



Building the
New Economy of Movement



MOBI MEMBERSHIP

Benefits

Organizations of all sizes, industries, and global regions are joining MOBI to share expertise, define industry standards, and improve the sustainability, efficiency, and accessibility of mobility services and IoT commerce around the world.



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Building the New Economy of Movement

MOBI officially launched in May 2018 and released its first standard, Vehicle Identity (MOBI VID) the following year. Since its launch, MOBI has formed nine working groups, released 16 standards, and launched the DRIVES Program to ideate and demonstrate MOBI Standards to extend multiparty value chains in a decentralized ecosystem. MOBI and its members are **creating blockchain-based standards and building the Web3 digital infrastructure** to identify vehicles, people, businesses, and MOBI Trusted Trip, with the goal of **making transportation more efficient, equitable, decentralized, and sustainable**.

The MOBI community is made up of over 100 organizations from all over the world, covering a range of industries and specialties, including governmental, academic, and private sector thought leaders and subject matter experts. Funded and directed by its members, MOBI is a nonprofit consortium that is technology, blockchain, and protocol agnostic.

MOBI Battery Initiative

MOBI Battery Initiative focuses shared efforts on building a comprehensive framework to improve sustainability and visibility in the global battery value chain. The Battery Initiative is composed of members from the DRIVES Program, Supply Chain Working Group, and Electric Vehicle Grid Integration Working Group.

- MOBI Battery Identification Number (BIN) Technical Specifications
- Battery State of Health (SOH) Business White Paper
- EV Battery State of Health (SOH) Value Chain Map

DRIVES Program

The **DRIVES Program** is developing standards and evaluating the benefits, costs, and feasibility of multiparty applications relating to vehicle identity (VID). The DRIVES Program works on use cases such as BIN, SOH, and Maintenance & Repair. The first pilot developed in the DRIVES Program was the **Citopia for EV** pilot in 2021. The working group is currently working on a Maintenance & Repair Sub-Wallet pilot and conducting battery SOH state-of-the-art research.

- MOBI Trusted Trip Credential: Business Requirements & Technical Specifications
- Vehicle/Parts Maintenance and Repair Sub-Wallet Use Cases & Business Requirements

DRIVES Contributors: AAIS, Accenture, Anritsu, ASJade Tech, Arxum, Aucnet, AWS, Blockedge, BMW, Cara7, CarIQ, CEVT, DENSO, Ford, GM, Henshin Group, Hitachi, Honda, IoTeX, ITI, ITOCHU, Kaula Lab, Mazda, Nissan, NuCypher, ParkMyFleet, peaq, Orico, R3, Reply, State Farm, Stellantis, Toyota Industries Corporation, Traent, USAA, and Vitesco.

MOBI Technology Stack (MTS)

All MOBI members come together for MTS meetings to discuss overall progress and strategies for MOBI's initiatives (working groups, standards, pilots, Citopia, and the ITN).

All MOBI members are invited to join bi-weekly and monthly MTS calls.

Vehicle Identity (VID) I & II

The **VID Working Groups** aim to define a vehicle's **Self-Sovereign Digital Twin™**, providing the necessary bridge to the physical asset that allows vehicle owners and users to manage access control, confirm ownership history, log key life events, and interact with the vehicle in the connected mobility ecosystem. MOBI VID is currently being leveraged in Citopia pilots as part of the **DRIVES Program**.

- VID I White Paper
- VID I Technical Specifications
- VID II Use Cases & Business Requirements
- VID II Ref. Implementation Architecture

VID Contributors: Groupe Renault, Ford, Accenture, AIOI Insurance, AWS, Autodata Group, Bosch, BMW, Car IQ, Car Vertical, Cerebri AI, CEVT, Cognizant, ConsenSys, CPChain, DENSO, DMX, DLT Labs, GM, Hitachi America Ltd., Honda, Hyperledger, IBM, IOTA, KAR Auction Services, Luxoft, MintBit, Nara Institute, Netsol Tech, Oaken Innovations, On The Road Lending, Ownum, Quantstamp, Reply, Trusted IoT Alliance, USAA, and Xapix.

Mobility Insurance (MI) I & II

The **MI Working Group I** defined a framework with appropriate identity, data, and permissioning proceeds to enable secure data sharing and consumption for marginal cost pricing of usage-based mobility services, including insurance. MI Working Group II is launching in Q1 2023 to expand and build on the work done by the first iteration of the working group.

