AECC

AUTOMOTIVE EDGE COMPUTING CONSORTIUM

February 28, 2019 @ MWC2019

Driving Data To The Edge

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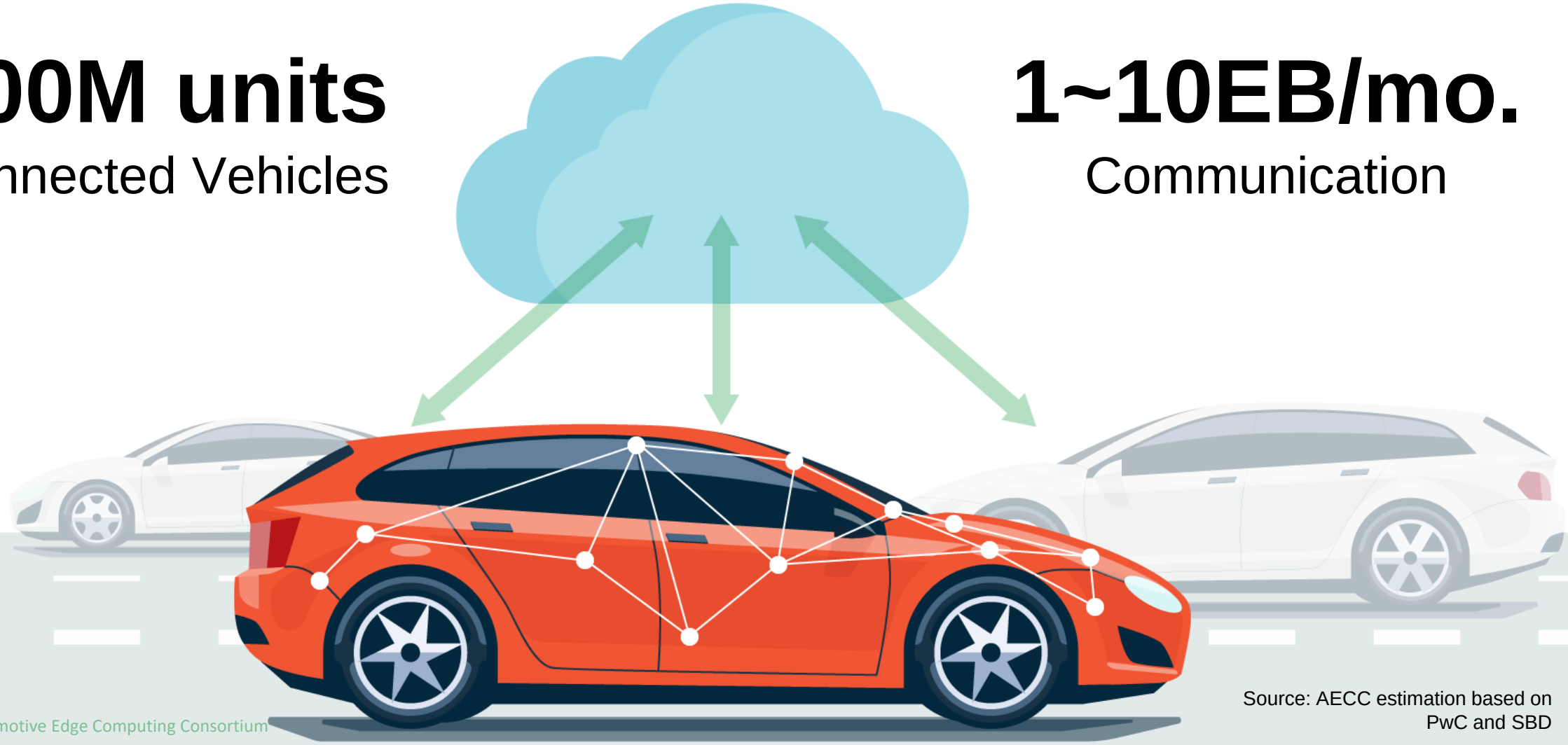
Technology Lead, IoT & AI
Strategy

