

The background features a futuristic cityscape with glowing blue and white light trails, suggesting digital connectivity and innovation. In the center, four business professionals (two men and two women) are gathered around a glowing, circular light effect, appearing to collaborate on a digital interface. The overall color palette is dominated by reds, blues, and whites.

FUJITSU

shaping tomorrow with you

# Our Global AI Business and Journey in Canada

Naoko Yoshizawa

Corporate Executive Officer

EVP, Vice Head of Digital Services Business

AI Business

Fujitsu Limited

CEO, Fujitsu Intelligence Technology

Human Centric Innovation

Digital Co-creation

# Fujitsu at a glance



■ Headquarters:  
Tokyo, Japan

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■ Established:  
1935

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■ President:  
Tatsuya Tanaka

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■ Principal Business Areas:  
Technology Solutions  
Ubiquitous Solutions  
Device Solutions

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■ Employees:  
140,000 worldwide

■ Revenue:  
4,098.3 billion yen (\$36 bn USD)

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■ Operating profit:  
182.4 billion yen (\$1.6 bn USD)

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Device Solutions

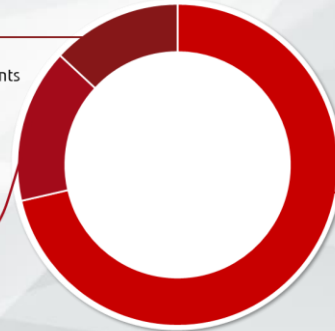
13.1%

- LSI
- Electronic Components

Ubiquitous Solutions

15.5%

- PCs



Technology Solutions

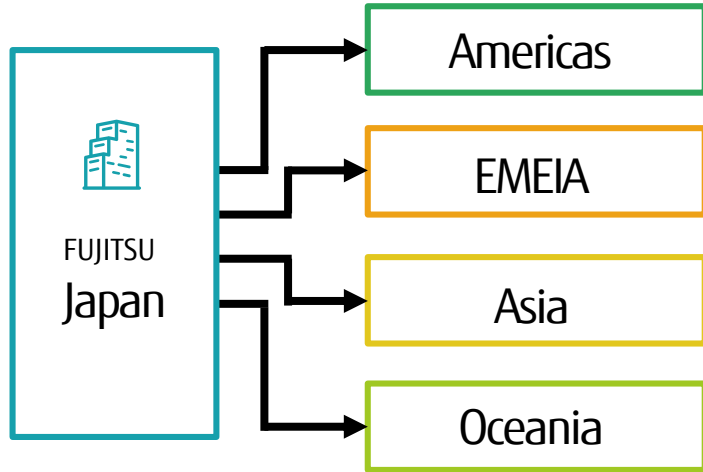
71.4%

- Solutions / SI
- Infrastructure Services
- System Products
- Network Products

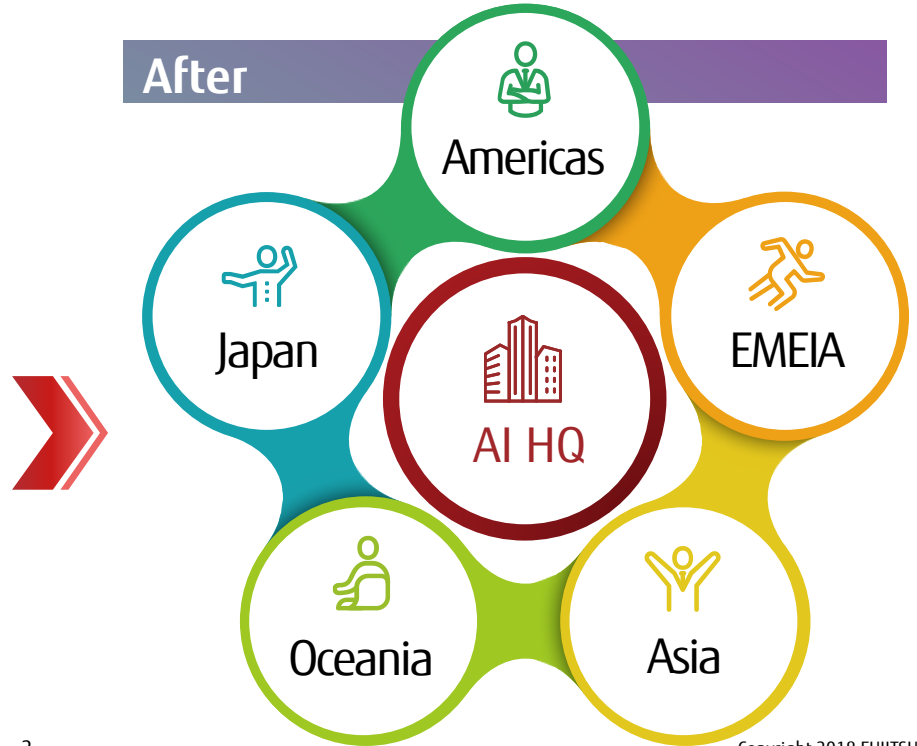
Revenue by sector – FY2017

# New Approach to Global Business Formation for AI Business Unit

Before



After





# FUJITSU Intelligence Technology



CEO

Naoko Yoshizawa

Start of operations

November 1st 2018

Location

355 Burrard Street, Vancouver, BC (Marine Building)



# Our Missions



## Stay at world-class speed

Lead our partnerships and technology strategies from a global perspective in North America, forefront of AI business and R&D



## Expand AI business to all regions

Harness and leverage regional use cases and AI offerings, and commercialize globally as market-leading solutions.



## Co-creation × Talents × Technology = De-facto solution

Through talent acquisition and co-creation with ecosystem, widely permeate Fujitsu's strong technologies and create industry best-of-breed solutions

# Why Canada?



## Government tech & innovation policy

Canadian & BC governments support and promote innovation and advanced technology R&D aggressively.



