COVESA

Accelerating the Future of

Connected Vehicles

January 2026

Connected Vehicle Systems Alliance

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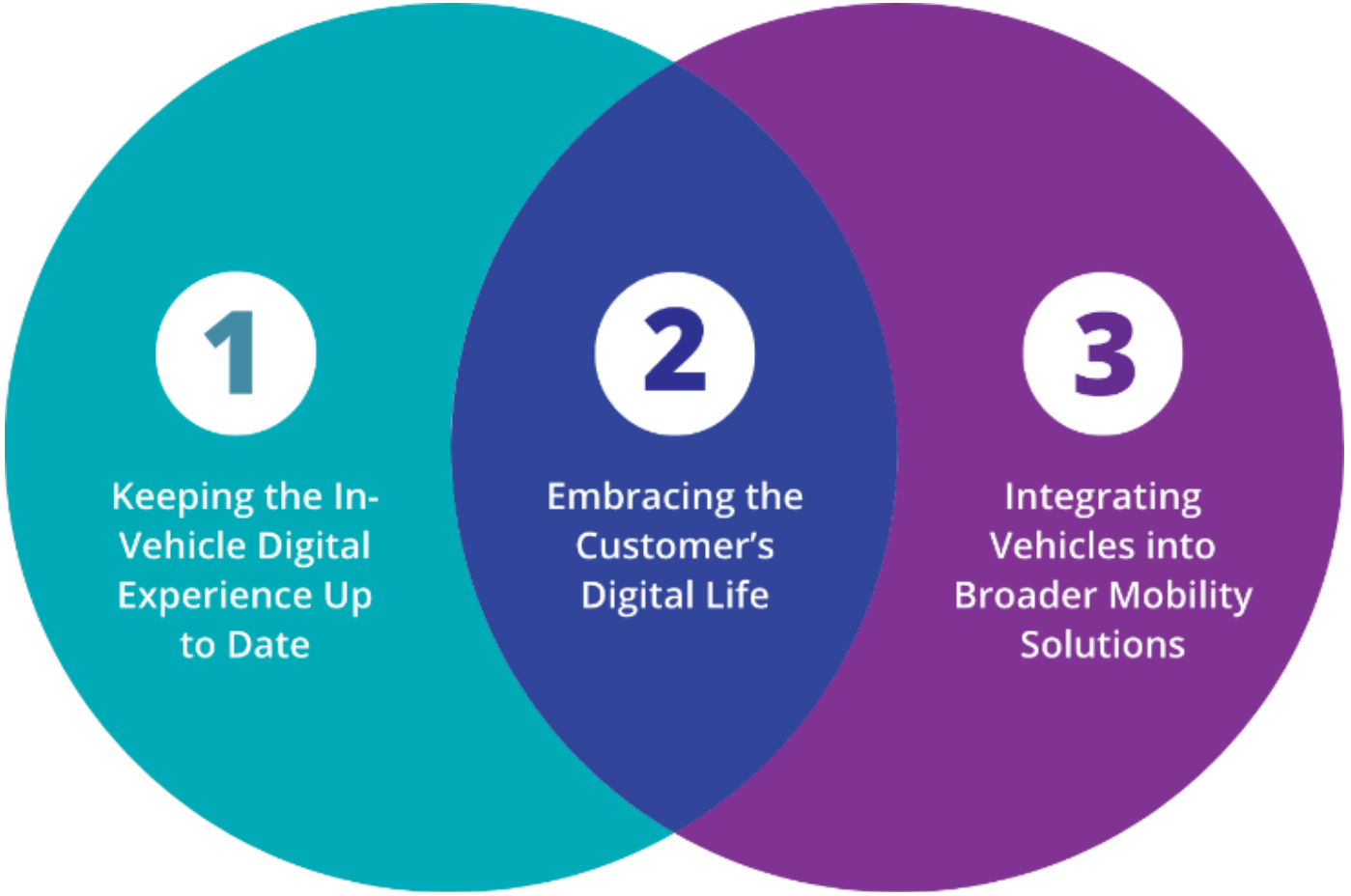
COVESA is...

Open & Global

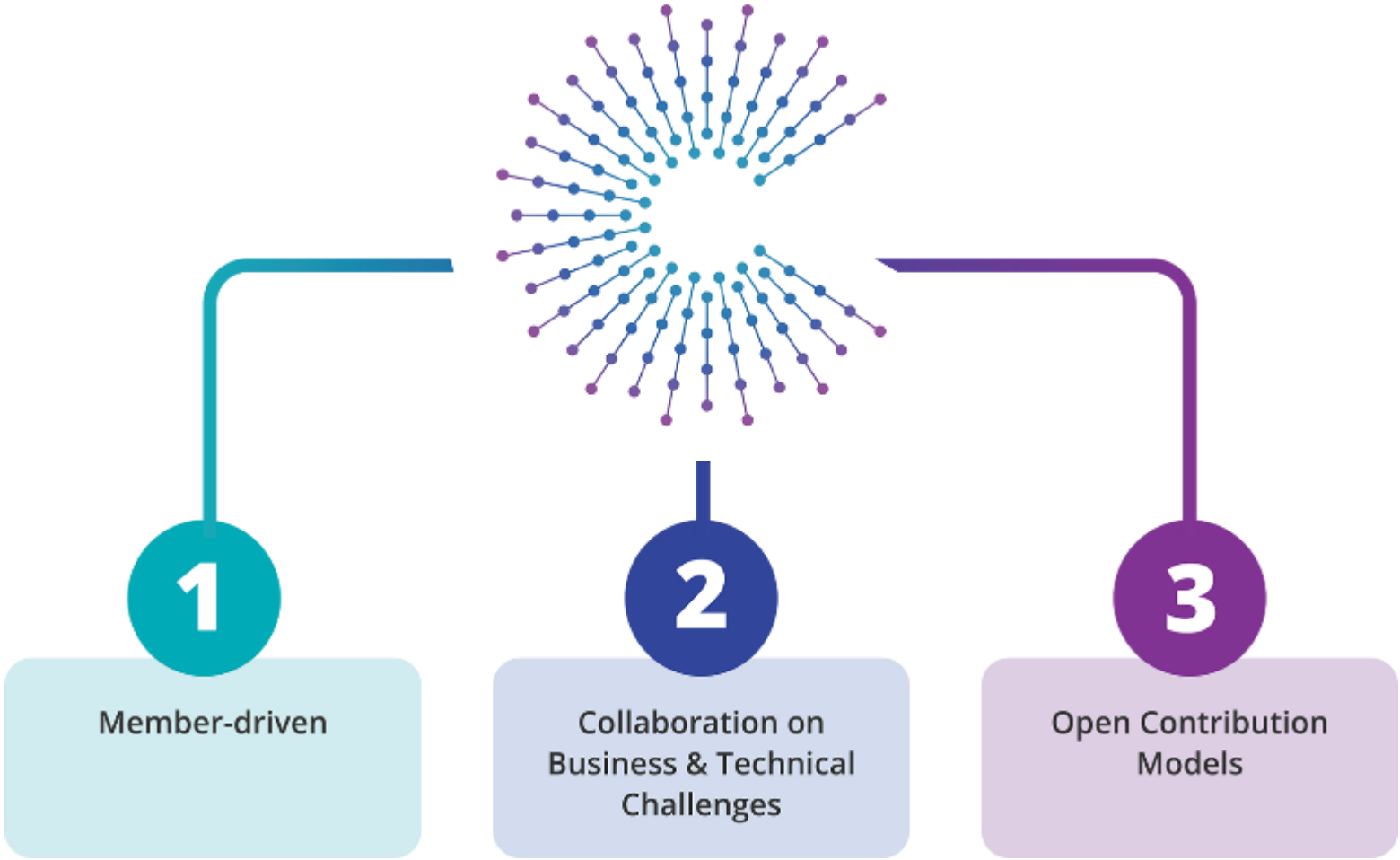
Strong 100-organization Collaborative Community

