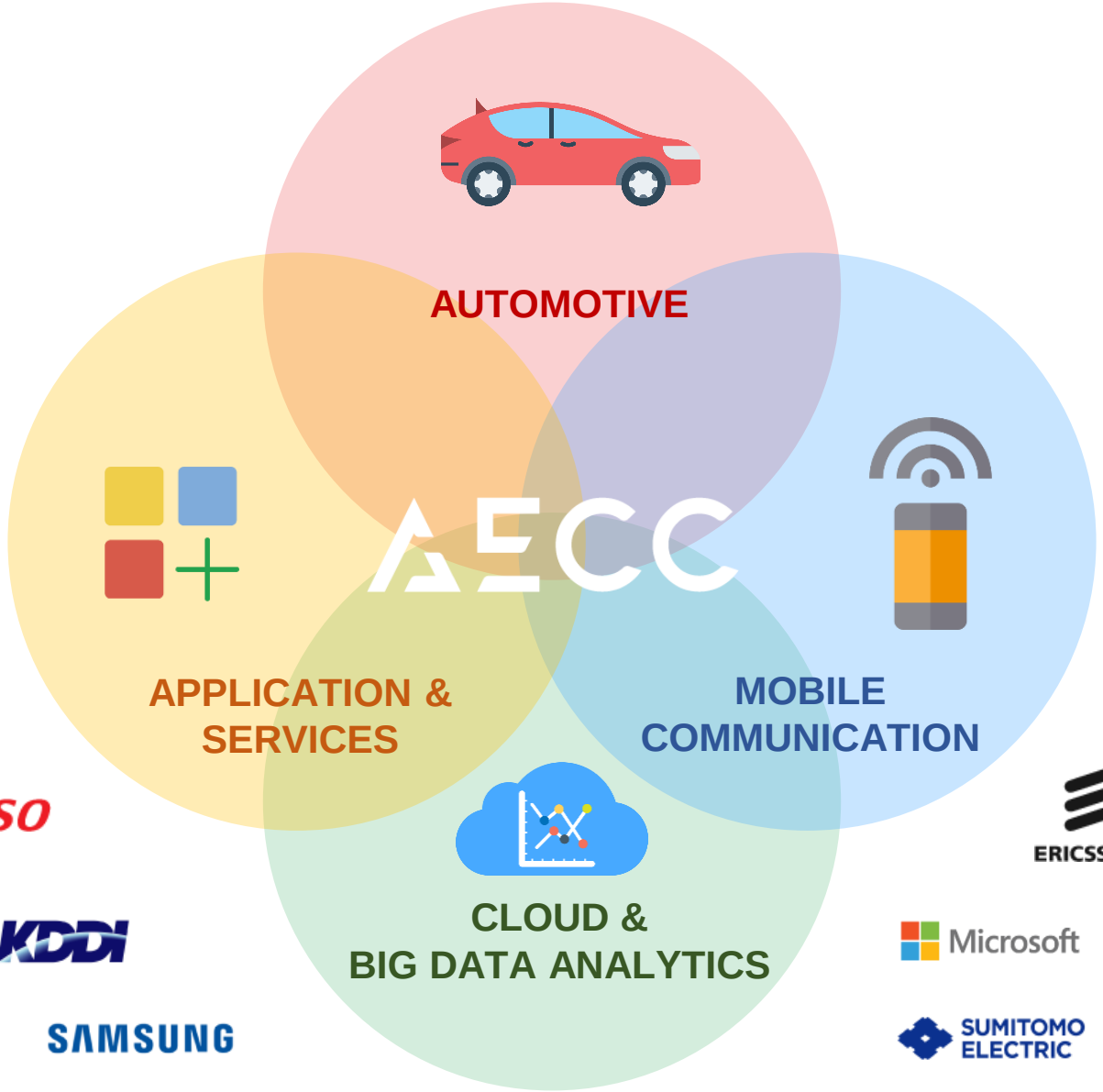
AECC

AUTOMOTIVE EDGE COMPUTING CONSORTIUM

Driving Data To The Edge

April 7, 2020

Automotive Edge Computing Consortium



AT&T, Cisco, Dell, DENSO, intel, ITOCHU Techno-Solutions Corporation, Juniper Networks, KDDI, docomo, NTT, Preferred Networks, SAMSUNG

Ericsson, Fujitsu, Equinix, IBM, Microsoft, NetApp, NTT Communications, NTT Data, Sumitomo Electric, Valeo, Toyota, Volterra

