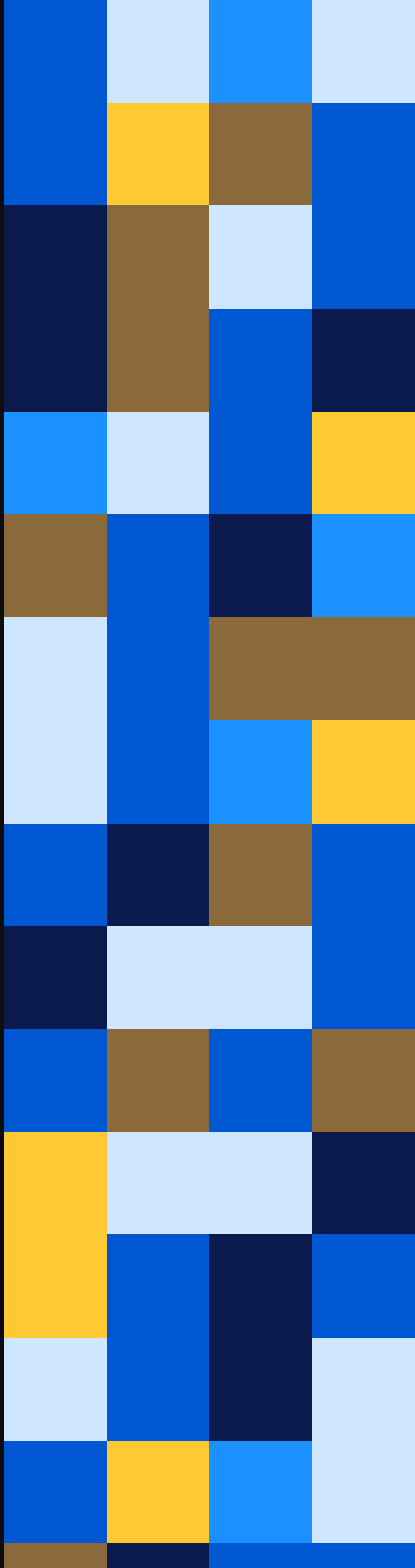
Mill products | Xenon AI

The path to AI implementation in mill products

A practical guide for mill products, from planning to the mill floor.



HUDACE

Run Smarter. Grow Faster.

Table of contents

In mill products the pressures are specific: thin margins on commodity output, energy-hungry processes, yield that swings with every run, and assets that must keep running. AI can help with all of them, but only once you know where to begin. This guide lays out a practical path, from a first honest look at readiness to lasting value, written for mill products from planning to the mill floor.

Charting a clear course for AI in mill products

Ask a planning lead, an operations lead, a maintenance lead, and a finance lead where AI should start, and you will hear four different answers: forecast demand, lift yield, cut energy and conversion cost, keep the assets running. The opportunity runs from planning to the mill floor, and so does the temptation to chase all of it at once.

What is usually missing is a route. Deciding to use AI is not the same as knowing which problem to solve first, which demand, production, and asset data to trust, or how you will recognise a result on the line.

This guide gives mill products leaders that route. It moves through the journey in order, from a candid read of where you stand to the work of holding on to value once a programme is live. None of it is abstract. Each stage reflects how mill products businesses actually run.

Along the way you will see where Hudace and Xenon AI fit across planning, production, assets, sourcing, and finance, so the path stays practical rather than theoretical.

Evaluating your AI readiness

Start with an honest picture of your mill, your assets, and your data.

AI rewards preparation. Before the first model or agent, understand how demand, production, energy, and asset data flow, and how thin margins and heavy assets shape what is possible. A grounded readiness check turns interest into progress.

Find your starting point, not a score

Readiness is less about owning the newest sensor and more about the conditions around it: leaders aligned on the goal, data you can rely on from furnace to ledger, and teams, on the floor and in planning, willing to work in new ways. This is not a test to pass. It is a way to see where you are strong and where you still need to build.

A few signs you are ready to take the next step:

- You can tell apart what your people are ready for and what your systems are ready for.
- You can name specific tasks AI could take on: demand forecasting, allocation and scheduling, asset failure prediction.
- You know whether demand, production, and asset data are reachable, accurate, and current.
- You have a real sense of the skills you hold, from the mill floor to data, and the ones to add.
- You can put rough numbers on the time and budget involved.

Done early, this spares you stalled projects later, and lets you scope from facts rather than hope.

How Hudace helps

Running planning, production, and finance on Hudace means you already have a connected view from order to furnace, which is a real head start in spotting where AI adds value.

A short readiness session with our team ranks AI opportunities by line, grade, and asset, so your first projects are the ones most likely to pay off. Talk to Hudace.

Defining strategic AI goals and expected ROI

Tie every AI effort to a number the mill already lives by.

AI earns its place when it moves a number that matters: conversion cost per tonne, yield, OEE, energy. Set goals that are specific, owned, and measurable before the work starts.

Clear goals turn effort into outcomes

The most useful projects open with a plain statement of what should change and by how much: lower conversion cost on a grade, higher yield, fewer line stoppages. Anchor it to a priority, name who owns it, and the work stays focused.

