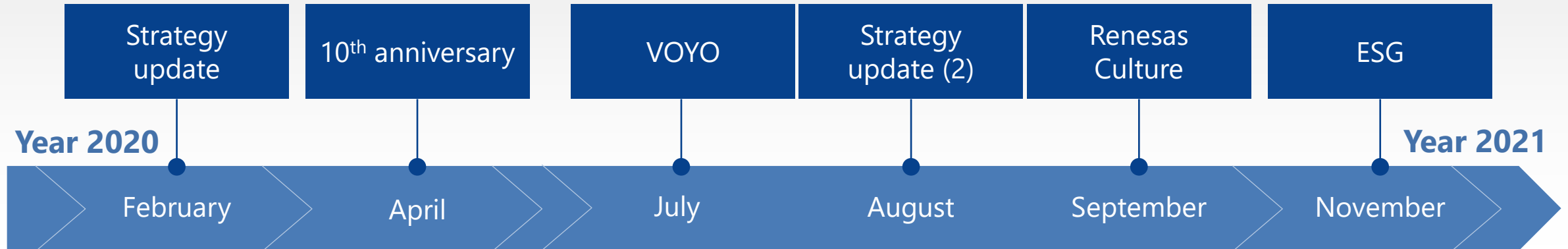


# PROGRESS UPDATE

MARCH 3, 2021  
HIDETOSHI SHIBATA  
PRESIDENT AND CEO  
RENESAS ELECTRONICS CORPORATION

# REFLECTION ON 2020



**19%**  
Record-high  
EBIT margin

**102**  
Winning  
Combos

**13,300<sup>\*1</sup>** Oku  
D-in

**+330%<sup>\*2</sup>**  
Stock  
performance

\*1: FX 1USD=100yen, 1EUR=120yen , \*2: From March 19, 2020 (the lowest stock price in 2020) to December 30, 2020

# ESG INITIATIVES

## Sustainability at Renesas

To Make Our Lives Easier

[Click here to learn more](#)

### **E** Environment



- Eco-factory
- Eco-product
- Communications



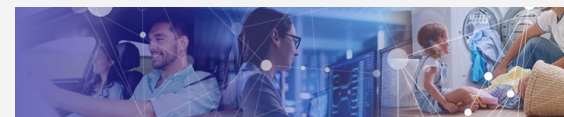
### **S** Social

Products and solutions contributing to a sustainable society



### **E** Energy Efficiency

- xEV, energy-efficient home appliances / building automation



### **S** Safety & Security

- ADAS / AD, smart factory



### **G** Governance



- Board of directors / auditors
- Nomination / compensation committees

# ESG INITIATIVES

## Sustainability at Renesas

To Make it Easier

FTSE Blossom  
Japan Index

MSCI Japan ESG  
Select Leaders  
Index

MSCI Japan  
Empowering  
Woman Select  
Index

E

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- Eco-factory
- Eco-product
- Communications

### Energy Efficiency

- xEV, energy-efficient home appliances / building automation

### Safety & Security

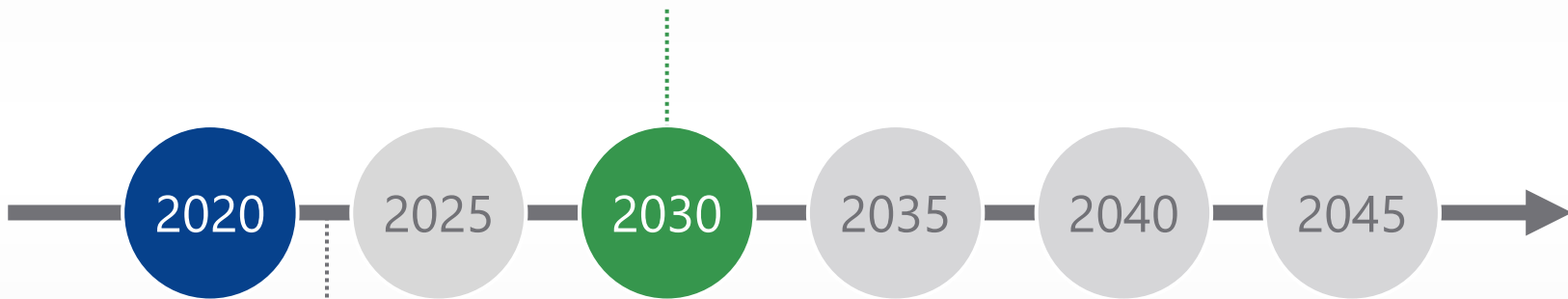
- ADAS / AD, smart factory

- Board of directors / auditors
- Nomination / compensation committees

# TO MAKE OUR WORLD GREENER...

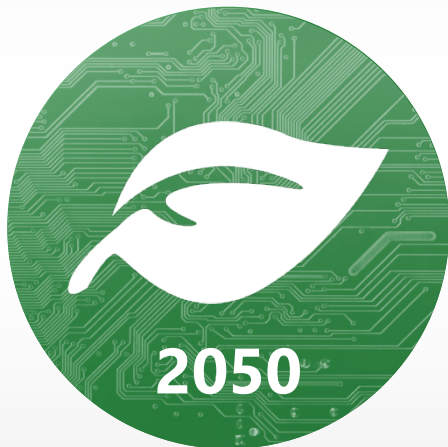


**GHG -60% vs 2013**  
-25% vs 2020 (Scope 1+2)



To set a science-based target

**Carbon neutral**  
(Scope 1+2)



# RENESAS CULTURE

## TRANSPARENT

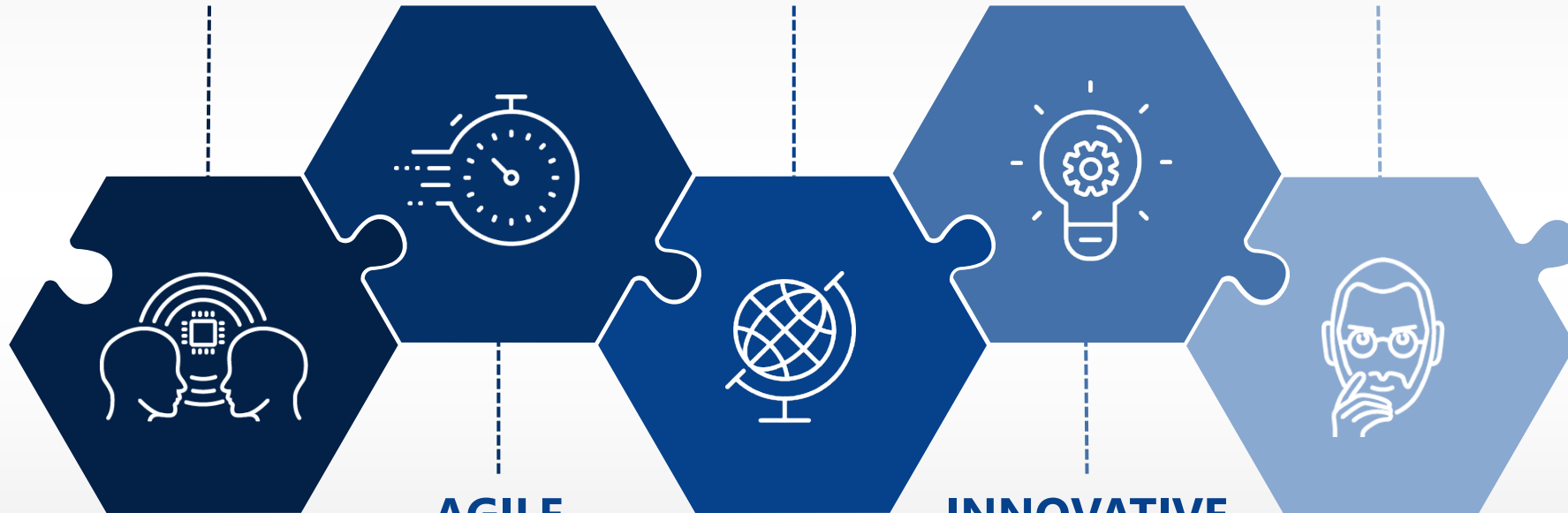
The leadership team's strategy and policy, the company's current situation, as well as the issues and thoughts of each business organization should be well understood among employees.

