



# MODULAR PLANT SYSTEMS

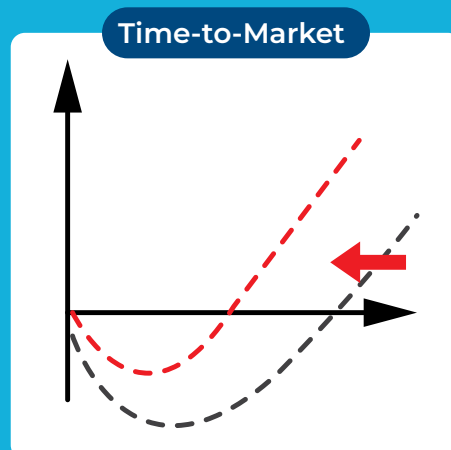
Flexible Flow Manufacturing  
Solutions for a Fast Time-to-Market



[www.microinnova.com](http://www.microinnova.com)

## Time-to-Market

The objective is for a molecule to reach manufacturing as quick as possible. Instead of constructing a new plant, mix and match pre-existing modules to meet your needs. Use the same plant for development and manufacturing, cutting time-to-market.



## ADVANTAGES AT A GLANCE



- ✓ Reduced Time-to-Market
- ✓ Wide Range of Capabilities for Challenging Processes
- ✓ Cost Reduction through Standardization
- ✓ Seamless Scale-Up
- ✓ Modular Automation with International Standards
- ✓ GMP & ATEX available

## COMPOSE YOUR CHEMICAL PLANT

**Small Scale**  
Manufacturing

**S-class**  
FlowKiloLab®  
0,5 – 5 kg/day



**Medium Scale**  
Manufacturing

**M-class**  
FlowTonPlant M  
5 – 50 kg/day



**Large Scale**  
Manufacturing

**L-class**  
FlowTonPlant L  
>50 kg per day



Debottleneck or create new processes with our modular systems. They offer high performance and a seamless path from development to production in a fast, cost-efficient manner.

# FlowKiloLab<sup>®</sup>

## LATE-STAGE DEVELOPMENT & SMALL SCALE MANUFACTURING

FlowKiloLab<sup>®</sup> delivers speed, flexibility, and readiness for late-stage development and small scale manufacturing with GMP compliance if needed. Manufacturing tasks and rapid-response production can be executed in short times. MTP technology ensures easy reconfiguration and smooth integration across suppliers, allowing clients to respond instantly to market demands.

# FlowTonPlant

## QUICK MEDIUM SCALE MANUFACTURING

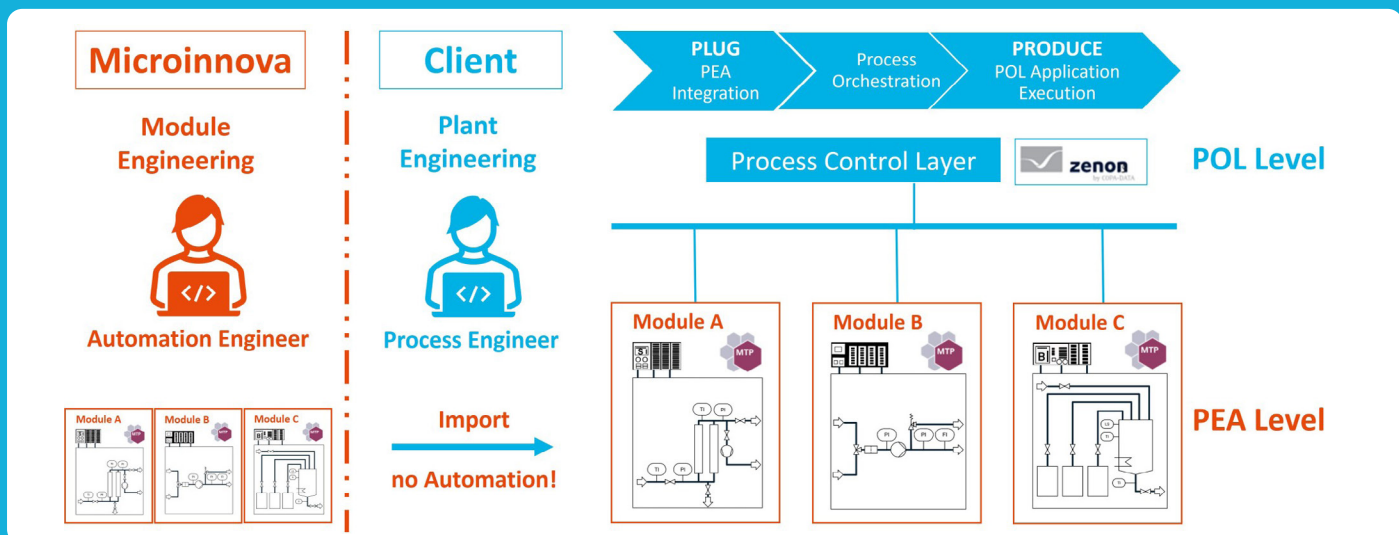
FlowTonPlant, delivers quick and flexible scale-up. By using the same unit operations as the FlowKiloLab<sup>®</sup>, scale-up effort is minimized. Configurations transfer directly to larger scales with minor modifications.



## MODULAR AUTOMATION BY MTP

### Flexible Supplier-Independent Plant Automation

MTP (Module Type Package) technology standardizes automation, allowing “plug-and-play” integration of modules from multiple suppliers like accessories to a computer. Each module offers services to the central unit, the Process Orchestration Layer (POL). This ensures fast setup, easy reconfiguration, and high interoperability. This empowers process engineers to configure and run systems without relying on dedicated automation specialists. Microinnova offers a future-proof solution for chemical and pharmaceutical manufacturing. **Plug. Produce. Customize. Repeat.**



## FUMEHOOD-BASED INFRASTRUCTURES

Batch manufacturing is executed in large ATEX compliant halls with several floors. Modular continuous manufacturing can occur in walkable fumehoods due to dramatically reduced reactor volumes and high space-time-yields. Alternatives to ATEX facilities provide cost-efficient manufacturing environments. Advanced plant systems with high-level control, online monitoring, and analytics enable supervision-free manufacturing.



### GET IN TOUCH

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