Global Impact Around 2025

100M units
Connected Vehicles

1~10EB/mo.
Communication



Source: AECC estimation based on PwC and SBD

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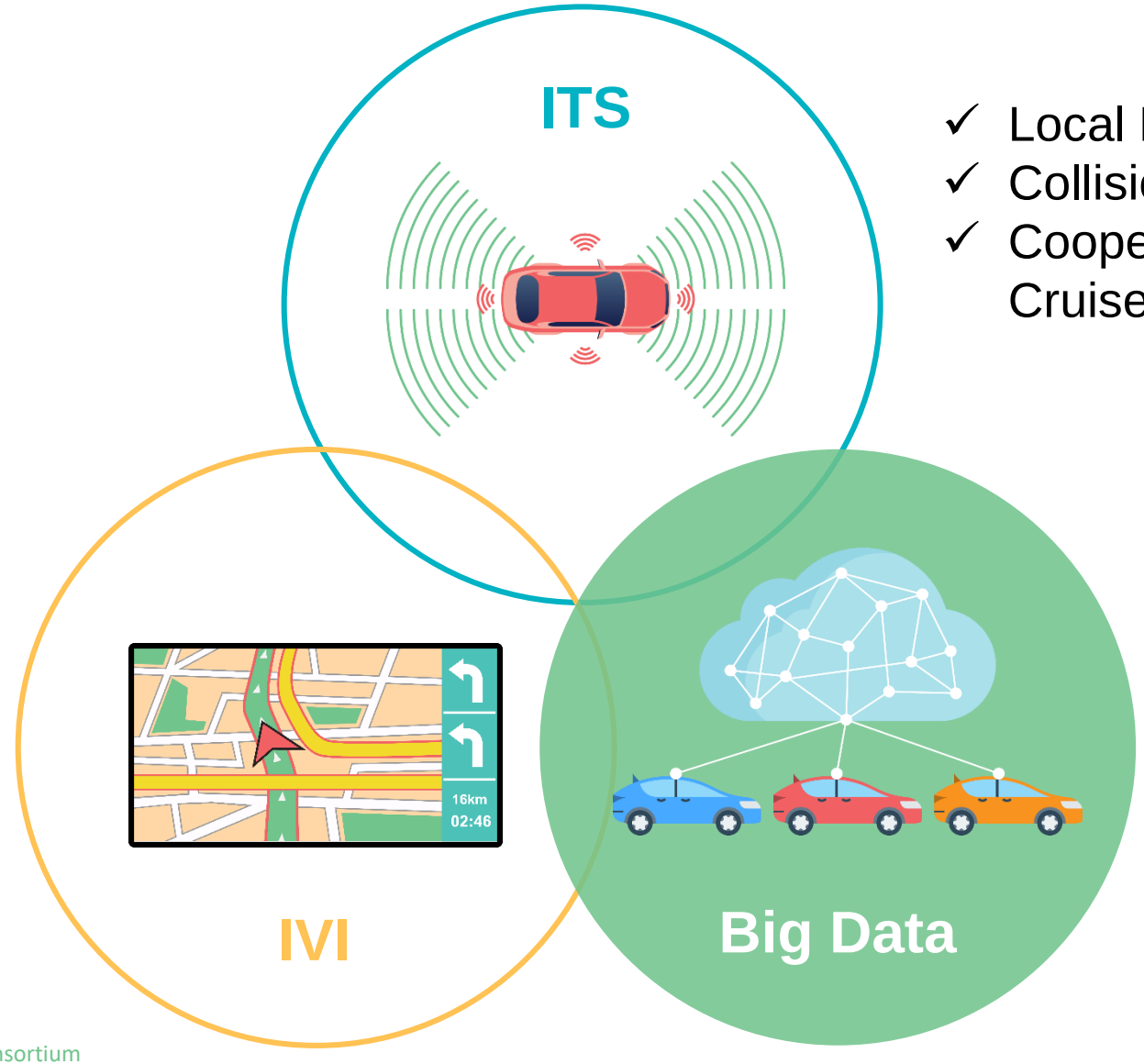
Domains for Connected Vehicles