Addressing Business and Technical Challenges in the Connected Vehicle Ecosystem

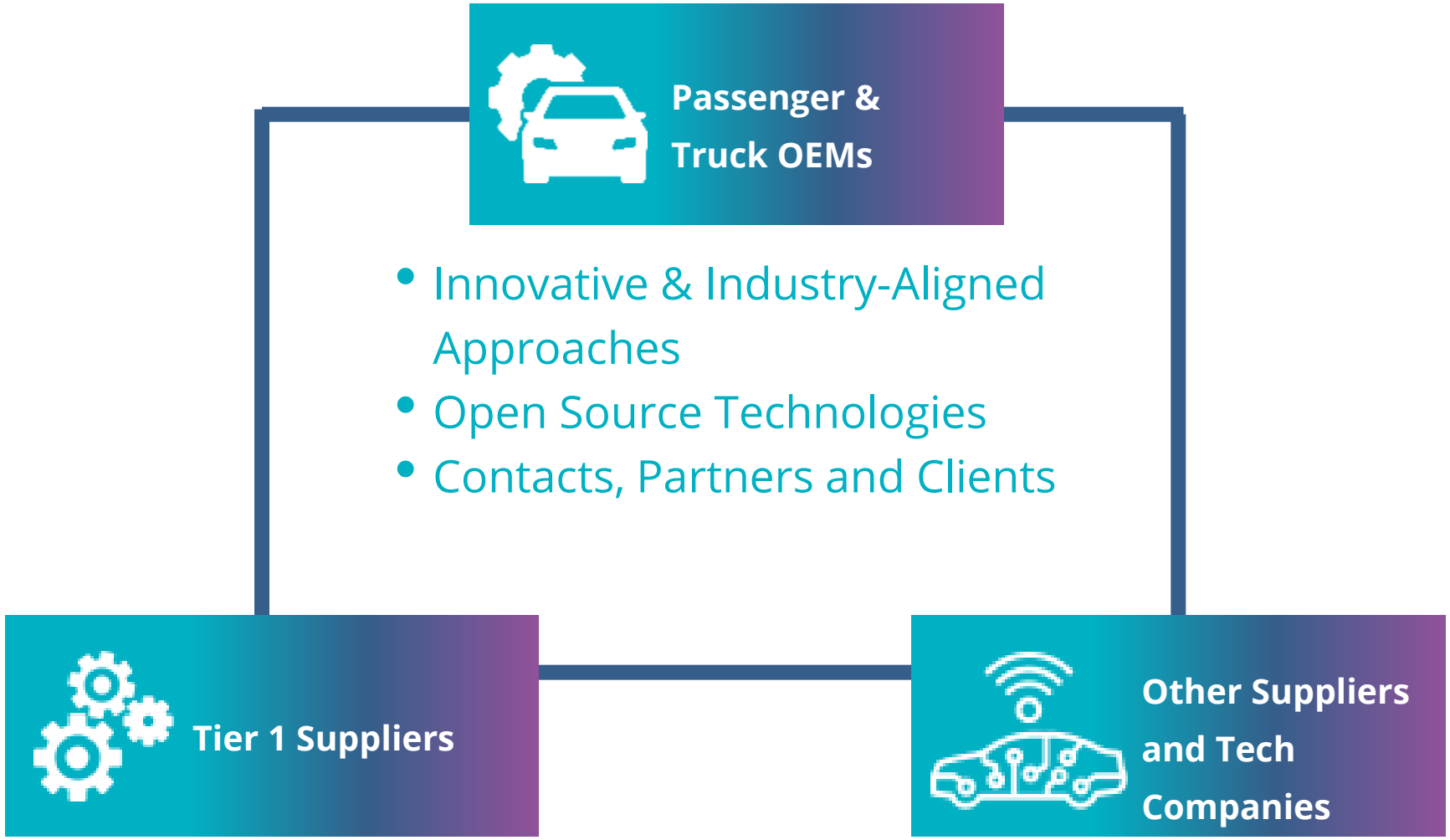
Our Purpose: Addressing Challenges



Our Values: Guiding the Alliance



Value to Members



Members

COVESA

New Members in 2025

PAIRPOINT

Cox Automotive

P3

AUTONOSTIX 360

INSUREVISION

rinf.tech

MODERNIZE

source.dev

VicOne

Other Memberships In Process

coretura

Enterprise Mobility™

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Technical Focus

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Primary Technical Activities

Vehicle Data

- Common Language for Data Definition and Exchange
- Common Interfaces for Accessing Data and Services

AOSP App Framework

- Reduced Fragmentation in the Automotive App Market
- Write-once, Deploy Across Brands

Commercial Vehicle & Fleet Management

- Leverage Common Data Definition for Fleet Management Use Cases

Open Source Code Projects

- 15-year History of Hosting Open Code Projects

Data Expert Pillars of Work

- API Gateway Components for Endpoint Integration (e.g., VISS)
- Data Exchange
- Remote Service execution
  - Definition of concept and approach

