Introduction to MBrain

MBrain is a modular, no-code, software platform, able to deploy in Microsoft Azure and it allows the customer to scale at their own pace and support Industry 4.0 and 5.0. MBrain® Make Module is a high value feature pack that allows the customer and its employees to familiarize themselves with MBrain with a low barrier to entry, and to then decide in which order, and at what pace, to scale across sites and Modules. The Make Module is divided into two packages, the **Base pack** and the **Pro Pack.**

The Base Pack includes basic functionalities:

- Safety Cross (digitized incident reporting)

- Digital work instructions

- Process Viewer

- Process Builder (define standard work)

- Tact time & Cycle time

- Traceability (product, component, batch, process level)

- Dashboards

- Reporting functionality

- Data Collections (MBrain's data manipulation and charting tool)

The Pro Pack have additional functionalities:

- SPC

- Integration Possibilities (Read/write integration to IT systems (ERP, PLM etc.)

- Depending on the need, Integration to machines, sensors and other relevant shop-floor hardware, MBrain can act be middle wear for your data sources.

MBrain provides substantial benefits for different industry sectors, with focus on discrete manufacturing, high mix and low mix.

Example of values for those segments:

High mix

- Reduce costs and time of product changeover

- Lower onboarding time for new operators

- Automatically update digital work instructions on the line to match product

- Improve quality, yield and takt

- Integrated tact and Andon function

- Component supplier traceability

- Error correlation

- Poka yoke integrated with process step validation

- Estimated production timing by line vs actual vs takt

- Real time analytics to optimize the production

- Improve order planning and scheduling

- Predicted outcomes and disruptions

Low mix

- Improve quality and production yield

- Error traceability and correlation by component and supplier

- Yield analysis

- OEE

- Digitalized first article documents

- Support and simplify implementation of process improvements

- Automatically update digital work instructions across all sites (even globally)

- Digital kaizen tools

- Full traceability through manufacturing process

- Get real-time analysis of production timing through every step of manufacturing process

- Real-time updates to inventory with ERP/MRP integration

Example of benefits MBrain can bring throughout the organization are listed below:

Topfloor

- Real time data gives multi-site overview and control

- Retrieving of production data empower decision making

- Digital KPI for reporting and follow-up)

Shopfloor

- Digital work instructions help to do the right thing, in the right time, with the right quality

- Digital Andon notices to signal abnormalities and call for help

- Validate each production step and trigger the next the step

Quality

- Visibility of anomalies and variations allow for real time correction

- Data collection of quality measurements and quality reports

- Provision of full Statistical Process Control (SPC) – Pro pack

Planning

- Easier prioritizing and re-prioritizing to optimize the production and crew

- Simplify the production planning and save time

- Help to optimize the sequence of work orders

Automation and digitalization

- Analyze machine data discover machine abnormalities in real time – pro pack

- Leverage edge capabilities across your operations with plug-and-play connections to machines, sensors, robots and smart tools – pro pack