

MES & Machine-Monitoring Buyer's Guide 2026

Choose the right system without the sales spin — a scored framework, pricing-model breakdown and a ready-to-send RFP checklist.

1 · MES vs SCADA vs ERP — what you actually need

SCADA controls and supervises equipment in real time. ERP plans the business (orders, inventory, finance). MES sits between them: it executes and tracks production — work orders, traceability, OEE, downtime, quality. If your goal is visibility into machine performance and losses, you often start with machine monitoring / OEE and grow into full MES.

2 · The scored feature matrix (weight to your priorities)

Capability	Why it matters	Must-have?
Automatic machine data capture	No manual logs; trustworthy OEE	Yes
Downtime reasons & Pareto	Target the biggest losses	Yes
OEE / TEEP dashboards	Single source of truth	Yes
Protocol coverage (OPC UA, Modbus, MQTT, digital I/O)	Connects to all machines	Yes
Works without PLC access	Retrofit older assets	Often
Quality / traceability	Genealogy, compliance	Sector-dependent
ERP/historian integration	Closes the loop	Yes for scale
Multi-plant / templates	Roll out fast	If >1 site
Cloud / on-prem / edge options	Security & latency	Yes
Ease of use for line staff	Adoption = ROI	Yes

3 · Pricing models — how to budget

- Per-machine / per-connection subscription — scales with assets; predictable.
- Per-site / per-plant license — favours large lines, many machines.
- Per-user (named/concurrent) — watch cost as adoption grows.
- Hardware + software bundle — retrofit boxes for machines without a PLC.
- One-off perpetual + maintenance — higher upfront, common on-prem.
- Watch for: integration/onboarding fees, data-retention tiers, premium connectors.

4 · Build vs buy

In-house dashboards look cheap until you own connectivity, edge reliability, updates and support. Buy when time-to-value and reliability matter; build only where you have a durable OT/IT team and a truly unique need.

5 · Copy-paste RFP checklist

- Which protocols do you support natively, and can you monitor machines without PLC access?

- How is OEE calculated and can we audit the raw events?
- Typical time from install to trustworthy OEE?
- Deployment options: cloud, on-prem, edge? Security posture (SSO, RBAC, encryption)?
- Integrations with our ERP/historian? Bi-directional?
- Multi-site templating and roll-out approach?
- Total 3-year cost including hardware, onboarding and support?
- Three references in our sector with quantified results?