



WirelessCar



Driving Open Source

tomas.carlfalk@wirelesscar.com



Software in automotive



There's a lot of OSS use in automotive

 Not a lot of ready-to-use solutions, which makes interoperability harder



Slow development process

Proprietary



Spending billions on redoing things

Software Defined Vehicle (SDV)

"SDV is an ecosystem that continuously provides new value and experiences to users by updating features through software at its core, connecting both the inside and outside of mobility"

The levels of Software Defined Vehicle

Level 0

Software
enabled

Level 1

Connected

Level 2

Updateable

Level 3

Upgradeable

Level 4

Software
platform

Level 5

Innovation
platform

The SDV Market is Growing

Average global level
of passenger car sales

Roughly 100 Mio. vehicles per year



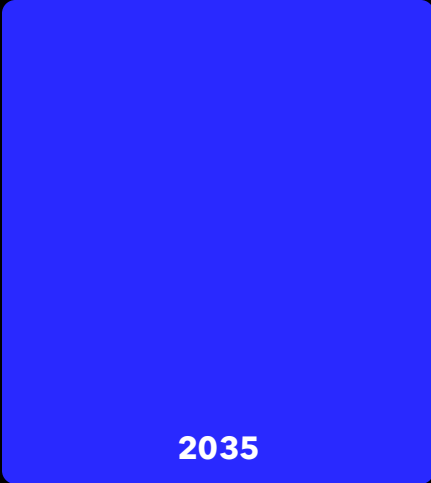
< 5%
of total car sales

today

> 40%
of global car sales



> 60%
of global car sales



Can we continue the same way?

No! we need:



More software reuse



Single software for multiple car lines (SDV level 4)



Differentiating innovation at car makers

Is FOSS the answer?

Why is Open Source important for the Software Defined Vehicle?



Common approach without vendor lock-in for non-differentiating aspects



Cost reduction on SW development for non-differentiating parts



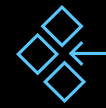
Free up resources for differentiating aspects



Speed up vehicle development cycles

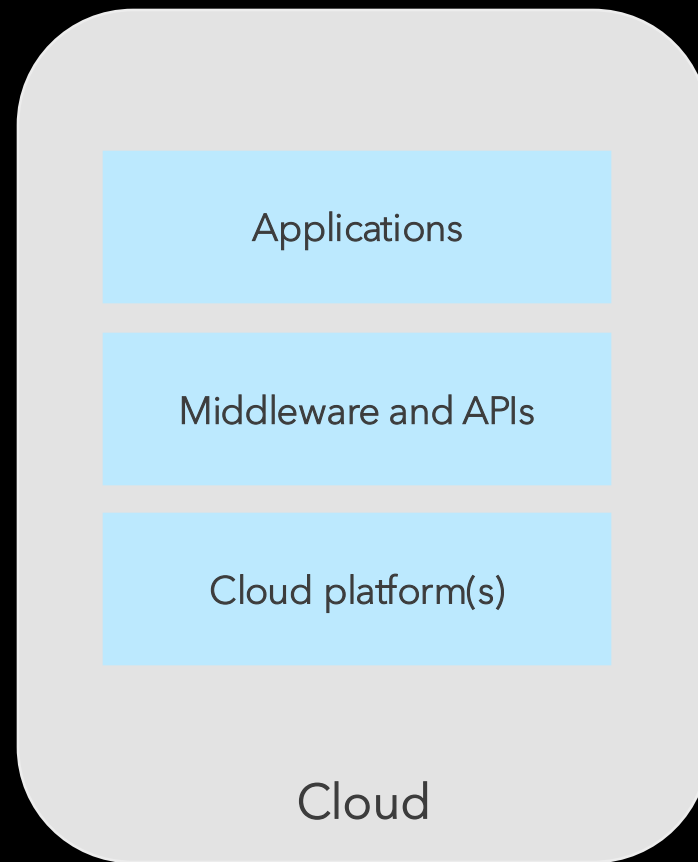
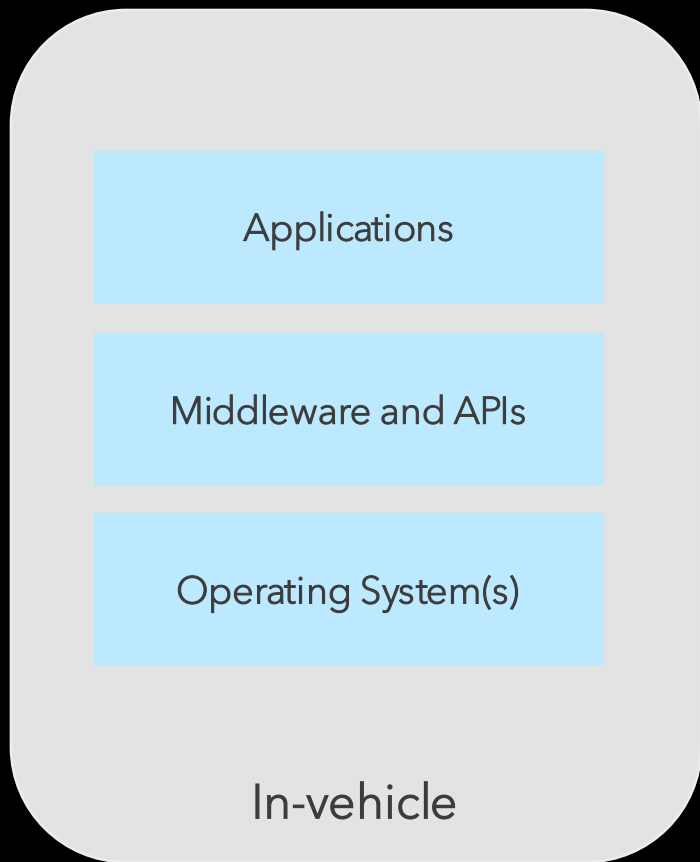


