








# EMBEDDED PROCESSING DIGITALIZATION STRATEGY

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GAURANG SHAH  
VP AND GM OF EMBEDDED PROCESSING  
RENESAS ELECTRONICS CORPORATION

# AT A GLANCE

## EMBEDDED PROCESSING

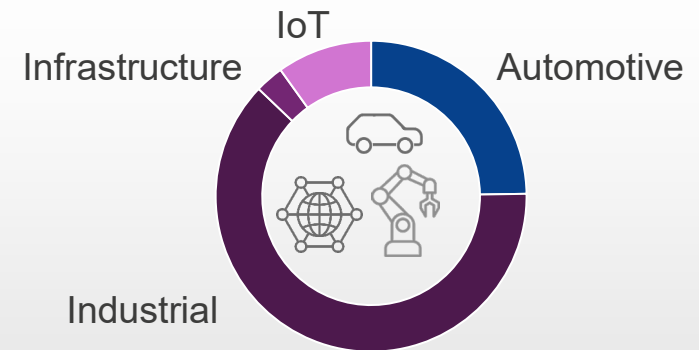
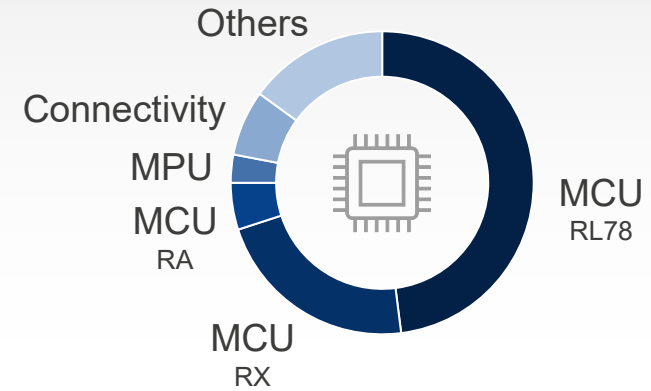
### Products

Microcontroller 	Microprocessor 	Connectivity 
 16-bit low power	 64-bit	Bluetooth
 32-bit high-performance	Vision AI	Wi-Fi
 32-bit Arm Cortex-M	Industrial networking	802.15.4
	Motion control	NFC
		Sub-GHz / Wi-SUN

### Technologies

					
Control	HMI	AI/ML	Security & Safety	Smart connectivity	Energy efficiency

### 2025 Revenue mix



# DRIVING MARKET FORCES

Proliferation of **edge AI** &  
Emergence of **physical AI**



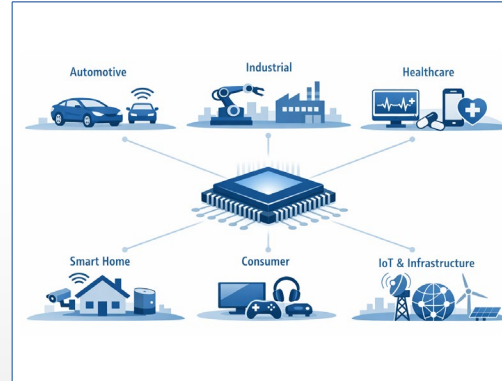
**Localization** &  
**Race to innovate**