## Advanced research laboratories and talents

State-of-the-art research laboratories and talent in Data Science, AI and the Quantum fields.



## Rich & diverse start-up ecosystem

Large number of tech start-ups available for co-creation partnerships. Fujitsu invested in 1QBit.



## Sustainable business environment and multi-national technology ecosystem

Examples: Microsoft, Boeing, Amazon already established in the market.



## Competitive business cost structure

Advantageous environment with reasonable rent/tax/labor expenses.



## Largest business opportunities

Mass market in North America. Largest in the world. Investment in AI by one company is 17X greater than Japan.

# Technology Research Formation

## Co-Creation with world-class research laboratories with AI and Quantum inspired computing technology

Corporate Research Partner Award 2018

University of TORONTO

**Digital Annealer**  
Architecture and practical application to medical and financial industry

UNIVERSITY OF TORONTO



**Stanford**

**MIT** Massachusetts Institute of Technology

Explainable AI related technology and application

AI (Zinrai)

Science concerning intelligence and research on engineering field

AI (Zinrai)

UNIVERSITY OF OXFORD



**Inria** RECHERCHES DU MONDE NUMÉRIQUE

Research new AI learning technology based on topological data analysis

AI (Zinrai)

AI (Zinrai)  
ELSI (ethical, legal and social issues) focused AI Technology

AI (Zinrai)  
Collaborative research on utilization of AI for advanced medical treatment

京都大学 KYOTO UNIVERSITY

早稲田大学 WASEDA University



SMU SINGAPORE MANAGEMENT UNIVERSITY



Usage of AI to solve social challenges

AI (Zinrai)

**RIKEN**

AI to support better judgment based on accurate future prediction

AI (Zinrai)

# Driving Strategy and Coordination of Global AI Business **FUJITSU**

## FUJITSU Intelligence Technology





A close-up of two hands, one from the left and one from the right, gently holding a glowing, translucent sphere. The sphere is composed of a grid of white dots and has a bright, multi-colored light (blue, green, yellow, orange) emanating from its center. The background is a soft, out-of-focus light.

**Zinrai**

A perspective view of a server room or data center. The server racks are illuminated with vibrant blue and purple lights, creating a sense of depth and technology. The perspective is looking down a long aisle between the racks.

**Digital Annealer**

**Technology for accelerating business**

# FUJITSU's AI : Zinrai

*(zinrai: being agile and intense)*



Support people's judgment and actions  
Dynamically driving digital transformation of companies and society