## GLOBAL

It is essential for us to have a global perspective. We should facilitate communication not only through improved language skills, but also through the use of other methods such as the use of numbers and data.

## ENTREPRENEURIAL

Individual employees should act professionally, voluntarily, and independently as if they are "running their own business" and are responsible for the results they deliver.



## AGILE

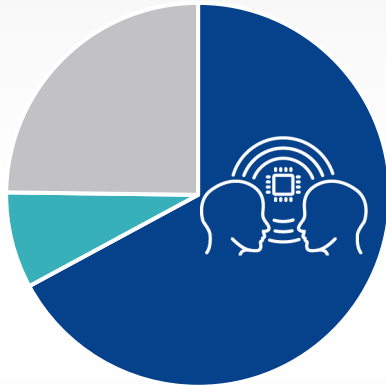
In order to respond to changes in a timely manner, we should identify the likely outcomes and implications as quickly as possible, make decisions quickly, and rapidly take or correct actions, and act at a high velocity.

## INNOVATIVE

Each and every one of our employees should embody "Innovation" using their imagination and creativity to improve their work and contribute to the realization of a better society.

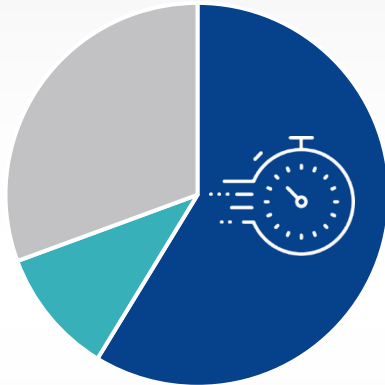
# RENESAS CULTURE SURVEY RESULTS

Transparent



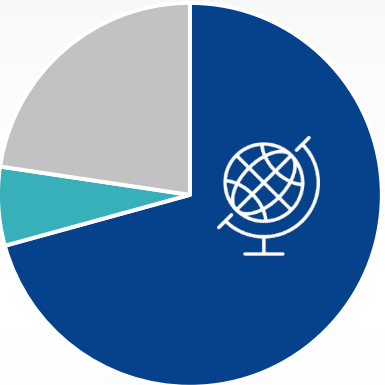
67%

Agile



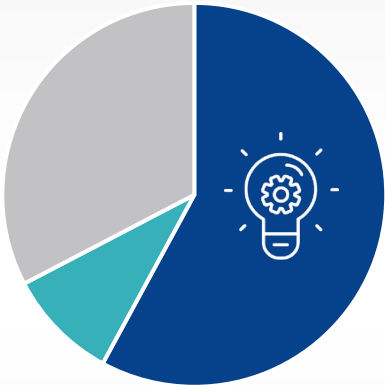
59%

Global



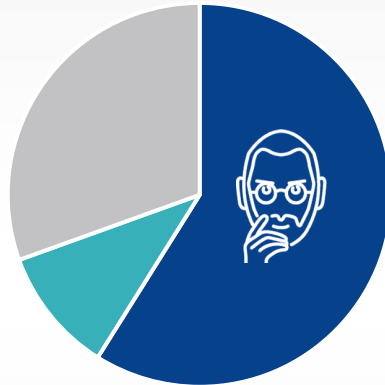
71%

Innovative



58%

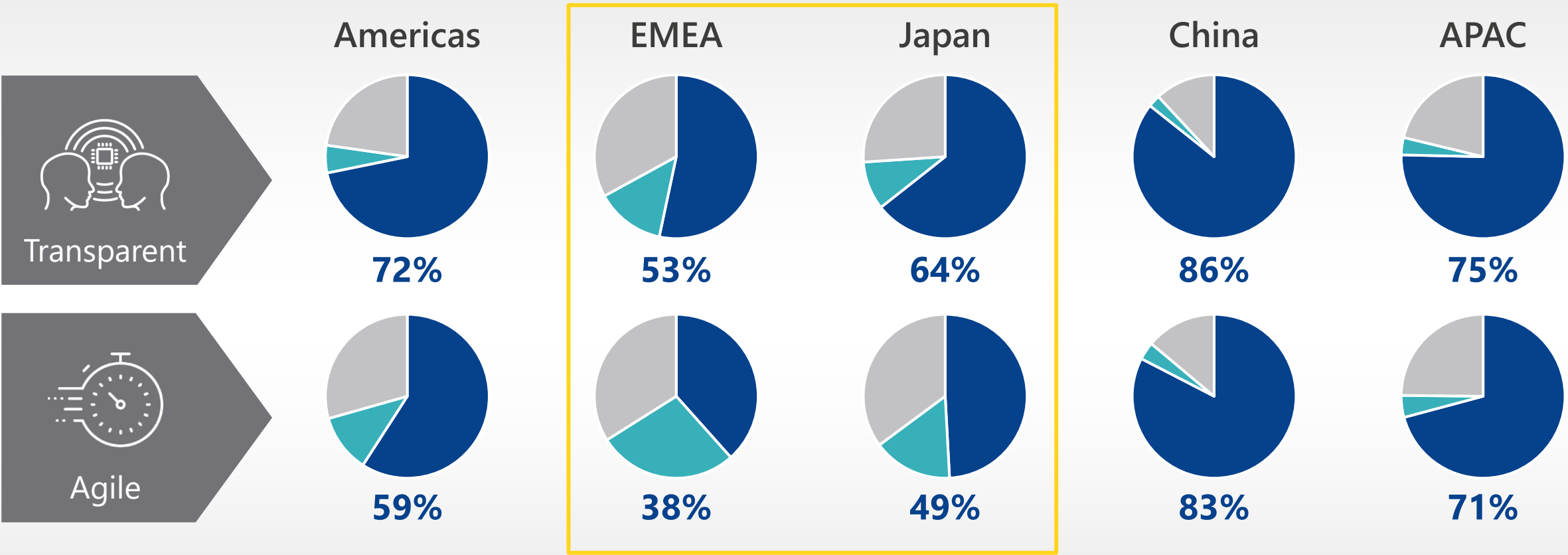
Entrepreneurial



59%

■ Yes   ■ No   ■ Neutral

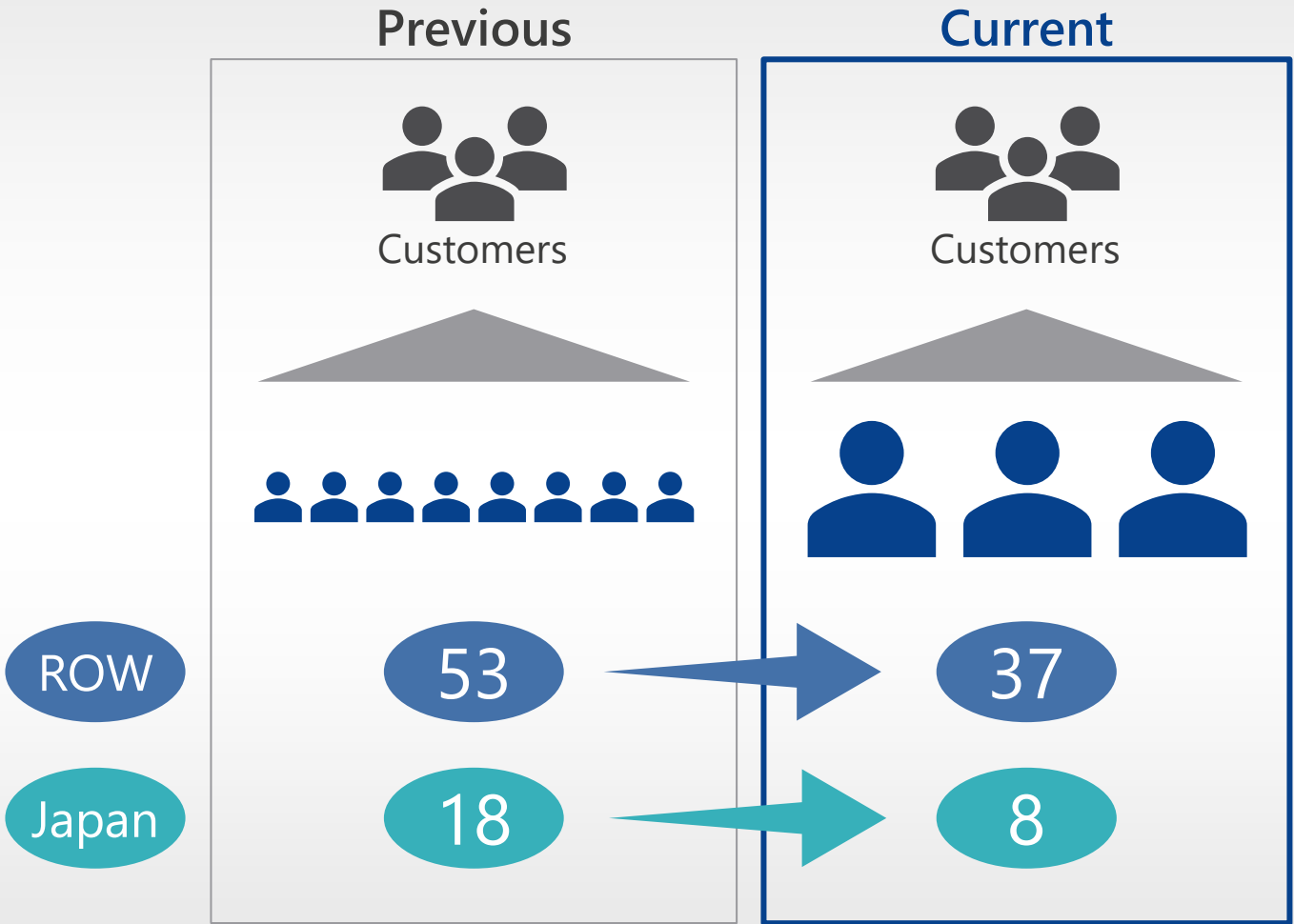
# RENESAS CULTURE SURVEY RESULTS – GEO BREAKDOWN



■ Yes    
 ■ No    
 ■ Neutral



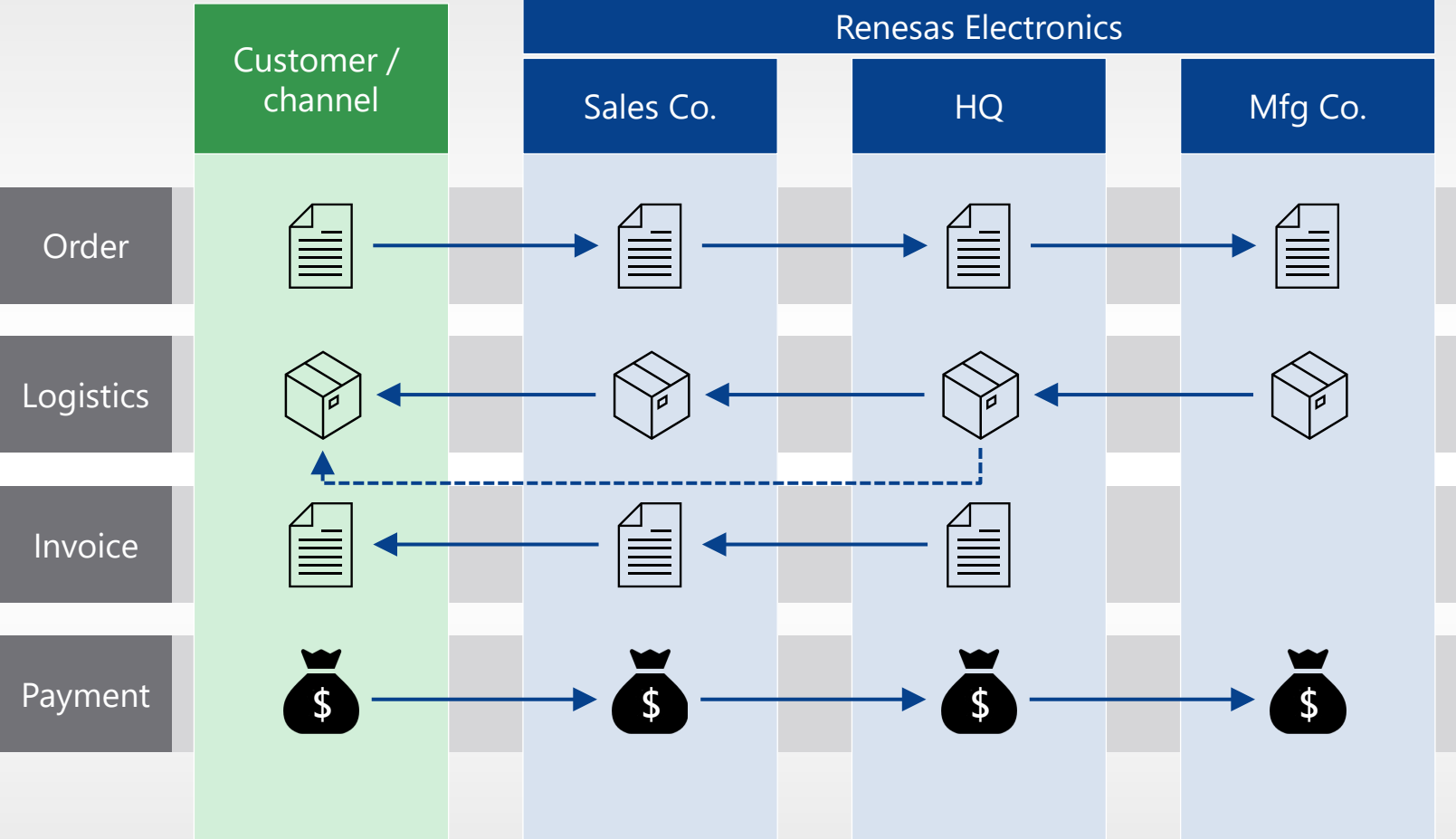
# CHANNEL REINFORCEMENT



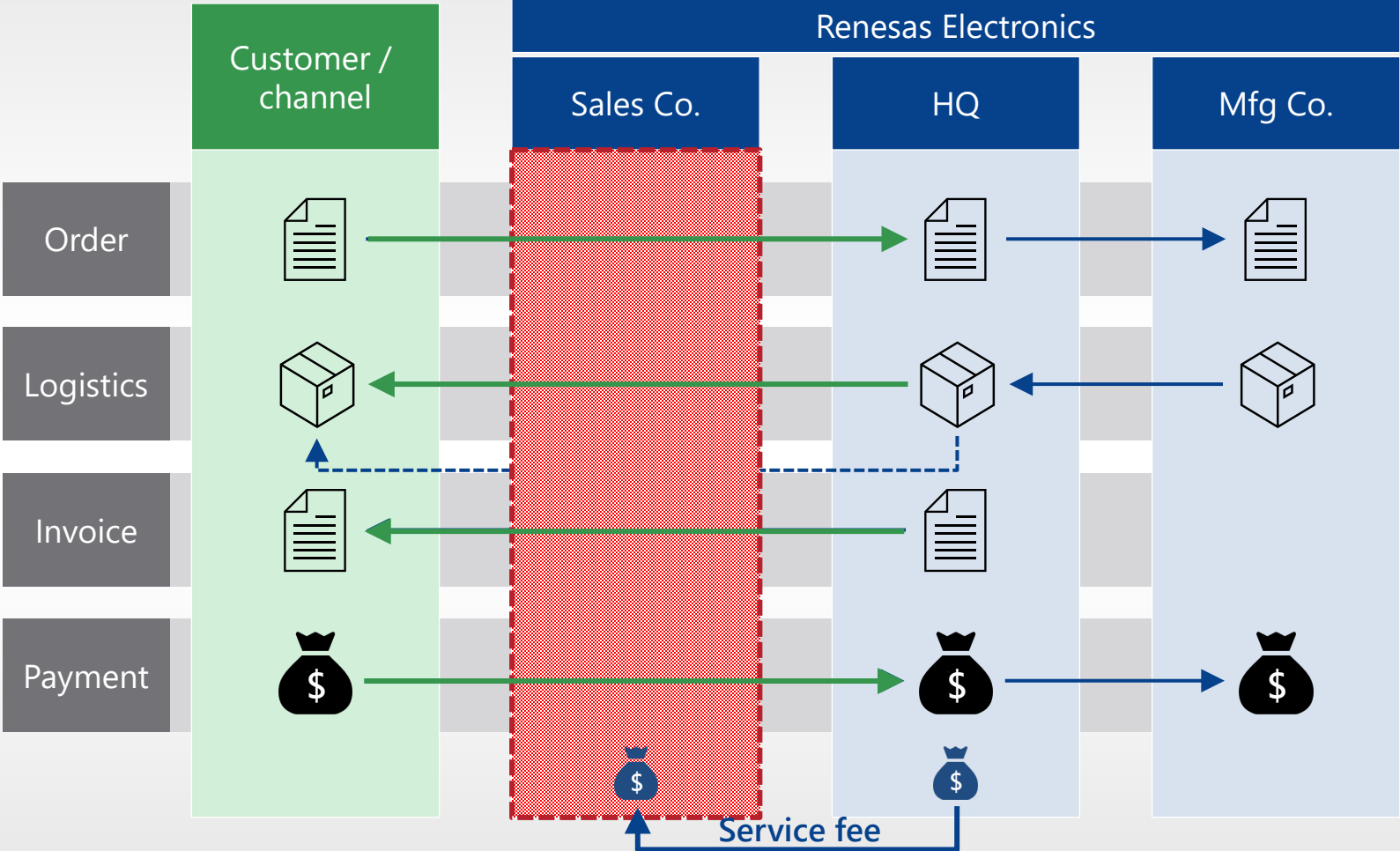
Strategic engagement with fewer distis for better solution development and engineering support

