Door to the Future

Masayuki Mukaino

Executive Officer President, Product Marketing Division



"Wow! What a dozer! What a surprise!" These are the exact words of the customer who tried our D61PXi Machine Control bulldozer at his actual jobsite in the spring of 2014. His words were a happy compliment for our "dozer from the future" which required no staking and engaged in automatic control of the blade from cutting and dozing to spreading and finish grading, performing top-notch veteran's work for me with a starter's job experience. The words also meant a message of encouragement for us, accelerating our challenging efforts as tailwind.

Back in 2008, we began a collaboration project with company T by targeting the North American market where ICT application to construction was expanding, and embarked on the development of ICT-intensive construction equipment by using bulldozers and hydraulic excavators. For both models, it took about five years from planning to commercial production. This project was also the second one, following the development of AHS, in which we actively promoted open innovation. Then, we embarked on the SMARTCONSTRUCTION business by centering on these DANTOTSU products in 2015 as a new solutions business for social issues, and established LANDLOG in 2017, accelerating the speed of our challenges to expand the business domain over the last ten years. In this 10-year period, we promoted open innovation efforts on a global scale, centering on the newly created Office of CTO and Smart Construction Promotion Division. Having met many outside partners and their technologies, I feel, we have begun to gradually acquire a good sense of balancing in- and out-sourcing, even while feeling confused at times.

As you well know, many companies have recently been side-swiped by unexpected enemies, forcing them to change the rules of their game. Against this backdrop, the term "game changer" has affected the activities of many companies. All things and matters which have conventionally been taken for granted as natural are being totally uprooted by technologies which were born outside of conventional industries and their applications, making it difficult for many companies to continue their conventional games. Furthermore, this shows that we must also think about the existence of outsiders who are potentially capable of obtaining a top position in all industries as they transform their technologies to meet social needs. Of course, it's crystal clear that our business is no exception and is positioned in the center of such influences. To continue games, we are asked how we can contribute to solving social issues and anchoring solutions. In other words, our ability to become a "game maker" who can continue to receive popular support from many players is an important factor. It's not an overstatement to say that this game maker approach is one of the unavoidable approaches, even when developing growth strategies. Needless to say, our efforts in the solutions business, mentioned above, are one of our representative efforts, and I believe we will need to further strengthen our efforts to solve social issues as we broaden our scope to other sectors into the future.

At this point in my presentation, I have one thing to stress. That is, we must provide the "solutions that are only possible by Komatsu". More practically, we must provide unrivaled solutions, as we drive the two wheels of our hardware advantage of having DANTOTSU products and our software advantage of GEMBA-integrated service, including brand management efforts. Our products are industrial goods, and thus bear the destiny of maximizing customer profits by fully demonstrating their value at GEMBA. I remember a thought from the industries of the past who produced industrial goods: "users of industrial goods were critics and thus no innovation was created from their words." Meanwhile, our business is different from them. It can be an innovation when we provide solutions which are totally unexpected by our customers after having gained a thorough understanding of their GEMBA, and I believe it may be a prerequisite of remaining as a game maker.

To this end, communication at GEMBA is absolutely necessary. I believe that nothing else but GEMBA can offer hints about what we have to do. "Have you checked GEMBA?" is our motto inside Komatsu, demonstrating our tradition of the GEMBA principle. Instead of thinking endlessly and alone in a room of a plant or the head office, let's go out to GEMBA, observe what's happening and talk to those who are related to your issues. Then, you will find many ideas with different approaches or even new issues. As you practice this approach, you will also become acquainted with many colleagues,

broaden the scope of your information gathering, deepen your personal relations, building an intangible, invaluable asset of personal contacts before you know it. Recently I have often heard that design engineers don't go out to GEMBA anymore. That's very regrettable. Instead of waiting for orders, young design engineers need to be proactive, even making proposals to their supervisors. I also believe it's equally important for supervisors to be thoughtful enough to suggest "go out to GEMBA" to young design engineers and gently push their backs.

I would like to add one more thing here. It's about the speed of making the first move before our competitors. It's known that things you think about will be achieved by others. It's always true that when you begin to see a goal which you want to accomplish or a mission which you must do, all engineers from around the world will make it possible by applying the best possible ideas available then. Accordingly, especially when combining technologies, it's important to make the first move before others, because the means of achievement is not very different. Concerning the open innovation with company T, mentioned above, how quickly we could commercialize the goal of the joint project by combining our expertise technology and that of the partner, which we didn't have, was a decisive factor. What about some current topics which we are planning to pursue? In addition to this writer, others should also think that we need to further strengthen our efforts and accelerate the speed of the efforts. It's also evident, even when we read newspaper articles, that we are no longer in the age of in-sourcing everything, because the range of technologies we must handle has widened and their depth has increased. The words, automatic and unmanned operations, are always found in newspapers and magazines. We also find the names of many companies and research labs in relation to development, technology tie-ups and M&As of alternative technologies for human vision and thinking, such as super-definition cameras, image recognition, LiDAR, GPU, and AI. It is becoming ever more important to establish an organizational framework to quickly find partners with whom we can synchronize efforts, promote collaborative efforts and minimize time to achieve the targets, and to quickly locate the leadership of foresighted experts. Komatsu will also make decisive moves in this direction.

We have worked to converge our global, group-wide vectors and opened the doors for new challenges. Simultaneously, we have made efforts for high value-added DANTOTSU products, the essence of a company which develops and manufactures, DANTOTSU products-based DANTOTSU service designed to capitalize on value-chain opportunities, and both DANTOTSU products and service-based DANTOTSU solutions focused on solving customers' problems, while having made efforts in our growth strategies in line with these three key concepts. Here, I would like to show my appreciation from the bottom of my heart to all of you for your pioneer achievements after having participated in these projects and taken up the continuous challenges of tough problems which have been accumulating.

What are the key concepts for our next door to the future? I am convinced that all readers of this article, young engineers, will create them, foster their growth and accomplish them. Why don't you make customers say, "Wow! What a thing! What a surprise!" one after another? Go for it!