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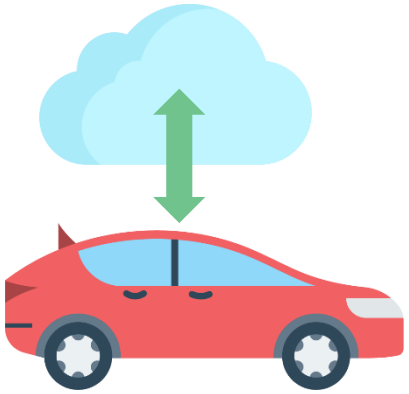
AECC Focus

Network/Computing for Automotive BIG DATA

To accommodate the automotive big data in a smart and efficient fashion.

Global and Sustainable Ecosystem

The next generation connected cars will require advanced systems in order to evolve.



Initial Focus on Vehicle to Cloud

The context is the high volume Vehicle-to-Cloud services.

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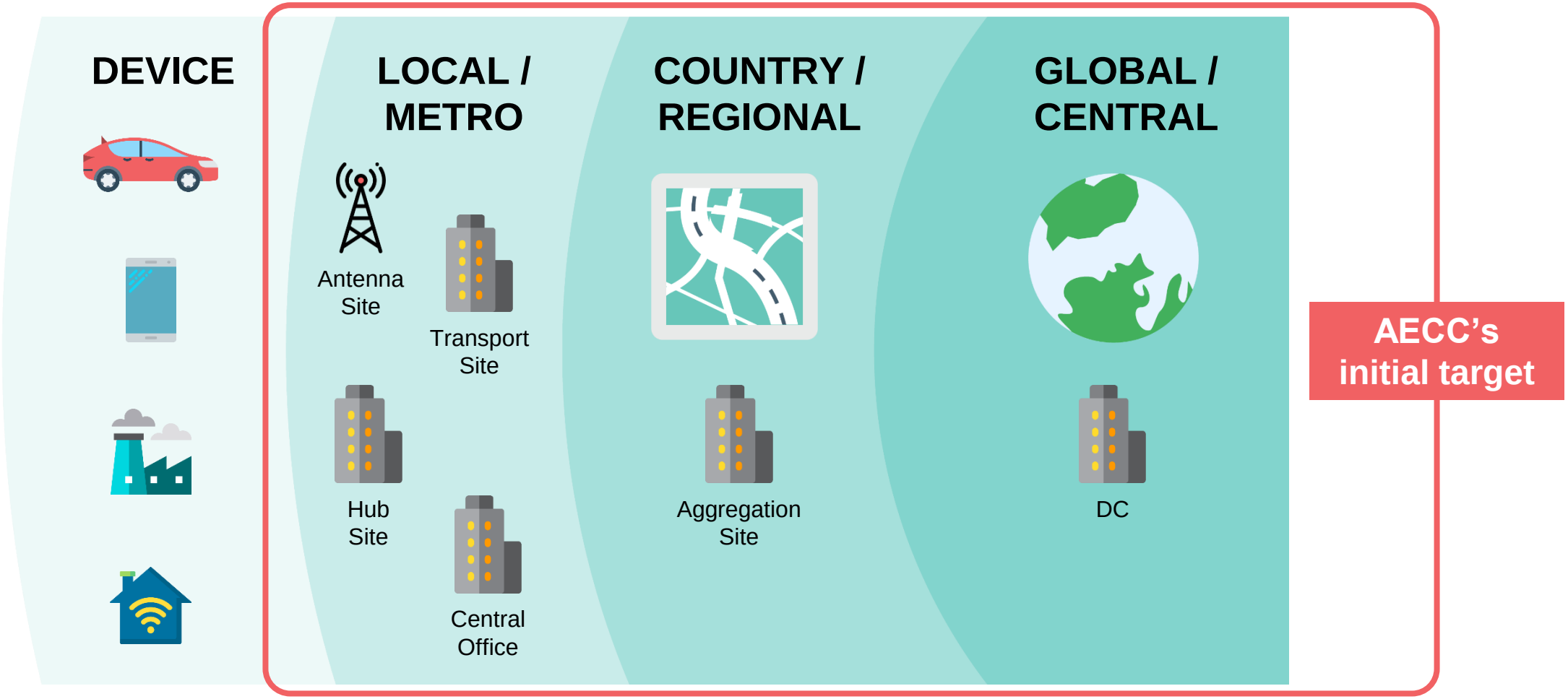
AECC Principal Concept

Topology Aware Distributed Clouds Architecture → In AECC, it is called "Edge Computing."



