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# Automation

Fully integrated automation of all operations with production management on PLC with HMI, process control, full traceability, warehouse management and total information exchange with SQL database.



Touch panel 4-15" Siemens and Allen Bradley  
CEPI native PLC  
LCD Display

Native software for process control,  
traceability and warehouse management

Local weight control box with HMI

Control cabinet

SQL database

Remote support

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Automation  
**Integrated automation**

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Bakery &  
Biscuits



Confectionery



Pasta &  
Cereals



Dairy



Premix



Baby food &  
functional food



Pet food



Beverages



Chemical

CEPI provides a turn-key system that includes the automation. Hardware and software design is done completely in-house, and each system is the result of a decades long experience of parallel development alongside the mechanical side. With a team of 24 programmers, we provide technical and human continuity through the development of a project that can become highly specific and complex. Our solutions provide full horizontal and vertical integration, managing dialogue and data received by other partners operating in the lines, after the dosing and before the raw ingredients management.

For the management of production operations, CEPI provides different HMIs to match diverse needs:

- CEPI DOSING CONTROL, a personalized 4-15" touch panel on Siemens or Allen Bradley platform, for non-typical processes
- CEPI native PLC Leonardo for typical processes
- Weighing processor WP140 with LCD display for simple one line productions
- Local control box for weight control in real time

For the management of process data, CEPI TRACEABILITY SYSTEM software provides:

- Full traceability
- Warehouse management
- Total information exchange with SQL database
- Communication with ERP / MES

The automation team provides full 24/7 support which includes:

- testing, optimization, start-up and training
- remote support on all tools with live visualization on VPN network
- remote management of production and intervention on the source code
- virtual and personalized tutorials
- live assistance with dedicated devices
- support from local teams who are fully trained in our devices and are part of our global network

# Automation

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# Traceability

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## PRODUCTION MANAGEMENT

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## CEPI TRACEABILITY SYSTEM

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**PLC with HMI**  
**Production management**  
**Recipe management**  
**Ingredient and hopper parametrization**  
**Overview**

**CEPI DOSING CONTROL**  
Touch panel 4 - 15" Siemens  
Touch panel 4 - 15" Allen Bradley  
PC  
Mobile device

Leonardo 15"  
(CEPI native PLC)

WP140 LCD Display  
(Electromechanical automation)

**Weight control in real time**

Local control box with HMI

**Control cabinet**

**Communication**

**Statistic report**

**Remote support**

**Traceability**  
**Process control**  
**Warehouse management**  
**Material flow**

Storing and recipe data history  
Batch report  
Material consumption report  
with dynamic visualization  
Digitalization with barcode system