Rise of **legislations**  
& **standards**



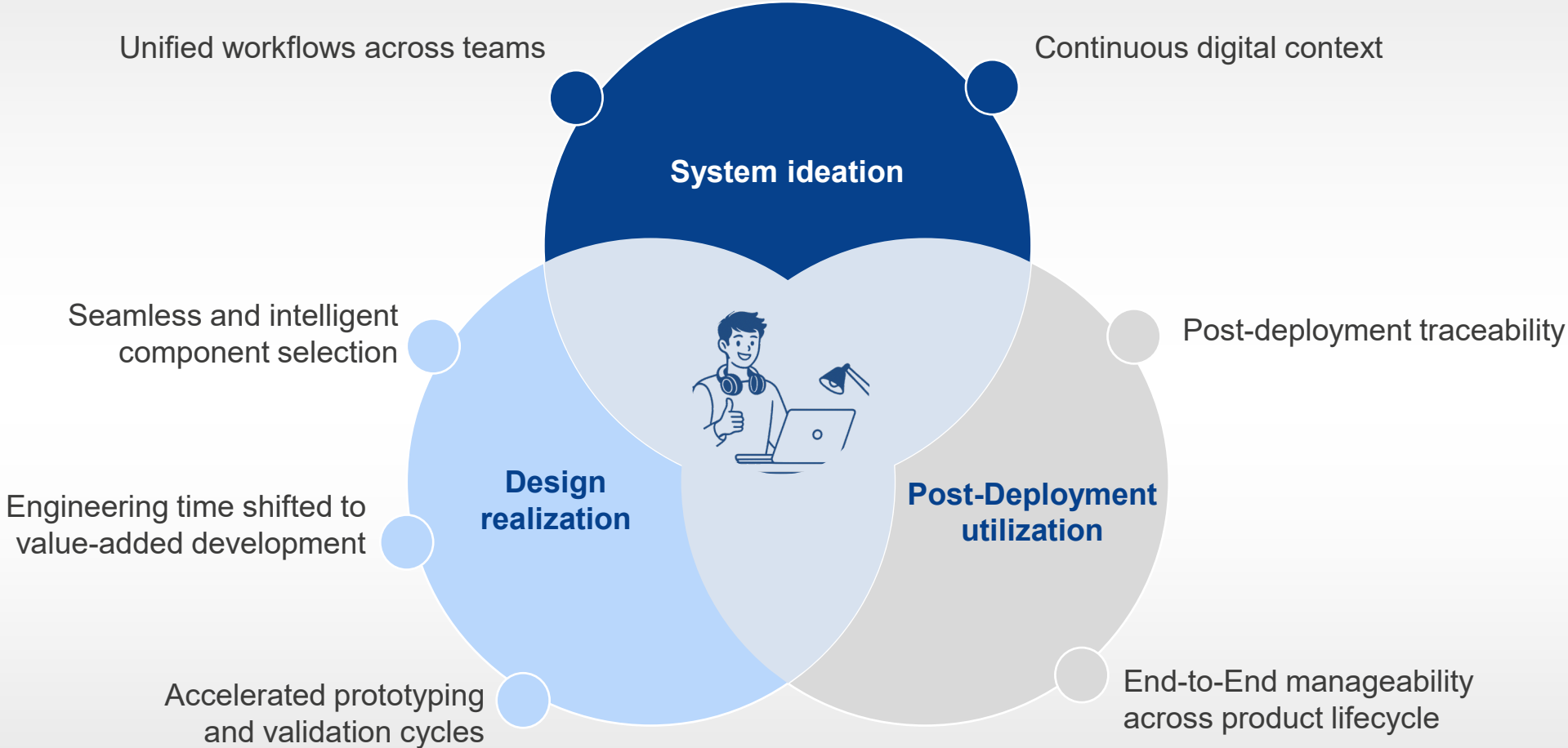
Increased **intelligence**  
& **autonomy**