Different edge locations w/ initial focus on network infrastructure

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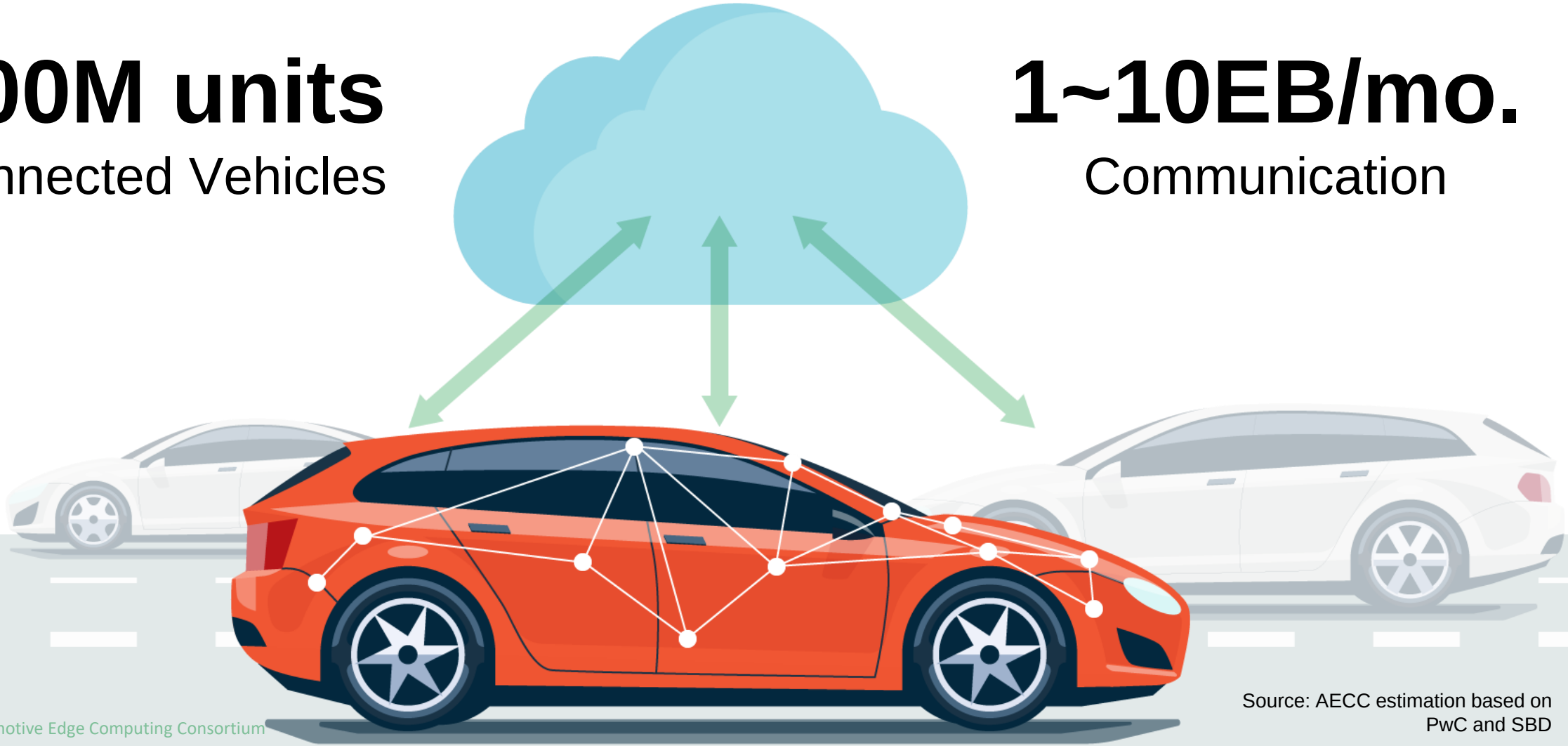
Global Impact Around 2025

100M units

Connected Vehicles

1~10EB/mo.

