



LinkedCar

India's ride to the future of transportation



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Summary

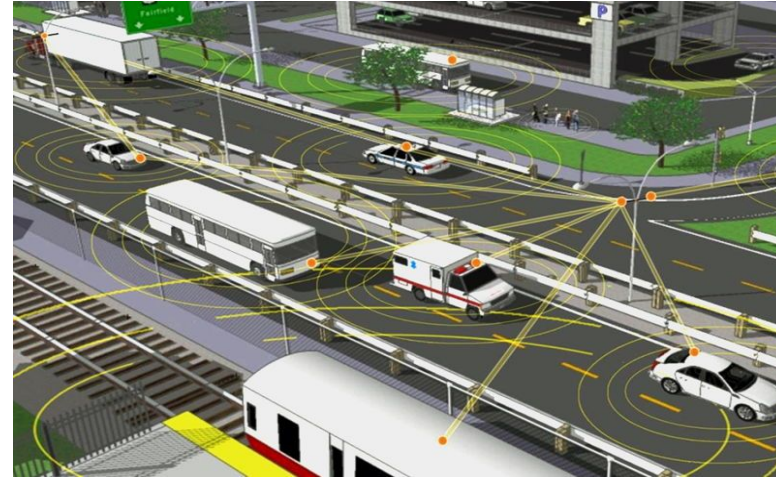
LinkedCar is a **V2X platform** which upgrades the cars of yesterday with the concepts of **C.A.S.E.** to harness the power of masses to enhance **premium car experience.**

Why V2X?

- Autonomous vehicles cannot be on their own without being able to communicate with their environment
- Accidents due to blind spots, emergency braking, crossing at intersections can be reduced
- Along with making cars smart, this will also enable making traffic signals, petrol pumps smarter by incorporating
- Due to these benefits, Daimler, Toyota, General Motors already working on this technology

The Problem

Ideal scenario with a fully connected ecosystem of cars and infrastructure



Current scenario where there is a huge inadequacy in vehicular and infrastructural space

- Due to this, currently developed communication systems by the big automobile companies are not up to their full potential
- This is where we come in the picture to reduce the shortcoming

Our Product

- LinkedCar communication is based on UWB(Ultra Wide Band) Decawave modules
- This along with OBD port based chip helps localise vehicles and transmit important data to other vehicles
- Entire setup is run using a Raspberry Pi 3 which can be used as a platform to develop connected car apps like parking assist etc.



Major module of the V2X system, the beacon

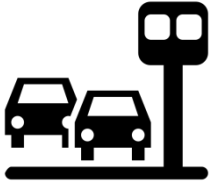
Our Localisation algorithm

- UWB radio modules help in precise distance measurement by accurately timestamping received and transmitted signal
- High data rates help in very low error
- Unpopulated frequency band of 6.2Ghz ensures low traffic
- Since GPS doesn't give accurate location of vehicle, using GPS data, the quadrant in which vehicle lies is determined followed by transmission of signal which gives accurate localisation
- Hence use of trilateration is prevented, which would require 3 beacons instead of 1

Pain points solved



Risk assessment by
fleet managers



Efficient traffic
management ways

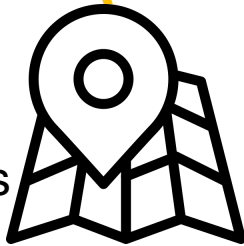


Full potential of
V2X realised



V2X Communication

Real time map
information updates



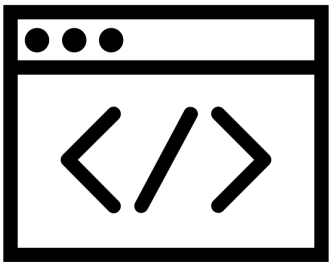
Reduced
accidents

Major USPs for current buyers



OBD port based diagnostic tool for helping owners of old cars understand the problems their vehicles face

Upgrading older cars with smart features like tracking, oil tank check etc.



Providing a platform for application developers to make connected car apps which till now required significant investment on their part

With more and more people on our platform, we can finally sell it as a platform for V2X communication

