

FACT SHEET

Smart Manufacturing



About Us

First Mode develops and manufactures decarbonization solutions for heavy industry partners dedicated to the clean energy future. With a product mix of vehicle retrofits that enable hybrid, battery electric, and hydrogen fuel cell power systems, we accelerate mining and rail fleets on their Path to Zero™ emissions. These solutions include infrastructure innovations and prove decarbonization is possible even in constrained environments—for people and planet.

Factory as a Product

- Located in the south of downtown (SoDo) district of Seattle, Washington, the factory is equipped to manufacture the retrofit power systems for each of our retrofit products.
- As a digitally configurable and high change-velocity environment, the factory is software defined rather than hard point constrained—with a pulsed assembly line and set of production processes that can rapidly adjust to meet a range of manufacturing needs.
- Bar codes on all inbound inventory, warehouse shelves, and operation stations help staff keep everything tracked in real-time using an ambient data collection digital traveler that prevents ghost inventory and off-process data loss.
- Assembly line sequence and stations run on the factory's Manufacturing Execution System, which provides operators digital work instructions and real-time data inputs. Engineering personnel and factory management also receive live production and quality status updates to ensure assembly is on track and on time.
- Torque data generated through Internet of Things (IoT) tools and end of line Quality Assurance test data are also tracked and stored digitally, and then tied back to each product's serial number.

Sustainability Impact

The industrial sector obtains, moves, and transforms the materials required for clean energy. It also produces a quarter of worldwide carbon dioxide emissions. The First Mode factory plays a crucial role in our deployment of the decarbonization products helping the industrial sector reduce its carbon footprint today as it fuels the cleaner, more sustainable world of tomorrow. By manufacturing the components and systems for up to 150 vehicle retrofits annually, the factory will deliver an impact equivalent to taking up to 90,000 cars off the road for one year. It is additionally equipped to double its annual throughput and equivalent climate impact as customer demand grows.

\$22M

Invested by First Mode in factory development.

40,000 sq ft

Sized manufacturing facility.

120 local jobs

Supported factory construction.

Up to 60 local jobs

Targeted for future throughput goal of 300 retrofits/year.

180,000 cars off the road

Projected equivalent climate impact of future throughput goal/year.