- ✓ 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

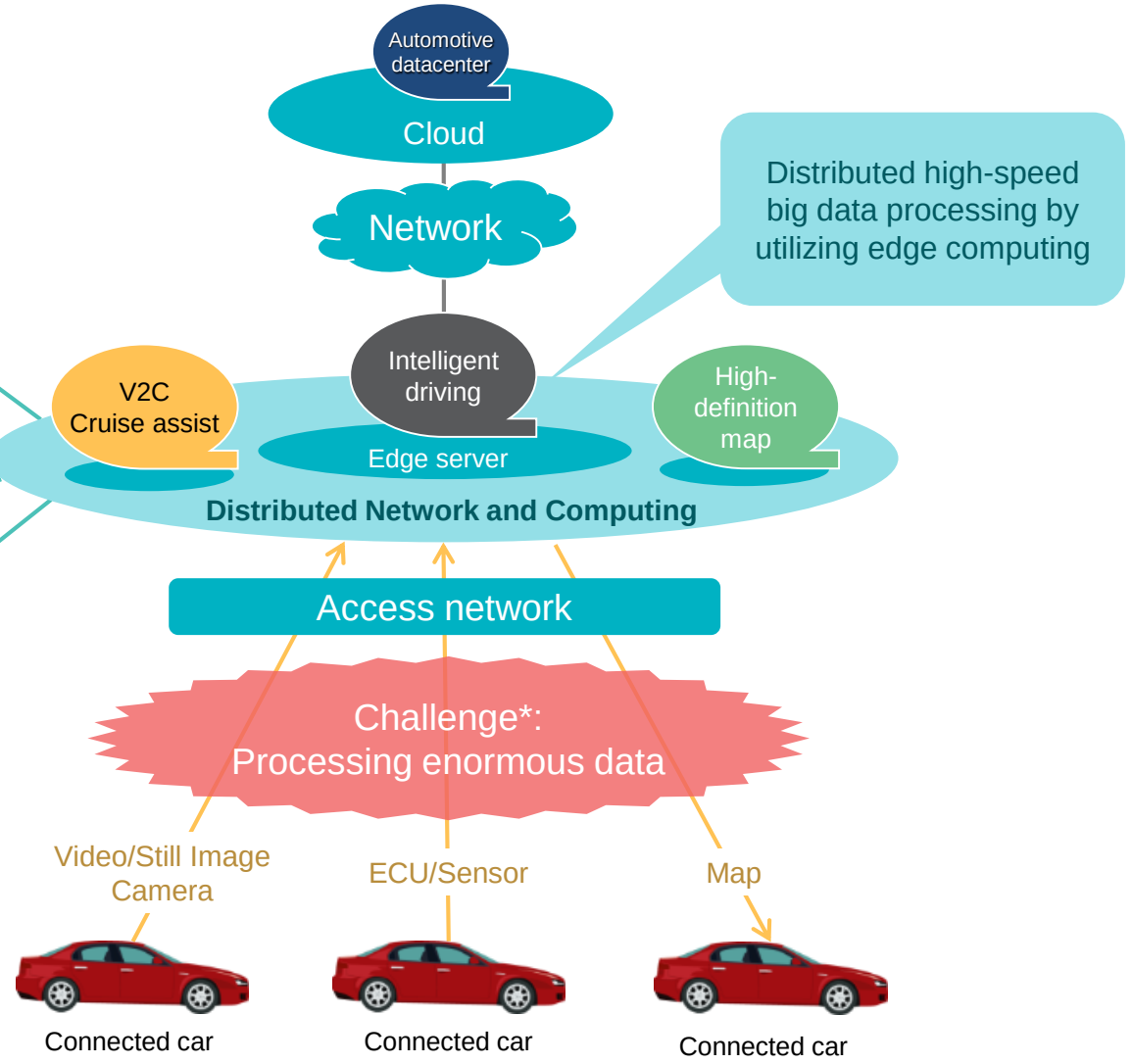
The future use cases of connected car

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



