Digital transformation (DX)

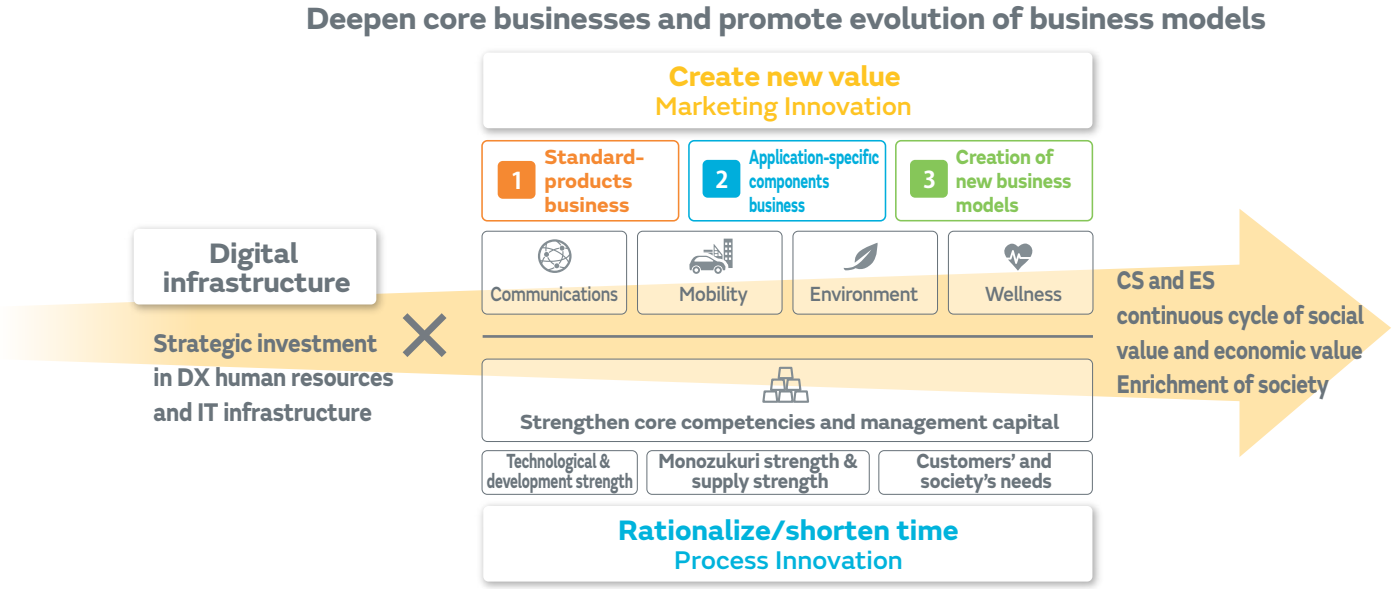
Management transformation | Higher level portfolio management | Form a lean management base | Preparation for 2030

Murata defines digital transformation (DX) as an initiative that enables people and organizations (business processes) both inside and outside Murata to connect digitally and freely and make processes shorter, faster, and visible, thereby driving to dramatically increase competitiveness and customer value.

The digitalization of Murata's value creation process will elevate Murata's strength of "on-site transformation" from individual optimization to "autonomous and decentralized transformation" with collectiveness and progressiveness. We will do this by connecting data and information, operations and people, carrying out the Murata Philosophy and acting as an Innovator in Electronics. This will in turn help us cultivate a corporate culture that continues to bring about innovation.

Focus areas for promoting DX

- Restructuring of value chains, operations, processes, and systems that have been optimized on the business axis but have become siloed
- Acquiring and developing DX human resources (system, recruitment and development)
- Promoting data management, data collaboration and utilization



Transformation of the monozukuri domains utilizing digital technology

We are promoting initiatives to utilize digital technology to create smart factories. Our aim is to respond to the challenges of securing human resources amid the decline of the working-age population, while also addressing issues such as enhancing productivity, increasing logistics complexity, increasingly sophisticated needs of customers, quality enhancement, and new product creation. We will clarify the focus areas for our initiatives, and transform them into next-generation monozukuri systems through automation technologies using AI and robots, and data utilization and collaboration technologies such as IoT.

Digital applications in the monozukuri domains

(1) **Supporting a diverse workforce**
Robot and AGV utilization, machining instruction system

(2) **Enhancing product quality**
Automatic control of machining conditions, predictive error detection, image recognition AI

(3) **Enhancing equipment efficiency**
Operational status monitoring, predictive maintenance

(4) **Enhancing design quality**
Database for utilizing past information; database for connecting development and manufacturing information

(5) **Responding to increasingly complex production**
Production planning, work arrangement system

(6) **Responding to one virtual base**
Centralization and remote support of information between factories, suppliers, and contractors

(7) **Promoting energy conservation**
Energy management system