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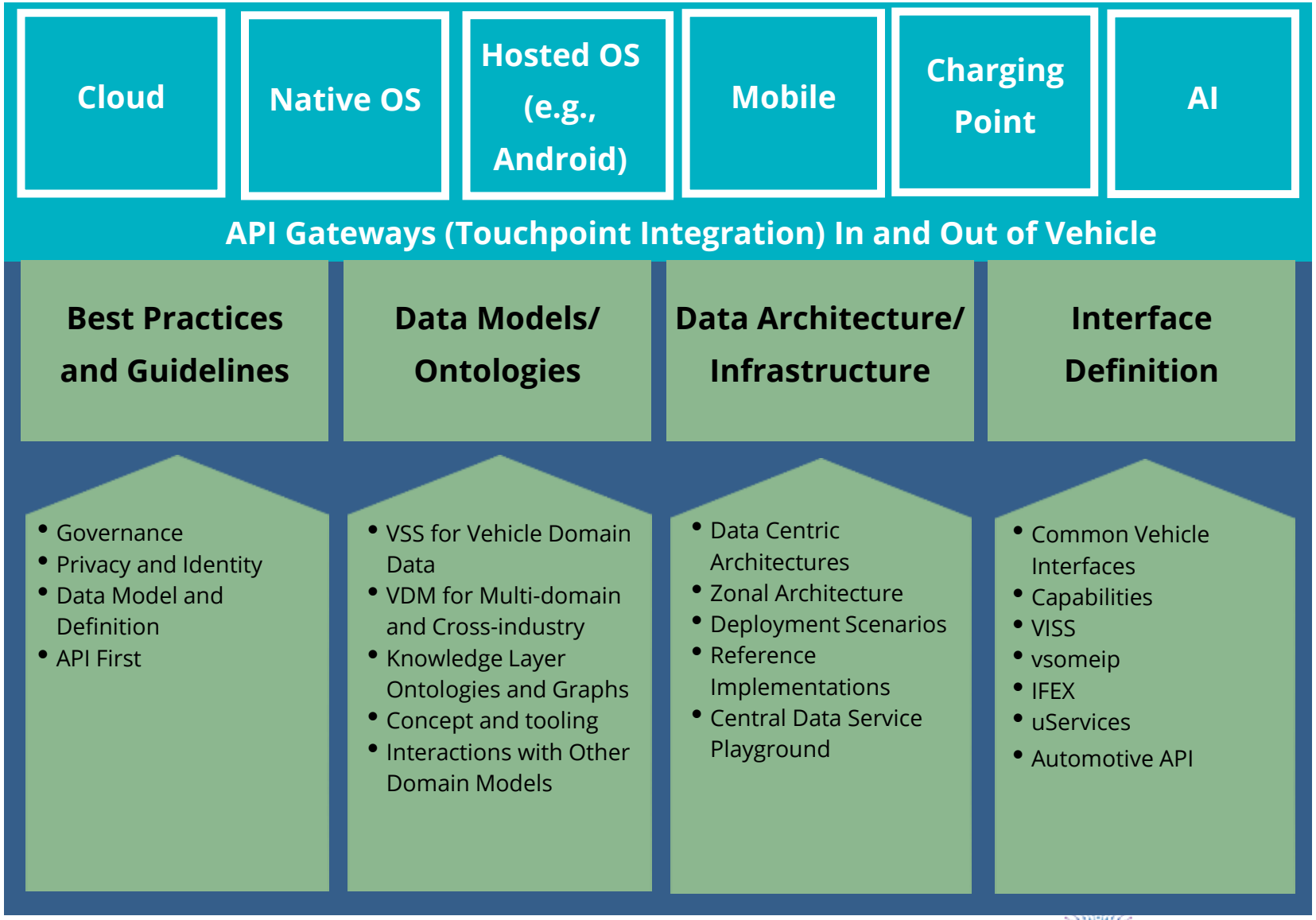
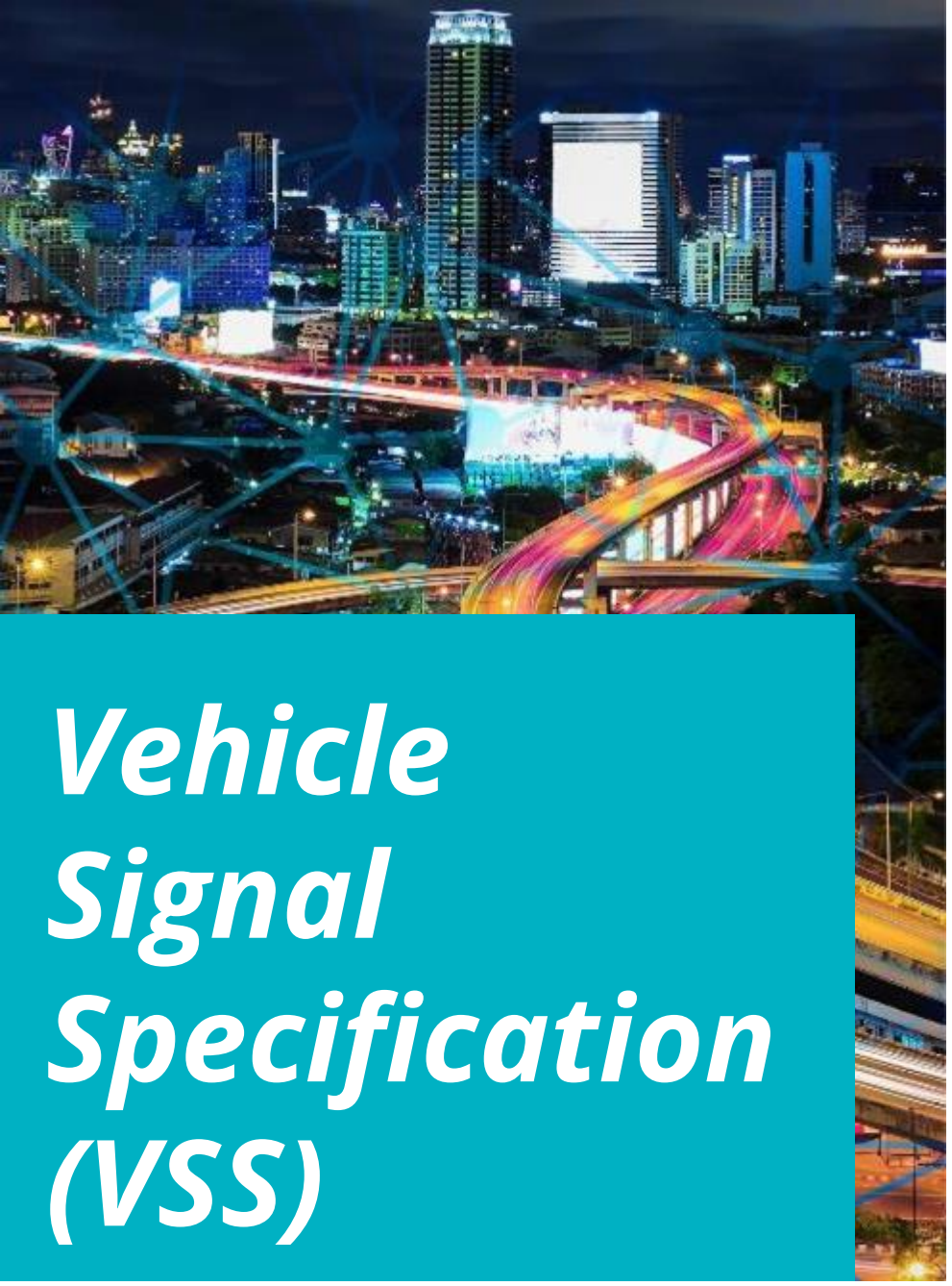
Data Expert Group