MI Contributors: AAIS, Accenture, Achmea, Arxum, AIOI USA, Anritsu, ASJade Tech, Aucnet, AWS, Blockedge, BMW, Cara7, CarIQ, Cerebri AI, CEVT, Cognizant, ConsenSys, DENSO, Deon Digital, DMX, Ford, GM, Henshin Group, Hitachi, Honda, IBM, IoTeX, ITI, ITOCHU,

Kaula Lab, Luxoft, Mazda, Netsol Tech, Nissan, Nucypher, Ocean Protocol, Orico, On the Road Lending, ParkMyFleet, peaq, Quantstamp, R3, Groupe Renault, Reply, RouteOne, R3, Stellantis, State Farm, Streamr, Swiss Re, Toyota Industries Corporation, TQ Tezos, USAA, USC, Vitesco, Volkswagen, and ZF.

Electric Vehicle Grid Integration (EVGI) I & II

The **EVGI** Working Group I defined the interoperable systems necessary for public and private stakeholders to better manage the grid load, calculate carbon offsets, and generate carbon credits, facilitating the implementation of P2P services. EVGI Working Group II launched in Q3 2022 to reevaluate initial EVGI standards and work on pilots, including Vehicle-to-Building communication for charging and storage.

- EVGI Business White Paper
- EVGI Technical Specifications

EVGI Contributors: Honda, GM, Accenture, Anritsu, ASJade, AWS, Cognizant, CPChain, DENSO, DOVU, Ford, Henshin Group, Hitachi, Honda, IBM, IOTA, ITOCHU, KAR Auction Services, KoinEarth, peaq, PG&E, Politecnico di Torino, ParkMyFleet, R3, Spherity, Stellantis, Swedish Blockchain Association, and Vitesco.

Connected Mobility Data Marketplace (CMDM)

The **CMDM** Working Group aimed to enable the creation of a privacy-preserving mobility data marketplace by defining core services, logical schemas, and sensor identity/ownership certificates for V2X data exchange, geo-location cross validation, multimodal trip planning, and autonomous vehicle coordination.

- CMDM Business White Paper
- CMDM Technical Specifications

CMDM Members: GM, DENSO, Accenture, AMO Labs, CEVT, Cognizant, Constellation Labs, Continental, CPChain, DENSO, DMX, Fifth-9, Filament, Ford, IBM, NuCypher, Ocean Protocol, Reply, RouteOne, ShareRing, Swedish Blockchain Association, and Toyota Insurance Management Solution (TIMS).

Finance, Securitization, and Smart Contracts (FSSC)

The **FSSC** Working Group aims to make the vehicle finance process

easier and more transparent for lenders, manufacturers, dealers, and consumers by exploring the use of blockchain and secure decentralized databases in the vehicle finance lifecycle. The FSSC Working Group is spearheading pilots focused on dealer floorplan auditing (zero-knowledge proof of location verification) and registration & titling.

- FSSC Business White Paper
- FSSC Technical Specifications

FSSC Contributors: Accenture, Altaventure, Amazon Web Services, BMW Bank, CEVT, Connections Insights, CO-OP Financial Services, ConsenSys, D.E. Consulting, DMI, Ford Credit, Global Debt Registry, GM Financial, Honda, IOTA, Itochu, Nissan Motor Acceptance Company, NADA, On the Road Lending, Orrick, Quant Network, Quantstamp, Reply, RouteOne, Stellantis Financial Services, Southeast Toyota Finance, Spring Free EV, Tezos Foundation, Toyota Industries Corporation, and USAA.

Supply Chain (SC) I & II

The **SC** Working Group I aimed to improve the manufacturing process and move parts around the world efficiently and transparently using blockchain and DLT. SC Working Group II is working on standards and pilots for battery supply chain traceability, sustainability requirements, and EU battery passport mandate compliance.

