



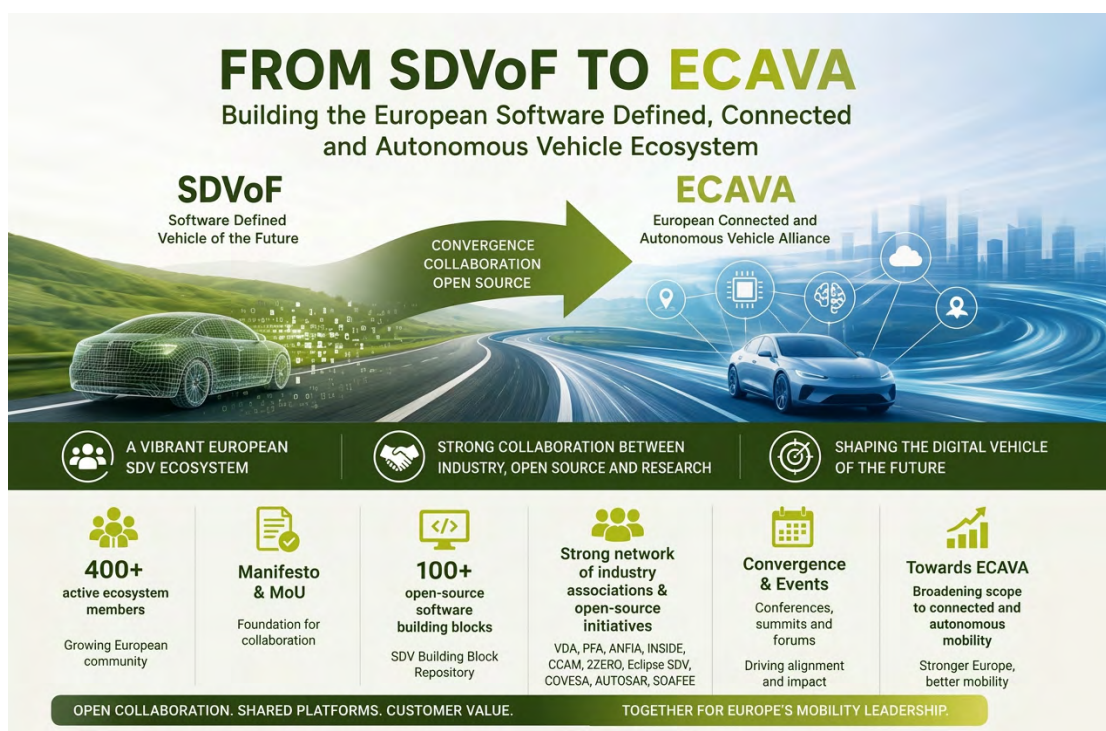
From SDVoF to ECAVA: Building Europe's Connected and Autonomous Vehicle Future

Michael Paulweber | AVL List GmbH

The Software Defined Vehicle of the Future (SDVoF) initiative has reached an important milestone with the publication of the updated Vision & Roadmap v2. Over the past three years, SDVoF has evolved from a coordination effort into the development of a vibrant European ecosystem that is now transitioning into the European Connected and Autonomous Vehicle Alliance (ECAVA). The initiative was launched to foster a common European vision for software-defined vehicles and strengthen collaboration across industry, research, open-source communities and public authorities.^{1,2}

“Europe has successfully built a collaborative Software Defined Vehicle ecosystem that brings together industry, open-source communities, research projects and public authorities. With ECAVA, we are taking the next step—extending this foundation towards connected and autonomous vehicles, strengthening European competitiveness and technological sovereignty in the mobility sector.”