Communication



Source: AECC estimation based on PwC and SBD

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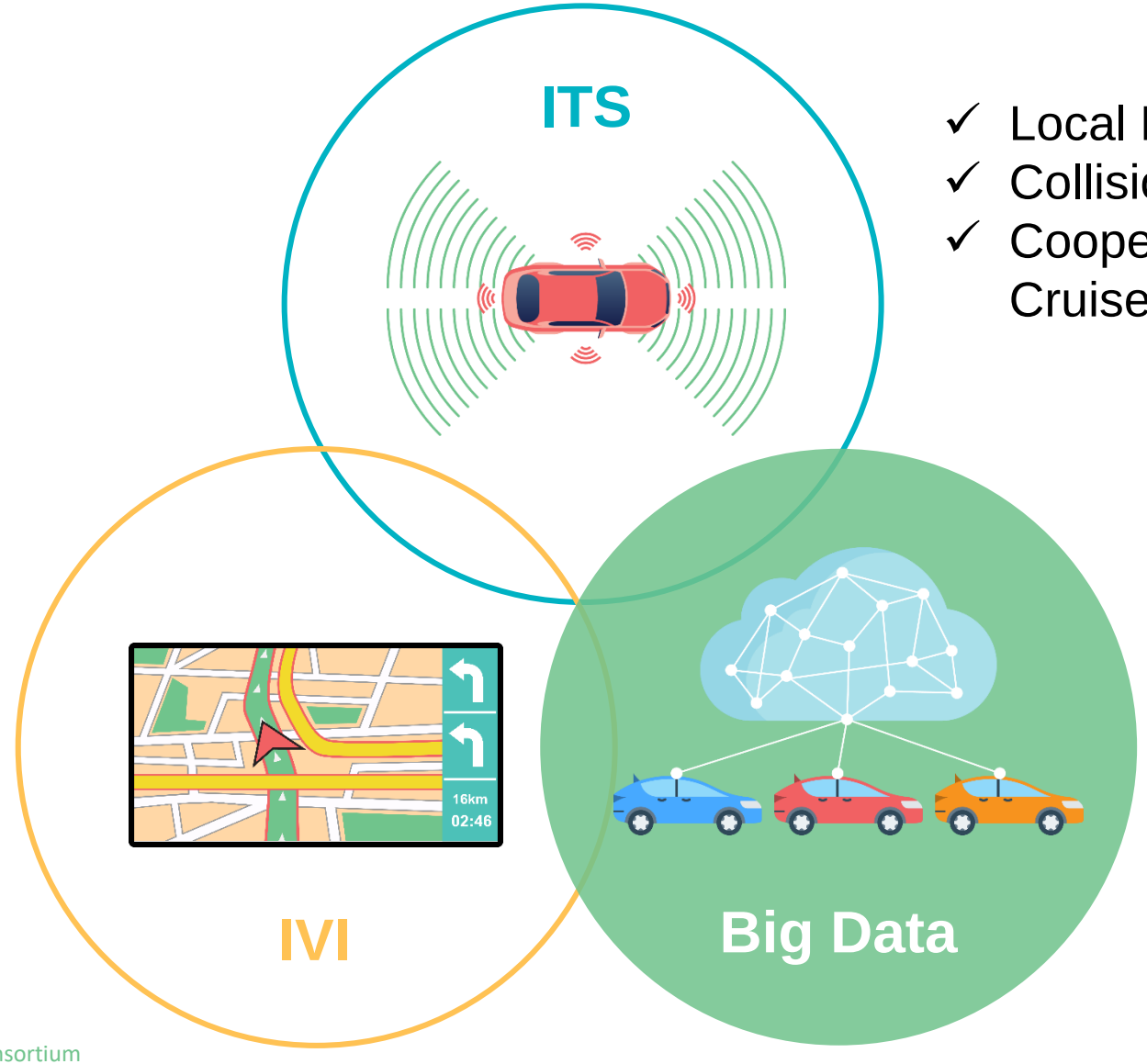
Domains for Connected Vehicles



- ✓ Local Danger Warning
- ✓ Collision Avoidance
- ✓ Cooperative Adaptive Cruise Control

- ✓ Navigation
- ✓ Audio/TV
- ✓ Phone, Internet

- ✓ High Definition Map
- ✓ Intelligent Driving Support
- ✓ Vehicle Quality Control
- ✓ Location Based Services

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Key Issues and Potential Solutions