**Rising developer complexity & application diversity**

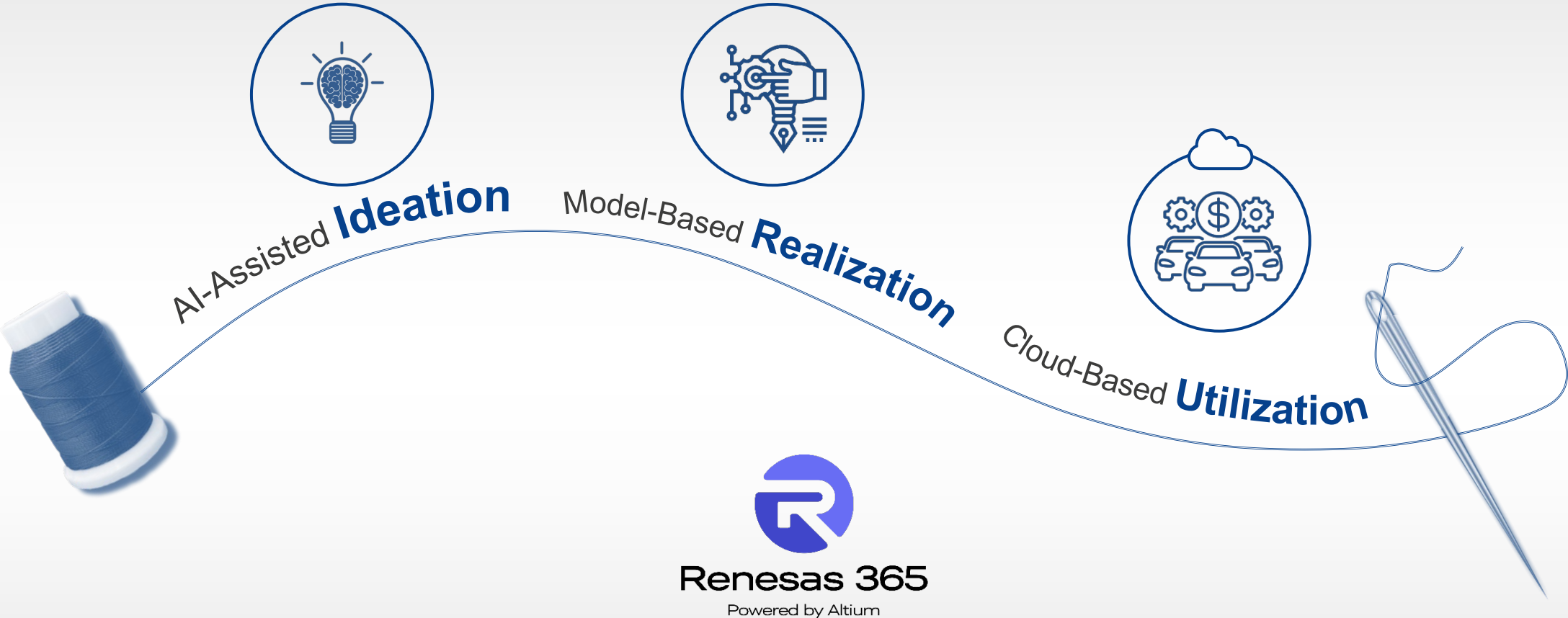
# MODERNIZING EMBEDDED DEVELOPMENT WORKFLOWS

## ADDRESSING DEVELOPER COMPLEXITY & APPLICATION DIVERSITY



# DELIVERING COMPETITIVE ADVANTAGE THROUGH A SYSTEM-FIRST PLATFORM

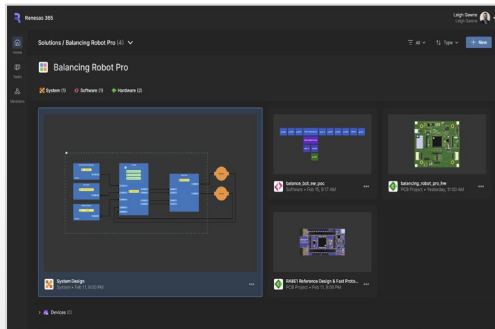
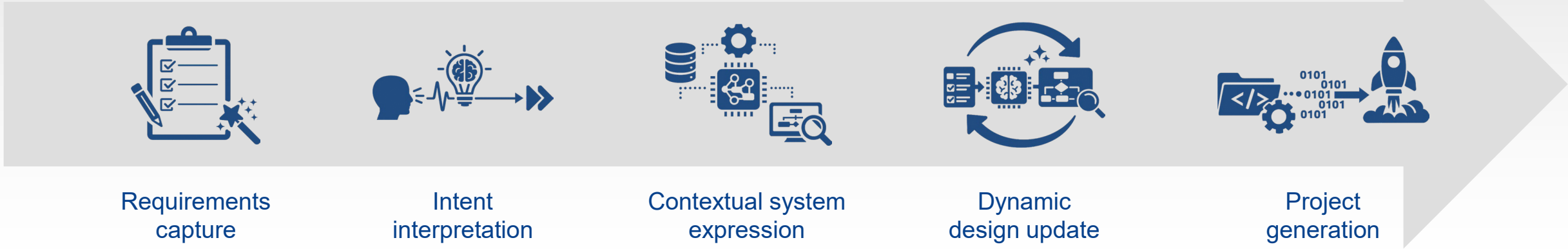
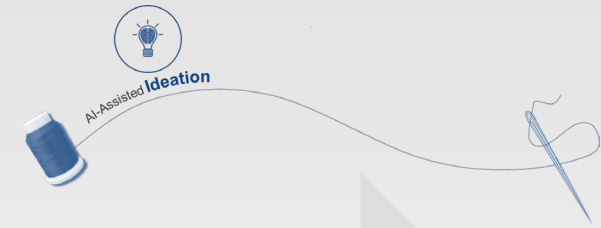
## RENESAS 365 – THE PLATFORM CONCEPTUAL MODEL



