



Fujitsu
Technology and
Service Vision
2021

At a glance

MODULE

1

The World at an inflection point

COVID-19 has changed people's lives and values. We will not return to a world that once was. What should the future look like? What are new business priorities in the post-pandemic world?

- 02. The World at an inflection point
- 03. Priorities in a new world

MODULE

2

Purpose and Sustainability

In addition to pandemics, we are facing many difficult challenges like climate change and an aging population. Now it is necessary to align business goals and societal goals to make the world more sustainable.

- 05. Purpose and Sustainability

MODULE

3

Scenarios for the future

How will business and society change in the future? What strategies will we need in the next two to three years? How can Fujitsu help you in this process?

- 06. Sustainable Manufacturing
- 07. Consumer Experience
- 08. Healthy Living
- 09. Trusted Society
- 10. Business Transformation

MODULE

4

Technology Vision

Technology has the power to help us solve the world's most difficult challenges. Fujitsu will continue to focus on developing technologies to make the previously impossible possible.

- 11. Human-centric innovation
Borderless experience
- 12. Extended present
Human + Technology
- 13. Overcoming complexity
Regenerative society

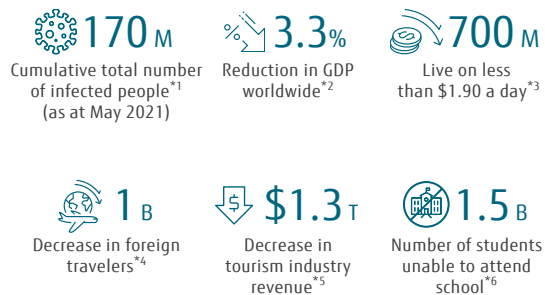
- 14. Customer stories

What should this future look like?

2020: The World shut down

The COVID-19 pandemic has threatened our lives, and had a huge impact on social and economic activity. As of May 2021, over 170 million people have been infected, with more than 3.5 million precious lives lost.

Impact caused by the pandemic



*1 WHO, *2 IMF, *3 *6 World Bank, *4 *5 UNWTO

2020: Responding to the crisis

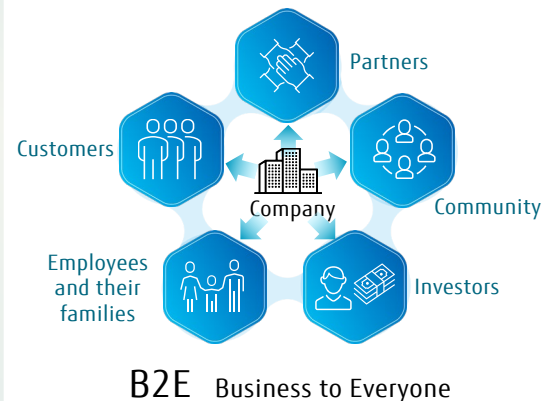
Digital technology played a major role in responding to this crisis. Digitalization has accelerated, enabling work from home and on-line shopping as well as telemedicine and remote education. Today we have reached an inflection point.



Into the human era

What is beyond this inflection point? The well-being of people and sustainability are becoming more important than ever before. This new era will be 'Business to Everyone' (B2E), building everything we do around people.

Providing human-centric value



5 trends shaping a new world

5 trends

What are the priorities in the post-pandemic new world? Based on Fujitsu's survey*¹ and dialogues with business leaders, we have identified five trends that will shape the new world.

1 Sustainability first



2 Finding resilience



5 Trusted automation



3 Borderless lives



4 Business is ecosystems

1. Sustainability first

The challenges of climate change are threatening the sustainability of our planet. Creating an equal society where no one is left behind has become an urgent imperative that business can no longer ignore.

Sustainability is a management priority

78% The COVID-19 pandemic has increased the importance the organization places on delivering value to society

71% Plan to increase the organization's contribution to society in line with the United Nations SDGs

91% Digital transformation helped the organization to deliver value to society

2. Finding resilience

In the old world, organizations focused primarily on the efficiency of operations through maximizing output while minimizing cost. However, now, we need to put more weight on resilience than efficiency.