The future use cases of connected car

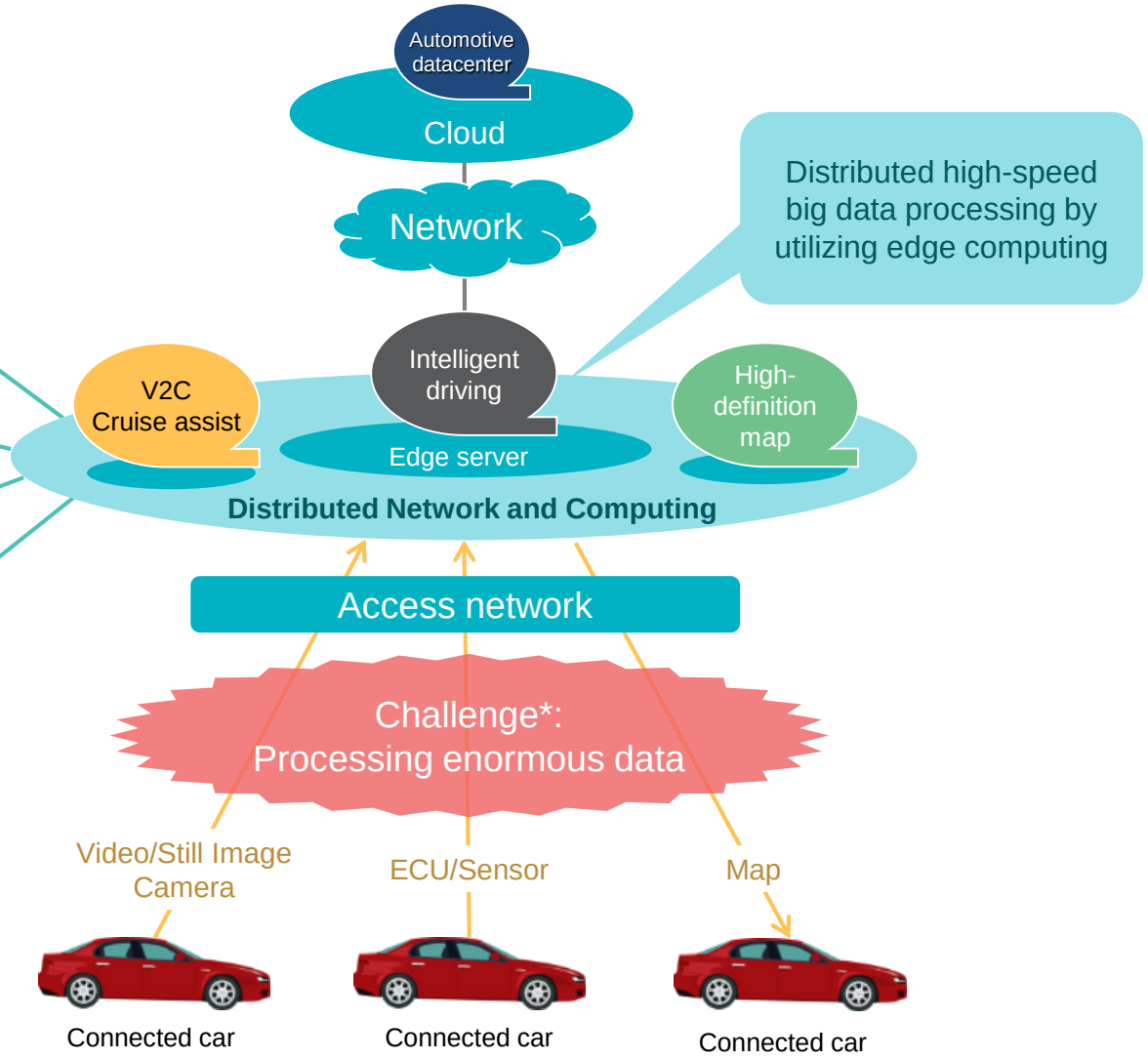
Research and Development
- CAN data
- ECU data
- Driver's condition

Advanced Driving Assistance
- Intelligent driving support
- High-resolution map
- Cruise assist