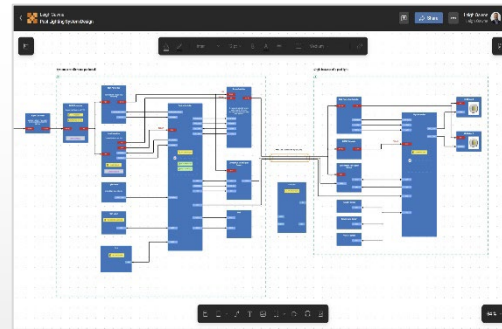
Renesas 365 delivers an industry first digital thread for electronics development

# AI-ASSISTED IDEATION

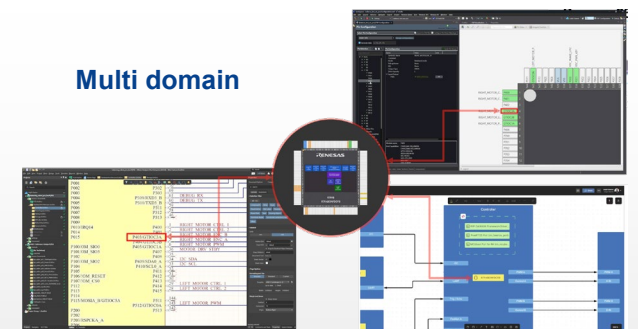
## RENESAS 365 ELECTRONIC SYSTEM DESIGNER



Requirements capture & Intent Interpretation within Renesas 365 Workspace



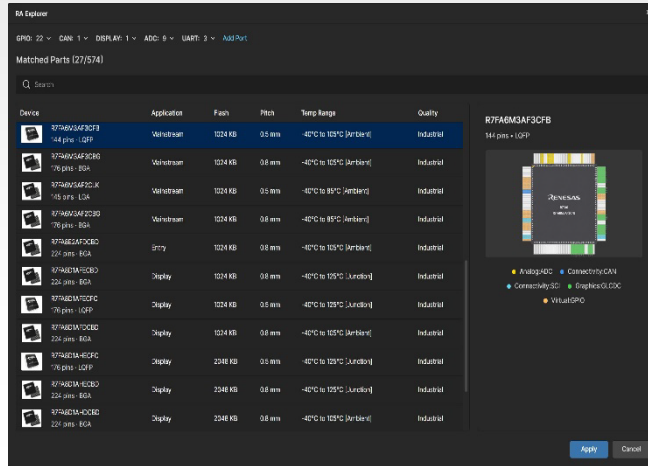
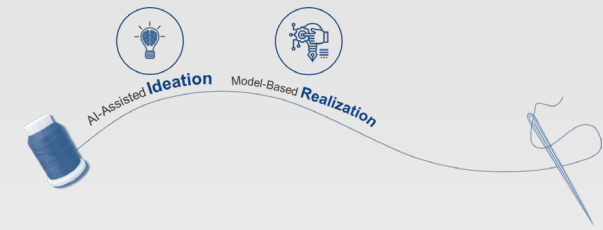
Dynamic design updates and contextual system expression via Electronic System Designer