The reasons organizations have been able to effectively respond to changes caused by the pandemic

1st We were agile in how we responded to the changes **49%**

2nd We were already prepared because of the digitalization of our business, or we were able to accelerate digitalization rapidly **42%**

3rd We put employee well-being as our first priority **40%**

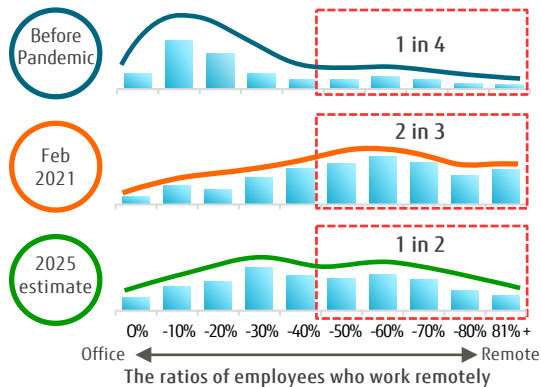
5 trends shaping a new world

3. Borderless lives

Physical experiences and digital experiences, and the concepts of office and home, are converging. According to Fujitsu's survey, half of organizations expected more than 40% of employees to work remotely in 2025, even after the pandemic is over.

Shift to hybrid-working

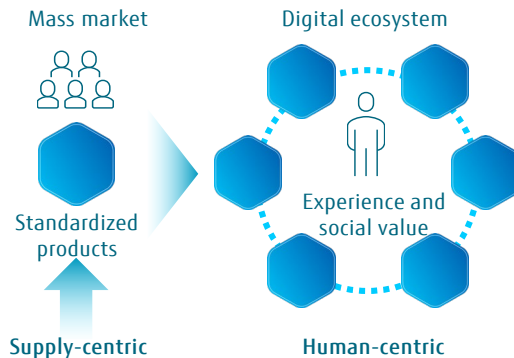
The number of companies (Percentage of the total)



4. Business is ecosystems

Digitalization is rapidly breaking down vertical industry silos, replacing them with an ecosystem business model that co-creates services and experiences, built around people's needs and lifestyles.

Shift to an ecosystem business model that co-creates human experience and social value



5. Trusted automation

Our survey found that 82% of business leaders were planning to increase their investment in automation. We need to redesign the way people and technology work together in data-driven, highly automated businesses.

Data-driven and Automation

- 83%** Data-driven management is essential for the organization to stay competitive in the future
- 82%** Intend to increase investment in automation of business processes
- 44%** More than 50% of current business processes that are not yet automated will be automated by 2025

Our purpose

Facing many difficult societal challenges, it's clearly becoming essential to align business goals with societal goals.

Fujitsu announced our purpose in 2020. We will focus all our resources on **making the world more sustainable by building trust in society through innovation.**



Toward 2030

We need to connect people, communities, organizations, things and data, to deliver value that's focused around people and to generate innovation that solves societal challenges. The following three elements are crucial to enable such innovation:



Human-centric

Provide personalized services that help people to maximize their potential without leaving anyone behind.



Predictive and preventive

Build a digital society where people can live prosperous and healthy lives through predictive and preventive methods. Use real-time data to develop the most effective measures.



Connected

Create a trusted digital society where people can enjoy secure, connected lives, co-creating innovative services by connecting data and knowledge.

Responsible Business

In order to fulfill our responsibility as a global company, Fujitsu sets out our key sustainability management agenda as Global Responsible Business (GRB). For each of the seven key agenda items, we have created clear visions, including annual KPIs for 2022.



