FUJITSU

Fujitsu
Technology and
Service Vision
2017

Executive Summary

shaping tomorrow with you

What is your disruptive vision?

In our global survey, 75% of business leaders thought that their sectors would fundamentally change in the next 5 years. Today, digital technology such as the Internet of Things (IoT) and Artificial Intelligence (AI) is moving into the heart of everything, changing the way people work, live, and how we shape society.

This is **digital transformation**.

Many organizations have embarked on the journey of digital. Digital can bring tremendous opportunities for growth. But at the same time organizations face the potential threat from new competitors that could enter their industries with game-changing services.

In this increasingly uncertain world, business leaders need to create a disruptive vision of the future. What is your business going to become? Today, this is the most important question for organizations to ask themselves.

Let's explore possible future scenarios at each of the three levels of people, business and society.

The Fujitsu Technology and Service Vision sets out our vision and provides insights to leaders of business and the public sector of how they can use ICT to create innovation and build a different future.
The central idea of our vision is **Human Centric Innovation**. This is a unique approach to creating business and social innovation by empowering people with advanced technology.

http://www.fujitsu.com/global/vision/

How do you design your future workforce?

AI-based algorithms and autonomous robots are developing rapidly. Deep learning technology enables computers to learn from huge amounts of data, and to recognize images and naturally spoken voices on its own. Autonomous vehicles are already functionally proven, and it is expected that fully autonomous driving cars will be on the roads in some places by 2020.

These technologies are expected to increase work productivity significantly. But there is a debate over the potential threats to job security. We should take a realistic look at what kind of tasks AI is capable of doing. AI-based intelligent systems are good at analyzing data statistically, recognizing images unaided, responding to voice queries, and carrying out specific tasks. But these systems still cannot read and understand meaning as we do. They lack the rich tacit knowledge and the intangible qualities we humans have. For instance, intuitions, emotions and creativity.
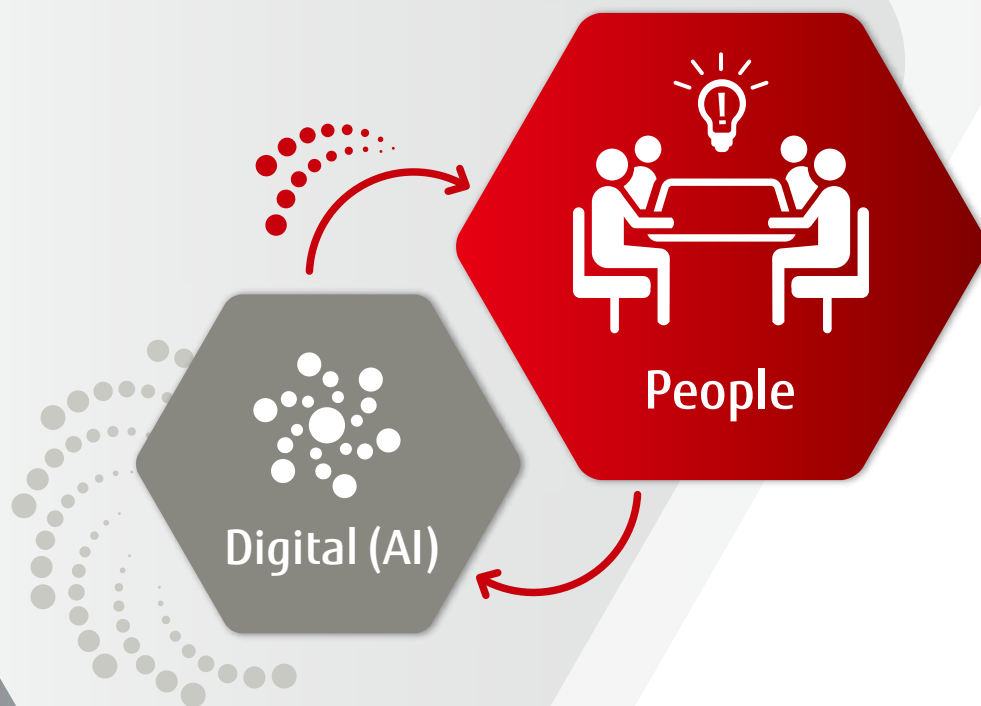
People

Digital (AI)

What strategy should business leaders take in such a transformational period? How can you design a future workforce that effectively balances the capability of people with the benefits from digital?

We believe a key characteristic of a future digital workforce will be its ability to work closely with AI-based intelligent systems, receiving help and advice and together processing a wide range of tasks. Intelligent systems will perform information searches and create insights from data, and autonomous robots will do painstaking tasks. This will allow people to focus more on creative work. At the same time, intelligent systems will be given a purpose and guidance from people.

