Virtual Sensing
«a closed loop digital twin to improve production performance»
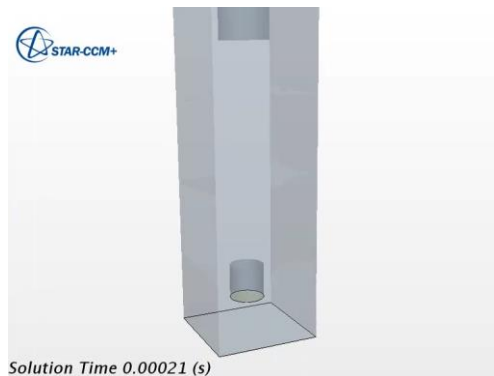
Maurizio Bossi
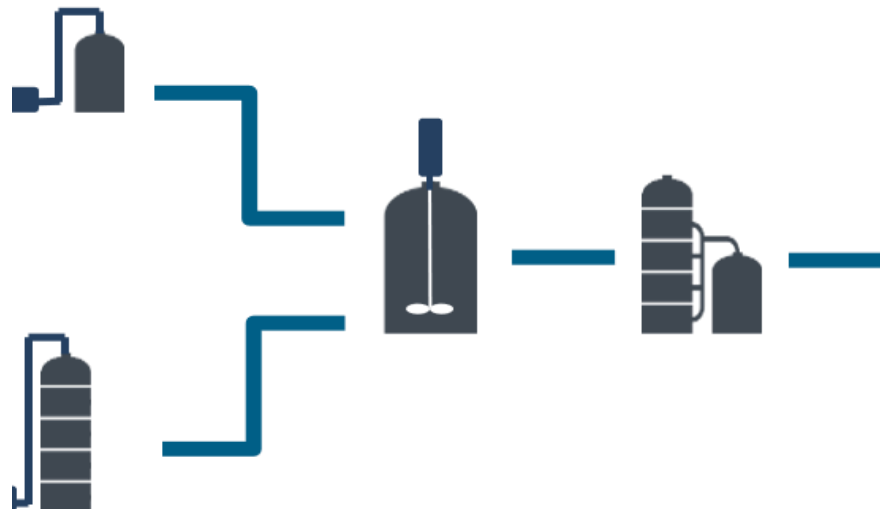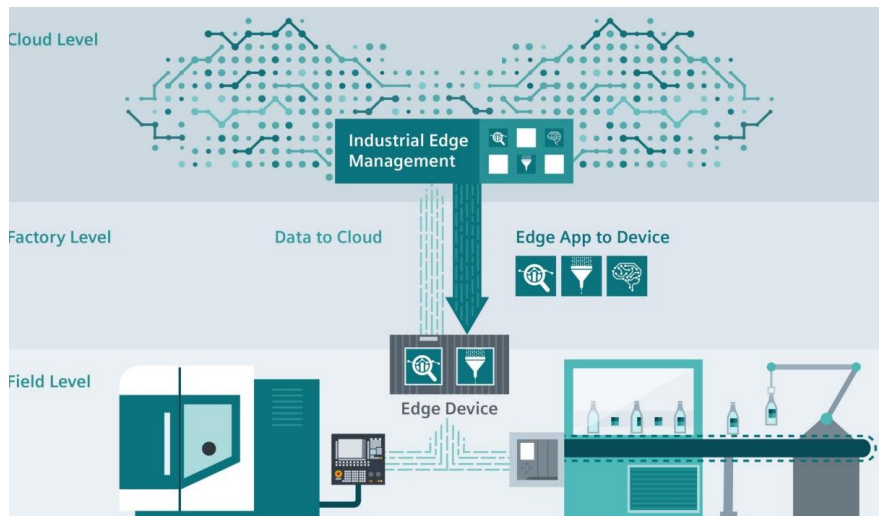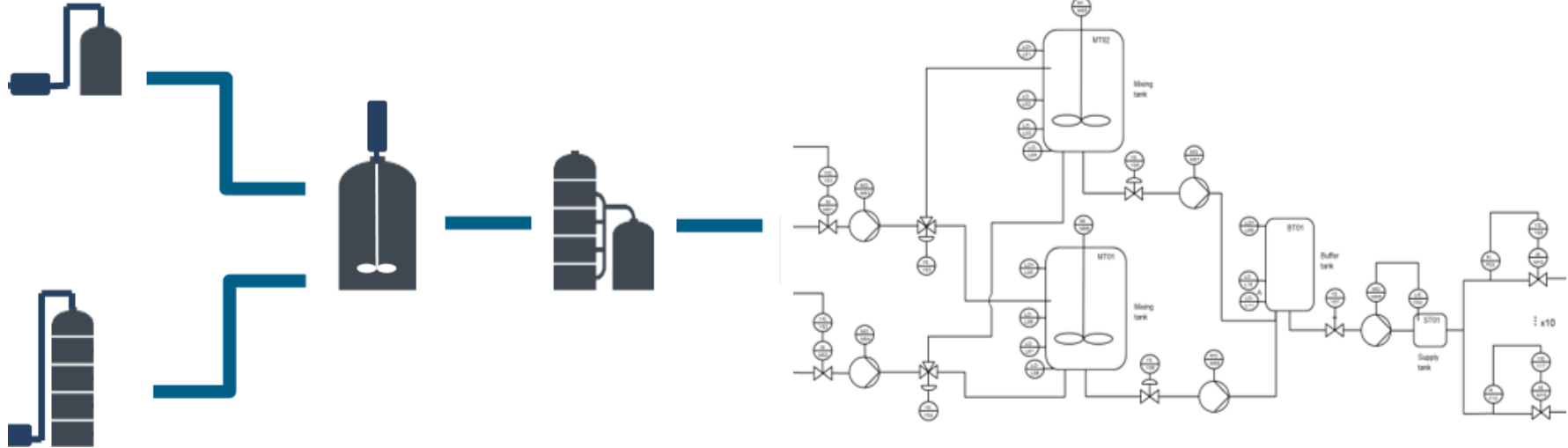
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- Performance & quality based on fluid behaviors & process parameter
- Limited data to measure directly with physical sensors

