

# Case Study:

End-to-End Product Design, Machine  
Advisor Logic & Launch Strategy for

# nodi



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# Project Overview

Case Study: End-to-End Product Design, Machine Advisor Logic & Launch Strategy for Nodi

## Role

UX & Digital Design Consultant /  
Systems Architect (Freelance)

## Client

Nodi  
(Stakeholder: Richardt Deleuran)

## Duration

~3 Months (July 2025)

## Core Deliverables

Algorithmic Machine Advisor (JS),  
Product line domain research &  
technical sales documentation,  
Scoping & staging roadmap, Custom  
Figma design system, Odoo/  
Bootstrap 5 web implementation,  
Personas, 3-month social media  
strategy, and Motion/video assets.



# The Challenge

## Technical Complexity & Product Selection Friction

Nodi offers specialized manufacturing machinery where client needs must precisely match product specs. The challenge spanned technical logic, user guidance, and organizational knowledge transfer:

### Decision Friction for Clients

Clients struggled to identify which specific machine met their manufacturing requirements, risking poor purchasing decisions or lost sales.



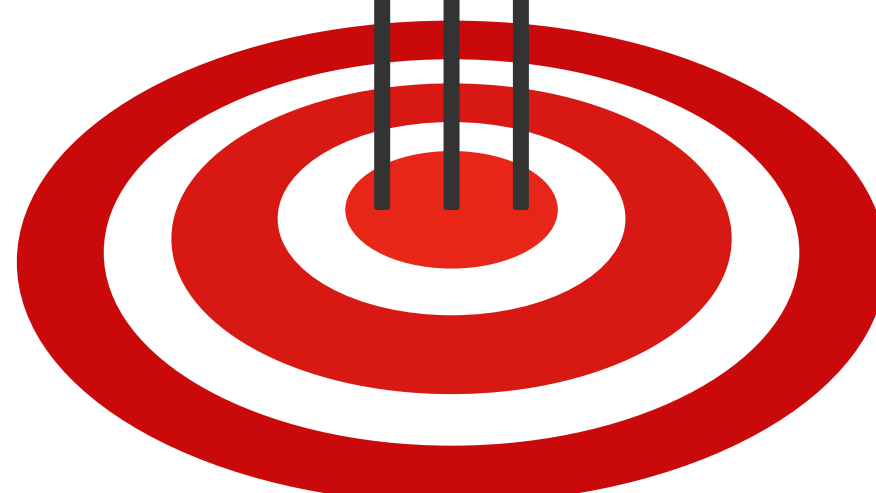
### Lack of Structure & Direction

The project needed clear scoping, task breakdowns, and an accessible design-to-development pipeline.



### Knowledge Gap Between Engineering & Sales

Sales staff lacked the deep technical domain knowledge of the engineering team, creating friction during client consultations.





# 🔍 Discovery & Technical Docs

Domain &  
Product Research

Sales  
Documentation

Machine  
Advisor  
Algorithm

JS & Odoo  
Integration



## Product Discovery & Technical Docs

To solve the gap between engineering and sales, I conducted an in-depth research initiative across Nodi's product line.

- Deconstructed complex engineering specifications into accessible, standardized product documentation.
- Empowered Nodi's sales staff to communicate product capabilities with the same technical precision as their engineering team.



