



TURING & DAVIES

ABOUT US

At Turing & Davies, we are enabling increased efficiency, reduced costs and drive sustainable growth with data-driven process optimization.



THE INDUSTRY CHALLENGE



The problem:

1. Chemical, petrochemical and pharmaceutical processes are complex and often run below optimal efficiency
2. Small inefficiencies can lead to large costs over time
3. Traditional optimization methods are time-consuming and does poorly for continuous improvements

The Business Impact:

1. Increased operational costs
2. High energy consumption (especially in petrochemical processes)
3. Higher downtime (especially in pharma)
4. Variability in product quality and/or byproduct formation
5. Lost revenue opportunities



Over 60% of process plants struggle to maintain optimal calibration, affecting profitability by over **10% annually** [McKinsey & Company].

OUR SOLUTIONS

— AI DRIVEN OPTIMIZATION SOFTWARE WITH SAFETY BUILT IN —



StellaR



Optivane

OUR SOLUTIONS

– AI DRIVEN OPTIMIZATION SOFTWARE WITH SAFETY BUILT IN –

StellaR

1. Enhances the plant data accuracy and reliability
2. Quantifies unmeasured M&E flows including losses
3. Instrumentation error detection
4. Performs significant plant wide optimization
5. Improve output, reduce waste and emissions, lower costs, etc
6. Continuously learns and adapts



StellaR

"Data driven optimization often aims at identifying the global optima in one step. StellaR applies a step wise optimization process, ensuring continuous optimization through a path that is both safe and reliable."

HOW STELLAR OPERATES

- THE WHEEL OF VALUE CREATION -



StellaR produces valuable insights at several levels.

By utilizing Mass Balance Reconciliation, highly accurate KPIs are generated.

Unmeasured streams are quantified to high certainty. In case of instrument failures, such as drifting flow meters, the personnel is instantly alerted.

A proprietary optimization algorithm calculates recommended, and safe, set-points for improved operation.



PRODUCT BENEFITS

Very simple to use

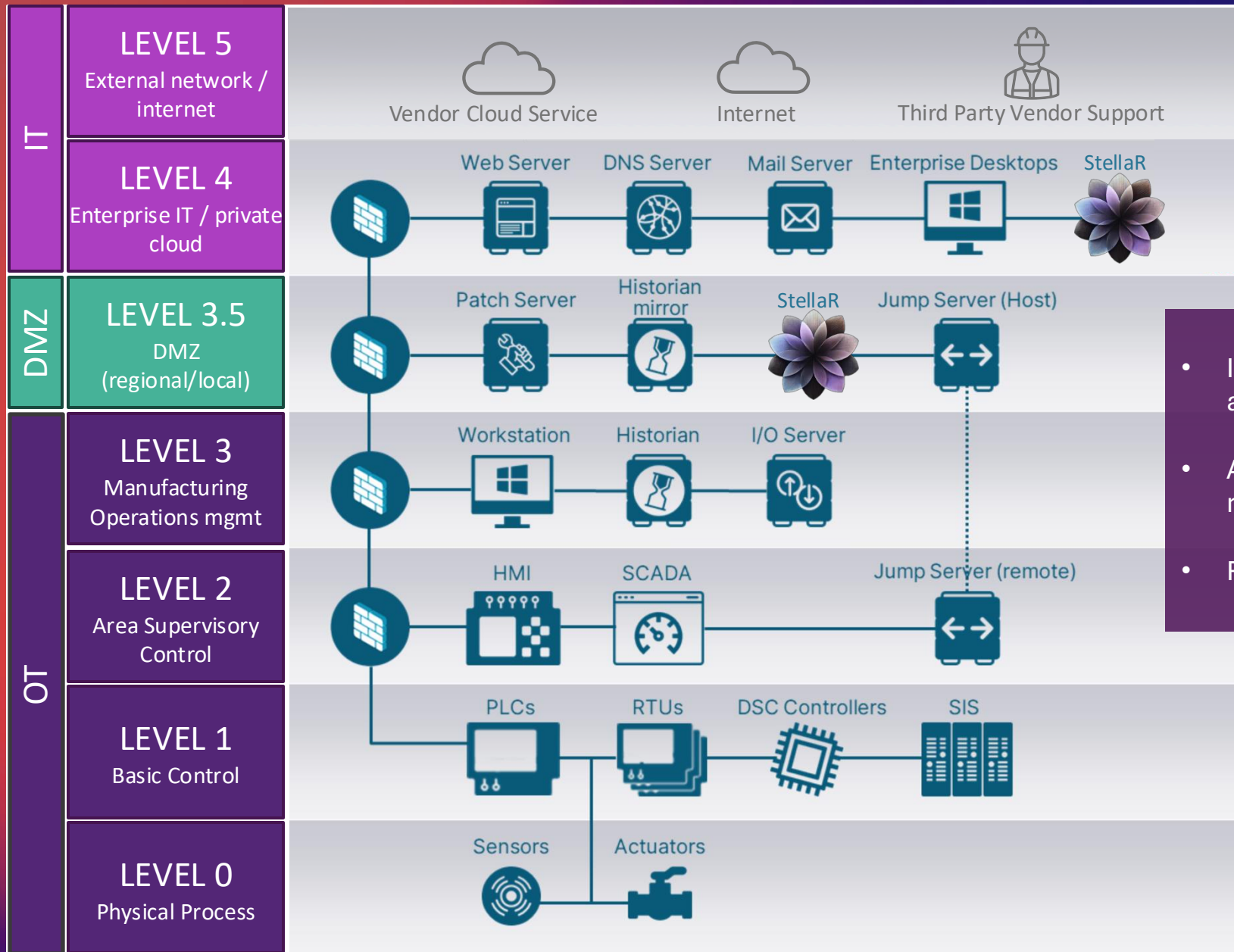
Designed to be non-disrupting of the daily work

