



SDV Foundation Platform

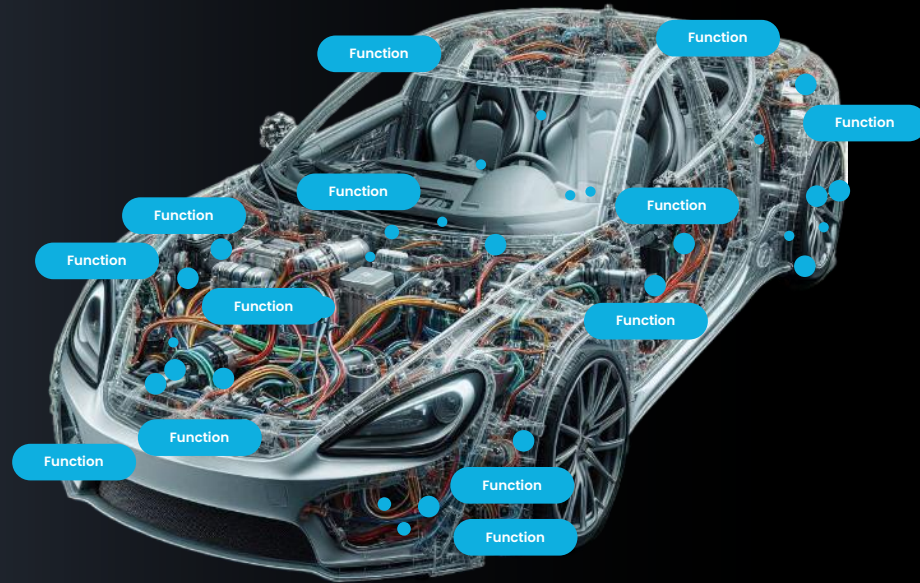
"CoreRide" as a System Proposal

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The move to **software**

Software-defined architecture simplifies complexity and scales innovation



Defined by **hardware**

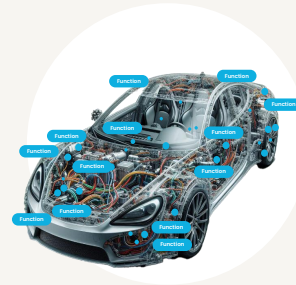


Defined by **software**

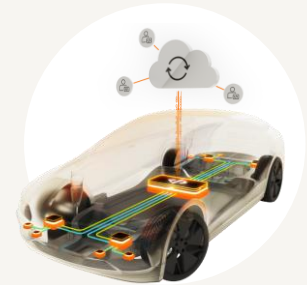
Evolving automotive needs

Three major industry
transformations

Growing
complexity



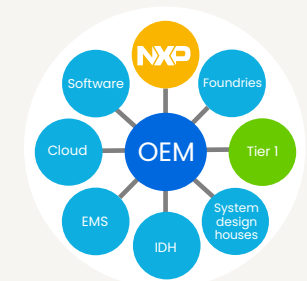
Distributed ► centralized
General purpose ► app-specific
Mass market ► complex product



Evolving
value chain



OEMs proactively shaping
semiconductor roadmap,
with Tier 1s enabling
system-level integration