## Machine Advisor Algorithm & Custom JavaScript Implementation

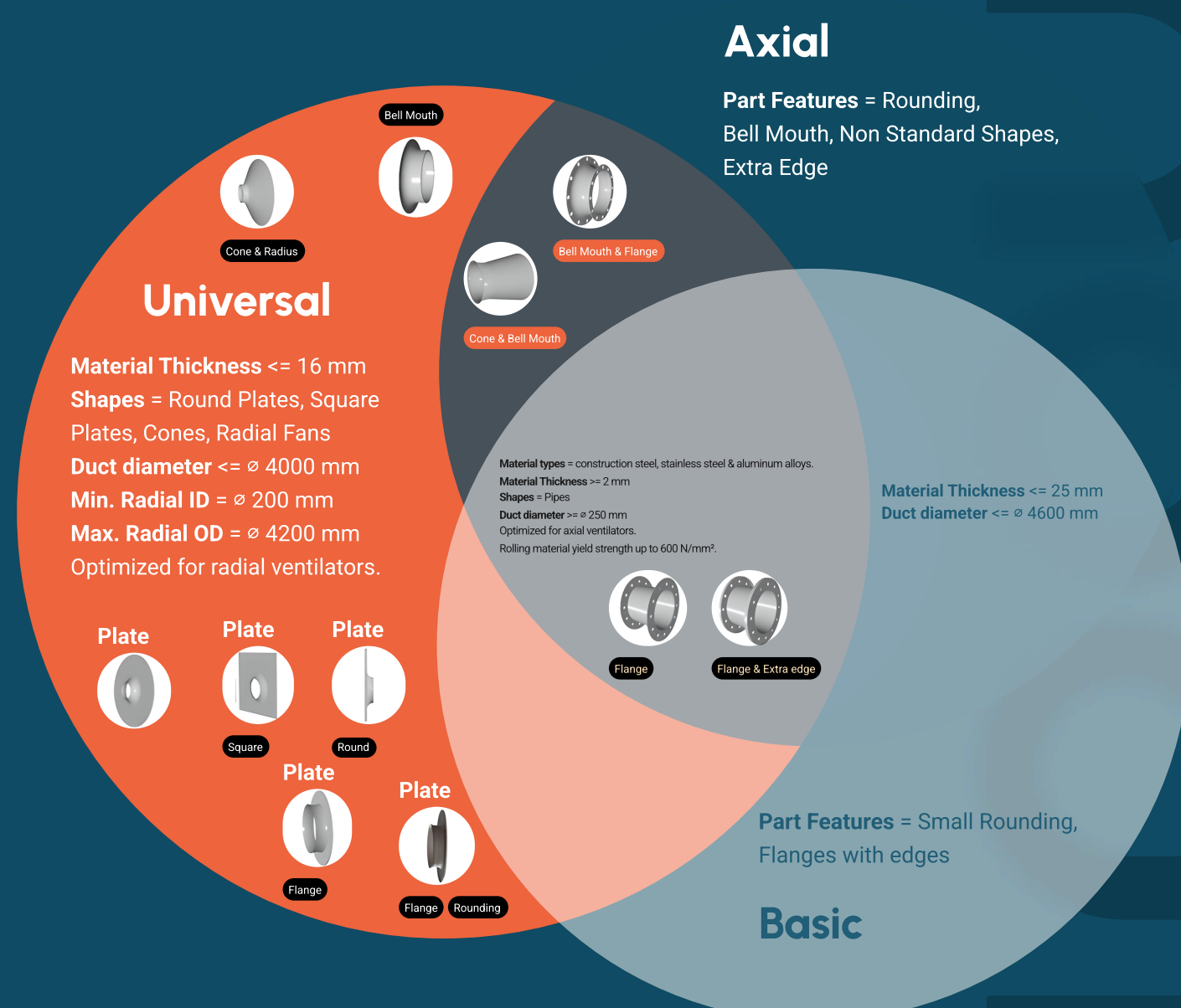
To automate client product selection, I architected and implemented an interactive Machine Advisor:

- **Algorithmic Matching:** Wrote a decision-tree algorithm that evaluates client manufacturing parameters (e.g., material types, output requirements, spatial limits) to output the optimal machine recommendation.
- **Custom JavaScript Development:** Programmed the algorithm directly into JavaScript and seamlessly integrated it into the web front-end, turning complex multi-variable decision matrixes into an intuitive, multi-step user flow.

nodi

Machine Comparison

August 2025







# Design Systems & Architecture

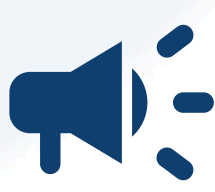
Established a structured execution roadmap with hourly task breakdowns, staging milestones, and research-backed personas that unified both product UX and marketing strategy around real user needs.

