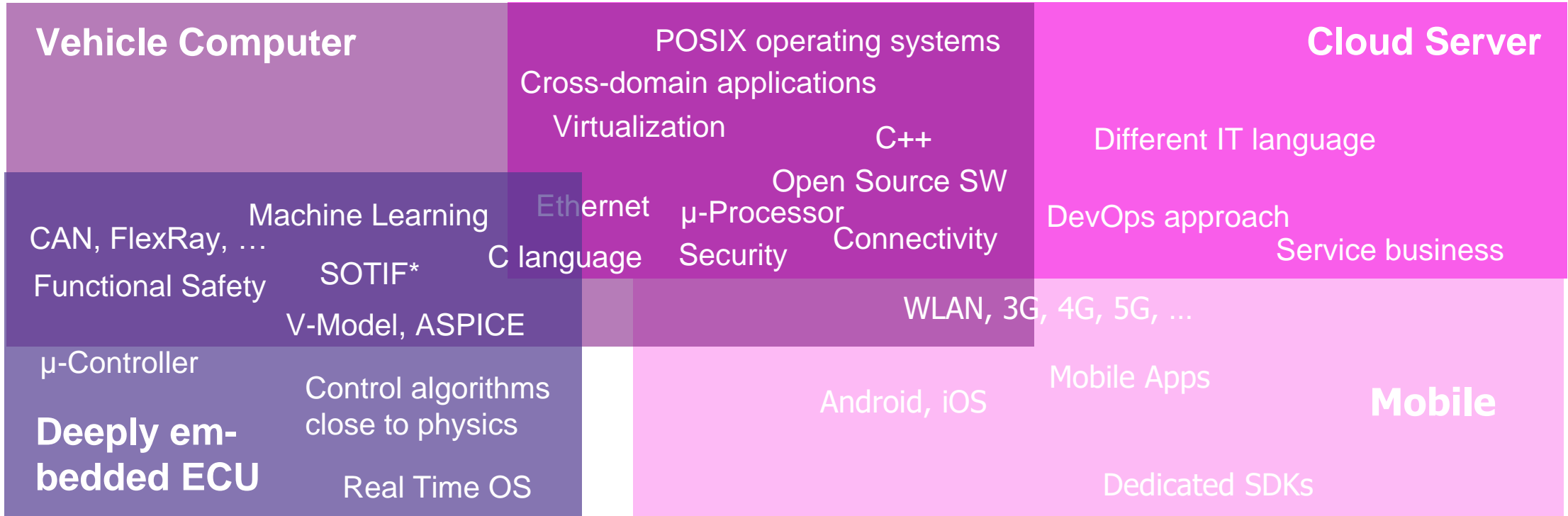


Current EU approach to support the Open Source collaboration in the European Automotive Industry

