



FEDERATE Networking Event Retrospective

Author: Jurgita Šikšnienė, METIS BALTIC

The FEDERATE Networking event, held on September 23, 2024, in Vienna, brought together 63 participants from various sectors: OEMs, engineers, academics, and researchers with expectations for better understanding of Software Defined Vehicle of the Future (SDVoF), overview of related initiatives, networking, updates, insights and opinions about Software Defined Vehicle (SDV). Organized in conjunction with the Autonomous Main Event 2024, the event focused on the European automotive industry's transition to SDV, promoting collaboration and knowledge sharing.

The event featured presentations on key European SDV initiatives, organizations and projects like Eclipse SDV, HAL4SDV, SHIFT2SDV, 2ZERO, CCAM, AUTOSAR, COVESA and SOAFFEE. Speakers from SDV initiatives, projects and organizations as well as the European Commission emphasized the need for innovation, standardization, and increased collaboration to address growing global competition, especially from non-EU countries.

Interactive sessions allowed participants to brainstorm solutions for SDV challenges, with discussions on topics like stack, cloud, tools, and strategic considerations. The event highlighted the importance of professional developers, simplifying complexity, and fostering pre-competitive collaboration in the SDV area.

The event concluded with a call for Europe to overcome challenges by aligning existing initiatives and establishing common standards for SDV development, reinforcing the importance of collective effort to drive the future of the automotive industry.

Find more photos of the event here: <https://federate-sdv.eu/dissemination/#DisseminationPhoto>



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Building Blocks for the SDV of the Future

Author: Mario Driussi, Virtual Vehicle Research GmbH

The first in-person networking event of FEDERATE, held in Vienna on 23rd September 2024, was a success, focusing on advancing the development of the Software Defined Vehicle (SDV) of the future. The event brought together participants from automotive industry, research, and development to exchange experiences and ideas on the future of mobility.

Key organizations like AUTOSAR, COVESA, SOAFEE, Eclipse SDV, CCAM, 2ZERO presented their insights on integrating new technologies into vehicles, discussing both opportunities and challenges in SDV development. A highlight of the event was four interactive sessions where participants engaged in discussions on key topics, offering valuable insights that will guide future work in SDV development. Each session focused on the building blocks for the SDV of the future, and the results from these discussions provided valuable insights that will be further pursued.

1. Cloud and SDV

This session focused on the role of cloud technologies in SDV development. Participants discussed the importance of **secure connections** and **secure data access**, particularly in relation to the storage and processing of vehicle data. Another critical point was ensuring compliance with **global and EU regulations**, particularly regarding **data privacy and compliance**. The group also recognized the need for **international standards** to improve interoperability between different cloud platforms. Additional topics included **driver and vehicle monitoring** to enhance the safety and efficiency of cloud-based SDV solutions.

2. In-Vehicle Stack and SDV

This session addressed the technical requirements of **vehicle architecture** and the integration of SDV functionalities into vehicles. The need for good **integration of the driver and Artificial Intelligence (AI)** into the vehicle was particularly emphasized. This covered not only automation but also building trust between the driver and the AI system. Other key topics included **trustworthy V2V** (Vehicle-to-Vehicle) and **V2X** (Vehicle-to-Everything) connections, and the importance of **standardized interfaces** for seamless communication between the vehicle and external systems.

3. Toolchains and Support Building Blocks

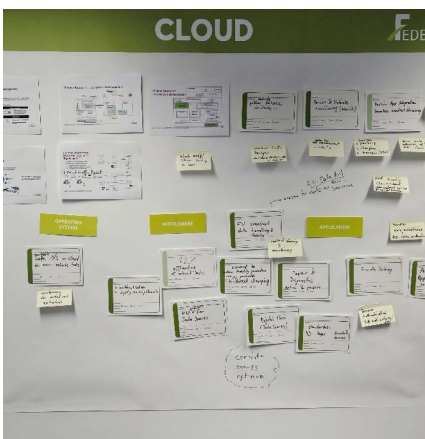
This session explored the requirements for **toolchains** needed for the development and integration of SDVs. Participants highlighted the need for **seamless toolchains** that support and accelerate the entire development process. Another important point was the introduction of **standardized DevSecOps** practices to improve collaboration between different organizations. **Standardized APIs** are also crucial for enabling flexible integration of various software components. Additionally, stronger **AI/ML support** was called for to further promote the use of machine learning in vehicles. The idea of an **app marketplace** where different providers can offer their solutions for SDVs generated considerable interest.

