



ONEWIND · UX CASE STUDY · 2024

# One canvas for the wind & *the field.*

Unifying configuration management, sector mapping and NDVI intelligence into a single, calm workspace.

## ROLE

Lead Product Designer

## TIMELINE

14 weeks

## PLATFORMS

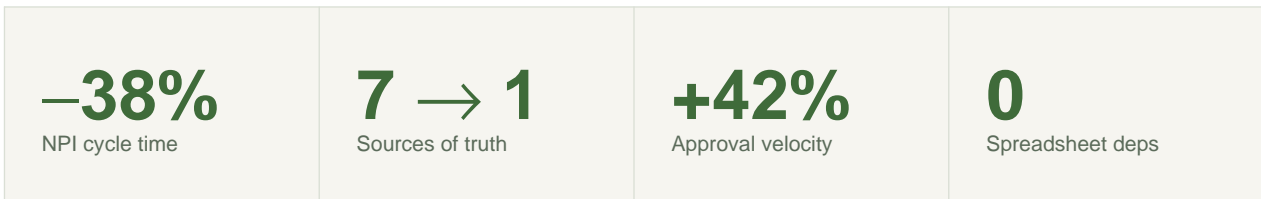
Web · Tablet

# A single source of truth for teams that design the same thing in different languages.

Onewind began as a configuration platform for NPI engineers and grew into an operations canvas covering sector mapping, health scoring and component-level approvals. We replaced spreadsheets, tribal knowledge and a tangle of disconnected tools with one calm workspace.

*“If we’re all designing the same wind turbine, why do we all speak different languages?”*

— Voice of the customer



# Seven tools. Zero agreement.

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Configuration lived in PRD matrices, LC databases, Flex5 parameter files and WT\_conf\_master spreadsheets. Engineers re-keyed the same data across hand-offs, and no one could agree on the latest blade load envelope.

<b>Manual rework</b> Component data re-entered across NPI, MLA and wind-farm teams.	<b>No version truth</b> Three answers to one question depending on the spreadsheet.
<b>Slow time-to-market</b> Configuration changes took weeks to reach simulation owners.	<b>Lost institutional knowledge</b> Loads envelopes lived in macros only one person could read.

*“I’m an RCA engineer — what’s the original blade load envelope? The latest controller updates for this config? No idea. Wtconfmaster#??? I only speak in PRD#!!!”*

— Engineer interview, discovery phase

# We mapped the chaos before we touched a pixel.

14 stakeholder interviews across NPI, MLA, certification, PLM and wind-farm engineering. Two AS-IS journey maps, one TO-BE journey, a persona–data–process matrix and a pain-point catalogue per role.

<b>14</b> Interviews	<b>7</b> Systems audited	<b>32</b> Pain points	<b>1</b> Unified TO-BE journey
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# Four principles guided every screen.

<b>One canvas, many lenses</b> Configuration, sectors and loads share the same surface — never a separate tool.	<b>Status before detail</b> Every card answers: is this healthy, who owns it, what changed?
<b>Decisions need provenance</b> Every value is traceable to its source — PLM, SDM, MLA or human approval.	<b>Quiet by default</b> Alerts only when an action is required. No dashboards-as-noise.

# The IA mirrors how engineers actually work.

A login lands in a configuration dashboard; from there, every path (Details, Plant, Task, Device, Activity) maps to a microservice and an owner. Notifications follow the work, not the role.

1	Login → Intermediate screen
2	Intermediate → Dashboard · Pre-config list
3	Dashboard → Configuration details
4	Configuration → Component revision
5	Component → Approval & notification

# Six personas. One shared vocabulary.

Persona	Access	Role in the flow
<b>Configuration Owner</b>	Create · Update · Approve	Owns the source of truth for a config revision.
<b>NPI Engineer</b>	View · Compose	Builds new configs from certified components.
<b>MLA Engineer</b>	Create · Update	Runs loads simulations against a config revision.
<b>Certification Team</b>	View · Sign-off	Validates loads envelope and operability.
<b>PBM Owner</b>	View · Feedback	Validates loads against physical components.
<b>PLM</b>	Sync · Notify	Pushes BOM changes upstream into simulations.

