

InfinityLab Bio Online LC as a Tool to Advance PAT in Bioprocessing

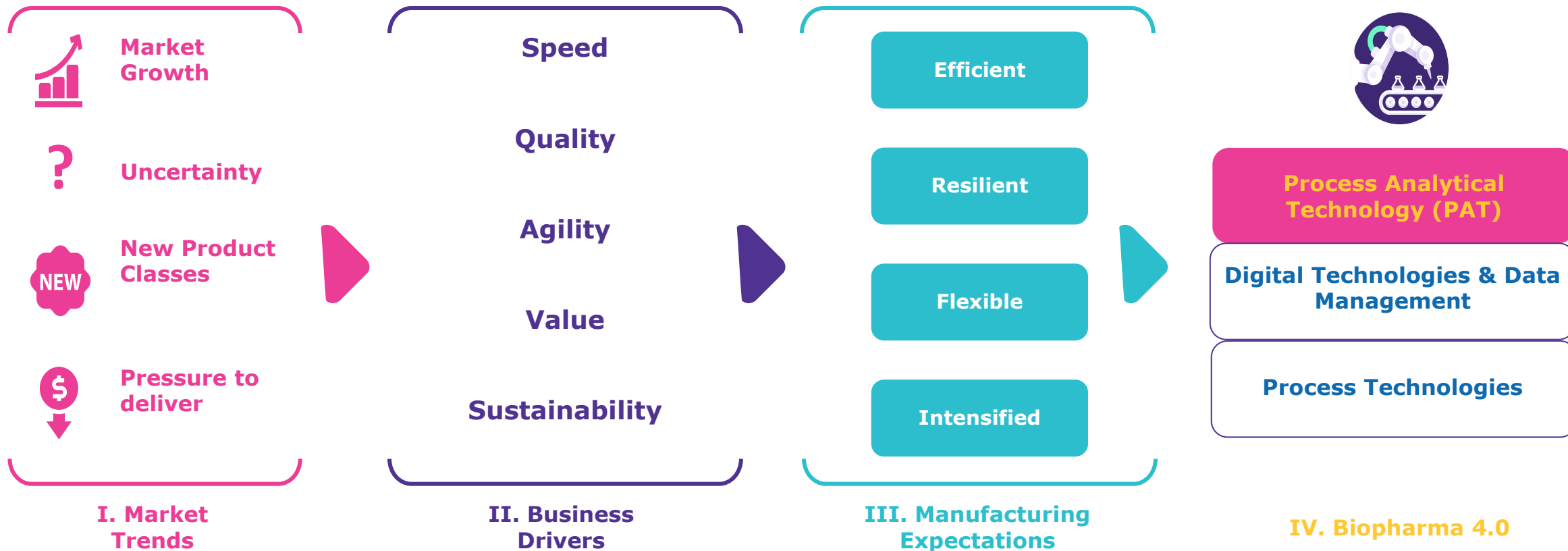
Collaboration Agilent with Millipore-
Sigma

