



Building the
Web3 Economy

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DRAFT WORKING GROUP CHARTER

ARTIFICIAL INTELLIGENCE

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Introduction

2024 Nobel Prize winner and 2018 Turing Award winner Geoffrey Hinton defines Artificial Intelligence (AI) as a new form of intelligence that is fundamentally different from human intelligence. Andrew Ng (Stanford University, Google Brain) defines AI as "the ability of machines to perform tasks that would normally require human intelligence."

Well-resourced companies and researchers in the mobility and supply chain space have been using AI to improve manufacturing processes and use automated machines to perform tasks such as warehouse stacking, delivery route optimization, automated driving, and more. In the last five years, the AI space has shifted "for the better" — i.e., small companies and startups now have access to AI tools like large language models. Due to decreases in computing costs and open-source collaborations, more and more startups are building groundbreaking discoveries using AI. Along with it, investments in AI are projected to reach \$200 Billion in 2025 according to Goldman Sachs and Stanford Institute for Human-Centered Artificial Intelligence¹.

Due to increasing investments and recent developments in multimodal large language models, companies are under pressure to join the bandwagon of investments in research and development as well as building AI-infused products, sometimes without a clear return on investment. The AI hype is real — but so are the opportunities.

Objectives of the Working Group

The objectives of the AI Working Group (WG) are to provide guidance and thought leadership to our members to achieve the following:

- Differentiating hype from reality
- Benchmarking members' progress in adopting AI
- Overcome barriers to AI readiness and adoption
- Developing AI investment and implementation strategies
- Transitioning to Web3 using AI tools
- Offering AI-infused products and services

List of Interested Topics

MOBI conducted three brainstorming sessions with the members and general public to gather topics they would be interested in. Following is the list of topics (numbering doesn't indicate priority):

1. Understanding the hype around AI
 - a. Understanding AI terminologies and jargon, limitations, capabilities, etc.
 - i. Generative AI, LLM (GPT 4, LLAMA, etc.), Adversarial AI, Artificial General Intelligence, etc.

¹<https://www.goldmansachs.com/insights/articles/ai-investment-forecast-to-approach-200-billion-globally-by-2025>



- b. Current and new developments in AI technology
- c. Good and bad uses of enterprise AI since failure rates of pilots are still high
2. Exploring the intersection of AI and Web3
 - a. AI-generated material stamped with DIDs/VCs - trustworthy AI
 - b. Transition to Web3 from Web2 and whether AI can aid in it
 - c. Collaborative AI model building (e.g., address data validation for utilities)
 - d. Use of AI to distribute monetary benefit from data sharing
 - e. AI at the edge
3. Use of AI in supply chain and mobility
 - a. Integrating AI into the global battery passport
 - b. The current state of the AI practice
 - c. Research on what global players are doing with AI
 - d. Use of AI in autonomous driving and connected vehicles
4. Other topics
 - a. Ethical use of AI
 - b. Legal and regulatory issues
 - c. Data lineage
 - d. Energy efficient AI

Proposed Use Case by MOBI: Improving EV Battery Circularity Using AI

One proposed idea is to explore the majority of the above topics through the lens of a specific use case, rather than exploring each one individually. With this approach, the WG will have the opportunity to gain insights into many of the topics listed above while exploring use-case-specific impacts. However, this approach limits the WG's ability to explore each topic in great detail.

EV battery circularity is a great topic of interest for MOBI members because of its significant impact on the automobile, energy storage, and end-of-life management markets. Battery circularity is also an emerging market mostly driven by global regulations and increasingly urgent business needs. Therefore, there are many unanswered questions about how different technologies can increase efficiencies throughout the value chain. Because AI has wide applicability in the battery value chain, members are naturally inclined to ask the following questions:

- What role is AI currently playing in battery circularity?
- What kind of AI models, tools, and infrastructures are being used? What will be available in the future?
- What kind of gaps can the AI fill to improve battery circularity?
 - Improve Circularity - Extending product utilization, product design, efficient reverse logistics, use of recycled materials (e.g., robotics to breakdown the used product into reusable components) -> Digital product passport
- What kind of knowledge about AI is and will be required? What are the barriers and challenges to AI adoption in battery circularity?
- How can members collaborate to improve AI's use in battery circularity?



- How can AI help in complying with regulations?
- What kind of AI-infused products and services can be developed by members for circularity?
- What kind of investments should the members make to build AI-infused products/services?

Proposal: For a narrower scope, the WG can focus on the use of AI in end-of-life management instead of the entire life cycle.

Deliverable: White paper about the use of AI in improving battery circularity (can be limited to end-of-life management)

Completion schedule: End of June 2025.

Communications

- Weekly Meetings during MTS calls
- Meetings will take place virtually and will be recorded. Call notes and action items will be distributed after each meeting
- Documentation will be stored on MOBI Drive and made available via the MOBI Members Portal

References

AI and Circularity:

- <https://hbr.org/2023/06/how-ai-will-accelerate-the-circular-economy>
- <https://www.ellenmacarthurfoundation.org/artificial-intelligence-and-the-circular-economy>
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