The dawn of 5G
Human Centric Innovation
~ Co-creation for success ~

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Digital Transformation Survey
Digital Outcomes delivered

- 89% of leaders responded that they are driving Digital Transformation.
- 34% of projects have delivered digital outcomes.

What is your progress with digital transformation?

- Outcomes have been delivered: 34%
- Testing: 24%
- Implementing: 33%
- Planning: 9%

n=3,408
(The number of the digital transformation projects)

Ref: Digital Transformation Survey 2017 (Feb. 2017)
Outcomes of digital transformation

- Growth delivered by digital
- Every business is becoming a technology company

- Increased revenue: 46%
- Strengthened competitiveness of products: 36%
- Transformed business models or processes: 30%
- Improved efficiency or reduced cost: 35%
- Improved employee satisfaction: 22%
- Improved customer relationships: 44%

Ref: Digital Transformation Survey 2017 (Feb. 2017)
Partner to collaborate with

Technology partners are the most significant partner for digital transformation

To be successful in digital transformation, co-creation with external partners is required. The respondents chose technology partners as being the most significant partner for their digital transformation. Suppliers and sales partners followed.

The difference between the organizations that have been already planning, testing or implementing digital transformation and those that have no plans yet revealed that the former type of organizations tend to select the technology partners or startup companies and the latter type of organizations chose supplies and sales partners.

In fact, if business leaders have experience of digital transformation, they have a tendency to choose the partners with expertise of digital technology.

Ref: Digital Transformation Survey 2017 (Feb. 2017)
The dawn of 5G towards Human Centric Intelligent Society
"ICT Big Bang"

- Ever continuing evolution streams of information and communication technologies
- Gathering up, conflating and start to resonate. The focal point will be at around 2020
- Where 5G era starts, disruptive digital services to emerge

<table>
<thead>
<tr>
<th>Year</th>
<th>Artificial Intelligence</th>
<th>Computing</th>
<th>Wired Networks</th>
<th>Wireless Networks</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>AI Ph.2</td>
<td>Main-frame</td>
<td>Voice</td>
<td>1G</td>
<td>Car navigation</td>
</tr>
<tr>
<td>1990</td>
<td>AI Ph.2</td>
<td>Client-Server</td>
<td>ISDN</td>
<td>2G</td>
<td>Phones</td>
</tr>
<tr>
<td>2000</td>
<td>AI Ph.3</td>
<td>Cloud</td>
<td>ADSL</td>
<td>3G</td>
<td>Wearables</td>
</tr>
<tr>
<td>2010</td>
<td>AI Ph.3</td>
<td></td>
<td>FTTH</td>
<td>4G</td>
<td>Connected car</td>
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<tr>
<td>2020</td>
<td></td>
<td></td>
<td>1G</td>
<td></td>
<td>IoT</td>
</tr>
</tbody>
</table>

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Human Centric AI Zinrai

- Fujitsu unique technology broadens the application of deep learning
- We are aiming to realize a society where people can use AI with confidence

Digital Business Platform MetaArc

<table>
<thead>
<tr>
<th>Mobile</th>
<th>IoT</th>
<th>Analytics</th>
<th>AI</th>
<th>Security</th>
<th>Block Chain</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Cloud</td>
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</tr>
</tbody>
</table>

Plan
- Zinrai Consulting Service
- Zinrai Installation Service
- Zinrai Integration Service

Implementation
- Zinrai Platform Service

Operation
- Zinrai Managed Service

Zinrai Deep Learning
5G ICT creates new knowledge and supports activity of humans and machines in real time, by analyzing large amounts of data in physical world.
Implications of 5G

High speed,
High capacity
Massive connections

Low latency,
Ultra reliable

Throughput / User experience (QoE*)

Number of connections / Amount of data volume

Telem medicine / Remote surgery
Connected cars
Arena applications
VR / AR

Utilities

AI

Manufacturing
SNS / Video streaming
Food, Agriculture
Sustainable Development
Smart town

SNS / Video streaming

Smart meter

Digital Signage

Utilities

Manufacturing
SNS / Video streaming

Food, Agriculture
Sustainable Development
Smart town

VR / AR

5G

High speed, High capacity
Massive connections

Low latency, Ultra reliable

*Quality of Experience

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Sustainable Development Goals
Achieving Shared Goals

- Our vision of a Human Centric Intelligent Society and SDGs are closely aligned
- Fujitsu is committed to contribution to the SDGs through working towards our vision

Ref: United Nations Development Programme
Our approach towards SDGs

We are proactively engaged in co-creation initiatives oriented for SDGs

<table>
<thead>
<tr>
<th>Impact</th>
<th>Our initiatives (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDG2</strong> Sustainable Food and Agriculture</td>
<td>Increase food productivity and resilience</td>
</tr>
<tr>
<td>• Over 400 businesses in Japan use Fujitsu’s agriculture cloud service Akisai to increase productivity. It is also available in other counties eg. Vietnam.</td>
<td></td>
</tr>
<tr>
<td>• We are operating our own precision agriculture facility and collaborating in smart agriculture with diverse industry partners.</td>
<td></td>
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<tr>
<td><strong>SDG3</strong> Wellbeing of People</td>
<td>Realize a high quality of life for everyone in an aging society, and eradicate difficult diseases by medical innovation</td>
</tr>
<tr>
<td>• Fujitsu connects 7,000 hospitals, clinics care facilities and pharmacies to help realize wellbeing for everyone.</td>
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</tr>
<tr>
<td>• We co-created sensor-based monitoring services for patients and elderly people in Netherland and Singapore.</td>
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<tr>
<td>• We are also collaborating with various research institutions in genome-based medicine and drug discovery using our HPC and AI technologies.</td>
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</tr>
<tr>
<td><strong>SDG8</strong> Decent Work and Sustainable Economic Growth</td>
<td>Accelerate innovation and realize a human-centric way to work</td>
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<tr>
<td>• Fujitsu helps organizations transform their ways of working.</td>
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<td>• We provide a voice recognition and AI-based 19-language translation tool to support communications between diverse people including the hearing-impaired.</td>
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<tr>
<td>• We are actively accelerating open innovation with start-ups.</td>
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<tr>
<td><strong>SDG9</strong> Sustainable Industrialization</td>
<td>Realize intelligent industrialization through innovation</td>
</tr>
<tr>
<td>• Fujitsu provides an industry platform to help manufacturing companies digitalize their businesses and accelerate intelligent industrialization through co-creation.</td>
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<tr>
<td>• We are supporting smart manufacturing in China and Singapore and digital innovation in France.</td>
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<tr>
<td>• We are supporting the development of digital talent, for instance, through our Digital Business College.</td>
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<tr>
<td><strong>SDG11</strong> Sustainable City</td>
<td>Enable intelligent mobility, and increase safety and resilience to disasters</td>
</tr>
<tr>
<td>• Fujitsu co-created innovative services with many organizations, using our location information cloud service SPATIOWL as a platform for mobility.</td>
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<tr>
<td>• We are jointly developing innovative solutions for urban challenges in Singapore.</td>
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<tr>
<td>• We globally provide HPC-based disaster prediction solutions as well as solutions to prevent or mitigate the damages by earthquakes, tsunamis or floods.</td>
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</tr>
<tr>
<td>• UN Development Programme (UNDP), Tohoku University and Fujitsu jointly developed a global database of disasters.</td>
<td></td>
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</tbody>
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A safer, more prosperous and sustainable world

Human Centric
Intelligent Society