Traffic
- Traffic control
- Traffic info.
- Mobility sharing
- Multimodal

Mobility Services

Use-case realization



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WG1: Use-cases

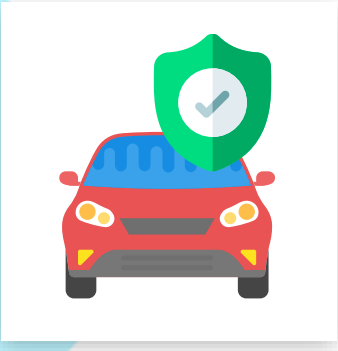
Intelligent driving

High definition map

V2Cloud Cruise Assist

Mobility Services

Finance & Insurance



1EB～10EB/Month Network Traffic

100M~ Connected Cars

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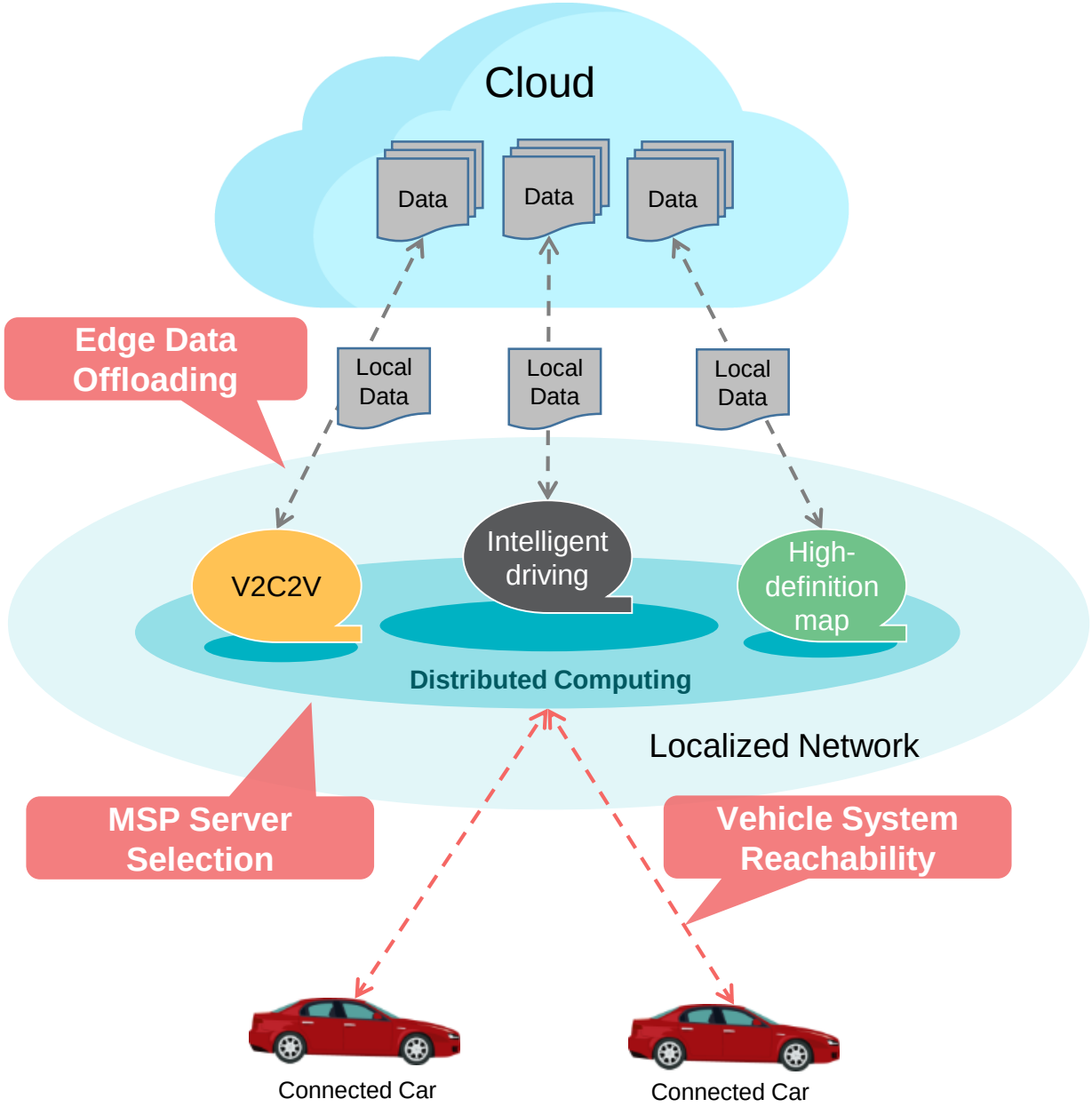
WG2: Key Issues