Half TTM

4-5 years



China speed
/pragmatism

2 years



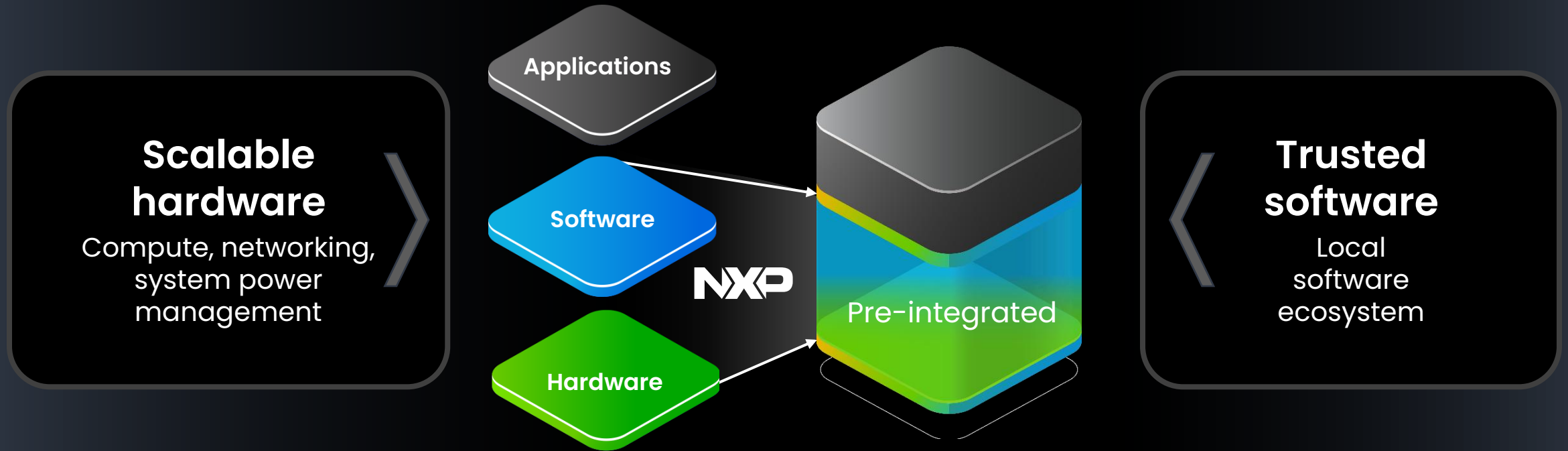
Consequences

Closer collaboration between OEMs, T-1 and Semi

NXP = Perfect Partner to digitize the vehicle, reduce Total Cost of Ownership & Time-to-market

NXP CoreRide Platform

Clearing the path to the future SDV



Scalable efficiency—from concept to car

NXP CoreRide platform: a development path into production

Foundation

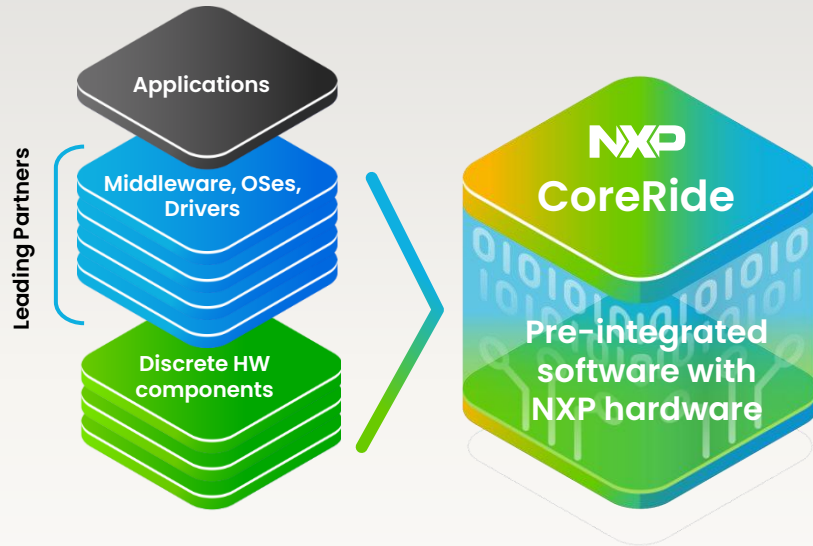


Systems



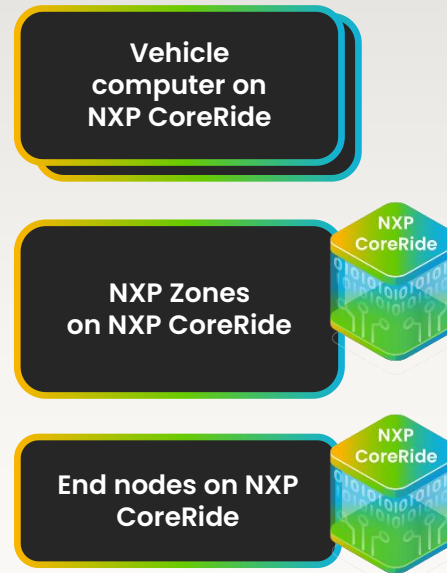
Vehicle-wide

NXP CoreRide platform



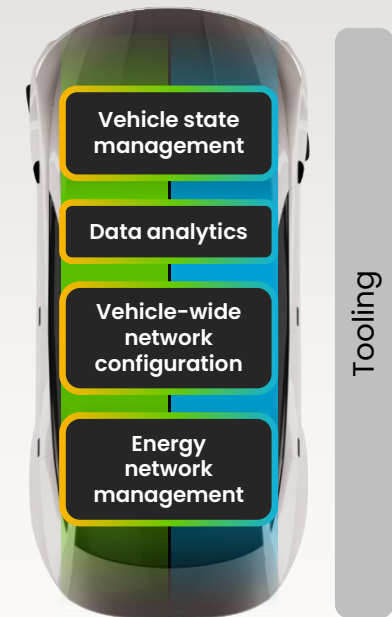
Enablement platform
for specific use cases

Verified system KPIs



Reference designs and systems
built on NXP CoreRide platform

Verified vehicle KPIs



- Faster architectural validation
- Easier scalability / flexibility
- Fit for virtual development

At Component Level

System-Enabled Product

S32x SDK

Example:

S32N SDK + RDB HW
S32K SDK + EVB HW

Customer benefits

Fast access to product enablement
Easy prototype and exploration
3rd parties enablement

At ECU Level

System Ref Designs based on NXP CoreRide

CoreRide Reference design ECU

Example:

Vehicle Compute ECU
Zonal ECU

Customer benefits

Shorter TTM
Lower switch cost / investment
Foundation for differentiated product

At Vehicle Level

Vehicle Service

CoreRide Veh.