# From spreadsheets to a single thread.

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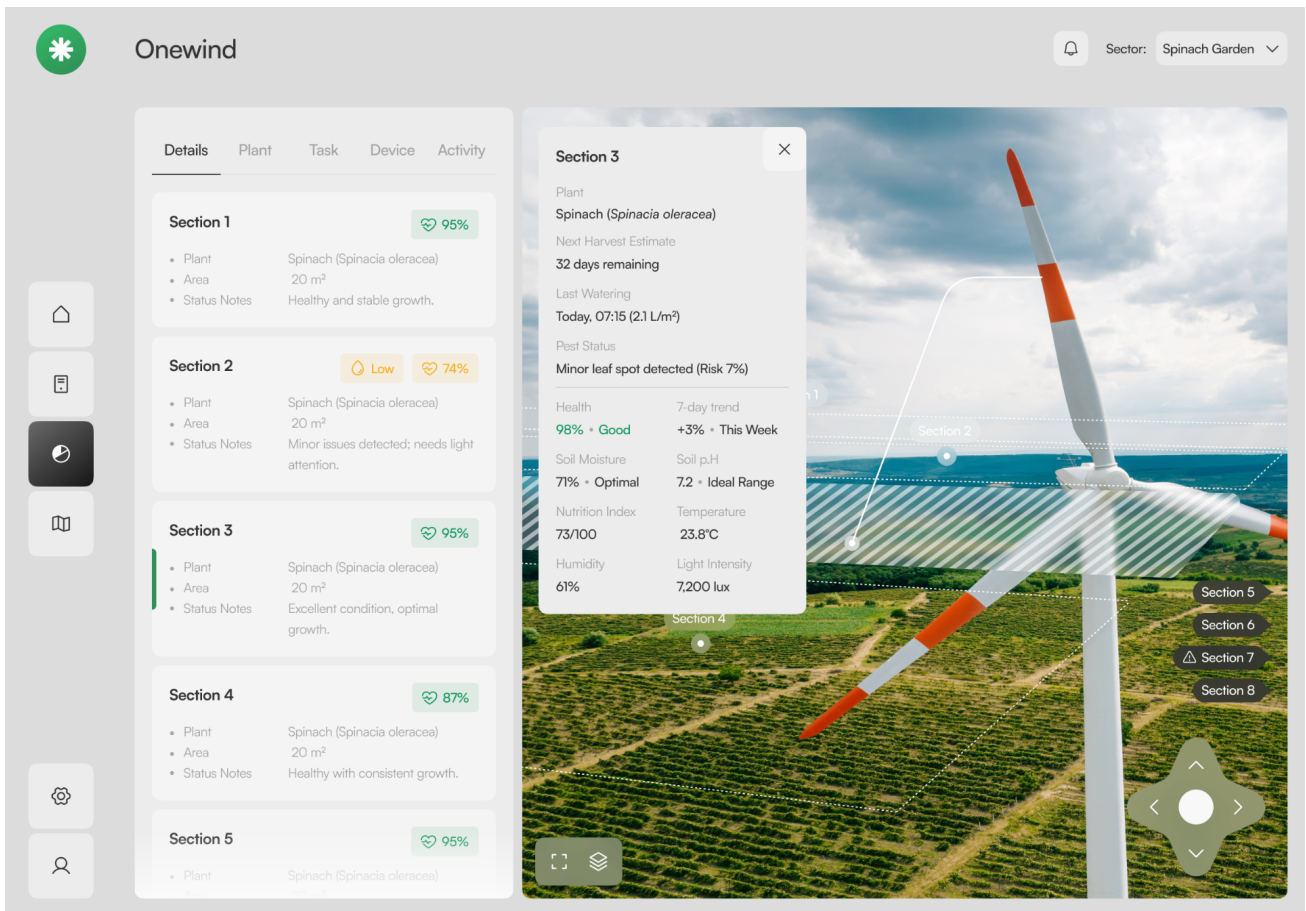
<p>01</p> <p><b>Define</b></p> <p>Configuration Owner spins up a revision; PLM data flows in.</p>	<p>02</p> <p><b>Compose</b></p> <p>NPI selects components; constraints validate live.</p>	<p>03</p> <p><b>Simulate</b></p> <p>MLA runs loads against the revision in SDM.</p>	<p>04</p> <p><b>Approve</b></p> <p>Certification signs off; envelope locks.</p>	<p>05</p> <p><b>Hand-off</b></p> <p>PBM owners validate loads against physical components.</p>
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# Five screens, one calm system.

Each surface is a window onto the same underlying data — sectors, plants, devices, loads — viewed through the lens that matters now.

