

C Case Study: Aerospace and Defense Supplier Engineering Software Portfolio Alignment



The company referenced in this case study is an industry leader in defense and government electronics, space, information technology, technical services, business aviation, and special mission aircraft that provides integrated mission systems to meet the critical defense and non-defense needs of its customers.

Hitachi Consulting helped this client reduce applications by 90 percent, establishing a strategic roadmap for managing its diverse engineering software portfolio and implementing a comprehensive change management program.



Business Challenge

For many years, this leading aerospace and defense supplier experienced uncontrolled growth of its engineering software tools portfolio. As a result, the organization could not properly plan for human capital growth and experienced spiraling maintenance and support costs.

After working with company leadership and assessing the organization, Hitachi Consulting found three primary challenge areas:

- **Data:** Data was stored in files and disparate databases but not shared across the organization. The data was also incomplete, inconsistent and had integrity challenges.
- **Governance:** The existing governance process for the portfolio needed strengthening. It had not been widely adopted across the large number of stakeholder groups and some were regularly adding to the portfolio without engaging the governance process at all.
- **Portfolio Alignment:** The mapping and analysis of engineering software to the organization's product development lifecycle was dated and no longer in use by the majority of engineering staff.

These three challenges reduced “engineer portability”—the ability to move engineers, their tools, and their work products quickly and easily between projects.

The Solution

The A&D supplier selected Hitachi Consulting to help find a solution to its engineering software issues. Hitachi Consulting used its Engineering Software Portfolio Alignment process to show the company how to analyze and manage its overall portfolio of engineering software tools to better meet the needs of the business. This solution enables organizations to standardize tools, improve workforce competency for those tools, and help manage software costs.

Hitachi Consulting worked with the company to develop a five-year roadmap for their engineering portfolio using a blend of aerospace engineering, portfolio management best practices and organizational change management knowledge.

The next steps included data-gathering interviews, workshops, and database queries to enrich the initial data set provided by the client. During this process, both Hitachi Consulting and company subject matter experts performed data consolidation and cleansing activities. This core group then performed analyses to establish engineering software tool standards aligned to product lifecycle phases, engineering disciplines, and organization strategic drivers. Non-standard engineering software tools were then retired.

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To drive adoption of the engineering software tools five-year roadmap and sustain progress for retirement plans, Hitachi Consulting recommended a comprehensive organizational change management campaign for the 12,000-person business unit and the implementation of a governance model.

To promote adoption, the organizational change management recommendations included:

- Identifying executive champions, core stakeholders, and change agents
- Developing compelling messages tailored to various stakeholder groups
- Executing a robust communication plan
- Conducting periodic surveys of the organizational landscape to determine evolution of the organization's opinions and culture

The governance model recommendation contained four primary implementation modules to manage the engineering software tool portfolio, including:

- Empowering key decision makers within the governance model
- Establishing a robust waiver process to handle exceptions
- Defining technical refresh and lifecycle management criteria and processes
- Implementing a recurring update cycle for the engineering software tools five-year roadmap

Business Benefits

The Engineering Software Portfolio Alignment solution helped this aerospace and defense supplier to achieve a number of benefits, including:

- Reducing software titles by 90 percent (from approximately 6,000 titles to 517 unique titles) through data cleansing and consolidation
- Planning retirement for nearly 50 percent of the remaining 517 unique software titles over the following five years
- Establishing governance processes around engineering software tool acquisition and retirement
- Stabilizing engineering software tool costs
- Establishing clear engineering software tool standards for human capital growth planning
- Implementing a single repository for data to enable future analysis
- Engaging management understanding for the technology tools used to develop complex aerospace products
- Increasing their ability to quickly and easily move engineers between projects



About Hitachi Consulting Corporation

As Hitachi, Ltd.'s (NYSE: HIT) global consulting company, Hitachi Consulting is a recognized leader in delivering proven business and IT solutions to Global 2000 companies. With a balanced view of strategy, people, process and technology, we work with companies to understand their unique business needs, and to develop and implement practical business strategies and technology solutions.

Hitachi Consulting's client base includes nearly 25 percent of the Global 100 and many leading mid-market companies. From business strategy development through application deployment, we help clients quickly realize measurable business value and achieve sustainable ROI.

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