Detlef Zerfowski

SW ≠ SW: Vehicle SW inside & outside the Car & Tools

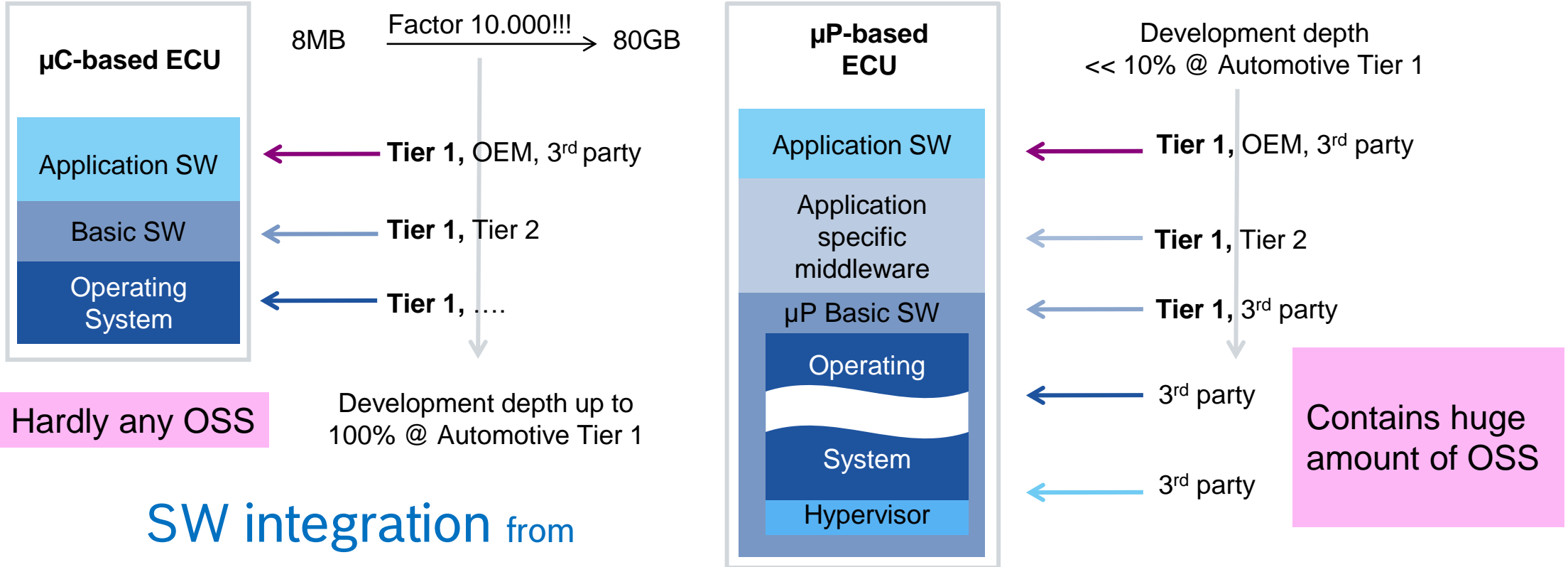


* SOTIF = Safety of the intended function

And for each SW category, specific development tools & chains are required (which are SW as well!)

