
SYNTROPIO AI COWORKER

Engineering & Maintenance

For the people who keep the assets running — from
maintenance strategy to backlog reality

The plan is in the system. Reality is in the backlog.

Asset-heavy organizations live between two truths: the maintenance plan in the system, and the reality in the backlog. Between them sit ageing equipment, stretched crews and data no one fully trusts — and decisions that deserve better ground than gut feeling.

The backlog says one thing; the plan assumes another.

Criticality was set years ago — by someone who has since left.

Work orders close, but the failure history teaches no one.

The shutdown scope grows right up to the day it starts.

WHAT THIS WORK SHOULD DELIVER

A backlog you trust

Prioritized by criticality and age — what waits safely, and what must not.

Strategies that fit

Maintenance matched to how each asset actually fails.

Data worth deciding on

Failure history and master data that can carry decisions.

Shutdowns without surprises

Scope set early, challenged honestly — and held.

From plans that assume to strategies that know — grounded in your own asset reality.

Five practical capabilities, grounded in the discipline model.

#	CAPABILITY	WHAT IT PRODUCES
1	Maintenance strategy review	An honest read of strategy against criticality, failure history and what crews actually do.
2	Criticality & lifecycle	Criticality and lifecycle reasoning grounded in your registered equipment hierarchy.
3	Backlog & data quality	Backlog structured and analyzed; data-quality gaps named, not papered over.
4	Shutdown scope & planning	Scope and planning craft for shutdowns — prepared early, challenged honestly.
5	Technical documentation	Structured, field-friendly technical documents — drafted for your systems, never around them.

IN PRACTICE — SIDE BY SIDE IN YOUR WEEK

In the maintenance review — it reads plans against failure history and criticality, and shows where they disagree.

When the backlog is challenged — it structures it by criticality and age — what waits safely, and what should not.

Before the shutdown — it prepares scope material and challenges late additions — with the risk statement attached.

WHAT IT NEEDS FROM YOU

Your maintenance philosophy and engineering standards, the equipment hierarchy, and registered read-only extracts from the EAM/CMMS — system and period named. The model drafts for your systems, never writes into them — and a qualified engineer verifies everything that carries technical authority.

What it stands on — and where to begin.

PROFESSIONAL FOUNDATION

Maintenance and reliability engineering · asset and lifecycle management · criticality and risk-based maintenance · failure-mode reasoning · backlog and data-quality analysis · shutdown and turnaround methodology · engineering change control

STANDARDS & REGULATORY LANDSCAPE

ISO 55000 family · technical-integrity principles · reliability leading practice · technical regulations and class requirements · industry-specific equipment and inspection requirements

A curated selection. Standards apply at your organization's adoption level. Regulatory references reflect the Norwegian baseline — adapted per market and sector, and verified against current sources in every engagement.

WORK WITH SYNTROPIO ON —

Four examples in ascending ambition — from a question in the meeting to a governed rhythm across the organization.

ASK	"Which backlog items carry real risk — and which are just old?"
PRODUCE	"Prepare the maintenance-strategy review — failure history, criticality and the revised program, documented."
SCHEDULE	"Run a scheduled backlog health pass — aging, criticality drift and data-quality gaps flagged."
CONSOLIDATE	"Consolidate failure history, inspections and modifications into one asset-health picture for the investment plan."

A discipline of Syntropio, the Operating System for Organizational Intelligence — activated as your organization's own instance, grounded in your sources, governed within agreed boundaries and reviewed by qualified people.

BRING ONE REAL CHALLENGE

Bring one real asset, backlog or shutdown challenge. We'll explore how Syntropio can help your engineers structure the evidence, challenge assumptions and prepare better decisions.

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