Solution Time 0.00021 (s)

- Whole parameters can be measured virtually
- Focused on specific components
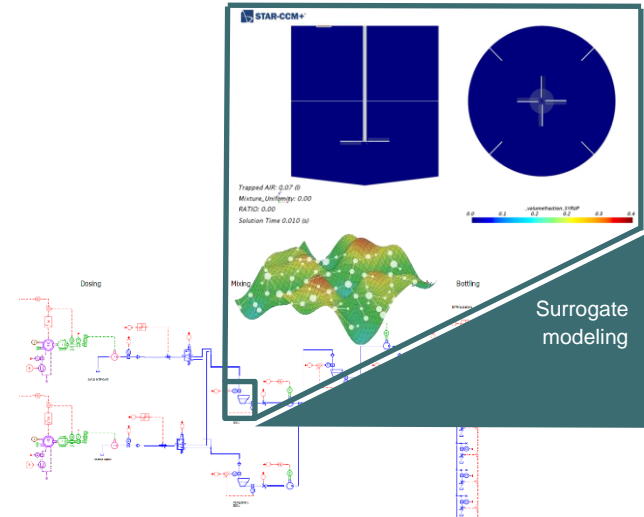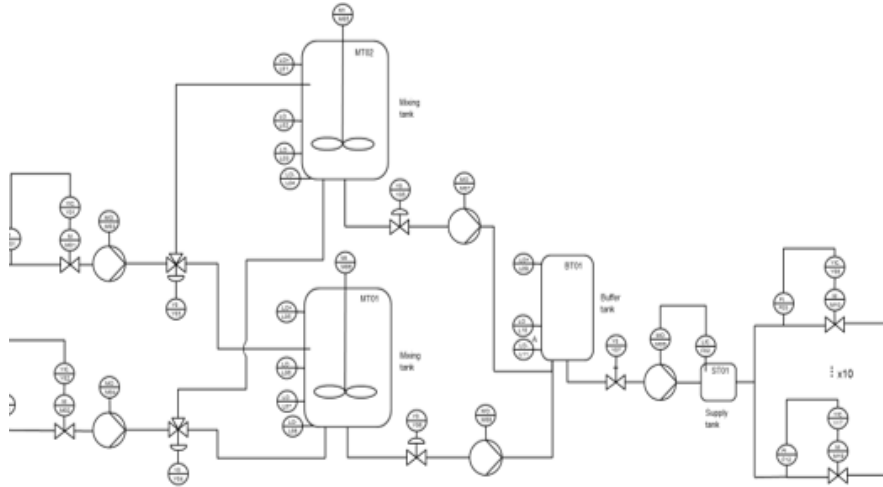- Extensive computational time

- Measure data on real production
- Collect information at all level
- Analyze & predict

- Build a virtual model
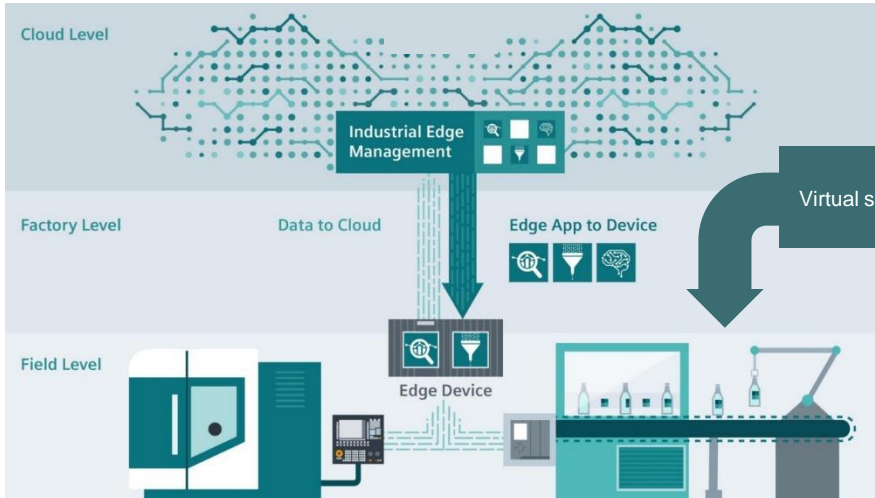- virtual representation of real physical model

- System simulation & 3D CAE surrogate models
- Integrate measured data with simulation at any different working point
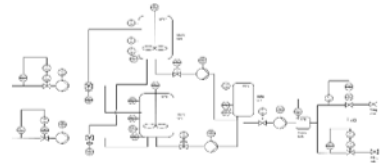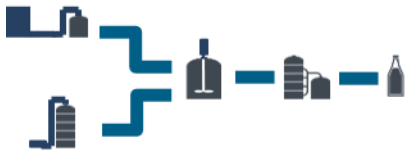- Better prediction on how production will perform and product quality

Live Twin

Design

Product & Production

Realize

Product manufacturing & Operation

Optimize

Product quality

Plant Performance and Maintenance

Design
Product & Production

Realize
Product manufacturing & operation

Optimize
Product quality
Plant Performance and Maintenance

Digital

Real

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