Example:

Vehicle Compute ECU
+3x Zonal ring topology
+Zonal Agg
+E2E Use Case SW

Customer benefits

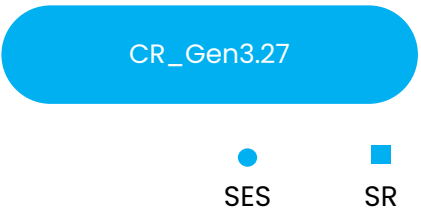
Faster architectural validation
Easier scalability / flexibility
Addressing end to end challenges

NXP CoreRide Solution Roadmap

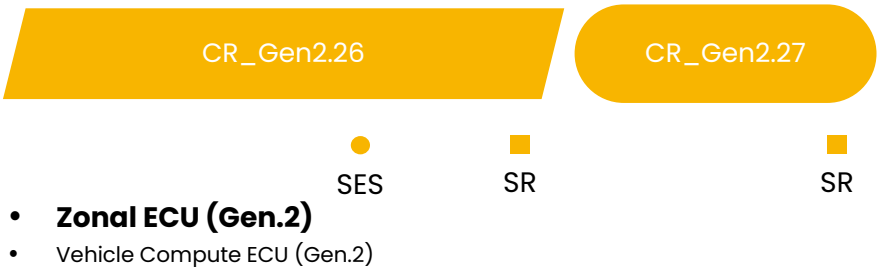
○ Proposal ⬡ Planning ▱ Execution □ Production

Roadmap and current execution challenges

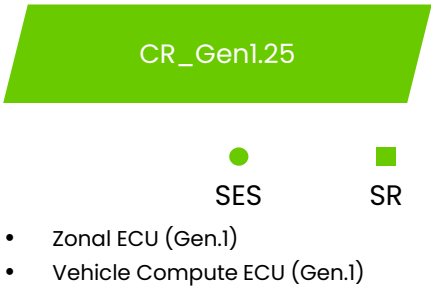
Consolidated Compute



HP zonal compute



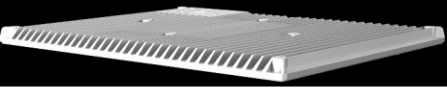
Distributed Compute



Prioritization going forward

Zonal related items (Gen.2)





投影のみ

SW CoreRide offering: Zonal Platform

Hybrid 12V/48V high performance zone controller supporting ring architectures for power & data

投影のみ

NXP Vision

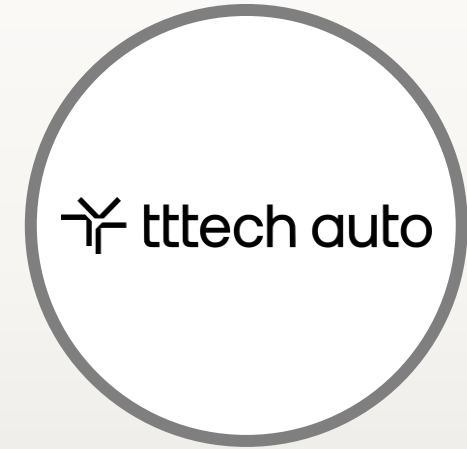
Become the indispensable, disruptor, thought leader and E/E OEM/Tier1 partner for SDVs

To realize this vision, the acquisition of TTTech Auto is a key accelerator

Leading automotive semiconductor and systems provider



Leading software solution provider specialized in systems, safety and security for SDVs



To be the leader in intelligent edge systems in Automotive

Accelerating NXP's SDV roadmap and CoreRide execution

Augmenting system expertise at ECU level

System Safety and Security Expertise

Whats Next: **The Intelligent Car**



Today:
NXP CoreRide
towards SDV

Tomorrow:
True Autonomy
with **Edge AI**



Intelligent Data Orchestrator

Intelligently manage AI/ML and other task through your vehicle ensuring deterministic task execution



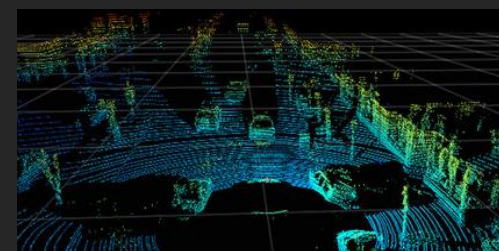
Virtual Sensors

Replace hardware sensors or deploy in previously inaccessible places like inside motors



Predictive Maintenance

Utilize real-time data from individual vehicles to prevent anomalies in your fleet



Imaging Radar

Radar-based object classification with reduced dependencies on cameras or LiDAR



Audio

Identify emergency vehicle sirens and their location in a noisy environment



Get in touch

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