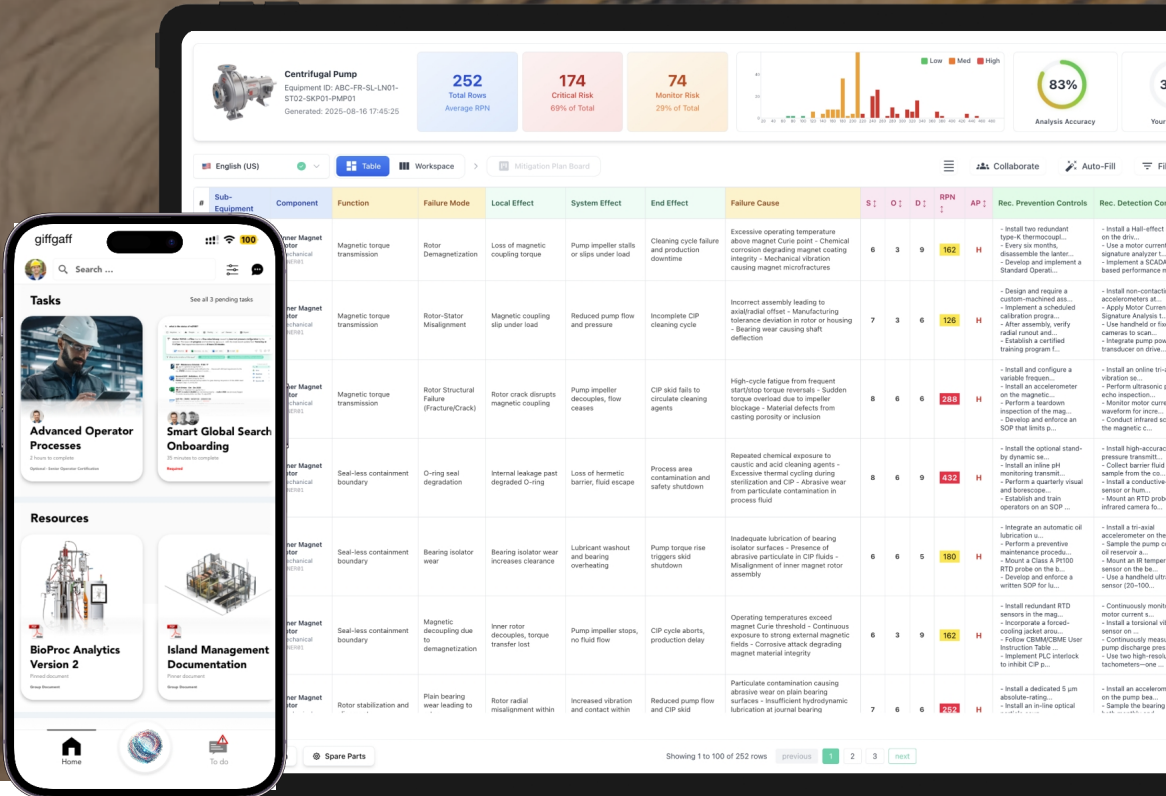


CASE STUDY

Optimize uptime, throughput and safety in Mining with human-centric AI

Tacit AI generates FMECA-grade insights from terabytes of CMMS, historian and dispatch data, in minutes, and turns them into preventative tasks your teams can act on.



Overview

One hour of primary crusher downtime can cost up to \$1m. FMECAs can prevent it, but they are slow and rare.

Mining sites manage dozens to hundreds of mobile assets and a similar number of fixed systems, for a total of 3k to 20k+ maintainable items. Data is fragmented across work orders, dispatch notes and manuals, while staff tenure is short. Traditional FMECA takes more than one month per system and produces 1,000+ Excel rows that are hard to convert into preventative actions. The result is costly downtime and lost throughput.

· **Unplanned downtime** from tramp metal, liner wear, lube issues and screen blinding.

· **Underfeeding** of HPGRs by 10 to 25 percent versus nameplate, **quietly losing 9k to 25k tonnes per day.**

· **Poor structure in records.** Dispatch notes and work orders lack failure-mode fields, which blocks root-cause learning and PM alignment.

Approach

Tacit AI keeps reliability knowledge inside the mine, and turn it into action, up to 10x faster, at the same or improved quality and compliance.

