

Innovation behind the wheel....







Innovation behind the wheel....

BUSINESS AS WUSUAL?



"Handy? it will not happen"



"Handy? it will not happen"





"Handy? it will not happen"







"Handy? it will not happen"



Electrification? it will not happen Facebook

Smart EV's...



It happening!





Ils happening...































Who thinks...





"it's not happening???"

New weapon: BYD Seagull -> BYD "Dolphin Surf" in Europe





Seagull: only \$10.000 in China...

BYD Dolphin "Surf":

Cascais Portugal (May 2025)





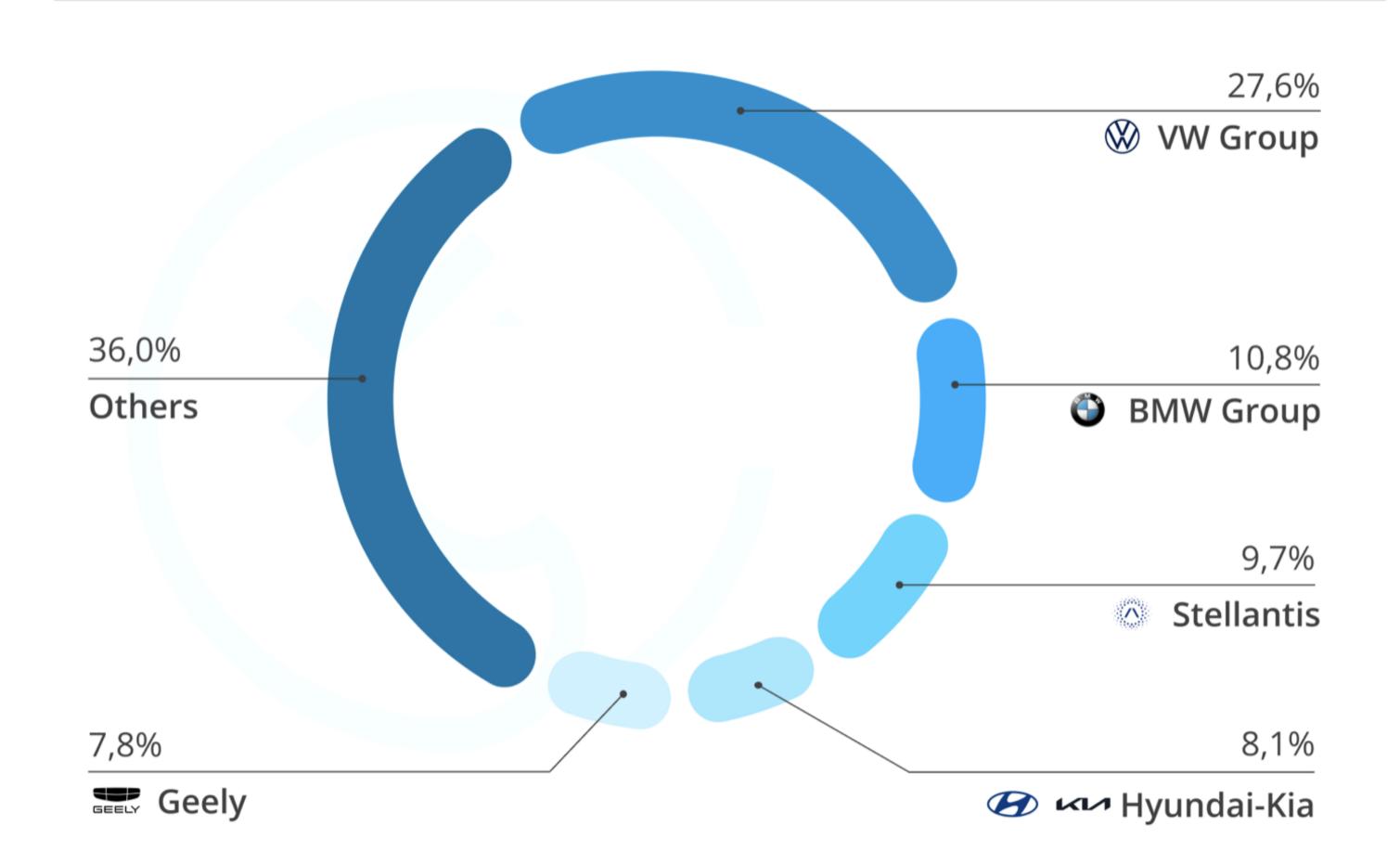




EV trends

- Cell to pack
- Blade Battery, a lithium-iron phosphate (LFP)
- Full Software Designed Vehicle Architecture (SDV)
- Super fast charging 1000V
- Price effects (geopolitics + dump)
- Next step: consolidation of (Chinese) EV brands

Top groups Carmakers – Vehicle sales Europe (January – April 2025)



Market share PHEV & BEV Europe

In Europe, about 15.3% battery-electric vehicles (BEVs) were sold in May 2025 (ACEA).

Hybrid-electric vehicles were still the most popular, with 35.3% market share.

In total, over 900,000 electric cars sold in Europe (Q1 of 2025)

The market share of electric vehicles thus remained around 20%

- 1	Volkswagen	23,514	+61%
2	BMW	14,867	+5%
3	Skoda	13,598	+214%
4	Audi	11,958	+48%
5	Renault	10,328	+58%
6	Kia	9,101	+55%
7	Mercedes	8,739	-1%
8	Volvo	7,768	-43%
9	Hyundai	7,346	+20%
10	BYD	7,231	+169%
11	Tesla	7,165	-49%
12	Peugeot	7,082	-4%
13	Ford	6,539	+240%
14	Cupra	6,536	+133%
15	Citroen	6,133	+246%
16	Opel/Vauxhall	4,894	+65%
17	Mini	3,912	+190%
18	MG	3,443	-37%
19	Toyota	2,998	+24%
20	Polestar	2,850	+44%
21	Porsche	2,759	+309%
22	Fiat	2,623	-29%
23	Dacia	2,252	+135%
24	Xpeng	1,649	+268%
25	Leapmotor	1,426	new

1	Skoda Elroq	7,998	New
2	Volkswagen ID.3	6,932	+34%
3	Volkswagen ID.7	6,776	+640%
4	Volkswagen ID.4	6,297	+3%
5	Kia EV3	5,680	New
6	Renault 5	5,662	New
7	BMW iX1	5,518	+24%
8	Skoda Enyaq	5,037	+37%
9	Tesla Model Y	4,495	-53%
10	Citroen C3	3,962	New
11	Audi Q6 e-tron	3,955	New
12	Volvo EX30	3,712	-57%
13	Cupra Born	3,675	+31%
14	BMW i4	3,649	-16%
15	Ford Explorer	3,526	New
16	Audi Q4 e-tron	3,353	-16%
17	Audi A6 e-tron	3,161	New
18	Mercedes EQA	3,082	-1%
19	Renault Scenic	3,034	+413%
20	Cupra Tavascan	2,858	New
21	Mercedes EQB	2,768	+7%
22	Toyota bZ4X	2,733	+18%
23	Hyundai Kona	2,732	-18%
24	Tesla Model 3	2,604	-41%
25	Hyundai Inster	2,515	New

Chinese EV market share: doubled

- Market share of Chinese carmakers in Europe is growing rapidly.
- Schmidt Automotive Research: at 1 May 2025 Chinese brands account for 4.8% of car sales in Europe. (Last year, the figure was only 2.9 per cent in the first quarter.)
- UK on top: so far not imposed any additional import duties and now accounts for almost a third of all Chinese car models entering Western Europe

Key trends and sales data from May 2025:

- •Global EV sales increased: Global sales of battery-electric vehicles and plug-in hybrids rose to 1.6 million units
- •European EV sales surged: Europe saw a 36.2% increase in EV sales, reaching 0.33 million units.
- •Tesla sales declined in Europe by 47% in 2025, despite overall EV market growth.
- •Volkswagen ID.4 and Hyundai Ioniq 5 were among the best-selling EVs in the first quarter of 2025.
- •Volkswagen group is the European market leader in VIO's (PHEV + BEV)
- •EV market share increased: In the UK, pure electric cars captured 21.8% of the market.



"Up"



"Back up"



"Back up"



"Down"

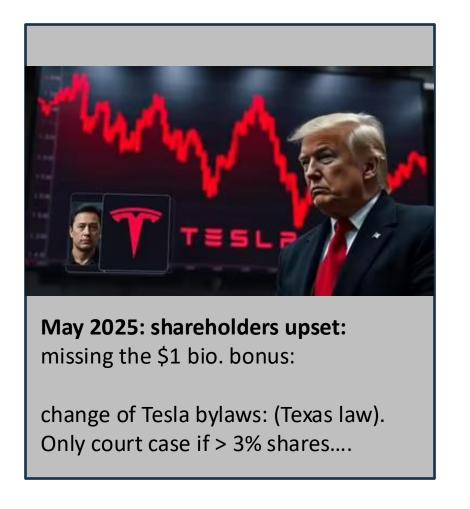
TESLA: Up and down...



"Back up"



"Down"



"Down"

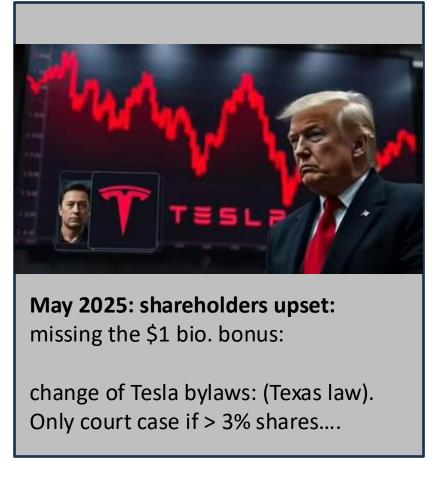
TESLA: Up and down...



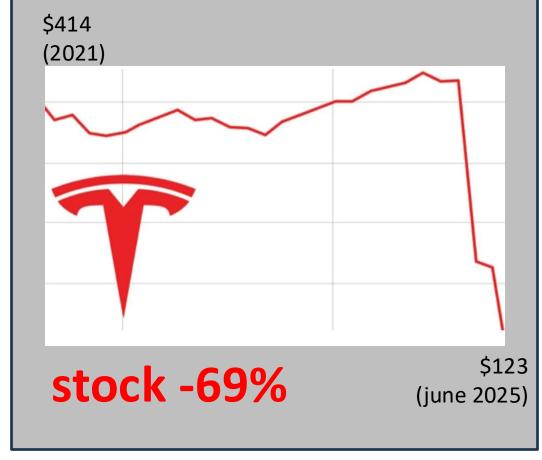
"Back up"



"Down"



"Down"

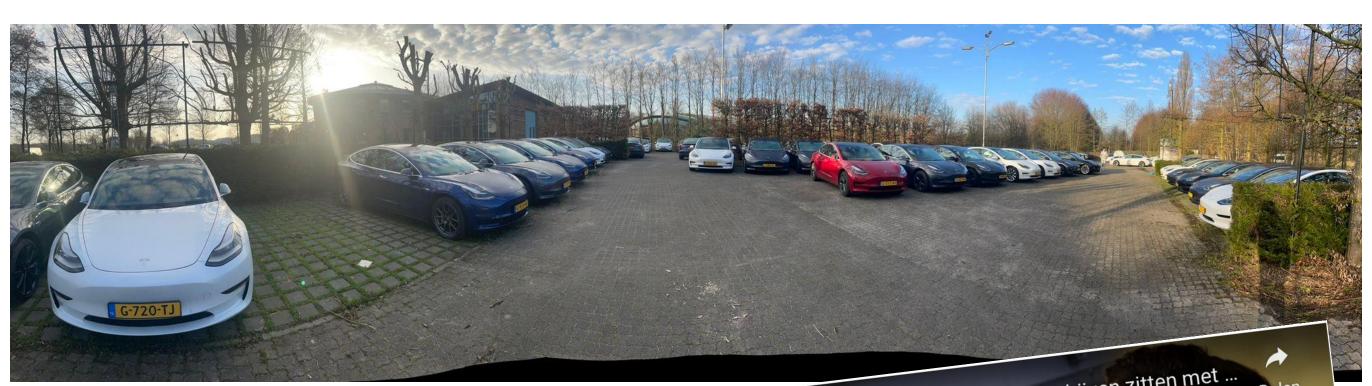


Tesla prices down...



Tesla prices down...









Completely wrong model portfolio







Completely wrong model portfolio









Also other Musk business moves down...



Innovation behind the wheel

AGENDA

10. To the bar



- 10. To the bar
- 9. To do List



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- 8. Workshop of the future

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- 7. EV parts

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- 5. The smart vehicle

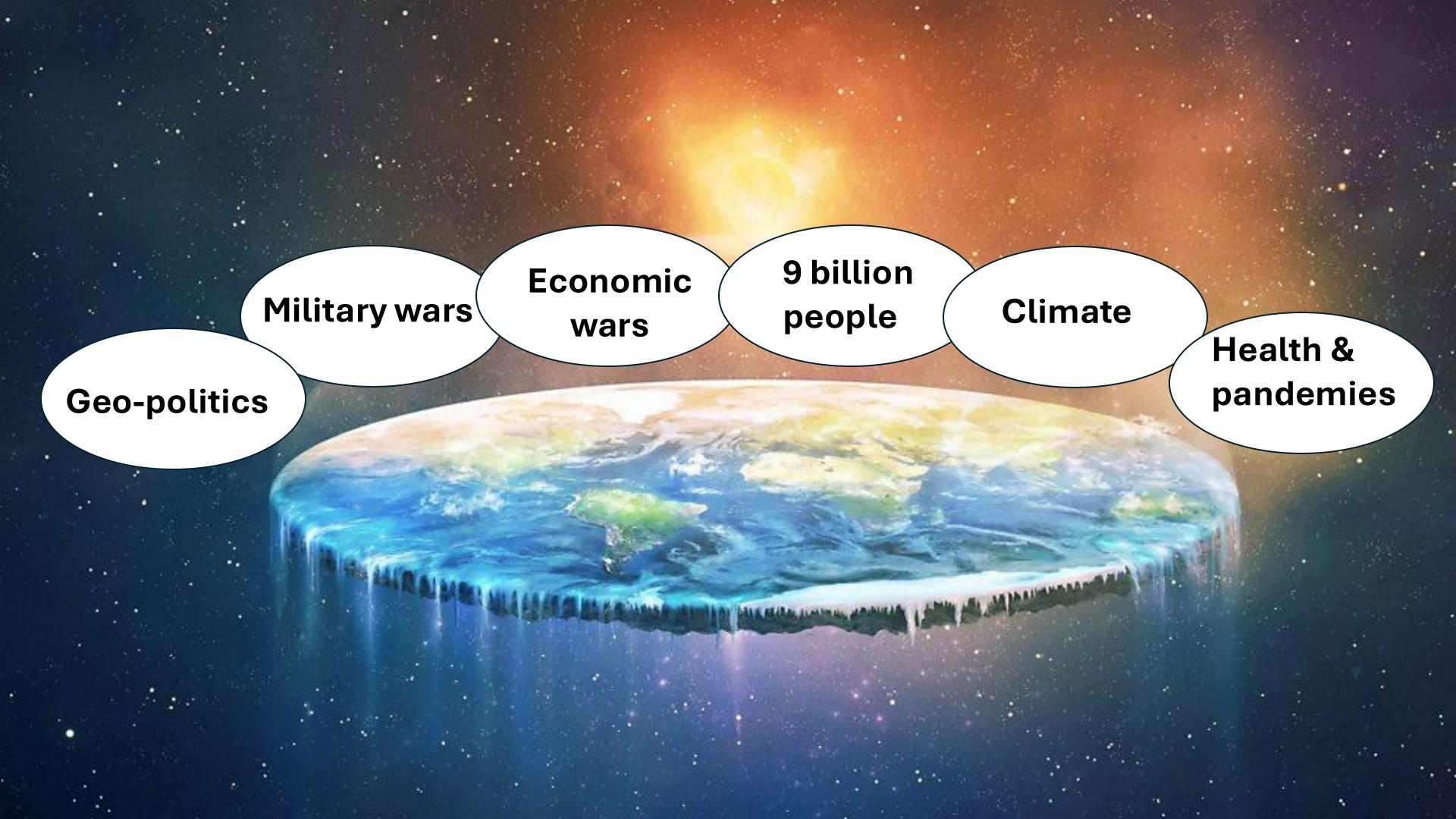
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- 4. Circular Economy: Reman