— Michael Paulweber, AVL List GmbH, FEDERATE SDVoF Coordination Team



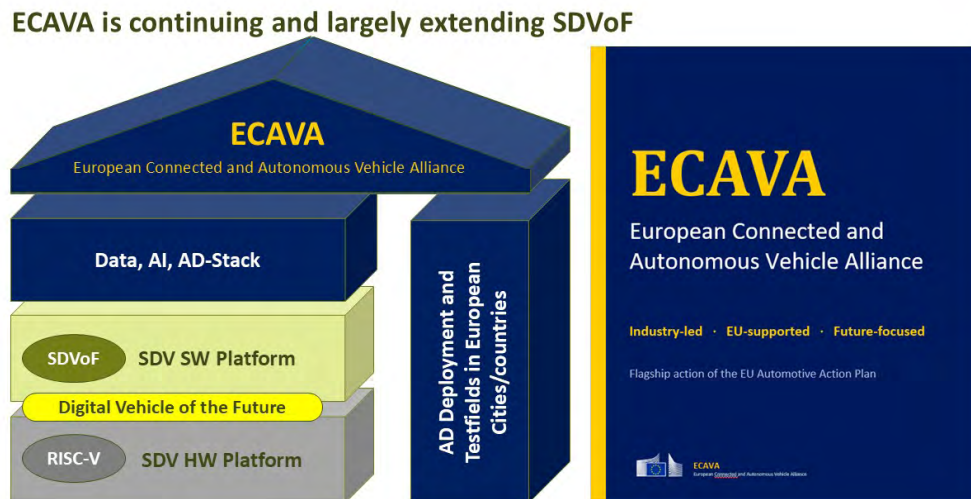
EUROPEAN
PARTNERSHIP



ChipsJU

The Project has been accepted for funding within the CHIPS Joint Undertaking (CHIPS JU) under Call HORIZON-KDT-JU-2023-3-CSA-IA / Grant Agreement No. 101139749

ECAVA brings together stakeholders from across the automotive value chain and provides an industry-led forum for strategic guidance and cooperation. The alliance seeks to strengthen Europe’s competitiveness and technological sovereignty while accelerating the industrial deployment of future mobility technologies. Working groups are addressing the topics tackled by ECAVA.^{6, 7}



The transition from SDVoF to ECAVA represents a natural evolution of Europe’s collaborative automotive innovation journey. FEDERATE has successfully laid the foundations for a shared European SDV vision and ecosystem; ECAVA will continue and substantially extend this work towards connected and autonomous vehicles. The next major milestone will be the continued engagement of the ecosystem through ECAVA forums and industry events, ensuring that Europe remains at the forefront of digital mobility innovation.^{6, 7}

Footnotes

¹ **FEDERATE Consortium. FEDERATE – Software Defined Vehicle of the Future Ecosystem. FEDERATE Project Website.** Accessed 20 July 2026. Available at: <https://federate-sdv.eu/>

² **FEDERATE Consortium. SDVoF Initiative – Software Defined Vehicle of the Future. FEDERATE Project Website.** Accessed 20 July 2026. Available at: <https://federate-sdv.eu/sdvof-initiative/>

³ **European Commission, CORDIS. FEDERATE – SoFtwarE DefinEd Vehicle suppoRt And coordinaTion projEct (Grant Agreement No. 101139749).** Updated 6 July 2026. Available at: <https://cordis.europa.eu/project/id/101139749>

⁴ **Eclipse Foundation. Eclipse SDV – Open Source Automotive Software Platform.** Accessed 20 July 2026. Available at: <https://eclipsesdv.org/>

⁵ **Eclipse Foundation. Eclipse S-CORE (Safe Open Vehicle Core).** Accessed 20 July 2026. Available at: <https://eclipse.dev/score/>

⁶ **European Commission, DG CONNECT. European Connected and Autonomous Vehicle Alliance (ECAVA).** Accessed 20 July 2026. Available at: <https://digital-strategy.ec.europa.eu/en/policies/vehicle-alliance>

⁷ **EUCAR – European Council for Automotive R&D. First ECAVA Forum Unites Leaders to Drive Autonomous Mobility from Collaboration to Deployment.** Published 26 June 2026. Available at: <https://www.eucar.be/first-ecava-forum-unites-leaders-to-drive-autonomous-mobility-from-collaboration-to-deployment/>

3rd SDV Convergence Conference: Advancing Europe's Digital Vehicle Ecosystem

Peter Priller | AVL List GmbH

Europe's automotive industry has made remarkable progress in adapting to the software-centric era of SDVs. OEMs, suppliers, and technology partners have begun moving away from fragmented, proprietary approaches toward more open, collaborative, and software-driven development models. New E/E architectures, code-first development practices, and bottom-up integration approaches are enabling significantly greater speed, agility, and software reuse across the industry.