Increased insights into operation

Continuous optimisation, 24/7

Quick customer service assistance

Improved and expanded data is beneficial for other process optimization and modelling efforts



- Installation ideally at Level 4 or 5 but possible at 3.5 if desired.
- Access to historian/PI server data is the main requirement.
- Read or R/W to Historian is optional.

OUR SOLUTIONS

— AI DRIVEN OPTIMIZATION SOFTWARE WITH SAFETY BUILT IN —



StellaR



Optivane

OUR SOLUTIONS

– AI DRIVEN OPTIMIZATION SOFTWARE WITH SAFETY BUILT IN –

Optivane

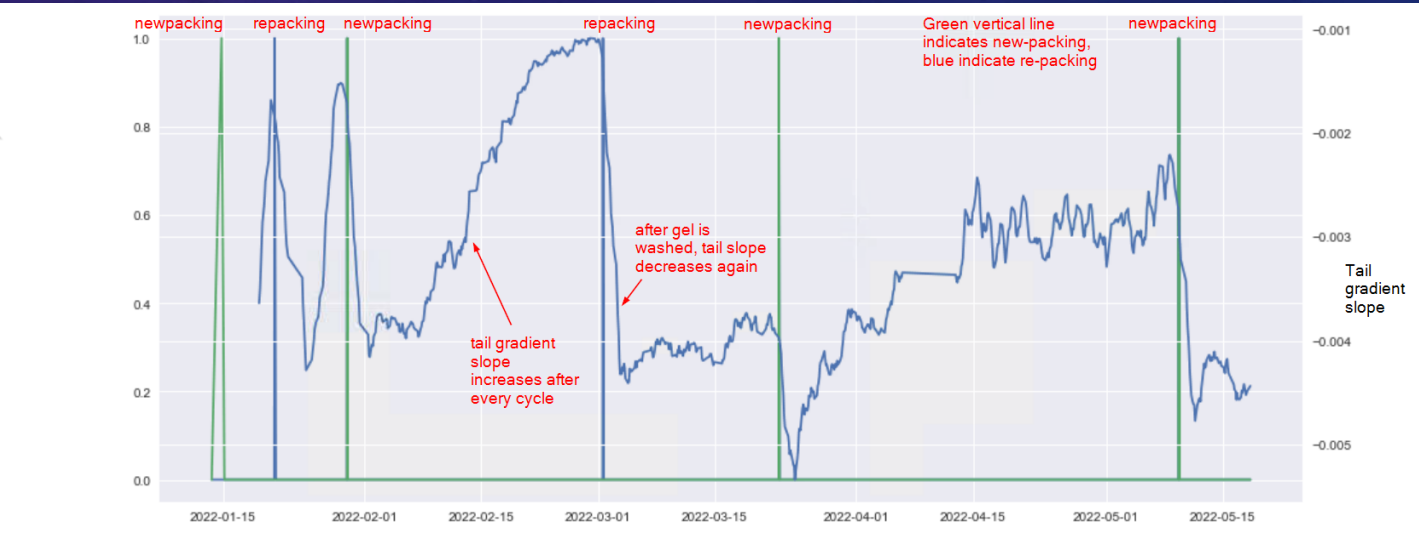
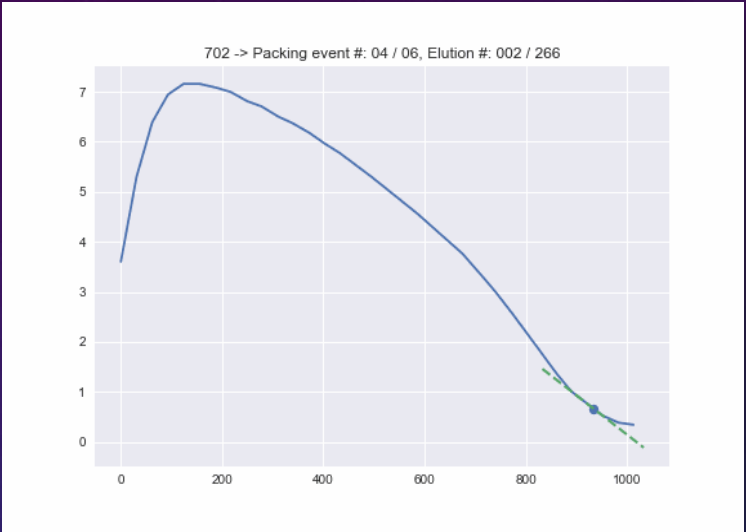
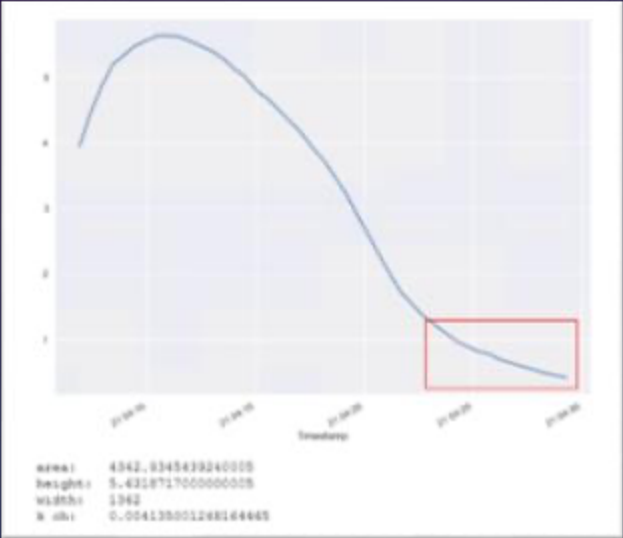
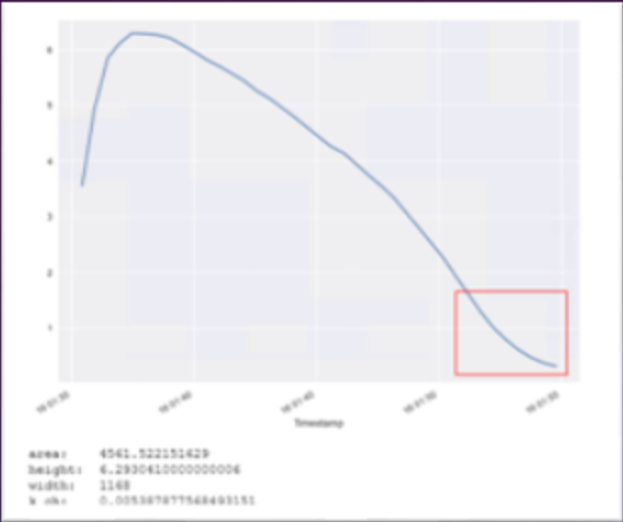
1. Optimises performance of liquid chromatography (LC) columns.
2. Reduces OPEX and column downtime.
3. Provides best moment for servicing.
4. Anticipate issues and maximises yield.
5. Benchmarked against historical bests, weighting key variables for a tailored performance index.
6. Works seamlessly within the PI ecosystem.
7. Empowers smarter decisions at every level from plant leaders to technical experts.



Optivane

"A next-generation tool that transforms live chromatography data into predictive insights and actionable outcomes. Captures column dynamics and computes advanced metrics."

Extraction and analysis of gel performance params.



REACH OUT FOR A FREE CONSULTATION AT YOUR SITE

info@turingdavies.com

www.turingdavies.com