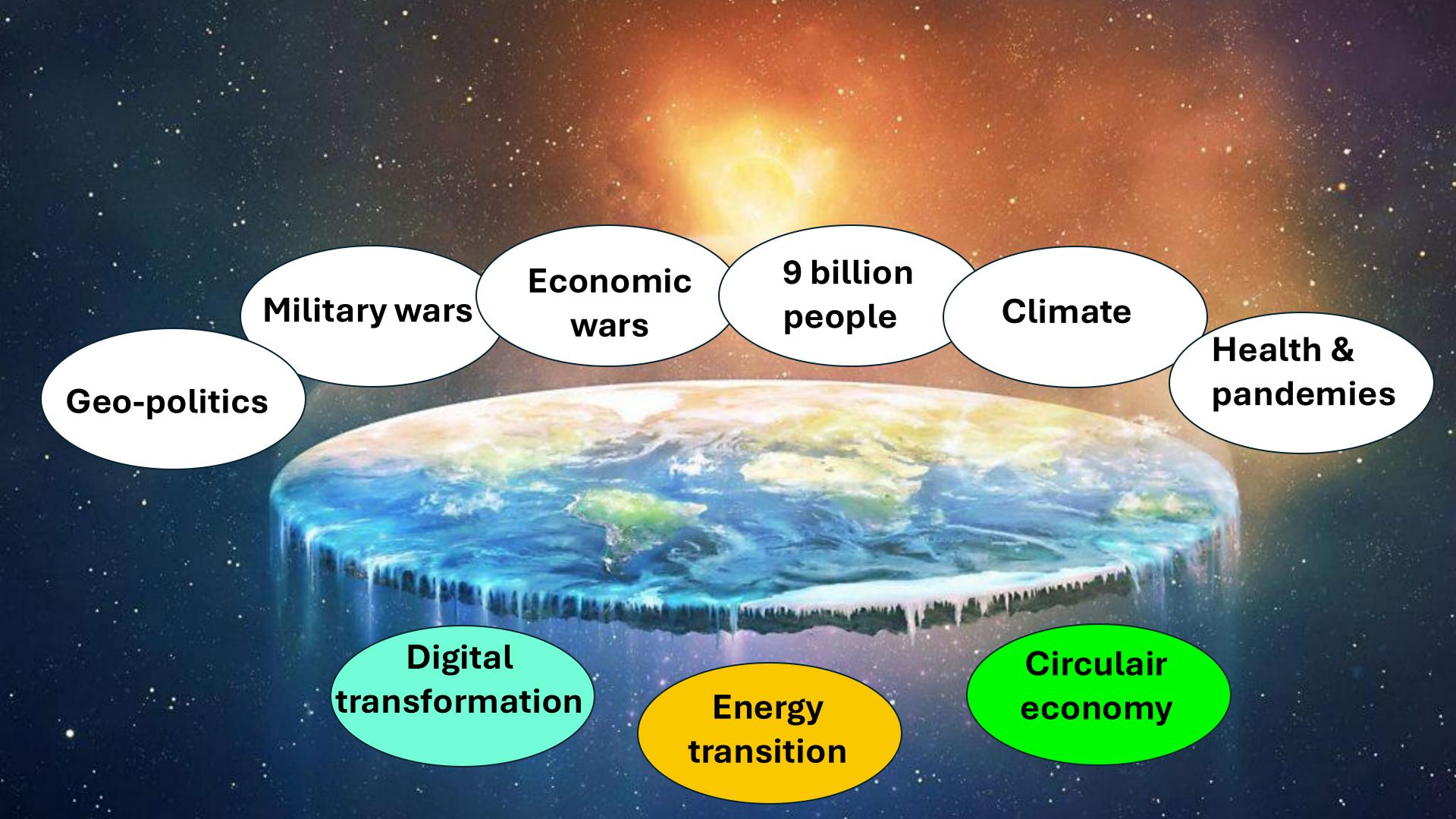
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- 4. Circular Economy: Reman
- 3. Energy Transition: EV
- 2. Digital Transformation: SDV

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- 3. Energy Transition: EV
- 2. Digital Transformation: SDV
- 1. Megatrends

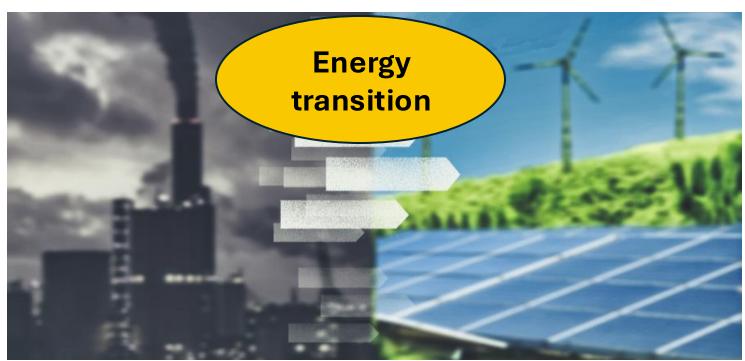






Direct impact on Automotive

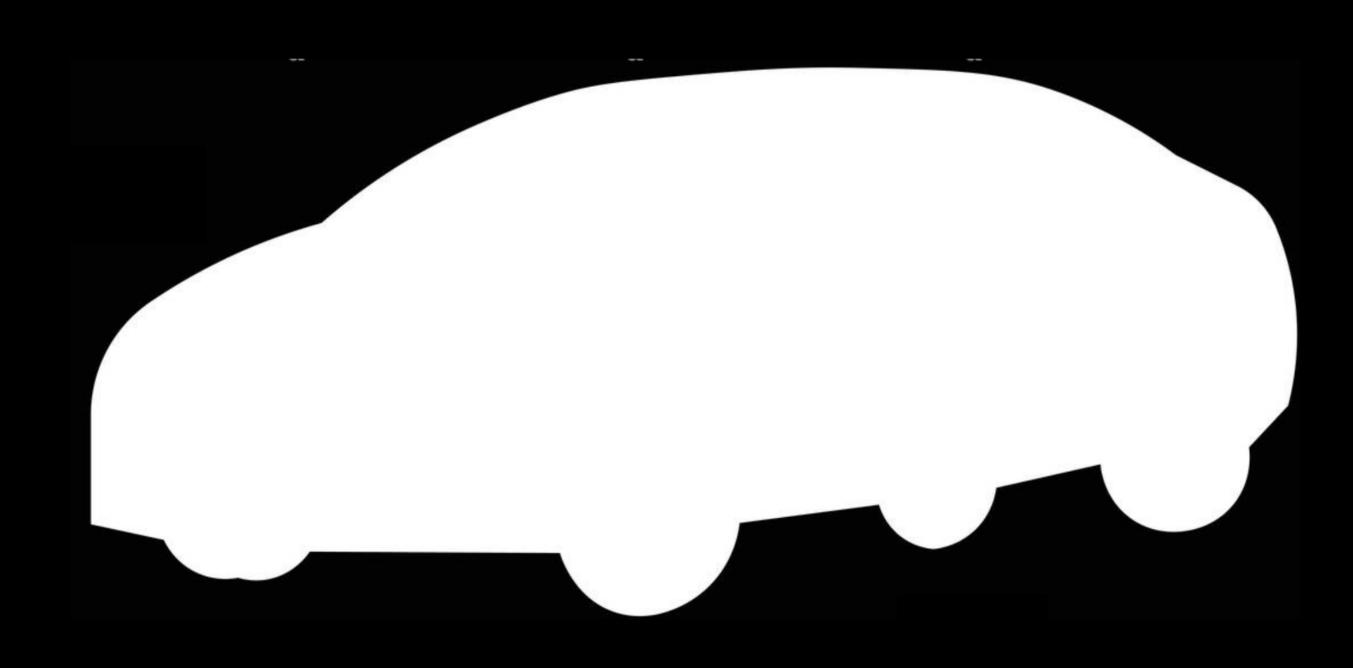


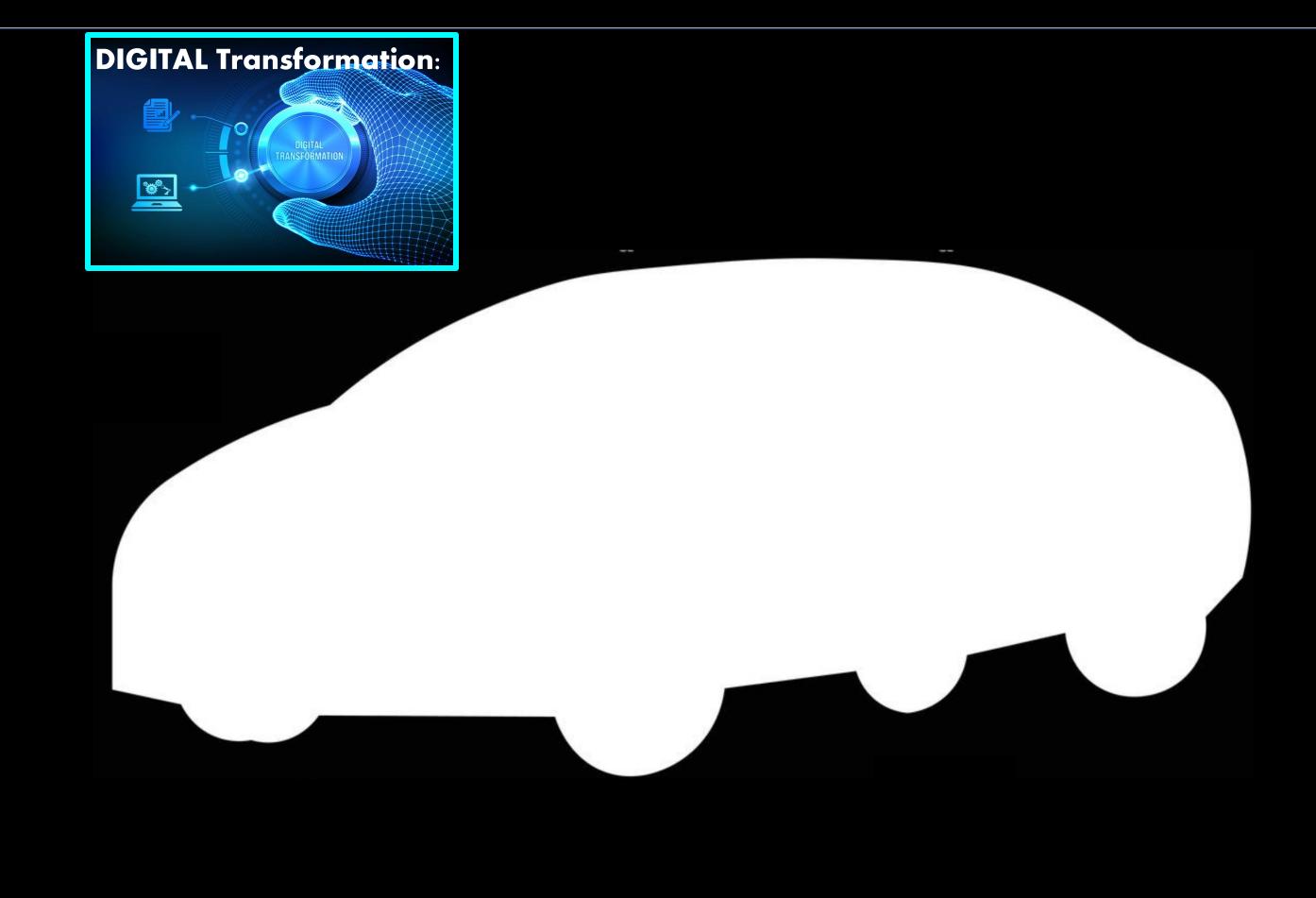


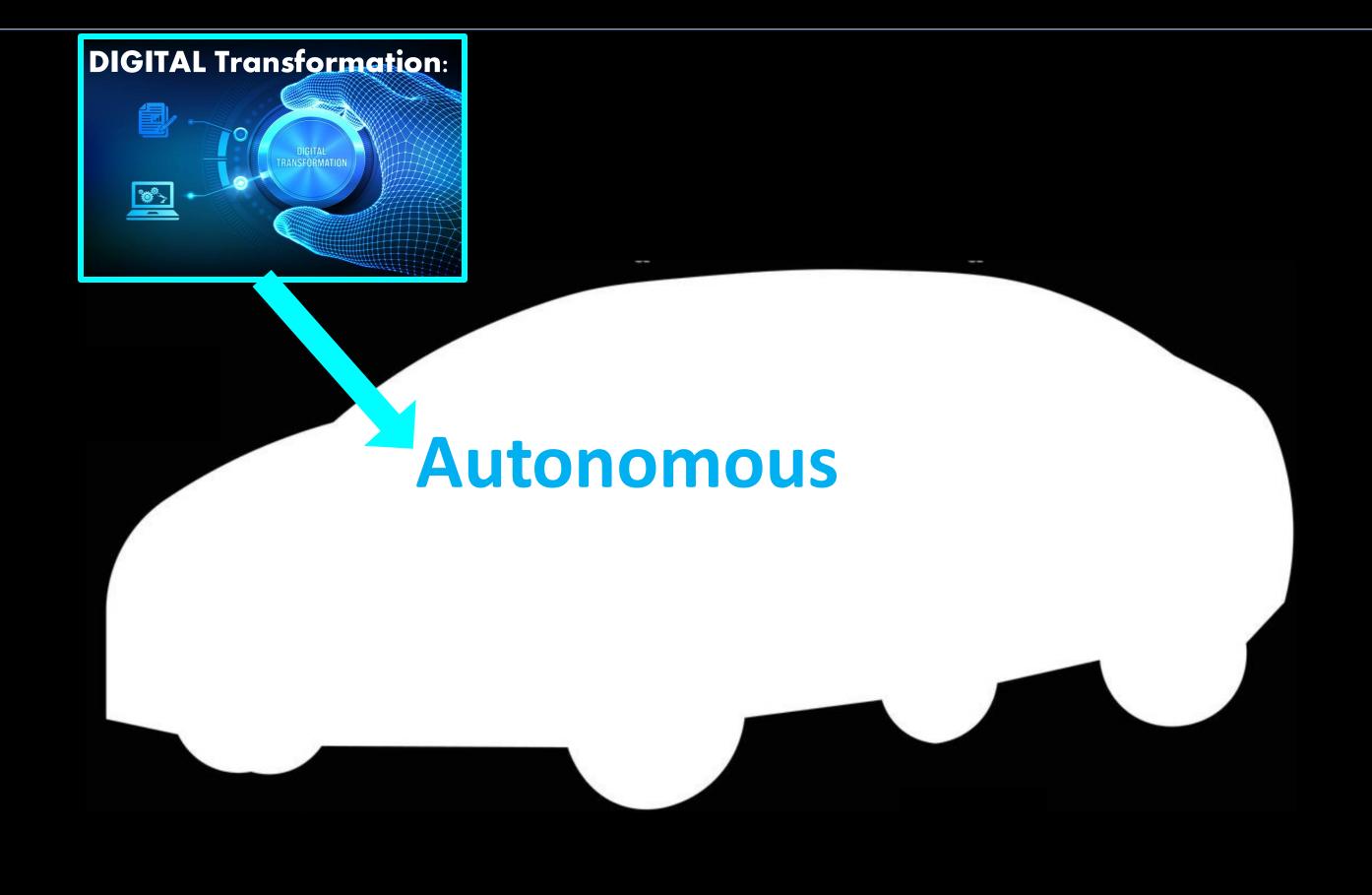




Car technology today:





