

Foreword

Technical Evolution and Dreams

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Over a year has passed since the global financial crisis, that of a once-in-a-century magnitude, hit the world, triggered by the financial collapse that took place in the United States in September of 2008. There is always light at the end of a tunnel, however the scene that presents itself upon exiting this particular tunnel is bound to be vastly different from those seen before. Recalling these times 50 years from today, this transition in scenery may be viewed merely as a chapter in history, not unlike the changes that have taken place in the past. Nevertheless, these are critical times for those of us living in the midst of this extreme change, and at the same time, an important phase in transition where “how we navigate through these difficult times” will determine what we can leave for our following generations. For companies such as Komatsu who thrive on “Monodzukuri” (sprit of manufacturing), there is little doubt that evolution in technology will play a significant role in how the enterprise is steered in the future.

Technical evolution itself sometimes prompts changes in society, while in other cases technical evolution is accelerated as a result of changes in society. In either case, regardless of what technology, there is significant time from when a seed of technology puts forth its buds (validation of practicality of the technology) until it bears fruit (mass production and practical use of the technology by general public), and it is never an act of a single individual or an individual department. All of Komatsu’s advanced “Dantotsu” (Unique and Unrivaled) technologies, such as Komtrax, Hybrid Excavator, and AHS, are fruits of extraordinary endeavors by engineers and all departments/individuals involved. The challenge, by no means, will end here. At the same time, significant engineering resources and time are currently being put into the development of Tier 4 machines to meet environmental regulations, as well as steadfast efforts for improvement being made everyday to further enhance safety, reliability, and profitability. The challenges confronting today’s engineers, whether it be in pursuing “Dantotsu” features and performances, conforming to regulations and environmental requirements, enhancing safety, or conducting day-to-day Kaizen activities, may change over time in concert with the environment, however will never decrease. Activities beyond the conventional scope of activities envisioned by engineers will continue to expand in the future, such as the commercialization project of bio-diesel fuel currently under way in cooperation with an Indonesian mining company, and the widely-reported land mine clearing activities in Angola and Cambodia using demining dozers.

What is needed in order to accomplish technical evolution in various fields under these environments, in both a sustainable manner and ahead of our competitors? Technical evolution is the “fruit of wisdom and actions of all individuals involved.” It goes without saying that this cannot be propelled forward without the strong determination of the involved individuals, and that it cannot gain force if the individuals involved are not all facing a common goal. Assuming that this fruit of wisdom and actions is the “total vector summation of individual capabilities facing a given direction,” theoretically, the possibilities and efficiency should be greatly enhanced by strengthening only those capabilities within the organization set in that direction and eliminating all others that are not. Can this really be true? Or, will it prove to be more effective when individual capability vectors, regardless of its direction, are maximized, compete and conflict against each other, subsequently enhancing a particular capability component as a result of it gaining force to various directions?

As I was mulling over various thoughts as expressed above upon being given this opportunity to write the foreword in this issue of the Komatsu Technical Report, I received the news of baseball player Hideki Matsui of the New York Yankees, whom Komatsu sponsors, being named the Major League World Series MVP after his record-setting clutch performance contributing to the Yankees winning the World Championship. “I feel like I’m in a dream,” upon the Yankees winning the title and himself being named MVP, and “Nothing was ever too hard for me, as all I have ever wanted was to play baseball, play well, and win games, under any circumstances,” reflecting on his injury-riddled last few years, are both words of Matsui. I trust I am not the only one to be struck and inspired by his performance.

Behind the development of the aforementioned “Dantotsu” technology, and behind every newly born technology, there is always an individual or organization with sheer determination to face and overcome any daunting challenge, to fulfill his/her/their dream. I urge you to join me, whether it be as that individual or part of that organization, or as a supporter to such individual/organization, in chasing a dream that is the evolution in technology.