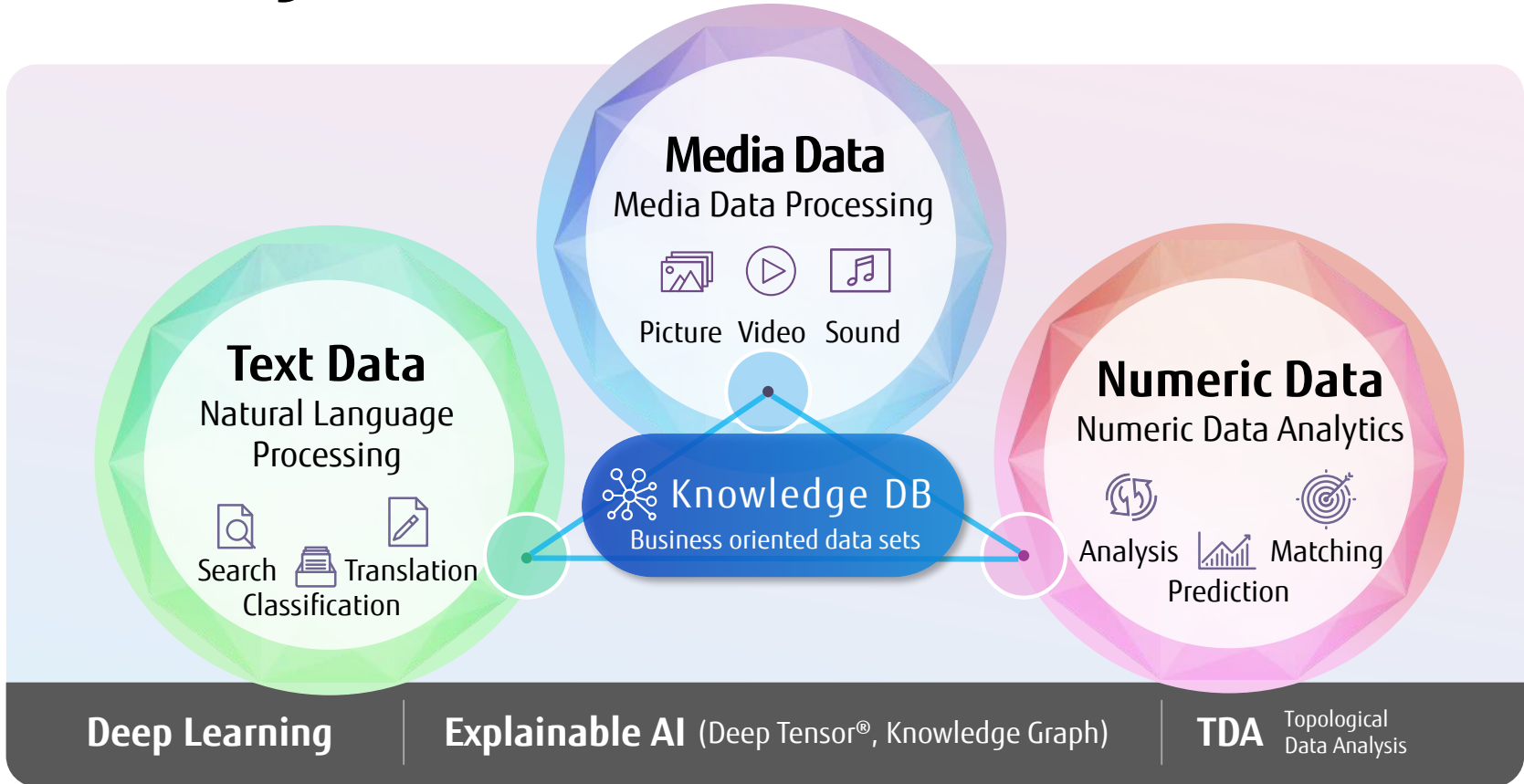


**Human-Centric AI**



**Continuously evolving AI**

# AI technologies for diverse data domains





# New Values provided by Zinrai

**Knowledge**

- Patent research task
- Succession of knowledge

**Call Center**

- Q & A
- Automatic answering

**Work & Life**

- Elderly person watching
- Personnel plan

**Social Infrastructure**

- Cyber attack detection
- City monitoring

**Maintenance**

- Safety of workers
- Prediction of equipment failure

**Manufacturing**

- Defective product detection
- Failure Indication

**Digital Marketing**

- Recommendation
- Affective Media

**Healthcare**

- Diagnosis
- Drug discovery

**Fintech**

- Credit Scoring

**Logistics**

- Placement of facilities
- Inventory optimization

**Retail**

- Visual line detection
- Automatic ordering

**Mobility**

- Traffic information visualization

# Digital Annealer

New computing architecture inspired by quantum phenomena to instantly solve combinatorial optimization problems.

Quantum Computing

Still under research ...