Improve performance, interoperability and enhance security capabilities



Replicate the success of OSS in other industries/domains

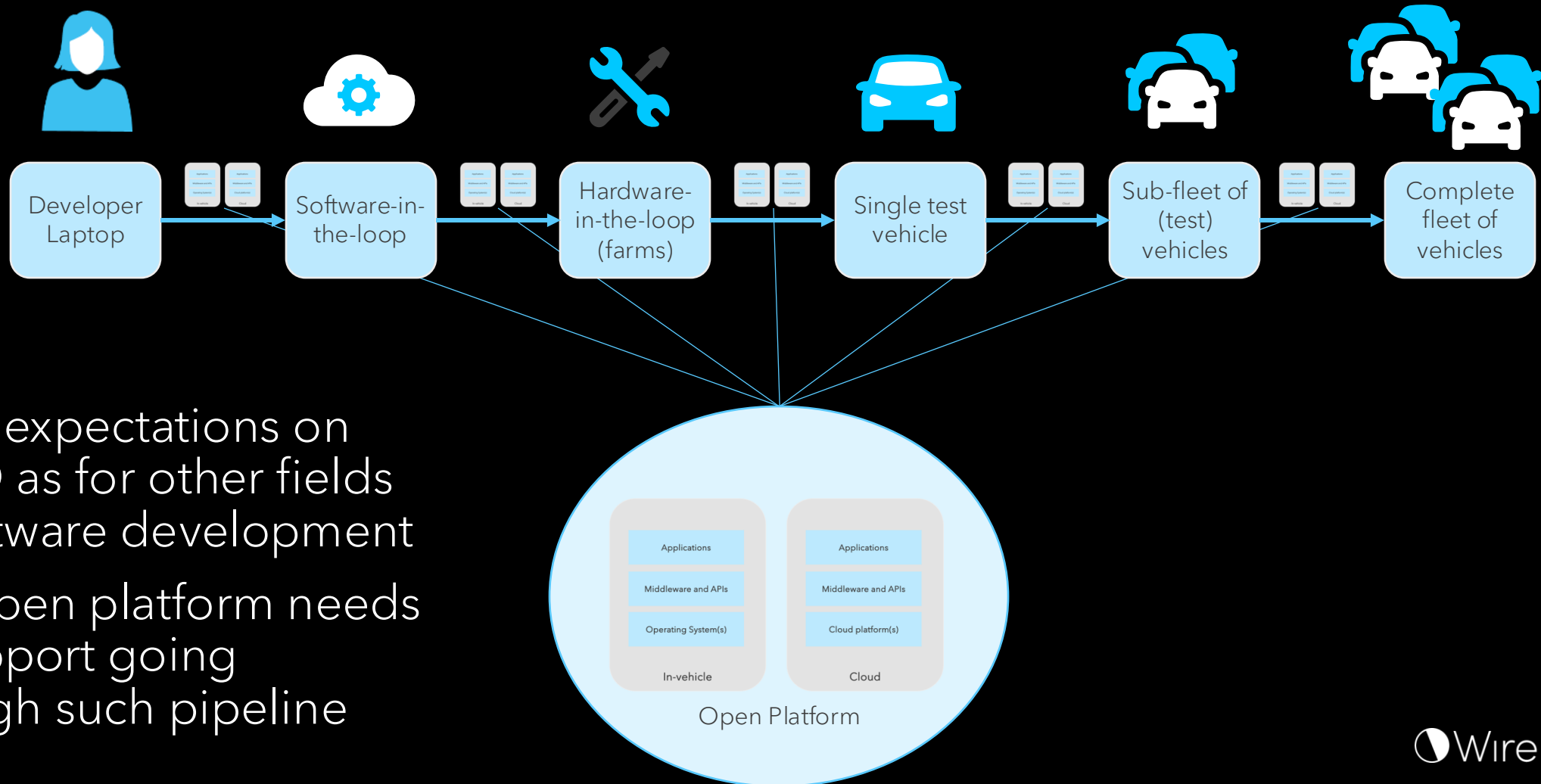
Way forward - collaborate on an open platform for SDV



Open collaboration
Open standards
Open source

edge & cloud

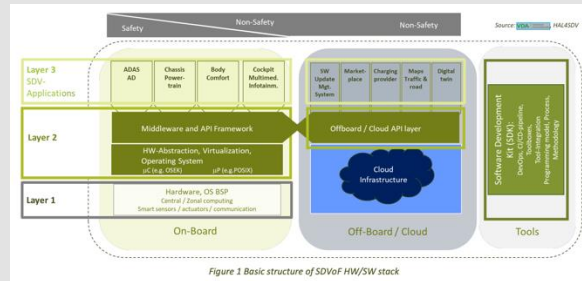
SDV developer experience - deployment pipeline



Same expectations on CI/CD as for other fields of software development
The open platform needs to support going through such pipeline

How can we succeed (this time)?

High sense of urgency due to pressure from disruptors
Good traction in open collaboration foras
EU is pushing for it



Conclusion

Now is an excellent time to develop open source software for automotive and the open source community can help the automotive industry to catch up and succeed.

Let's go build the FOSSDV!

Thank you!