> **The question is rarely whether AI can do the task. It is whether you have decided what a good result looks like, in cost, in yield, in uptime, before you start.**

Worth settling early:

- The outcome you are after, written as a number you can track by line or grade.
- The specific problem, not the broad theme, you are solving.
- A shared view across planning, production, maintenance, and finance on what is feasible.
- Metrics you are willing to revisit each quarter.
- A first ROI range, held loosely enough to adjust.

How Hudace helps

Hudace helps you put numbers behind the ambition. Because demand, production, and cost data already live in the platform, goals and ROI ranges come from what is really happening across your lines and grades.

That makes the case for investment far easier to stand behind, and to revisit as cost comes down.

15% lower

conversion cost at Apex Steel, after connecting planning, production, and finance on one platform. Read the story.

Building your internal AI coalition

Adoption runs through planning, production, maintenance, and finance alike.

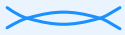
The best model in the world stalls without owners. Progress depends on a small group, drawn from across the mill, who share both the goal and the responsibility for reaching it.

Early on, gather a group that reaches well beyond IT: production and process, maintenance and reliability, planning and scheduling, sourcing, and finance. Their job is not only to comment. It is to own a piece of the change, so it never rests on one team.

This is the group that connects intent to execution. They know which problems are worth solving on the line, and their involvement carries a project past the first run.

What a strong coalition gets right

- It brings the right people in at the start, with a real stake in the outcome.
- It agrees how decisions, risk, and oversight will work before issues arise.
- It leaves room to question, test, and learn out loud.
- It funds the unglamorous parts: enablement, communication, and time.



How Hudace helps

If alignment is the hard part, a Hudace discovery session gives your group a structured place to surface use cases across the mill and agree on priorities, turning scattered opinions into a shared plan.

When the focus shifts to skills, Hudace Learning offers practical paths so everyone, from the line to finance, feels ready for the change rather than unsettled by it.

Data, the mill, and infrastructure

Good AI depends on good data, from the furnace to the ledger.

AI is only as good as what it runs on. Real-time, trustworthy data, joined across demand, production, energy, and assets, is what separates a promising pilot from something dependable. In mill products, much of that data starts on the line.

Lay the groundwork for intelligent action

Xenon AI can only reason over what it can reach and trust. That means moving away from data trapped in separate systems toward a connected foundation: process and energy signals, quality and yield, orders, and cost, unified and current enough to act on.

Where to focus:

- Data quality: are process, energy, and order records clean enough to use without heavy rework?
- Connectivity: can you bring process, energy, and asset data into one view?
- Infrastructure: can your environment flex through demand and run close to the line?
- Ownership: IT keeps systems ready, but production, maintenance, and finance share it.
- Budget: plan for integration, migration, data quality, and training.

None of this slows you down in the end. It is the difference between AI that demos well and AI you can run a shift on.

How Hudace helps

Hudace gives Xenon AI one governed, real-time view across planning, production, and finance, so forecasting, scheduling, and prediction work from a single source of truth.

Still untangling older systems? ACE with Hudace shortens the path to a modern, connected core.

Navigating change across planning and the mill

Bring people with you, from the mill floor to the planning office.

AI changes the shape of work, not only the tools. The mill products businesses that get the most from it treat the human side as the main event: building skills, adjusting how work is done, and giving people a reason to lean in.

The technology shift rides on a human one

New capability brings honest questions. Will my role change? What happens to the judgement I bring on a furnace, a schedule, a grade? Will I keep up? Left unanswered, those questions quietly turn into resistance.

Handled well, this stage is where an operator or a planner stops bracing against AI and starts using it, because it makes their own call sharper.

What helps the shift land:

- Map the skills that are changing and offer real paths to build them.
- Talk early and often, especially where daily work on the line or in planning will look different.
- Be straight about changing roles, with AI assisting expertise rather than replacing it.
- Set expectations on pace, shift by shift.
- Back it with budget for learning, champions, and the culture work that sticks.

How Hudace helps

Hudace Learning gives your teams structured, hands-on paths to grow confident with Xenon AI, from the why through to daily use on the line, in maintenance, and in planning.

The result is people who feel ready for the change instead of caught out by it, whatever their role.

Measuring success and scaling AI

A pilot proves the idea. Measurement decides what scales across lines and mills.

Getting one thing working, on one line or one grade, is the start, not the finish. The mill products businesses that scale well look hard at what worked and why, then carry that evidence into the next line and the next quarter.

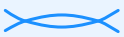
Let the evidence choose your next move

Useful measurement is not a box-ticking exercise. It is how you learn what really happened, build the confidence to expand, and avoid scaling something for the wrong reasons.

What to track once a pilot lands:

- Measures that reflect real use: conversion cost per tonne, yield, OEE, energy per tonne.
- Actual ROI against what you expected, and the surprises along the way.
- Whether the approach travels to other lines and mills.
- The resourcing, so people and systems are ready for more volume.
- What you learned, written down, so the next rollout starts further ahead.

Scaling is not simply doing more. It is doing more of what is proven, with a clear idea of what good looks like.