- Difficult to maintain quantum state
- Constraints on connection and expansion



Digital Annealer

Real-World Application



- Digital Circuit enables miniaturization and stable operation
- Easy mapping of complex problems enabled by fully connected architecture



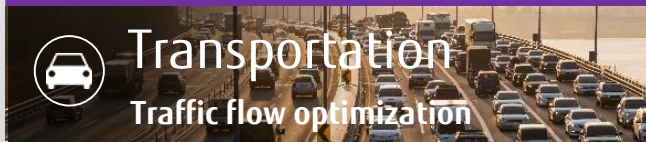
# Solving problems in society which are difficult to solve by conventional method



Find the most similar molecule from a vast amount of compounds by comparing these structures instantly



Reduce planning time of cancer treatment with massive beam patterns from days to minutes



Reduce traffic congestion by optimizing each vehicle's non-overlapping route in entire city



Cluster 500 assets instantly based on their correlation

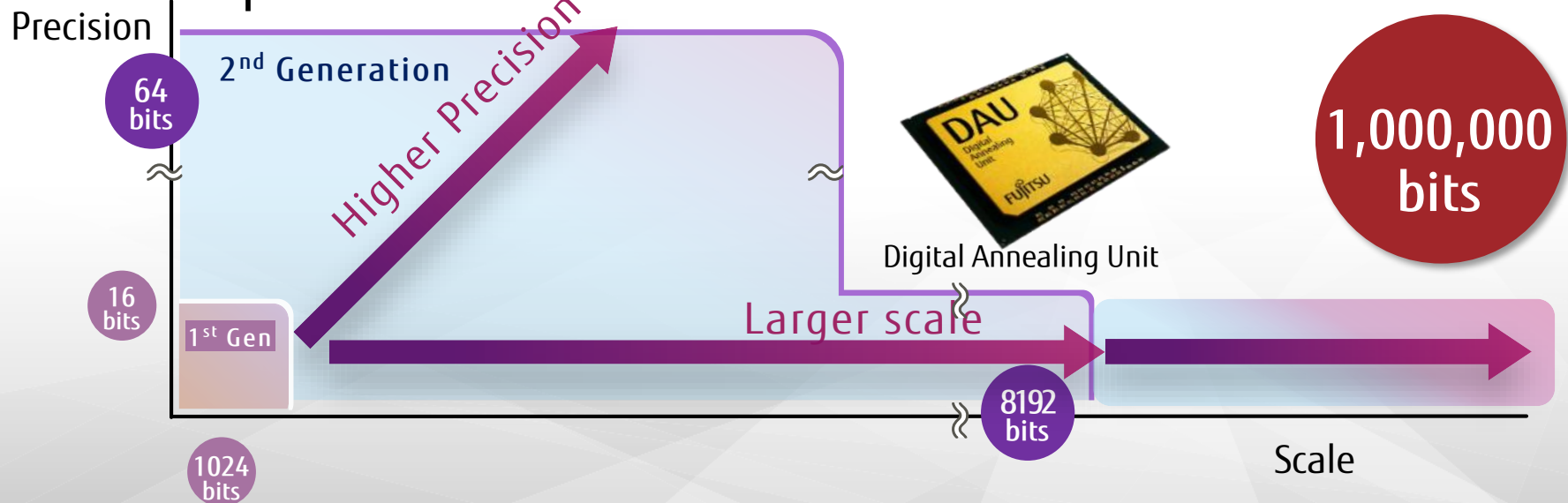


Reduce 45% of parts picking distance by route and layout optimization

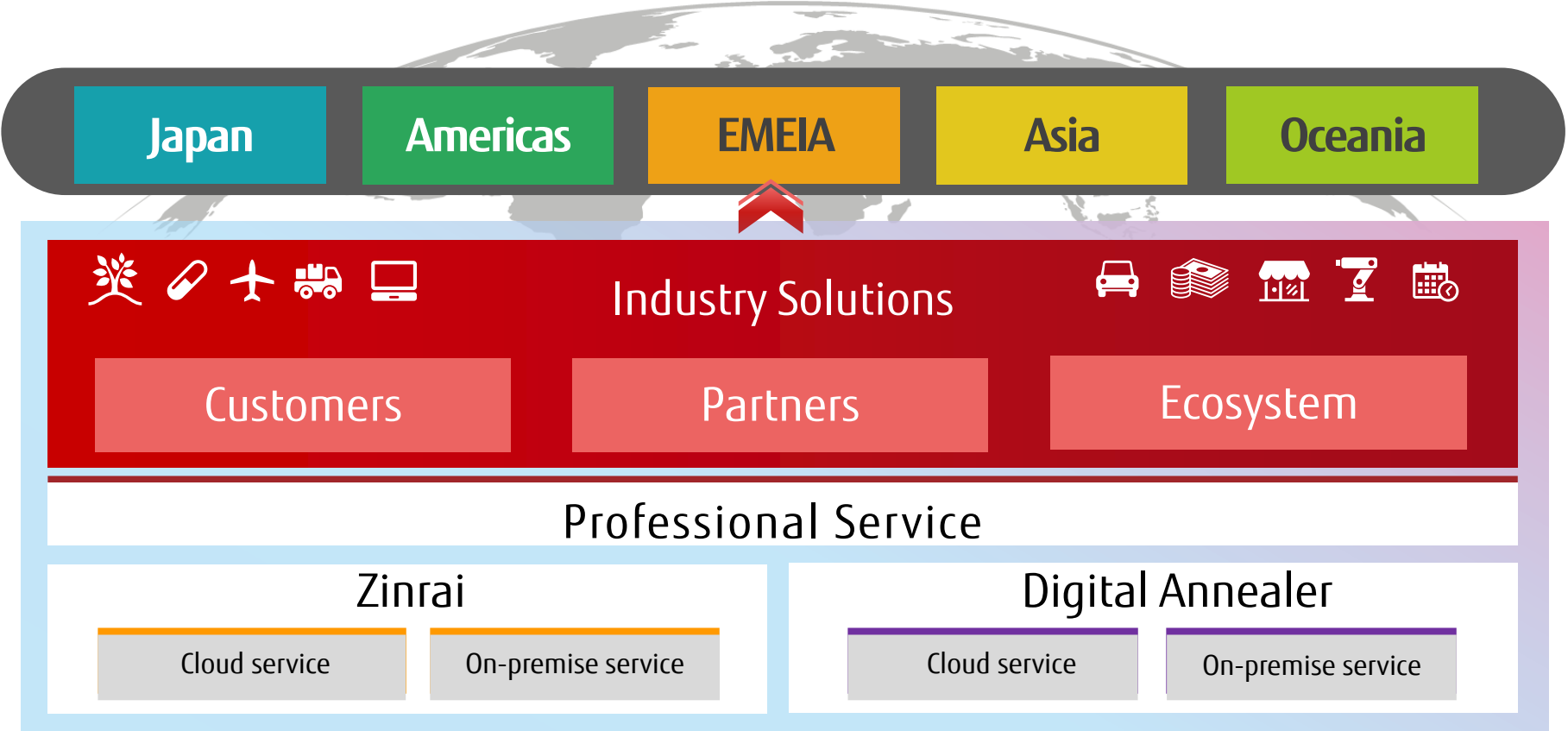
# 2<sup>nd</sup> Gen Digital Annealer : Available in December



- 100 times faster than 1<sup>st</sup> generation