A key driver of this transformation has been the growing number of European Research, Development and Innovation (RDI) initiatives, that are creating the **building blocks of future SDV software platforms**. As these individual components mature, the challenge increasingly shifts from developing software to ensuring interoperability, alignment, and integration across projects and organizations. To support this objective, the SDV **Convergence Conferences** were established in February 2025 under the chairmanship of Dr. Dirk Walliser, EU Technical Ambassador for the Digital Vehicle, and organized by the FEDERATE project, to promote technical coordination and long-term alignment throughout the European SDV ecosystem.



The 3rd SDV Convergence Conference, held on 27–28 May 2026 in Brussels and kindly hosted at the Albert Borschette Building with support from the European Commission, represented an important milestone in this journey. For the first time, participants were able to present tangible successes, practical experiences, and lessons learned from ongoing activities within the European Digital Vehicle of the Future initiative.

The event brought together leading representatives from the European Commission, automotive manufacturers, Tier-1 suppliers, engineering tool providers, open-source communities, and major European research programmes. With more than 30 experts and decision-makers participating on-site and additional contributors joining online, the conference provided a unique forum for discussing how Europe can build a globally competitive, European-governed SDV software stack capable of supporting series vehicle production by 2030.

A central focus of the conference was the progress being made through major European RDI projects, including **HAL4SDV, SHIFT2SDV, UP2DATE4SDV, TwinLoop, and Code4EV**. The presentations provided participants with a comprehensive view of the emerging European SDV landscape. The discussions were complemented by perspectives from three automotive OEMs and one Tier-1 supplier, all of whom emphasized the growing value of collaborative software development and shared software platforms. Future SDVs will require OEMs to master vertical software integration across the entire vehicle stack.

Open-source software (OSS) was broadly recognized as the most effective mechanism for creating reusable, maintainable, and vendor-independent software platforms that can be deployed across multiple vehicle generations. Participants highlighted that industry-wide OSS collaboration has the potential to eliminate duplicated effort in non-differentiating areas, accelerate innovation, improve software quality, reduce lifecycle maintenance costs, and provide a robust foundation for safety-critical automotive systems.

As an example of this approach, BMW presented the rapid progress of the **Eclipse S-CORE** initiative. The project has successfully established an expanding international ecosystem, governance framework, development toolchain, and roadmap aimed at delivering production-ready, safety-audited open-source automotive software. An accompanying update from the Eclipse S-CORE team outlined the path toward the first major release, planned for the end of 2026, and the longer-term vision for the platform.

Another important topic was the growing role of **Android Automotive OS (AAOS)** as a potential foundation for SDV architectures. Presentations demonstrated how AAOS is evolving well beyond its origins as an infotainment platform, supported by its modular design, over-the-air update mechanisms, scalability, and increasing adoption among global vehicle manufacturers. Practical lessons learned from series-production deployments showed how open and modular software platforms can significantly reduce development complexity while accelerating time-to-market.

The conference also expanded the discussion beyond middleware and vehicle operating systems. Several sessions focused on the **future of engineering tools, development platforms, and automated driving software**. Significant attention was given to opportunities for improving engineering productivity through AI-assisted development environments. Participants received updates on the **HORIZON** initiative and an early preview of the forthcoming large-scale European research project **AI4SDV**, which aims to further accelerate SDV development through advanced artificial intelligence technologies.

The presence of senior European Commission representatives, including Dr. Max Lemke and Dr. Franco Accordino from DG CONNECT, provided valuable strategic guidance and an outlook on future European initiatives supporting digital vehicles and software-defined mobility.