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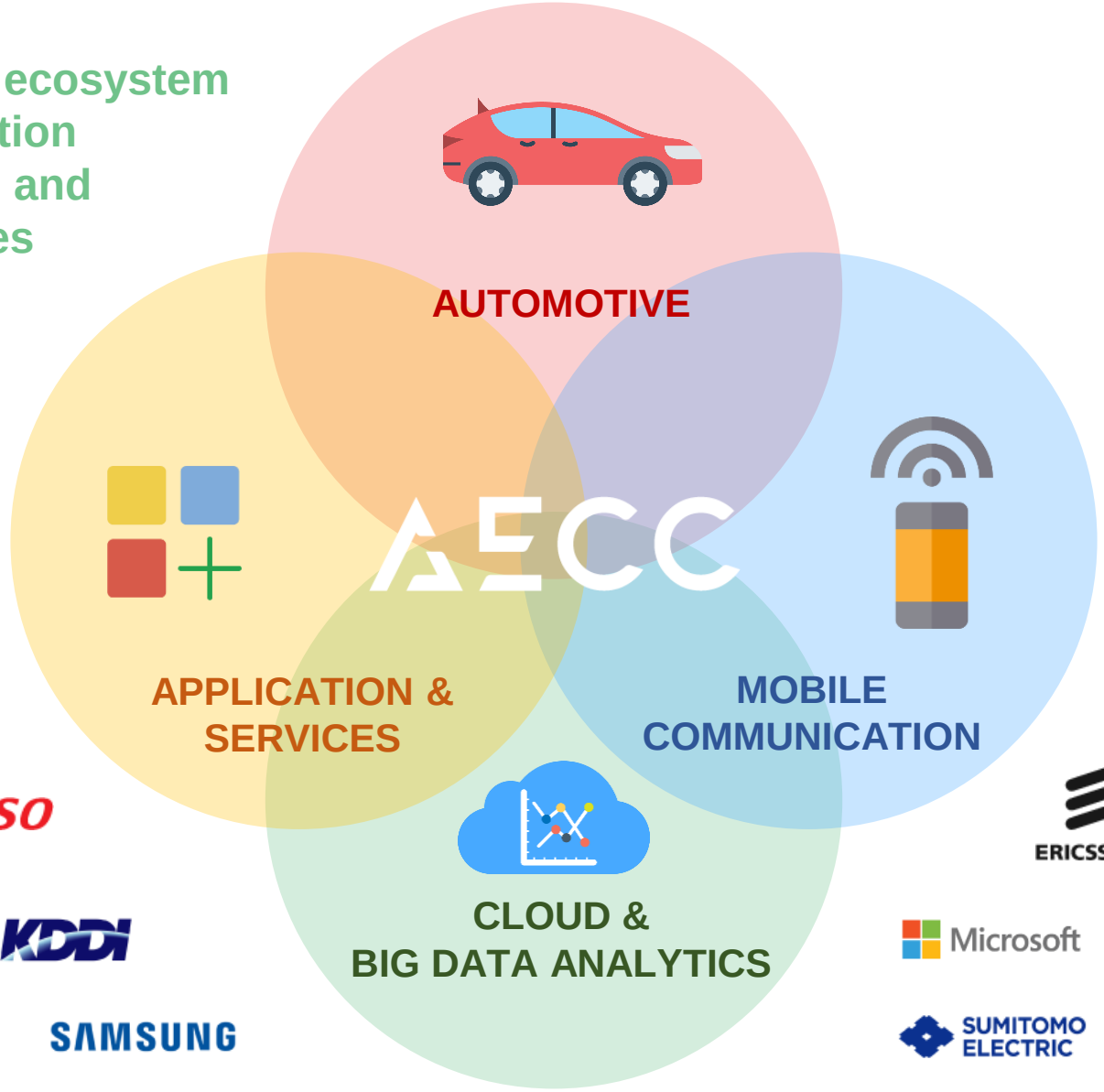
Cross-industry ecosystem for next generation connected cars and mobility services

Launched in January 2018 as a NPO in the U.S.



