## Foreword

## Make Dreams Come to Reality. And Bring It to Bright Future.

Terumasa Imajo

Executive Officer Deputy General Manager, Development Division



"Space, the final frontier ... "

That's how Captain Kirk begins each episode of the science fiction series Star Trek.

It's a story about traveling through space and passing the trials of the frontier. Many of their treks (difficult journeys) were pure fantasy, but I enjoyed watching them while living in the United States about 25 years ago.

Although the story is set in the far future, some of the dreams that appear there have already become reality. There's an android called "Data". All the data that exists in the world is in his head. He's a great support role who responds to the captain's questions without delay. His role has already become reality. Although his name has changed to "Siri" and "Alexa," it's a prime example of what happened in the distant future.

As an engineer, I experience great joy in turning dreams into reality.

Komatsu's Autonomous Haulage System introduced in 2008 is already up to 600 units. We have also achieved remote control of large excavators and bulldozers, which have complex movements. These are all major innovations that even change user behavior patterns.

Right now, we are thrilled to be involved in the challenge of creating these kinds of new innovations.

However, such efforts did not come to fruition overnight. Our predecessors sowed, nurtured, and accumulated the seeds of technology. That made the current successes of product development feasible. In addition, we believe that the efforts, ingenuity, and repeated trial and error of our engineers produce small innovations, and their accumulated results lead to the realization of large innovations.

In FY2021 and FY2022, Komatsu applied for participation in the Ministry of Land, Infrastructure, Transport and Tourism's "Project for Promoting the Development of Innovative Technologies for Outer Space Autonomous Construction" (part of the Stardust Program), and was selected to participate in the project. It may still be a fantasy world, but we want to sow the seeds now and look forward to when they will come to fruition.

Komatsu has positioned this year as "the first year of electric market introduction" and plans to introduce 3-ton and 20-ton electric hydraulic excavators to the Japanese and European markets. Right now, the world is in the midst of a difficult journey towards carbon neutrality. In the midst of all this, I heard the news that the ozone hole is expected to recover in the middle of this century. Since the 1990s, mankind has endeavored to switch from chlorofluorocarbons to CFC substitutes. It is very encouraging news that these efforts are producing concrete results in the conservation of the global environment. This news solidified by belief in a bright future in which global warming can also be stopped.

For the sake of achieving this bright future, we want to invest our technological capabilities in *treks* instead of *wars*. The future and environmental conservation depend on peace. I pray for enduring peace, and that we will continue to sow the seeds of technological development.