

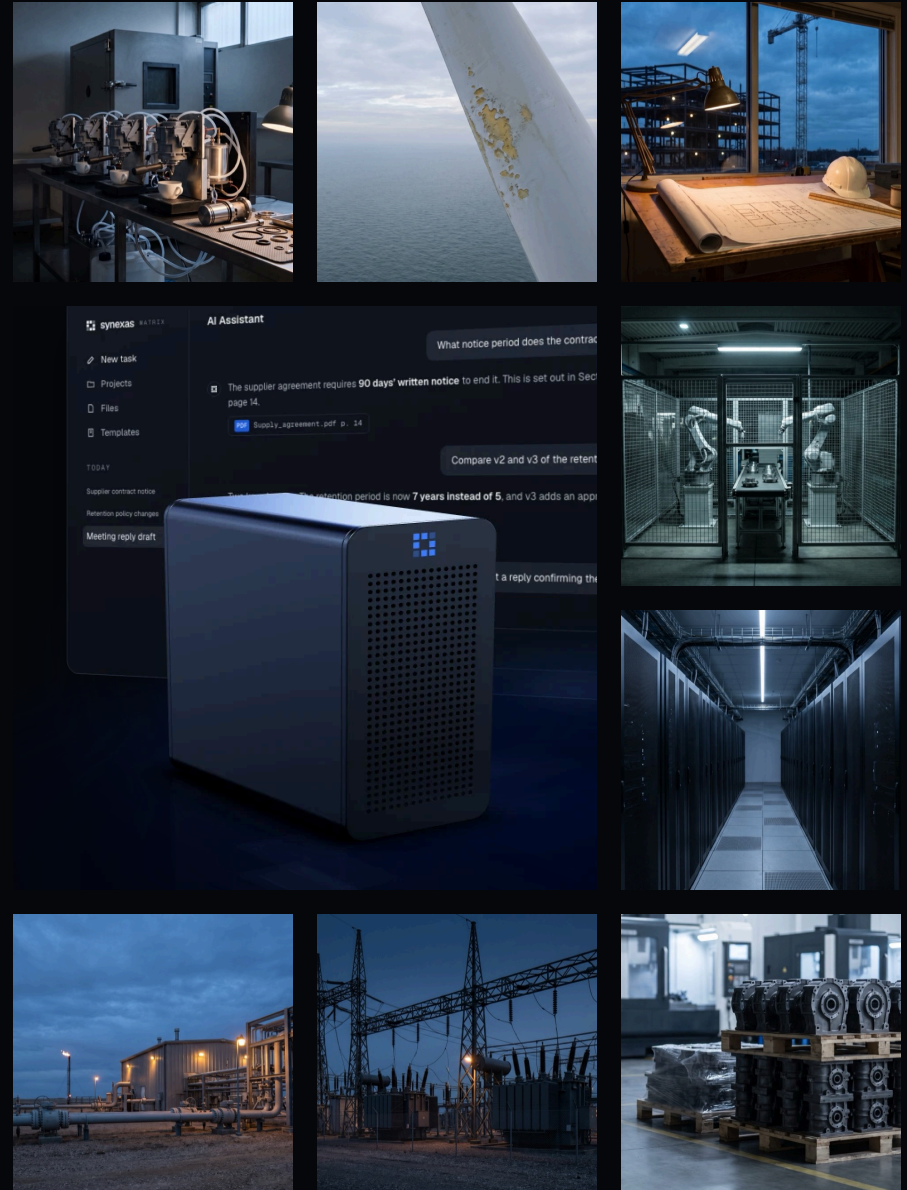


ON-PREMISES AI FOR ENERGY,
CONSTRUCTION AND MANUFACTURING

Protect your IP. Put your data to work.

Designed for industrial work and quick to start.
Your teams get more done.