- Investment by disti in demand creation
- Rollout of S&D

# SUPPLY CHAIN EVOLUTION: DIRECT SHIPMENT



# SUPPLY CHAIN EVOLUTION: DIRECT SHIPMENT



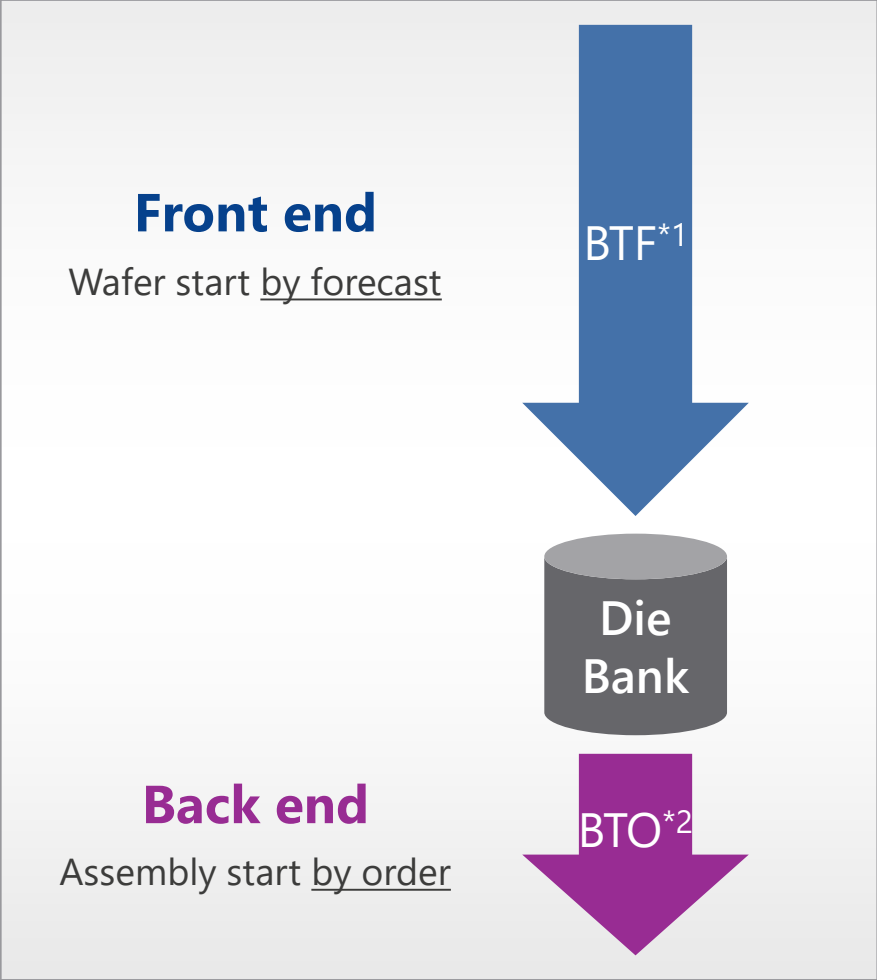
### Transaction efficiency

- Incoterms
- Business process integration

### Logistics efficiency

- Warehouse
- Logistics route
- Full carton

# SUPPLY CHAIN EVOLUTION: DIE BANK & BTO



## Objective

Better supply AND inventory (\$) management

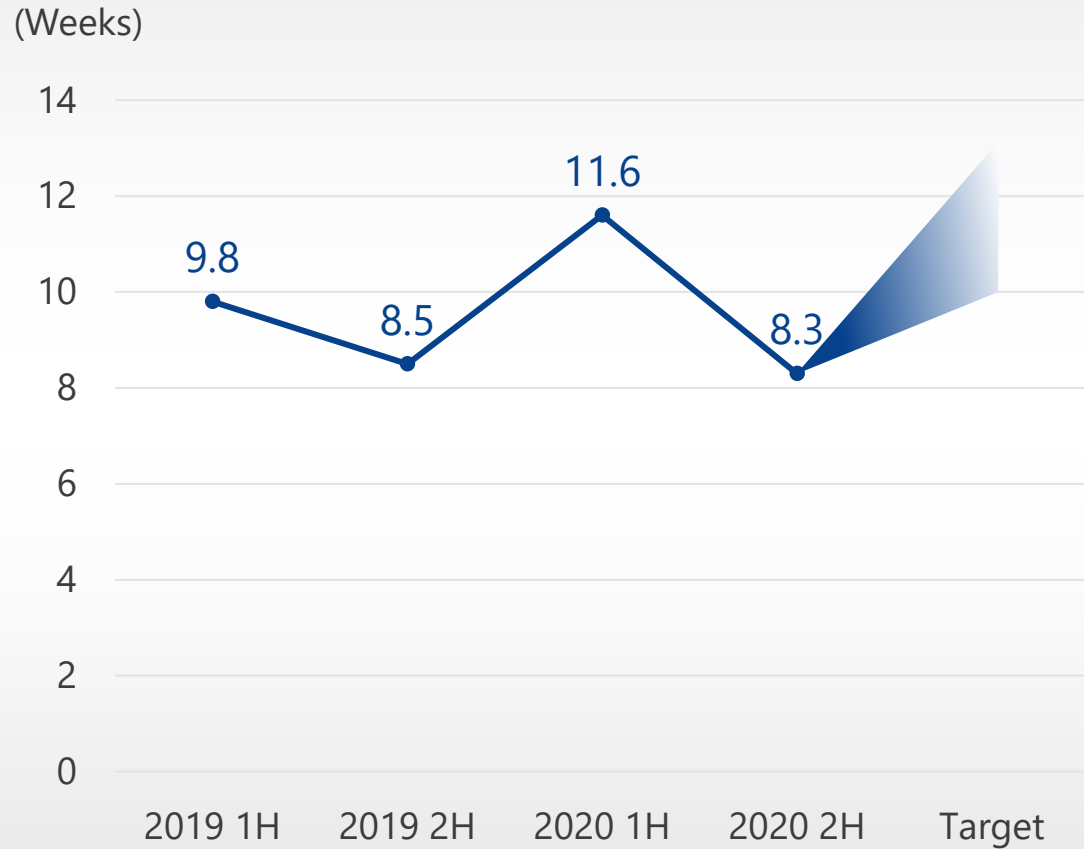
## Progress

|                            | 2020 Jan        | 2020 Dec                                   |
|----------------------------|-----------------|--|
| Number of products covered | 67,864 products | 118,618 products<br>(42% of total revenue) |
| MCU lead times             | 20-22 weeks     | 12-16 weeks                                |

