

## HNTB

### Case Study

## Premier U.S. architecture, engineering, and construction management consulting firm bets on To-Increase and Microsoft Dynamics to run vast and complex projects

**Company:** HNTB

**Number of employees:** 4,000

**Website:** [www.hntb.com](http://www.hntb.com)

**Country or region:** United States

**Industry:** Architecture, engineering, and construction (AEC)

#### Software and Services:

- To-Increase Construction
  - Advanced Project Management
  - Virtual Project Planning
- To-Increase GovCon
- To-Increase RapidValue
- To-Increase Consulting Services
- Microsoft Dynamics AX 2012
- Microsoft Dynamics CRM

#### Customer Profile

One of the most prominent and highly regarded companies in its industry, HNTB Corporation is an employee-owned company that provides public infrastructure solutions and architecture, engineering, planning, and construction services for clients in the public and private sectors. Founded in 1915, the company has its headquarters in Kansas City, Missouri, and maintains more than 80 offices across the U.S.

For HNTB, a renowned provider of architecture, civil engineering, and construction management services across the United States, it was time to replace legacy project management, marketing, and sales systems with modern technology. The company's search for the most effective solutions identified Microsoft Dynamics AX and Microsoft Dynamics CRM as the best fit for HNTB. By integrating state-of-the-art project management, government contracting, and BPM software from To-Increase, the company gains a highly scalable, manageable, and usable infrastructure to run its ever more complex and extensive projects. The anticipated and already visible benefits of the software deployment more than outweigh the operational and financial commitments involved.

If you live or travel in the United States, you will likely use or visit the result of an infrastructure project managed and delivered by HNTB Corporation. The Steel Bridge in Portland, the New Jersey Turnpike, the Bay Area Rapid Transit extension to San Francisco International Airport, the Amtrak Yard in Chicago, the Dulles International Airport Tunnel in Washington, D.C., and many other infrastructure resources are used by millions of people every day.

As a prominent provider of infrastructure solutions and architecture, engineering, and construction services for the public and private sector, HNTB owns the expertise and resources to address its clients' operational, technical, and financial challenges. HNTB's professionals work from a deep understanding of infrastructure lifecycles and a unique, client-focused approach to designing and building. HNTB has garnered many awards for planning, design, and execution management. Revenues are above \$1 billion annually and growing.



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### Business Situation

Outdated software systems no longer fit the scale and complexity of HNTB's projects. HNTB evaluated leading ERP systems and ISVs within a strategic initiative to create a modern, more scalable and versatile project management and compliance infrastructure.

### Solution

After an intense competitive review, HNTB decided on Microsoft Dynamics AX as its ERP foundation and Microsoft Dynamics CRM to facilitate sales and business development. Software tools and collaborative development from To-Increase will extend Microsoft Dynamics AX with powerful project management capabilities and provide a centralized, best-practice guidance resource for HNTB project managers across all business locations.

### Creating tomorrow's project management and sales infrastructure

In recent years, HNTB's projects tend to assume an unprecedented scale and complexity. The company's project accounting, marketing, and sales software systems, created in-house almost 15 years ago, were built for less demanding business requirements. They were not integrated with each other or the company's Oracle financial system, demanding redundant data entry. Project and business managers used spreadsheets to overcome the limitations of the software tools in supporting larger, more complex projects. Those files, however, were only available to individual contributors, not their teams.

Brian Swenson, Senior Vice President and Chief Process Officer at HNTB, explains, "Not only were our systems outdated, we also lacked a single source of truth for project data. After spending thirty years at HNTB, delivering the best possible projects and supporting others in doing so, I was thrilled to lead our initiative, the Centric Program, to develop a new software strategy and identify effective solutions among leading ERP systems. Early on, we decided that the business, not IT, would have leadership of the Centric Program, because our research indicated that lacking business involvement is a main reason for ERP implementations to fail. Of course, our IT group is a key participant and will spearhead the execution."

### The most powerful technology platform with the most advanced partner ecosystem

The Centric Program team reviewed leading, popular ERP systems, including BST, Deltek, Microsoft Dynamics AX, Oracle, and SAP. Because HNTB looked for strong, scalable functionality especially in the areas of project management and project accounting, sales,

and government contracting, they also considered the capabilities of the ISVs who could enhance these products. Many of the company's clients are public-sector entities, and HNTB needs to meet stringent regulatory requirements such as those of the CAS, DCAA, and FAR frameworks. Therefore, one of the goals of the Centric Program was to identify the best software tool to reduce the risk, cost, and effort, and ensure the reliability of compliance.

HNTB chose Microsoft Dynamics. "Microsoft Dynamics AX will be our new ERP system, and Microsoft Dynamics CRM will support sales and business development," says Swenson. "Hands down, these were the most powerful and versatile solutions we saw. We like that the products have a familiar user interface that is consistent with Microsoft Office, and we expect user adoption to be smooth. We also realized that we had great choices of extremely capable ISVs who could assist us in augmenting Microsoft Dynamics AX with the project management features we wanted."