Building on the successful conferences held in February 2025 and October 2025, the 3rd SDV Convergence Conference demonstrated that Europe is moving from vision to execution. The event showcased growing technological maturity, increasing industry alignment, and the emergence of a collaborative ecosystem capable of delivering the open, interoperable, and globally competitive software foundations needed for the next generation of SDV. The dialogue initiated through the Convergence Conferences continues to strengthen cooperation between industry, research organisations, public institutions, and open-source communities, bringing Europe closer to its goal of establishing a sustainable Digital Vehicle of the Future ecosystem.

The ECAVA Forum 2026, held in Brussels on 23–24 June, opened with a keynote address by Henna Virkkunen, Executive Vice-President of the European Commission, who emphasized Europe's commitment to leading the future of autonomous mobility. The event launched the ADACities initiative, a flagship program aimed at accelerating the deployment of AI-enabled autonomous mobility solutions in European cities. ADACities focuses on enhancing the competitiveness of the EU industry through EU-centric international partnerships, scaling autonomous mobility services across the EU to make AD in cities a viable business case for industry, and supporting cities in improving public transport in terms of performance, safety, sustainability, and quality. Additionally, the initiative aims to ease regulatory compliance by addressing Type approval, Road Regulations, the AI Act, and Cybersecurity, while focusing on one vehicle platform per OEM. Additionally, on 25 June, an online session was held to officially launch the initiative.

Forum discussions underscored the critical importance of AI-supported development, testing, and validation in securing Europe's technological sovereignty and building a competitive, sovereign Autonomous Driving (AD) ecosystem.



On the second day, the ECAVA Working Groups convened to further develop deliverables on key topics: Software-Defined Vehicles (SDV), AI Models, Data & AD Stack, Automotive Hardware, and AD Deployment. In the SDV Working Group, the future direction of work was defined, with a focus on continuing and expanding the activities initiated by FEDERATE to strengthen the ecosystem. The group will work on four key deliverables: Common European SDV Architecture, European Open SDV Software Platform, Neutral Governance & Ecosystem Alignment, and Common Validation, Evidence & Maturity. The continuation of ecosystem activities within ECAVA was concretized: the support project ECAVA-PACE, led by EICT, will take over secretariat tasks, while the CoPIa project, led by Bosch, will drive the development of an SDV Collaboration Platform. The role of maintainers was highlighted as increasingly important, and deployment remained a central theme.

Participants emphasized that AI is not just an enabler but a foundational element for Europe's future in connected and autonomous vehicles. The event highlighted the need for cross-sector collaboration, investment in R&D, and the creation of EU-wide standards to ensure interoperability, safety, and public trust. By fostering public-private partnerships and addressing investment gaps, the Forum set the stage for Europe to lead the next wave of autonomous mobility.

UPCOMING EVENT

Shaping the Future Together: From FEDERATE to the ECAVA Ecosystem



2026 European Digital Vehicle of the Future Ecosystem & Presentation of ECAVA Technology Roadmap" co-organized by FEDERATE & PFA

save the date

FEDERATE

12 October 2026 | 10:00 – 18:00 CET

PFA – Plateforme de la Filière Automobile, Paris, France

Join industry leaders, researchers, policymakers, and innovators to discuss:

- The future of Software-Defined Vehicles
- Connected and sustainable mobility
- Cybersecurity and common middleware
- Open-source, Tier, and OEM perspectives
- The European Vehicle Alliance (ECAVA)

STAY TUNED!

Shape the next chapter of European mobility innovation!

The European automotive sector is entering a new phase of collaboration on 12 October 2026 in Paris, France, for the European Digital Vehicle of the Future Ecosystem & Presentation of the ECAVA Technology Roadmap, co-organised by FEDERATE and PFA – Plateforme de la Filière Automobile).

This event marks an important milestone in the transition from the FEDERATE project to the European Connected and Automated Vehicle Alliance (ECAVA). It will bring together key stakeholders from industry, research, academia, and public authorities to discuss how the collaboration, knowledge, and achievements developed within FEDERATE will evolve into a sustainable European ecosystem supporting the future of connected, software-defined, and automated vehicles.