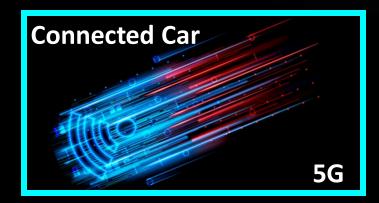














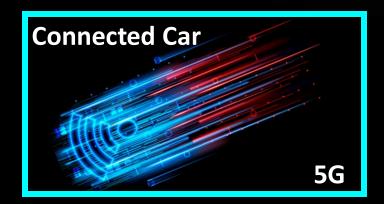








Autonomous ZERO Emission







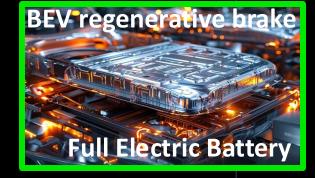






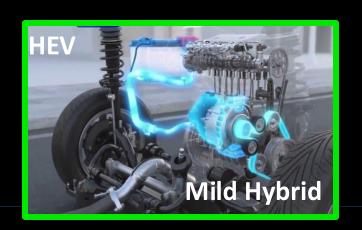






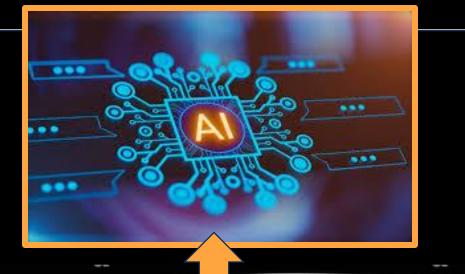














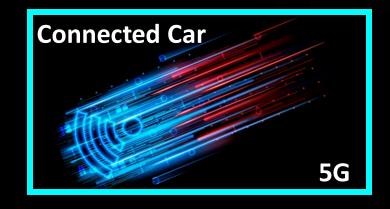




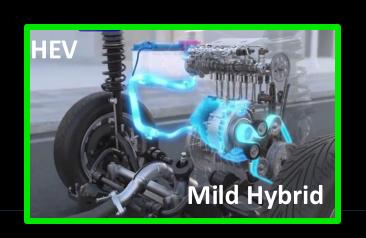






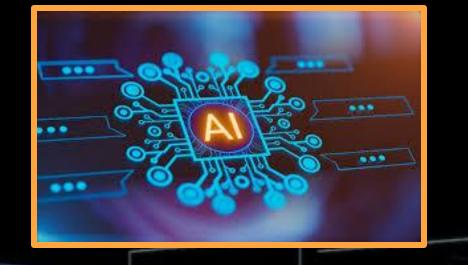








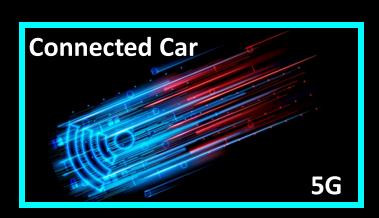




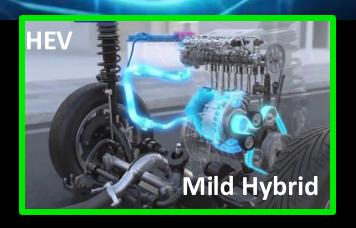










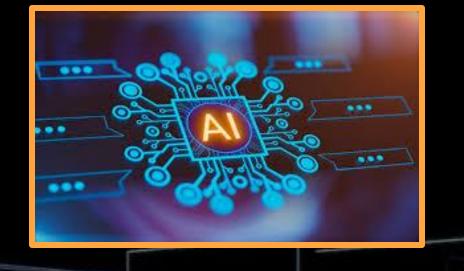




Hydrogen





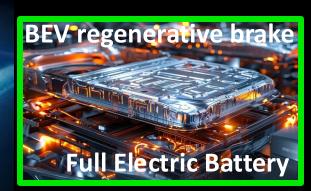








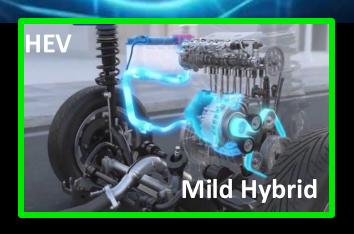




Hydrogen

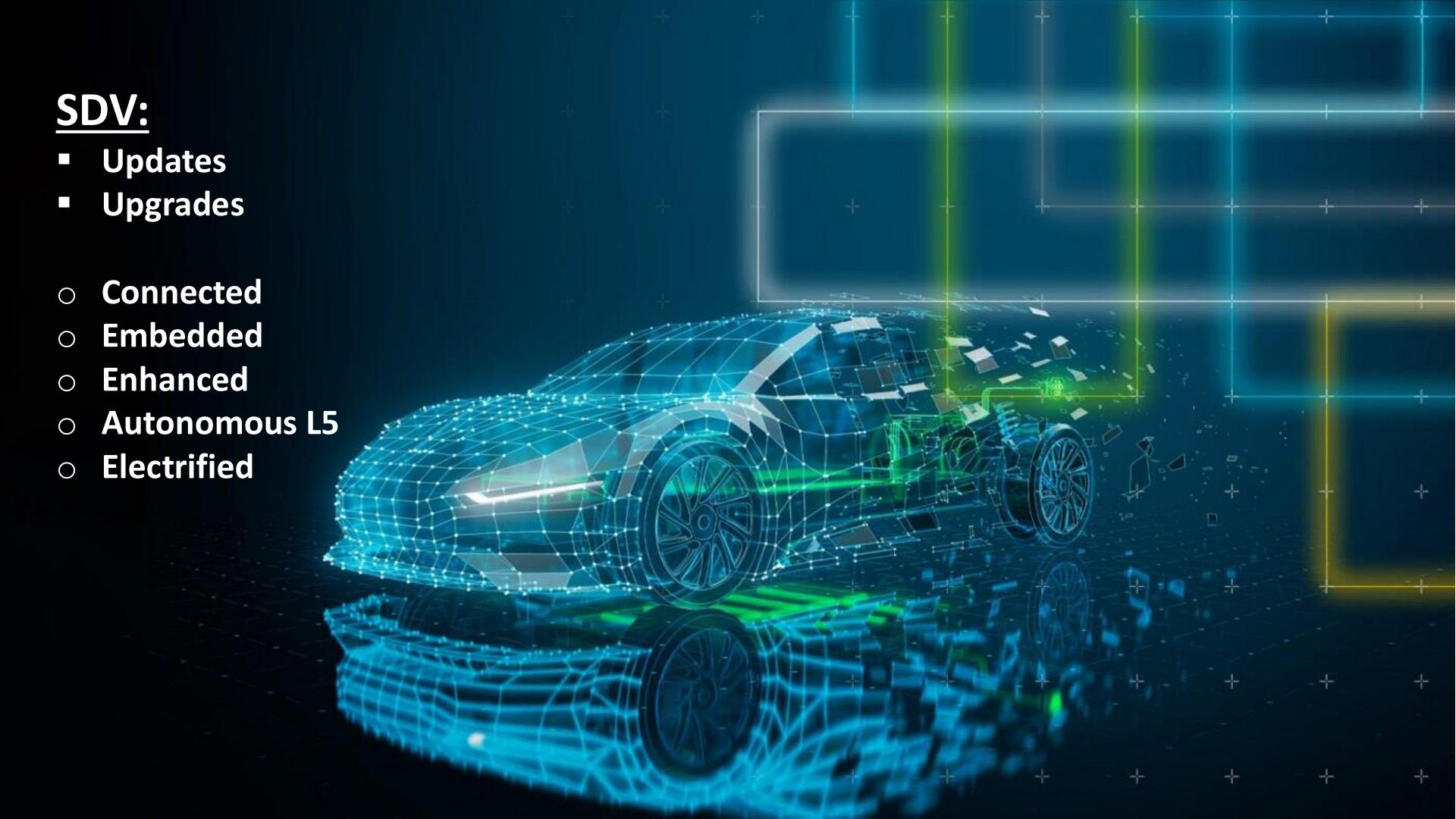


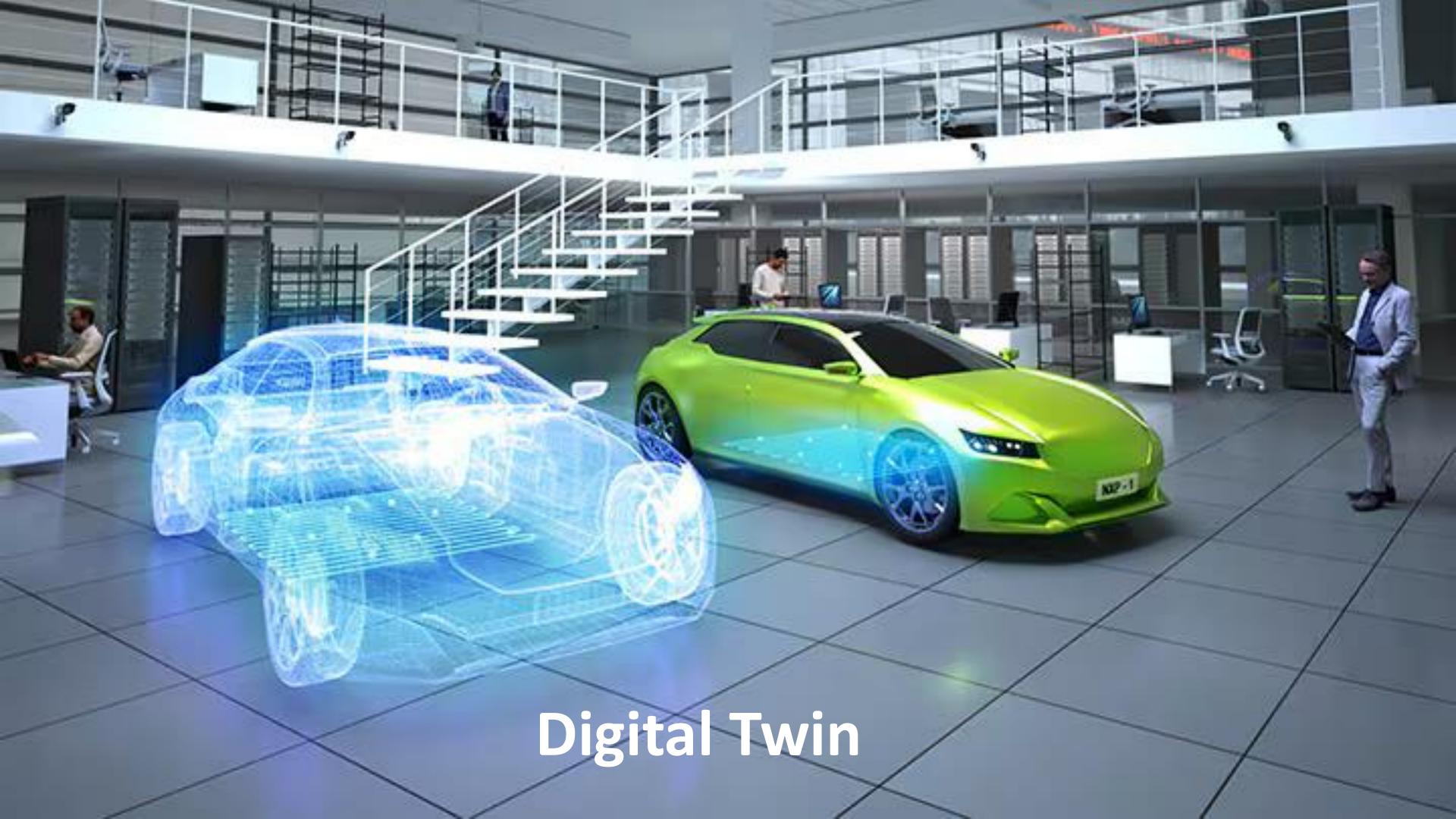










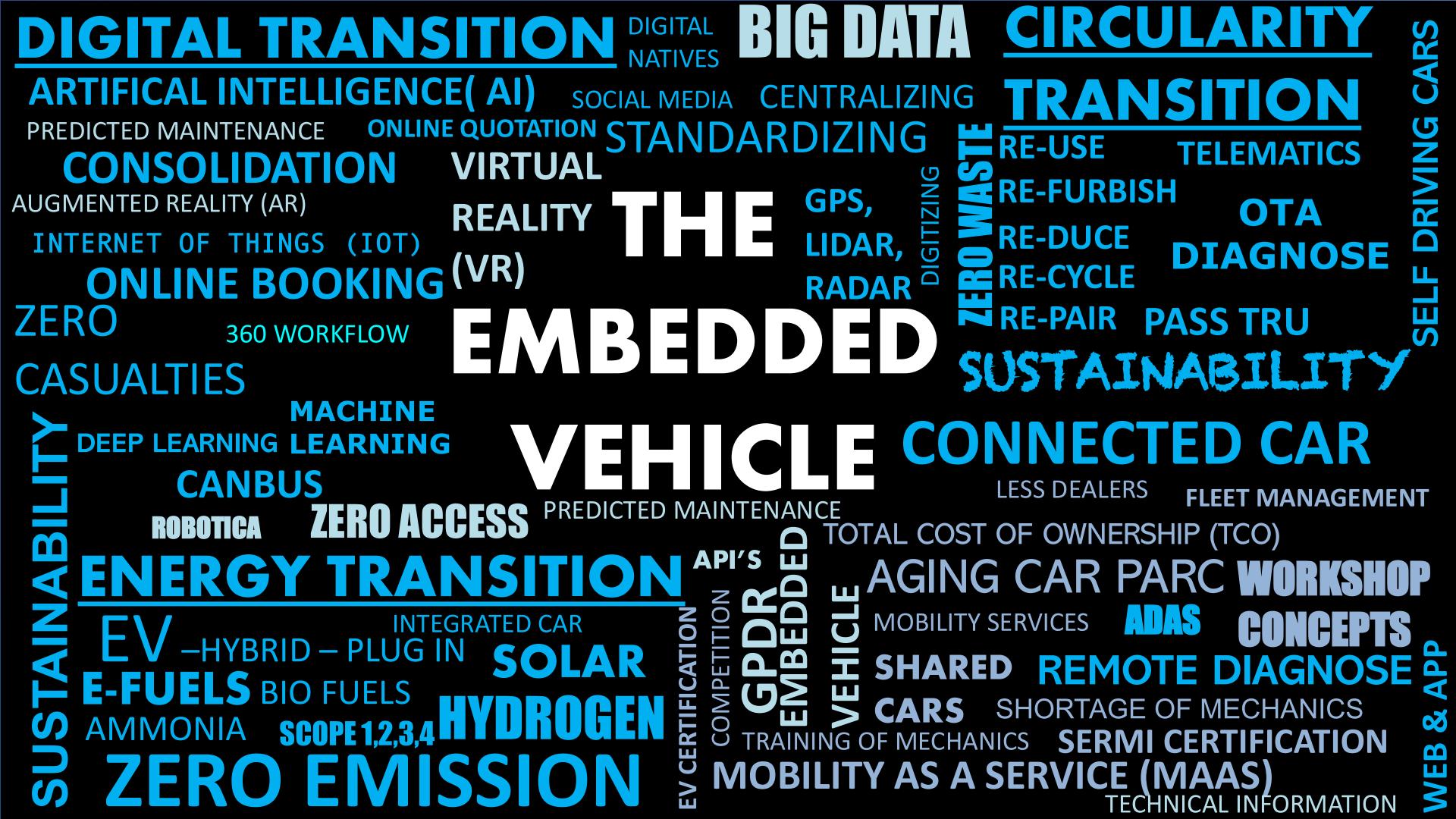




How to get access to software / in-vehicle data?



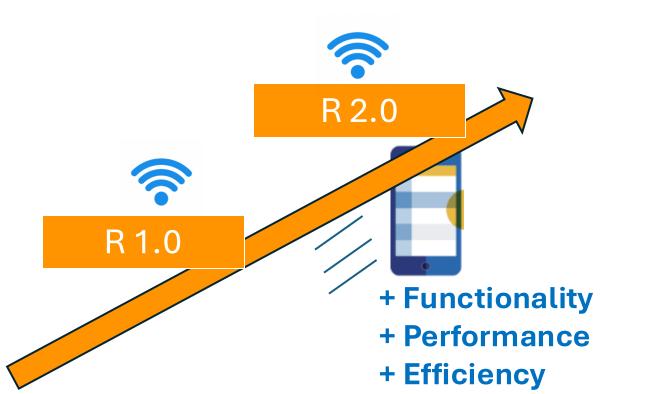


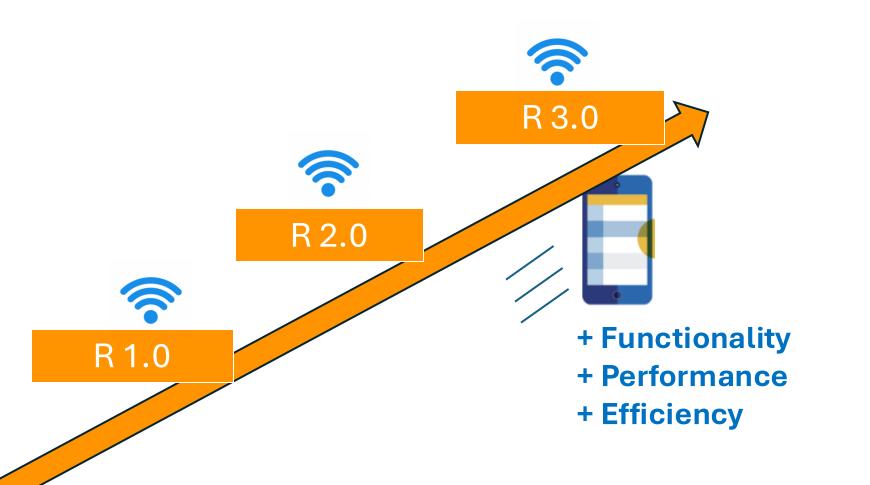


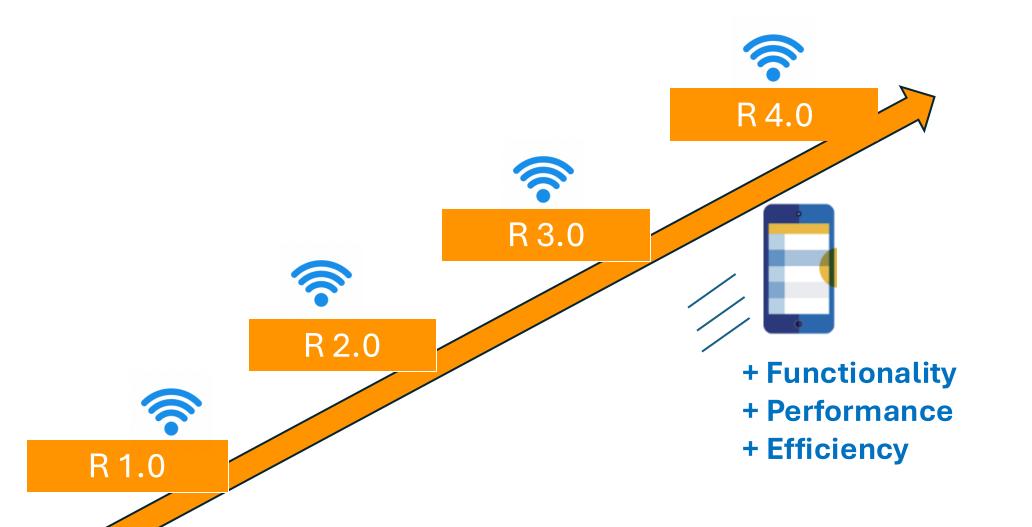
The embedded phone, camera, ALL I CAN DO personal friend