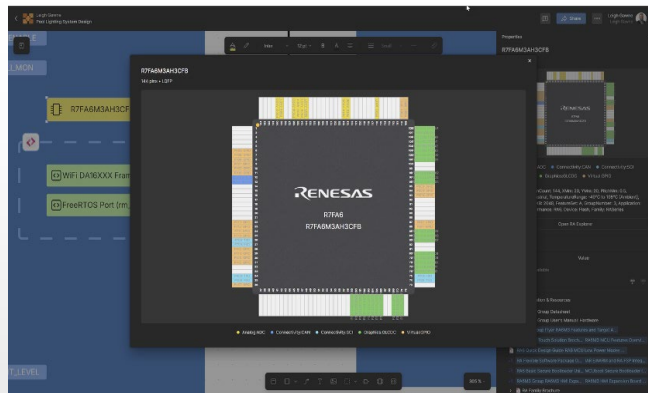
Project generation with persistent digital context

# THE UNIQUE ADVANTAGE OF MODEL-BASED REALIZATION

## RENESAS 365 MATERIALIZES THE DESIGN INTENT



Design relevant component search



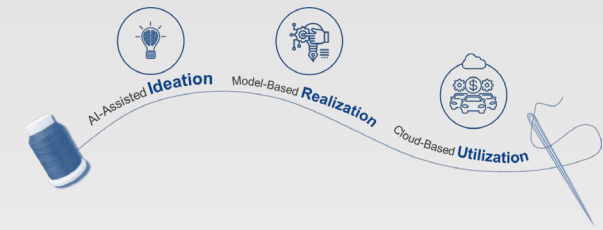
Contextual real time pin mapping

## The new: Intent-Driven design

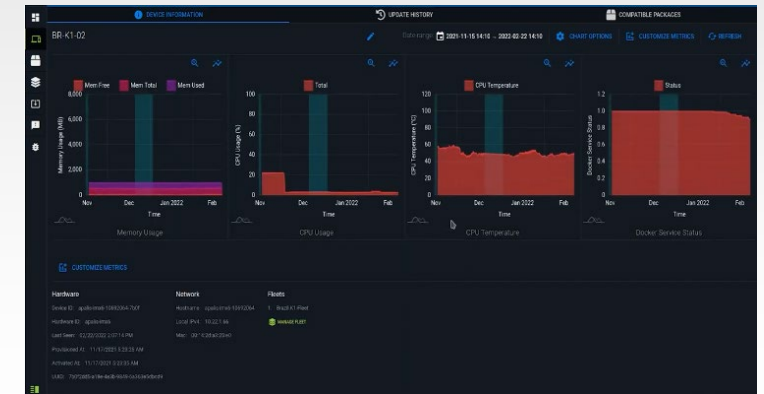
- 1 Express design intent**  
*“Bring your design to life!” through Electronic System Design (ESD)*
- 2 System determines what’s possible**  
 Automated HW & SW feasibility across devices
- 3 Rapid comparison at scale**  
 Contextual feasibility evaluated instantly across hundreds of options
- 4 Elevate engineering impact**  
 Engineers shift from  
 “Can this device work?” → “Which solution fits best?”

# INDUSTRY FIRST CLOUD-BASED UTILIZATION

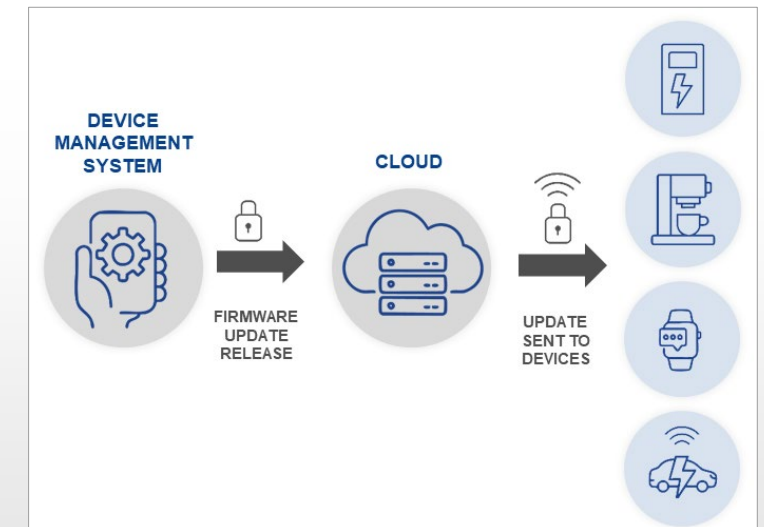
## RENESAS 365 DEVICE LIFECYCLE MANAGEMENT CAPABILITIES



- Early lifecycle/operational management (design-centric) including OTA updates
- OTA client used like a standard software component
- Licensed technology, integrated into the platform
- Fleet management foundation
- Early software deployment management
- First implementation on RA devices