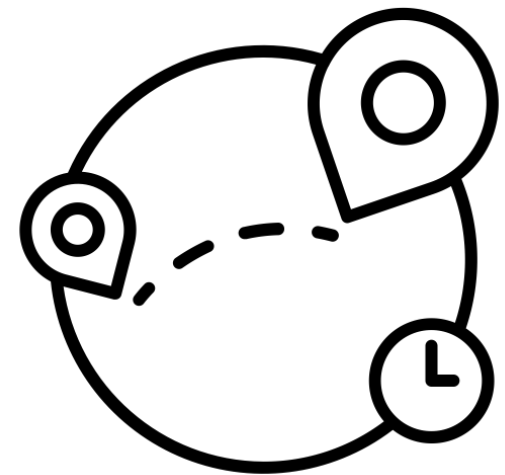


Benefits to a Mercedes user

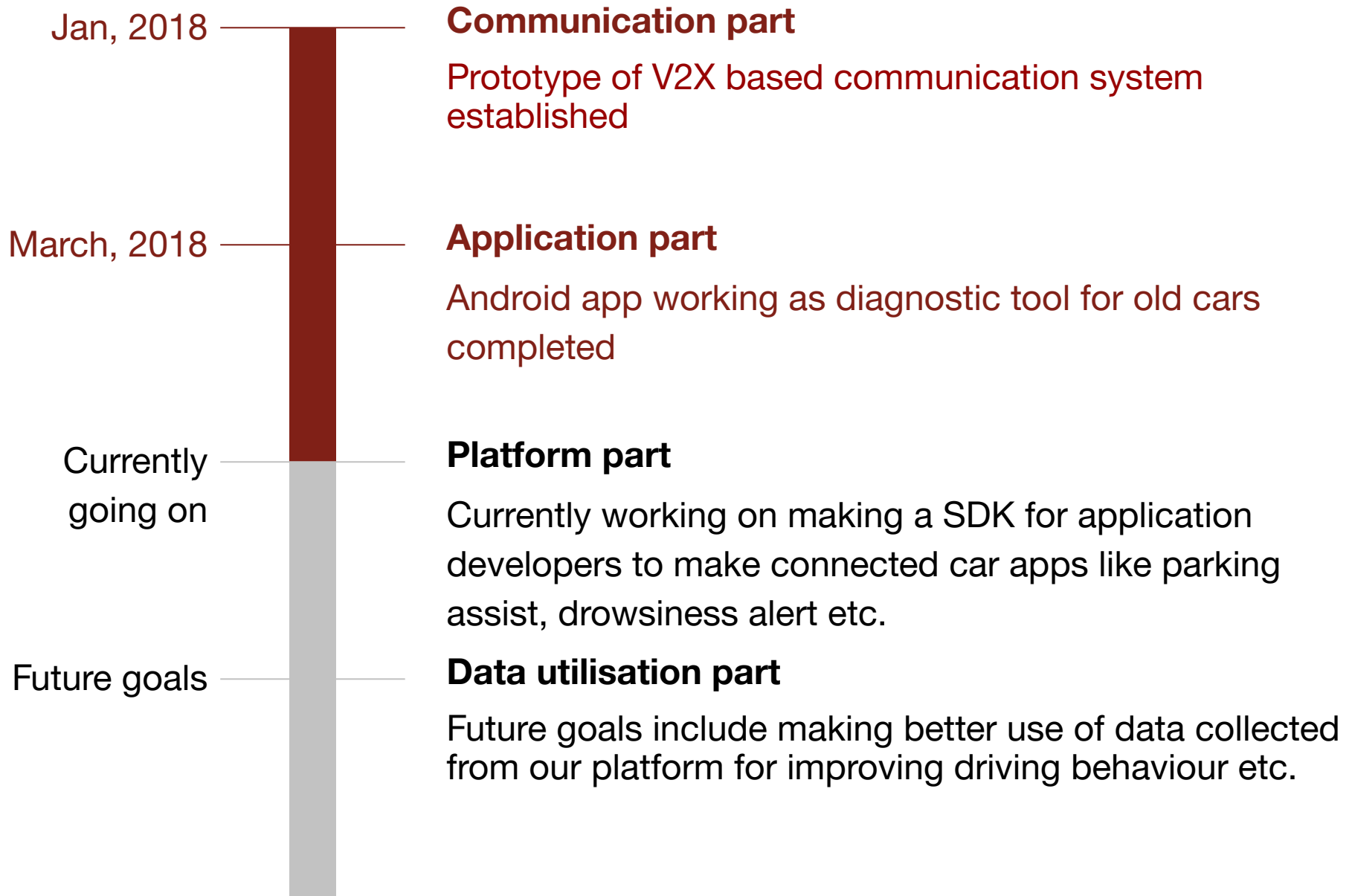


Harnessing the power of masses to enhance Car2X experience of Mercedes Benz owners

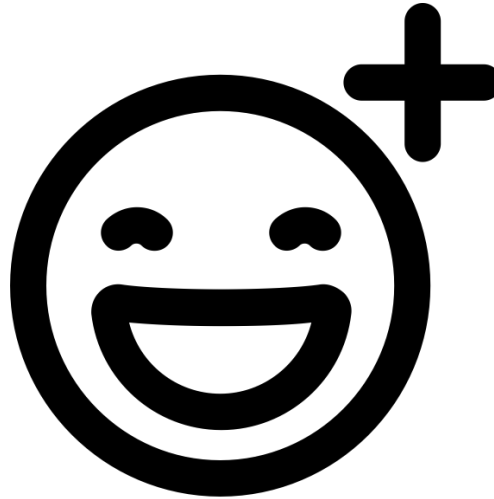
Vital real time map information, road condition information received from the network



Current Status



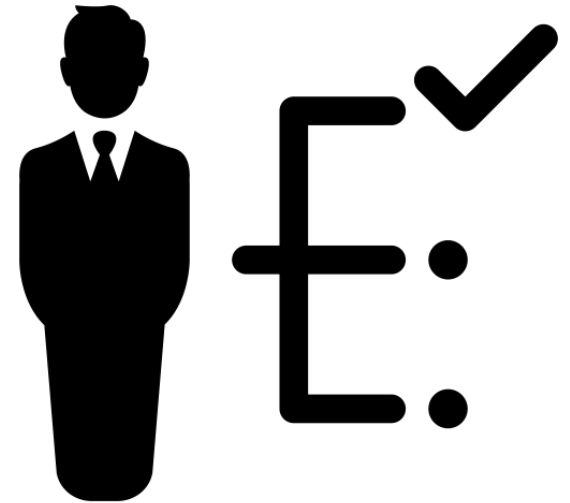
Benefits to Daimler



Better Experience
for premium users



Upper hand in Indian
markets in terms of V2X
communication



Better infrastructural decisions for their
other initiatives like EV, autonomous etc.
using data



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**Hence with our vision,
Daimler can make the best
even better**

Thank You!