Human Rights,
Diversity & Inclusion



Well-being



The
Environment



Compliance



Supply Chain



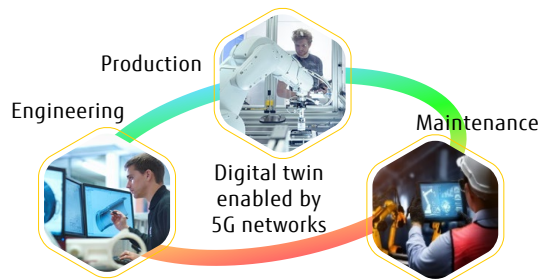
Occupational
Health and Safety



Community

Human augmentation by digital

Digital technology will augment human capabilities. Bringing together people with complementary digital workforce*1 will improve productivity as well as well-being.



*1 Software robots driven by digital technology like AI

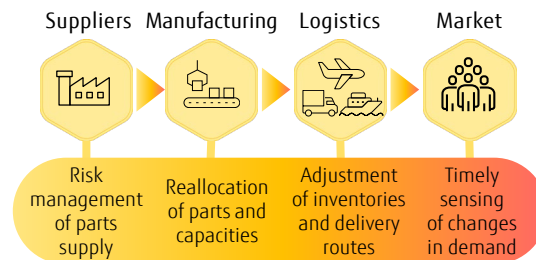
Fujitsu's value

We help organizations build new processes, using digital technology to empower people across the entire scope of operations.

- Engineering in the digital space
- Innovating production line
- Integration of AI

Resilient supply chain

To grow in an uncertain world, it is imperative to drive the entire value chain of manufacturing using digital technologies, responding to unexpected changes with agility and flexibility.



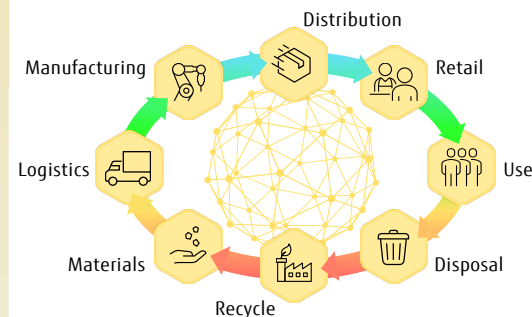
Fujitsu's value

Fujitsu helps organizations to strengthen resilience through managing operations dynamically across their entire value chains.

- Visualizing risks
- Responding to demand volatility
- Optimizing manufacturing and logistics operations

Circular manufacturing

By connecting end-to-end ecosystems, from production to consumption, reuse, disposal and recycling, we can transform manufacturing to protect the global environment.



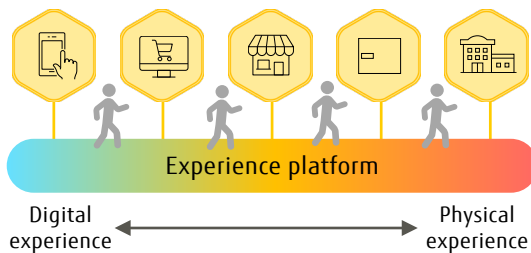
Fujitsu's value

Using digital technology such as blockchain, we connect trusted data, helping to realize the potential of circular manufacturing.

- Green procurement
- Engineering for a greener world
- Traceability

Physical and digital convergence

It is essential to provide customers with a borderless, human-centric experience that spans both the physical and digital spaces.



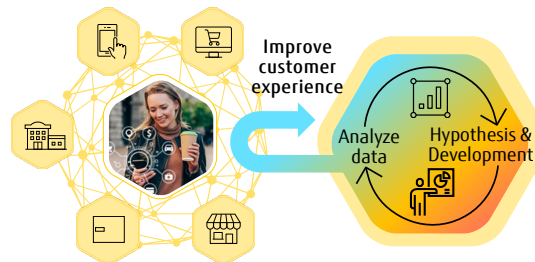
Fujitsu's value

Fujitsu helps businesses to transform their customer and employee experiences in a balanced way.

- Innovating customer experience
- Improving employee experience

Meeting unexpressed needs

By being always connected with customers, you are better placed to anticipate their potential needs and satisfy them.



Fujitsu's value

We provide data and video analysis solutions to find what customers may want to do. We also help solve challenges like food loss and waste through improving supply chains.