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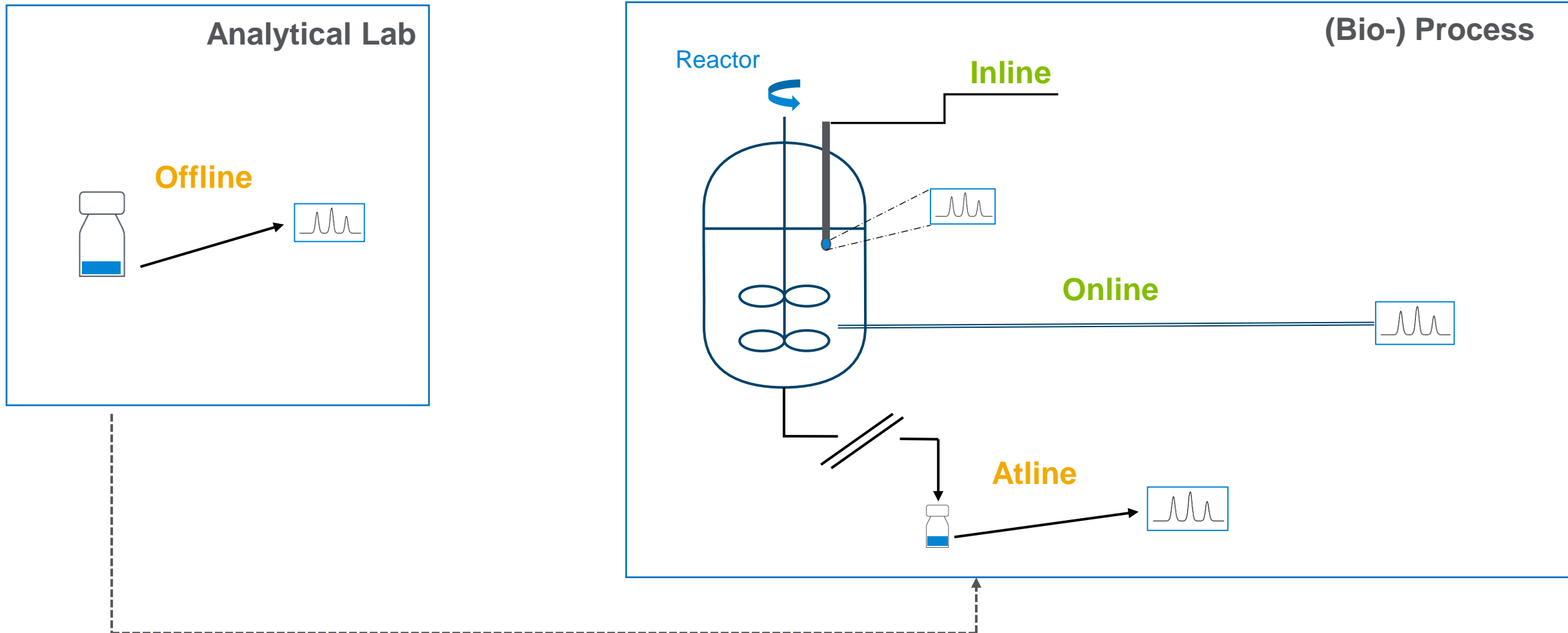


The demand for Online Bio LC, enabling real-time analysis



Types of process monitoring

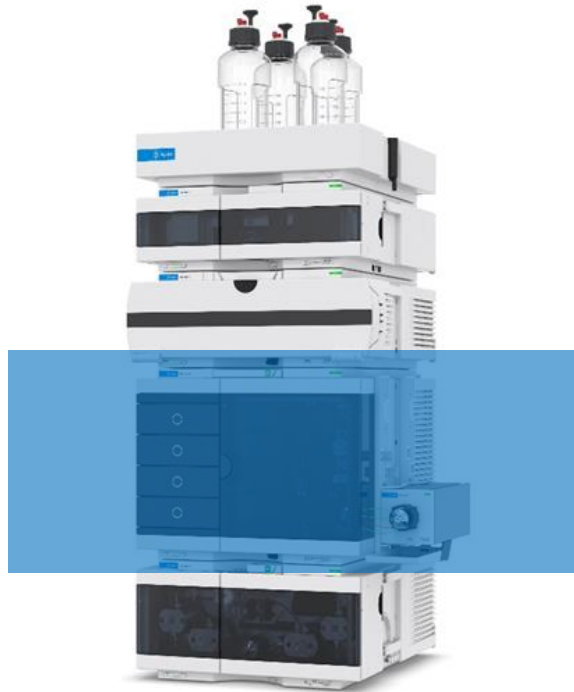
Manual / Automated Process Monitoring



InfinityLab Online LC Solutions

Innovation at its best!

1290 Infinity II Bio Online LC System



1300 bar, MP35N

1290 Infinity II Bio Online Sample Manager



- + Direct Injection
- + Sampling into vial first

Agilent Online LC Monitoring Software



- + Ideal for non-chromatography experts
- + Compatible with OpenLab CDS 2
- + Sample scheduling / Data visualization
- + Guided experiment setup
- + Pre-configuration of monitoring events

Millipore®

Preparation, Separation,
Filtration & Monitoring Products

USE Case 2: Collaboration: Aggregate control using on-line HPLC

**MILLIPORE
SIGMA**

“It is critical for manufacturers of therapeutic protein products to minimize protein aggregation...”

One way of doing this is by:

“employing a robust purification scheme that removes aggregates to the greatest extent possible.”

**MILLIPORE
SIGMA**

Automated column switching enables continuous aggregate removal, facilitating real-time process control



Aggregate Removal

Process Monitoring

Process Control

Valve designed to automatically switch position when results exceed target aggregate %

Significant customer benefits

Integration

Fully integrated bioprocess
and bioprocess development
solution

Optimization

- Analytical measurements
and results
 - Bioprocess
- Moving towards continuous
manufacturing

Real-Time Analysis

Monitor results in real-time

Automation

No manual intervention

**Cost-Efficiency, Time
Savings, and Quality
Assurance**

Agilent InfinityLab

