



Chips JU and the Vehicle of the Future – a RISC V view

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Outline

1. Chips JU and the **European Chips Act**.
2. The **Automotive Action Plan**.
3. Chips JU's **vision** for the **Digital VoF** and **RISC V**.
4. Chips JU **Digital VoF projects**' pipeline with **budgets**.
5. Highlights.

CHIPS JOINT UNDERTAKING AND THE EUROPEAN CHIPS ACT

Joint undertaking (JU)

A Joint Undertaking is an institutionalized **Public-Private Partnership (PPP)** with its **own legal identity**, with its own governance, budget etc.. The JUs are established by an EU regulation.

Chips JU

Chips JU was established in September, 2023, in an amendment to the Single Basic Act to implement the **first pillar of the Chips Act** and to continue the activities of its **predecessors** in the field of electronic components and systems (**ECS**). The Chips JU is a **tri-partite partnership** between the **EC**, the **participating states** and **European industries**; most of our actions are **funded jointly and equally** by these actors.

3IA - Chips JU private industrial members:



The European Chips Act

European Semiconductor Board (Governance)

Pillar 1

Chips for Europe Initiative

- Initiative on infrastructure building in synergy with the EU's research programmes
- Support to start-ups and SMEs

Pillar 2

Security of Supply

- First-of-a-kind semiconductor production facilities

Pillar 3

Monitoring and Crisis Response

- Monitoring and alerting
- Crisis coordination mechanism with MS
- Strong Commission powers in times of crisis

AUTOMOTIVE ACTION PLAN (AAP) AND STRATEGIC DIALOGUE



Jan 30, 2025 – Kick-off

Mar 3, 2025 – Closing with President von der Leyen

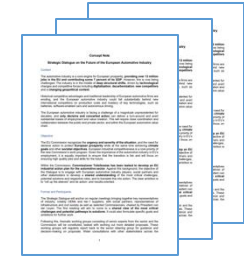
Feb 17, Strategic Dialogue with 5 EVPs/Commissioners

26 participants, 4 Focus topics:



- ① *Software-Defined Vehicles (SDVs) for connected, autonomous, and electric mobility*
- ② *Automotive Hardware and critical technologies*
- ③ *Data Access and Pooling*
- ④ *Regulatory simplification*

Hand-over of the “**Declaration to collaborate on an EU Software-Defined Vehicle**” signed by 15 OEMs, Tier 1 suppliers, and DE, FR, IT Automotive associations



March 5, 2025 –
Publication of the Action
Plan for Automotive
*The outcome of this dialogue was a
comprehensive **Action Plan with
5 Chapters:***

Innovation and Digitalisation

Decarbonisation

Competitiveness and supply resilience

Skills and Social dimension

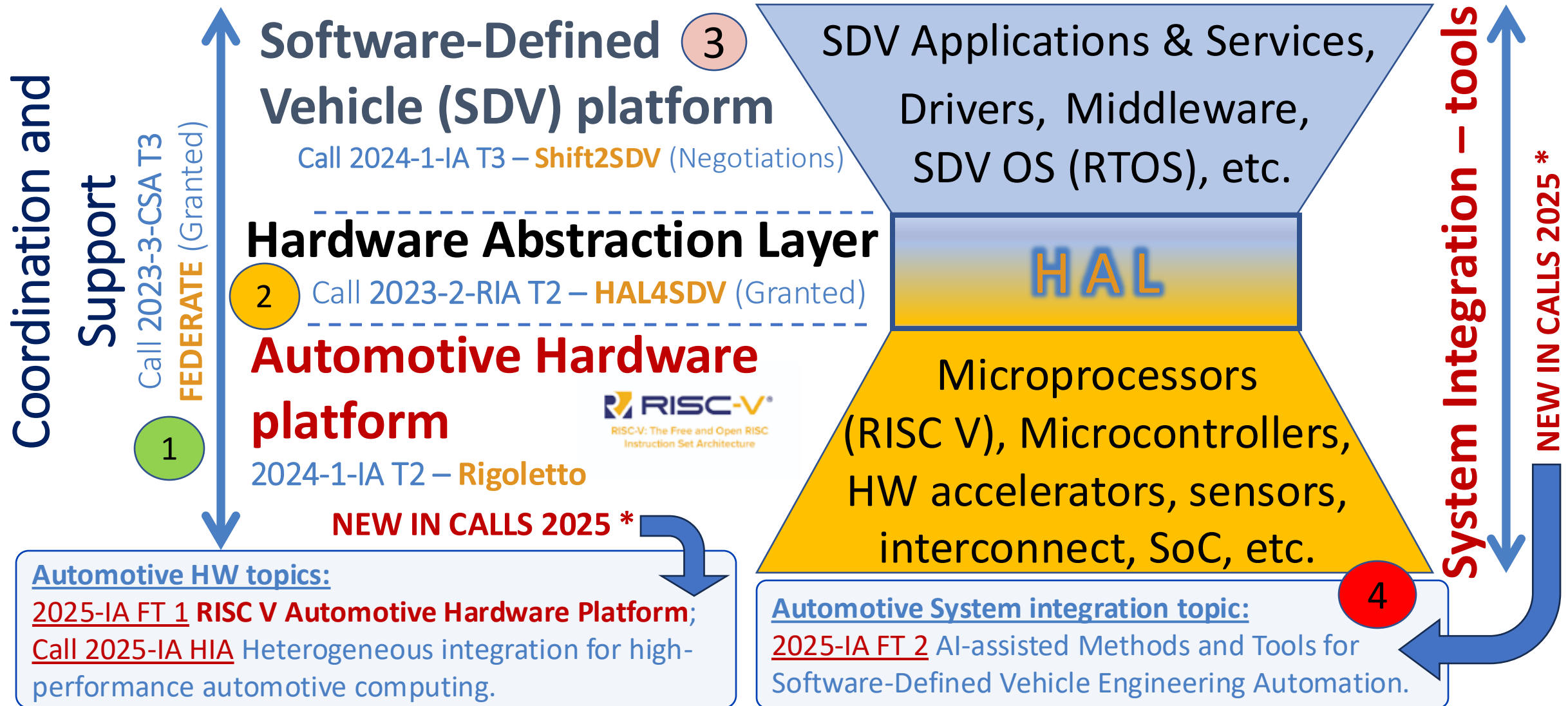
Level playing field and business environ.