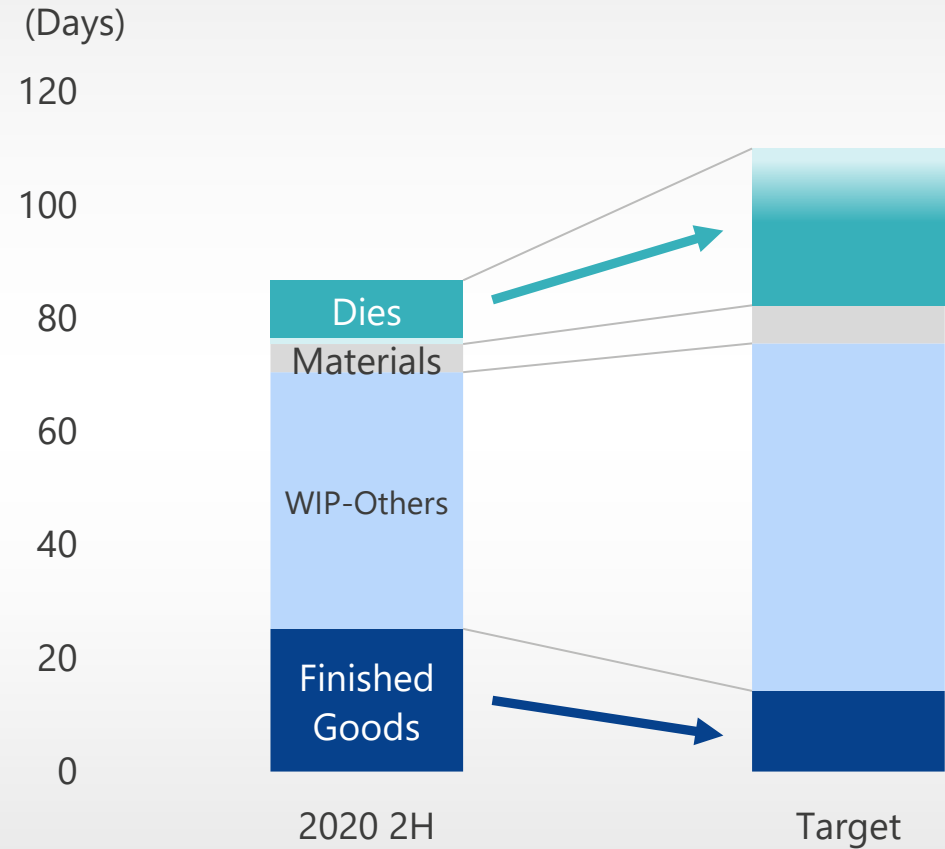
\*1 BTF: Build to Forecast \*2 BTO: Build to Order

# TARGET INVENTORY

## Channel inventory (WOI)



## On-hand inventory (DOI)



# PROGRESS VS TARGET MODEL

|                  | 2019<br>Adjusted* | 2020<br>Adjusted* |   | Long-term target* |                            |               |   |
|------------------|-------------------|-------------------|---|-------------------|----------------------------|---------------|---|
|                  |                   |                   |   | Automotive        | Industrial,<br>Infra & IoT | Total         |   |
| Revenue          | 6,204<br>oku-yen  | 6,357<br>oku-yen  | ➤ | Grow<br>@SAM      | Grow<br>@SAM+              | Grow<br>@SAM+ | ✓ |
| Gross margin     | 43%**             | 48%**             | ➤ | 40-45%            | 55-60%                     | 50%           | ✓ |
| Operating margin | 12%               | 19%               | ➤ | 10-15%            | 25-30%                     | 20%+          | ✓ |

\* FX 1USD=100yen, 1EUR=120yen. Continuing business only

\*\* After reclassification (part of SG&A reclassified to CoGs and R&D)