From Deeply Embedded μ C towards Data Driven μ P

The exponential increase of SW requires completely new approaches

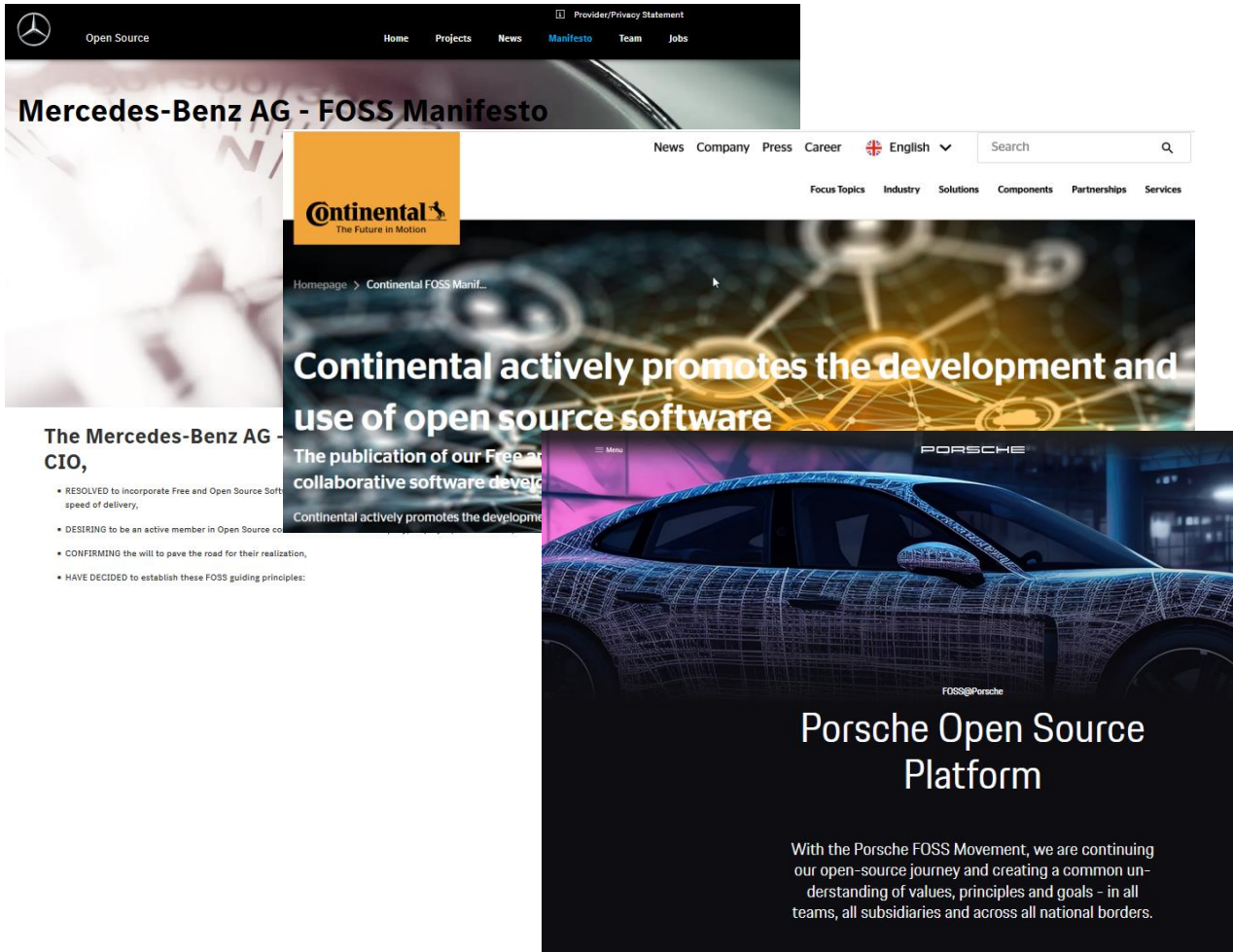


SW integration from

different **SOURCES** requires supporting SW architectures

and **SW cooperation models** including **Open Source₃**

Open Source Software: Contribution by Industry



The screenshot shows the Mercedes-Benz AG FOSS Manifesto website. The header includes the Mercedes-Benz logo, 'Open Source', and navigation links: Home, Projects, News, Manifesto, Team, Jobs. A secondary header has links for News, Company, Press, Career, and a language selector set to English. Below this is a search bar and a navigation menu with categories: Focus Topics, Industry, Solutions, Components, Partnerships, Services. The main content area features the Continental logo and a headline: 'Continental actively promotes the development and use of open source software'. Below the headline, it states 'The publication of our Free and collaborative software development...'. To the left, there is a section titled 'The Mercedes-Benz AG - CIO,' followed by a list of guiding principles:

- RESOLVED to incorporate Free and Open Source Software to increase the speed of delivery,
- DESIRING to be an active member in Open Source communities,
- CONFIRMING the will to pave the road for their realization,
- HAVE DECIDED to establish these FOSS guiding principles:

Below this, there is a Porsche logo and a wireframe image of a car. The text reads 'Porsche Open Source Platform' and 'FOSS@Porsche'. A paragraph at the bottom states: 'With the Porsche FOSS Movement, we are continuing our open-source journey and creating a common understanding of values, principles and goals - in all teams, all subsidiaries and across all national borders.'



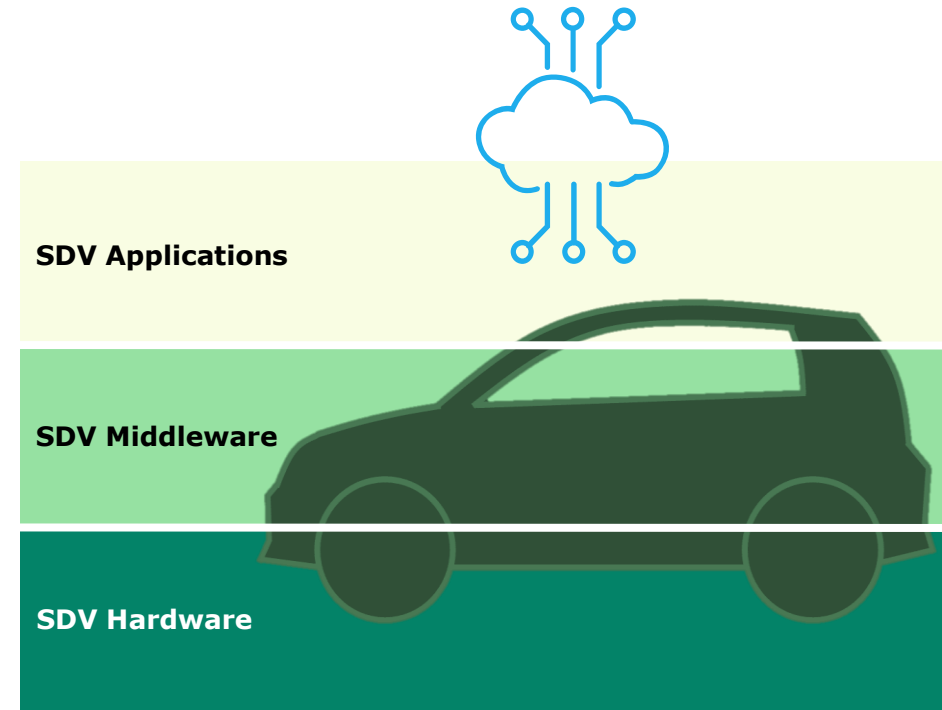
The illustration depicts a futuristic, glowing blue car in the center. Several stylized human figures are interacting with the car and surrounding digital data. One figure is climbing a data stream, another is pointing at a screen, and a third is sitting at a desk with a laptop. The background is a vibrant purple and blue gradient with various data visualizations like bar charts, pie charts, and binary code (0s and 1s). The overall theme is digital innovation and collaboration.