- Forecasting and automatic ordering
- Customer behavior analysis

Ecosystems for people's lives

Various services are being digitally integrated in other services, to support individuals in their daily lives.



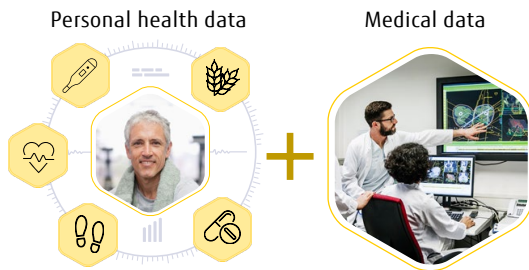
Fujitsu's value

By linking different sectors with digital technology and trusted data, we are helping to develop ecosystems that support individuals in their daily lives.

- IDYX (IDentitY eXchange)
- API economy
- Multiple biometric authentication

Personal health

Healthcare will evolve into well-being services that not only treat medical conditions but also improve the health of individuals.



Fujitsu's value

Fujitsu is supporting the development of personalized medicine and the improvement of individual health by connecting various data sources that are currently located separately.

- Personalized treatment
- Telemedicine

Life science innovation

The fusion of life science and computer science is creating significant innovation in drug discovery and medical treatment.



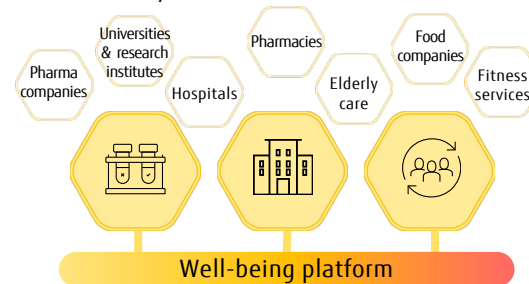
Fujitsu's value

We are applying our technologies across the life science field, co-creating innovations with research institutions and our enterprise partners.

- AI technology for advanced treatment
- Drug discovery

Smart health ecosystem

We continue to support innovation by creating mechanisms for organizations across different sectors to exchange medical and health data in a trusted way.



Fujitsu's value

We are also contributing to the creation of well-being platforms that connect information from end to end together with various partners.

- Pharmaceutical systems
- Regional healthcare networks
- Co-creating well-being services

Human-centric public services

To realize a society where no one is left behind, it is important to provide personalized public services that meet the needs of individuals.



Human-centric services, created from connecting data generated in many fields

Co-creation of public services with private companies and citizens

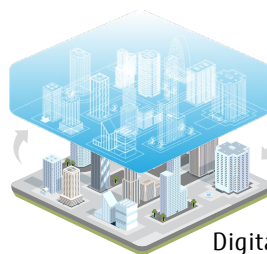
Fujitsu's value

We use data and digital technology to enable the transformation of public services, helping to realize human-centric public services.

- Human-centric services
- Trusted data connection and privacy protection
- Co-creating services

Resilient society

Real-time data analysis enables us to predict what may happen in the future. This helps to mitigate the impact of natural disasters as well as address environmental challenges.



Digital twin for society

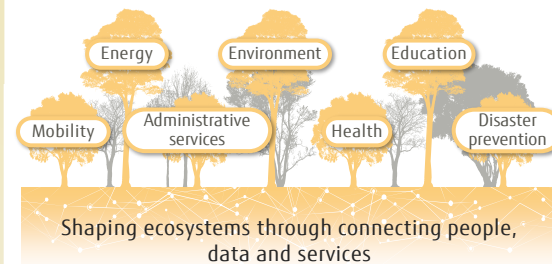
Fujitsu's value

Fujitsu delivers trusted solutions using cutting-edge technologies, contributing to the creation of a more resilient society.

- Supercomputers helping solve societal challenges
- Disaster prevention
- Urban mobility

Smart city ecosystem

In order to realize a trusted smart society, we need new regulatory systems that ensure the flow of trusted data as well as a new enabling technology architecture.