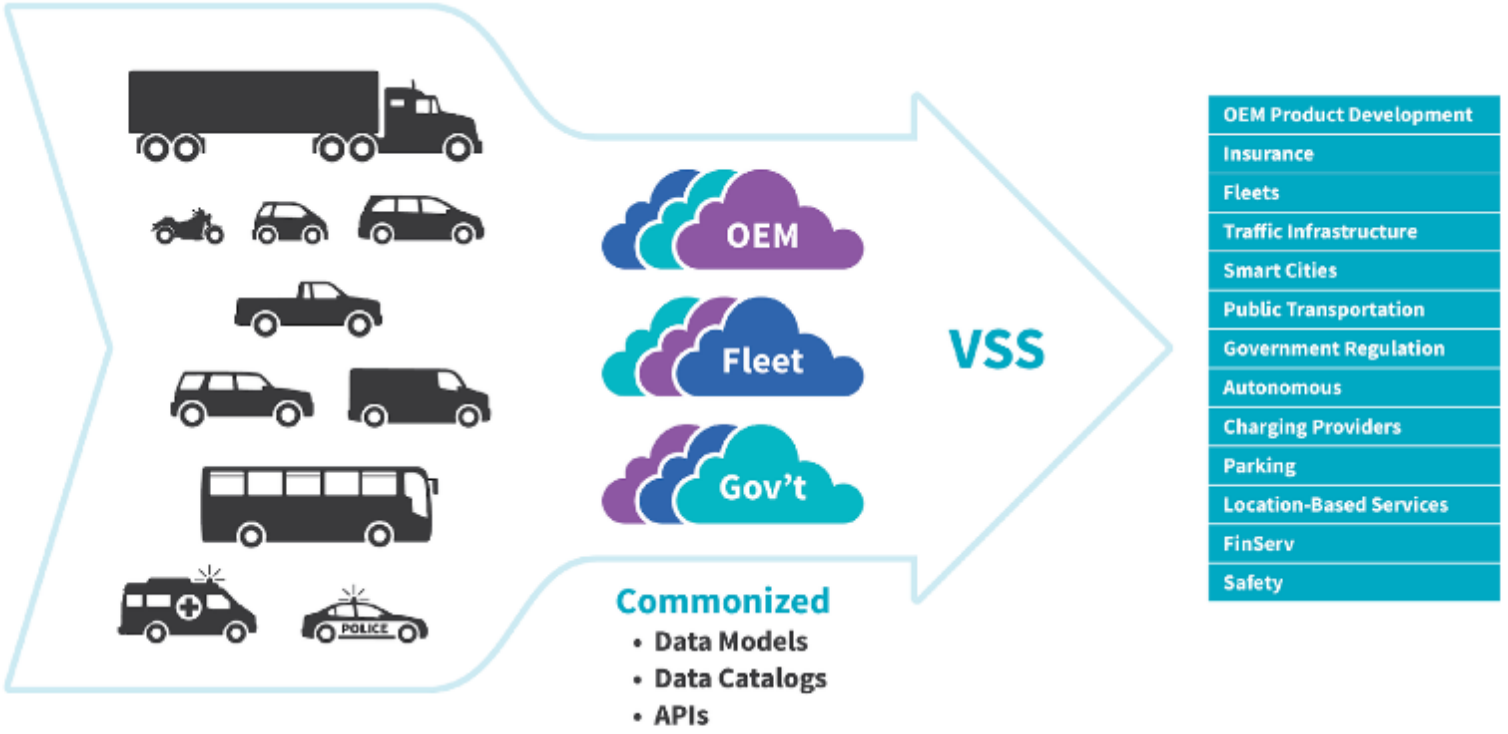


Vehicle Signal Specification (VSS)

Widely Adopted Open Data Model for Consistent and Usable Vehicle Data

- Enables Scalability
- Faster Time-to-Market
- Supports Future Business
- Drives Innovation

VSS: Key Engagement to Maximize Connected Vehicle Opportunities



VSS commonizes diverse data sources enabling focus on business value.

VSS: OEMs and Open Source Adopters

OEMS

BMW Group

Ford

VOLVO

OPEN SOURCE PROJECT ADOPTERS

AUTOMOTIVE GRADE LINUX

COVESA

digital.auto

ECLIPSE FOUNDATION

(Eclipse SDV Fleet Management Blueprint and Eclipse Service-to-Signal)

KUKSA

NSF National Science Foundation

(Pivot Project)

Leda

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VSS Adoption

COMPANIES, PRODUCTS AND SOLUTIONS

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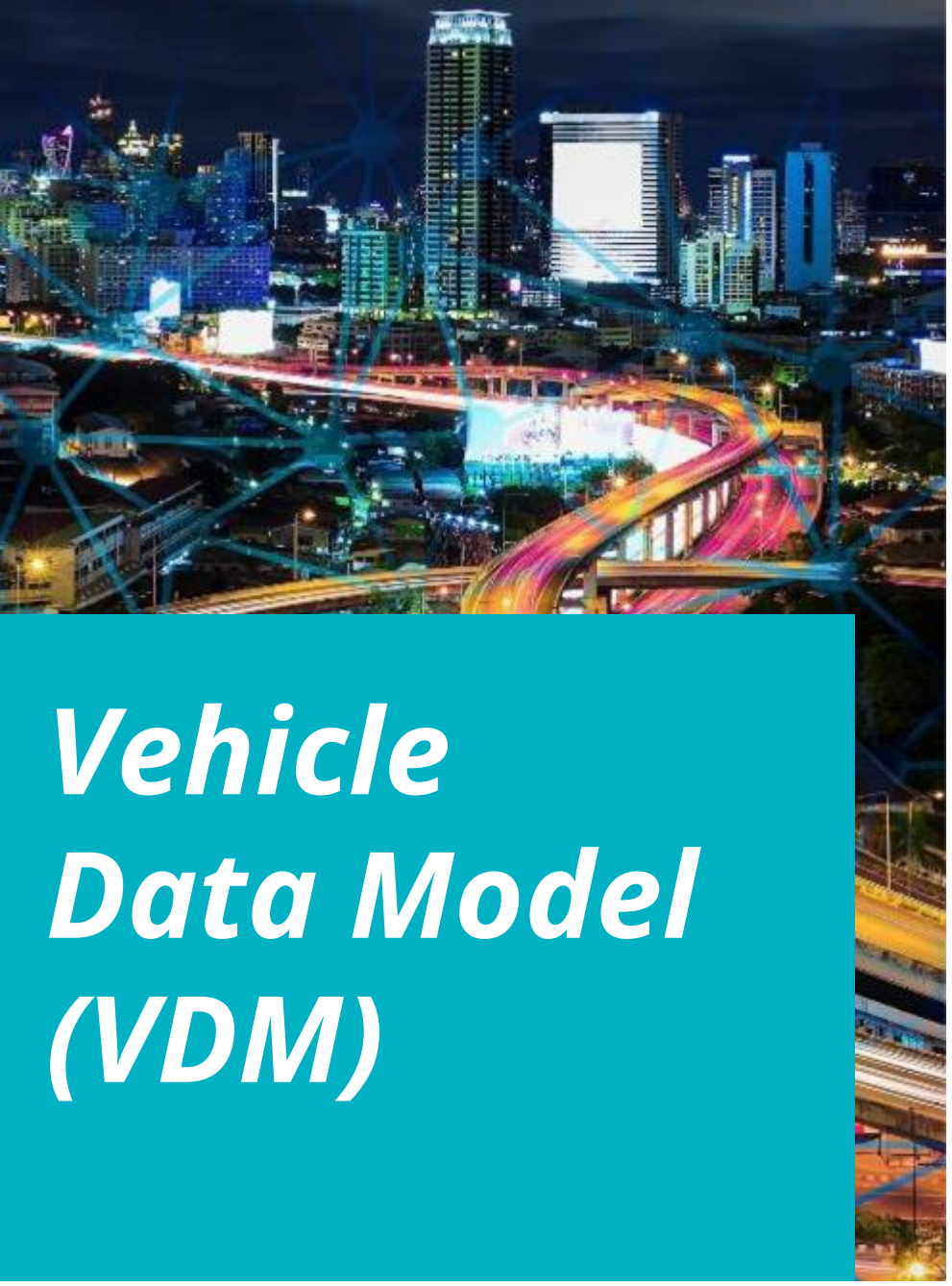


