STELLANTIS

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ABARTH

ALFA ROMEO

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DODGE

DS AUTOMOBILES

FIAT

FIAT PROFESSIONAL

Jeep

LANCIA

Maserati

OPEL

PEUGEOT

RAM

VAUXHALL

FREE2MOVE

LEASYS

Causes of semiconductor shortage and mitigating measures

- High capacity utilization already late 2019
- COVID-19 led demand for remote work
- COVID-19, , power cut in Texas, fire in Japan, logistics problems linked to the Suez Canal obstruction, earthquake in Taiwan,...
- Chipmakers increasingly become “fabless”, reliant on chip foundries like TSMC

- alternative chips, redesign of components, purchasing through brokers, changing of our production mix
- Inventory levels are at historical low levels resulting in cuts in production
- Q1-Q3, ‘21: (25 - 35%) reduction of production due to chips

Stellantis supports production and R&D in Europe

Confidential = table showing the needs per size of nodes

Stellantis is not concerned with the immediate risk of over-capacity

- We expect that the shortage will continue in 2022 and possibly beyond
- No risk of over-capacity, particularly in the demand for medium to larger size SC needed for the auto industry
- We expect that the semi-conductor market will continue to increase by about (3.5 – 5.5) % / year over the next 5 years.
- Most investments are taking place in ultra-small production

Which companies have the capabilities to satisfy your demands in the medium to long-term?

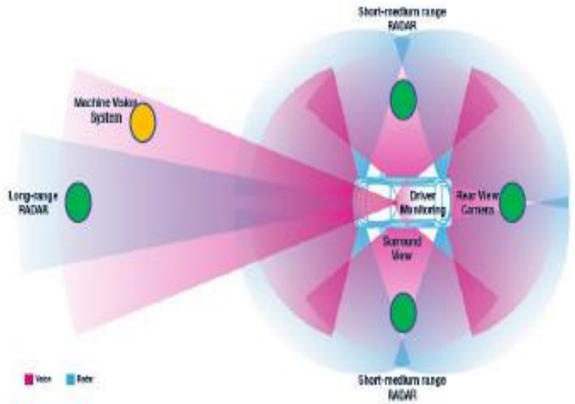
TSMC produces 70% of the automotive applications but automotive application only represents 3% of TSMC production

Confidential = table showing per IDM, the importance of automotive industry, the type of nodes and their status of production

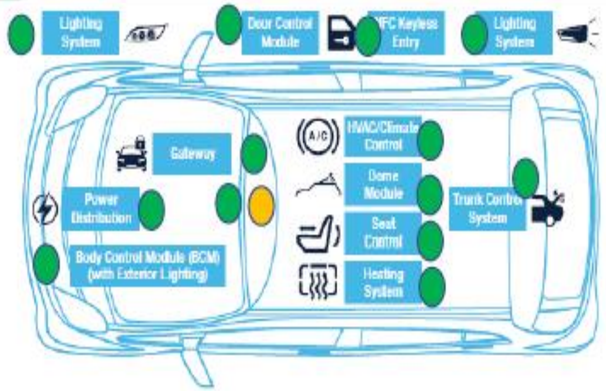
Back up

Semi-conductors applications in automotive (1/2)

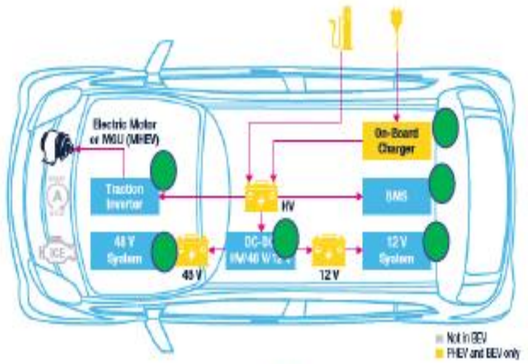
ADAS 12, 16, 28, 40nm, BiCMOS
High Performance Video Processing/limited 5nm



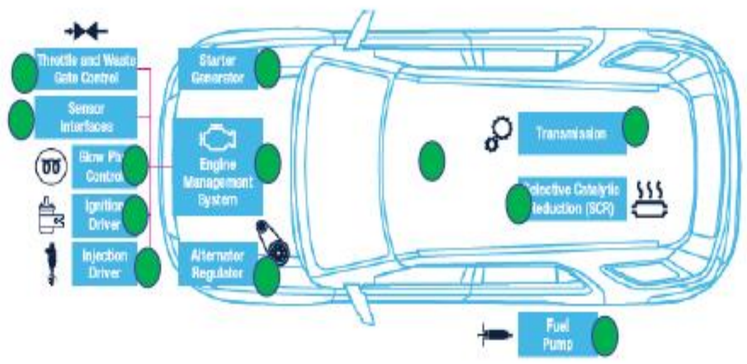
Body and Convenience 28, 40nm, BCD, RF (16nm zone & central controllers)
Zone & central controlers 16nm, 5nm (limited)