-  Runs fully offline
-  Every result shows its evidence
-  Decisions stay with your people



Four kinds of work that wait on a few experts



RESEARCH

Answers buried in old reports

Teams start from scratch while the answer sits in a report from years ago.



INSPECTION

Every photo checked by eye

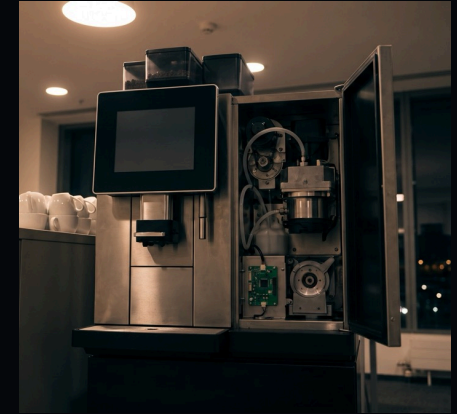
A few experts review thousands of inspection photos before anyone acts.



DRAWINGS

Drawings sent back by reviewers

Each drawing must meet many codes, and one missed item means another review round.



FIELD SERVICE

Every fault waits for an engineer

Error codes miss most faults, so an engineer debugs each one on a video call.

Case 1 p. 5 →

Case 2 p. 7 →

Case 3 p. 9 →

Case 4 p. 11 →

🎯 Most teams start with one of these. Each has a case in this brochure, from a wind manufacturer to a city authority and a coffee machine maker.

What each case delivers

Results from systems Synexas built, each around one team's own data, steps and people.

RESEARCH

Commercial coffee machine maker

2.4weeks

saved in every month of development

Reported by the customer

Case 1 →

INSPECTION

Offshore wind manufacturer

90%

less photo-checking time for engineers

Customer result

Case 2 →

DRAWINGS

City construction authority

2_h

per drawing set at the authority, down from 2 days

Measured at the authority

Case 3 →

FIELD SERVICE

Commercial coffee machine maker

90%

of faults solved by the AI on a video call, with no engineer

Customer result

Case 4 →



Runs offline, on site

Offline by default. Nothing leaves without your approval.



Your people decide

Unclear results, repairs and write-backs go to the person who owns them.



One agreed price

The machine, the software and the setup, with no per-token fees.

Meet Matrix.

Your company's AI system.

The machine, the AI software and the on-site setup. One complete offer, one agreed price.

01 The machine

Chosen from validated configurations, sized to your workload.

02 The AI software

An assistant, team tools and custom workflows, running locally.

03 On-site setup

Installed and adapted by our engineers, around your files and tools.



01

CASE 1 OF 4 · RESEARCH · COMMERCIAL COFFEE MACHINE MAKER

Every new design relearned old lessons

The answers sat in years of test reports, field reports and design changes, but nobody could find them in time. Old tests were run again, and new engineers took months to get up to speed.

RECORDS

Answers buried in years of reports

EVERY DESIGN

Old tests run again

NEW ENGINEERS

Months before they are productive

Every design starts from what you already know

Built around the team's own test reports, field reports and design changes. The same for any team with years of reports.

R&D assistant

On this system · offline

New task

Projects

Files

Templates

BREW UNIT R&D

BU-4 seal choice

Grinder noise retest

Pump change review

We are choosing seals for the new BU-4 brew unit. What have we learned before?

Two lessons.

Tests from **2019** and **2021** show standard seals swelling after acid descaling in hard water, which caused field leaks. The harder seal of design change DC-142 passed **20,000** brew cycles; the 2019 thicker seal did not.

The 2021 brew-cycle test is the closest match. I drafted a BU-4 test plan from it for your review.

Sources · 4 files, 2019 to 2023

PDF Seal_test_BU-3_descaling.pdf 2019 · p. 6

PDF Brew_cycle_test_DC-142.pdf 2021 · p. 11

XLSX Field_reports_2019-2023.xlsx 2023

PDF Design_change_DC-142.pdf 2021 · p. 2

1 Earlier tests found first

From years of test reports, field reports and design changes, each with its year and page.

