Citopia Global Battery Passport System by MOBI

STANDARDS BASED AND GLOBALLY INTEROPERABLE SYSTEM TO ISSUE, AUTHENTICATE, AND CONSUME BATTERY INFORMATION

MOBI is collaborating with public and private stakeholders worldwide to establish a privacy-preserving, interoperable, decentralized Global Battery Passport (GBP) System that will facilitate GBP issuance for seamless communication in production management, maintenance, safety, secondary and tertiary use, and recycling while meeting consumer demands and ensuring regulatory compliance.

The proliferation of batteries in various industries, including electric vehicles and renewable energy storage, necessitates a standardized approach to ensure quality, safety, and circularity in the battery value chain. Recent regulations in the US, EU, Asia, and other global regions emphasize traceability in the battery supply chain.

Measures like the **US Treasury's Section 30D Guidance on EV Tax Credits** and **EU Battery Regulation** mandate digital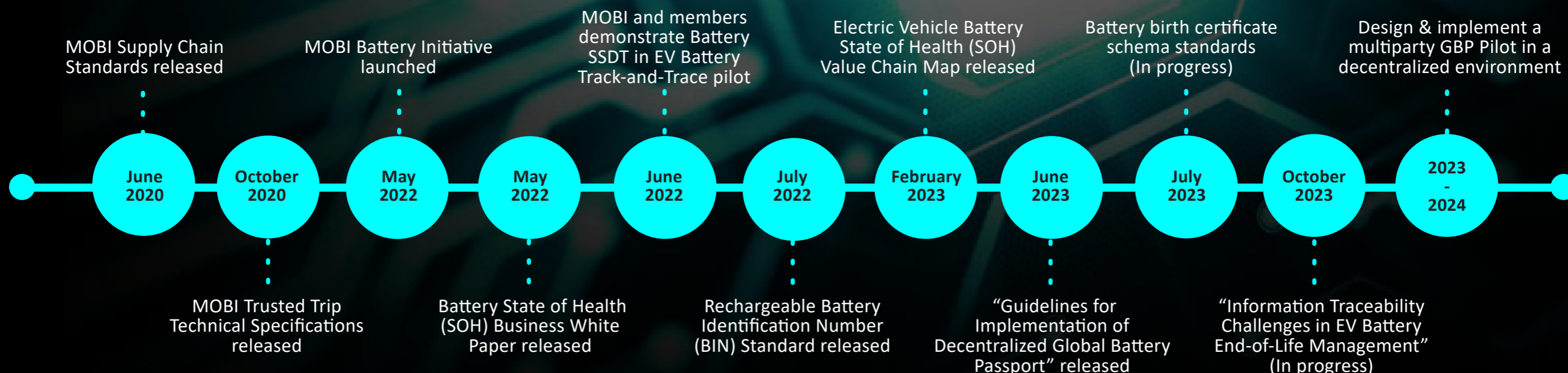 recordkeeping to track battery life cycles, underscoring the need for a **battery passport — a digital credential containing key information about the battery's composition, state of health, history, and more.**

Compliance with these global regulations demands a standardized framework that preserves proprietary data, ensures traceability, and maintains a low barrier to entry. Currently, however, the industry lacks interoperability and standardized authentication for battery materials, sourcing, recycled content, and performance.

To this end, MOBI and its members have developed a **decentralized Web3 solution framework** rooted in **World Wide Web Consortium (W3C)** trusted identity standards, enabling privacy-preserving, globally compliant data exchange. The release of MOBI's **Guideline for Implementation of a Decentralized Global Battery Passport System** in June 2023 marked a critical milestone toward this goal.

Building on this foundation, MOBI's Circular Economy and the Global Battery Passport Working Group aims to unite global public and private sector efforts, establishing essential standards, infrastructure, and a Global Battery Passport System. This system ensures compliance with existing and future regulations in the EU, US, Asia, and beyond, enabling battery stakeholders to issue, authenticate, and utilize battery data. Additionally, the Working Group considers data privacy measures like **GDPR** and the **US Federal Zero Trust Mandate.** MOBI invites organizations of all types to join and collaborate in this endeavor.

Roadmap

Timeline (above markers):
- MOBI Supply Chain Standards released
- MOBI Battery Initiative launched
- MOBI and members demonstrate Battery SSDT in EV Battery Track-and-Trace pilot
- Electric Vehicle Battery State of Health (SOH) Value Chain Map released
- Battery birth certificate schema standards (In progress)
- Design & implement a multiparty GBP Pilot in a decentralized environment

Timeline milestones:
June 2020 · October 2020 · May 2022 · May 2022 · June 2022 · July 2022 · February 2023 · June 2023 · July 2023 · October 2023 · 2023 - 2024

Timeline (below markers):
- MOBI Trusted Trip Technical Specifications released
- Battery State of Health (SOH) Business White Paper released
- Rechargeable Battery Identification Number (BIN) Standard released
- "Guidelines for Implementation of Decentralized Global Battery Passport" released
- "Information Traceability Challenges in EV Battery End-of-Life Management" (In progress)

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