**Information exchange**

SQL database  
Available for queries from a third  
party

**Communication with ERP / MES**

**Remote support**



## CEPI DOSING CONTROL

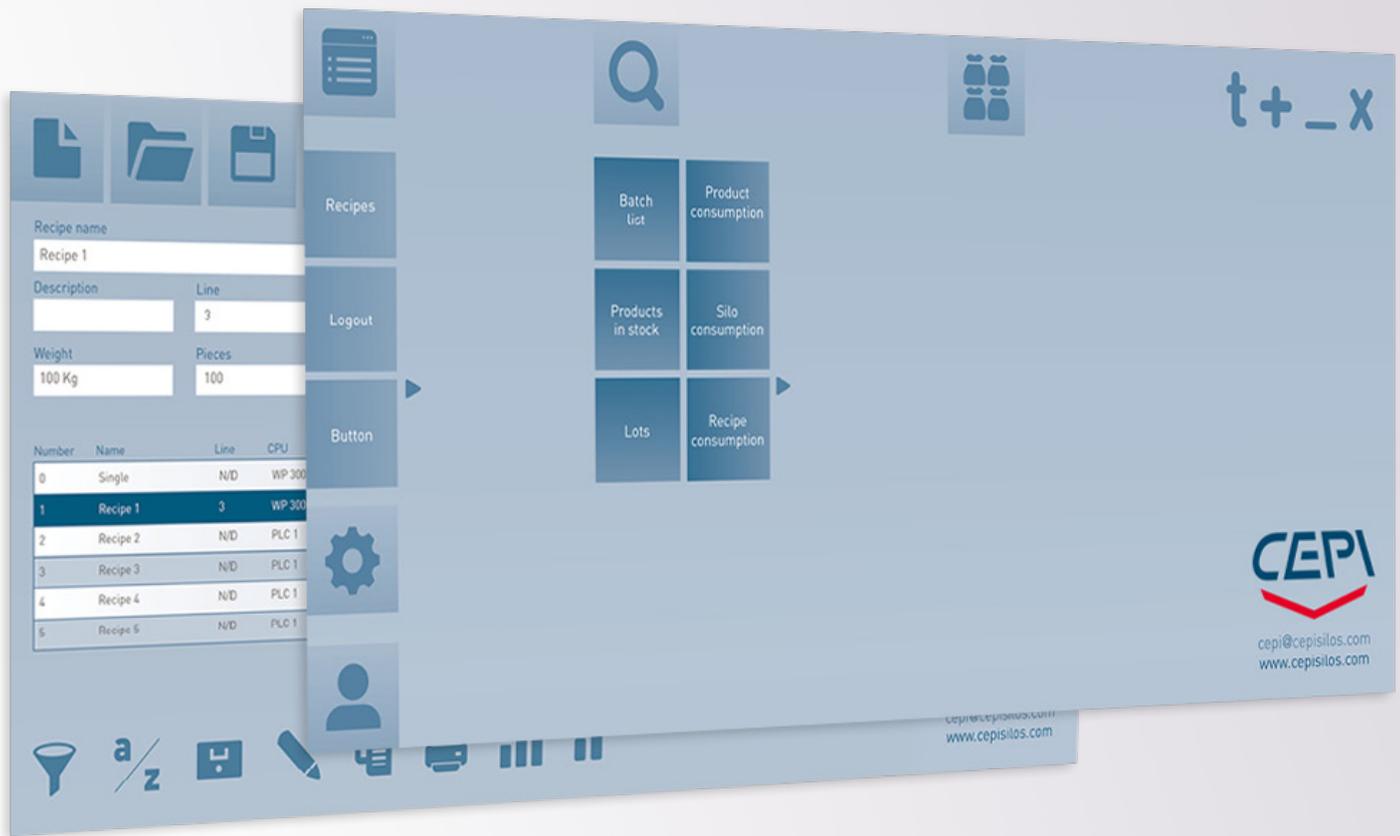
4 - 15" Siemens and Allen Bradley platforms  
Production management, recipe management,  
synoptic overview, ingredient and hopper parametrization  
PC and mobile device