4. Strategic Considerations and SDV

Participants in this session discussed the strategic decisions that must be made in developing SDVs. One focus was on observing **trendsetters** and analyzing how they influence development. One of the biggest challenges remains the collaboration between different stakeholders, as various interests and approaches must be aligned. Another critical point was considering the **user perspective**: how can the technology be designed to be attractive and intuitive for end users? Special SDV functionalities like **flexibility** and **architectures** that enable **fast time to market** were also discussed.

Conclusion

The networking event clearly demonstrated that the **FEDERATE project** is already making a significant contribution to support the development of the **Software Defined Vehicle**. The many new ideas and approaches introduced during the interactive sessions will be further pursued in upcoming discussion rounds. The goal is to incorporate these into **use cases or new building blocks** to make future SDV platforms more efficient, secure, and user-friendly.



The Autonomous Main Event 2024. Autonomy in the era of the software-defined vehicle

Author: Andreas Eckel, TTTech Computertechnik AG

In this fifth anniversary year of The Autonomous initiative, the theme of safety is drawing more support than ever: for the first time, The Autonomous Main Event was extended from one to two full days of workshops and conference and attracted record numbers of participants: more than **580** people attended the event in person or virtually, and more than **250 companies** accepted invitations to attend the event.

This unprecedented level of participation reflects both the exciting opportunities in autonomous mobility, but also the growing understanding of the scale of the challenge facing the industry if it is to gain broad public trust. The Autonomous Main Event drew together partner companies from around the world, such as **NXP Semiconductors, Mobileye, Infineon, Thoughtworks, Elektrobit, TTTech Auto, McKinsey & Company, Audi, DENSO, Green Hills Software, Innoviz Technologies, ABA (Austrian Business Agency), TTTech, SDVerse**, many of them also represented within the European Commission Chips-JU funded projects **HAL4SDV** and **FEDERATE**, as well as various academic institutions.

The Autonomous Main Event took care to place the discussion about safety in the context of other big trends driving the AV industry, of which perhaps the most important is the software-defined vehicle (SDV).

As **Nikolai Setzer, CEO of Continental**, pointed out - the SDV offers a safe, exciting, and autonomous mobility experience by controlling, monitoring, and maintaining vehicle functions through software. Autonomous driving will benefit from innovative vehicle data usage, cross-domain software architecture, centralized hardware, and secure cloud connections. Partnerships are crucial for achieving autonomous mobility safely and efficiently.

FEDERATE and **HAL4SDV** are the first two projects selected for funding by the European Commission Chips-JU propelling the huge research and development innovation initiative launched within the European automotive industry to stay at the forefront of technology for the next generations of vehicles to come. The content of this initiative focusses on the Software Defined Vehicle of the Future (SDVoF) enabling seamless software updates and integration of novel software-based functions for SDVoF. This will drive the industry through a paradigm shifting innovation period towards new business models replying to newest trends on the market. The Autonomous Main Event is the ideal platform for extending activities building a European Ecosystem for the SDVoF initiative by reaching out to participating organizations within and outside Europe.

FEDERATE and **HAL4SDV** were also represented in a dedicated Spotlight session *“Driving the Future: The Rise of Software-Defined Vehicles”* in the afternoon of the Autonomous Main Event.