2 Sources compared

What was tried, what worked and what is uncertain, with the next test to run.

3 Engineers decide; the record grows

Each decision and its evidence goes back in, so new engineers learn from it.

THE RESULT

Faster development from the team's own record

- Reported by the customer

90%

less time finding past reports and test results

2.4 weeks

saved in every month of development: 60% less development time overall

03 CASES

6

02

CASE 2 OF 4 · INSPECTION · OFFSHORE WIND MANUFACTURER

Missed blade damage can stop a turbine

Lightning and bird strikes damage blades at sea. Missed damage can grow until a turbine must stop, and a stopped 15 MW turbine loses about USD 20,000 of power a day until a vessel and crew arrive. An earlier AI was only 70 to 80% accurate, so a few experts still checked every photo by eye.

A STOPPED TURBINE

About USD 20,000 a day
(industry estimate)

EARLIER AI

70 to 80% accurate

SO

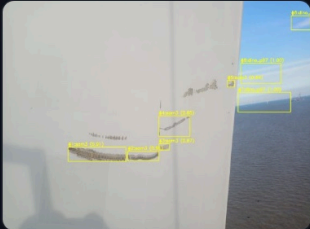
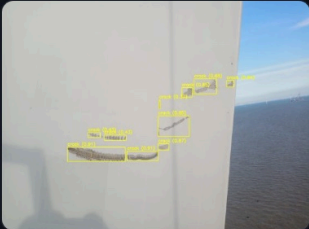
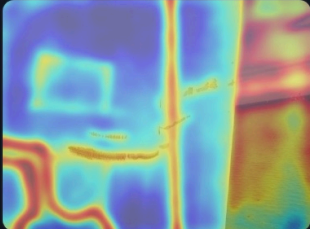
Every photo was checked
by eye

Only unclear photos reach an engineer

Several AI models in one workflow, built around the customer's own photos. The same for any inspection your team does by eye.

Blade inspection

● On this system · offline



1 Possible damage flagged

2 Unusual areas marked

3 Damage outlined

4 Findings merged

FINAL DIAGNOSIS

Leading-edge erosion

Moderate Confidence 0.92

Engineer review

Where Leading edge, blade surface

Evidence 10 regions outlined; the main one covers the worst coating loss

Step 3 read **crack**; the final check reads it as erosion.

Suggested: plan a stop to inspect and repair the leading-edge protection.

Send to engineer Add to work order

1 Every step shown

Pictures 1 to 4 are the steps' results, from different AI models.

2 Checked against each other

Weighing every result, the final check reads step 3's crack as erosion.

3 Engineers decide

Clear photos are decided automatically; unclear ones and every repair go to an engineer.

THE RESULT

Blade photos checked
before anyone sails out

● Customer result

90%

less photo-checking time for engineers

98%

accuracy on blade photos; the earlier AI reached 70 to 80%

03

CASE 3 OF 4 · DRAWINGS · BUILT FOR A CITY CONSTRUCTION AUTHORITY

Drawings come back from review

Every drawing must meet many building codes before a permit. Reviewers check it against the full rule set, and one item that is simply not drawn sends the set back. We built that rule check for a city construction authority; builders can run it first.

CODES

Many for every drawing

A MISSED ITEM

Another review round

THE SAME CHECK

Run before you submit

Fix it before the reviewer finds it

The rule check we built for a city construction authority, run by the builder before submission. The same for your drawings, method statements and bids.

