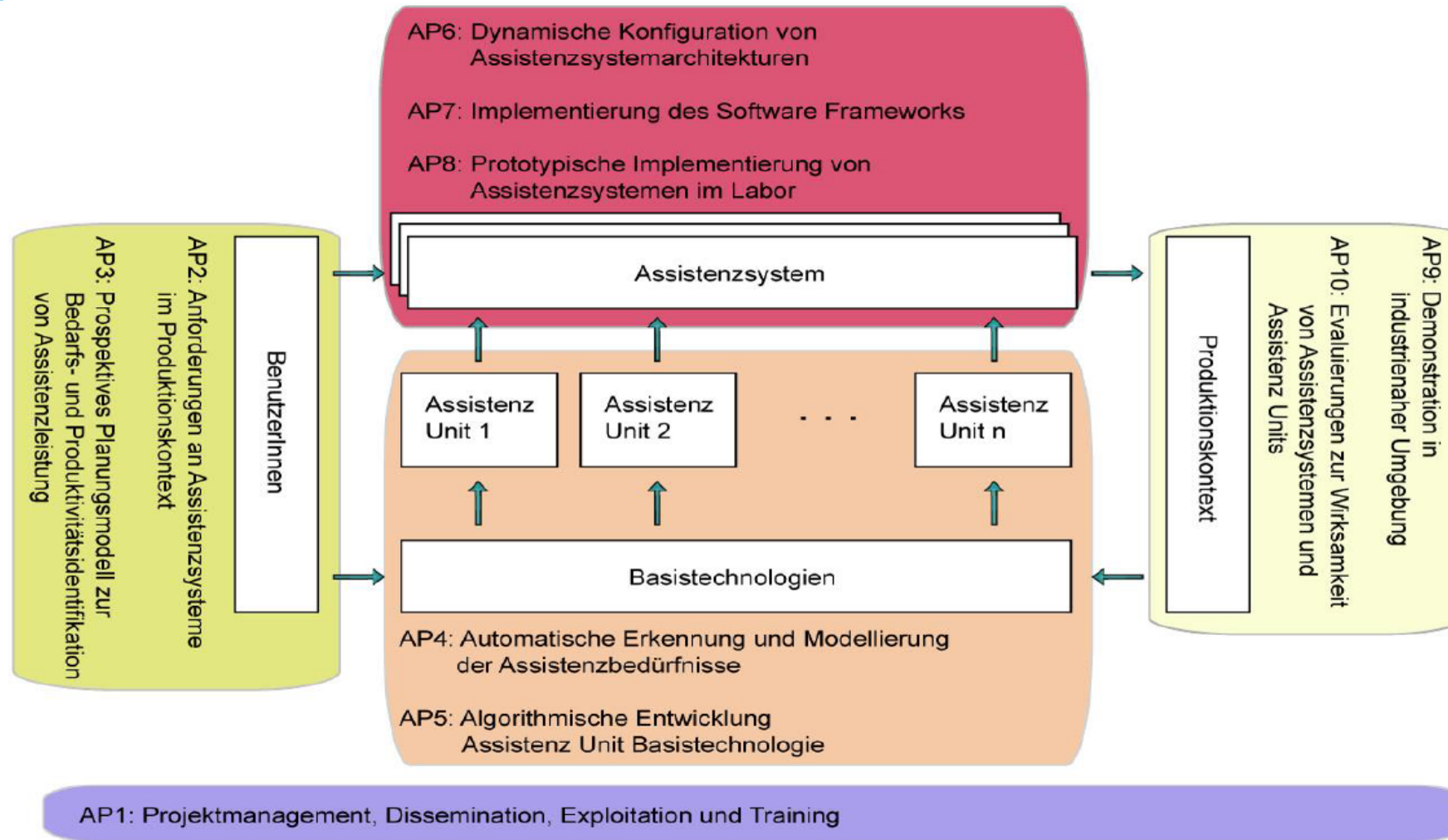
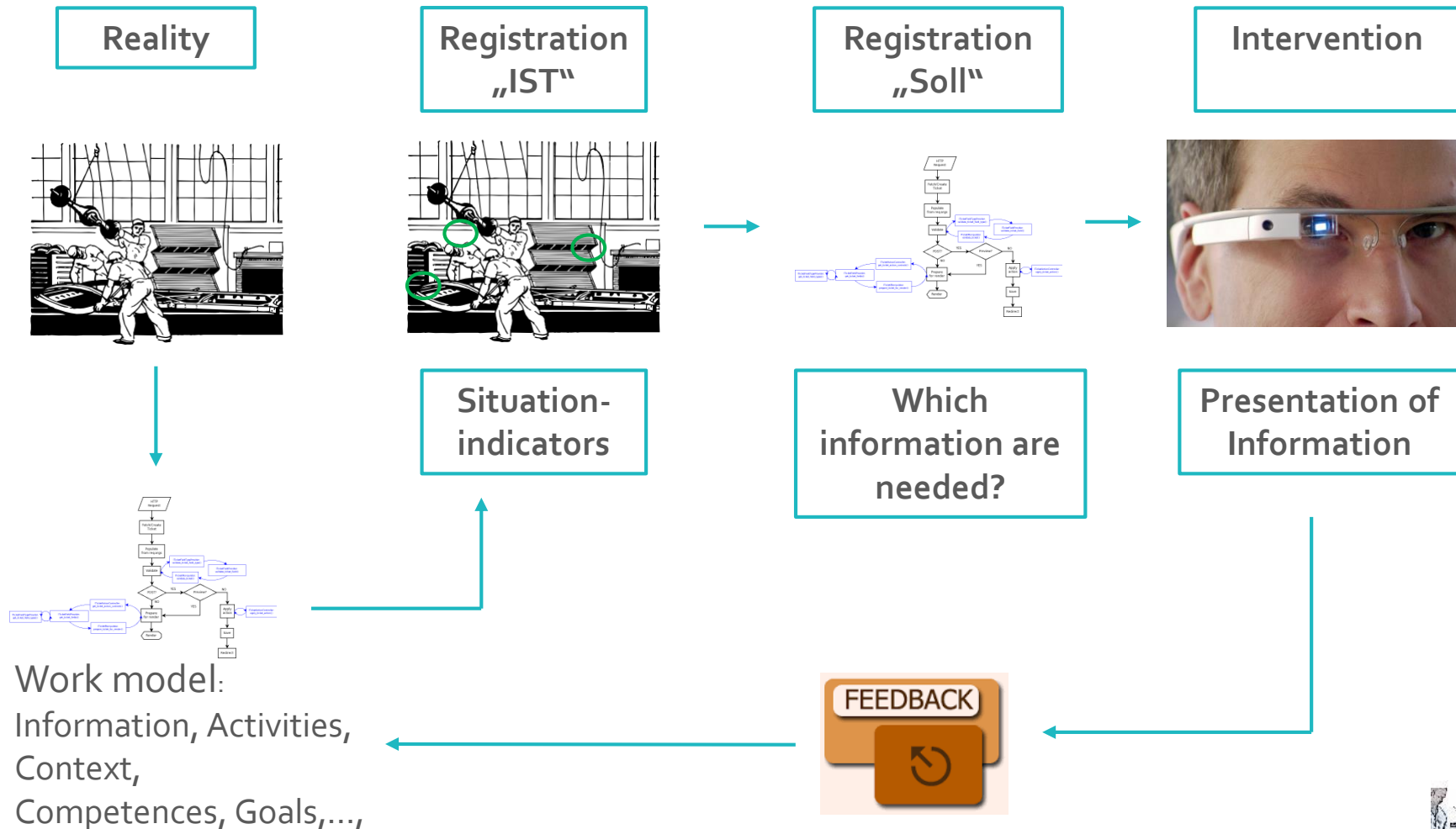
