

## LEAN PRODUCT DEVELOPMENT CASE STUDY



### A Catalyst Manufacturer Improves Project and Plant Engineering via Lean Product Development

#### Situation

A global manufacturer of chemical catalyst and designer of processing plant and equipment was looking to drive improvements across its project engineering organization to support changing market dynamics through quickly commercializing new product offerings.

Argo was engaged to introduce select Lean Product Development concepts to promote a more efficient and flexible engineering processes and support the project engineering organization in achieving long-term strategic objectives, leading to a 10% increase in project delivery throughput that corresponded to an additional \$22.5 million in annual revenue for the project business.

Additionally, Argo supported the plant engineering organization in building out the CapEx portfolio planning to build predictable project delivery cadence and shift legacy focus on sustainment projects to focus CapEx spend and plant engineering resources on those investments that contribute most to meeting market requirements, accelerating \$5.5 million of benefits from CapEx improvements.

#### Argo's Actions

Drawing on Argo's 7+1 Lean Product Development essentials, the cross-functional team focused on two pilot projects to demonstrate the following LPD principles:

- Match Throughput to Business Needs
- Portfolio Cadence & Flow
- Visual Management
- Reusable Knowledge

Building on the client's long tradition of innovation, LPD helped the client move beyond traditional stage-gate and project management processes to align the organization around knowledge and value creation and promote ownership and flexibility in decision making at the project and portfolio level.

Through clear and transparent visualization of project activities, the team fostered a new dynamic between teams and managers away from retroactive status reporting and reactive firefighting to an active forward-looking focus on risk avoidance and helping culture, improving trust across teams and departments.

Ultimately, the pilot activities demonstrated to the client how cross-functional teams working together increase effectiveness and efficiency through new mindsets, actions, and tools.

## Results

Argo's activities led to 10% increase in project delivery capacity and time to market, despite reduction in workforce, through a focus on:

### Optimized Portfolios

- Established strategic capital project approval forum, creating link to commercial requirements
- Introduced new project planning process to reduce inefficiencies caused by frequent reprioritization and interruption of projects.

### Visualized Work

- Aligned effort across company to ensure project progress by creating a forum for help needed through Visual Management boards.
- Built more predictable resource planning to create pull discussions versus push firefighting.

### Leveraged Knowledge

- Introduced standard cross-functional knowledge templates to identify and close knowledge gaps
- Defined new Roles & Responsibilities to promote knowledge flow.



*"The first results we started to see that our systems were being changed. The systems we had set up already, the way of thinking and behavior, that was being challenged almost from the first month of working with the Argo team. Then the more formalized processes started to change almost 6 months later, and now 10-12 months into the journey we are starting to see the effects of the costs, of the development, and on the time to market"*

**- Chief Operating Officer, Global Supply**



Argo is an operations improvement consulting firm that breaks through the traditional barriers of the consultant-client relationship. We are hands-on consultants who deliver real results and no excuses.