



# SAP Innovation Awards 2019 Entry Pitch Deck

Helping operators excel with the Human Interface Mate!

ARKITE



<https://www.youtube.com/watch?v=aCrM0lahWul&t=>

# Helping operators excel with the Human Interface Mate!

## ARKITE



### “Quote”

*“Businesses are able to derive more value by connecting their manufacturing processes with the extended supply chain.*

*By integrating Arkite Human Interface Mate with SAP, Digital Supply Chain customers can ensure collaborative manufacturing.”*

Johan Smeyers, CEO  
Arkite

### Challenge

The HIM, an Arkite product, enables operators to excel at their job by guiding them through picking and assembly processes. This is done by real-time projections on the workstation and process monitoring by a 3D sensor.

### Solution

An integrated solution which is certified and easy deployable, which leads to faster project implementation time and delivering real-time synchronization between SAP (MII & ME) and HIM.

### Outcome

HIM & SAP supporting discrete manufacturing to pick and assemble the correct product. Resulting in real-time process data insights, increased production efficiency, improvement product quality and a trained and flexible workforce.

Production efficiency increase



Product quality improvement



Human capital support





# Business Challenge & Objectives

## Business Challenge

The HIM enables operators to excel at their job by guiding them through picking and assembly processes (ex. Valve Assembly). This is done by real-time projections on the workstation.

The HIM is capable of connecting with smart tools and other systems. These smart integrations enable to include the existing environment of the workstation, By connecting manufacturing processes with the digital supply chain, real-time data exchange between SAP and HIM is possible. Resulting in an agile manufacturing environment and in valuable data insights.

## Objectives

- Valve assembly (36 variants)
- Certified and easy deployable solution
- Faster implementation time
- Real-time data synchronization between SAP (MII & ME) and ARKITE (HIM)
  - Order data from SAP ME
  - Process and production data from ARKITE HIM
- Reduced data duplication



## Project / Use Case Details

### General Details:

Integration to SAP ME and SAP MII under involvement of Product Development Team, extending SAP Manufacturing Applications with AR and Quality assurance capabilities. Using HIM, Human Interface Mate, Arkite supports the factory shop floor worker with a virtual assistant integrated SAP based assembly pod and ensuring process quality.

### Case Details:

The assembly of a valve. There are 36 possible variants to be produced. The operator will select the variant to be produced on the SAP ME Production Operator Dashboard. This variant will be communicated to the Arkite HIM system. The full assembly will be guided by Arkite: picking the right components and placing them on the right positions in the right order to assemble the valve. The Arkite HIM Sensor will monitor the assembly and detect if the correct steps have been taken in the assembly. The projector will guide the operator by projecting realtime images and instructions and lighting up the bins and components at the right time.



# Benefits and Outcomes

## Business / Social

- Improved quality
  - Avoidance of human error
  - Reduction of scrap
  - First time right
- Increased efficiency
  - Line uptime/OEE
  - Manufacturing agility
  - Batch size flexibility
- Flexible workforce
  - Multi skilled operators

## IT

- Integrated solution
  - Order data (Top-down)
  - Operator Process data (Bottom-up)
- Reduced maintenance
  - Manage workflow and work instructions on one location
  - Reduced data duplication