How Hudace helps

Hudace shows you how Xenon AI is used across the business: which lines, which grades, how often, and to what effect.

That visibility keeps your attention on the work that pays back, and makes the case for the next investment concrete.

Risk, safety, and responsible AI

Value and trust have to grow together, with safety first.

AI does not remove human responsibility. On the mill floor it raises the stakes on it. Bias, errors, and weak controls are safety, quality, and margin risks. As AI spreads, the guardrails have to spread with it, and an operator stays in control of the process.

Make trust part of the design

Whether AI is scheduling a line, predicting a failure, or flagging a quality issue, the same questions apply: is it secure, is it safe, can you explain the call? Answering them is the job of clear governance, with production, quality, safety, and IT deciding together how AI is run and watched.

Worth getting right:

- Naming the risks plainly: unsafe automation, biased data, quality escapes, unexplained decisions.
- Keeping a qualified operator in control of safety-critical actions.
- Meeting the rules on safety, environment, and data that apply to you.
- Giving quality, safety, and model checks a clear owner.
- Treating supplier and worker data with the same care as your own.

How Hudace helps

Keeping operations on one platform means less data scattered across systems to defend. Hudace adds granular access controls and built-in compliance at every level.

AI Agent Governance gives you the policies, monitoring, and oversight to keep Xenon AI safe, reliable, and accountable as it grows.

Sustaining value, run by run

Launch is a milestone. Lasting value is the work that follows it.

Going live is the easy thing to celebrate. Keeping value flowing as demand, energy prices, and grades shift is the harder, more rewarding work, and it favours mill products businesses that stay curious.

Keep the momentum, and the direction

Maturity does not arrive on launch day. It builds through small iterations, shared learning across lines and mills, and a willingness to revisit what worked last quarter. Staying ready for what is next takes both the mindset and the systems to support it.

How to stay ahead:

- Watch how AI performs across lines and grades, and tune where the numbers point.
- Keep your processes loose enough to adopt what comes next.
- Stay close to the line and planning teams, and keep learning shared.
- Pair quick wins with the slower investments that make scale possible.
- Keep a habit of small, structured experiments as new options appear.

Lasting value comes from staying adaptable without losing the plot: a leaner, more reliable, more profitable mill.

How Hudace helps

Hudace helps you keep sight of where Xenon AI earns its keep across the mill, so your focus stays on the work that matters.

With Xenon Studio and the wider Xenon AI platform, your teams extend AI at their own pace, and the Hudace Community keeps fresh practice within reach.

Metrics and formulas that matter

AI earns trust when it shows up in numbers you already manage. These are the measures worth instrumenting from the first pilot, with the formulas behind them, so progress is easy to prove and easy to question.

Conversion cost per tonne

```
Conversion cost / tonne = (labour + energy + overhead) / tonnes produced
```

The cost to turn input into sellable output.

Yield

```
Yield % = (good output / input) x 100
```

How much of the input becomes sellable product.

Overall equipment effectiveness

```
OEE % = availability % x performance % x quality %
```

The single best read on how well a line runs.

Energy per tonne

```
Energy / tonne = total energy used / tonnes produced
```

A big, controllable cost in an energy-hungry process.

On-time delivery

```
OTD % = (orders delivered on time / total orders) x 100
```

Whether you keep the promises you make to customers.

Unplanned downtime

```
Downtime % = (unplanned downtime / scheduled run time) x 100
```

Time the line is stopped when it should be running.

Pick two or three to start. Tie each AI pilot to one, set a baseline before you begin, and review it each quarter.

Putting Xenon AI to work

A workflow worth starting with, and the questions your teams can ask.

Lowering cost per tonne: a continuous loop

1. **Sense**
   Xenon AI reads demand, production, energy, and asset data across the mill into one view.

2. **Predict**
   It forecasts demand and flags yield, energy, and asset risks before they add cost.

3. **Schedule**
   It sequences production and maintenance to protect yield and due dates.

4. **Act**
   Owners approve, the platform updates the schedule, work orders, and energy plan, and the loop learns.

Ask Xenon AI

- "Where is conversion cost per tonne highest, and what is driving it by line and grade?
- "Which assets are most likely to fail and stop the line, and what maintenance should we schedule?
- "Forecast demand by product and grade, and align the production plan.
- "Show yield and energy per tonne by line and shift, and the main losses.
- "Recommend a schedule that protects yield while meeting this week's due dates.

Every answer runs on your governed data, so it reflects what is really happening across your operations.

Your AI journey starts at the mill

The next step is closer than it looks.

You do not need every answer to begin. You need a sensible first move, the right people beside you, and support you can lean on. Followed in order, the steps in this guide take a mill products business from a first honest look to results you can measure, in cost, in yield, in uptime.

One line or your whole mill, the shape is the same: a path that grows with you, where every run teaches you something worth carrying into the next.

Hudace stays with you across that path, from the first readiness conversation to AI working quietly across planning, production, assets, sourcing, and finance, with Xenon AI built into the platform rather than added on.

When your mill, your data, and your goals point the same way, the results tend to follow.

Learn more

See AI-native ERP for mill products at hudace.com/industries/mill-products.

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