Pre-submission check
● On this system · offline

Drawing
Rules
Check
Fixes
Submit

PROJECT
Plant 3 · Extension

DRAWING
Ground floor

NUMBER
A-201 · Rev B

SCALE
1:200

Fix
Exit door D-07 is 0.80 m wide
Rule 7.4.2 · minimum 0.90 m · measured on the drawing

Fix
52 m from the far corner to exit E1
Rule 7.6.1 · limit 45 m · measured along the aisle

Met
Two exits from the assembly hall
Rule 7.2.1 · E1 and E2 found

Met
Hose cabinets within 30 m of every point
Rule 9.3.4 · 4 cabinets found

Send 2 fixes to the designer
Export report

1 Find, count and measure

One step finds items on the drawing; another measures them against the rule.

2 Each fix names its rule

Door widths, exit routes and cabinets, each with the clause it fails or meets.

3 Your designers decide

Fixes go to the designer, and nothing is submitted until your team signs off.

THE RESULT

A drawing set reviewed in 2 hours, not 2 days

● Measured at a city construction authority

2h

per drawing set at the authority, down from 2 days

172

building-code documents in the rule library

33,071

clauses from 124 method documents

04

CASE 4 OF 4 · FIELD SERVICE · COMMERCIAL COFFEE MACHINE MAKER

Most faults need an engineer on a video call

Its machines in customers' offices report error codes, but more than 60% of faults cannot be solved from them. Each of those needs an after-sales engineer on a video call, working from experience and by trial, while the machine stands idle.

OVER 60% OF FAULTS

Not solved by error codes

EACH ONE

An engineer on a video call

EVERY FIX

Found by experience and trial

Nine in ten faults fixed without an engineer

Built around the maker's past video calls, error codes and machine data. The same for your robots, cooling units, pumps and compressors.

Service assistant

● On this system · offline

On a video call

CM-214 · 3rd-floor pantry
Brew unit · the AI is guiding the fix

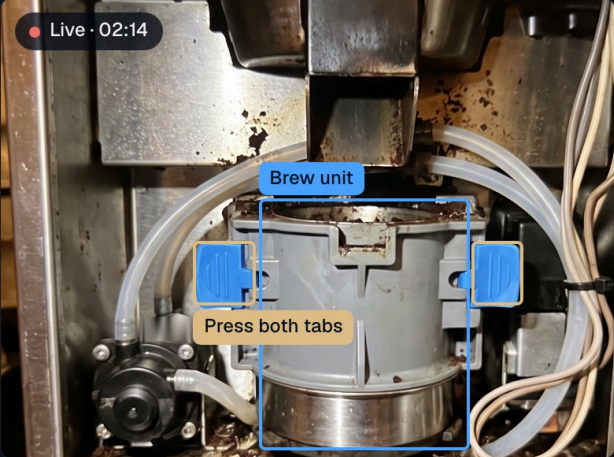
Warned early

CM-118 · lobby café
Pump pressure falling · fix sent

Fixed

CM-305 · 12th floor
Milk line flushed · no engineer needed

● Live · 02:14



AI ON THE CALL · STEP 3 OF 4

Remove the brew unit

Press both blue tabs and pull the brew unit straight out. Then rinse it under warm water.

Machine data

Brew pressure 20% low

Error code

E-17, no cause given

Past fixes

18 video calls, 2024–26

If it fails, an engineer takes the call.

Mark as fixed

Call an engineer

✓ Power off

✓ Open door

Remove brew unit

Rinse, refit

- 1 Warned before it breaks**

When machine data shows a fault coming, the user gets the warning and the fix before the machine stops.
- 2 The AI takes the video call**

It sees the machine through the camera and guides the person on site, step by step, as an engineer would.
- 3 Learns from every fix**

New calls and logs go back in. An engineer takes the faults the AI cannot solve.

THE RESULT

Most faults now need no engineer

- Customer result

90%

of faults solved automatically, with the AI guiding the fix on the video call

>60%

of faults had needed an engineer's video call, because error codes could not solve them

More work we have set up for teams

Delivery desk

Delivery desk

Open order lines · from the ERP export at 09:40

On this system · offline

8 Lines to evaluate

5 Ready to confirm

0 Expected late

2 Data issues

Order	Item	Requested	Can ship	Status
S0-1042	Gear housing × 400	Oct 20	Oct 18	Ready to confirm
S0-1047	Mounting bracket × 600	Oct 25	Oct 24	Ready to confirm
S0-1043	Drive shaft × 1,200	Oct 22	—	Bill of materials missing
S0-1049	Steel blank × 2,000	Oct 30	—	Purchase lead time missing

Which orders can we promise this week?