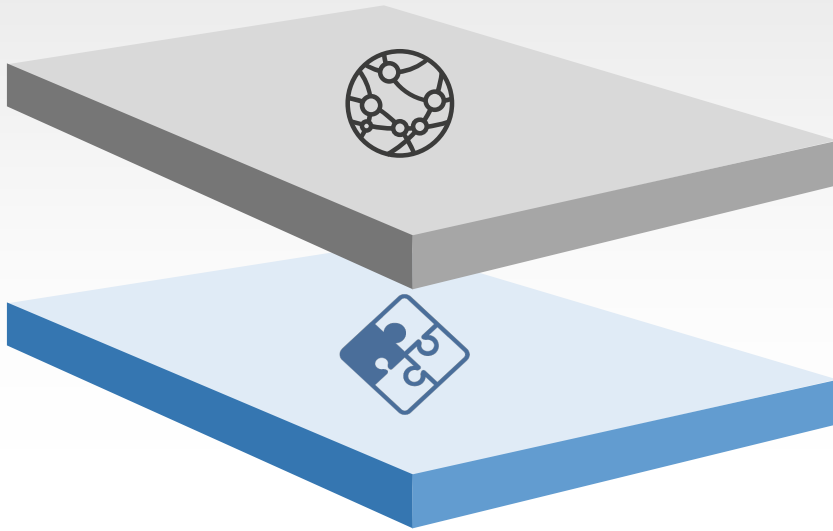
Post-deployment fleet-management of devices within Renesas 365



# THE ROAD AHEAD

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# THE FUTURE IS PLATFORM & DIGITALIZATION



## Open sub-system ecosystem

- Range of component vendors
- 3rd party developed subsystems
- Value-chain engagement (IDHs, CMs, Channel, Universities)
- Open-sourced Renesas sub-systems

## Product building-blocks

- Enhanced system integration
- Pre-integration of high value technologies
- Reduced time-to-compliance
- Domain-specific readiness

## Rich developer experience

- ESD-driven sub-system templates
- Cloud-native development
- AI-assisted design
- Model-based design

Future

Augmenting the rich developer experience with a powerful and open ecosystem to further aid system design

Today

Generally available as of March 2026, and will continue to evolve

# TARGET CUSTOMER PERSONAS & RENESAS STRATEGY

## Customer persona

## Renesas strategy

Losing market share to new and aggressive competitors from emerging markets

Typically struggle with speed-to-innovation, cost competitiveness & agility to iterate-build-release products

Traditional  
OEMs



01

Help accelerate migration of legacy designs to superior sub-systems unlocking innovation, speed and cost vectors for these customers

Looking to disrupt a space

Typically speed-to-innovation (idea to POC) and time-to-market (POC to production) critical for success

New-Age  
companies



02

Act as a virtual tier-1 helping these customers with adoption of disruptive technologies, speed-of-innovation & time-to-market

Driven by local dynamics – modernization, new regulation, state-led incentivization

Typically, localization (ecosystem) and time-to-market (concept to POC to production) critical for success

Emerging  
markets



03

Offer a local ecosystem helping these customers ranging from turnkey designs to last-mile-customization

# LOOKING AHEAD

	Available now	2026	2027	2028
Solutions	RA MCU portfolio	Platform-ready building blocks & Portfolio expansion	Platform expansion to system-level solutions	Intelligent expansion to advanced SoC platforms
Workflows & Capabilities	Motor control workflow	Requirements-driven AI-enabled system design	Behavioral modeling & Operational lifecycle	Agentic embedded design
Developer experience	End-to-End MCU development experience	Streamlined BSP & tooling experience	Modernized AI-assisted development environment	Legacy design migration
System & Platform	Integrated system design to digital execution	Unified open platform & Agentic AI integration	Industrial platform & Cloud-Native infrastructure	Foundational platform software stack general availability