Vehicle Data Model (VDM)

VDM: Unlocking Long-term Business Value

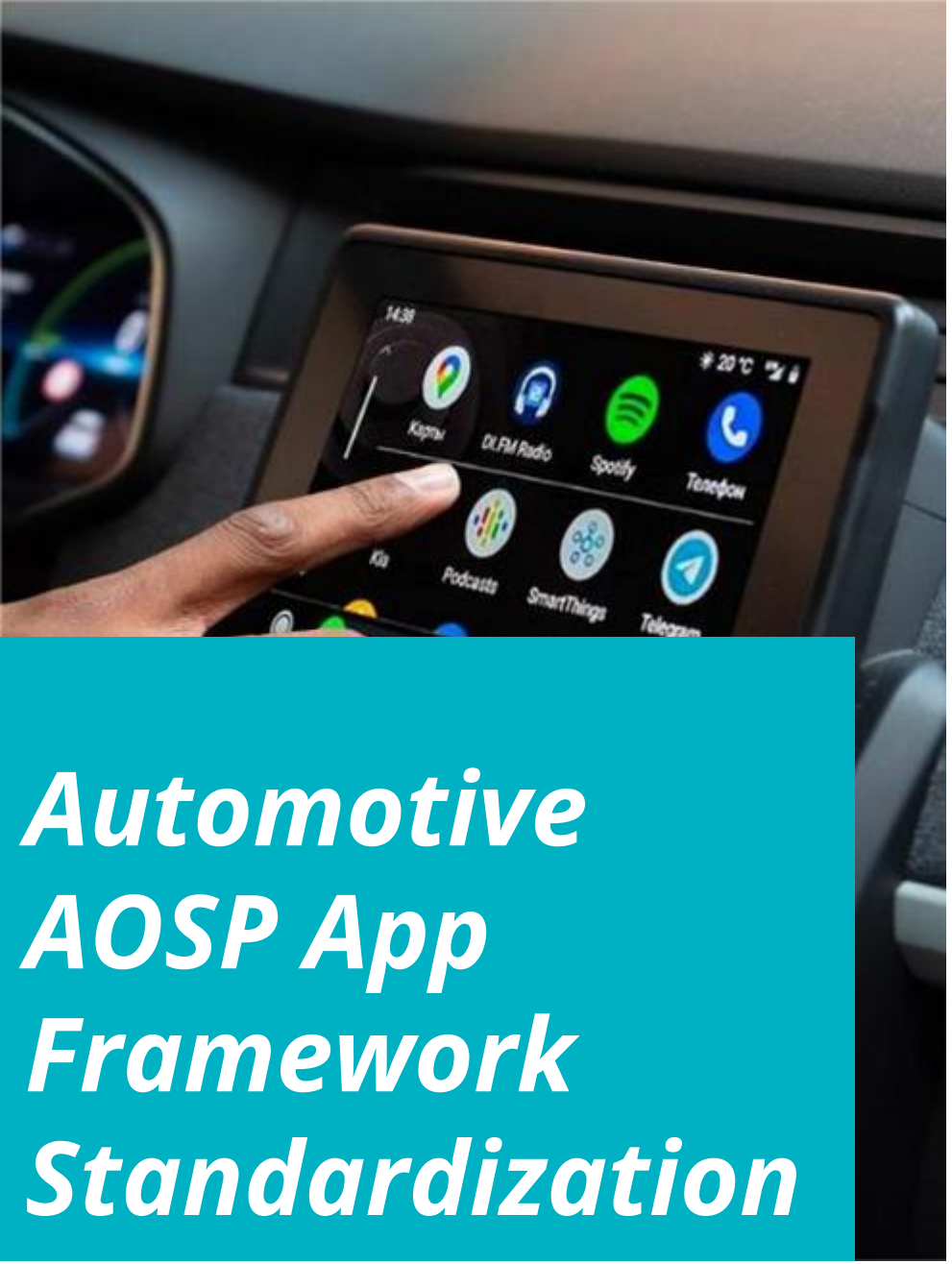
- Faster Integration
- Reduced Duplication
- Cross-Domain Flexibility
- Open Source Communities
- Coexistence with VSS

VDM: Introduces a New Modeling Approach

Simple Semantic Data (S2DM)

- Builds on the principles of COVESA's VSS — simplicity, accessibility, and community ownership
- Improves flexibility, governance, and interoperability

	VSS	VDM
Modeling Approach	VSS Rule Set (VSPEC = YAML + COVESA Extensions) and Tools (vss-tools) – for authoring, validating, and exporting models	Simple Semantic Data Modeling (S2DM) using widely adopted established language (GraphQL Schema Definition Language (SDL) and Simple Knowledge Organization System (SKOS)
Catalog (controlled vocabulary)	Specification of the VSS Tree authored using the VSS Rule Set	Specification of the VSS Tree authored using S2DM



Automotive AOSP App Framework Standardization

Reduce Fragmentation, Expand Options, and Grow the AOSP Automotive Ecosystem

1. Enabling App Innovation and Rich Experiences
2. Frictionless Onboarding and Testing for App Developers
3. Building a Cross-OEM App Ecosystem
4. Avoid Fragmentation

