



# Towards the Vehicle of the Future – a European perspective

The Autonomous

Wien, 14 September

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[Open European software-defined vehicle platform | Shaping Europe's digital future \(europa.eu\)](#)

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## Vehicle of the Future - autonomous, connected, electric, servitised: A risk that the EU falls behind



**Advance of non-EU companies:** chip suppliers, 'digital-native' automakers, hyper-scalers

**Dependencies:** threat to the autonomy of the EU automotive industry, impact of export control for semiconductors on automotive markets

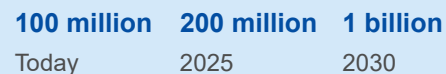
**Fragmented efforts** by EU automotive industry...

...but growing number of **partnerships and alliances**

Share of electronics in total cost of a car  
Deloitte



Lines of SW code in a car



**Threat to the competence and sovereignty** of the EU automotive industry, with non-EU companies dictating future developments and business models

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## IAA Mobility München – Take-aways

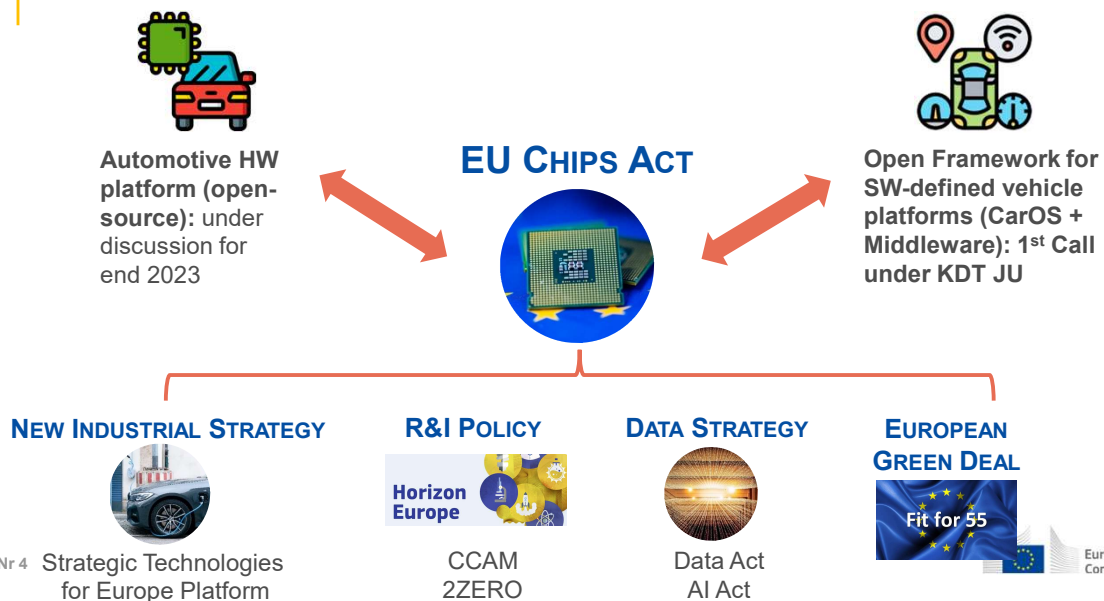
- Chinese OEMs are on the leap into the EU market of battery powered EVs
  - Particular strenghts on low end – low price segment
  - Alternative business models
  - SOTU speech President Von der Leyen: Anti subsidy investigations into EVs from CN
- EU manufacturers show strong innovation on high-end
  - Efficiency: faster charging - longer range
  - Sustainability: less use of rare earth, ...
  - Autonomous driving functionality
- Cooperation of CN OEMs with EU OEMs and Tier1s
  - BMW on e-Mini with Great Wall, VW on EV platform with Xpeng, ...
- Term SDV omnipresent
  - collaboration on non-differentiating elements and standards for SDV widely accepted
  - Confirmed today: e.g. Qualcomm, Electrobit, ...