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

Ericsson, Fujitsu, Hewlett Packard Enterprise, IBM, Microsoft, NetApp, NTT Communications, NTT DATA, Sumitomo Electric, Toyota InfoTech, Toyota, Volterra

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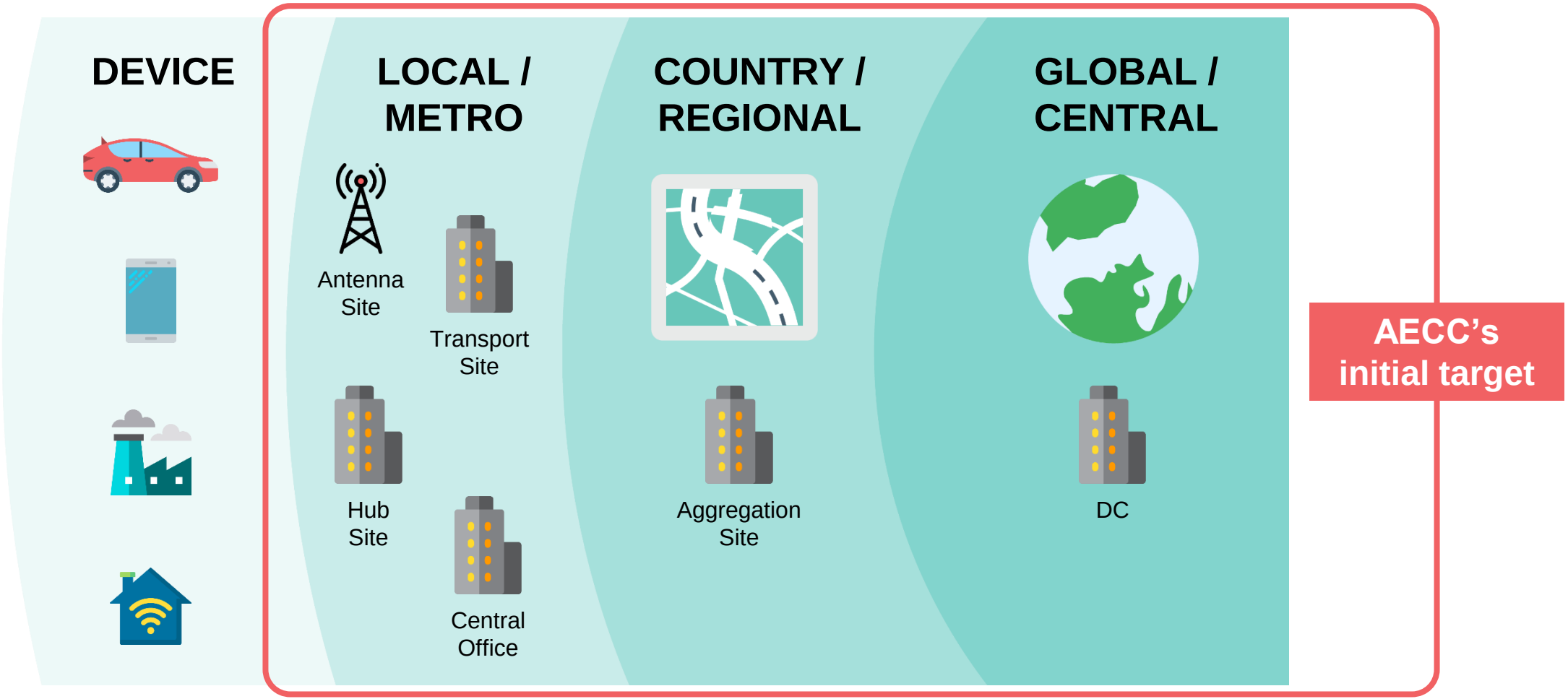
AECC Principal Concept

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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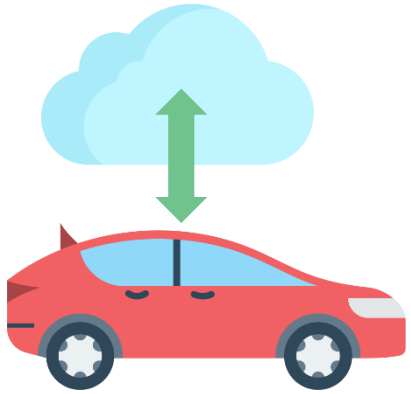
AECC Focus

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.