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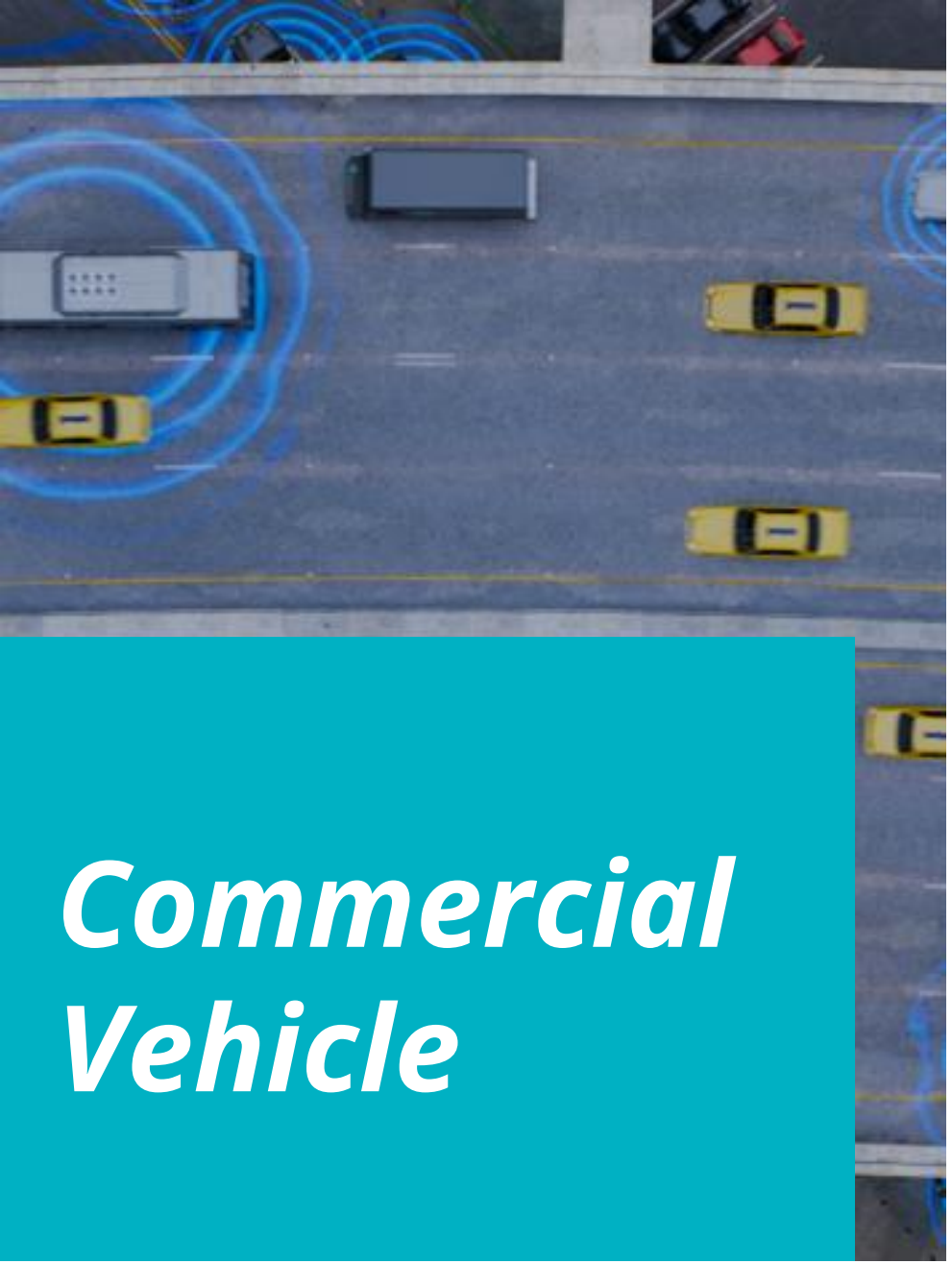
AOSP: Active Workstreams

- **UnifiedPush Notifications:** Open source push notification service specification and implementation.
- **Emulator:** Developing and Testing apps in an automotive representative environment to help reduce friction among app developers.
- **Data:** Harmonizes AOSP vehicle properties with the Vehicle Signal Specification.
- **COVESA SDK:** Code developed in the workstreams is combined as a collection of all “COVESA libraries.”
- **Entertainment:** Reduces access barriers for content providers by standardizing the technical implementation in the car.

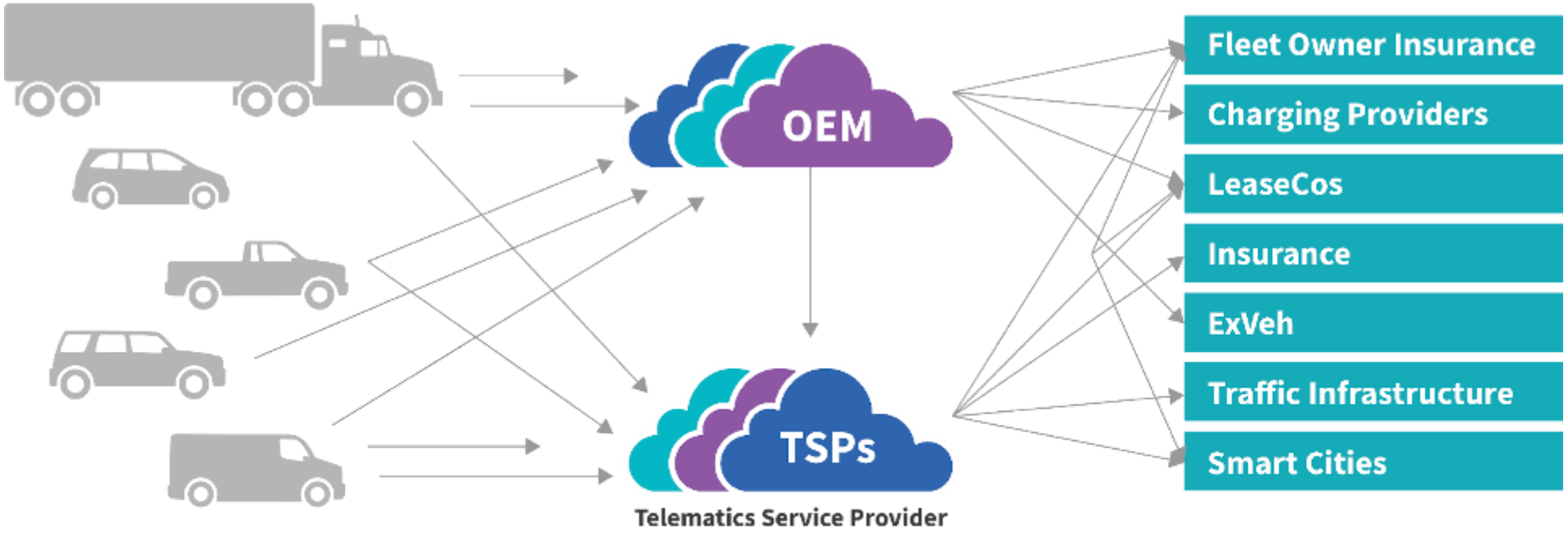


Commercial Vehicle

Identifying Gaps, Solutions, and Common Technology Approaches for VSS in Commercial Vehicle Fleets

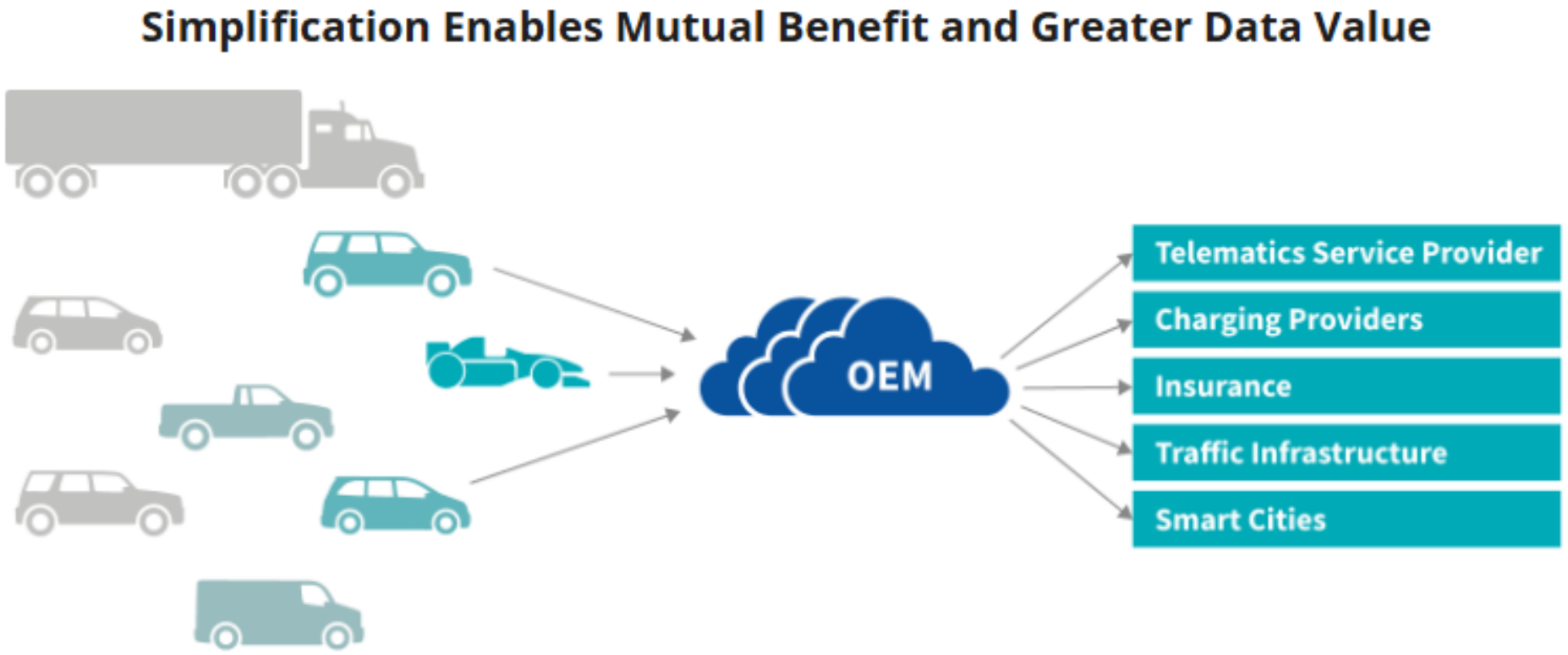
1. "Fleet Ready"
2. Consistent, Reliable and Secure Data Access
3. Value of Consistent Data
4. Global Access and Transparency

