Technical specification · v1.0 · 20 October 2026

AI predictive maintenance

AI predictive maintenance reads vibration, motor current and temperature from your machines, learns how each one runs when it is healthy and spots the change when a bearing, a gearbox or a spindle starts to wear. It estimates how long the part has left, proposes a slot in the production plan and creates the maintenance task. The line's digital twin shows the state of every machine and what each choice costs.

Pilot	Build from	Licence a month
€9,000	**€45,000**	**€1,500**

Purpose	Monitors the condition of production machines from sensor data, detects faults as they begin, forecasts the remaining useful life of components and plans maintenance around the production schedule, with a digital twin of the line.
AI area	Machine learning (anomaly detection, fault classification, remaining-useful-life regression) and a digital twin of the production line.
Production process	Main production and its control: the condition of the equipment that runs it, and maintenance planned around the production schedule.
Inputs	Vibration from accelerometers (sampled at up to 25.6 kHz for spectra), motor current and temperature; machine state, speed, load and counters from the PLC or SCADA; the maintenance history; the production plan.
Outputs	A health score for each machine and component; anomaly alerts with the likely cause; remaining useful life with a confidence range; maintenance tasks with a proposed slot; the digital twin view of the line; OEE; a monthly condition report.
Fault types	Rolling-bearing faults (outer race, inner race, rolling elements, cage), imbalance, misalignment and looseness, gear wear, belt faults, motor electrical faults visible in the current, overheating.
Models and approach	Signal features: RMS, peak, kurtosis, and FFT and envelope spectra at the bearing and gear fault frequencies. Unsupervised anomaly detection for each machine (isolation forest and autoencoder) on a healthy baseline, usually 2 to 4 weeks of normal running; fault classification from spectral patterns; remaining useful life from the degradation trend, with a confidence range. The digital twin models each machine's state with the production plan and costs each maintenance option.
Accuracy validation	Back-tested on your past failures where data exists; in the pilot and the trial run, measured on live data: faults detected, how far ahead of the failure, and false alarms per machine a month. Acceptance thresholds are agreed in writing in the pilot.

Hardware	Per machine: vibration and temperature sensors, a current sensor, and a share of a gateway; existing PLC measurements are used where they exist.
Integrations	OPC UA, Modbus TCP, Siemens S7 and MQTT; SCADA historians and CSV; MES or ERP (Rivilė, B1, Business Central, Odoo) through APIs or import files; the REST API; alerts to Microsoft Teams, email or SMS.
Hosting	Two options: our cloud on servers in the EU, or on-premises on an industrial computer at your line, with nothing leaving the plant but service metrics. Daily backups kept for 30 days; TLS in transit, encryption at rest.
Languages	Interface in Lithuanian and English.
Limits	Up to 200 machines and 2,000 sensor channels per site. Forecasts need a baseline of normal running, and faults that develop in minutes, such as a sudden tool break, are caught as alarms rather than forecast.
Access	Sign-in with Microsoft Entra ID or Google, or local accounts for shared screens on the shop floor. Roles: operator, lead (quality, maintenance or production), administrator. Activity log of every confirmation and change.
Human oversight	The AI proposes; the maintenance lead approves every slot and task. It never stops a machine by itself.
Support	Business days 8:00–17:00 Vilnius time, remote; critical faults answered within 4 business hours; availability target 99.5% a month for the cloud part.
Delivered as	A standard product under licence, configured for your line, with its models adapted to your data. It is not software or an AI model developed to your order.