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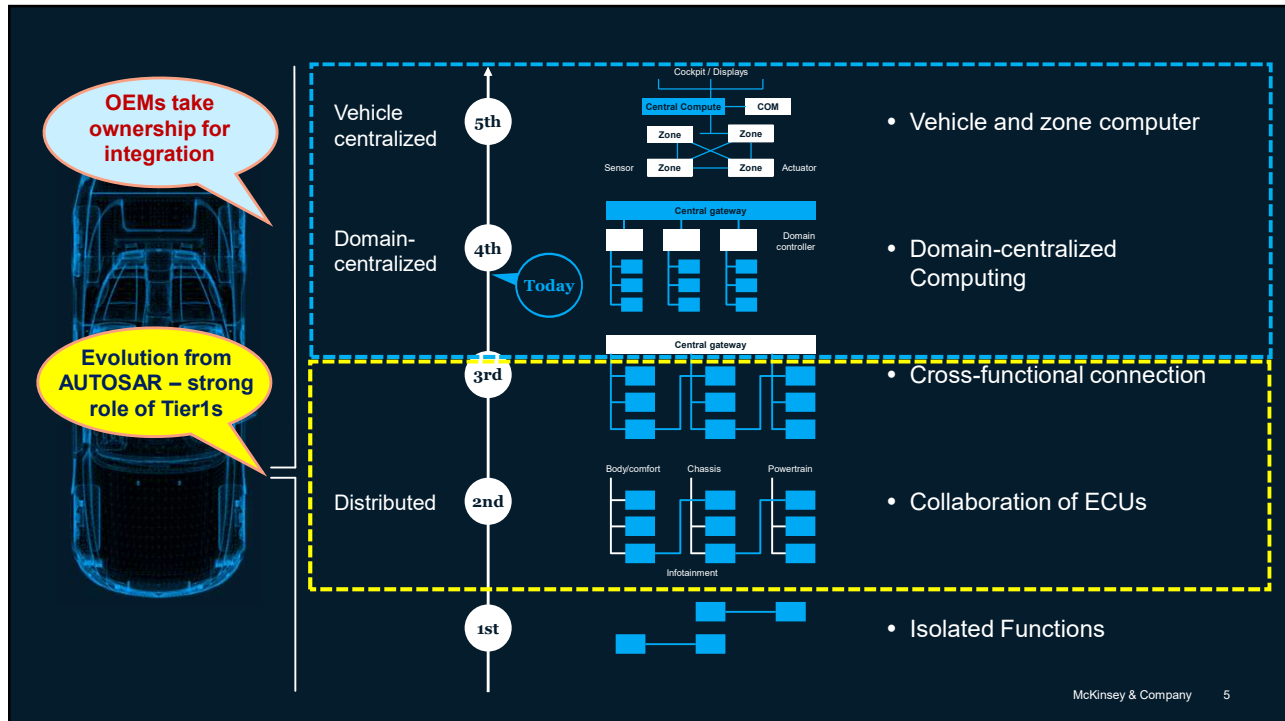
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## Delivering on EU strategies in the automotive sector



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## European leadership on the vehicle of the future

Starting point: Bologna Workshop on Vehicle of the Future – June 2022

### Automotive hardware platform

Reinforce EU position and reduce dependencies in strategic market of **high-performance central automotive processors**, leveraging **RISC-V** developments

- ✓ Workshops on 28 November 2022 and 8 March 2023
- ✓ Reflection paper by IDMs and RTOs on “The Road towards a High-Performance Automotive RISC-V Reference Platform”

Joint Session

### Software-defined vehicle platform

Reduce costs and complexity by working together on **non-differentiating features**, ensuring **level playing field** for automotive HW and data-driven cloud-edge applications

- ✓ Governance workshops on 29 November 2022, and 7 March 2023
- ✓ Concept Paper by OEMs, Tier1s & Associations, executive summary (public)
- ✓ 1st calls under KDT JU – closed 03/05/23

**Stakeholders: OEMs, Tier1s/2s, semiconductor companies, RTOs**

→ Complementary and closely connected platforms to reinforce **EU sovereignty and leadership** for key elements of the automotive value chain

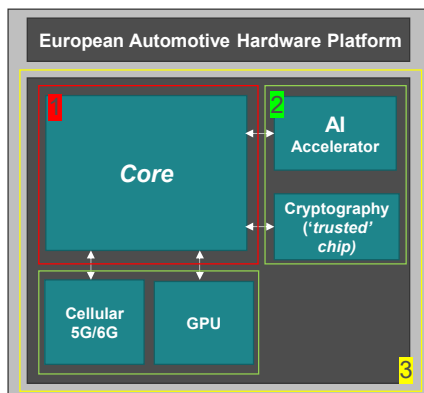
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# Automotive Hardware Platform