Leading Market Actors Joint Forces

Toyota, Toyota ITC, Ericsson, Intel, Denso, NTT DOCOMO, KDDI, NTT were initial members and more companies now, and more in the pipe to join.

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Recent Activities

- All Member Meetings (AMM) held 3 times in a year.
  - 23 companies participated at the last AMM in San Jose.
- Regular on-line/f2f discussions in the 2 working groups
  - WG1: Use cases & requirements, WG2: Technical solutions
- Giving external lectures, panel discussions

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AECC Workflow

RELEVANT COMMUNITIES

Cellular

Wireless LAN

Internet Standards

OS/Platform OSS

TARGETED ACTIVITIES

Marketing
Ecosystem

WG1

Use cases and Requirements
White Paper

WG2

Solutions
Functional Architecture

Evaluation Next Step

Liaison / contribution to related communities

White Papers

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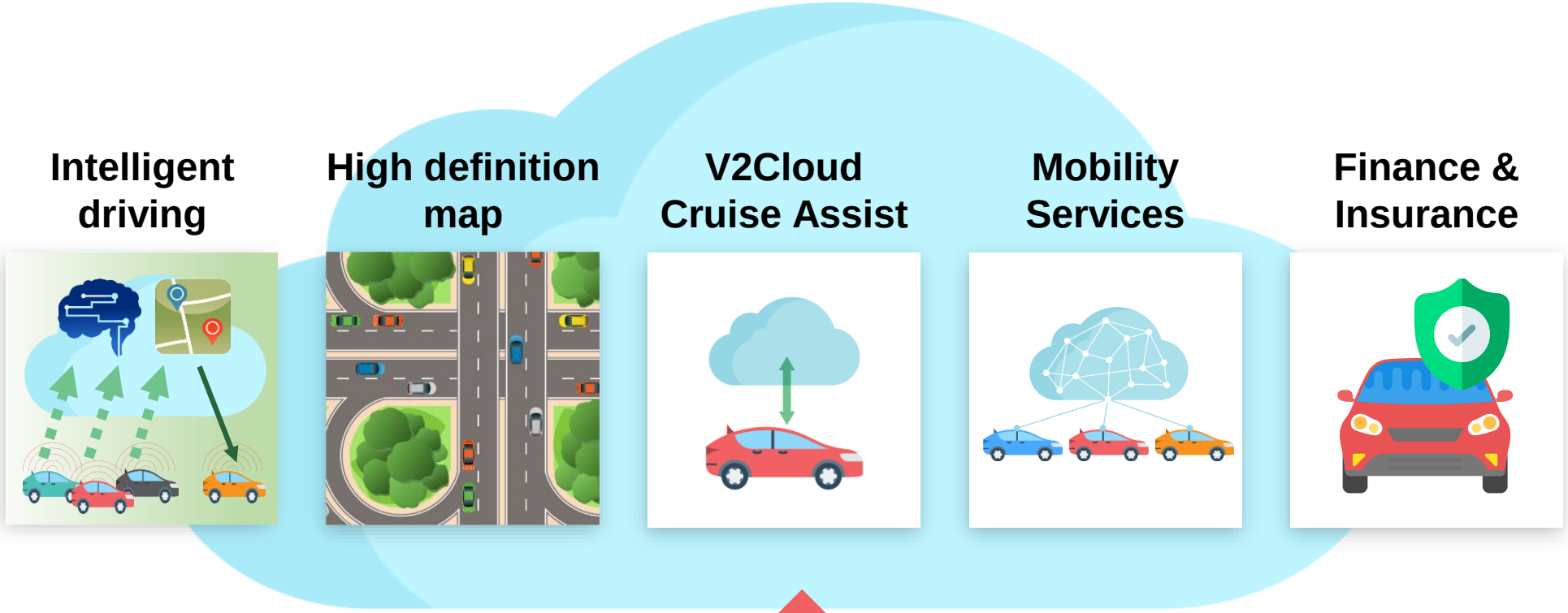
WG1: Use-cases