The ETAS Free and Open Source Manifesto

<https://www.etas.com/download-center-files/company/etas-open-source-manifesto-231011.pdf>

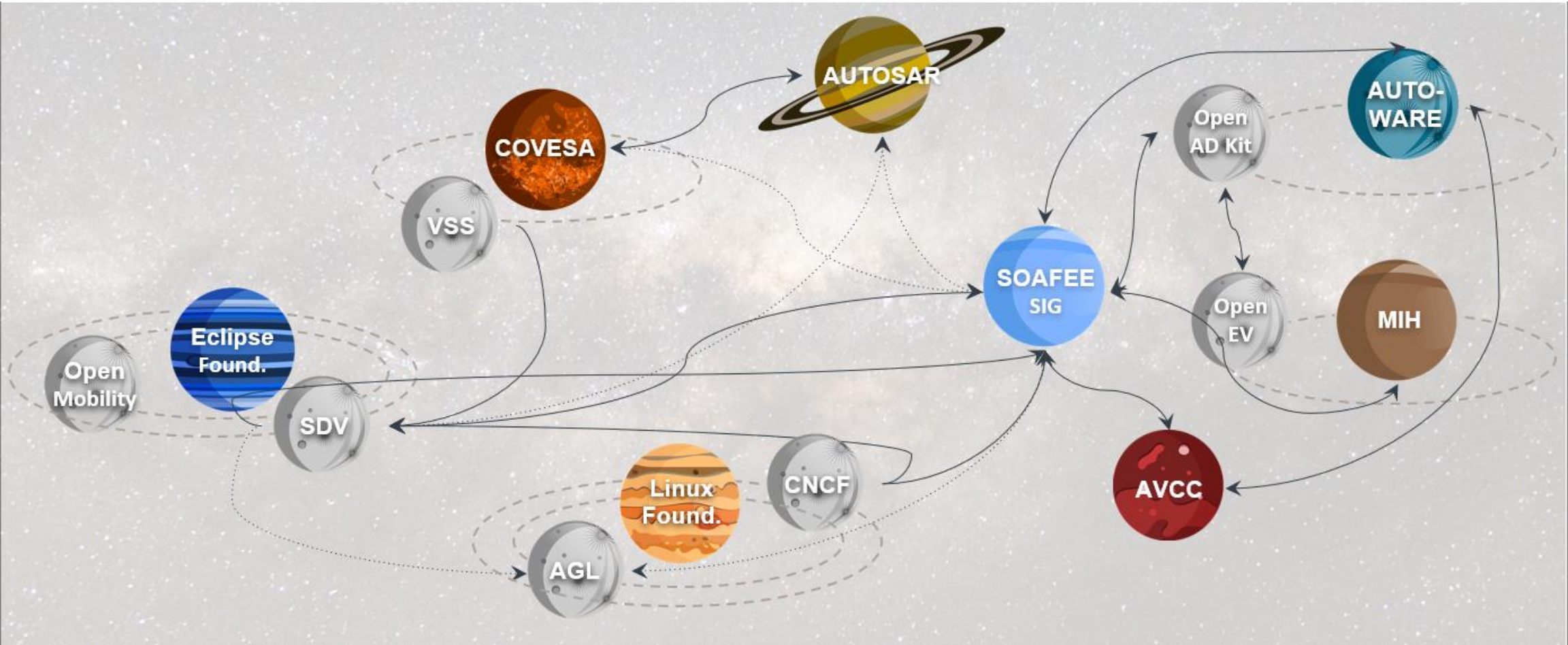
Software Defined Vehicle (SDV)

- The automotive industry faces tremendous challenges, due to an increasing number of software and hardware driven functionalities
- The growing complexity requires a re-thinking of existing development processes, considering a layer structure
- The rising importance of the software layer results in the so-called software-defined vehicle (SDV)
- Automotive software will be developed and adapted in continuous cycles
- An abstraction of the underlying hardware needs to be implemented
- An open-source approach, where jointly worked out and non-differentiating software building blocks are used, will help to address the challenges of the SDV of the future



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Map of Automotive Software Initiatives





The consortium reflects the entire automotive value chain, including:

- major OEMs
- automotive tiers
- semiconductor companies
- relevant industry associations
- industrial SDV initiatives, including the ECLIPSE SDV working group

