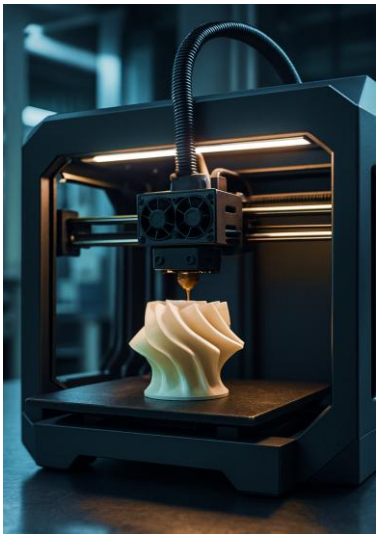
CASES

NESI INTELLIGENCE FOR BUSINESS

Structuring the Product Development Process: Cross-Departmental Alignment



Many projects reached the shop floor without testing, clear scope definition, or commitment from the commercial team.

The result? Products got stuck in engineering or failed in manufacturing.

The company was losing time, technical resources, and commercial opportunities.

There was no visibility into which projects should move forward.

To change this scenario, a structured development model was implemented, integrating departments, introducing committee-based validations, and focusing on market-driven outcomes.

Challenge

- Projects initiated without clear criteria, methodology, or feasibility assessment;
- Commercial team overwhelmed with requests, lacking prioritization;
- Engineering and manufacturing receiving scopes misaligned with process reality;
- No real-scale validation (absence of pilot runs);
- Low conversion rate of ideas into profitable products;
- Product launches without targets, planning, or sales commitment.

Solution

- Joint commercial–technical assessment to identify real market needs (VOC);
- Cross-functional decision committees to approve each stage (Stage-Gate model);
- Agile prototyping and testing led by engineering, focused on feasibility;
- Pilot-run validation in manufacturing before full-scale production;
- Product launches with defined sales targets and performance tracking after market introduction.

Key Differentiators

A methodology based on the **Stage-Gate model**, combined with **DFSS (Design for Six Sigma)** principles, was implemented to ensure quality from concept to launch.

Each phase — from need identification, concept development, and design to validation and commercialization — began to follow technical and business criteria, with **structured deliverables and formal validations by cross-functional committees**.

This governance model increased control, reduced risk, and ensured that only technically feasible and market-aligned projects progressed through the development funnel.

Results

- **Increased rate of successful launches:** Higher conversion of ideas into viable and profitable products.
- **Reduced technical rework:** Stage-by-stage validations minimized corrections after production started.
- **Stronger commercial engagement:** Sales involved from the beginning, with goals tied to product launches.
- **Alignment between VOC and VOP:** Products aligned with both market demand and production capabilities.
- **More motivated technical team:** Clear stages and ownership boosted engineering quality and engagement.

NESI Intelligence for Business has a lead engineer with extensive experience in product development and a Master Black Belt certification in Six Sigma, offering structured solutions to integrate teams, reduce risks, and accelerate product launches with a results-driven approach.

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