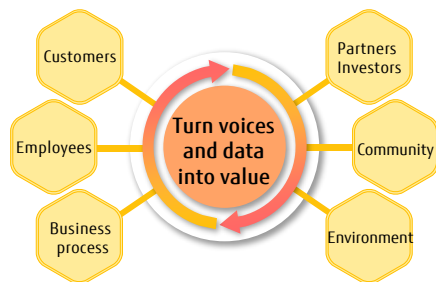
Fujitsu's value

Fujitsu contributes to the development of trusted data flows and smart city operating systems. We are also collaborating with partners to create future cities.

- Digital trust
- Future City
- Energy and environment

Digital Shifts

There is a growing acceptance of the need to help people maximize their individual potential, using data to continuously improve value for all stakeholders.



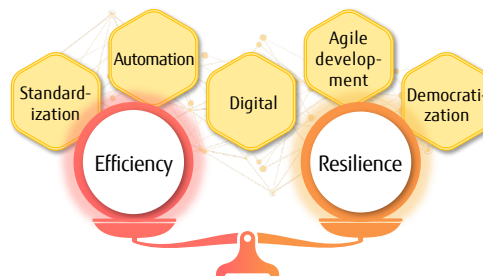
Fujitsu's value

Using the experience gained through our own transformation, we are helping many customer organizations transform their businesses.

- Work Life Shift
- Insights from voices
- Creating value from data

Business Applications

In this uncertain world, we all need to strengthen resilience to adapt to unexpected changes flexibly, while maintaining our business efficiency.



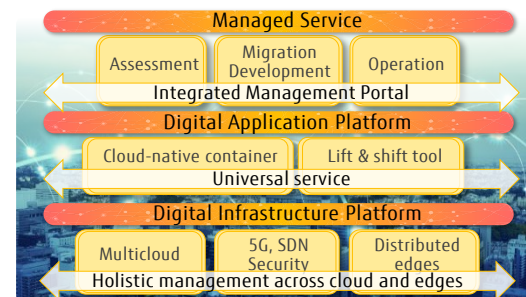
Fujitsu's value

Our global service organization enables agile development as well as delivers high-quality standardized services.

- Global service
- Cloud integration
- Collaboration with strategic partners

Hybrid IT

We need to build digital infrastructures that connect people, data and services, helping deliver new value, while protecting security in an increasingly borderless society.



Fujitsu's value

Fujitsu provides Hybrid IT that integrates multicloud infrastructure with digital application development platform, We also provide managed security services for borderless lives.