Electromobility Si-MOSFET, SiC, GaN, BCD + 16, 28, 40nm



Powertrain for BCD + 28, 40nm, 16nm (central controllers)



View at 2030

EU Technology & Manufacturing available except 12, 16nm; state-of-art / leading edge
High performance processing; EU design, non-EU production, max. 3% in 2030 source: SEMI

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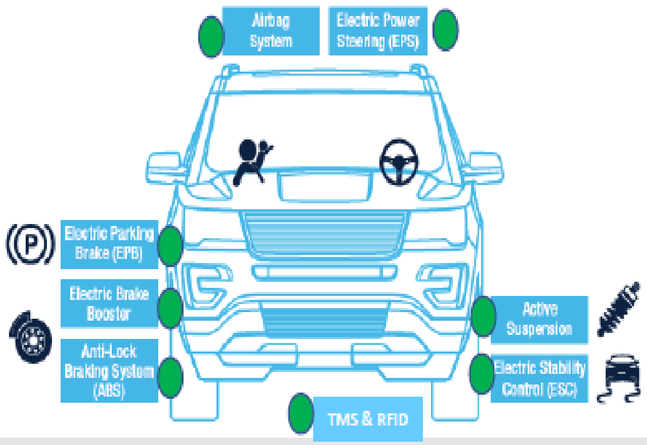
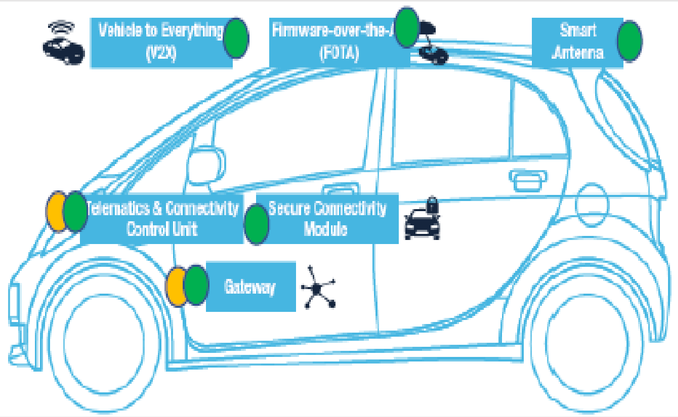
Semi-conductors applications in automotive(2/2)

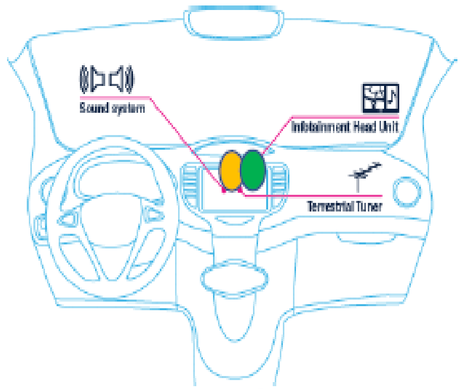
Chassis and safety BCD, MOSFET, 40 & 28 nm



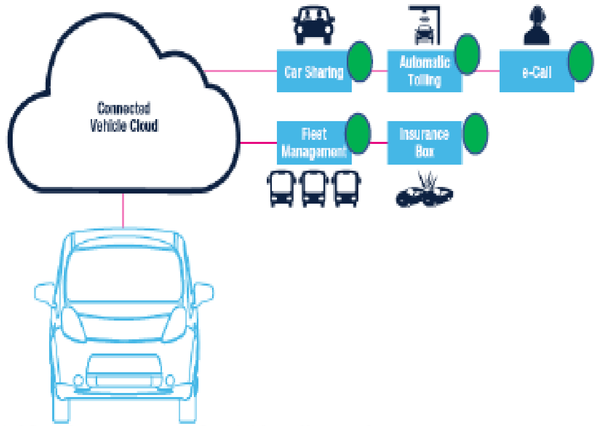
Telematics and Networking 28 & 40 nm, RF, BCD; 16nm zone & central controllers
Zone & central controlers 16nm, 5nm (limited)



In-vehicle infotainment 5, 10, 12, 28nm, BCD



Mobility Services 16, 28, 40nm & RF, GaN



View at 2030

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