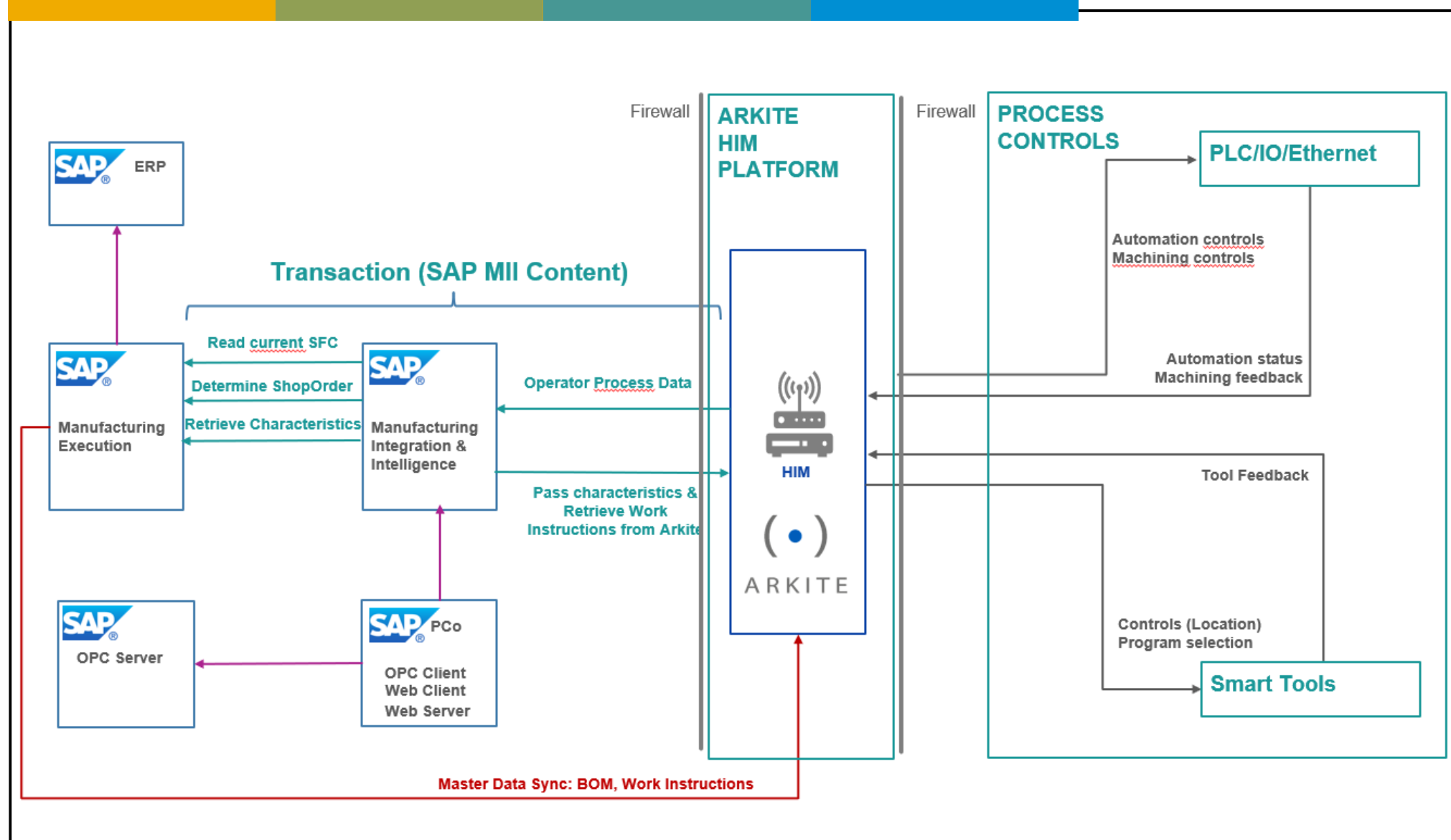
## Human Empowerment

- Reduced training time
  - Virtual trainer
- Social inclusion
  - Low entry and multi employability
  - Increased assembly complexity





# Architecture





## Deployment

Date of Deployment or POC: Jan-2019

Number of live users: 1 operator at a time

### SAP Technologies Used:

SAP MII

In Production

Customer in Kortrijk (BE), which uses the Arkite 'Human Interface Mate' (HIM) to guide operators during the assembly of high-variant, high value projection devices. The HIM unit is connected to the customers SAP MII environment to retrieve work instructions and revisions and storing 'as built' data.

Server Processor: unknown

Linux Distribution: unknown





# Emerging Technologies and Use Cases

The following Emerging Technologies and use-cases are part of the project and describe the contribution

	Technology or Use Case	Yes/No	Contribution to Project
1.	Machine Learning / Artificial Intelligence	Yes	Artificial detection of objects and human actions
2.	IoT	Yes	A connected industrial environment, the Arkite HIM platform manages the surrounding tools
3.	API Economy / Integrate the Intelligent Enterprise	Yes	Arkite HIM platform specifies API's for communication with SAP
4.	Augmented Reality	Yes	Spacial Augmented Reality is used to inform and interact with the operator on the correct location, on the correct moment