Fujitsu Technology and Service Vision 2021

At a glance
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

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

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

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
12. Extended present
13. Overcoming complexity
14. Customer stories
The World at an inflection point

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

- 170 M: Cumulative total number of infected people*1 (as at May 2021)
- 3.3%: Reduction in GDP worldwide*2
- 700 M: Live on less than $1.90 a day*3
- 1 B: Decrease in foreign travelers*4
- $1.3 T: Decrease in tourism industry revenue*5
- 1.5 B: Number of students unable to attend school*6


2020: Responding to the crisis

Digital technology played a major role in responding to this crisis. Digitalization has accelerated, enabling work from home and online 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

Customers

Partners

Company

Community

Employees and their families

Investors

B2E Business to Everyone

Remote work

Remote education

Online shopping

Telemedicine

Priorities in a new world

5 trends shaping a new world

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

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

- The COVID-19 pandemic has increased the importance the organization places on delivering value to society (78%)
- Plan to increase the organization’s contribution to society in line with the United Nations SDGs (71%)
- Digital transformation helped the organization to deliver value to society (91%)

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

- We were agile in how we responded to the changes (49%)
- We were already prepared because of the digitalization of our business, or we were able to accelerate digitalization rapidly (42%)
- We put employee well-being as our first priority (40%)

---

*1 Fujitsu’s survey conducted in February 2021, targeting 1,200 business leaders in 9 counties
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.

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.

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.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data-driven and Automation</strong></td>
<td></td>
</tr>
<tr>
<td><strong>83%</strong></td>
<td>Data-driven management is essential for the organization to stay competitive in the future</td>
</tr>
<tr>
<td><strong>82%</strong></td>
<td>Intend to increase investment in automation of business processes</td>
</tr>
<tr>
<td><strong>44%</strong></td>
<td>More than 50% of current business processes that are not yet automated will be automated by 2025</td>
</tr>
</tbody>
</table>
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 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.

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.

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.

*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

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

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
Consumer Experience

The future of customer experience

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

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

Ecosystems for people’s lives
Various services are being digitally integrated in other services, to support individuals in their daily lives.

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

- Innovating customer experience
- Improving employee experience

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

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
**Healthy Living**

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

- **Personal health data**
- **Medical data**

**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.

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.

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.
Business Transformation

The future of management

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.

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

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
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

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

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
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.

5G & Beyond

Ultra-high-speed, low-latency, multi-connection 5G and 6G technologies

Sense computing

AI technology that understands a person’s contextual situation and emotions

Fujitsu’s value

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

Human experience

Virtual Reality (VR) and Augmented Reality (AR) technologies

Borderless collaboration
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.

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
### Sustainable Manufacturing

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GKN Aerospace</strong></td>
<td>Fujitsu has developed an AI-enabled defect recognition solution to support technical staff and shorten the inspection time by automating the quality inspection process.</td>
</tr>
</tbody>
</table>

### Consumer Experience

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BGF</strong></td>
<td>Fujitsu provides palm vein authentication technology and an AI solution that recognizes products and customer behaviors automatically.</td>
</tr>
<tr>
<td><strong>AEON Retail</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

### Healthy Living

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PeptiDream</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Tokyo Shinagawa Hospital</strong></td>
<td>Tokyo Shinagawa Hospital and Fujitsu have jointly developed an AI technology to support CT-scan lung image diagnosis for COVID-19.</td>
</tr>
</tbody>
</table>

### Trusted Society

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proventia</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>City of Montreal, Quebec</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Osaki-Kamijima Town, Hiroshima</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

---

**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.**
A Note Concerning Future Projections, Forecasts and Plans

This publication contains forward-looking statements in addition to statements of fact regarding the Fujitsu Group’s past and current situation. These forward-looking statements are based on information available at the time of publication and thus contain uncertainties. Therefore, the actual results of future business activities and future events could differ from the forward-looking statements shown in this publication. Please be advised that the Fujitsu Group shall bear no responsibility for any of these differences.

Unauthorized copying, reproduction, or reprinting of any part or all of the Fujitsu Technology and Service Vision is prohibited.

©2021 FUJITSU LIMITED

June, 2021