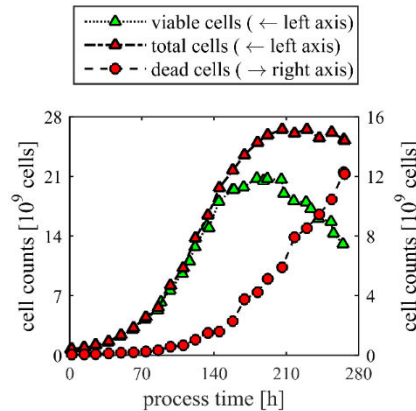
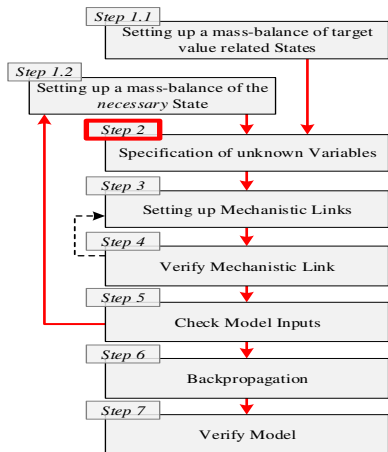


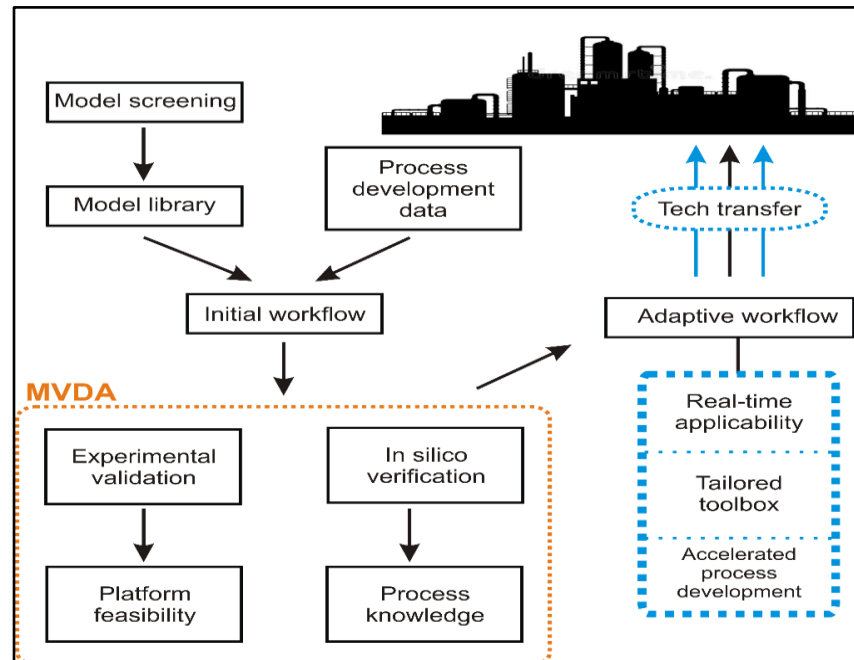
Goals

- Bioprocess development is often excessively long and still owing a very high failure rate. Target oriented bioprocess development:
- Develop a transferable workflow including mechanistic model calibration, parameter space reduction and state estimation
- Generation of adaptive, self-calibrating models with platform applicability.



Approach

- Use of mechanistic modelling workflows with historical process development data to screen models and develop initial workflow
- MVDA techniques to perform iterative, in-silico and experimental validation of the workflow.
- Set up and testing of adaptive workflows for platform application in different expression systems.
- Finally, a real-time, adaptive workflow with tech transfer to accelerate process development in Industry



Novelty

- Adaptive model based tools for accelerating bioprocess development, monitoring and control
- Transferable workflows for systematic development
- Verified on industrial relevant processes in a real-time environment