**Leonardo**  
15" CEPI native PLC  
Production management  
Standard production processes



**WP 140**  
HMI with LCD display  
Production management  
1 line



## CEPI TRACEABILITY SYSTEM

Traceability

Process control

Warehouse management

Material flow

Storing and recipe data history

Batch report

Material consumption report with dynamic visualization

Digitalization with barcode system

Information exchange

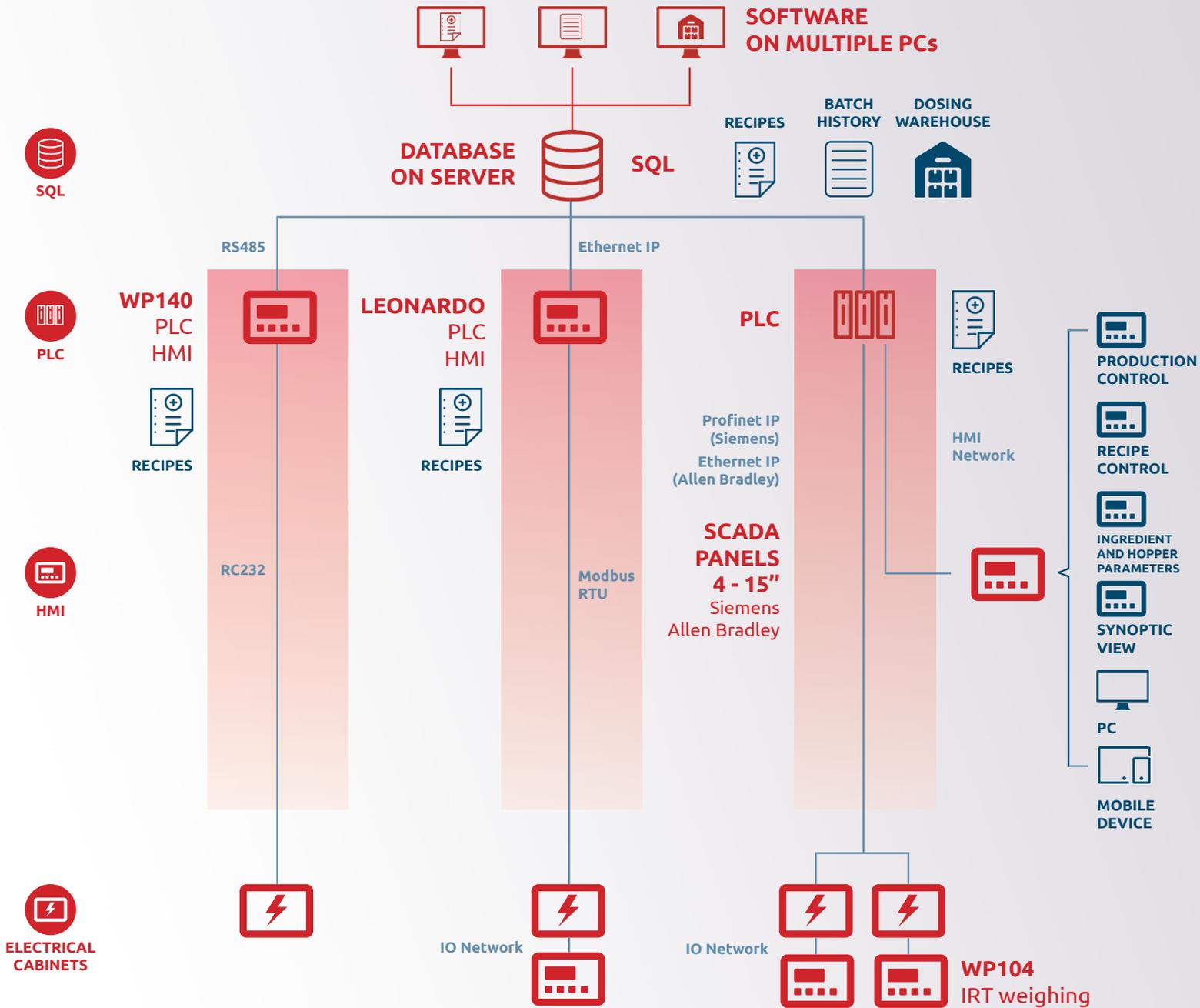
SQL database

Available for queries from a third party system

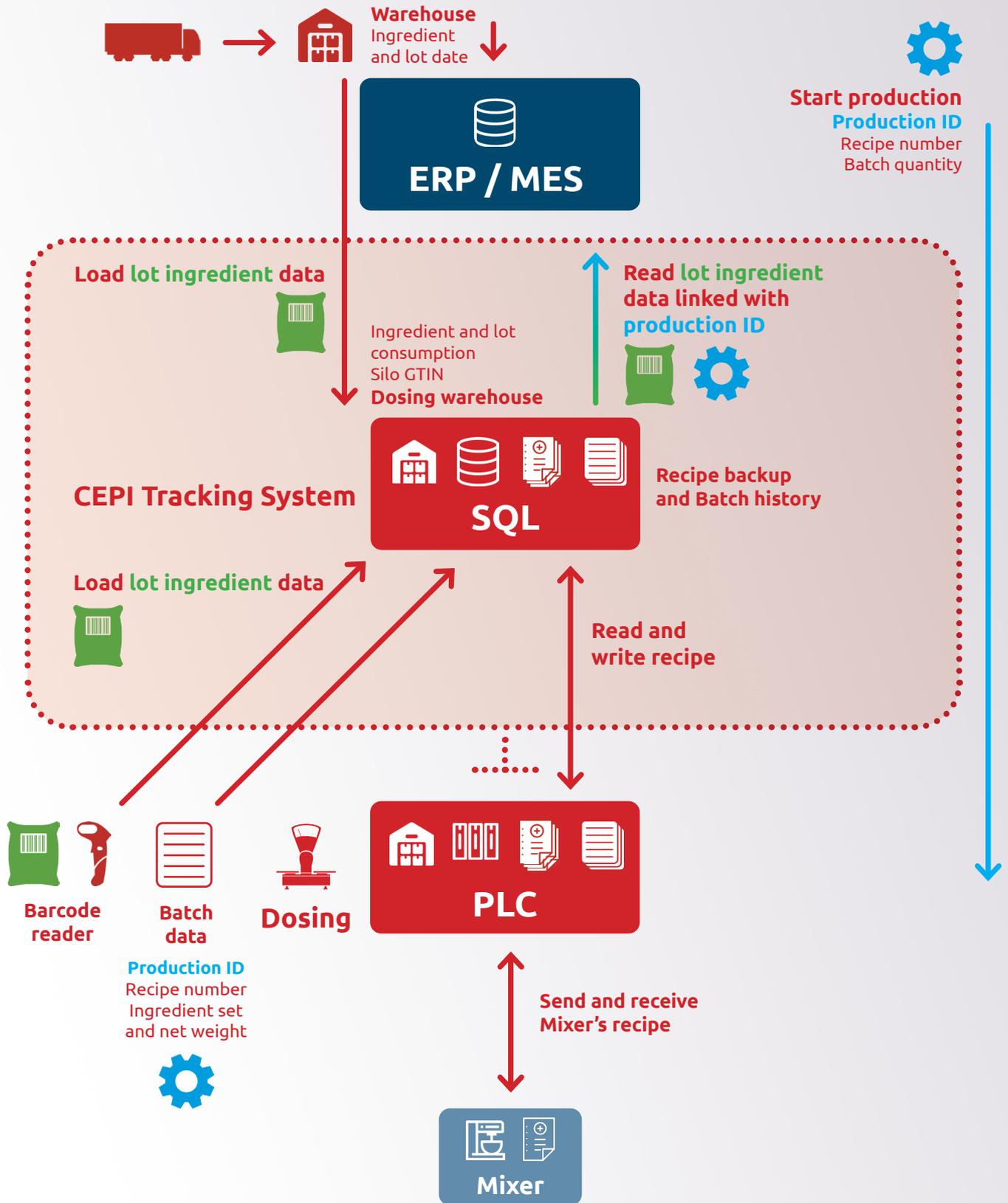
Communication with ERP / MES

Remote support

# Architecture of the automation system



# Architecture of the traceability operations





Touch panel managing  
fermentation line



Touch panel managing  
continuous microingredient  
dosing



Three dosing lines for powders and liquids  
with touch panel managing each line

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# Automated dosing system: flavor and efficiency

Fragrance, taste and integrity: an automatized management of dosing processes ensures a final product of high quality and unique flavor. Controlling parameters such as temperature, pH and atmosphere is necessary to preserve the properties of the ingredients, with an accurate and repeatable recipe producing high volumes of food with unchanged flavor.

The design of the dosing system is a complex process that requires detailed information that goes beyond the purely technical, and involves all departments from warehouse to marketing. With repeatability, traceability and precision in mind, detailed information is needed about raw materials and consumptions, the building, humidity and temperature effect, cross contamination, as well as other concerns such as sustainability.

