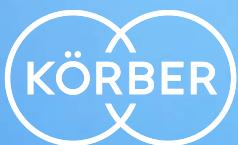**Pharma Software**

# Your digital gate to pharma manufacturing

**Conquer the challenges of the shop floor processes and harmonize machine data on all IT levels**

KÖRBER

# The digital gate to pharma manufacturing
## Harmonized data and workflows to mitigate risks and minimize losses

**Scalable interface management for faster implementations**

Lion is a flexible, scalable solution for the common challenges of line connectivity. Connectivity in general is becoming an ever more important consideration for production facilities as we endeavour to produce more with less and all the while trying to satisfy an increasing need for more information and communication to and from the production equipment itself.

Körber Lion scales from a line level solution only, up to a full blown connectivity scheme from the enterprise level all the way down to the individual machine centers. The line level or implementation of Lion is a perfect fit for those manufacturing environments where enterprise level systems may not be available, but line level batch/recipe management as well as KPI intelligence are desirable.

Moreover, digitization of Standard Operating Procedures (SOP) and other workflows needed for shop floor operations can easily be created and used by operators within Lion. The transparency and intuitive workflow system recduces deviations by up to 30 percent.

Future implementation of enterprise or site level solutions such as Manufacturing Execution System (MES) are not a problem as the same Lion can be configured to handle any eventuality.

For example, in the case of an existing or newly added MES system, it is possible to use the system simply as a converter to facilitate direct communication between the language of the site level MES and the machine level.

With a wide range of available interface possibilities, such as OPC-UA with PackML or PAS-X MSI,  and an extensive set of modular functionality including line batch reports, recipe management, line visualization, OEE / KPI intelligence, and alarm management, the system has the necessary flexibility to meet the challenges of the future.

## Plug & Produce

Laying the basis for functionalities through seamless integration and the use of standard interfaces; Lion – reducing the complexities of connection.

> "Lion is a flexible, scalable solution for the common challenges of the digital future of manufacturing."
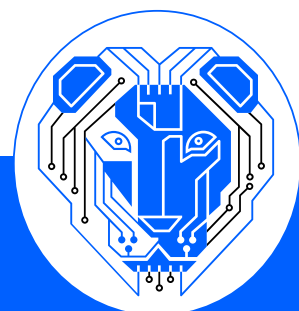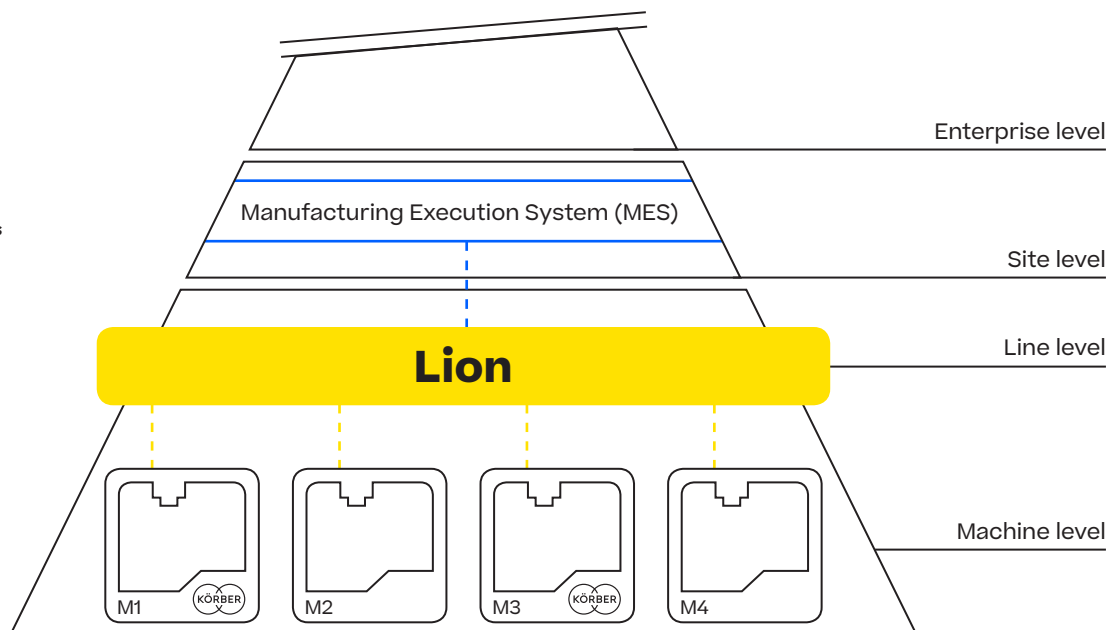
**Frederik Thiele, Product Manager**

# The scope of the solution
## Connecting from the enterprise level all the way down to the individual machine centers.

**Harmonization on line level**
With standardized interfaces, Lion offers multiple connections to various vendors out of the box.

Enterprise level

Manufacturing Execution System (MES)

Site level

**Lion**

Line level

Machine level

M1     M2     M3     M4

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## Tailored to your requirements

### Lion

Lion is a framework which can be customized to support a variety of manu-facturing line topologies such as packaging but also fill and finish or biotech-nology. The framework forms the basic platform for the different editions.

### Connect

Lion.Connect. is the edition with the smallest footprint and is used to harmonize the interfaces between equipment and MES. Lion.Connect. works in the background without a HMI to facilitate the data exchange between different systems.

### Manage

Lion.Manage. builds on the interface provided by the Lion.Connect. edition and additionally, provides a visualisation solution to allow the operator to manage the entire line from a centralized location. All batches can be controlled and monitored. After batch completion, Lion.Manage. generates a consolidated report.

### Execute

Lion.Execute. is designed for customers to support operators with guided workflows, shown on any browser compatible device or as augmented reality using Microsoft HoloLens® 2.

**Your digital gate to pharma manufacturing**

# Lion.Manage.
## Harmonizing equipment and centralizing data for more flexibility while reducing costs.

**Data centric approach**
Use of central data to generate KPIs for process optimization.

**Single HMI**
Operator needs only one line level visualization – less training effort.

**Standard interfaces**
Supports data integrity by harmonizing interfaces between different systems.

**Efficient processes**
Equals less implementation, commissioning and main-tanance cost.

"Not working multiple HMIs and systems means for me more focus on the actual production."

**Daniel Morgan, Operator**

# Lion.Execute.
Bringing guided workflows to the shop floor by leveraging new technologies and enhancing quality processes.

**Maximizing quality**
Automated documentation supports high quality process outputs.

**Quick ramp-up**
Quick ramp-up of new employees due to hands on training on a system, not a process.

**Augmented reality**
Support of Microsoft HoloLens© for augmented reality.

**Guided workflows**
Visualization on any browser-compatible device. Increased flexibility of personnel schedule and reduction of downtimes.

"With Lion.Execute. my team and I have more options on how to staff for specific times and shop floor orders."

**Lisa Hill, Site Manager**