Five lines can ship by their requested dates if line 2 runs the housings on Oct 17 and 18. Two lines need missing data before a date can be given.

A date goes back to the ERP only after a planner confirms it.

Confirm 5 dates

Export for ERP

PLANNING

Delivery dates checked before they are promised

Beside your ERP, materials, stock and lead times are checked first, and a planner confirms every date.

Construction assistant

synexas

New task

Projects

Files

Templates

CLINIC EXTENSION · BLOCK B

Basement slab checks

Fire compartment qu...

Façade submittal

Clinic extension · Block B

Project · 8 members

On this system · offline

What must we check before pouring the base...

Seven checks, from the project specification and the concrete co...

cover and spacing, waterproofing laps, embedded sleeves, formw...

joint positions, the pour plan and the test-cube schedule.

I listed them as a checklist for the site engineer, each with the cla...

comes from.

Sources · 3 files

PDF Project_spec_concrete.pdf sec. 3.2

PDF Concrete_code.pdf ch. 7

DWG Block_B_basement.dwg

+ Message AI Assistant

CONSTRUCTION

Answers from codes and project files

For design, structure, foundations, acceptance, BIM, fire and energy work, each answer with the clause it comes from.

Your data stays on site



No outside AI connection

Matrix runs offline, on site. Outside services only if you approve them.



Never sent to an AI provider

Your files, questions and answers stay in your company's local environment.



Your IT team can check

Watch outbound traffic at your firewall: none, unless you approved a service.

YOUR SITE · YOUR NETWORK

YOUR DATA



Documents and drawings

Years of files, scans included



Photos, signals and logs

From cameras, sensors and machines



Business systems

ERP and others, read in, never sent out

SYNEXAS MATRIX

Assistant, team tools and custom workflows

Open-weight AI models, running locally

The machine, at your site



YOUR PEOPLE



Your staff

From their own computers



Each by role

Only the files they may see



People decide

Every result shows its evidence



Internet and cloud AI services

Closed by default

Only services you approve. Your firewall log can confirm it.

How Matrix compares

WHAT MATTERS TO YOUR TEAM	 SYNEXAS MATRIX	CLOUD AI SERVICES	BUILDING IT YOURSELF
Where data is processed	 At your site. On the Matrix hardware, inside your network.	With the provider. The service processes the questions and content supplied for the task.	On servers you buy and run. Where data goes depends on how your team builds it.
Internet required	 No. It works offline by default.	Yes. AI work depends on a connection to the provider's service.	Your choice. Set by how your team builds it.
Who builds the workflow	 Our engineers, around your task, on site.	Your team, with the tools the service provides.	Your engineers, from scratch.
What you pay for	 One agreed price, with no per-token fees.	Usage or plan fees, at the provider's rates.	Hardware, software and your staff's time.

Local deployment does not create automatic compliance or certification.

Your team stays in control

Your team holds every administrator account, and Synexas keeps none.

Administration ● On this system · offline

1 Access by role

Role	R&D	Drawings	Equipment
R&D engineer	✓	—	—
Design engineer	—	✓	—
Service engineer	—	—	✓
Sales	—	—	—

2 Usage records

Time	Person · use
08:52	L. Moreau · R&D engineer AI Assistant · 6 questions
09:41	S. Park · Design engineer Drawing check · 2 drawings
10:05	A. Haddad · Service engineer Field service · 1 video call

3 Updates and visits

Offline updates
 Offline packages, installed on site in about 30 minutes. Your team decides when to install.