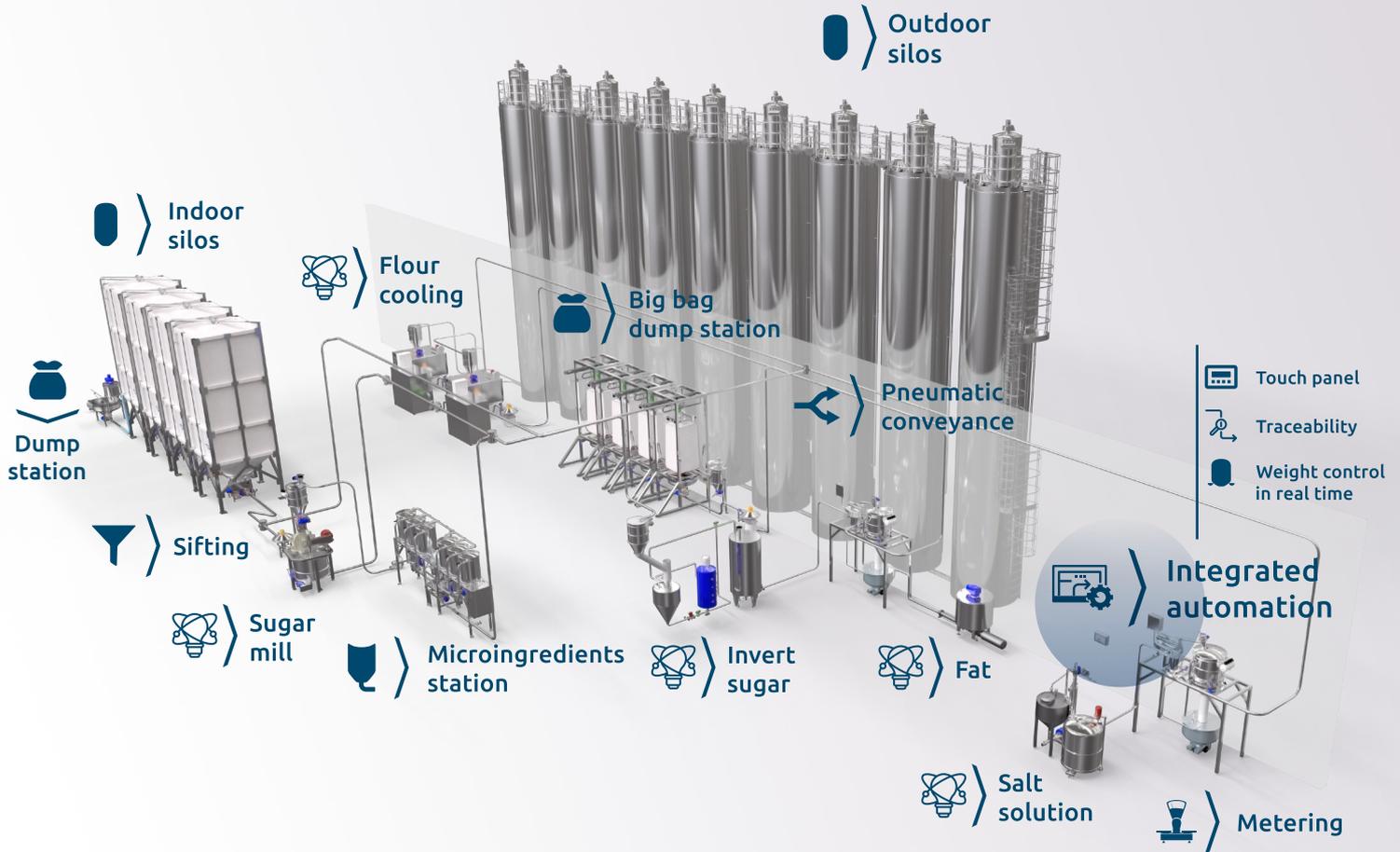
CEPI has refined this process across decades of experience, and will ask all the right questions to design a system that not only fits the individual needs of each process, but will easily accomodate future expansions. The advantages of our automated dosing system:

- Repeatability and accuracy of recipe
- High quality product and unique flavor
- Traceability of materials and processes
- Higher production volumes
- Improved working conditions
- Less human error
- Enhanced communication with other software and ERP
- Higher hygiene with total separation between production and warehouse
- Reduced consumptions, powders and pollutions
- Space optimization in the production area and the warehouse
- Easy to adapt or expand including the addition of new ingredients due to the flexibility of the process





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