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|  <p><b>Carl CEO</b><br/>Sweden<br/>Chief Executive Officer<br/>55 years</p> <p>Carl oversees the entire company strategy, focuses on business growth, ROI, and investments in machinery that will give a competitive advantage.</p> <p><b>Responsibilities</b><br/>Approve large capital investments<br/>Drive company vision and strategy<br/>Ensure profitability</p> <p><b>Tools / Software</b><br/>Hardware: Laptop, smartphone<br/>Software: ERP dashboard, Teams, Excel</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input checked="" type="checkbox"/> Website<br/><input type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input type="checkbox"/> Transactions<br/><input checked="" type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |  <p><b>Erik Engineer</b><br/>Germany<br/>Mechanical Engineer<br/>42 years</p> <p>Erik has worked for over 15 years in manufacturing. He specializes in designing and maintaining HVAC production lines. He ensures precision, reliability, and machines that integrate seamlessly with existing systems.</p> <p><b>Responsibilities</b><br/>Evaluate new machinery for technical specifications<br/>Ensure machines meet required tolerance and safety standards<br/>Oversee integration into production line</p> <p><b>Tools / Software</b><br/>Hardware: High-performance workstation, dual monitors, CNC terminal<br/>Software: AutoCAD, SolidWorks, PLC programming tools</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input checked="" type="checkbox"/> Website<br/><input checked="" type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input checked="" type="checkbox"/> Transactions<br/><input type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |  <p><b>Paula Procurement</b><br/>Denmark<br/>Procurement Manager<br/>38 years</p> <p>Paula manages sourcing for a large industrial equipment manufacturer. She balances supplier reliability and lead times while ensuring purchases meet technical requirements from engineering.</p> <p><b>Responsibilities</b><br/>Negotiate contracts<br/>Approve purchase orders<br/>Manage supplier relationships</p> <p><b>Tools / Software</b><br/>Hardware: Standard desktop PC, VoIP phone, Laptop<br/>Software: SAP ERP, Excel, portals</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input checked="" type="checkbox"/> Website<br/><input type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input checked="" type="checkbox"/> Transactions<br/><input checked="" type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |  <p><b>Mark Maintenance</b><br/>UK<br/>Maintenance Technician<br/>34 years</p> <p>Mark is hands-on with machinery repair, preventive maintenance, and troubleshooting. He's often the first to detect performance issues.</p> <p><b>Responsibilities</b><br/>Perform preventive maintenance<br/>Troubleshoot mechanical &amp; electrical issues<br/>Order replacement parts</p> <p><b>Tools / Software</b><br/>Hardware: Handheld diagnostic devices, tablet, Smartphone<br/>Software: CMMS, PLC software</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input type="checkbox"/> Website<br/><input checked="" type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input checked="" type="checkbox"/> Transactions<br/><input checked="" type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |  <p><b>Rachel Research</b><br/>Netherlands<br/>R&amp;D Engineer<br/>29 years</p> <p>Rachel works in new product development for an air filtration company. She tests prototypes and advises on manufacturing methods for custom shapes.</p> <p><b>Responsibilities</b><br/>Test new designs<br/>Collaborate with suppliers for technical specifications<br/>Recommend production improvements</p> <p><b>Tools / Software</b><br/>Hardware: CAD workstation, 3D printer, Laptop<br/>Software: SolidWorks, simulation tools</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input checked="" type="checkbox"/> Website<br/><input checked="" type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input checked="" type="checkbox"/> Transactions<br/><input checked="" type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |  <p><b>Frank Foreman</b><br/>USA<br/>Factory Foreman<br/>50 years</p> <p>Frank runs daily operations in a large fan manufacturing plant. He ensures machines are operational, schedules production runs, and oversees a team of operators.</p> <p><b>Responsibilities</b><br/>Maintain production flow<br/>Coordinate maintenance<br/>Ensure safety compliance</p> <p><b>Tools / Software</b><br/>Hardware: Rugged tablets, desktop PC<br/>Software: MES, CMMS, Excel</p> <p><b>Browser</b><br/>Work Home<br/></p> <p><b>Social Media</b><br/>  </p> <p><b>User Roles &amp; Rights</b><br/><input type="checkbox"/> Website<br/><input checked="" type="checkbox"/> Operator Resources<br/><input type="checkbox"/> Agent Resources<br/><input checked="" type="checkbox"/> Transactions<br/><input checked="" type="checkbox"/> Appointments<br/><input checked="" type="checkbox"/> Connection &amp; Security<br/><input checked="" type="checkbox"/> Contact Us</p> |
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## Design Engineering & Figma System Architecture

- To guarantee an exact, high-fidelity preview of the final build before development began, I engineered an extensive Figma design framework.
- Theme-Accurate Previews:** Modeled the layout architecture in Figma to precisely represent how custom Bootstrap 5 styling and Odoo themes would render in production.
  - Website & Client Portal Scope:** Designed end-to-end user journeys for both the public-facing primary website and the secure client/customer portal.
  - Design-to-Development Handoff:** Built a complete UI pattern library and component system, providing clean specifications for the external developer who handled the backend and front-end coding execution.