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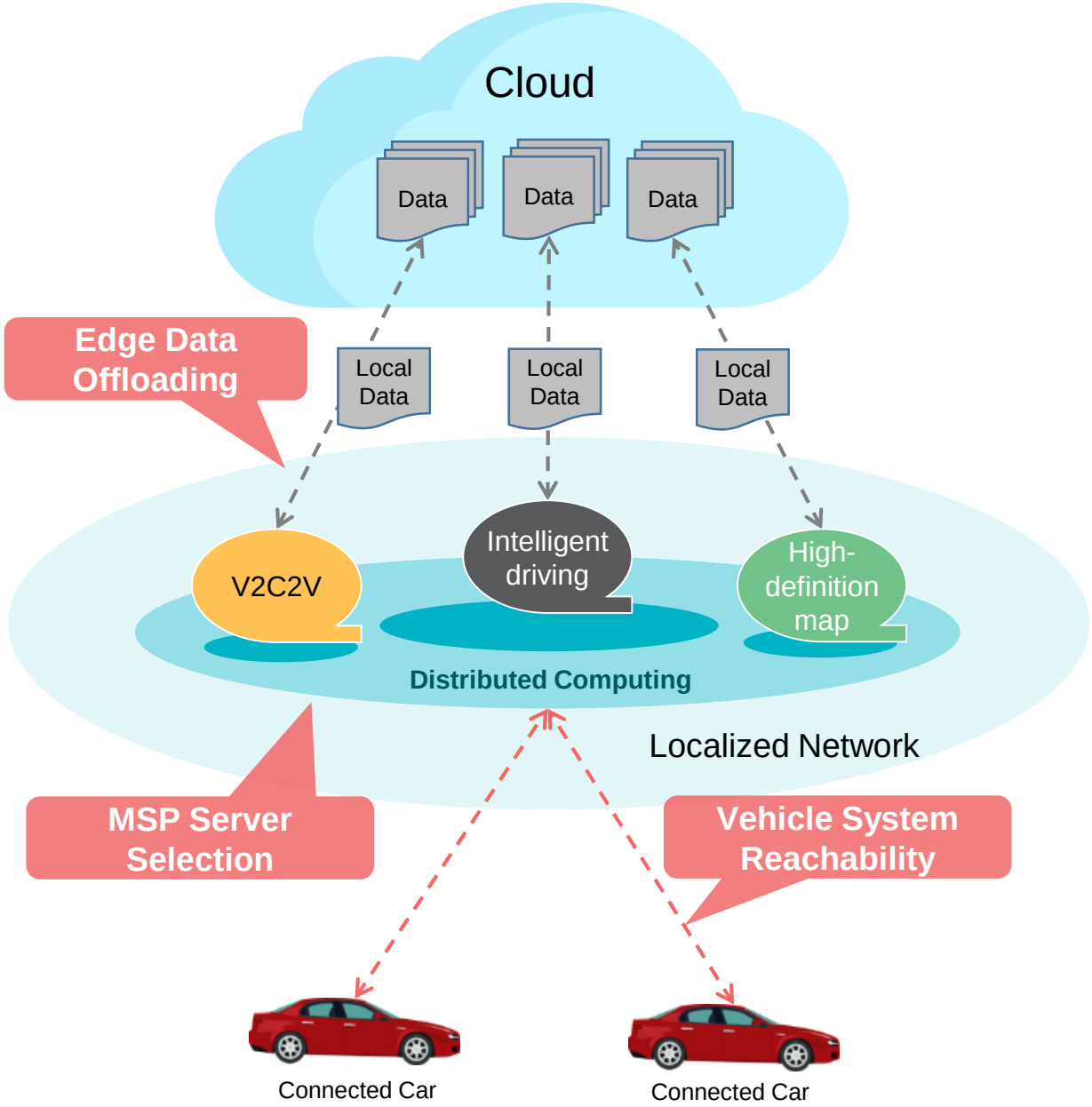
WG2: Key Issues



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Thank you for your attention

Let’s Get Connected!