### Turning to a fast-moving, responsive technology provider

HNTB called on Avanade, the leading consultancy and a highly regarded provider of business technology solutions and services, to help implement its ERP strategy. Swenson explains, "We looked for a technology vendor with significant experience of successful Microsoft Dynamics AX and CRM projects, and we hoped to work with just one ISV to extend the system with the additional capabilities we needed. In addition, we wanted to keep our investment reasonable."

Avanade's solution architects and consultants, familiar with To-Increase's solutions and innovation vision, invited the ISV to study HNTB's requirements and devise a response. Project management, government contracting,

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## Key Benefits

- Rich functionality to extend Microsoft Dynamics AX with valuable project management and compliance capabilities
- Demonstrated interoperability with Microsoft Dynamics AX
- High usability consistent with Microsoft tools
- Collaborative partnership approach to creating advanced capabilities that will become part of standard solutions
- Competitive cost within HNTB's budget
- Long-range vision for ERP innovation in the AEC industry with proven ability to deliver results

and Microsoft Dynamics AX experts at To-Increase acted very quickly to stay within HNTB's schedule. After studying the HNTB requirements and matching them with To-Increase solution capabilities, they knew that they could deliver what HNTB needed. A substantive, well-reasoned demo of the To-Increase team was a huge success with the Centric Program team. HNTB decided to move forward with To-Increase as the ISV and Avanade to manage the implementation.

### **Winning the day with rich functionality, better interoperability with Microsoft Dynamics AX, and significantly lower cost and complexity**

Specifically, HNTB picked Advanced Project Management and Visual Project Planning, which are components of To-Increase Construction, and To-Increase GovCon, the government contracting and compliance-enabling software. In addition, HNTB will take advantage of To-Increase RapidValue, a business process management (BPM) solution that is part of every implementation project managed by Avanade. When HNTB technologists further explored the To-Increase solutions, they found them to be more interoperable and better aligned with Microsoft Dynamics AX releases than competing products. They also looked to be more usable and easier to adjust to meet HNTB's changing requirements. The Oracle finance system will initially be integrated with Microsoft Dynamics AX, but eventually might be made redundant by the new ERP system.

"To-Increase provides all the software functionality we need to extend Microsoft Dynamics AX," says Swenson. "Working with a single ISV helps us keep the complexity of our project manageable. And, Avanade has a great history of many Microsoft Dynamics AX

successes. They will lead the entire program, while HNTB's business and IT resources work side by side with them, learning the intricacies of a Dynamics AX and CRM implementation. This is a unified, low-risk, and highly efficient approach to meeting our ERP requirements."

### **Collaborative development to empower AEC companies**

HNTB and To-Increase discussed two additional, important solution capabilities: Critical path management (CPM)—a project modeling practice that helps managers direct activities that impact a project's completion date—and a KPI assessment and project performance management tool called Project Sensor. "It was significant for us to learn of To-Increase's readiness to listen to our needs and collaborate with us in building additional project management features," comments Swenson. "In our industry, CPM scheduling is an essential capability that we cannot do without, and Project Sensor will take us beyond our current, more reactive project accounting by providing timely warnings and alerts when projects begin to trend away from their financial and operational parameters. To-Increase will not only consider our input in its development, but also incorporate the resulting capabilities in subsequent solution releases and their solution roadmap. That will benefit our entire industry."

### **From business-driven ERP deployment to enterprise-level knowledge management**

For HNTB, RapidValue will serve to define and map business roles and processes in the ERP system to ensure that the implementation aligns with business requirements. Subsequently, the BPM tool will function as a companywide process guidance and knowledge management resource for project managers.

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Says Swenson, "We do not have a universal project manager's manual. People new to the role learn from the experts who mentor them. The wealth of experience in our organization is not shared effectively that way. For all project managers in our many locations, RapidValue will provide a complete, consistent, and current compendium of best practices and standards for project management and delivery. This will be an important enhancement for our project management discipline and positively impact how clients experience the value we contribute."

### **Mounting enthusiasm foreshadows fast user adoption**

Additional, in-depth demos familiarize a larger HNTB audience with the advantages of the To-Increase and Microsoft Dynamics technology tools. Recently, HNTB's senior operations and business leadership group responded enthusiastically after reviewing the planned solutions. "To-Increase provided excellent screen images and diagrams to help our teams understand what would be delivered to them," Swenson notes. "They will probably be urging us to speed up the deployment, because they are excited about the new project management capabilities and want to start using them. To familiarize

our project and business managers with the technology they can look forward to, some employees are playing an ambassador role for the Centric Program. We expect a high level of readiness and fast adoption of the solutions across HNTB."

### **Responsive partner with shared vision for collaborative innovation**

Solutions architecture planning and design, as well as key stakeholder trainings, are underway. One early deliverable produced by HNTB's and To-Increase's development teams is a working pilot to prove the capabilities of the To-Increase project management tools.

Swenson and his colleagues are confident that they have made a wise decision and that HNTB will greatly benefit from working with To-Increase and its solutions. Swenson remarks, "By choosing To-Increase, HNTB has gained a collaboration partner who understands our mission and brings an innovative vision to enhancing ERP with the project management functionality we need, not just today, but also in the future. We value the interest, responsiveness, and commitment we see from To-Increase in each of our interactions. We look forward to enjoying a productive, strategic relationship with them."