will play a key role in implementing the AAP.

CHIPS JU's VISION:

THE DIGITAL VEHICLE OF THE FUTURE AS A HOLISTIC TECHNOLOGY STACK



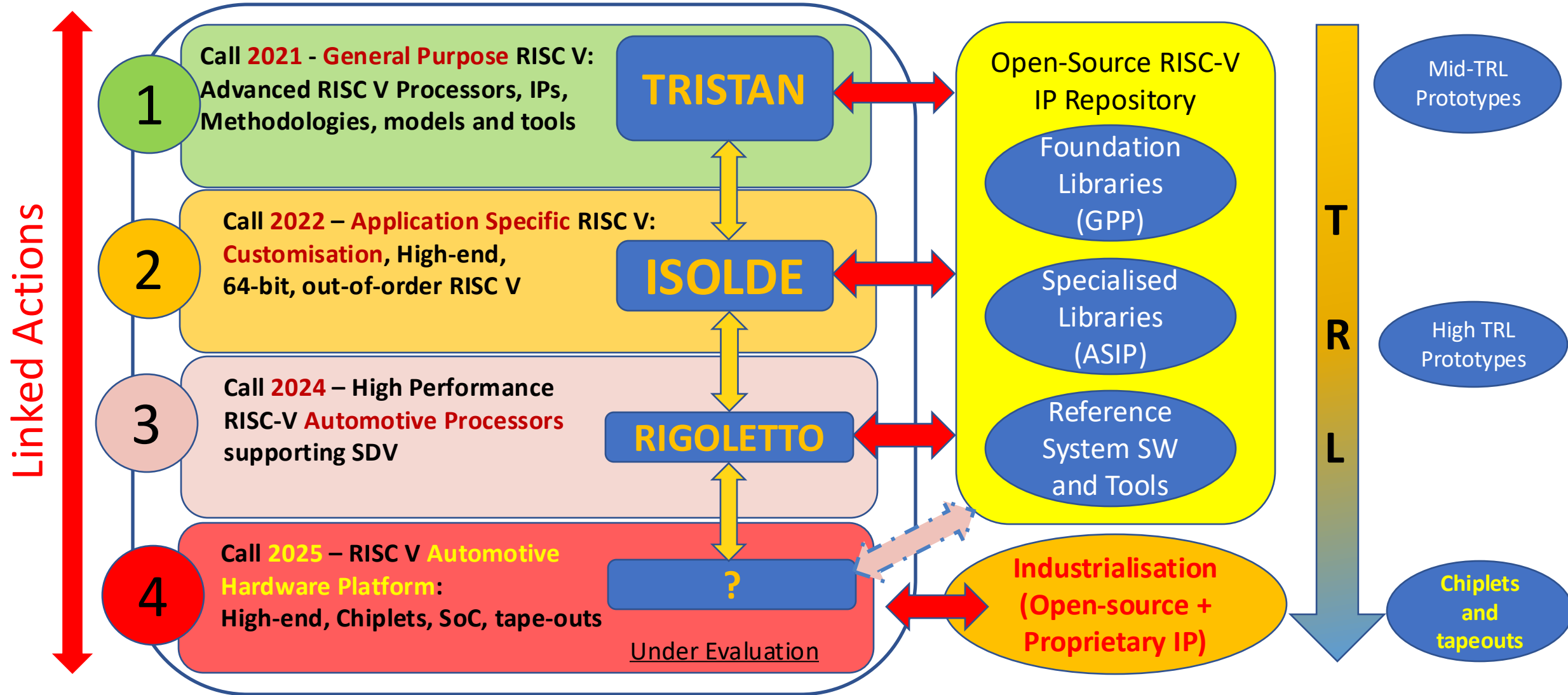
* Calls closed on 30 April 2025

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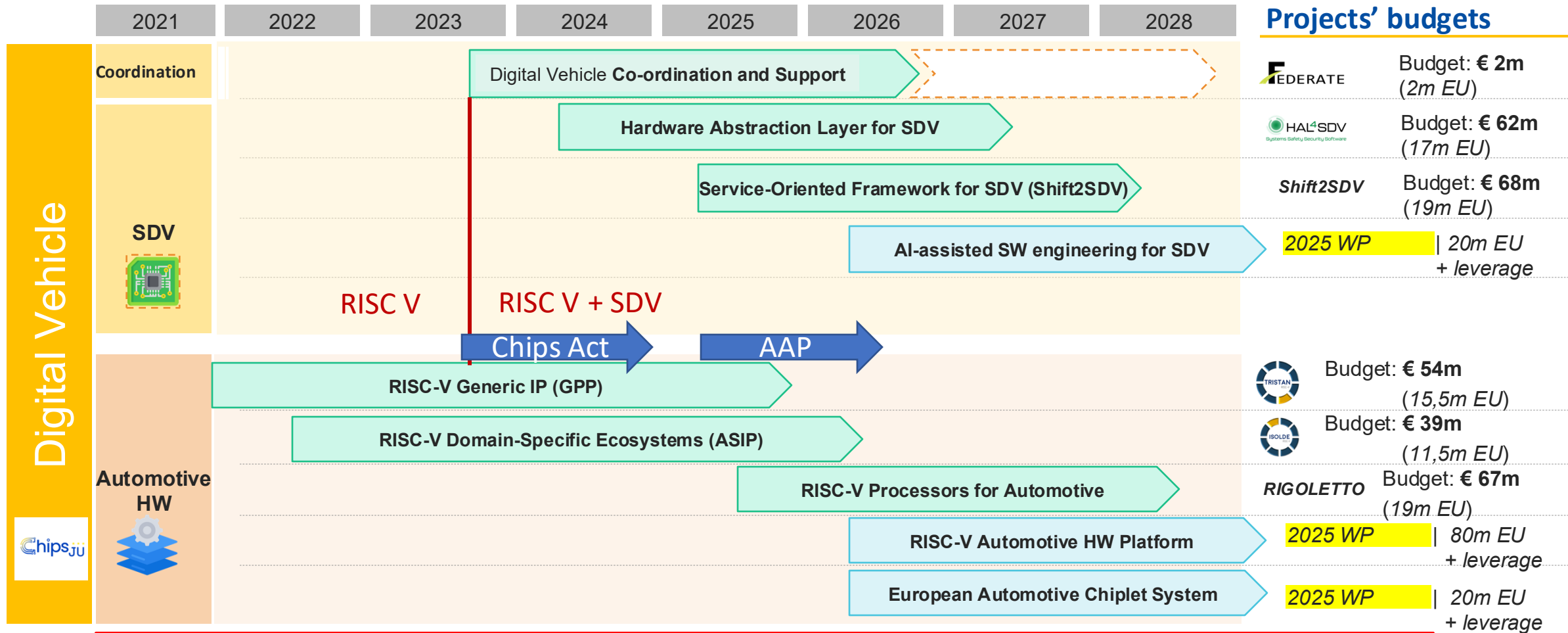


RISC V FOCUS TOPICS SINCE 2021:

CHIPS JU TOP-DOWN APPROACH



DVoF AND RISC V: CHIPS JU PROJECTS PIPELINE



Contracted so far (SDV + RISC V): cost **€292m**, EU funding **€84m**, National co-funding **± €80m**
 WP 2025 planning (SDV + RISC V): cost **± €400m**, EU funding **± €120m**, National co-funding **± €120m**

HIGHLIGHTS

- **Chips JU** plays a **unique key** role in the **implementation** of two important EU Initiatives – the **European Chips Act** and the **Automotive Action Plan**.
- **Chips JU's tri-partite model** leverages EU public and private resources for higher **impact** on the European Industry in general, **automotive** being of specific **strategic priority**.
- **Chips JU's ambition** is to be a **key driver** in promoting and establishing **RISC V** as the architectural base of a standard **hardware platform** tailored for the **automotive** industry.
- **Chips JU's top-down approach** consolidates efforts on **SDV** and **RISC V** based design across the entire **technology stack of the Digital VoF** – system integration, computer architecture, microarchitecture, chiplets, tape-outs but also software, middleware, and tools.
- **Bottom-up Chips JU activities** complement the presented top-down approach – numerous other projects addressing the ECS Strategic Research and Innovation Agenda (**ECS SRIA**) employ or develop **RISC V**.
- **Chips JU's mission** is to support EU industry's **competitiveness** and **technological sovereignty** by keeping Europe at the Forefront of Technological Development - the **Automotive case** has been presented.

Thank You!