

Bridgestone
Corporation

Standardized design operations via manufacturing-specialized BPO (EPO*)

Stabilized design operations, shifted designers' focus to planning & development

Context

With the aim of creating a work environment where their employees can focus on developing high value-added products, Bridgestone launched a project to "reform development operations processes" by reviewing their conventional operations. In order to shift design engineers' areas of focus to planning and development through the reduction of their workload, Bridgestone was working on improving and standardizing the quality of design operations.

Service

First, transcosmos consolidated existing documents, organized and listed up all information contained in order to visualize design operations that have been conducted separately per development project. Next, transcosmos worked side-by-side with the design engineers, analyzed and broke down design operations to a task level, and turned them into operations manuals and work instructions. Now transcosmos performs extensive design operations that comprehend both simple operations and more specialized areas. In addition, by building a database with which Bridgestone can centrally manage test-related information that have been managed separately, transcosmos increased efficiency of a request process for testing by utilizing the data. Using its "BPO Center Okinawa Uruma" for the standardized design operations, transcosmos improved development productivity. Ultimately, transcosmos helped Bridgestone reduce design engineers' workload by presenting a solution to improve operational efficiency from Genba's (operation site) perspective whilst retaining an objective, third-party standpoint.

Benefits

With transcosmos's services, design efficiency increased by around 15%, reducing deficiency rate and reworks. transcosmos's solution delivered stable design operations whilst enabling Bridgestone design engineers to shift as many as 38,000 hours a year to planning and development, successfully contributed to Bridgestone in reforming their development operations processes.

*EPO: Engineering Process Outsourcing

A proprietary service advocated by transcosmos designed for manufacturing including design and production that combines BPO and expertise.

Each employee has become aware of "workstyle reform" in a true sense

We appreciate transcosmos for always providing us with important "insights." Given the difficulty in driving our "operations process reform" project only by ourselves, I believe "a third-party perspective" is critical. transcosmos's fresh pair of eyes have identified many inefficiencies in our operations processes that we have overlooked because we granted them as natural. Although some of our design engineers were somewhat skeptical in the beginning, they have gradually become supportive of this initiative as they recognized the improved efficiency firsthand. Given the success, we see a ripple effect across our organization and other departments start implementing the same initiative. Now, the initiative gained popularity and is known as "Gyomu-makitori (entrusting operations to transcosmos.)" As we work in close partnership with transcosmos towards a common goal, we are seeing a big change. That is, our employees started to come up with various suggestions to improve operations inspired by "Gyomu-makitori" I believe this is because each one of our employees is now aware of "workstyle reform" in a true sense. Through business process outsourcing (BPO), we will continue to improve our basic operations processes steadily, and ultimately grow our business over a medium-to long-term. To deliver this goal, we have high expectations of transcosmos as our partner.



Mr. Yasuyuki Tamura
Vice President and Officer
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transcosmos
people & technology

* The comment, position and other information above are at the time of interview conducted in April 2019.

Conducted BPR reflecting Genba's (operation site) perspectives
Standardized design operations

Outsourced both simple operations and more specialized areas

Shifted designers' focus to planning & development
38,000 hours/year

*Results as of the end of Mar. 2019

**A shortage of design engineers and reliance on personal skills led to a challenge in quality
Project took off with the aim of stabilizing design operations**

Bridgestone Corporation (Bridgestone), the world's largest tire and rubber company, is eternally committed to its mission of "Serving Society with Superior Quality." With this in mind, Bridgestone continues to improve the way people move, live, work and play and in turn serves people around the globe with their innovative products and services and cutting-edge technologies as the industry's global leader.

With the aim of creating a work environment where their employees can focus on developing high value-added products, Bridgestone was taking on a project to "reform development operations processes" and reviewing their conventional operations. Bridgestone initiated the project as they recognized that they must shift their design engineers' areas of focus to planning and development given the changing market conditions, such as rising demands for quality and shorter development cycles. Yet, Bridgestone faced a chronic workforce shortage and their design engineers were swamped with day-to-day work such as developing various documents, transcribing massive volume of data, and more. In addition, design know-how accumulated by each design engineer was not shared, making it harder to visualize and standardize the operations and so this must be addressed, too. Since 1998, transcosmos has been operating a wide range of operations on behalf of Bridgestone, assisting them to improve operational productivity and optimize costs. Highly recognizing transcosmos's proven records and operational quality, Bridgestone decided to expand the scope of outsourcing with the aims of standardizing design operations, shifting design engineers' areas of focus and stabilizing design operations.