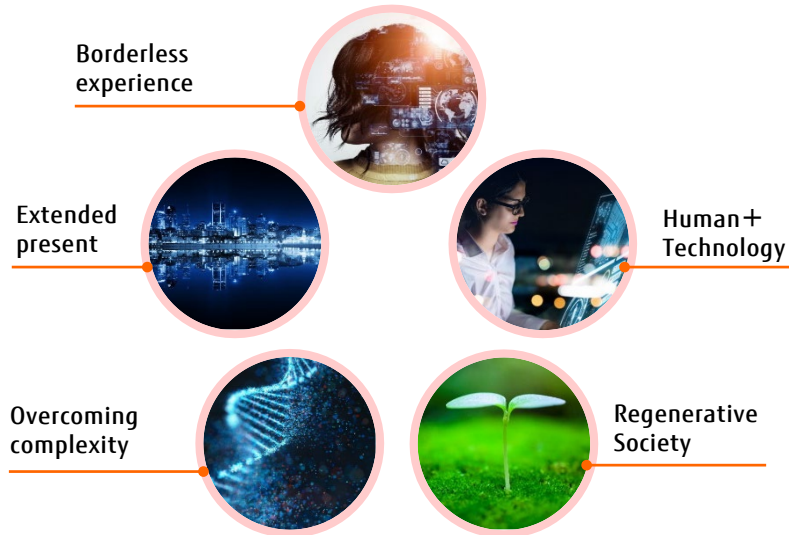
- Hybrid IT
- Security

Technology Vision

Making the impossible possible

Human Centric Innovation

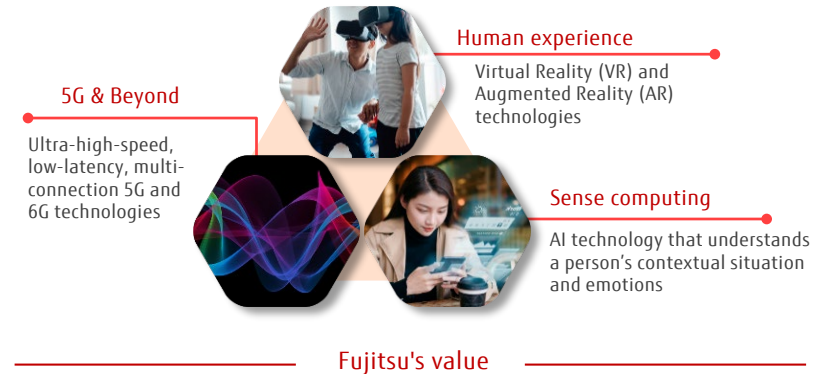
Fujitsu is developing and implementing technology based on our human-centric principles. Fujitsu Technology and Service Vision 2021 introduces five visions of technology innovation.



Borderless experience

Anytime, anywhere

Bringing together technologies including 5G, VR/AR and AI is enabling a human-centric experience across physical and digital spaces.



Fujitsu is working with various partners to co-create innovative experiences using 5G technology. We continue to promote open innovation, developing technologies that enable borderless work and lives.

Inclusive experiences



Borderless collaboration



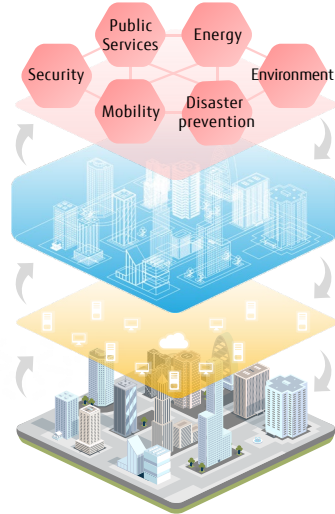
Technology Vision

Making the impossible possible

Extended present

Prediction first

A large-scale digital twin, which projects the dynamics of society into a digital space could extend the present so that we can see into the future.



Fujitsu's value

Fujitsu is using our supercomputers and cutting-edge AI technologies to help predict what may happen in the physical world. We are also developing a large-scale digital twin using our real-time stream data processing technology.

Resilience to disasters



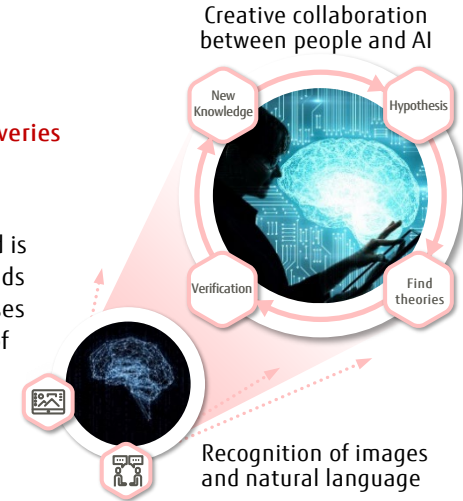
Safe and secure mobility



Human + Technology

AI that can make new discoveries

Current AI technologies are still not able to infer causal relationships. What we need is a new AI technology that finds causation, making hypotheses that lead to the validation of new discoveries.