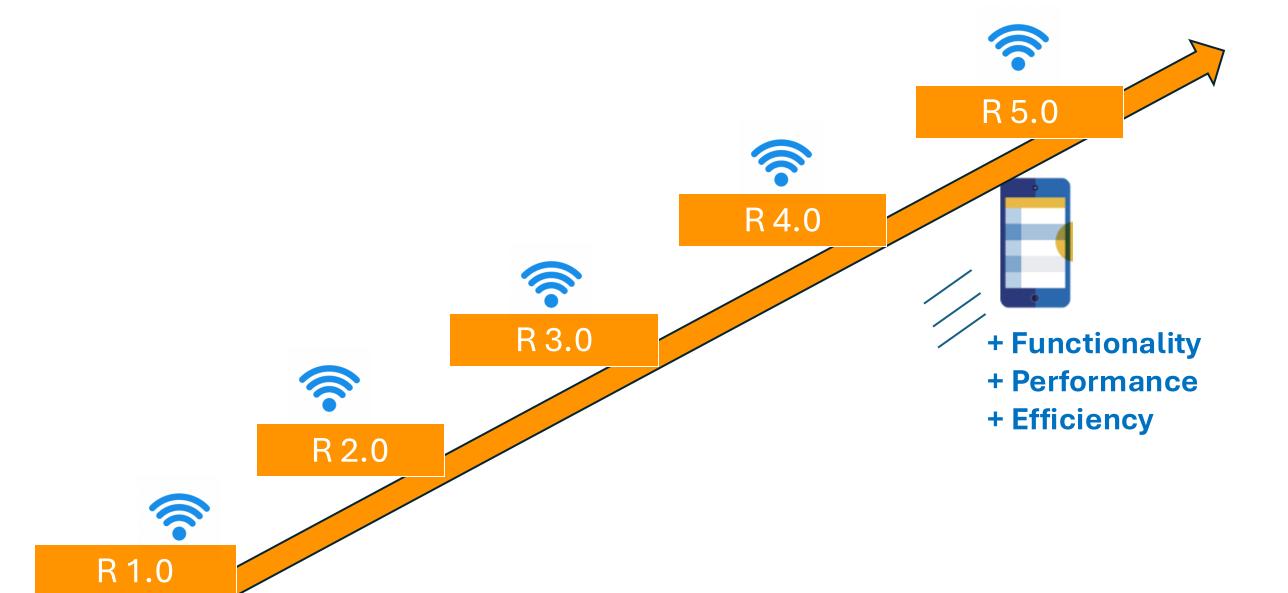


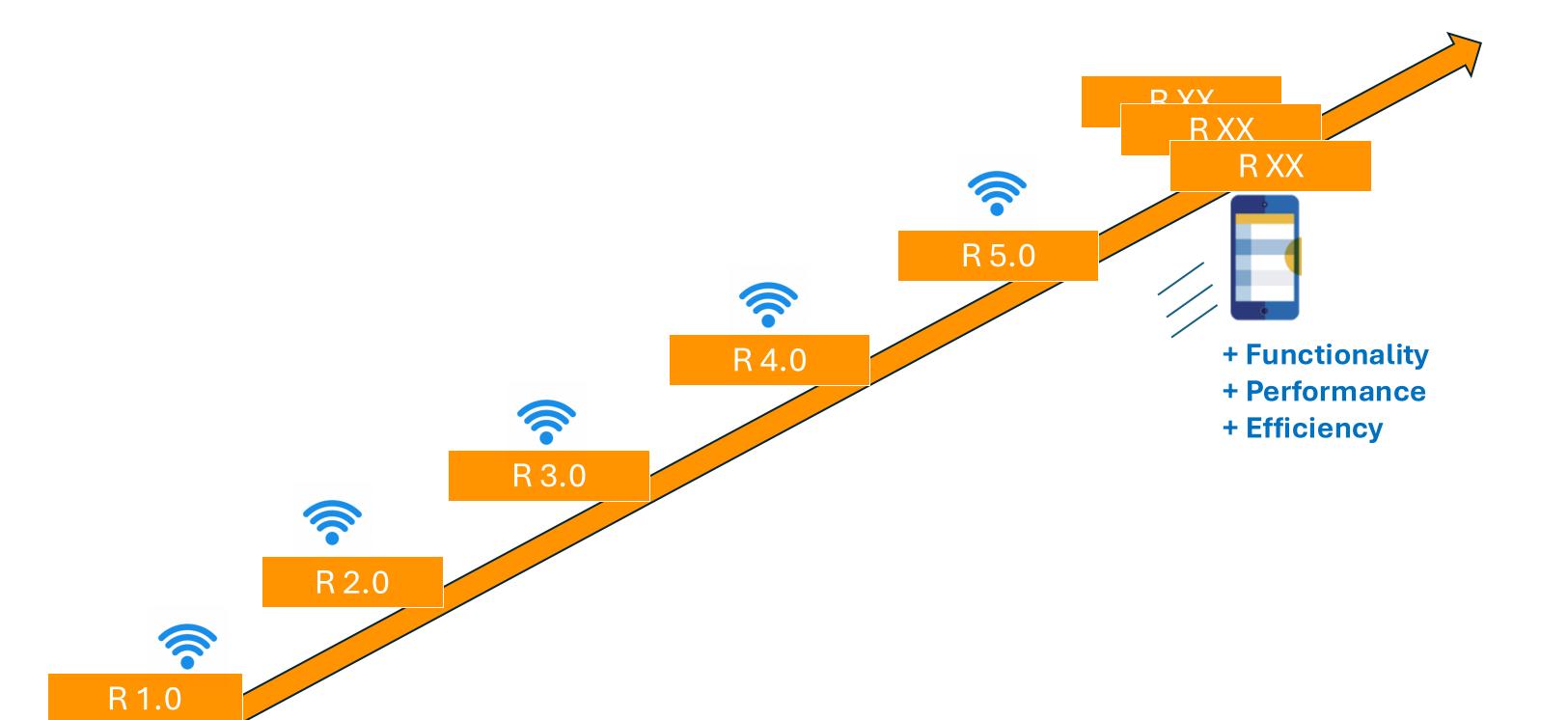




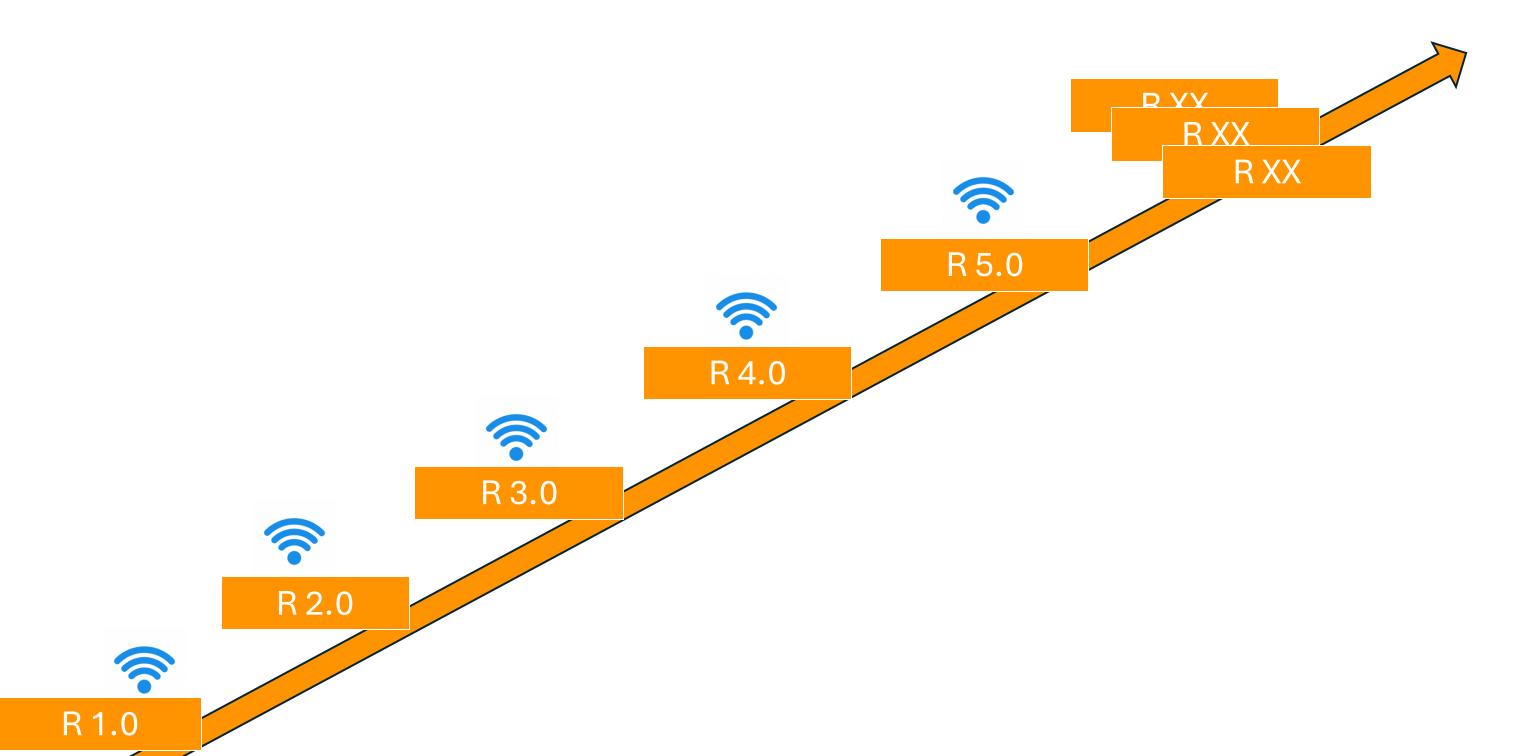
















legacy ICE



legacy ICE

- wear & tear
- oil consumption
- less power
- less performance
- higher fuel consumption
- etc.



legacy ICE

- wear & tear
- oil consumption
- less power
- less performance
- higher fuel consumption
- etc.

"over & out"



















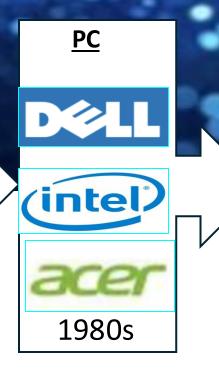










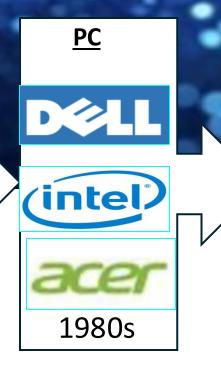




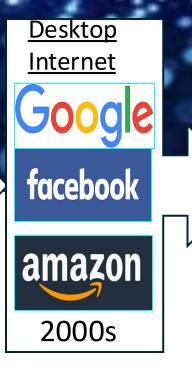






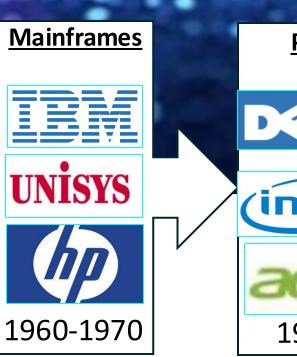


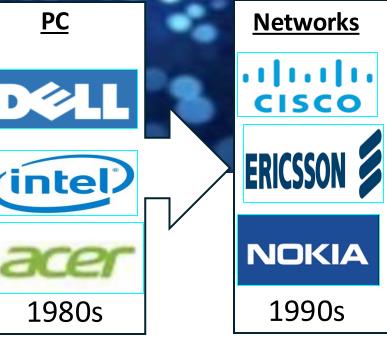
















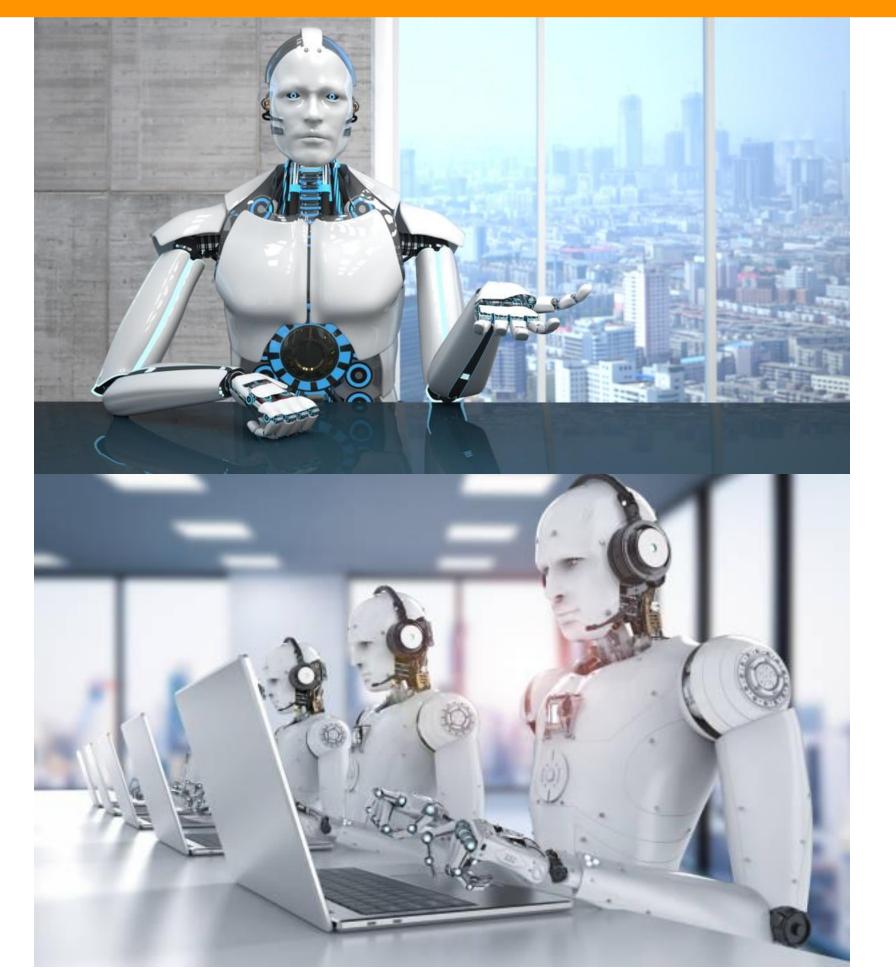


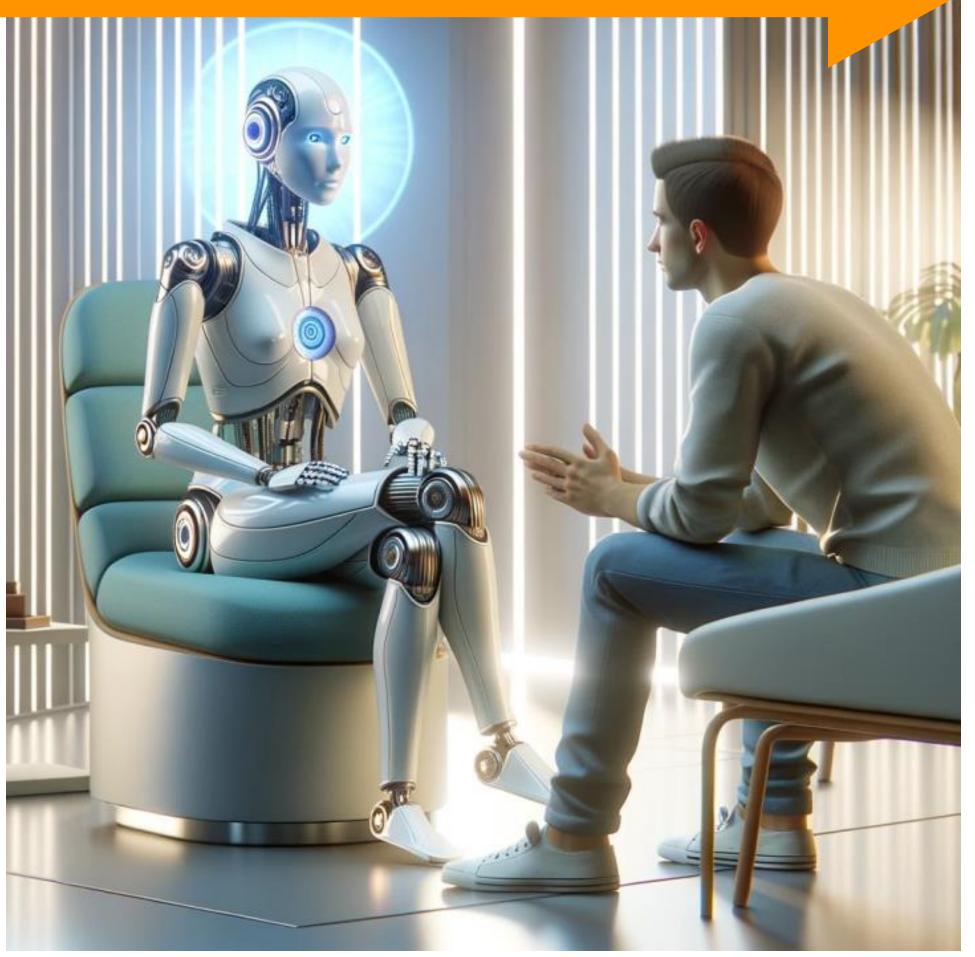


SMART CAR



ai: robotics





Conclusions: The Smart Car, SDV, has arrived

- 2. Autonomous driving: just a matter of time
- 3. Vehicle access / in-vehicle data are under pressure!

