**Standardized design operations
Streamlined design & development operations and shifted engineers' areas of focus**

First, in order to visualize design operations that have been conducted separately per development project, transcosmos consolidated existing documents, organized and listed up all information contained. Next, transcosmos worked side-by-side with the design engineers, analyzed and broke down design operations to a task level, turned them into operations manuals and work instructions, and then clearly defined the roles and responsibilities of Bridgestone and transcosmos. By using a template in the business process re-engineering (BPR) phase, transcosmos successfully standardized the design operations processes so that they can take on some of the processes from the design engineers. Now transcosmos performs extensive design operations that range from simple operations to the ones that require more specialized skills. What's more, with the aim of streamlining a request process for product testing, transcosmos examined different types of request forms that were used by each project and design engineer, and developed a standard format. In addition, transcosmos built a database with which users can centrally manage test results together with the

supporting reasons and thereby improved the reusability of obtained test data. For data entry into the database, transcosmos utilizes an automation tool so that operators can shorten the time and prevent errors. The standardized design operations are performed at "BPO Center Okinawa Uruma," transcosmos's operations center specifically designed for engineering operations with a professional training framework in place. transcosmos has developed a set of criteria that operators must achieve before taking on a specific task according to the difficulty level of each work so that they can accelerate the project launch phase whilst stabilizing quality. By making ongoing efforts to further increase operational efficiency, transcosmos continues to enhance productivity and improve quality. In addition, through the adoption of a virtual desktop infrastructure (VDI), transcosmos performs required operations in a timely manner under a highly secured environment.

Respecting the voice of *Genba* (operation site), transcosmos presented a solution to boost efficiency from *Genba*'s perspective whilst retaining an objective eye from a third-party standpoint. As a result of implementing the solution, design and development operational efficiency increased by around 15%, reducing deficiency rate and reworks. transcosmos's solution delivered stable design operations whilst enabling Bridgestone design engineers to shift as many as 38,000 hours a year to planning and development, successfully contributed to Bridgestone in reforming their development operations processes. The solution also created a ripple effect, for example, improvement efforts made in small tire design operations spread to that of larger tires.

• Voice of design engineers

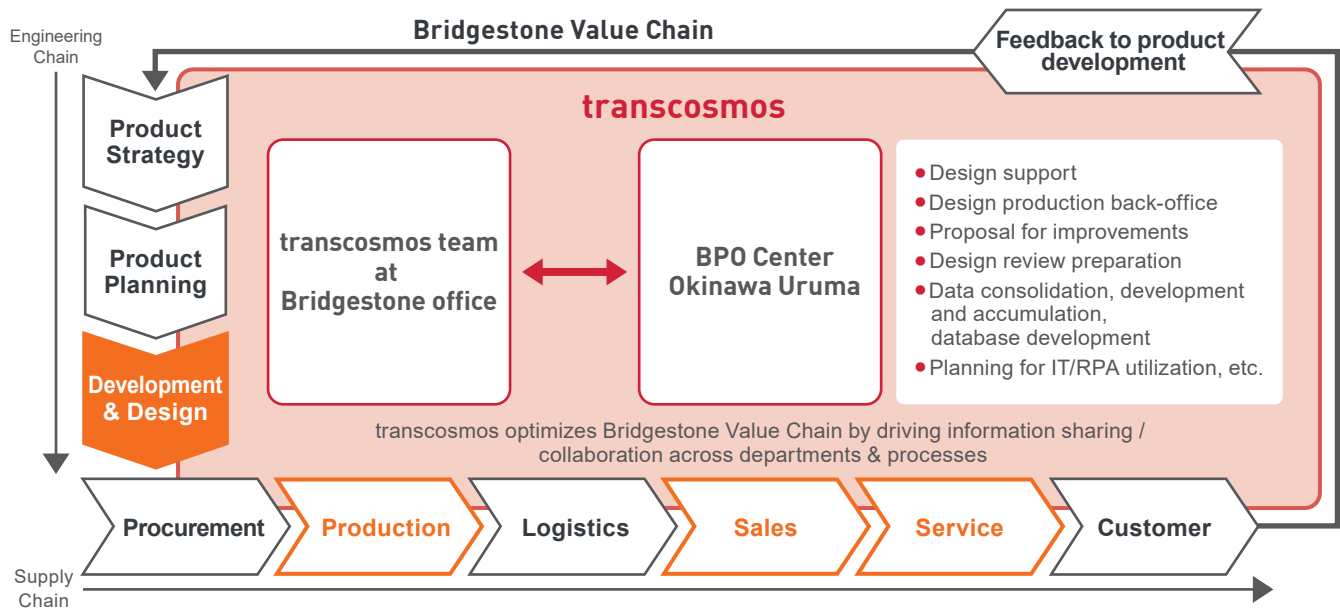
- Now we can spend more time on our core mission and that led to higher operational accuracy
- transcosmos helped us reduce variation in quality. Simply put, our design quality has become more stable.
- We can utilize accumulated test results data that makes operations more efficient.
- We want transcosmos to standardize and take on other areas of design operations.

**Developed a value chain that comprises the entire manufacturing processes
With the aim of improving efficiency even more, promotes the implementation of IT and RPA**

Going forward, transcosmos will extend the standardization and improvement efforts from the development and design to planning, researching, manufacturing, as well as sales and customer services in order to create a value chain by encouraging information sharing across departments and processes. With the power of IT and robotic process automation (RPA), transcosmos will drive its efforts to streamline the entire manufacturing processes even more.

As a business partner, transcosmos continues to assist Bridgestone to achieve operational reform whilst being considerate of *Genba* and ultimately contributes to optimize Bridgestone's manufacturing processes.

Service provided to Bridgestone



transcosmos inc.

Contact Us

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* We provide a multitude of various other services. If you have any questions or comments, please feel free to contact us at any time.
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