A highlight of the event will be the presentation of the ECAVA Technology Roadmap, outlining the strategic vision, technological priorities, and collaborative actions that will guide the next generation of innovation in Europe's automotive sector. Participants will also have the opportunity to learn about the ECAVA initiative, engage with leading experts, and contribute to discussions on strengthening Europe's competitiveness through long-term cooperation.

The event will feature keynote presentations, success stories from the FEDERATE ecosystem and Software-Defined Vehicle (SDV) projects, insights from leading OEMs and the European Commission, and a forward-looking session dedicated to the handover from FEDERATE to ECAVA. The afternoon programme will focus on the official introduction of ECAVA, including presentations of its governance and collaboration platform, the unveiling of the ECAVA Technology Roadmap, and a high-level panel discussion on the future of Europe's Digital Vehicle of the Future ecosystem.

The day will conclude with an evening networking reception, providing participants with an opportunity to connect and explore future collaboration opportunities!

Event details

Date: 12 October 2026

Time: 10:00–18:00 CET

Venue: PFA – Plateforme de la Filière Automobile

Address: 2, rue de Presbourg, 75008 Paris, France

Past events

Check the latest FEDERATE Webinar: SDVoF Vision & Roadmap v2 – Towards ECAVA!

The software-defined vehicle ecosystem is evolving rapidly, and collaboration is key to shaping its future. Check the 6th FEDERATE Webinar, where we presented the latest SDVoF Vision & Roadmap v2 and discuss the next steps towards ECAVA.

The webinar provides valuable insights into the project's strategic direction, the evolution of the Software-Defined Vehicle of the Future (SDVoF) ecosystem, and the transition towards a sustainable European collaborative framework.

[Watch the recording](#)

FEDERATE at Automotive Innovation Day 2026 in Seoul!



Dr. Detlef Zerfowski | ETAS GmbH

We are proud to see our partner ETAS representing the FEDERATE project at Automotive Innovation Day 2026 in Seoul, South Korea.

During the event, Dr. Detlef Zerfowski delivered the keynote presentation "Software-Defined Vehicle – 40 Middleware Are Too Many", highlighting the importance of open-source collaboration for accelerating innovation and reducing complexity in Software-Defined Vehicles.

The strong interest from the audience reaffirmed the growing global momentum towards open, interoperable automotive software ecosystems and the value of Europe's collaborative approach.

[Learn more on LinkedIn](#)

Past events

Eclipse Automotive Open-Source Summit (AOSS)



Dr. Ing Sara Gallian | | Eclipse Foundation Europe GmbH

The event brought together around 100 participants, highlighting the truly global nature of automotive open source with contributions from Europe, Japan, and South Korea.

Discussions focused on key topics shaping the Software-Defined Vehicle ecosystem, including open-source software, legal compliance, sustainable business models, and safety-critical integration.

As a FEDERATE partner, the Eclipse Foundation's participation further strengthens international collaboration towards an open and interoperable automotive ecosystem.

[Learn more on LinkedIn](#)

SUMO Conference 2026

Representing the FEDERATE project, we had the opportunity to engage with leading researchers, exchange ideas, and explore synergies with related European initiatives.

The valuable insights gained will contribute to the development of the Software-Defined Vehicle of the Future roadmap and support the transition towards the ECAVA ecosystem, helping shape Europe's digital mobility future.

[Learn more on LinkedIn](#)



*Ole Großmann | VDI/VDE
Innovation + Technik GmbH*

Watch the FEDERATE Tech Talks

Missed a session or would like to revisit the presentations?

Explore the FEDERATE Tech Talks on our YouTube channel, featuring expert insights, technical discussions, and the latest developments in Software-Defined Vehicle technologies!

3rd FEDERATE Tech Talk: AUTOSAR Deployment Patterns [View the TechTalk](#)

4th FEDERATE Tech Talk: Cross-Project Tech Talk on ROS2 https [View the TechTalk](#)

5th FEDERATE Tech Talk: Building an open platform for autonomous mobility [View the TechTalk](#)

6th FEDERATE Tech Talk: Introduction to the Autoware Foundation [View the TechTalk](#)