The project is supported by a Scientific Board

Associated Members consist of

- European key researchers from industry
- Universities in the field of SDV

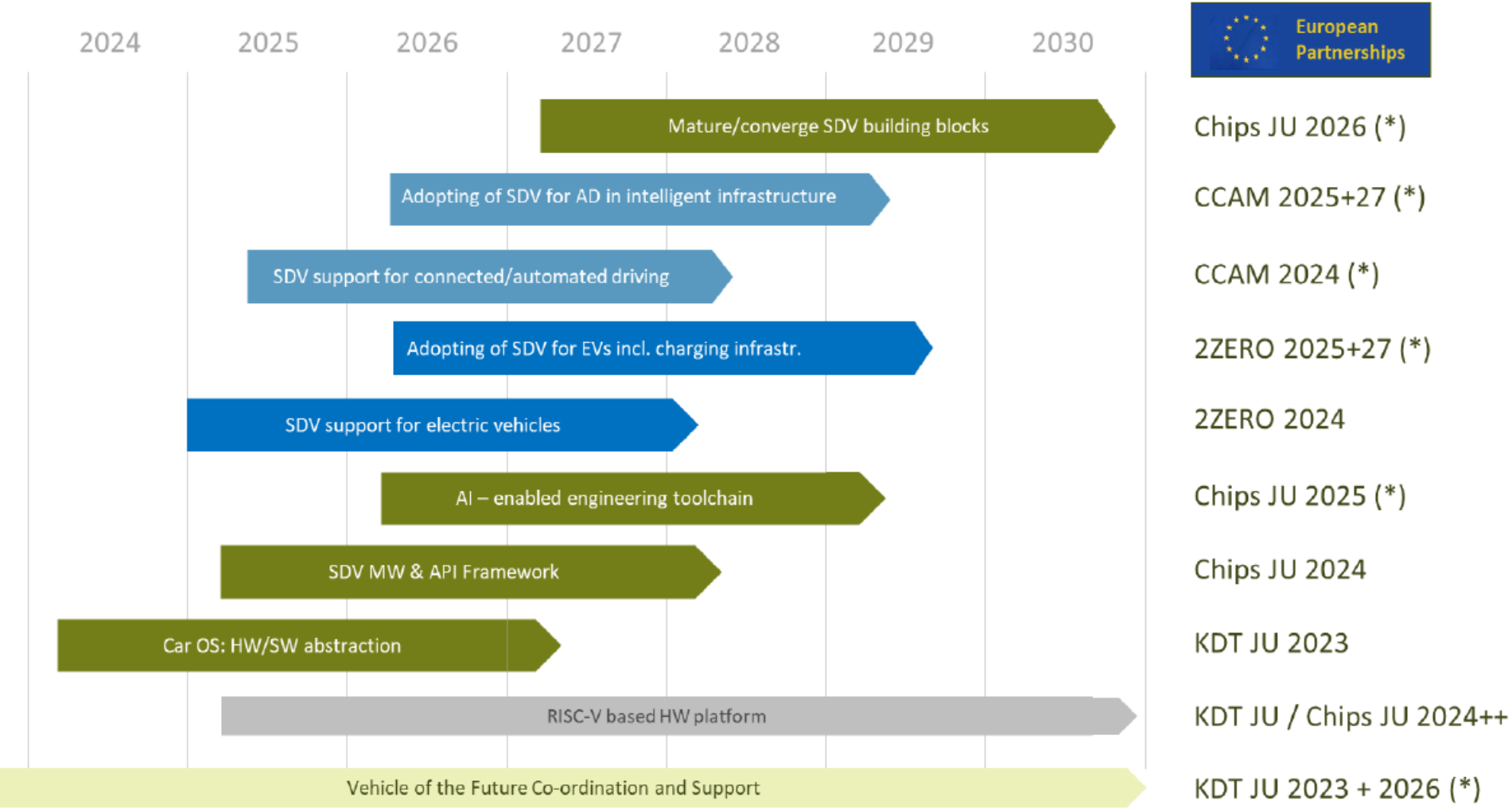
<https://federate-sdv.eu/>

36 MONTHS
October 2023 to
September 2026

29 PARTNERS
covering the entire
mobility value chain

7 COUNTRIES
with key mobility
industries

European Public Funded Projects & Open Source Ecosystem



Legend:
 (*) current proposal by the SDV Sherpa Governance Group to the decision making bodies of the European partnerships

Empowering Tomorrow's Automotive Software

...let us contribute...