We believe it is key to put people at the center of everything we do. The analytical power of AI and the creativity of people are complementary. Fujitsu is developing AI technology solely for the purpose of empowering people and promoting positive and far reaching benefits across society.

Customer Story

Fujitsu collaborated with the San Carlos Clinical Hospital in Spain to develop an AI-based system that helps doctors make clinical decisions in the mental health area. The system learns from huge volumes of historical clinical records as well as other data. In the assessment of patients' health risks, the system achieved an accuracy of over 85% and in only a few seconds.

* For details please see Book 2 page 22

How do you design your digital business?

Today, every business is becoming a technology company. Organizations are embedding digital technology into their core value-generation processes. These encompass customer-facing, R&D, manufacturing, logistics and more. Digital technology has three transformational forces: **Intelligence**, **Connectivity** and **Customer-orientation**. We believe the successful companies in the future will design their business models factoring these in.

Connectivity changes the way of business

For business transformation, it is crucial to connect internal operations and connect external partners.

[Example: Manufacturing]   IoT connects machines, facilities and processes, enabling real-time data analysis to create a smart factory.

Intelligence makes a difference

AI is learning from large volumes of data, generating unique insights.

[Example : Financial Services]   In capital markets, sophisticated algorithm trading is already commonplace. Data-driven intelligence is being applied to a broad range of tasks such as an investment advisory service.

Everything from the customer's viewpoint

Digital demands us to shift our viewpoint from supply-side to customer-side, delivering truly personalized customer experience.

[Example: Retail]   Real-time location data enables context-aware personalized services, delivering most relevant information at the right location and timing.

Mobility

Well-being

Safety

The forces of digital are transforming industries into organically shaped digital ecosystems. Multiple organizations coming together across different industries co-create new value delivering experience tailored to individual customers and greater outcomes. We call these **Digital Arenas**.

For example, in financial services, new Fintech start-ups offer innovative services like mobile payment. Many banks have already been proactively connecting and embracing these innovations. We believe Digital Arenas for providing trust and assurance will be organically shaped around people's needs.

Digital will blur industry borders. It is therefore important to look at adjacent industries and how they could be involved in co-creating joint value and customer experience, and how you position your products and services in a Digital Arena.

Fujitsu is driving the formation of new Digital Arenas together with our customers and partners.

Customer Story

The Fukuoka Financial Group (FFG) uses Fujitsu's cloud to develop its new iBank service platform to provide a personalized customer experience. This enables FFG to connect various Fintech companies and local companies to shape a Digital Arena for energizing regional businesses and communities.

* For details please see Book 2 page 24

How can digital help solve global challenges?

We are facing many challenges everywhere in the world. It is good news people are living longer on average, but an aging of population is also a global problem. How can digital innovation promote well-being? Today, more than half of the world's population lives in cities, and this ratio is ever increasing. Cities are facing many difficulties such as pollution and congestion. How can we use the forces of digital to realize a sustainable city? People are growing food in the same way for generations in many places. How could we secure the food supply?

These are just a few of many global challenges. To help us respond, the United Nations set out 17 goals and 169 targets as "**Sustainable Development Goals (SDGs)**" in 2015.

The business world is a major part of society. Companies have a responsibility to the communities they and their ecosystem partners belong to. Therefore, as these challenges grow, it is increasingly important to align business goals and shared goals of society.

Digital technology has a foundational role in securing our future. Data-driven intelligence could help us find better ways to make more effective interventions. Fujitsu is strongly supporting the SDG initiative, working together with our partners. Here are three areas where Fujitsu is aligning to the SDGs.

Sustainable Development Goals (SDGs)

SDG2 High-productivity agriculture

Fujitsu is providing an agriculture cloud service, we call Akisai, to realize smart agriculture. By digitally connecting farms, logistics, food companies, retailers as well as individual consumers, we are driving a new Digital Arena for food innovation.

SDG3 Well-being

Supercomputer simulation is enabling much faster discoveries of chemical compounds effective for treating cancers and other difficult diseases. The University of Tokyo and Fujitsu jointly developed a heart simulator, which can visualize the motions of 640,000 muscle cells.

SDG11 Sustainable City

In Singapore, Fujitsu is collaborating with the Agency for Science Technology and Research, and Singapore Management University. We are developing a unique solution to realize stress-free mobility harnessing digital technologies such as location information cloud service.

Fujitsu is also working to provide better education, respond to climate change, and promote industrial innovation.