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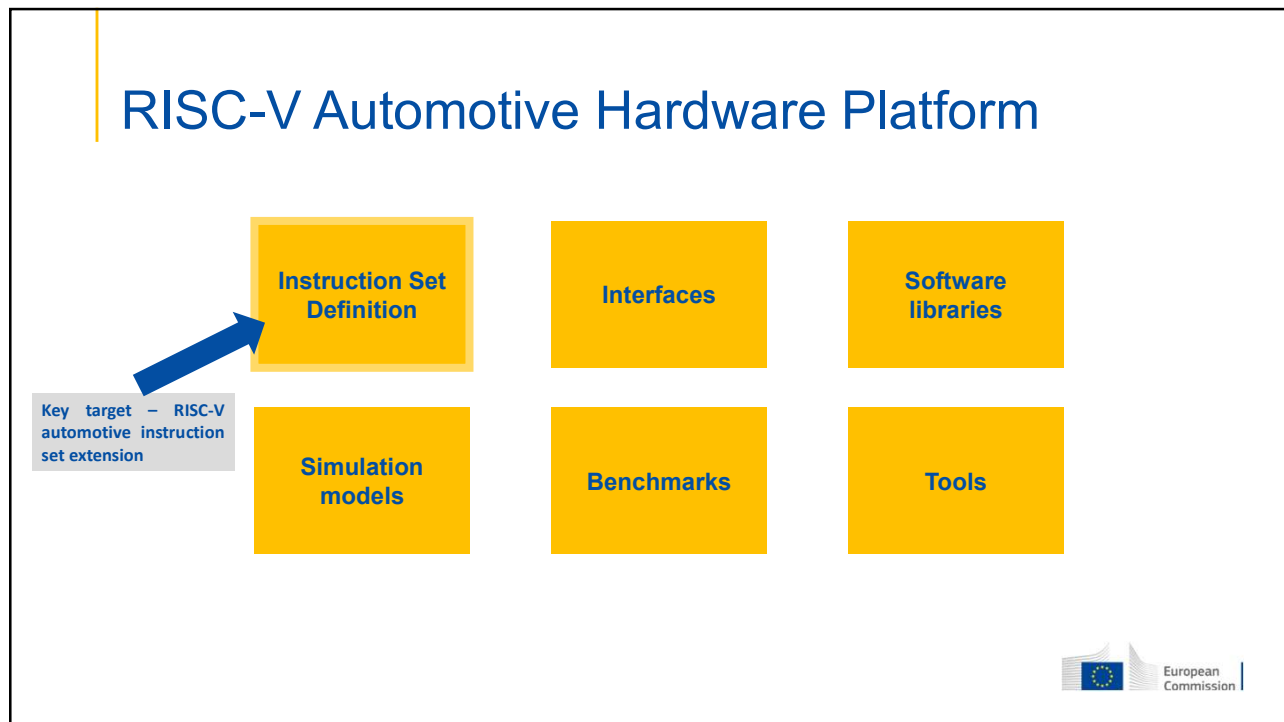
## Possible implementation of the automotive hardware platform via the Chips Act