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Panel Discussion and Q & A

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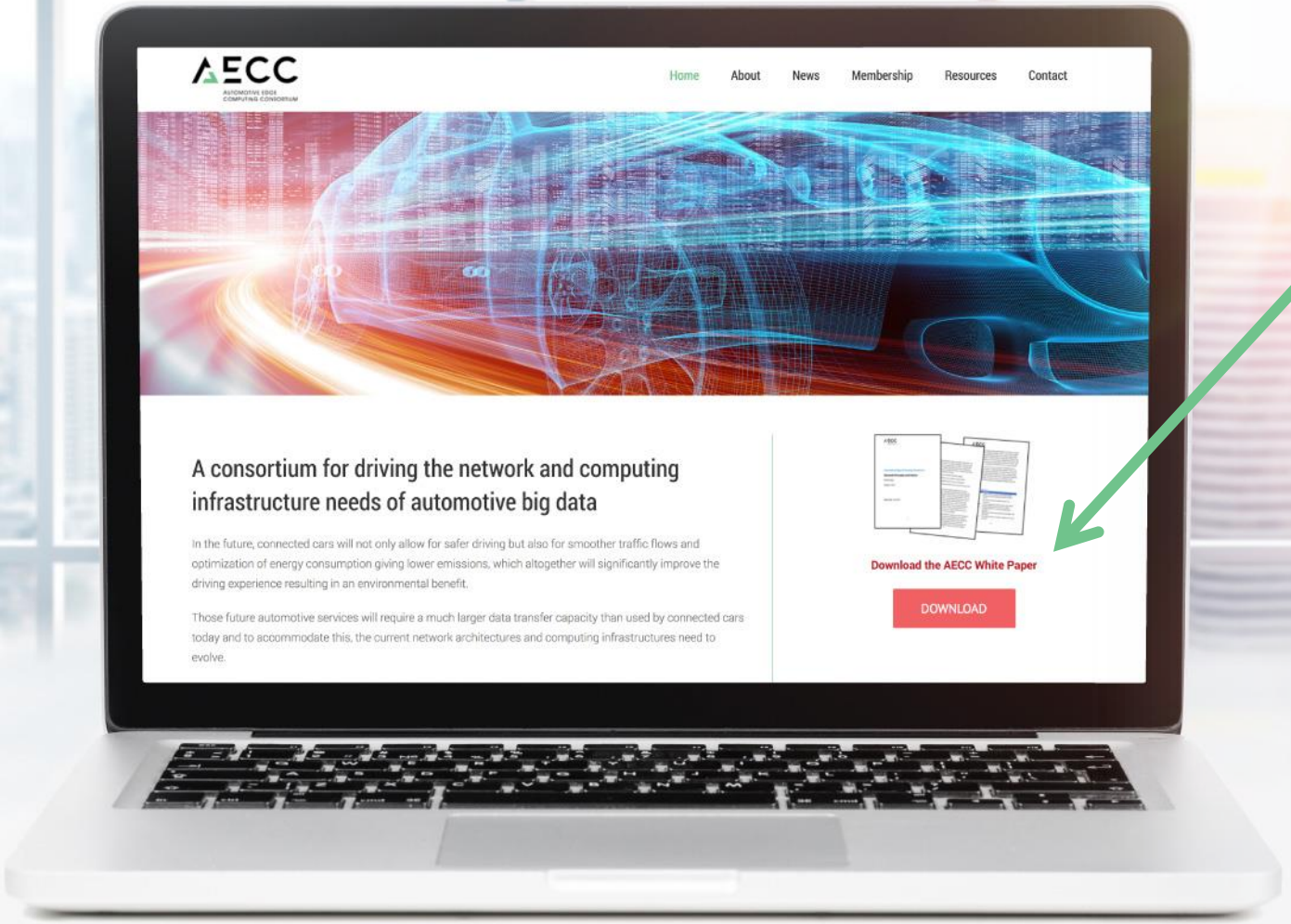
AECC Website



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!