Fujitsu believes technology will empower people to build a safer, more prosperous and sustainable world, we call a **Human Centric Intelligent Society**. This is an emerging digital society, where people, enterprises and public services co-create innovative value to achieve the common good of society in interconnected Digital Arenas.
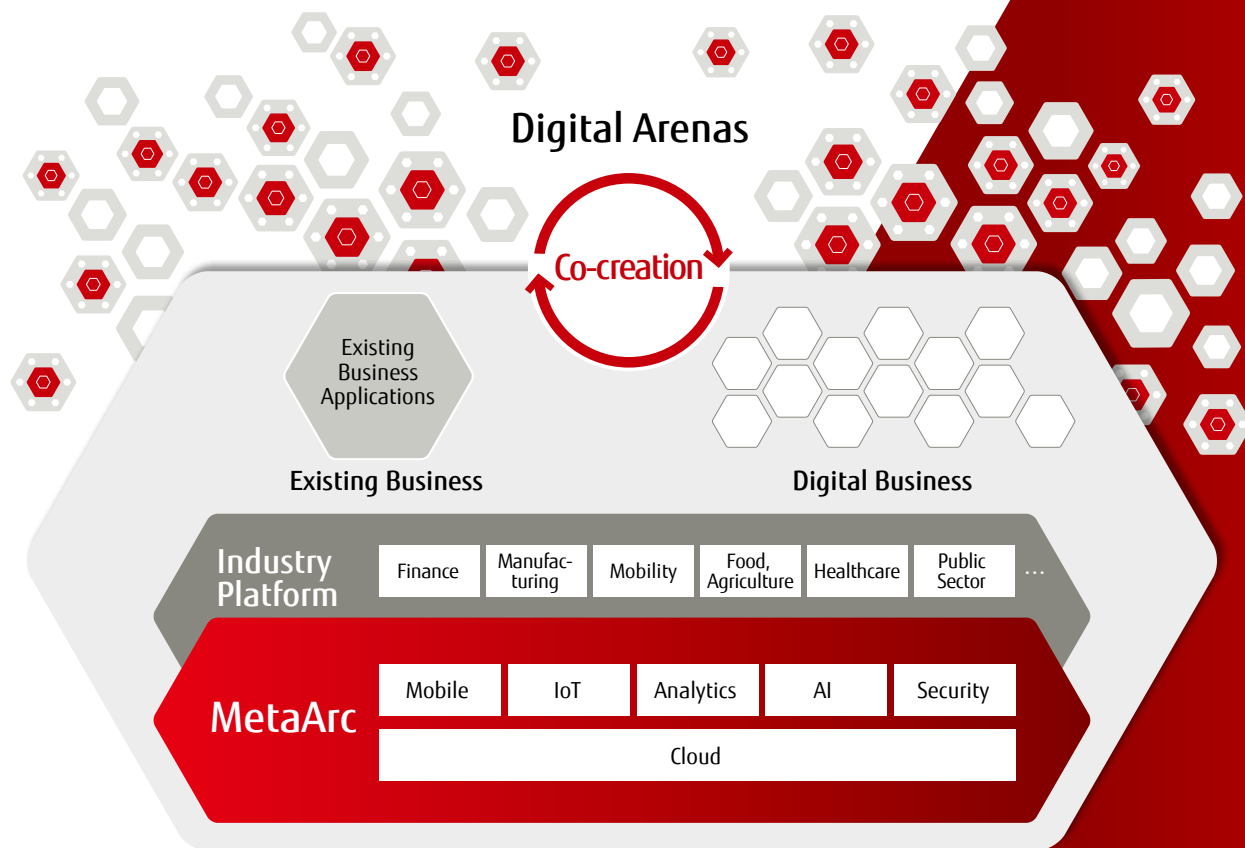
Digital Co-creation

In a digital society, digital co-creation becomes a business norm. **Digital co-creation** means blending your business expertise and digital technology, and creating new value together with customers and ecosystem partners to shape a different future.

How can you approach **digital co-creation** to deliver successful digital transformation? The first step is to think about your disruptive vision. It is important to evaluate what disruptive impacts the forces of digital will give to your industries and your business as well as the opportunities they will create.

The second step is to think about how you change your business model by leveraging a Digital Arena to orient your products and services around each of your customer's unique needs.

And the third step is to implement your digital business architecture that enables you to achieve it.

Digital Arenas

Co-creation

Existing Business Applications

Existing Business

Digital Business

Industry Platform

| Finance | Manufac-turing | Mobility | Food, Agriculture | Healthcare | Public Sector | ... |

MetaArc

| Mobile | IoT | Analytics | AI | Security |

Cloud

To drive **Digital Co-creation**, a different style of technology is needed. It connects everything. It learns from data and generates intelligence. And it empowers people for better decisions. To enable all of these, Fujitsu is committed to strengthening four critical technology areas: AI, IoT, Cloud and Security. We call this **Connected Services**.
And it is enabled by our digital business platform MetaArc. MetaArc delivers digital technology as a service, based on hybrid cloud and connects existing business with new digital business seamlessly as a platform for digital transformation.

Throughout our 81-year history, Fujitsu has been working alongside countless numbers of customers, delivering innovation. Fujitsu wants to be your **digital co-creation partner**, together shaping a different future.

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