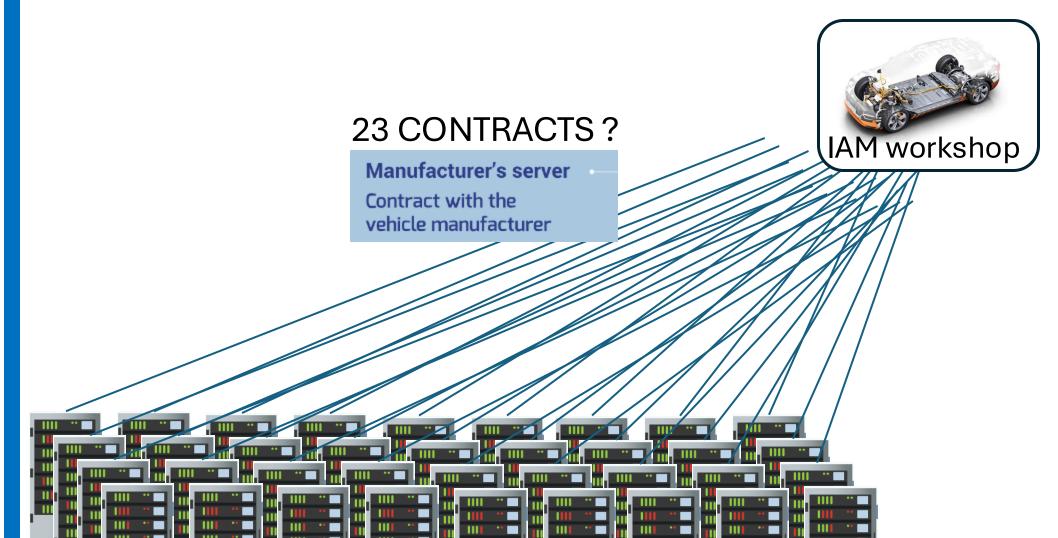
















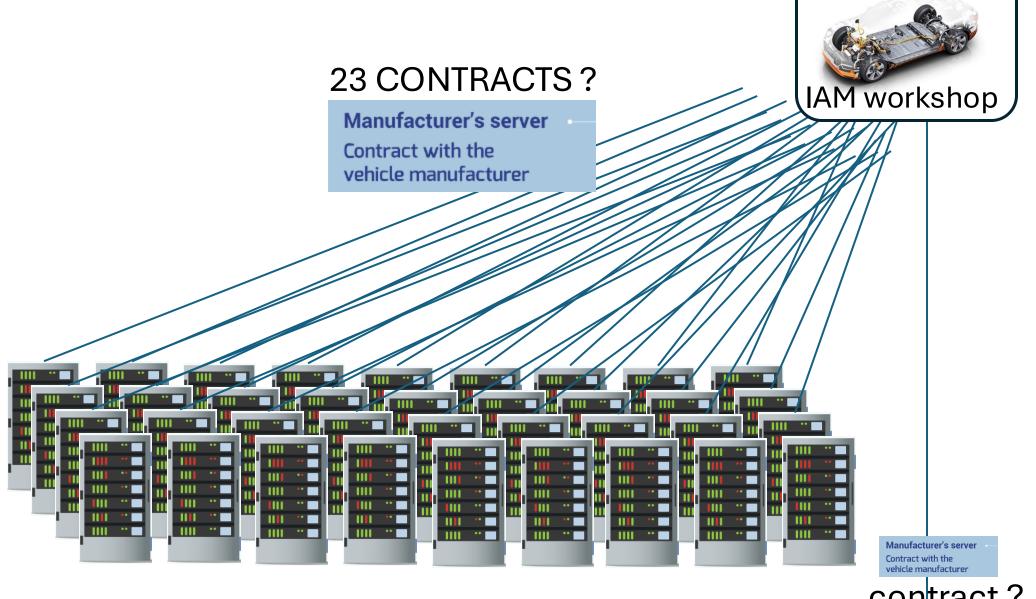






















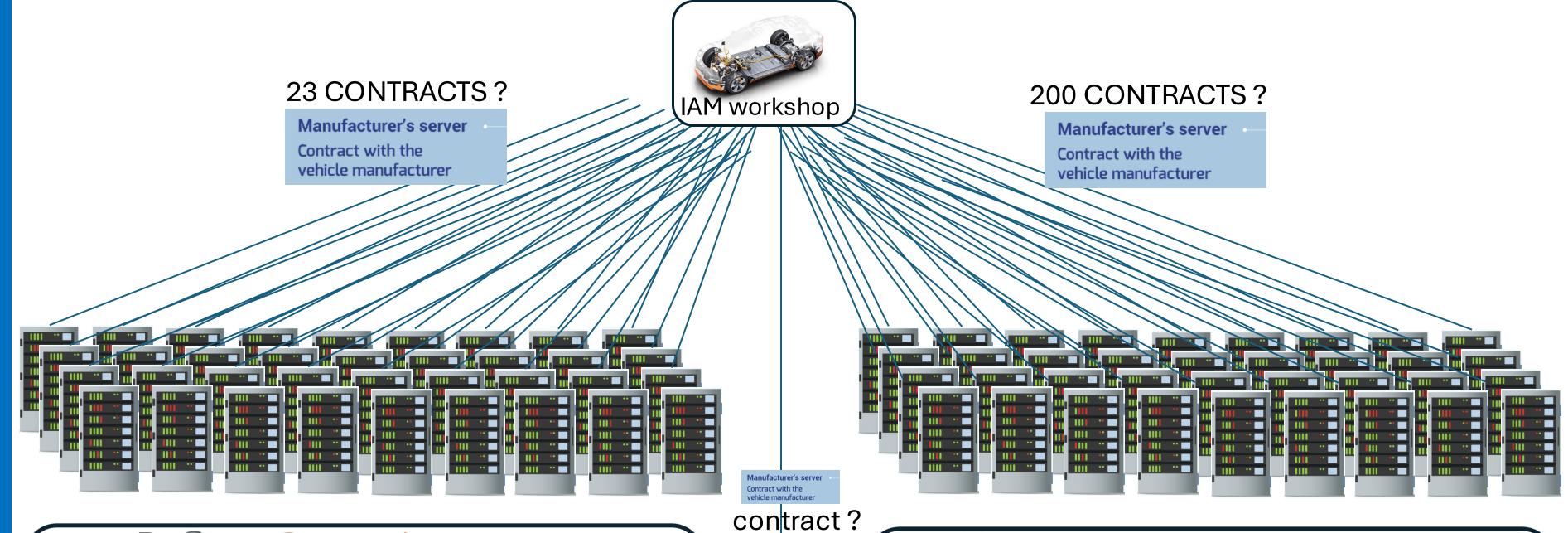






















Carmunication

NEW BOARD



FREEK BLEKXTOON
NRF



BOARD MEMBERS:

MICHAEL KRAMPE

HAYNESPRO



PATRICK LO PINTO TEKNÉ CONSULTING



CARINE BONNET
NEXUS AUTOMOTIVE
INTERNATIONAL





Concerned about in-vehicle data

represents

25

MEMBERS

180

COUNTRIES

~62B €

REVENUE

~600000

EMPLOYEES

WE ENABLE FAIR ACCESS TO LIVE VEHICLE DATA



Concerned about in-vehicle data



AFTERIIZE



ALLDATA



AUTIG



AUTO PLUS BULGARIA



INFOPRO DIGITAL



LKQ EUROPE



MAHLE





AUTODATA



DANSK BILBRANCHERÅD









NEXUS



NITERRA





GEOTAB



HAYNESPRO



HELLA GUTMANN SOLUTIONS



HERTH+BUSS



P.S. AUTOMOTIVE



SAG SERVICES





TMD FRICTION



TOPMOTIVE





Concerned about in-vehicle data



Unifying Companies

We unify the entire data supply chain of the Automotive Aftermarket (IAM).



Identifying New Revenue

We provide recommendations on how to benefit from the data management revolution.



Providing Independent Insights

We are an independent association that delivers unbiased facts and insights on in-vehicle data.



Political Voice

We are the political representation of the Independent Automotive Aftermarket.



Decision Management Tool

We explain where the market is going, and how to better anticipate.



Knowledge Hub

Whenever you need an answer concerning data in the IAM, **Carmupedia**[©] will provide the answers.

Cyber security & access:











Energy Transition











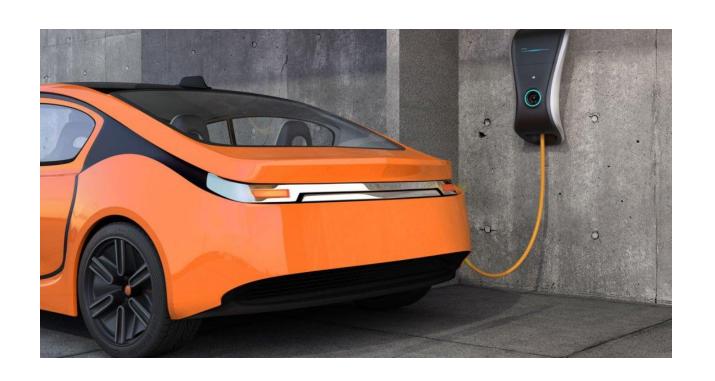








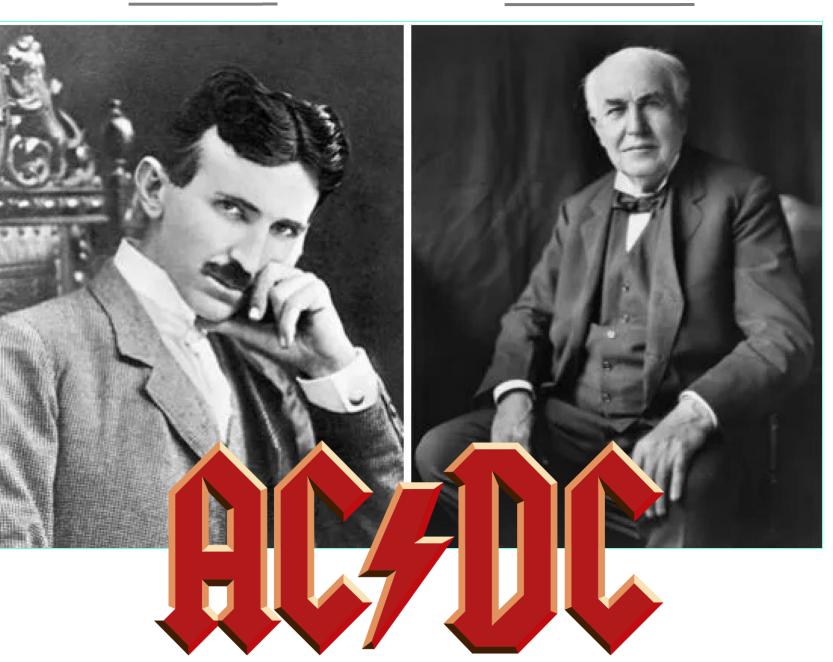


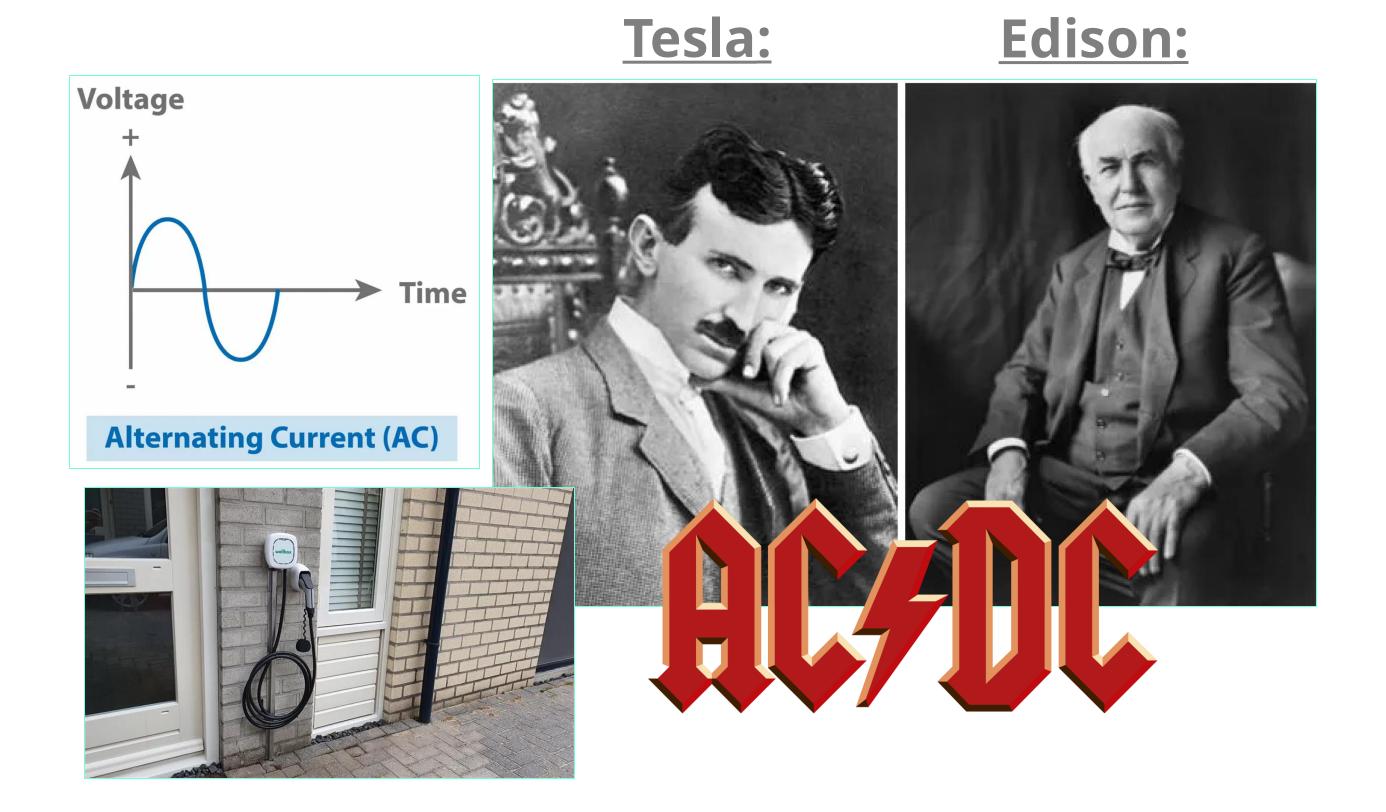




Tesla:

Edison:

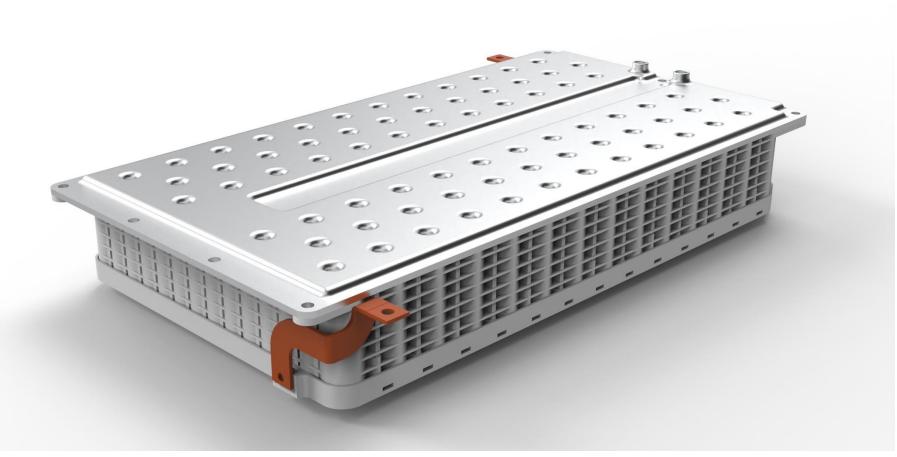






Energy Transition → ZERO EMISSION → EV





ICE



EV





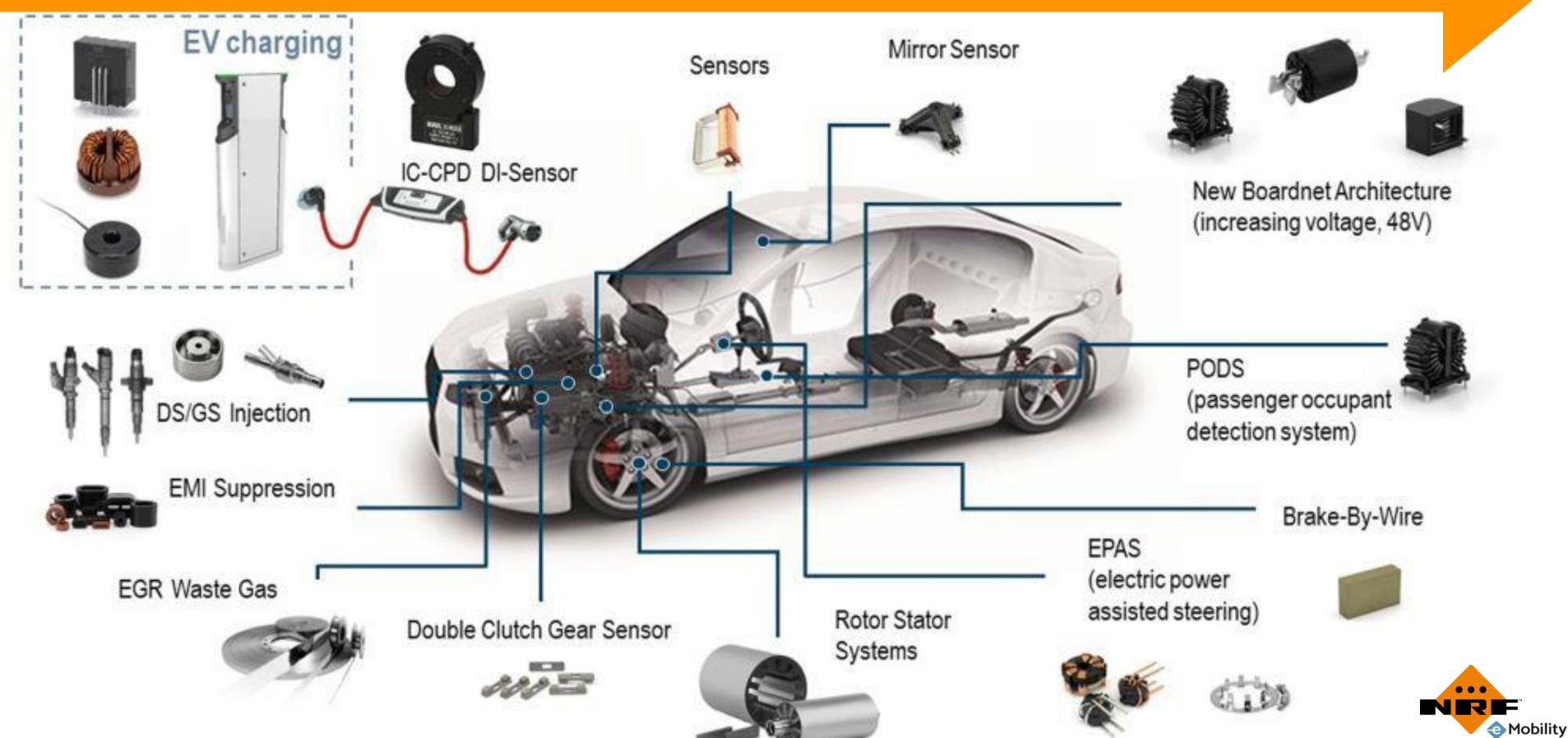
THE SDV OF THE FUTURE / TODAY

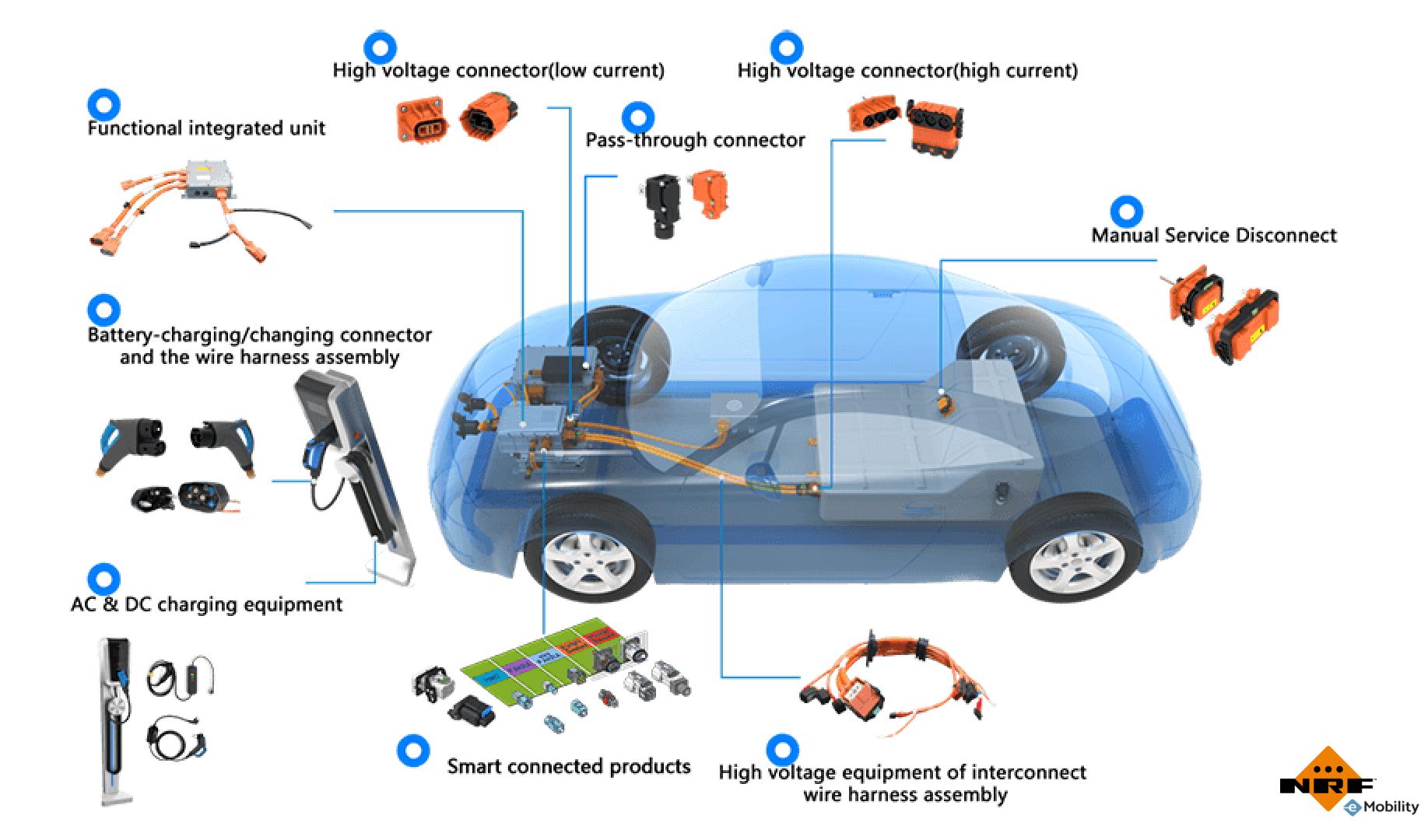
JIM FARLEY (CEO)

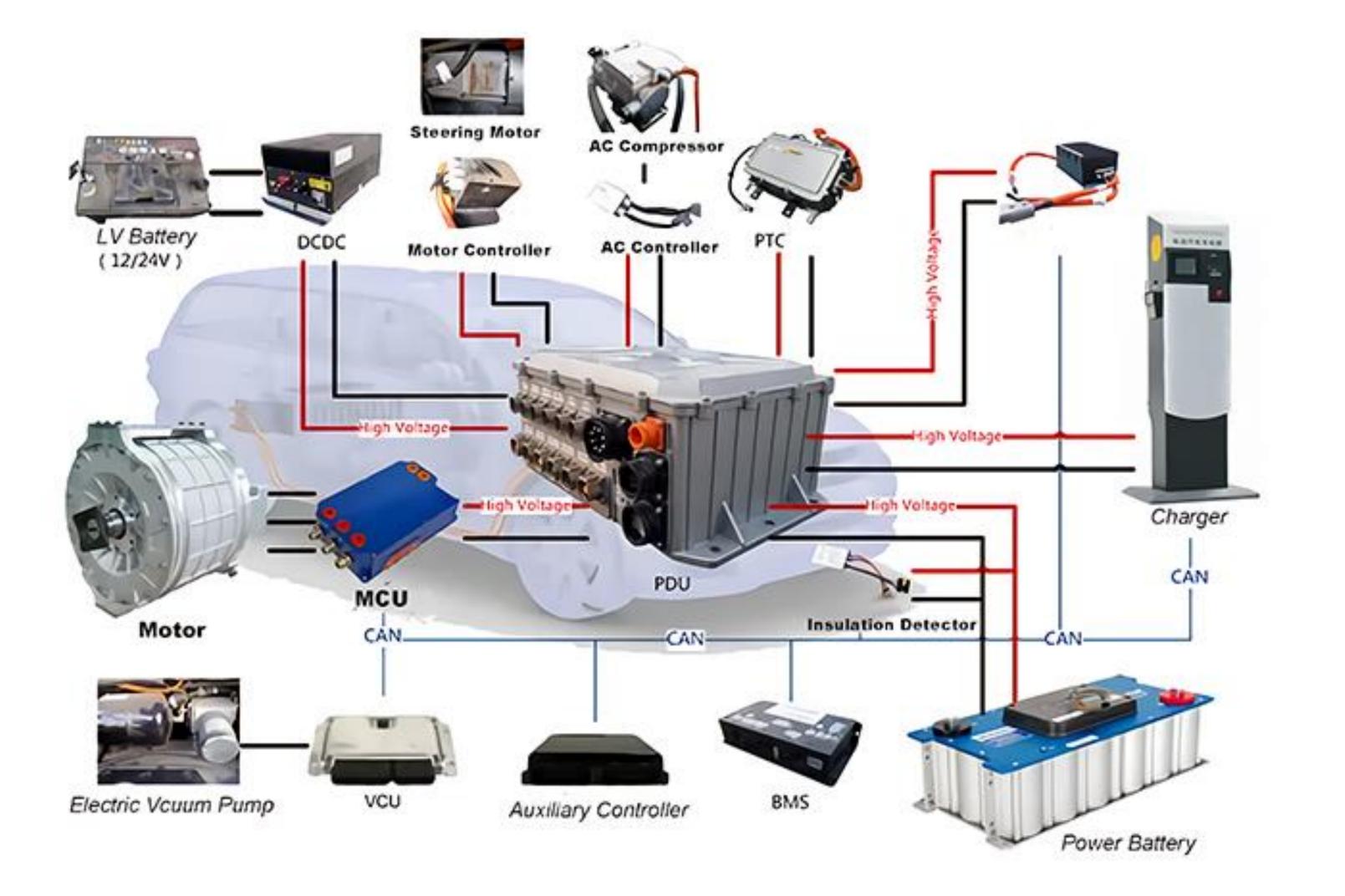




EV components overview





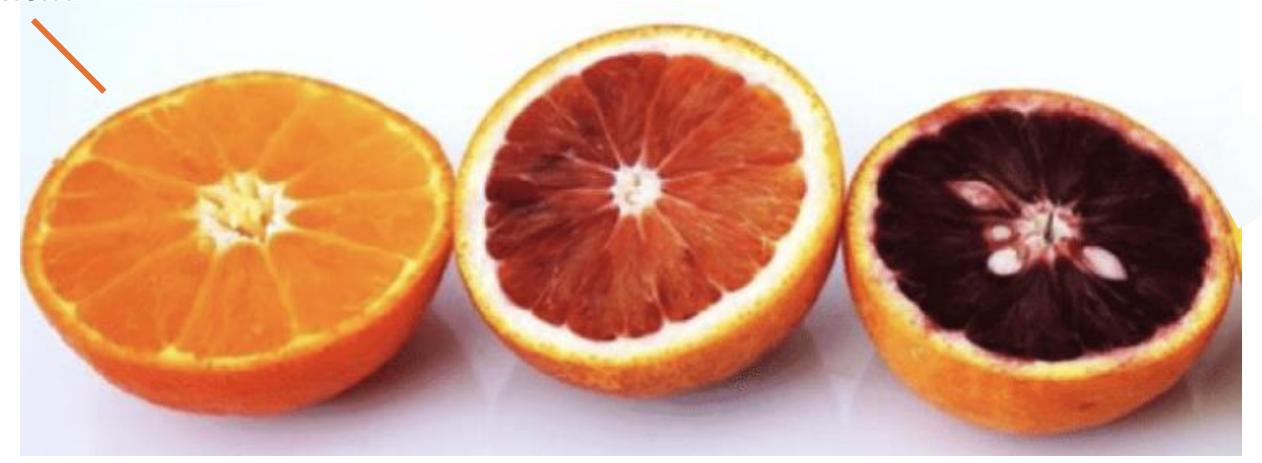








Establishment

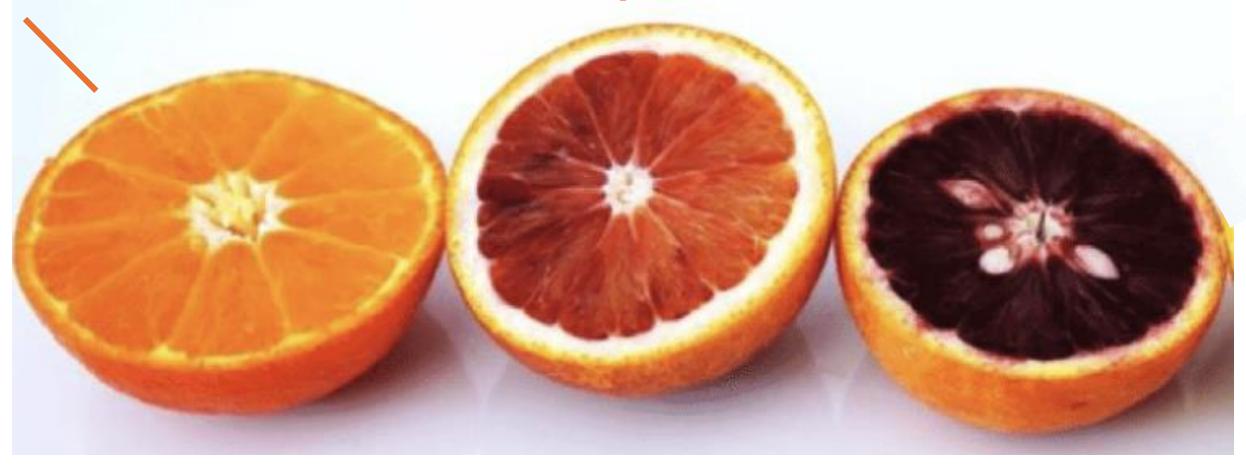




Establishment



TESLA





Establishment



TESLA



Chinese

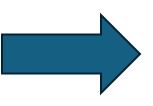




TSSL





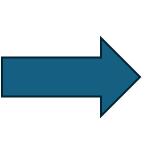






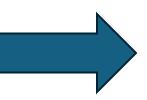








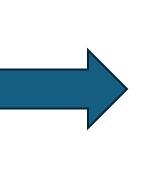




TSSLA

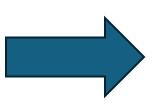




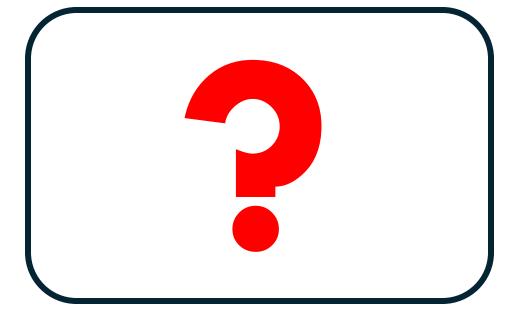


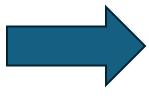




















Refuse Reduce Manair

Reuse Refurbish Recycle

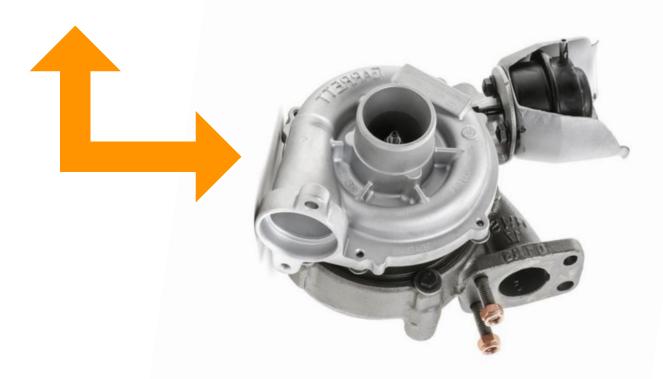
BIOBASED

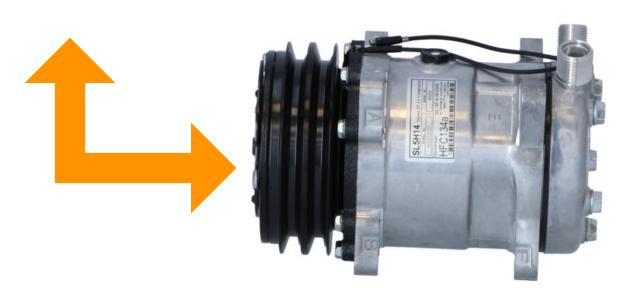
Recover

Remanufactured products









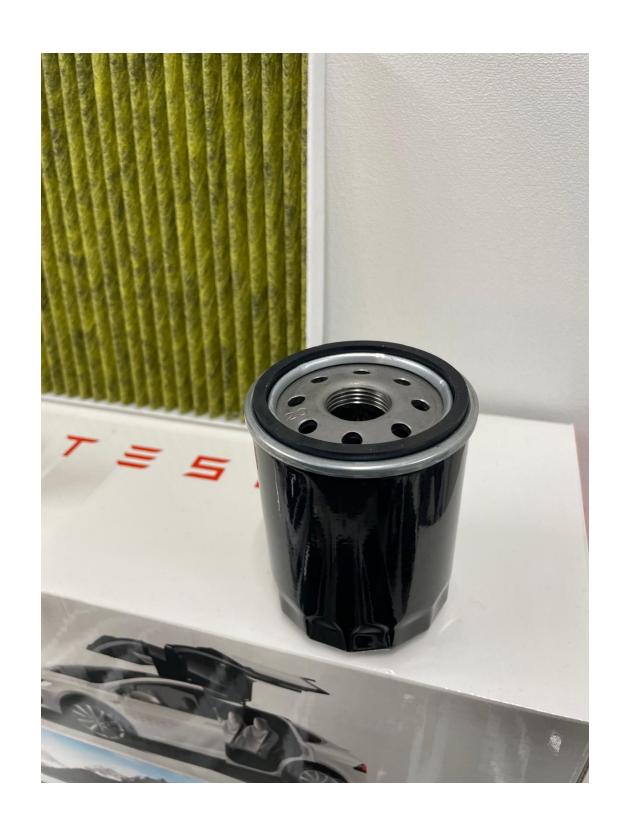


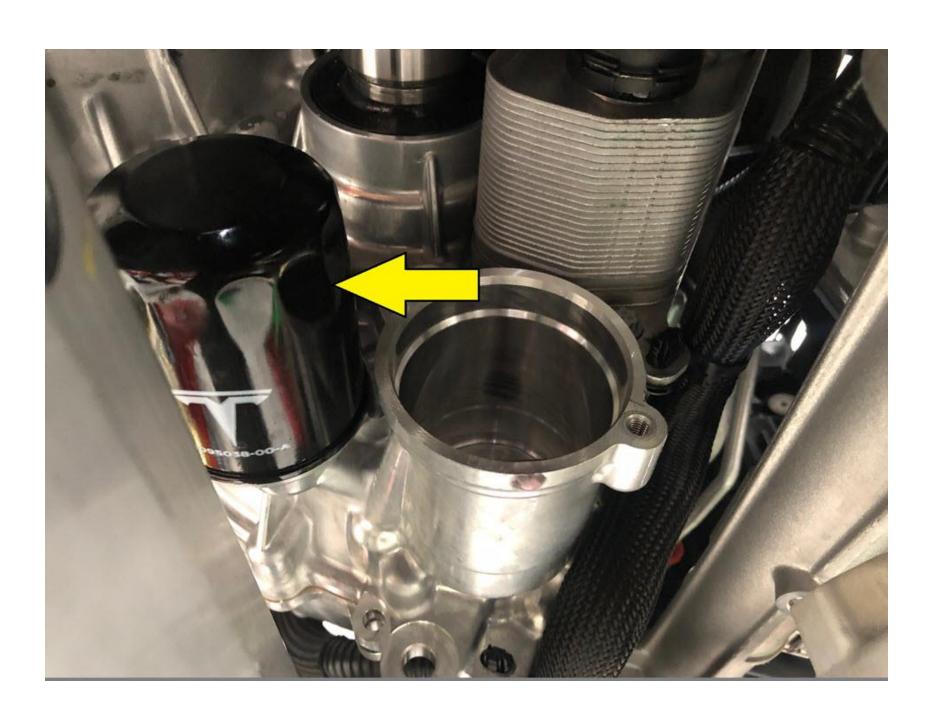
Random EV Parts





Random EV Parts







Random EV Parts

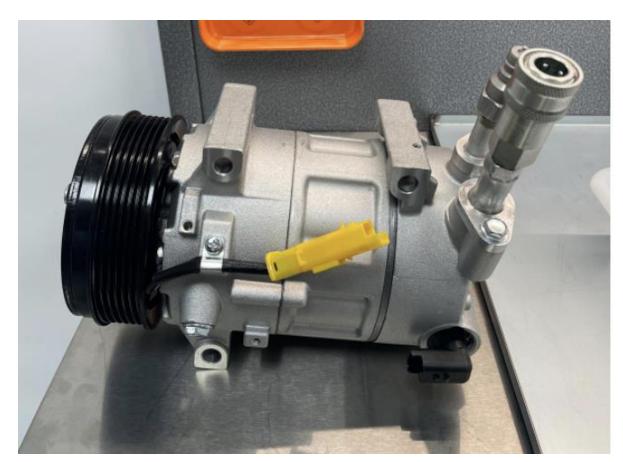








3 Crucial Parts in an EV



e-compressor



converter



on board charger



also PTC heater (dual zone)