- Week 0** **Work orders, user manuals and procedures** loaded into private cloud / client VPC, from CMMS (e.g. SAP S/4H) and SharePoint.
- 1** **Build asset hierarchies** and asset functionality ontologies. Estimate **risk & criticality** and **build failure mode database.**
- 4** **Generate initial FMECA** on critical equipment (gyratory crusher), including **mitigating tasks and PRTs / work instructions.**
- 8** **Vertical and horizontal FMECA scaling.** Continuously learn from user interactions to proactively identify & prevent bad actors.
- 16** **Recalculate risk** as conditions change, propose **PM updates** as throughput targets shift and **continuously optimize operations.**

“**Automated work order processing and FMECA updates were two major benefits of Tacit AI. It helped us find and resolve 3 repeat events and hours of downtime.**”

Maintenance Lead - Global Mining Operator

Integrations: SAP PM MAXIMO OSIsoft 23+ others

21.3%

Unscheduled Crusher Downtime (~26 hours / year)

Initial results on limited data, as part of a 3 month pilot

8.4x

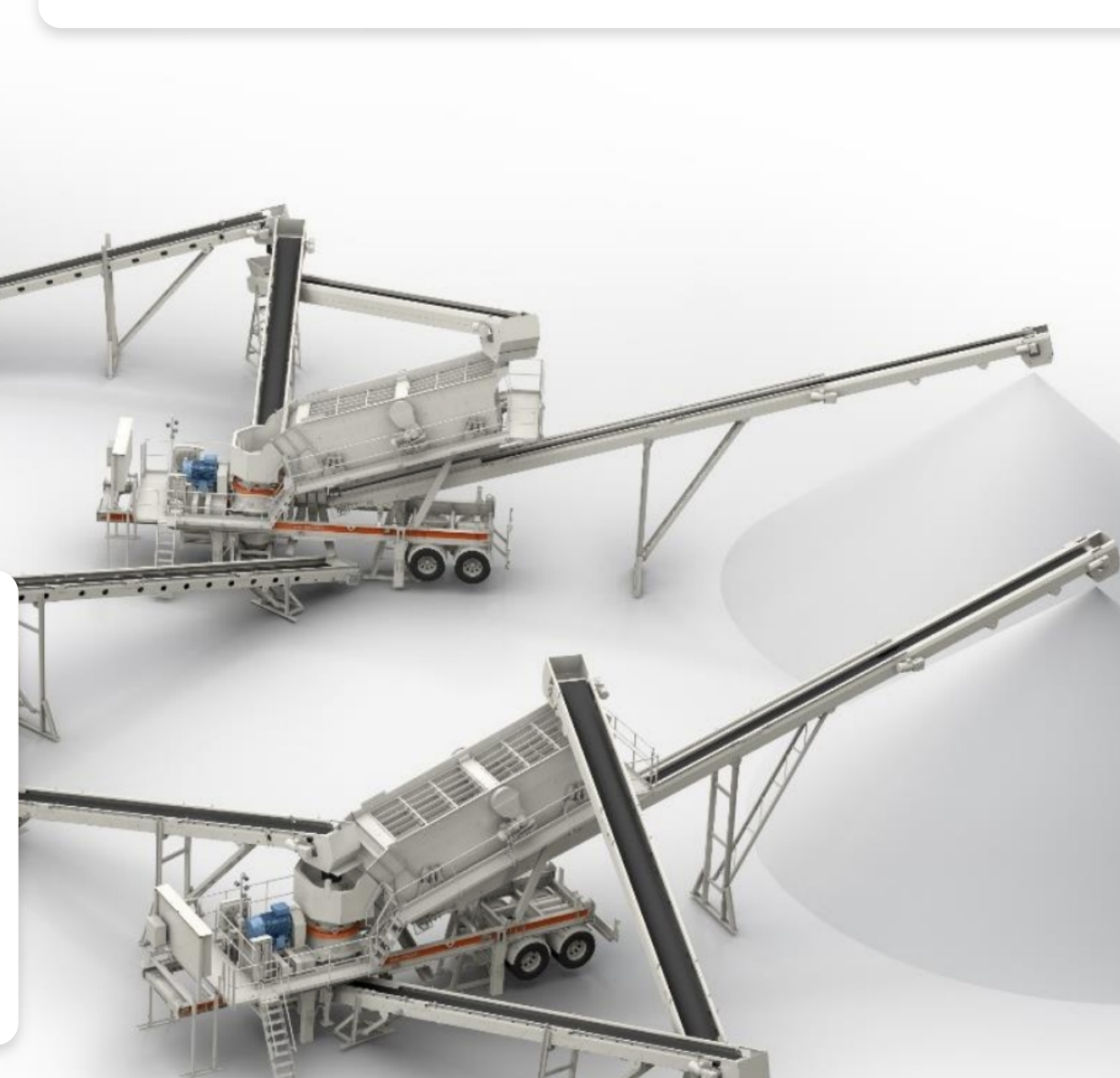
Faster FMECA (88.1% less time to create and update)

Average across FMECA rows for 1 system

3.2x

Faster PRT & PMI (68.2% less time to create)

Average across FMECA rows for 1 system



See it for yourself.

Schedule a demo to see how Tacit AI cuts downtime and boosts productivity within weeks.

REQUEST A DEMO