Fujitsu's value

Fujitsu is helping genomic medicine through our explainable AI technology. We'll continue to work on applying AI technology to infer causal relationships of the entire human genomic information, contributing to the advancement of cancer treatment

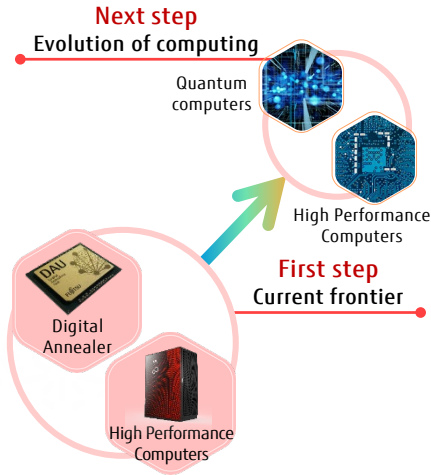
Personalized genomic medicine for cancer



Overcoming complexity

Solving difficult problems

Quantum computing technology is making rapid progress. Fujitsu's Digital Annealer, a quantum-inspired computer, is the first step. For example, we can use Digital Annealer to help accelerate the drug discovery process. In the long term, gate-based quantum computers will be developed, achieving breakthroughs to solve even the most complex problems.



Fujitsu's value

Fujitsu is implementing Digital Annealer in many fields. We are also shaping ecosystems with leading organizations in the world to deliver co-innovations such as the development superconducting quantum computers.

Reducing CO₂ emissions
by developing new
materials



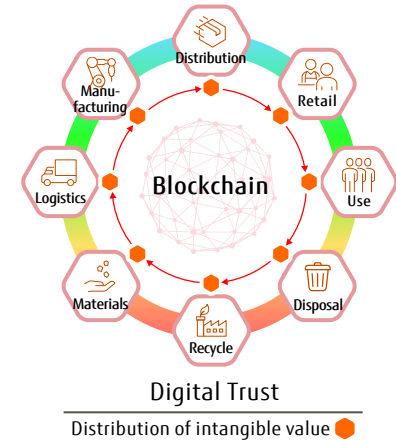
Medical
breakthroughs



Regenerative society

Addressing systemic global issues

Circulating trusted data in the end-to-end ecosystems will help solve complex problems. The key for this process is the digital trust technology that ensures the trustworthiness of data. Global mutual authentication beyond countries will also be required.



Fujitsu's value

We'll continue to explore the development of new blockchain technology that helps realize exchanges of various intangible values, as well as a new digital trust management technology.

Reduction of food
loss and waste




Economy based on
intangible value



Solving societal challenges and making the world more sustainable



Sustainable Manufacturing

 GKN Aerospace

Fujitsu has developed an AI-enabled defect recognition solution to support technical staff and shorten the inspection time by automating the quality inspection process.


 AB InBev

Fujitsu has helped AB InBev to build a blockchain solution that links barley farmers to breweries to improve productivity and reduce environmental impact.



Consumer Experience

 BGF

Fujitsu provides palm vein authentication technology and an AI solution that recognizes products and customer behaviors automatically.


 AEON Retail


Fujitsu's AI image analysis allows AEON Retail to identify store congestion, enabling their staff to improve customer experiences. AEON Retail is also working on data-driven in-store transformation.



Healthy Living

 PeptiDream

PeptiDream uses Fujitsu Digital Annealer, HPC and other technologies to innovate the process of drug discovery. They also set up a JV with Fujitsu and other partners to develop a new drug for COVID-19.


 Tokyo Shinagawa Hospital

Tokyo Shinagawa Hospital and Fujitsu have jointly developed an AI technology to support CT-scan lung image diagnosis for COVID-19.



Trusted Society

 Proventia


The combination of Proventia's retrofit exhaust systems and Fujitsu's IoT platform enables real-time monitoring of exhaust emissions, contributing to lowering CO₂ emissions.


 City of Montreal, Quebec

To reduce traffic congestion and snow removal processing time, the City of Montreal and Fujitsu collaborate in implementing AI-enabled real-time traffic analysis and dynamic traffic light management.


 City of Dublin, Ohio

Fujitsu helps monitor the congestion of parking spaces using 5G/LTE private network and AI-based video recognition technology. This solution contributes to Dublin's smart city vision.


 Osaki-Kamijima Town, Hiroshima

Osaki-Kamijima Town conducted a smart mobility project by combining on-demand transportation management services and autonomous driving technology to help people living on isolated islands.



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