Electric heater, using Positive Temperature Coefficent







Another example: TESLA model Y "Octavalve"

Heatpump with eight-port rotary valve that controls the flow of coolant.





e-compressors: with IP \rightarrow software

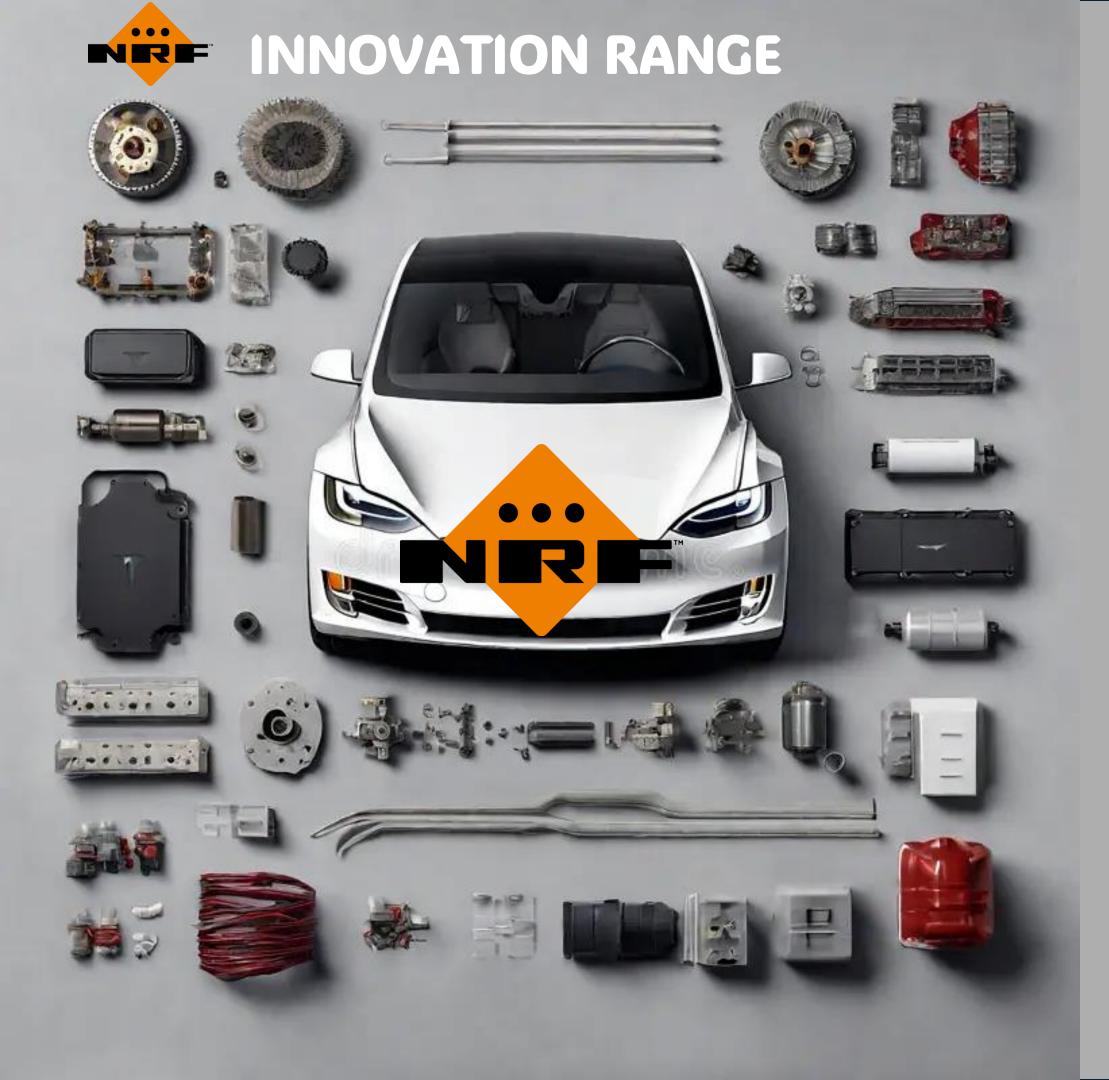


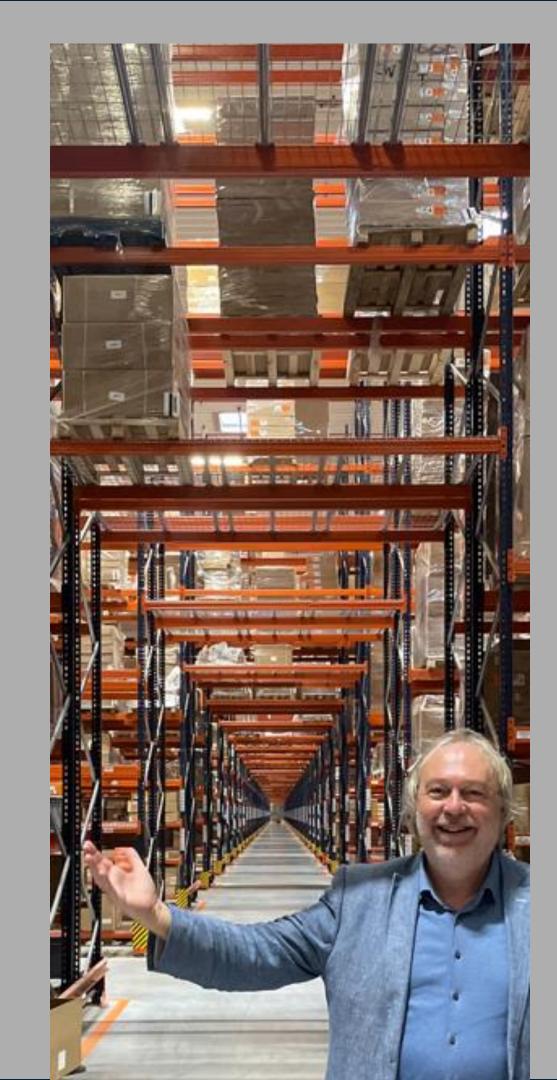


e-compressors fragile: welding, contacts, software - flash









NRF: all EV parts





3 reasons JUST to start: why e-mobility is disruptive



- 1. Sustainability & Euro-7
 - → emissions → penalties
 - → price dump of EV

3 reasons JUST to start: why e-mobility is disruptive



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2. AI - SDV - ADAS - EV : ready.

- * Euro-US-Asian car makers forgot.
- * Tesla + Chinese are ready.

3 reasons JUST to start: why e-mobility is disruptive



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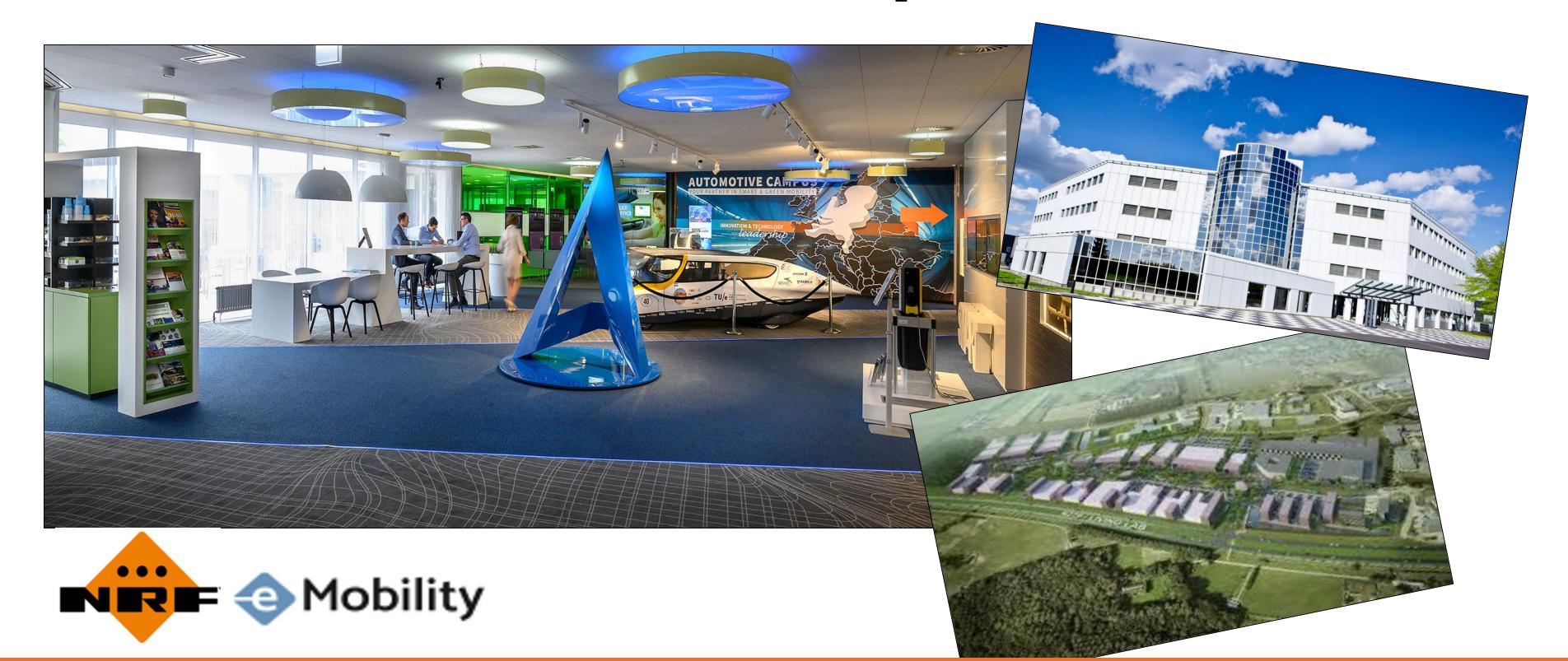


3. it's happening.

- * Tsunami of BYD incl. Hybrids.
- * Tough competition 200 chinese car brands
- *Price dump. Reason: price war

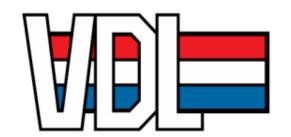
We started: we are present at the E-Mobility Hotspot Europe

Automotive Campus Helmond



E-Mobility Hotspot Europe











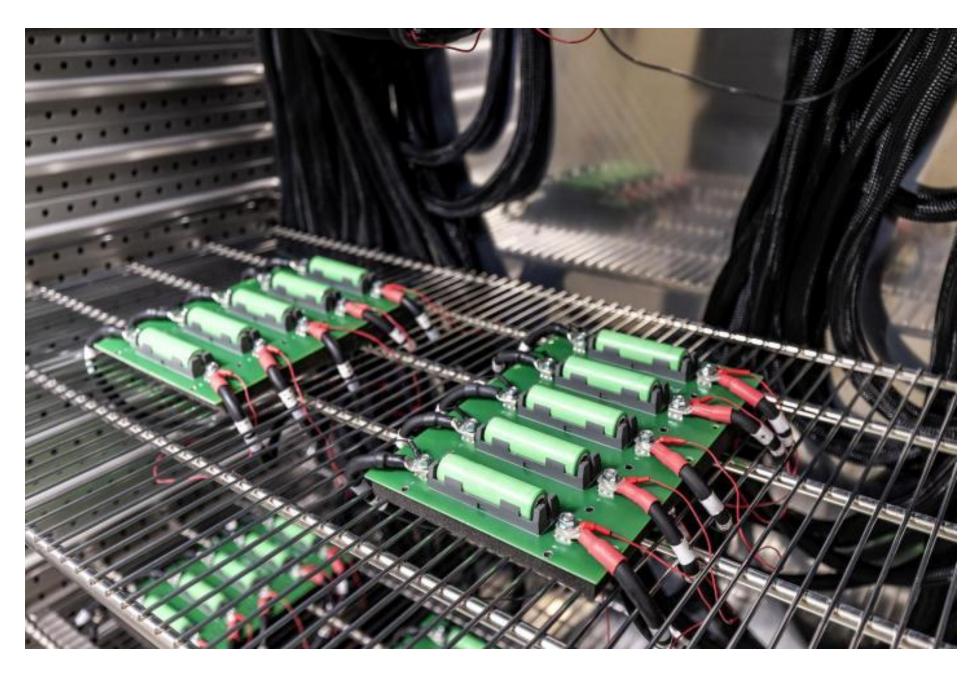








E-Mobility Hotspot Europe





EV & Hydrogen

5 NRF EV-workshops: we dismantle cars











INNOVATION BEHIND THE WHEEL

WHY REINVENT THE WHEEL WHEN YOU DON'T HAVE TO?









factory, dealerships and workshops visits





Dealership SMART & XPENG





dealership Benz & Hans Reinke



dealership Benz & Hans Reinke 专用车位 マ月车位 RESERVE RESERVED

dealership ZEEKR



NIO swapping station









Integrated phone software is ESSENTIAL













Integrated phone software is ESSENTIAL



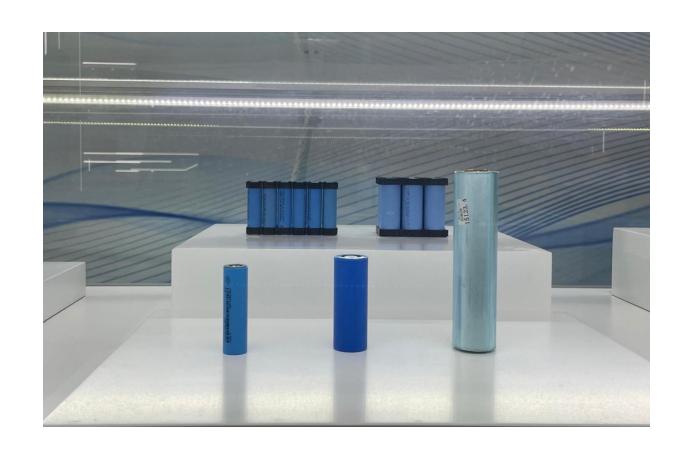
New cars, Xiaomi SU7

























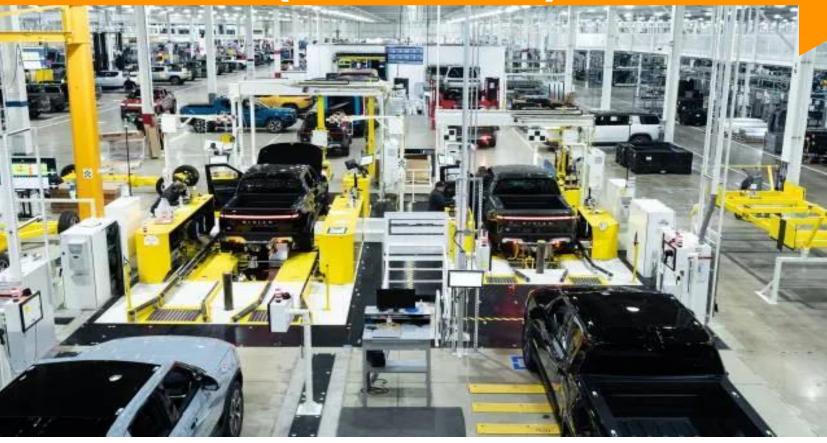




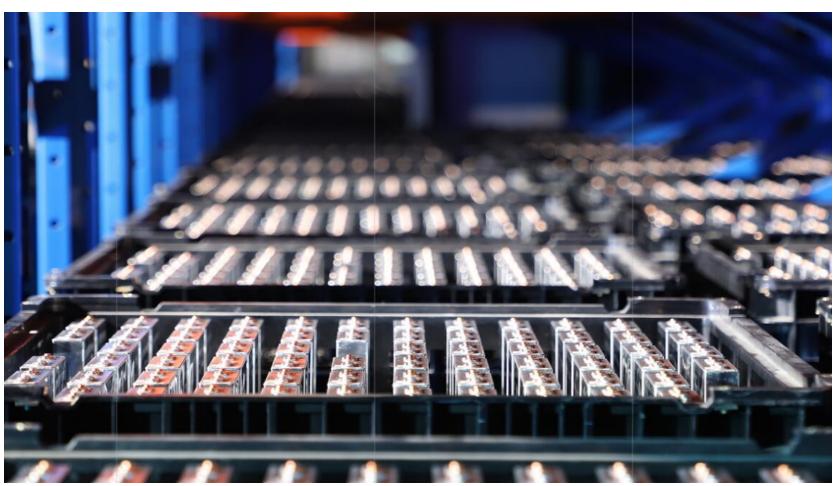


nr. 3 Battery manufacturer GOTIAN (26% VAG)









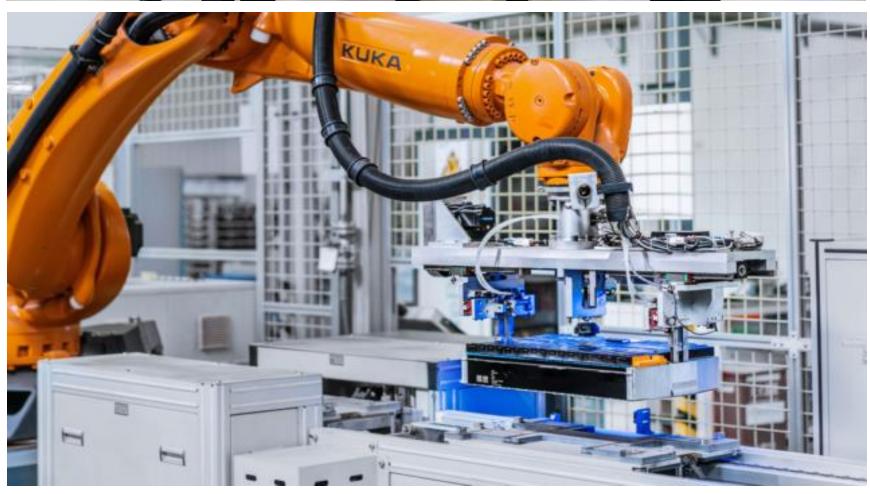


nr. 3 Battery manufacturer GOTIAN (26% VAG) -> Germany









nr. 1 Independent repair network China **张英车闸** :: OWD ...