- SC Use Cases and Business Requirements
- SC Reference Implementation Architecture

SC Contributors: BMW, Ford, Accenture, AIOI, Anritsu, Arxum, AS-Jade Tech, Aucnet, AutoData Group, AWS, Blockedge, BMW, CEVT, Dana, DENSO, DLT Labs, DMX, Fifth-9, Hitachi, Honda, IBM, IOTA, ITOCHU, Marelli, Mazda, Nara Institute, Politecnico Di Torino, ParkMyFleet, Quantstamp, R3, Reply, Stellantis, Southeast Toyota Finance, SyncFab, State Farm, Thirdware, TICO, and Vinturas.

Citopia

- Web3 trusted identity, location, and business automation infrastructure launched by MOBI
- A secure virtual business network with machine readable, zero-trust, privacy preserving, and provably correct business transactions using [W3C Verifiable Credentials \(VCs\)](#) with Zero-Knowledge (ZK) cryptography without the need for centralized certificate authorities
- Network built on top of the ITN for increased security, interoperability (technology + vendor agnostic), and lower cost

Citopia vinTRAK

Citopia vinTRAK combines blockchain, self-sovereign identity, and zero-knowledge proof technology to support the creation of scalable, multiparty Vehicle-to-Everything (V2X) applications for seamless zero trust business automation, including usage-based insurance, road usage charging, emissions tracking, congestion management, and more.

Citopia partsTRAK

Citopia partsTRAK leverages blockchain, self-sovereign identity, and zero-knowledge proof technology to support the creation of multiparty track-and-trace applications for global battery passports, maintenance & recall traceability, and ethical/sustainable sourcing for more transparent and resilient global value chains.

Citopia MaaS

Citopia MaaS provides a seamless travel ecosystem offering one-click search, booking, and ticketing across different transit modes, providing an efficient end-to-end experience and eliminating the need for multiple logins, user cards, apps, and payment methods. Users on Citopia MaaS have full control over who sees their data, how much data is shared, and how that data is used.

Explore: Pilots Using Citopia and the ITN

MOBI is demonstrating Citopia and the ITN in a number of pilot projects alongside our global community of members and node operators.

Completed:

- EV Reservation, Charging, & Payment; State of Health Tracking; and Emissions Reporting
- Vehicle CO2 Emissions Self-Reporting — Joint Pilot with the European Commission
- EV Battery Supply Chain Track-and-Trace

In Progress:

- Citopia vinTRAK — Dealer Floorplan Audit
- Citopia MaaS for Multimodal Trip Planning, Booking, and Payment — Transit IDEA Award

Integrated Trust Network (ITN)

- Decentralized digital infrastructure
- First cross industry Web3 infrastructure for trusted, self-sovereign identity backed by global consortia (MOBI, MEF, and AAIS)
- [W3C Decentralized Identifiers \(DIDs\)](#) standard for interoperability, scalability, and extensibility

- Federated certificate authority for IoT, eCommerce, and business automation as a global trust anchor

MoCos

MOBI Colloquiums (MoCos) explore the convergence of AI, IoT, blockchain, mobility, and smart cities to build the minimum viable ecosystem for connected ecosystem & IoT commerce by fostering creative and professional growth alike. MoCos are the premier destinations for discovery. We provide opportunities for global professionals at every level to participate, learn, and network.

MoCoLA23: 13-14 June 2023

MoCoLA23 registration is now open!
Register to save your spot and witness the cutting-edge tech and growing momentum behind our Web3 community:

- Explore the latest Working Groups innovations and dive into our cross-industry Standards including the MOBI Battery Initiative.
- Learn how Citopia and the ITN enable cross-border compliant applications such as the Battery Passport for supply chain track-and-trace, Dealer Floorplan Audit using Citopia vinTRAK's zero-knowledge proof of vehicle location, Road Usage Charging, and more.
- Discover the latest innovations and collaboration opportunities from MOBI members around the globe.
- Learn how your organization can enter new markets by building Web3 multiparty applications on Citopia and the ITN to share data securely and privately, automate business transactions, and seamlessly manage your assets.
- Incorporate Zero Trust security and data privacy compliance for your products.
- Attend a hands-on workshop and learn how to build dApps on the MOBI Web3 Infrastructure (MEMBERS ONLY)

Community Innovation Lecture Series

Our lecture series is a platform for members to share their innovative research and solutions for the transportation ecosystem. Past topics include data monetization, autonomous vehicles, and supply chain management, among many others. The lectures are free and open to the public. Recordings are available on our website after the event takes place.

MOBI Community