Your team decides

Engineer visits
 Only when invited, on site and supervised. Access is granted and removed by your team.

Customer supervised

1 Access by role

Each person sees only the files they are allowed to.

2 Usage records kept on site

The system keeps usage records on your hardware. Each person opens only their own conversations in Matrix.

3 Updates and visits on your terms

Your team decides when to install each offline update. Our engineers work on the system only when you invite them, on site, with access you grant and remove.

Private AI, delivered on site

Synexas Inc. builds and installs private AI for organizations whose data must stay inside, including a securities firm, a construction group, a law firm and an industrial research institute.

50+

Organizations served

20+

Industries deployed

1M+

Monthly agent users

\$2.6M+

Estimated annual value
per enterprise

As of October 2026.

Installed at your site in about 30 minutes

Plug it into power and your network; your IT team assigns an address. Workflows are then set up with your team.



Matrix Team

A desk-side tower that runs on a standard outlet.



Matrix Standard

A tower. Its power and space needs are confirmed for your site.



Matrix Enterprise

Rack-mounted, for your server room.

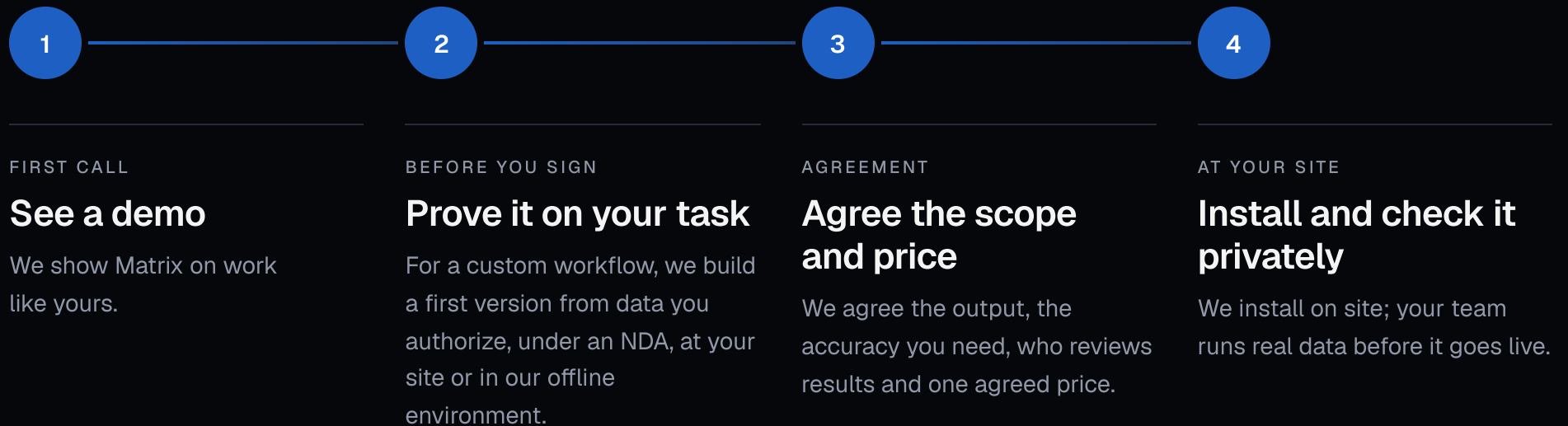


Offline updates

No internet connection needed. Updates arrive as offline packages that your team installs on site.

Start with one task.

You agree a price only after you have seen it in action.



What you see in the demo

The assistant, custom workflows and controls at work on tasks like yours. Bring the one task that takes your team the most time.

Let's make AI useful. For your actual work.

Tell us which task takes your team the most time.
In a 30-minute call, we show what Matrix can do on
similar work.

Request a demo →

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FURTHER READING

[Privacy & security](#) [Common questions](#) [Purchase guides](#)