# D-IN\*1 PROGRESS

## Automotive



\*1 FX 1USD=100yen, 1EUR=120yen

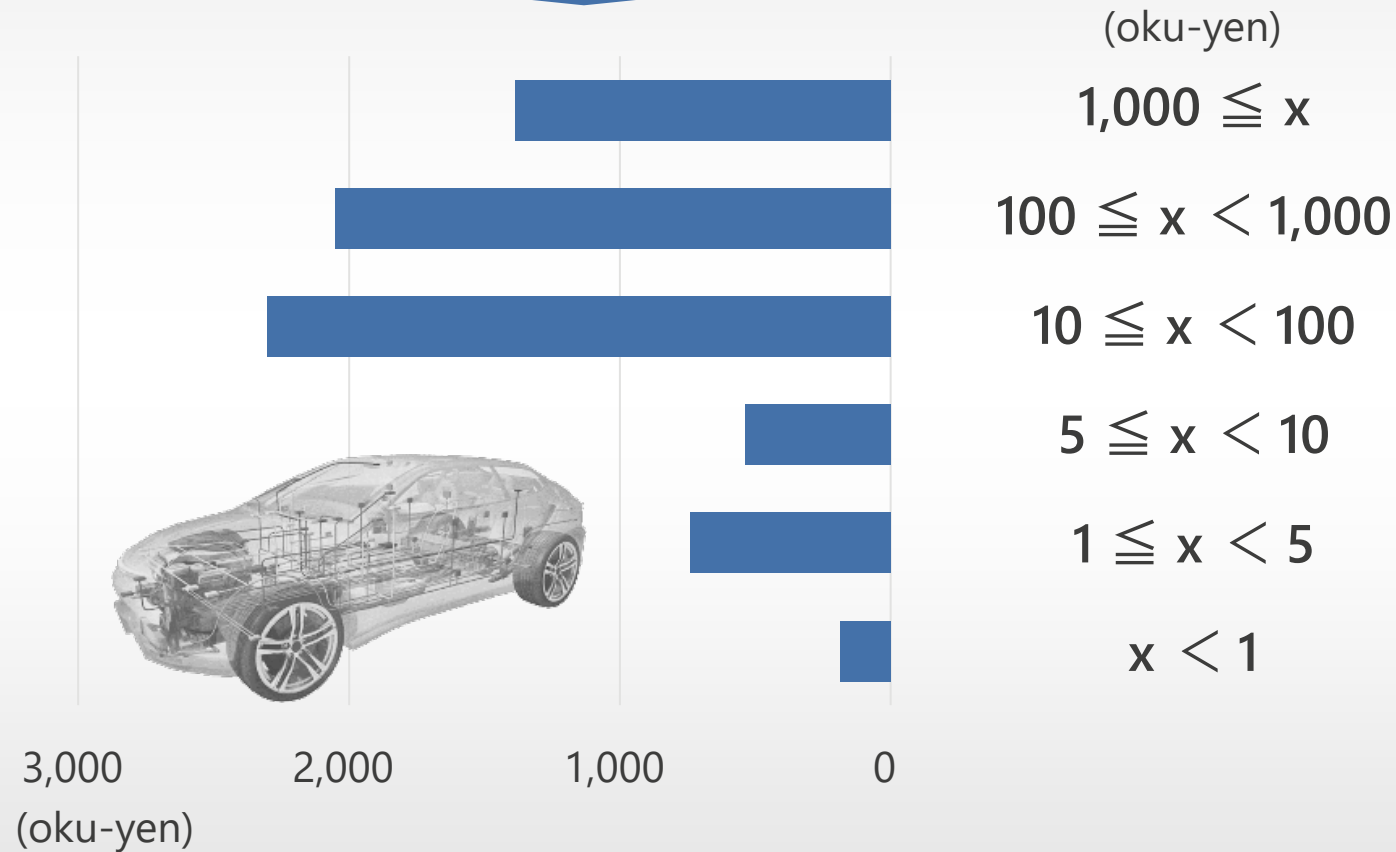
\*2 2021 1H target x 2

## Industrial, Infra and IoT

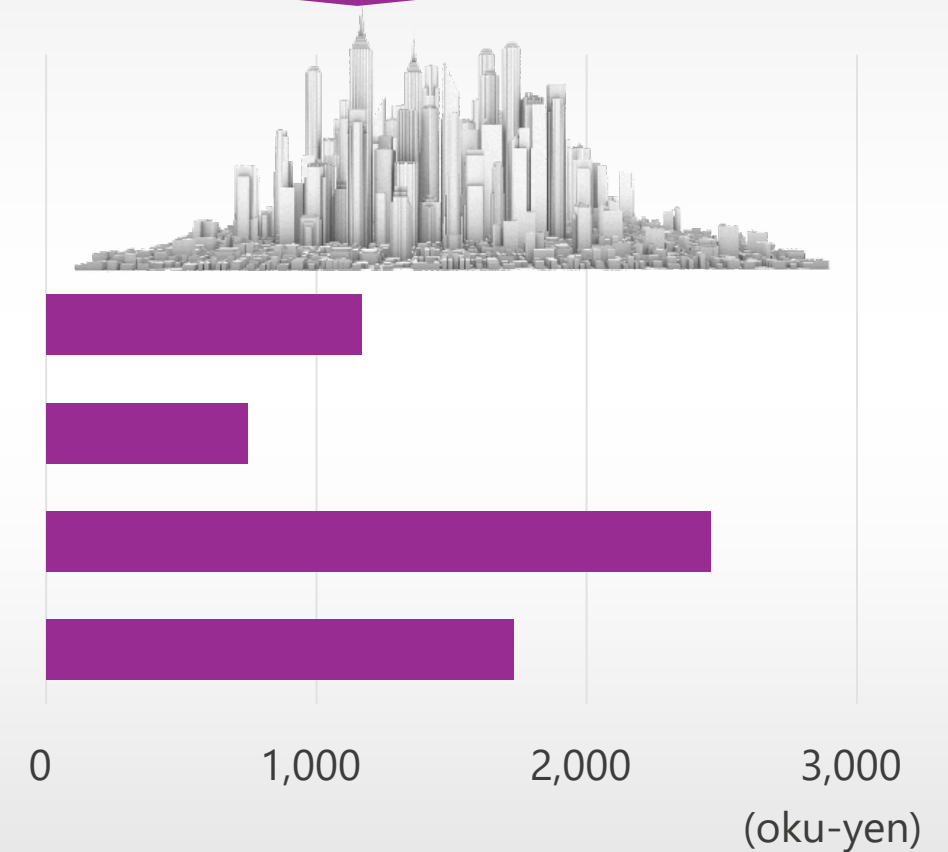


# D-IN BREAKDOWN BY VALUE

## Automotive

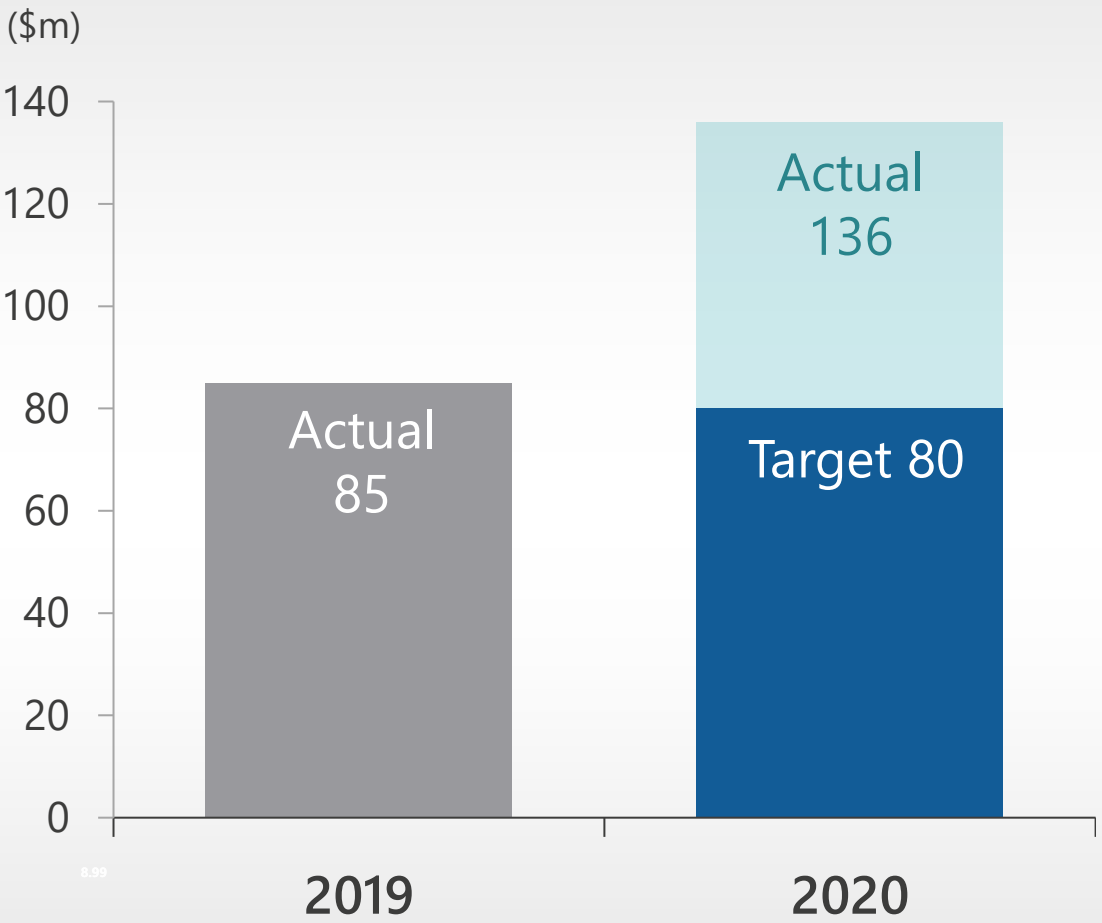


## Industrial, Infra and IoT





# IDT SYNERGY: SAVINGS



## Key Contributors

-  Patent and design tools
-  Organization and operation
-  Procurement
-  Distribution margin

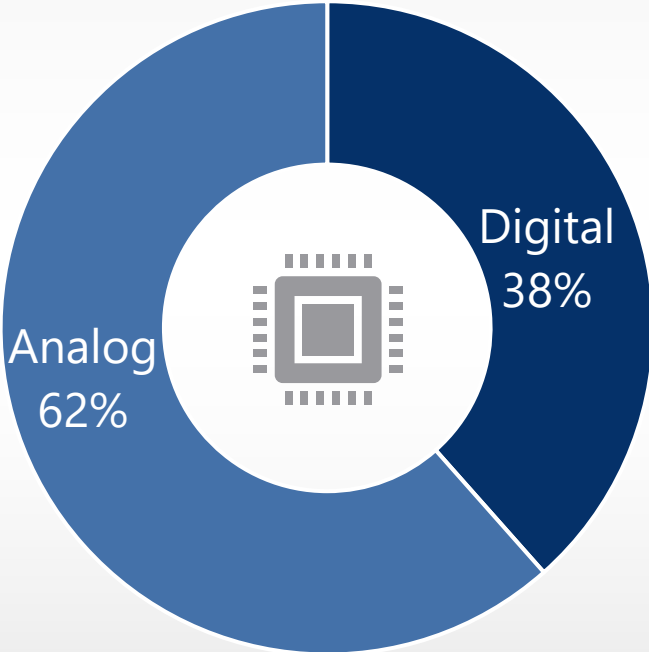
As of December 31, 2020  
Gross savings on an annual run rate basis, in \$m