## 01 Sector Details — full canvas

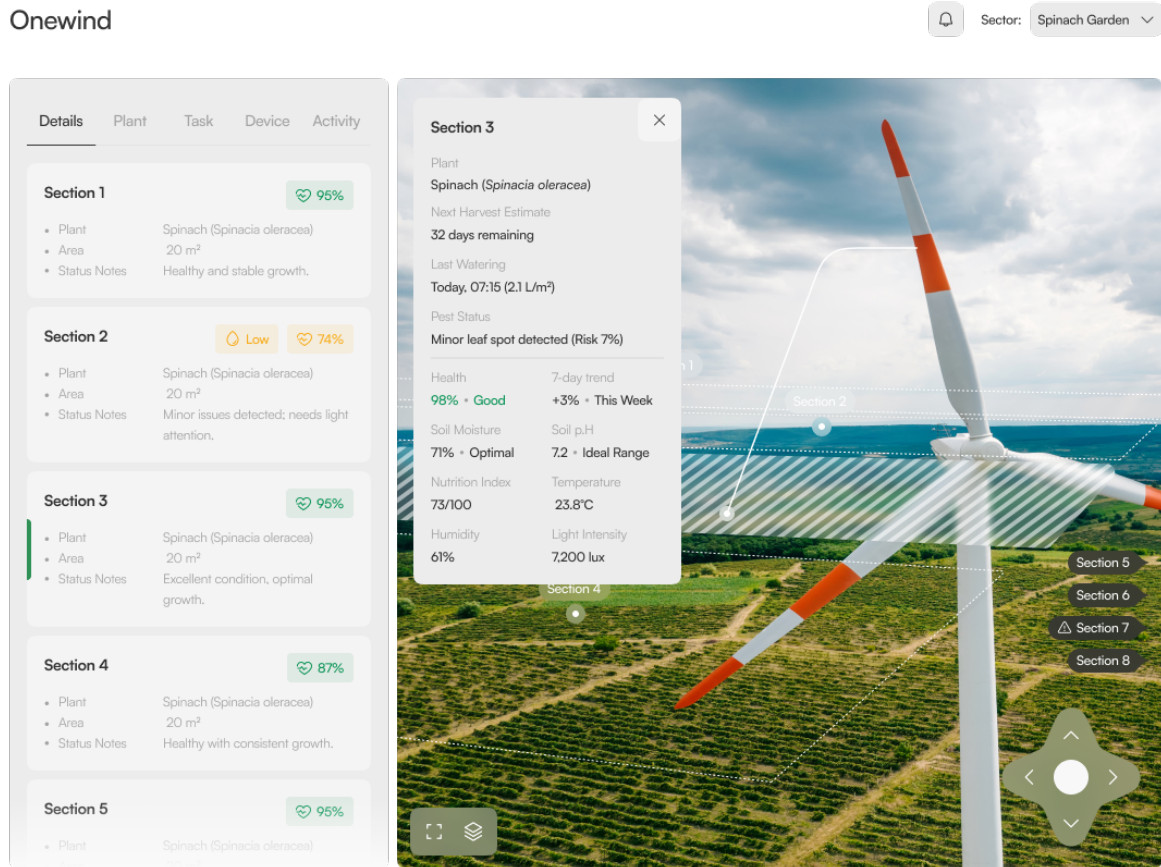
A split view pairs structured sector data with a live aerial scene. The Section 3 popover surfaces health, soil, humidity and a 7-day trend without leaving the map.



Sector Details — full canvas

## 02 Sector Details — content-fit framing

The same canvas tuned for embedded contexts: chrome shrinks, content stays. One layout, two densities — proof the system scales without redrawing.