Find the full recap of The Autonomous Main Event 2024 here: <https://www.the-autonomous.com/news/safety-remains-at-the-top-of-the-agenda-for-the-av-industry/>

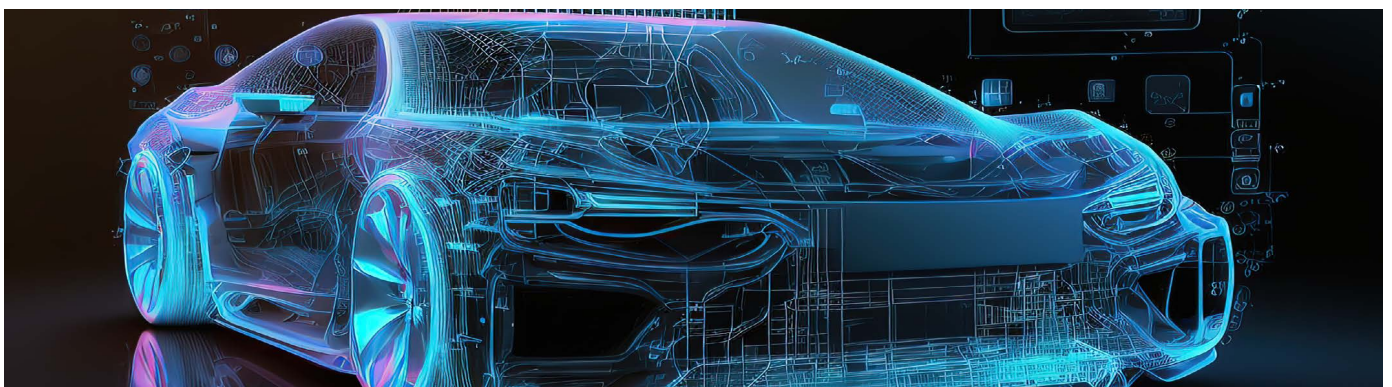
Monthly TechTalks for SDVoF Community!

As a member of the SDVoF Community, soon you will have the opportunity to participate in monthly TechTalks, where experts from across the industry, academia, research, and service providers come together to share knowledge and present open source as well as proprietary solutions that contribute building blocks to the future of SDV. Whether you are working on AI integration, cloud technologies, toolchains, in-vehicle stacks, or supporting building blocks like standards or workflows, your ideas and solutions can make a difference.

Our TechTalks are designed to foster collaboration and innovation. Each session will focus on a specific topic related to the Software Defined Vehicle of the Future (SDVoF), providing a platform where participants from different fields can present their work, share experiences, and collaborate on solutions to common challenges. Whether it's enhancing safety, ensuring compliance, improving development processes, or providing innovative services, all contributions are welcome.

This is your chance to join a vibrant community, engage in technical discussions, and contribute to the development of SDVs. Together, we can create an ecosystem where new ideas flourish and innovation thrives. Don't miss out and let's build the future of mobility together!

Follow **FEDERATE** on LinkedIn and information on the website regarding the upcoming registration link for TechTalks!



Moments from the events

FEDERATE Networking Event on 23rd September 2024 in Vienna, Austria



Autonomous Main Event 2024 on 24th September 2024 in Vienna, Austria



Registration to Software Defined Vehicle of the Future Webinar

We are happy to invite
you to register for the
upcoming

Software Defined Vehicle of the Future Webinar!

on Monday,
4th November 2024,
12:00 PM – 12:30 PM CET

Topic

Michael Paulweber from the FEDERATE project will introduce the European Software Defined Vehicle of the Future (SDVoF) initiative.

The presentation will highlight the Vision and Roadmap, which has been worked out by the FEDERATE consortium. Thereafter a Q&A session will follow.

Presenter: Michael Paulweber
(AVL List GmbH)

Moderator: Benjamin Wilsch
(VDI/VDE Innovation + Technik GmbH)

12:00 – Start of the Webinar
12:20 – Q&A Session

Registration for the 1st FEDERATE Webinar via
WebEx: [here](#)

