



A Larsen & Toubro  
Group Company

LTM

BROCHURE

# AI-Assisted Operator Guidance

Improving Quality in  
Manufacturing Processes  
*AVEVA World 2026*



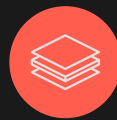
# Where Manufacturing Quality Is Won or Lost

Manufacturing quality rarely fails in dramatic ways. It slips through small decisions made too late, too differently, or without enough context.

The challenge is not data capture, but decision quality during execution. To stay competitive, manufacturers must Outcreate manufacturing quality consistency, enabling operators to act earlier, with clarity and confidence before process drift turns into cost.

## Why Quality Breaks Down on the Shop Floor

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Even well-run plants face hidden variability:



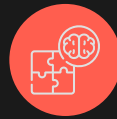
Material variability disrupts process stability across batches



Timing and sequence sensitivity impacts outcomes at every production step



Manual interventions introduce inconsistencies across shifts and operators



Tacit knowledge gaps which create reliance on individual expertise, creating knowledge silos

Without guided decision-making, quality remains unpredictable.

## Introducing AI-Assisted Operator Guidance

An integrated solution combining AVEVA MES, InTouch OMI, and an on-device small language model (SLM) to predict process deviations and guide operators in real time.

## Why SLM at the Edge Matters

- Sub-second inference latency for real-time decisions
- Full data sovereignty. No plant data leaves the edge
- No dependency on cloud connectivity
- Lower operational cost than large model hosting

## From Signal to Guided Action

1. Plant floor sensors capture signals like torque, temperature, RPM, and weighing
2. OI gateway and historian stream real-time data to the edge
3. SLM agent runs a 15-second prediction cycle on-device
4. Operator UI (InTouch) shows the live dashboard, projecting risk, guidance, and trend overlays with accept or override actions
5. MES decision logs ensure full audit trail and traceability in the batch record
6. Retraining loop drives continuous learning with quarterly updates based on batch outcomes

## What You Gain

**50%**  
reduction  
in rework through  
predictive  
correction

**1-2%**  
improvement  
in first-time-right-  
yield batches

**3-5%**  
increase  
in plant output

**+2%**  
OEE uplift  
through AI-guided  
execution

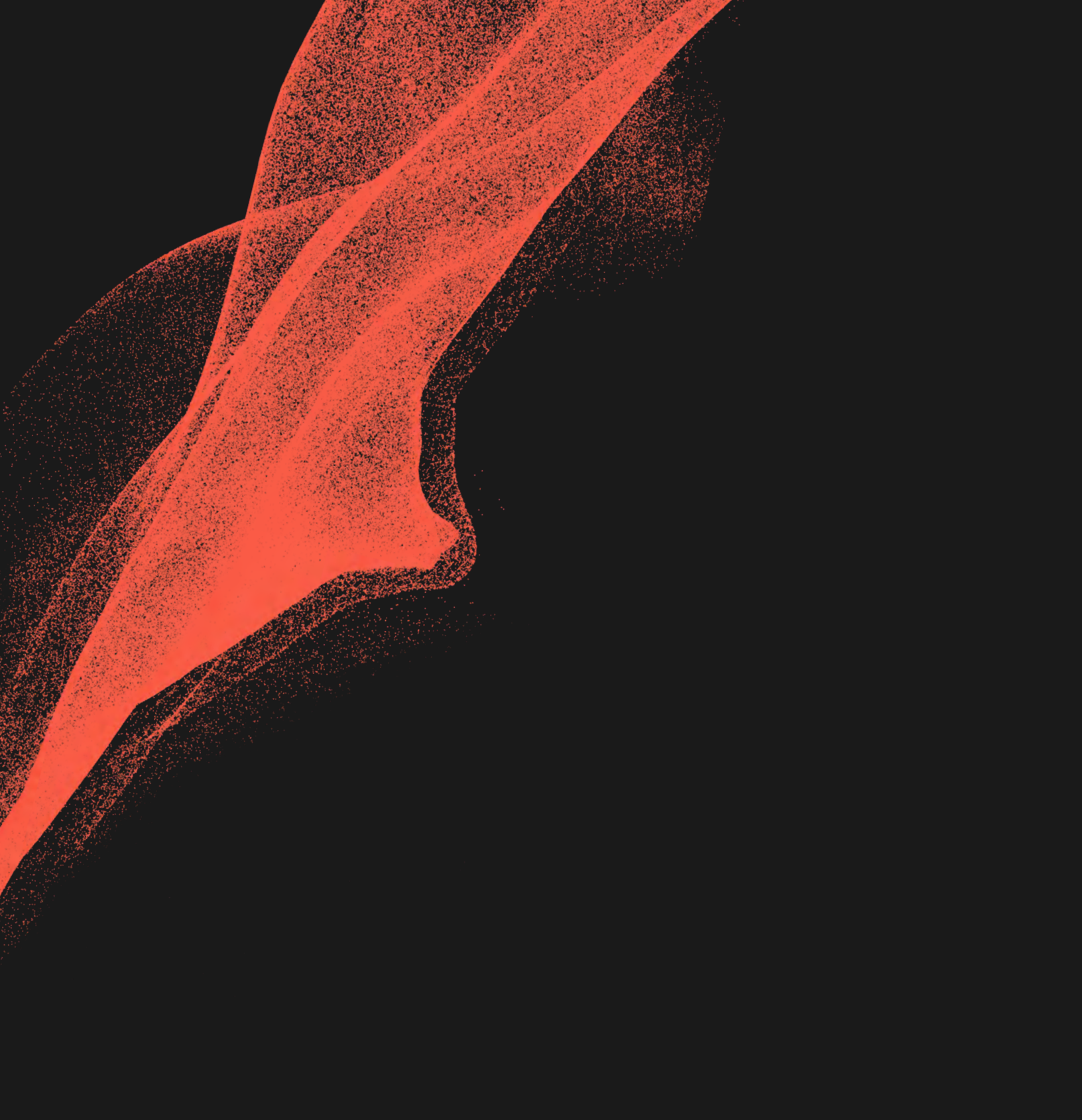
## Why LTM

We combine manufacturing context, edge AI, and enterprise integration to help you Outcreate manufacturing quality consistency at scale.

### Act Before Quality Slips

Enable the right decision at the right moment with AI-assisted guidance.

Come meet us in AVEVA at booth (add the booth no) to know more.



LTM is a global technology services and consulting company and the business creativity partner to the world's largest and most disruptive companies. We bring human insights and intelligent systems together to help enterprises across industries rewire their business models, accelerate innovation, and drive AI-centric growth. With our integrated operations, transformation, and business AI services, we design and deliver solutions that create new productivity paradigms and new roads to value. Together with 87,000 employees across 40 countries and our global network of hyperscaler partners, LTM - A Larsen & Toubro company - shapes business outcomes for over 700 clients, helping them to not simply outperform the market, but to Outcreate it.