



# Battery Lifecycle Solutions



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## Mission & Vision

**Mission:** Architect a fully closed & sustainable battery ecosystem that enables advanced value chains for our customers

**Vision:** Our batteries live multiple lives enabling energy technology for our customers & planet. "No battery goes untouched."





# Let's Make a Better Planet.



Toyota remains focused on achieving carbon neutrality by 2050, with an early target to make its North American manufacturing plants carbon neutral by 2035.

Toyota  
North America  
Focus Area



MATERIALS

Global Toyota  
Environmental  
Challenge 2050



United Nations  
Sustainable  
Developmental Goal



In North America, Toyota's regional strategy is focused on leading substantive progress in five core area:

- Expanding vehicle electrification
- Reducing carbon emissions
- Encouraging conservation through water stewardship
- Recycling materials
- Protecting biodiversity







# EV Battery End-of-Life Management

Toyota Motor North American has been collecting used Hybrid Vehicle batteries since 2010.

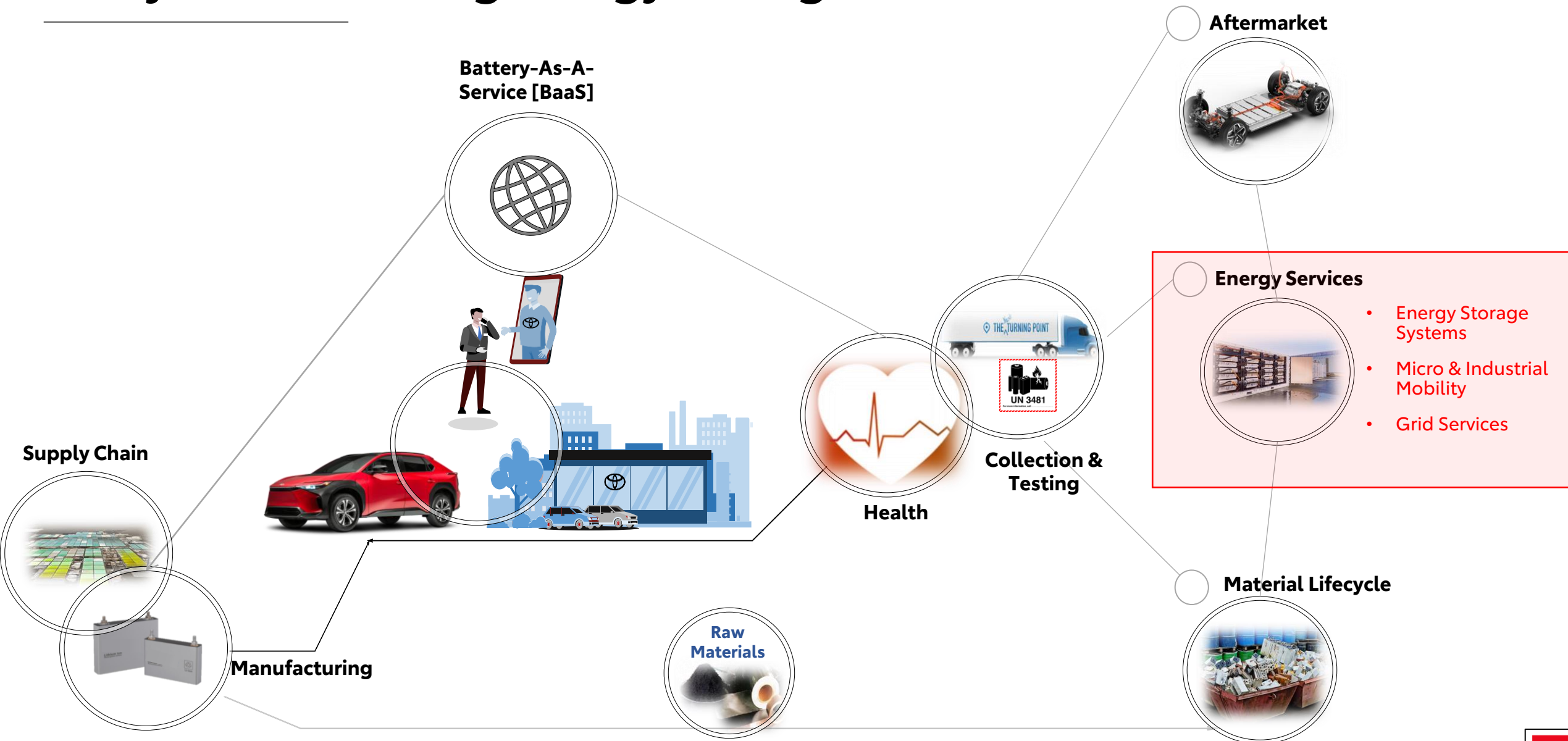


## What is our focus?

- 1**  **Toyota's Carbon Neutrality Goal** – make all manufacturing operations carbon neutral by 2035 and eliminate the use of CO2 emissions from the use of energy at our facilities by 2050
- 2**  **Regulatory Preparedness** – develop safe and scalable processes to manage batteries at end-of-life, compliant with current and future regulatory requirements
- 3**  **Operational Excellence** – maximize the value of batteries reaching end of life
- 4**  **Supply Chain Security** – recover materials from spent batteries from recycling, that can be used in new battery manufacturing or other industrial processes



# Our Roadmap is architecting a fully closed & sustainable battery ecosystem including Energy Storage...





# Value Chain Considerations

**Safety, Regulatory, Permitting**

**System Integration & Operations**

**Partnerships**

**Cell Procurement**

[New, Used]