- Massive coverage and scalability
- 1 million bits through a combined software partitioning and multiple DAUs in FY2019



# Co-Created Solutions for Global Market



# Case Study

## ProteinQure

Accelerate drug discovery through development of stable structural analysis technology for middle molecules

With Digital Annealer, the research of middle molecules candidate with lower risk of side effects was reduced from half a year time to few days.



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Half a year ➤

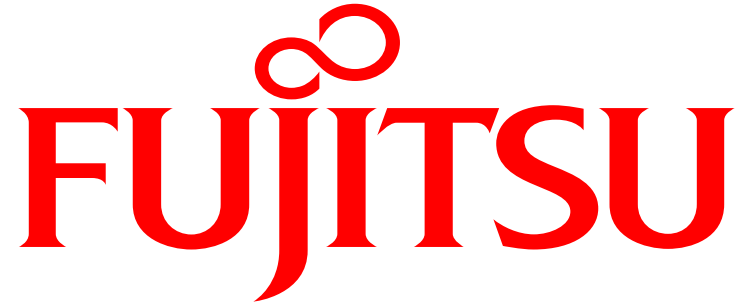
Few Days



# FUJITSU Intelligence Technology

Driving the Future of AI with You  
from Canada



The logo features a red infinity symbol positioned above the word "FUJITSU". The word is rendered in a bold, red, serif typeface. The 'F' has a distinctive curved tail that extends downwards and to the left.

**FUJITSU**

shaping tomorrow with you