Sector Details — content-fit framing

### 03 NDVI Indicator overlay

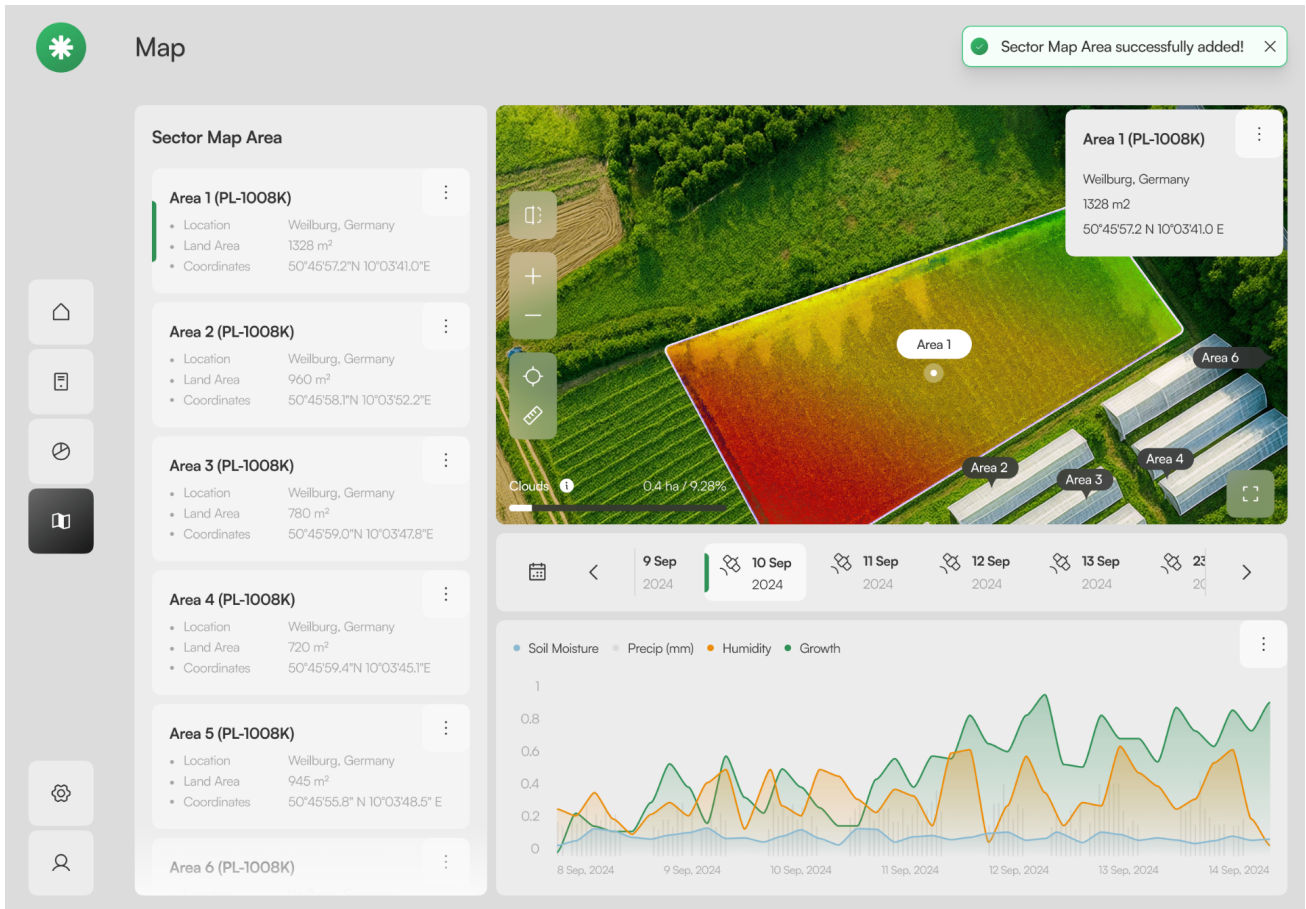
A precision-agriculture lens on top of the configuration canvas. NDVI zones (healthy · moderate · stressed) read at a glance; the legend is the explanation.