# LEVERAGING AGENTIC AI ORCHESTRATION WITHIN RENESAS 365

**AI agent**

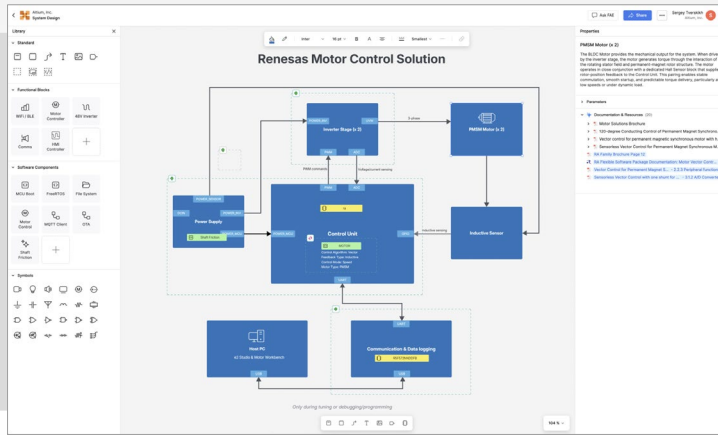
**Responsibility**



Design intent → executable workflows	<b>1</b>	Intent → system models
Tool orchestration	<b>2</b>	Multi-domain workflow orchestration
Context-aware reasoning	<b>3</b>	Persistent digital context
Autonomous iteration	<b>4</b>	Rapid exploration & decisions
Human supervision	<b>5</b>	Engineer-in-the-loop