SOH test real time, diagnose, balancing















Battery repair?





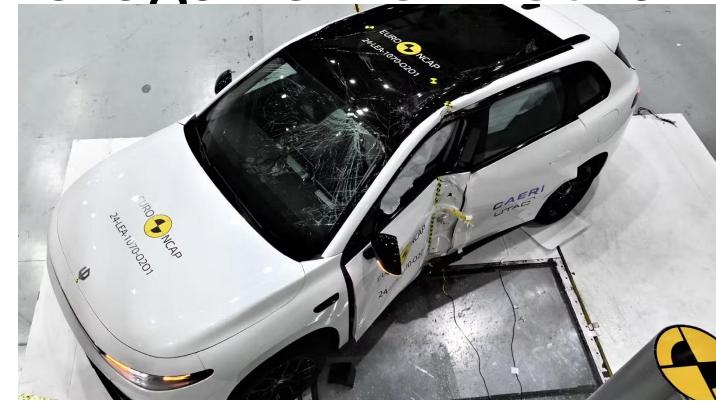




Safety Test Center China

Safety test center for homologation & insurance





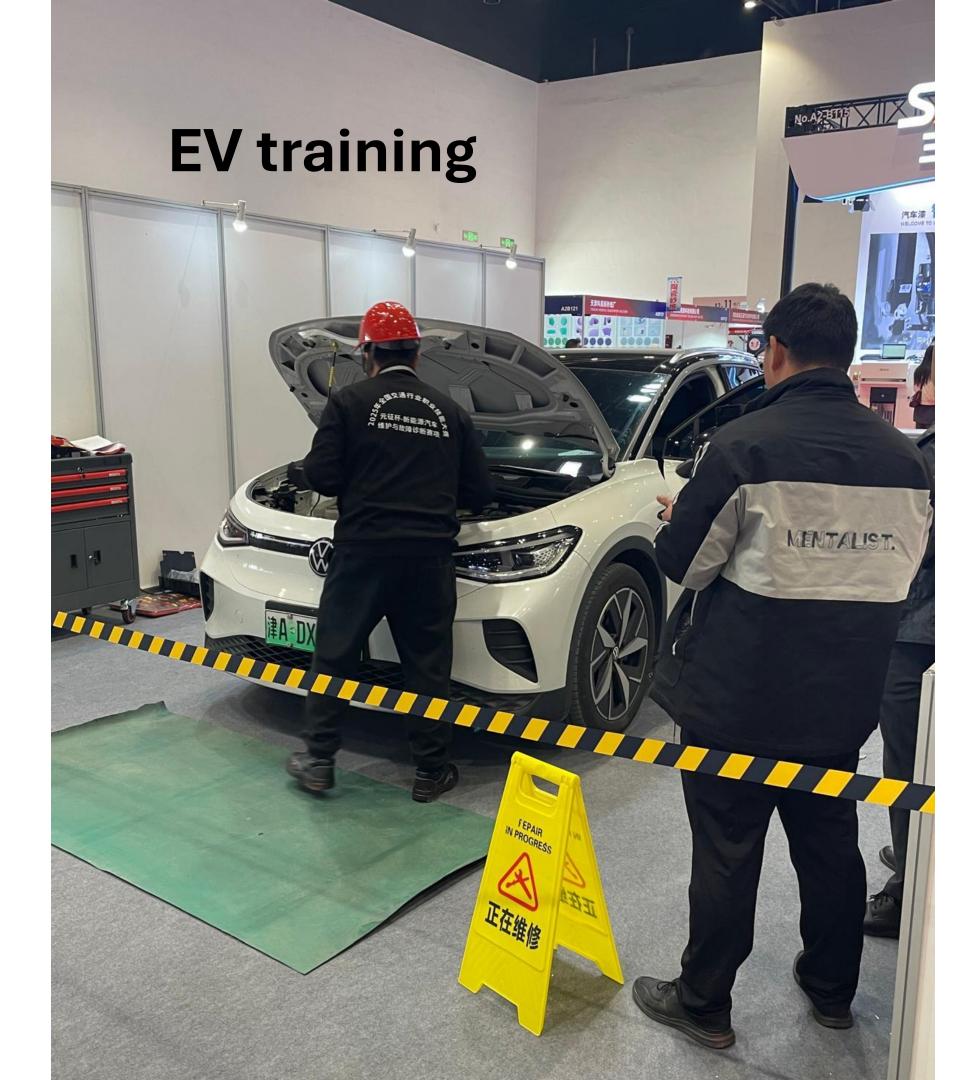




Automotive expo Beijng China







Recycling factory EAGOAL









Recycling factory EAGOAL

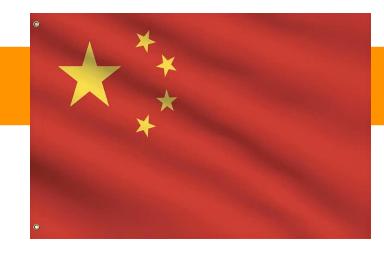




CHINA"

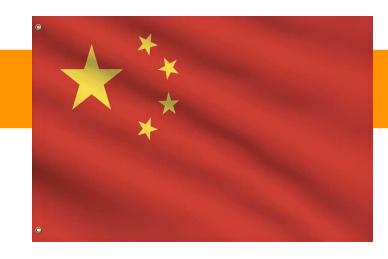
350 mio cars, 35 mio EV (2025): \rightarrow 16 battery expert shops (only BYD & CATL)

EUROPE: 350 mio cars, 3,5 mio EV (2026): \rightarrow 0 battery expert shops

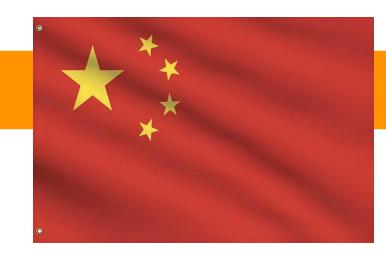




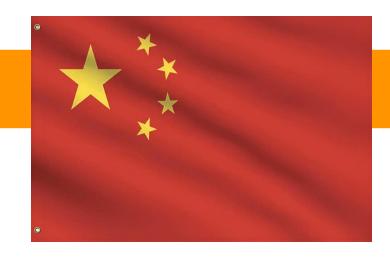
1. Business COMPLETELY changes



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- 2. EV battery repair is NO business case for workshops



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- 4. Acces to vehicle and in-vehicle data is essential

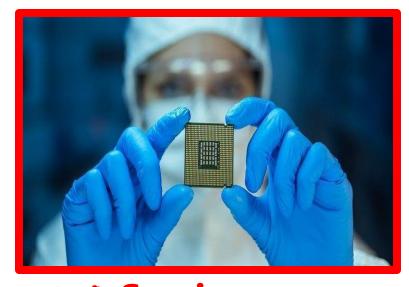


- 1. Business COMPLETELY changes
- 2. EV battery repair is NO business case for workshops
- 3. EV training is essential
- 4. Acces to vehicle and in-vehicle data is essential
- 5. Access to EV parts is evident



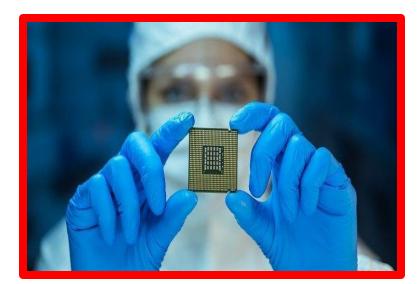










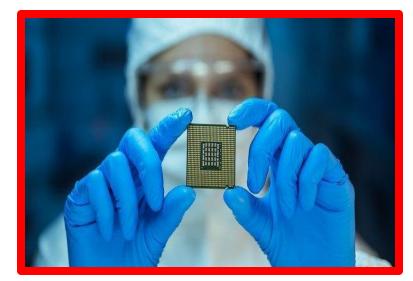




















72 New car makes











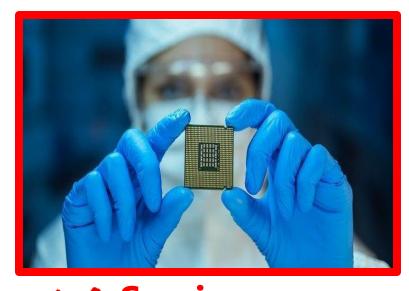
















Access to platform







data















72 New car makes



data















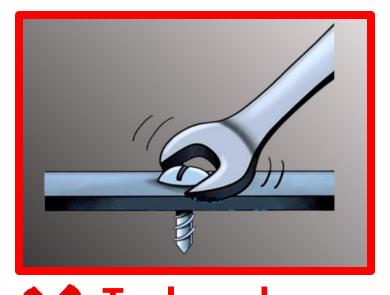


72 New car makes



data



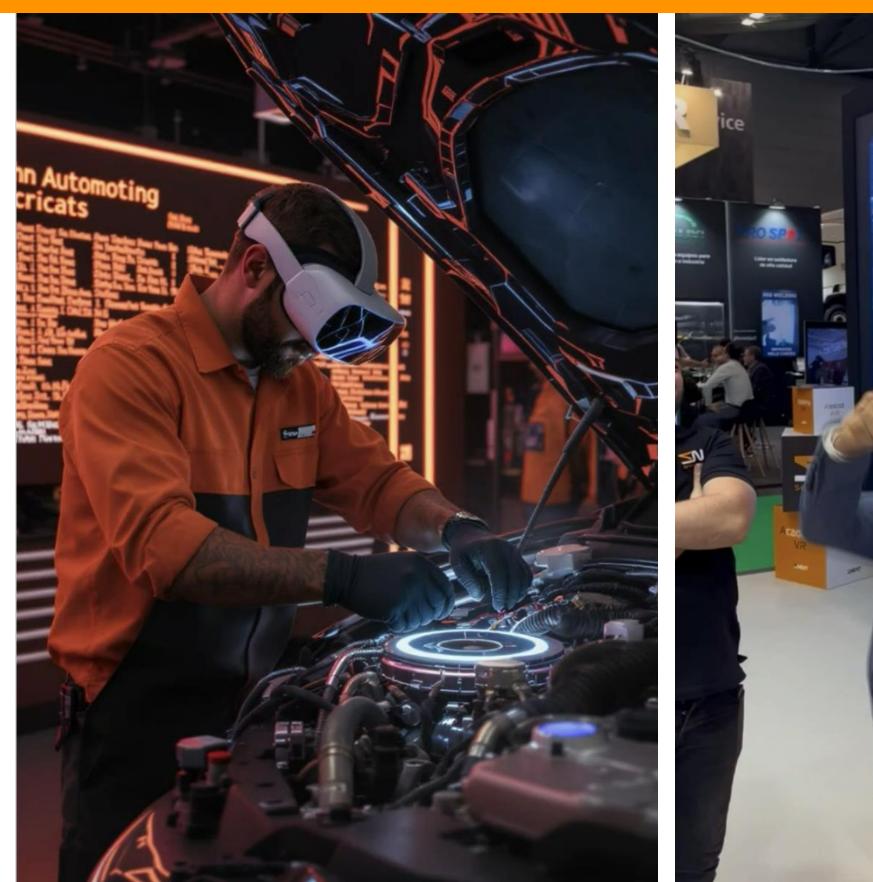






Skilled mechanics

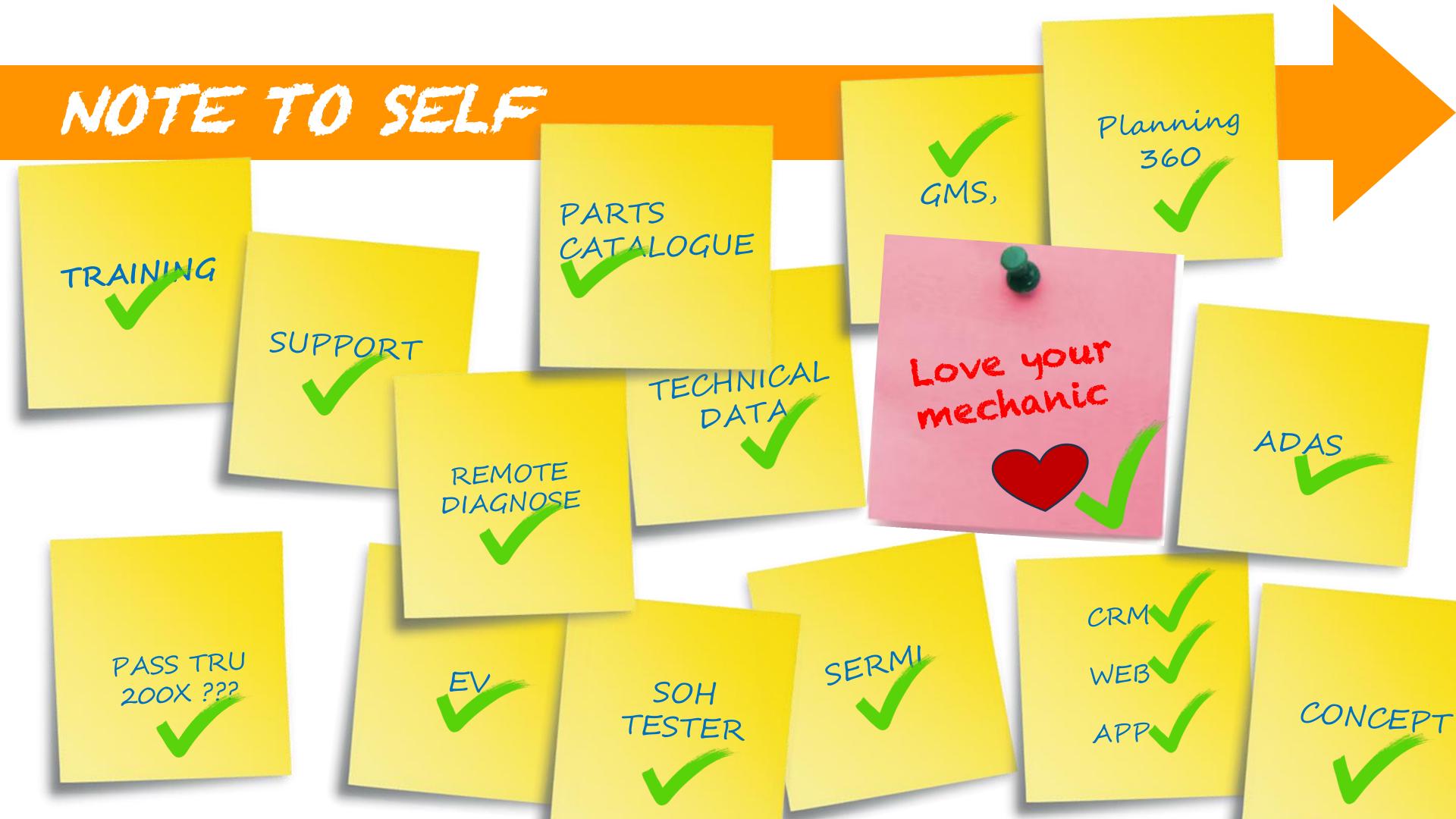
VR & AR: Virtual reality training & augmented Reality support





NOTE TO SELF











1. WAKE UP! TIME !!



1. WAKE UP! TIME !!



2. MAKE CHOICES !!



1. WAKE UP! TIME !!



2. MAKE CHOICES ! ACE!!

3. MECHANICS ! NO.



- - 1. WAKE UP! TIME !!
- 2. MAKE CHOICES ! ARE!!

 3. MECHANICS ! NO

- 4. CONCEPT SUBSCRIBE !!!

- 1. WAKE UP! TIME !!
- 2. MAKE CHOICES !ACE!!

 3. MECHANICS !AUG
- 4. CONCEPT SUBSCRIBE !!!
- 5. GMS + WORKFLOW DO IT!!

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1. WAKE UP! TIME !!
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- 6. TRAINING PLAN NOW!!

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- 6. TRAINING PLAN NOW !!
- 7. DIAGNOSE & ADAS PLAN

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6. TRAINING PLAN NOW !!
7. DIAGNOSE & ADAS PLAN
                     INVEST !!
8. PASS TRU & SUPPORT PLAN
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9. SERMI CERTIFICATE
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10. EV CERTIFICATE
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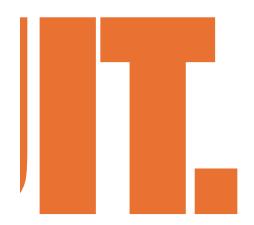




I hope you got electrified....

Take your part of the mandarin!









end of ICE... EV's era only just begun!

There's still ICE!



Shaken, not stirred...