# IDT SYNERGY: REVENUES

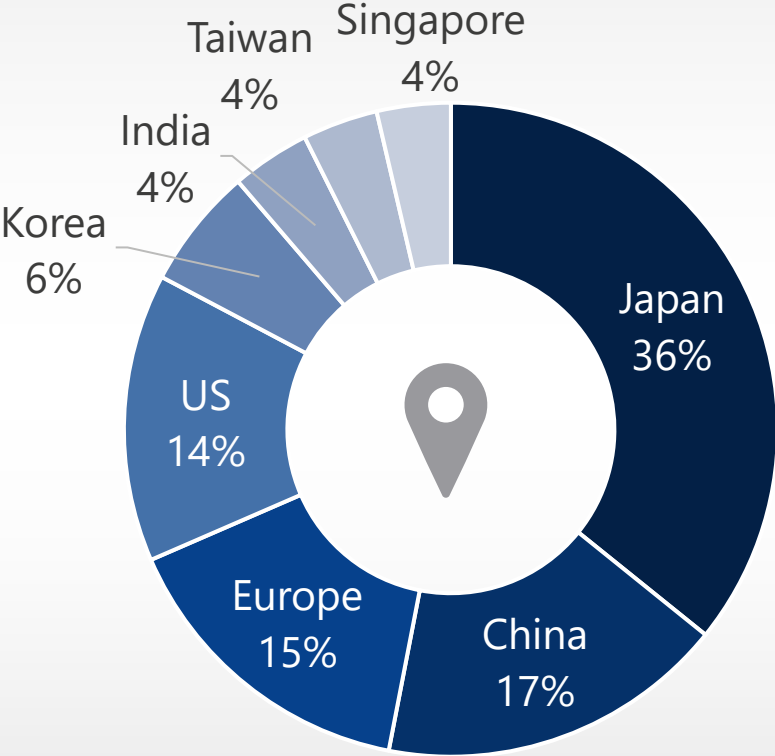
|                | Strategy                 | Solution                 | 2019 Actual          | 2020 Actual          |
|----------------|--------------------------|--------------------------|----------------------|----------------------|
| <b>Deeper</b>  | Boost sales per customer | Winning combinations     | LTV of \$ 129m       | LTV of \$ 1,070m     |
| <b>Broader</b> | Win new customers        | New customer acquisition | 13,980 new customers | 20,560 new customers |

# WINNING COMBOS D-IN BREAKDOWN

By Product



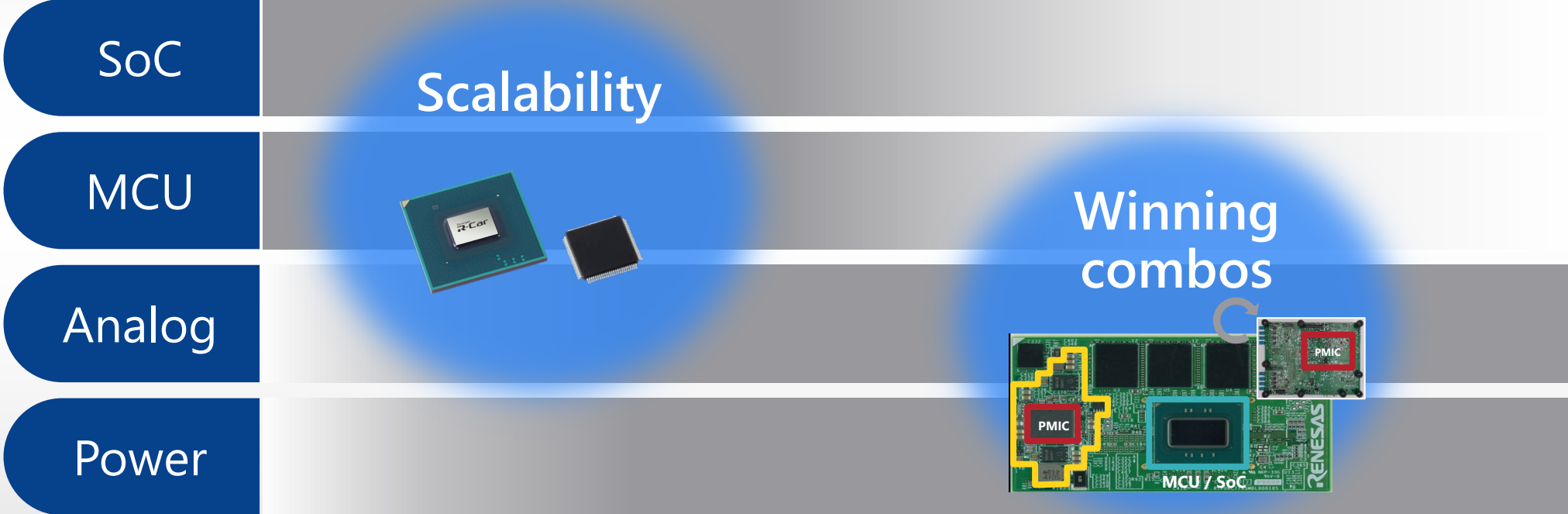
By Region



# BIDIMENSIONAL APPROACH

## AUTOMOTIVE STRATEGY

← ..... Customer technology integration ..... →



# HOW WE WIN – AUTOMOTIVE 1

## ADAS – compute

### R-Car V3U sample shipping

- Best-in-class (60TOPS) for ADAS and HAD



### Tool & software

- Developing real-time, high-speed simulator and automatic parallelization technology
- Renesas CNN tool already in use at customers