Commercial Vehicle

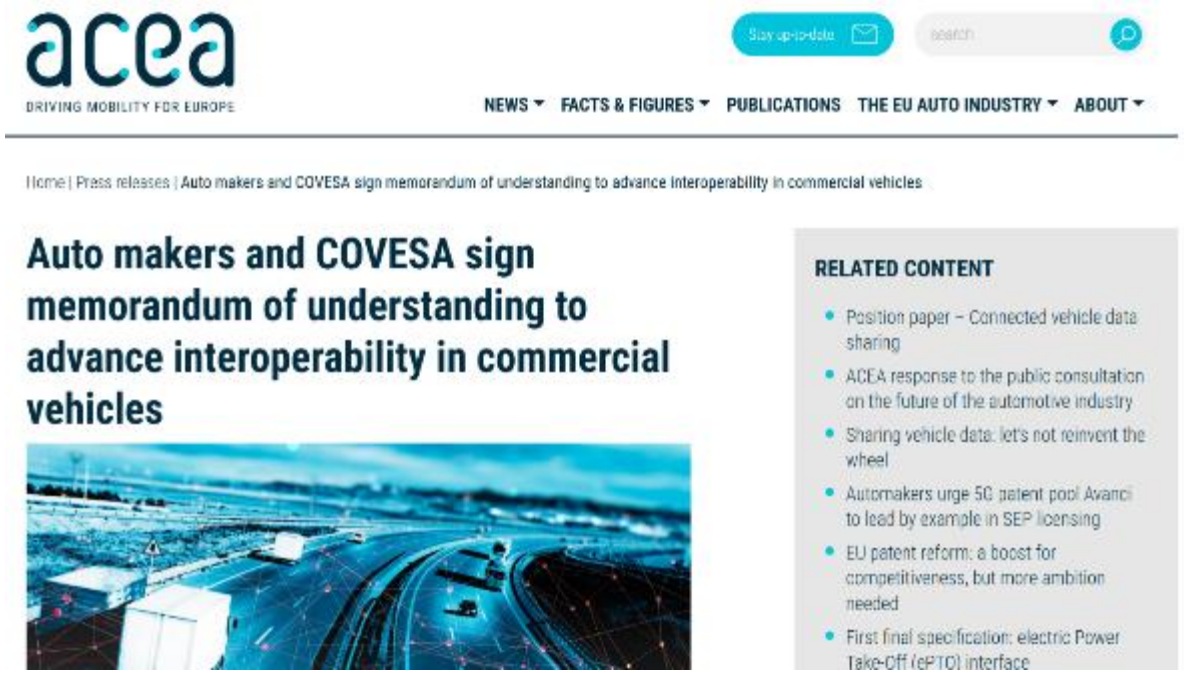


Different types, makes, models, years - and data **X** Multiple OEM and TSP clouds **X** Multiple data users

Commercial Vehicle



Driving Commercial Vehicle Interoperability Forward


acea
DRIVING MOBILITY FOR EUROPE

NEWS FACTS & FIGURES PUBLICATIONS THE EU AUTO INDUSTRY ABOUT

Home | Press releases | Auto makers and COVESA sign memorandum of understanding to advance interoperability in commercial vehicles

Auto makers and COVESA sign memorandum of understanding to advance interoperability in commercial vehicles

RELATED CONTENT

- Position paper – Connected vehicle data sharing
- ACEA response to the public consultation on the future of the automotive industry
- Sharing vehicle data: let's not reinvent the wheel
- Automakers urge 5G patent pool Avanci to lead by example in SEP licensing
- EU patent reform: a boost for competitiveness, but more ambition needed
- First final specification: electric Power Take-Off (ePTO) interface

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Other Areas of Technical Focus

- Vehicle Experience
- Security
- Ideation / Adoption
- Vehicle Commerce
- Connected Safety
- Generative AI

Membership Benefits & Visibility

Member Benefits

INFLUENCE

- Voice opinions and influence technical direction
- Lead and participate in Groups, Projects and Birds of a Feather
- Contribute innovative use cases