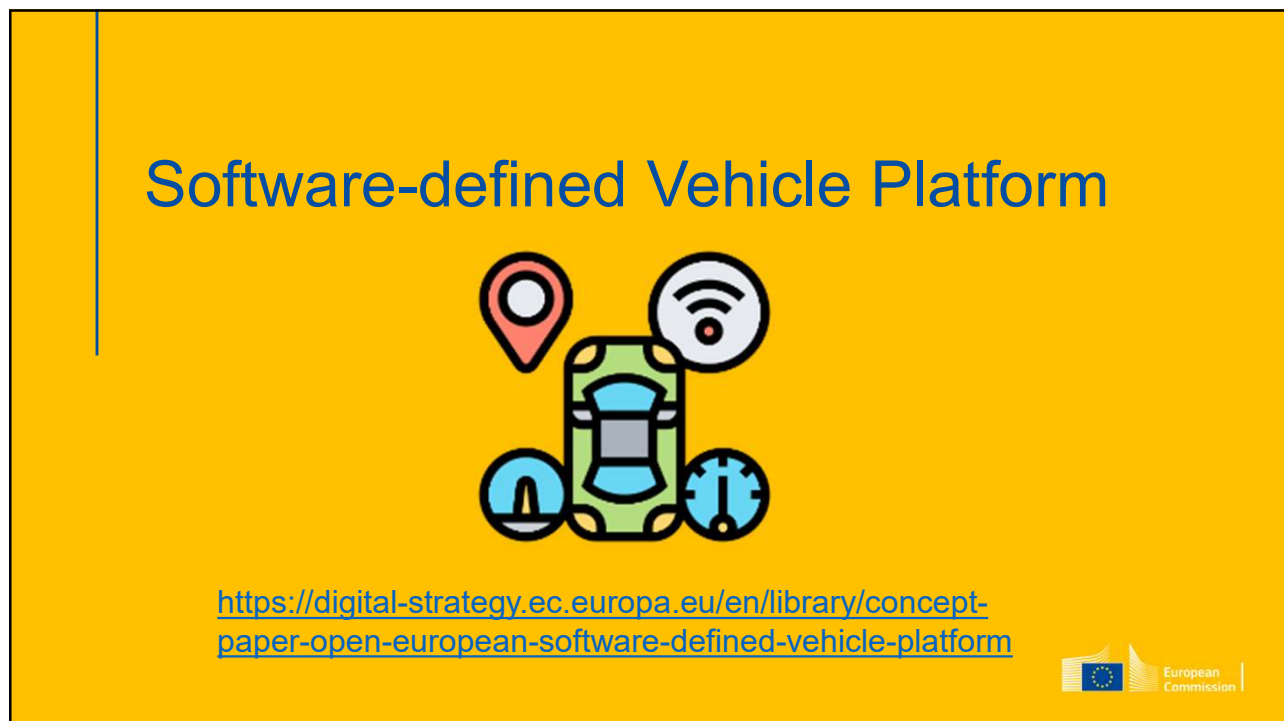
- A number of automotive-related actions are foreseen under Pillar 1 of the Chips Act.
- CHIPS/KDT JU support for:
  - cores RISC-V ISA (1) High-performance and real-time
  - IP blocks e.g. AI, Cryptography etc. (2)
- Integration via *chiplet* approach through continued support for heterogeneous integration (incl. pilot lines, R&I) (3).