## Visual Storytelling & Go-To-Market

- 3-Month Social Media Strategy:** Formulated an actionable content calendar, platform targeting guidelines, and engagement strategies.
- Video Production & Feature Demos:** Edited, and produced video assets showcasing machine features, software interfaces, and physical manufacturing capabilities for use across campaigns.





# Outcomes & Business Value



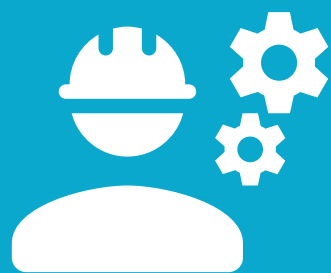
## Automated Decision-Making

The Machine Advisor significantly reduced client decision friction, directing users to the exact product for their manufacturing needs.



## Aligned Sales & Engineering

Standardized documentation bridged the internal knowledge gap, allowing sales teams to close technical inquiries faster and with higher confidence.



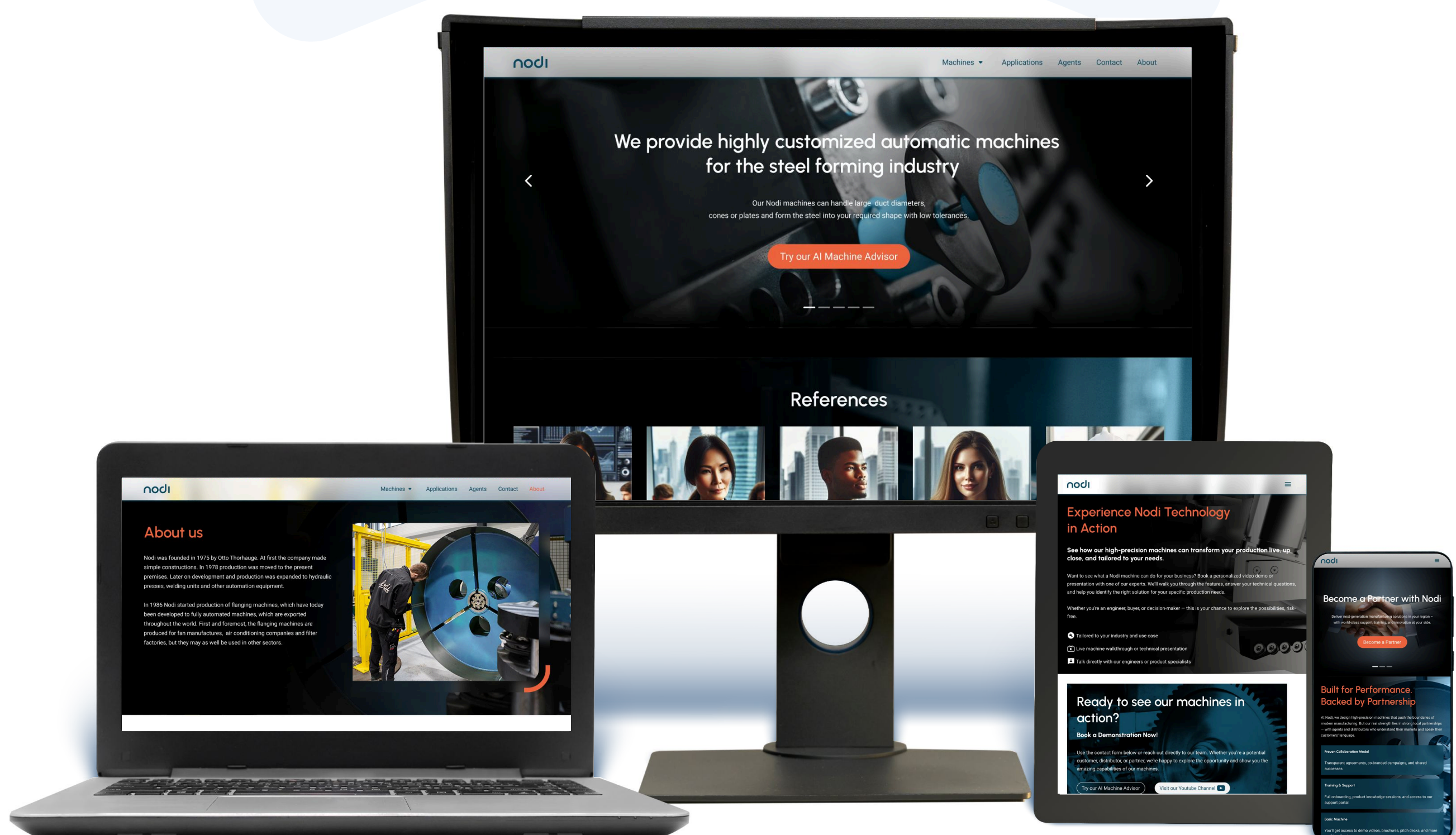
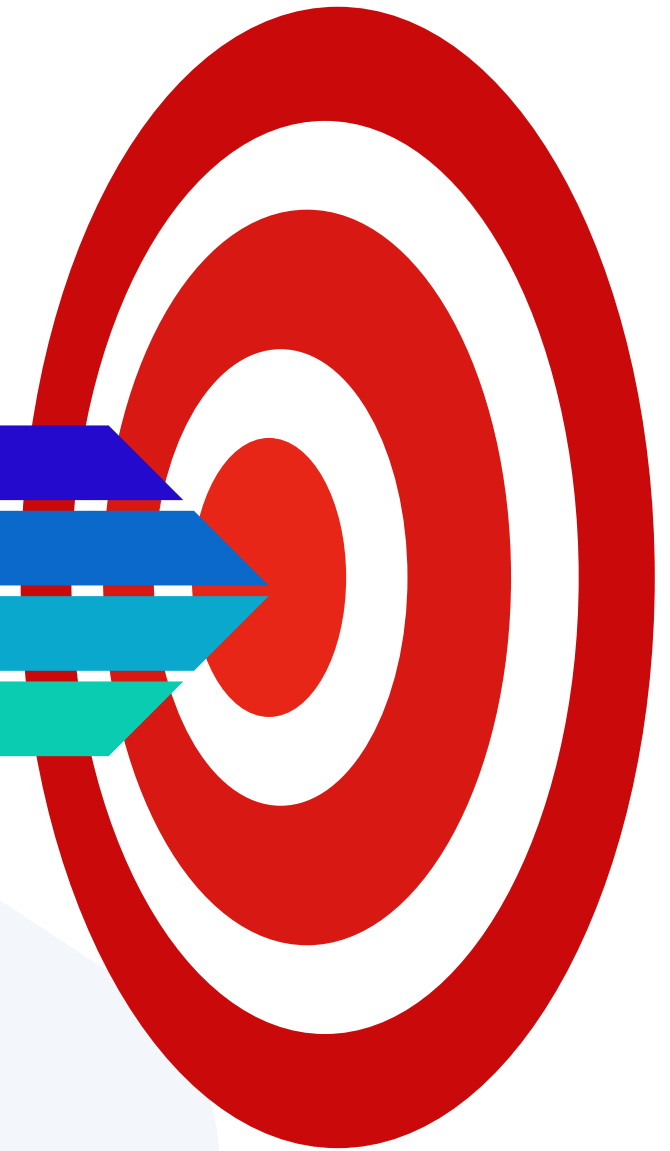
## Full-Stack Technical Architecture

Delivered a custom JavaScript-powered tool embedded in a clean, maintainable Odoo/Bootstrap platform.



## Unified Brand & Launch Strategy

Successfully launched Nodi with a cohesive design system, persona model, video library, and a 3-month marketing roadmap.







# Key Learnings

1

## UX Extends Beyond the Screen

True UX includes internal alignment. Documenting technical products so sales staff understand them like engineers directly improves the end-user experience during sales calls.

2

## Algorithmic Logic Simplifies Complex B2B

Translating dense engineering specifications into a clean JavaScript decision algorithm turns a tedious sales process into a self-service conversion funnel.