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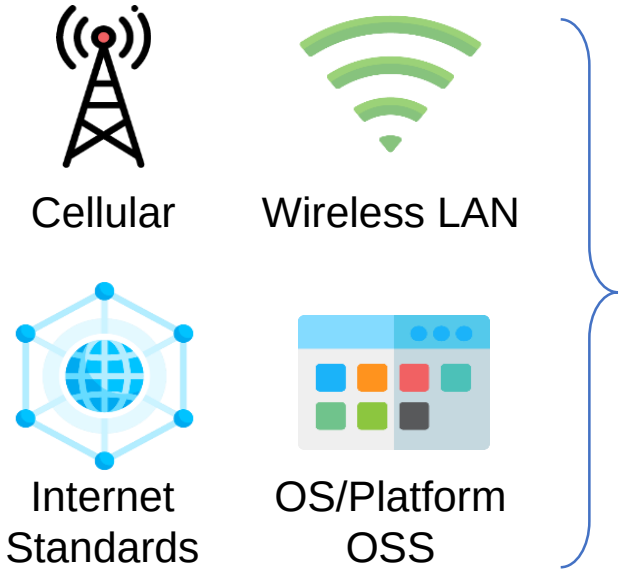
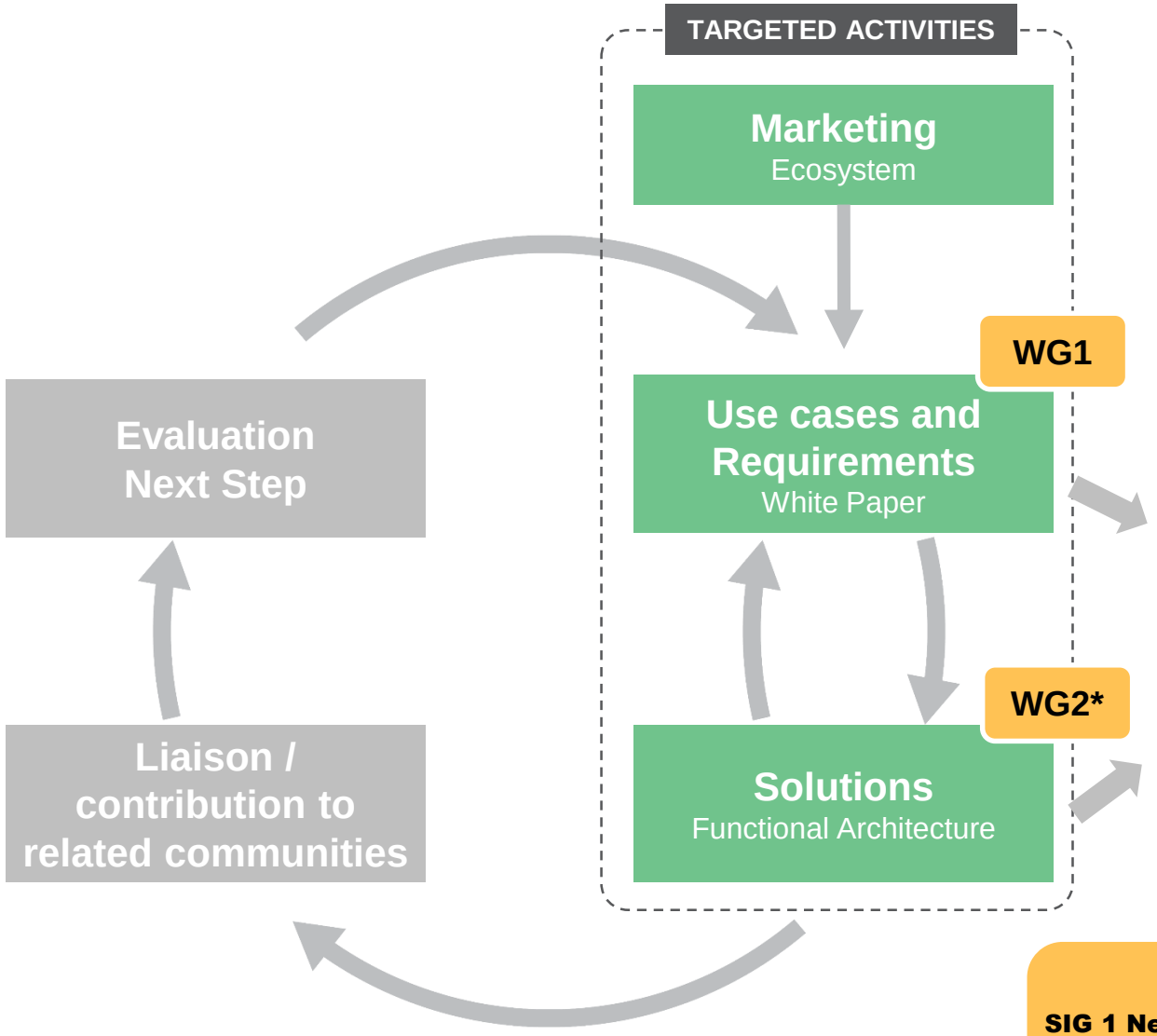
AECC Workflow