NDVI Indicator overlay

## 04 Sector Map Area — list & timeline

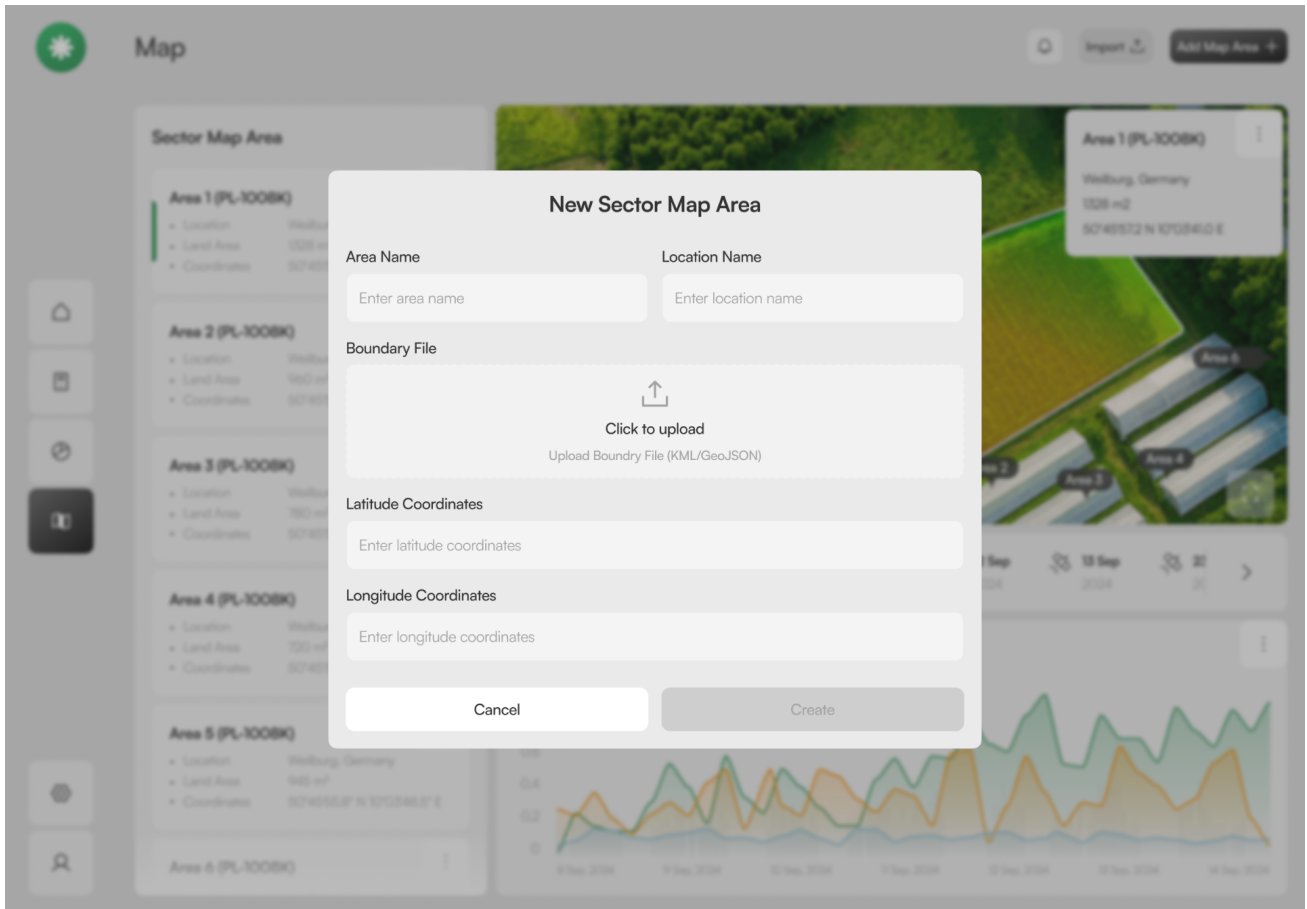
Every map area is a card with location, land area and coordinates. A date strip and metrics chart anchor the temporal view — soil moisture, precip, humidity, growth.



Sector Map Area — list & timeline

## 05 New Sector Map Area

A focused dialog with progressive disclosure: name first, then boundary file, then coordinates. The Create button stays disabled until the area is geometrically valid.



*New Sector Map Area*

# An earthy, instrument-grade palette.

Greens grounded in soil and leaf, accented by warning amber and a quiet sky blue. Fraunces sets the editorial tone; Inter carries the data; JetBrains Mono for coordinates and IDs.



**Leaf**

#7FAE6E



**Primary**

#3F6B3A



**Soil**

#8a6a3a



**Sky**

#6e8aa8



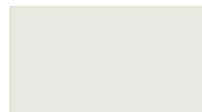
**Accent**

#b8722a



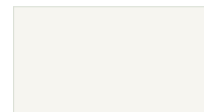
**Foreground**

#1a1f1a



**Muted**

#e7e8e1



**Background**

#f6f5f0

<p><b>Aa</b> Fraunces</p> <p>DISPLAY · EDITORIAL HEADINGS</p>	<p><b>Aa</b> Inter</p> <p>UI · BODY · DATA LABELS</p>	<p><b>Aa</b> JetBrains Mono</p> <p>COORDINATES · IDS · CODE</p>
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# Less rework. Faster decisions. One vocabulary.

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**−38%**

NPI configuration cycle time

**7 → 1**

Tools collapsed into one canvas

**+42%**

Cross-team approval velocity

**0**

Spreadsheet-of-truth dependencies

# What I'd do differently.

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The hardest part wasn't the UI — it was getting six disciplines to commit to one vocabulary. Next time, I'd run the persona–data–process workshop in week one, not week six.

Bringing the NDVI layer into the same canvas late in the project paid off; it proved the system could absorb adjacent products without breaking. That argument unlocked the next funding round.

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Onewind — a UX case study on bringing configuration management, sector mapping and crop intelligence under one calm surface.

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