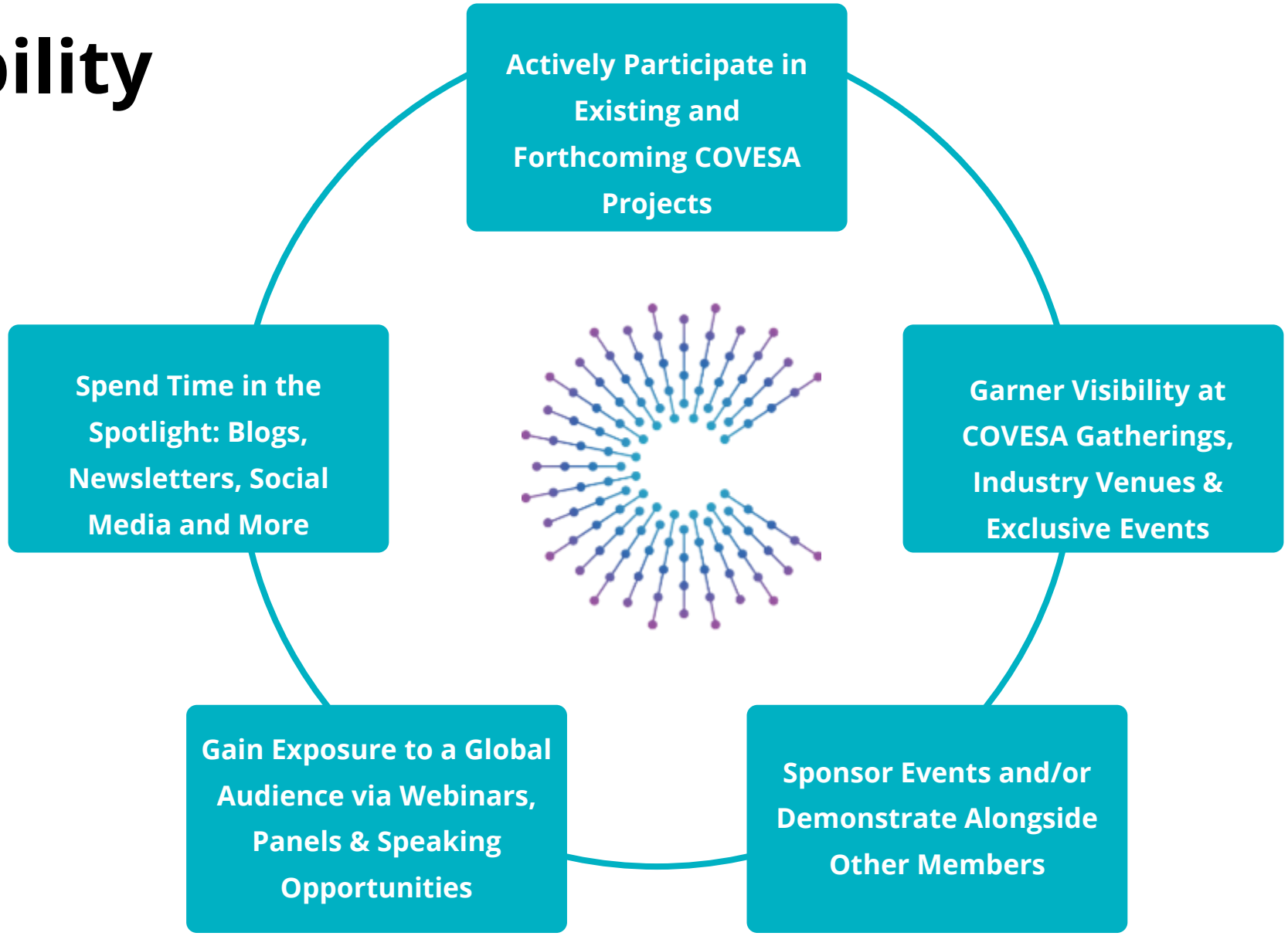
NETWORK

- Engage with Members at like-minded organizations
- Participate in a global community of thinkers and doers
- Attend COVESA member meetings, technical summits, and industry events
- Meet industry peers, influencers, and business leads

ADOPT

- Work with early releases of COVESA deliverables
- Provide lessons learned during adoption
- Improve your products or services

Member Visibility



Member Benefits

Member Benefit	Charter $75K annual fee	Core $30K annual fee	Associate $12K annual fee	Startup $5K or $2K annual fee based on size
INFLUENCE				
Seat on the Board of Directors	Two-year Term if Elected	One-year Term if Elected		
Thought Leadership Keynote at AMM	2/year	1/year		
Preferential Placement on Industry Panels	✓			
Right to Propose & Lead New Groups/Teams	✓	✓		
Appointment to Technical Steering Team	✓	If elected		
Right to Propose a New, COVESA-hosted Open Project	✓	✓	✓	✓
NETWORK				
Complimentary Booth at AMMs	✓			
Preferential Placement on Industry Panels	✓	✓		
Right to Participate as a Voting Member in Groups/Teams	✓	✓	✓	✓
Eligible to Attend All Member Meetings	Unlimited Free Passes	10 Free Passes	4 Free Passes	2 Free Passes
ADOPT				
Pre-release Access to COVESA Deliverables	✓	✓	✓	✓
Eligible to Demonstrate Products at COVESA Showcase Events	✓	✓	✓	✓
Eligible to Access the Member Wiki and Email Distribution Lists	✓	✓	✓	✓

Join COVESA

1. Determine the Level of Membership That's Right for Your Organization
2. Complete the Online Membership Application
3. Review Legal Documents and Submit Signed Participation Agreement
4. Pay Membership Fee

Join: covesa.global/join-covesa/

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Thank You!

Visit: www.covesa.global

Join: www.covesa.global

Contact Us: help@covesa.global

Technical Participation: wiki.covesa.global

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Other Areas of Technical Focus

COVESA Groups and Projects are organizational structures for members to collaborate on the advancement of connected vehicle systems and software-defined vehicles.

Technical Focus

COVESA Groups are Board-approved Expert Groups or Birds-of-a-feather (BoF) formed to advance a specific domain through a project or a series of projects.

AOSP App Framework Standardization Group
Minimize fragmentation in automotive.

Commercial Vehicle Group
Identify gaps, solutions, and standards for VSS in commercial vehicle fleets.

Connected Safety Group
Enhance road safety with connected technologies.

Data Expert Group
Facilitate and improve integration and interoperability of connected vehicles.

Data Expert Group: Architecture and Infrastructure Group
Define and prove standard data-centric architectures and infrastructure.

Data Expert Group: Common Vehicle Interfaces Group
Explore vehicle interfaces to ease integration and spur innovation.

Electric Vehicle Charging Expert Group
Understand and prove novel EV charging approaches.

Generative AI Group
Make Gen AI tooling interoperable, standardized, and accessible across the entire automotive V-model, from requirements to homologation.

Payments Group
Provide a foundation in, and access to automotive, payments, and retail ecosystems.

Security Group
Deliver automotive cybersecurity guidelines and education for more secure vehicles.

Vehicle Experience Group
Lead, validate, and collaborate on vehicle experiences.

Technical Focus

COVESA Projects are specific work done in the open associated with an Expert Group, Birds-of-a-Feather (BoF), or team, resulting in a work product.

Central Data Service Playground
Investigate and demonstrate data services.

Commercial Vehicle Information Specifications
Developing signal and service catalogues for commercial vehicles using the HIM rule set.

Common Vehicle Capabilities
Technology-neutral interface definitions of vehicle capabilities.

Data Architecture Terminology
Identify and define common data architectures and terminology.

Diagnostic Log Trace
The Daemon and the Viewer implement the Log and Trace (DLT) protocol, standardized in AUTOSAR.

EU Data Act
Will define compliance requirements for OEMs and suppliers selling vehicles in Europe.

EV Charging Event Data Aggregation
Standardization of data and APIs that enable and leverage shared big data.

Hierarchical Information Model (HIM)
Rules and tools for defining domains in a tree structure.

In-Car Wallet - Payments & Orchestration
Design a secure and convenient payment system framework for vehicles.

Interface Exchange (IFEX)
Interface description and transformation.

Private Cross OEM Joint Compute for EV Charging
Protect privacy while leveraging cross OEM data sharing.

UnifiedPush Notifications
Standardize 3rd party push notifications for automotive user experiences.

uServices
Defines common vehicle services.

Vehicle Data Model
Unified, interoperable vehicle data modeling framework and models.

Vehicle Information Service Specification (VISS)
Service for accessing vehicle data.

Vehicle Information Service Specification Reference (VISSR)
VISS Reference Implementation.

Vehicle Signal Specification (VSS)
A common approach for describing vehicle data.

vSomeIP
Implement scalable service-oriented middleware over IP (SOME/IP) protocol.