RELEVANT COMMUNITIES





White Papers and Technical Reports

***WG2 – SIGS**

SIG 1 Networking
SIG 2 General Vocabulary
SIG 3 Distributed Computing

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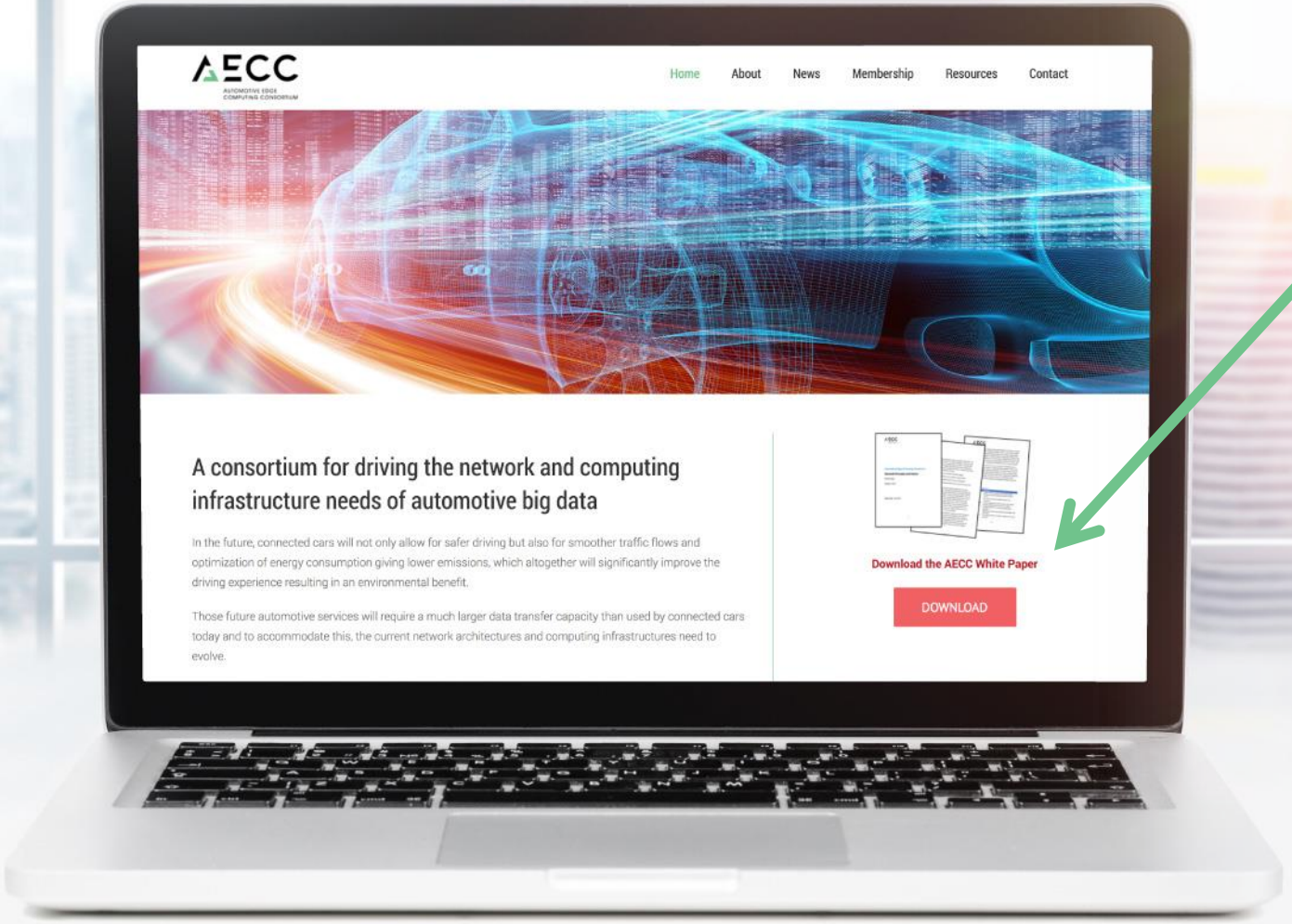
AECC Website



https://aecc.org

Download our **White Paper**

Sign-up Process:

1. Inquiry
2. Approval
3. Membership package
4. Membership Agreement (MA) signed
5. MA countersigned (by AECC)
6. Welcome email with invoice
7. Payment

Visit our Web page and get more information!

AECC

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Thank you for your attention

Let’s Get Connected!