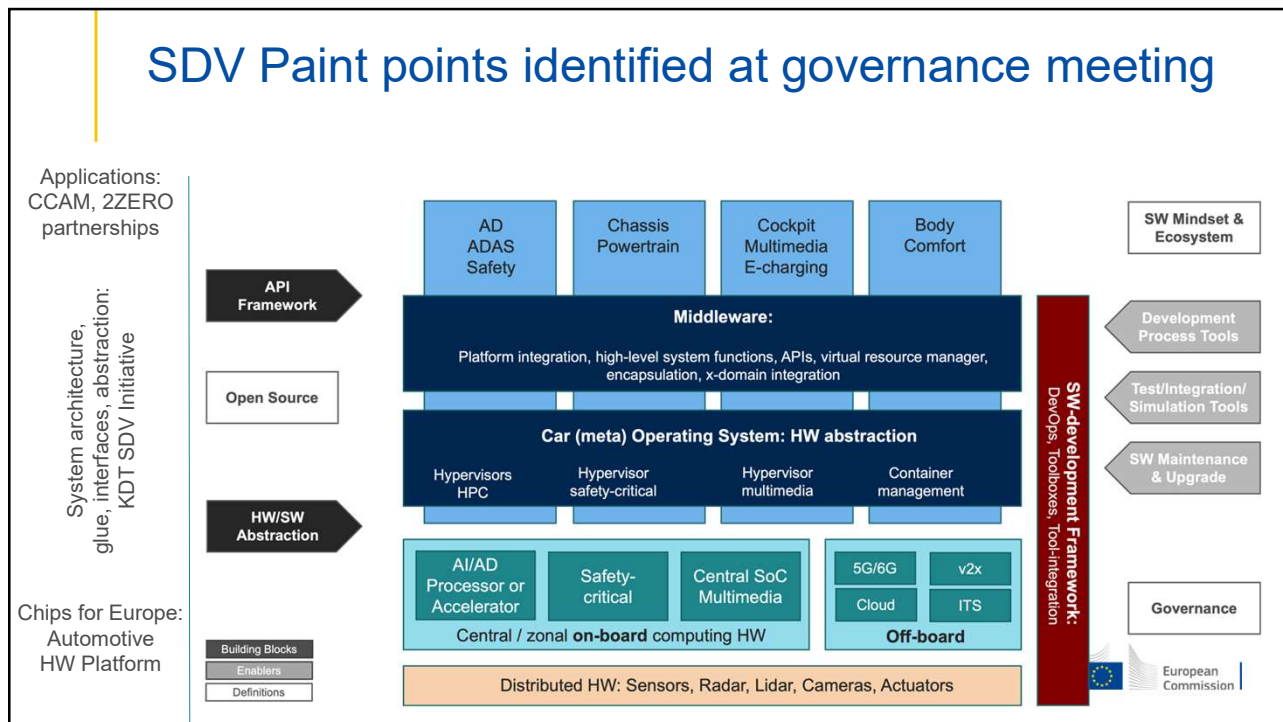
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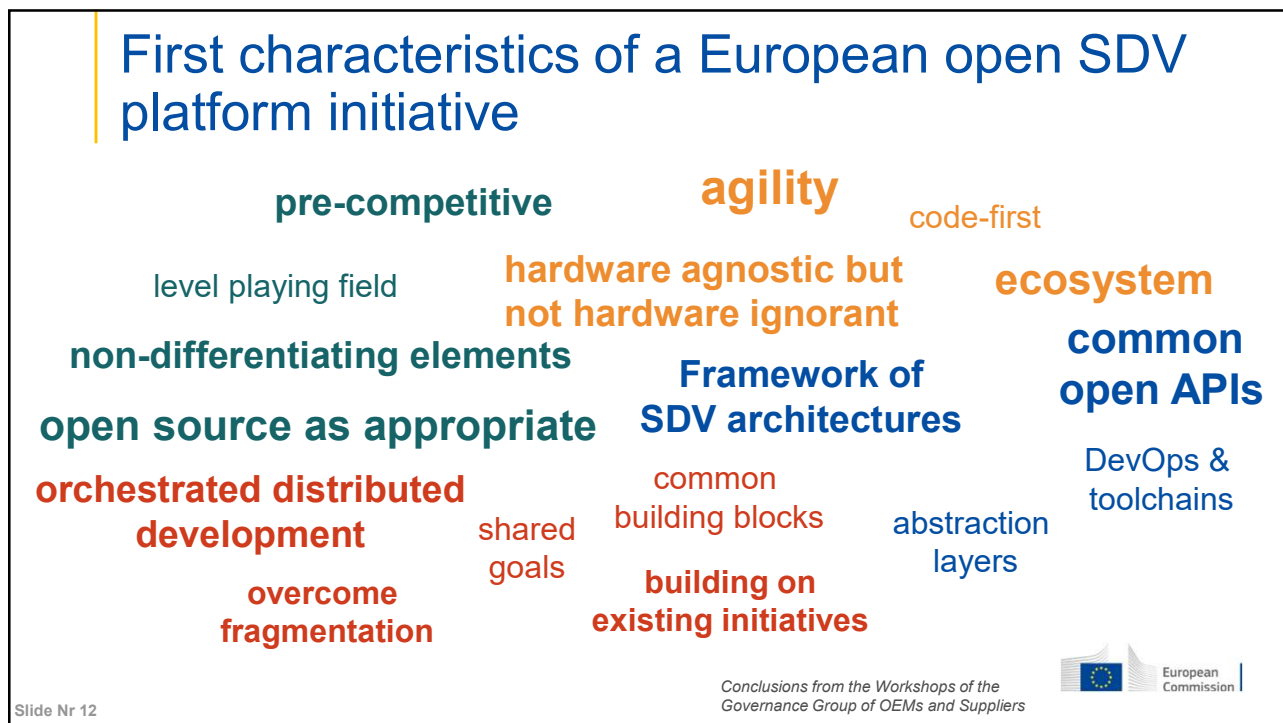
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Conclusions from the Workshops of the Governance Group of OEMs and Suppliers

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## The European R&I Scene on Digitalisation in Road Transport