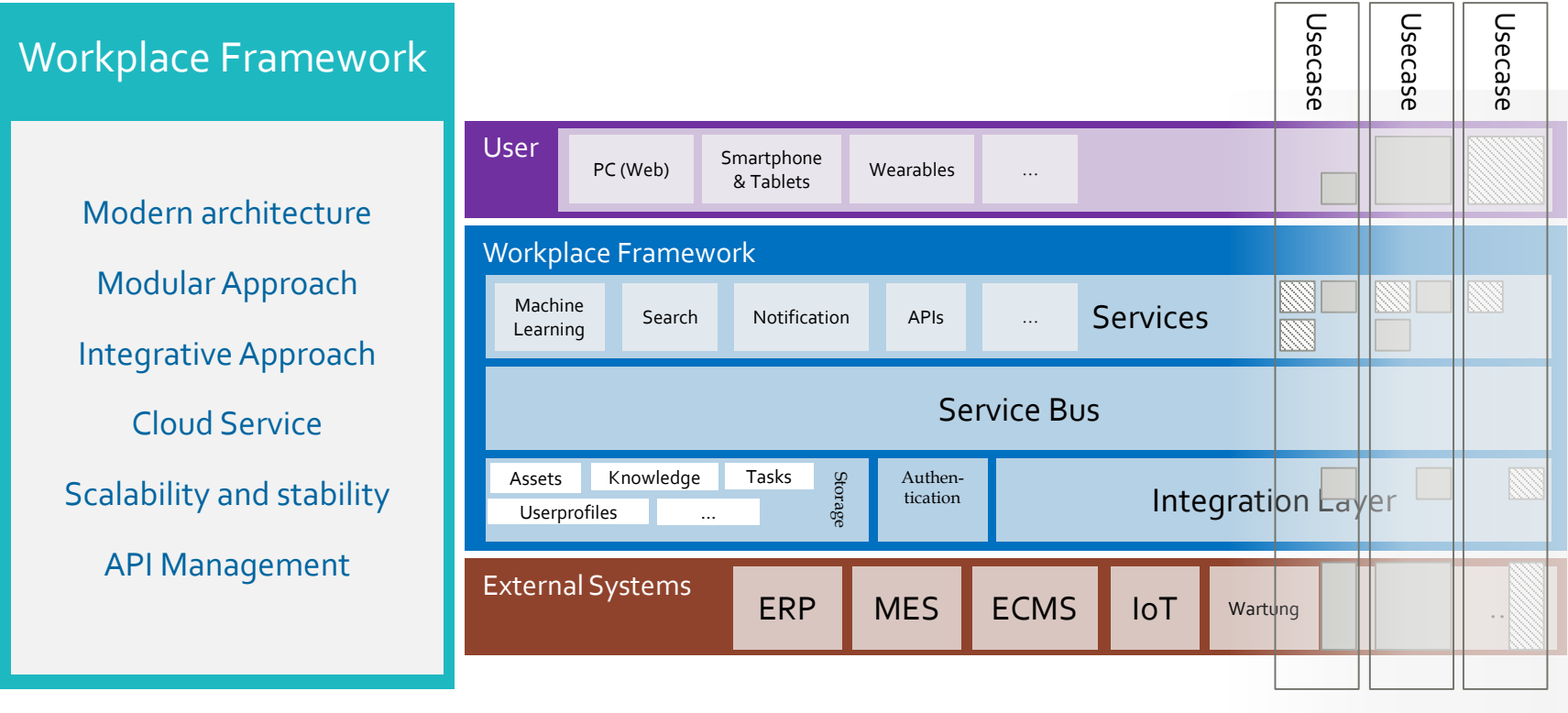


Abbildung 12 Übersicht der Arbeitspakete im Projektkonzept

# Recognition of Needs



# Integration - framework







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