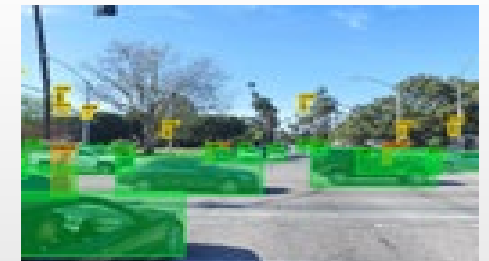
## ADAS – Winning Combo

### ADAS front camera solution

Open platform turnkey solution for easier smart camera development

**lupa**  
ELECTRONICS  
**EagleCAM**

- R-Car V3H SoC
- PMIC
- Pre-regulator



# HOW WE WIN – AUTOMOTIVE 2

## xEV

D-in progress



IGBT in China



BMIC in India

Winning Combo D-in at Chinese OEM

RH850/  
C1M-A2

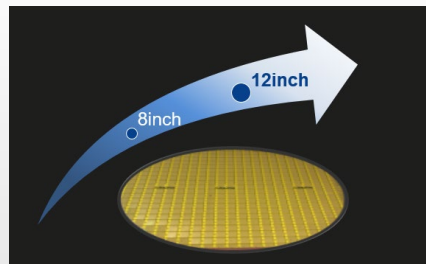


PMIC



Gate  
driver

300mm IGBT  
development  
in progress



## Sensing

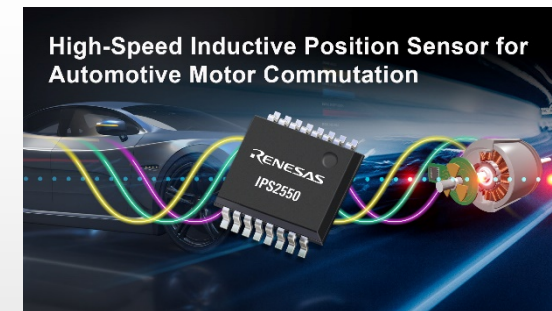
LiDAR development in progress

LeddarTech®

LCA2: Mass Production started

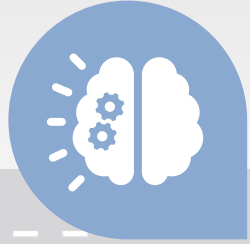
LCA3: Under development as planned

IPS2550 for auto released in Jan 2021



# NOTHING NEW, JUST PULLED IN

## INDUSTRIAL, INFRA AND IOT STRATEGY



**AI**  
Edge/EP-AI



**Cloud**  
Bandwidth demand



**IoT**  
Sensors, surveillance  
and tracking



**VR/AR**  
Social & training



**VUI**  
Voice user interface



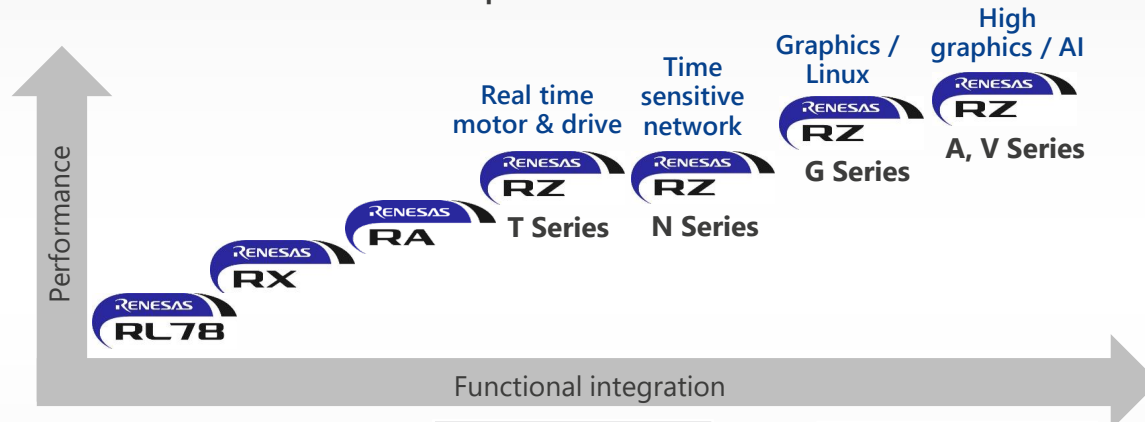
**Telecom/5G**  
Traditional vs O-RAN

# HOW WE WIN – INDUSTRIAL

## MPU

### MCU / MPU

Scalable lineup for MCUs and MPUs



New Product

### 64-Bit entry class RZ/G2L family for HMI

- RZ/G2L family built with latest Arm® Cortex®-A55
- Together with existing RZ/G2 MPUs, total of seven MPUs to provide scalability from entry to high-end

New Product

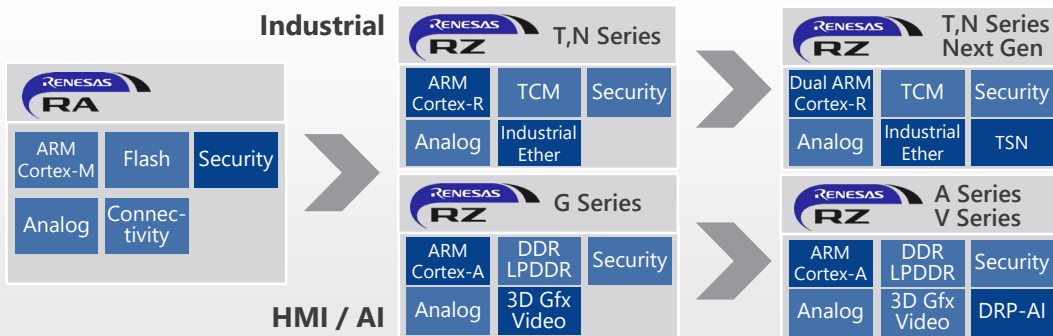
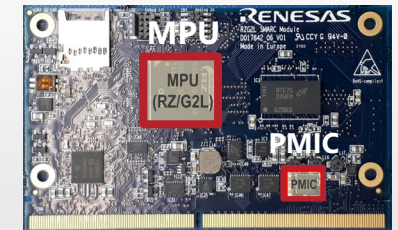
### RZ/T Next for industrial drive

- True real time performance with multi-industrial ethernet to enable one chip solution for drive market including robotics

Winning Combo

### RZ/G2L family & new PMIC

- SMARC module reference (business card size)
- To make it easier to develop applications





# EXPANDING HMI SOLUTIONS



## Touch



### High robustness & noise immunity

- Compliance with IEC61000 4-3 / 4-6, level 3
- RA2L1 touch RSSK compliance with IEC61000 4-3, level 4

**Deep neural network support:** - 98% accuracy - Low system resources - lowest power VAD

**Flexible for new life standard:** - Wet, occupied & dirty hands – far-field support

## Gesture



### 2D / 3D gesture

- 1mm accuracy, up to maximum 200mm from sensor by 3D gesture

## Voice



Support for 34+ languages

Local voice recognition algorithms

## Graphic



High performance with 2D / 3D acceleration

- GUI framework support (Android, HTML5, Qt, etc.)

HW, SW and PC image / layout design support

## Vision & AI



High energy efficiency image & video processing with AI

- Vision AI by DRP-AI
- 4K to FHD ISP & video codec

Ref. designs & ready-to-use solutions

- RTOS & CIP Linux support

# HOW WE WIN – INFRA AND IOT

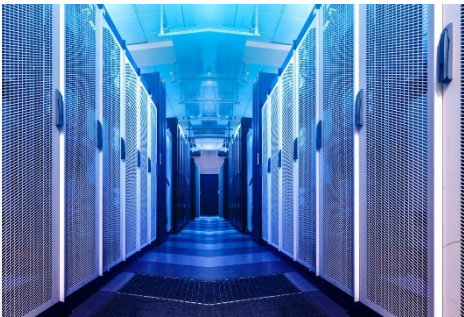
## Infra

### 5G



- Early engagement with O-RAN solution providers

### Data center



- Contents growth by transition to Icelake & DDR5
- Share gain in power management

## IoT

### RA family

6 new products released since Sep 2020



### RL78 family

Consecutive D-in records 2H/'19, 1H/'20 & 2H/'20  
RL78 Next (G23) in MP

### 5G module development w/ Sequans

Combination of Renesas' analog front end and Sequans' 5G modem



# OUR PURPOSE

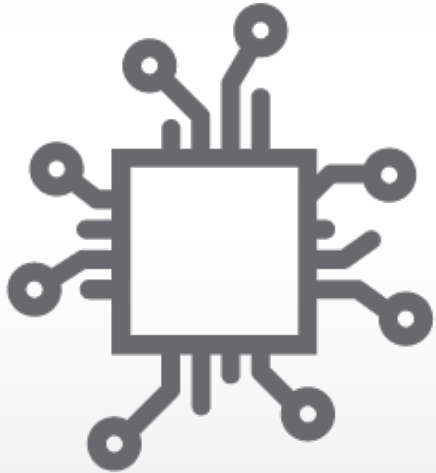
**To make our lives easier**  
by complementing human capabilities



# HOW DO WE MAKE IT EASIER?

Hardware

---



Software

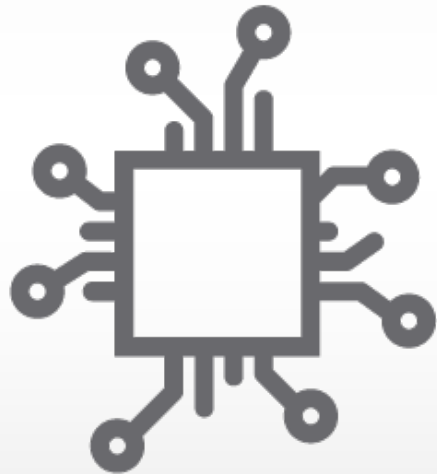
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# HOW DO WE MAKE IT EASIER?

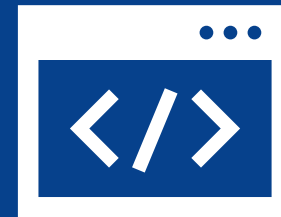
## Hardware

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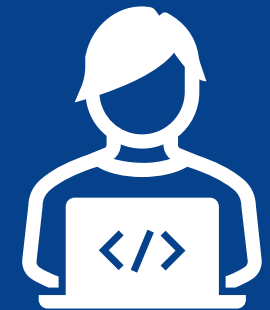


## Software

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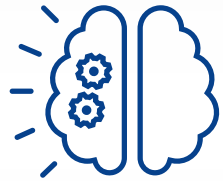
Program / code



Ease of use

# RENESAS CORE TECHNOLOGIES

**AI**



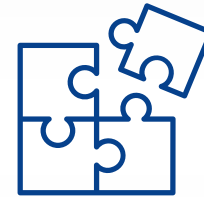
for intelligence

**Safety & security**



for robustness

**Digital-analog-  
power synergy**



for system first

**Cloud native**



for scalability

# SUMMARY

Well positioned portfolio

To address high growth market

With emphasis on delivering results

- ✓ Increasing R&D spend
- ✓ Most focus verticals growing
- ✓ Making progress as planned

*... to make our lives easier*



[Renesas.com](https://www.renesas.com)