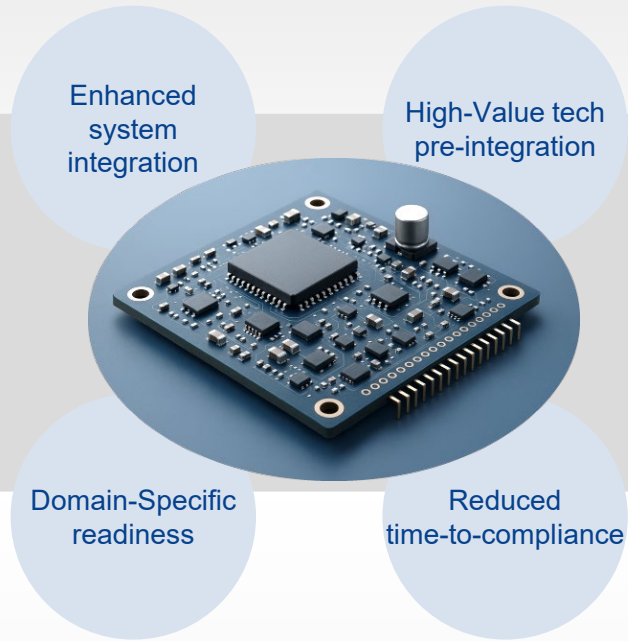
# OUTLOOK

## PLATFORM & DIGITALIZATION




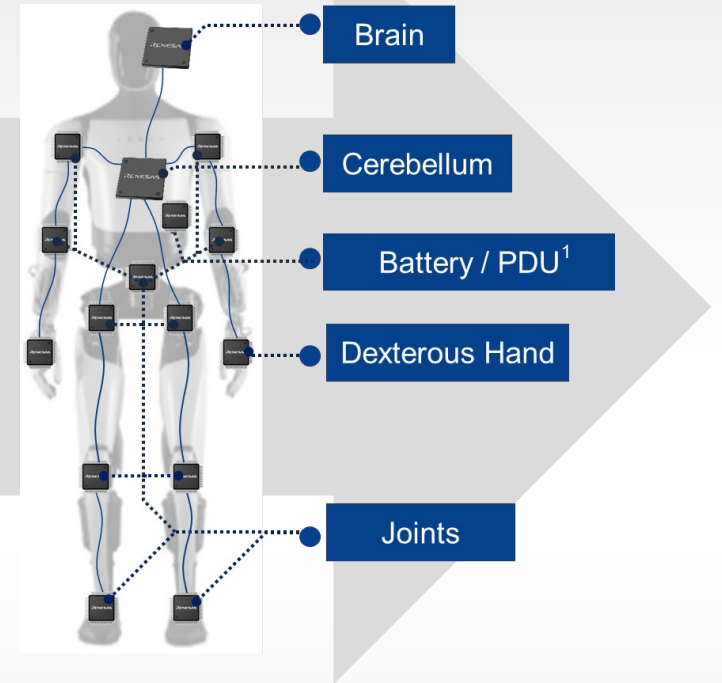
### Rich developer experience

 Software & Digitalization Group



### Product building-blocks

 Product Groups

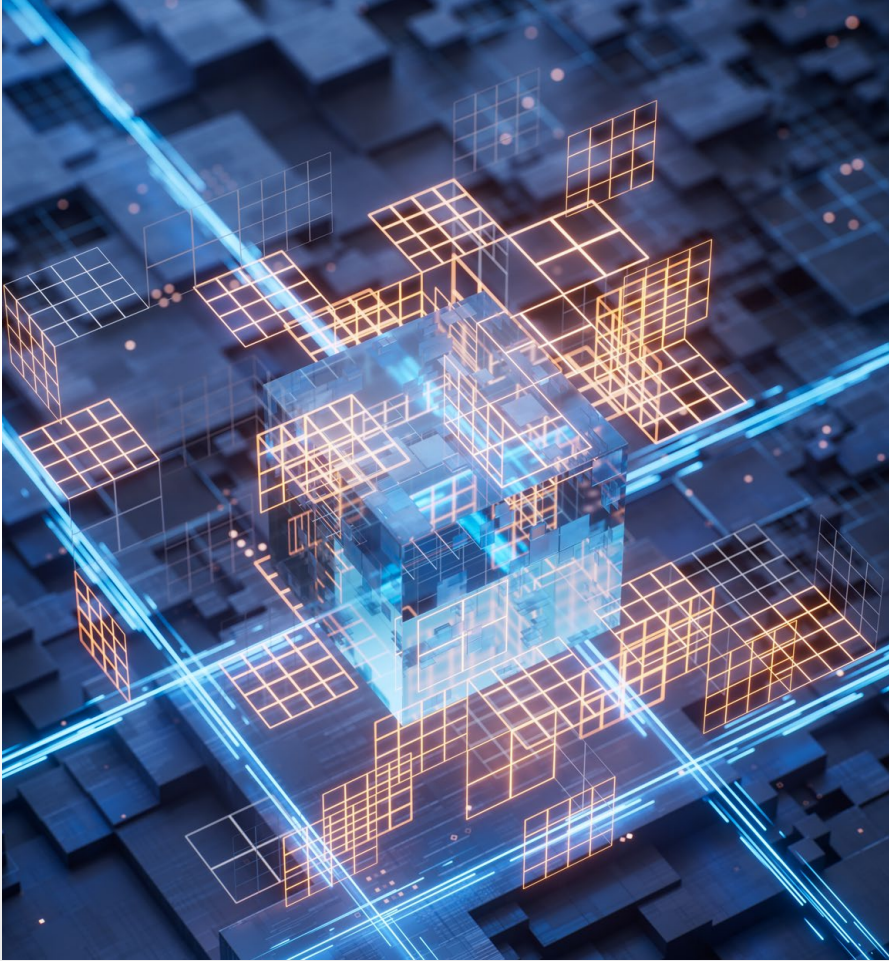


### Open sub-system ecosystem

 UX Group

1. Power Distribution Unit

# SUMMARY



On course to take advantage of the opportunity driven by **edge & physical AI accessibility to broad market through Renesas 365 platform & digitalization**

Frictionless developer experience and competitive advantage through **Renesas 365** platform to accelerate adoption

**Scalable embedded compute portfolio & differentiated core technology IP** to enable value-added software-defined products

Multi-faceted **strategic investments** across products, technology & supply chain

**RENEASAS**

THANK YOU

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