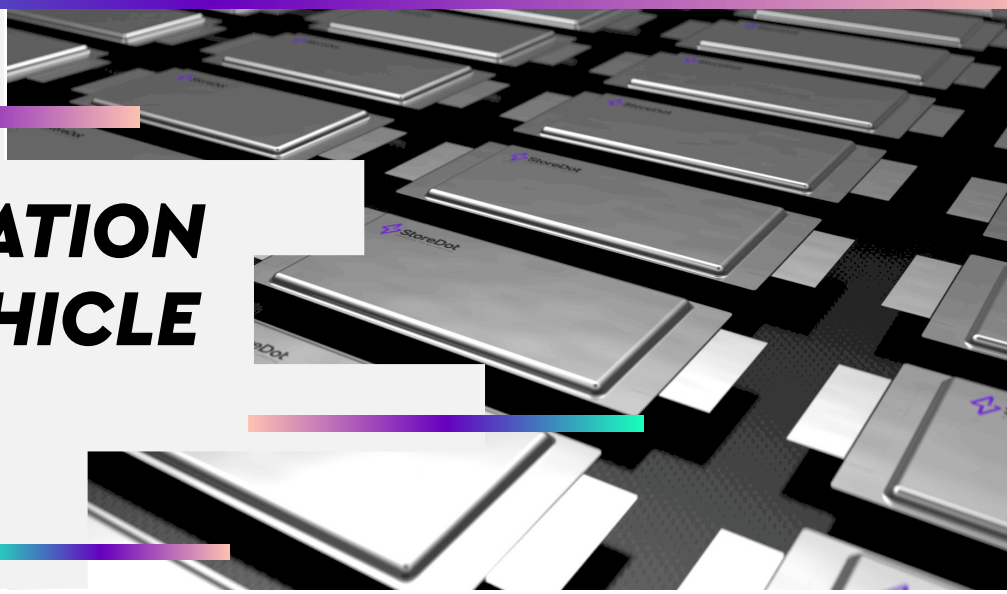


NEXT-GENERATION ELECTRIC VEHICLE BATTERIES

FOR A SUSTAINABLE FUTURE

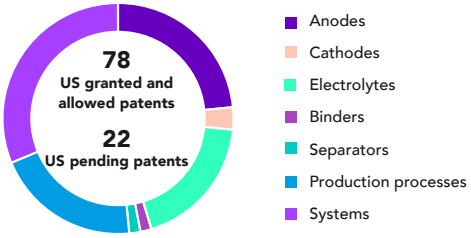
Our Vision – Zero Emission Mobility

EV batteries are a key factor in the much needed transition to zero emission mobility. A new innovative chemistry technology must be developed in order to make the leap in charging time reduction - which is the key for EV mass adoption.
Focusing on the busy lifestyle of the drivers and the charging experience, StoreDot has achieved what was considered impossible. We have developed a groundbreaking technology that enables extreme fast charging of the EV battery in under 10 minutes, with high energy density and cycle life performance that doesn't degrade. Our game-changing XFC technology eliminates range and charging anxiety and addresses the key pain points of the EV driver, thus facilitates the upcoming mass adoption of EVs.

Extreme Fast Charging (XFC) Battery Technology

EVs face significant battery-related challenges: driving range, battery cost, weight, and recharging times that may take hours.
StoreDot addressed these challenges by revolutionizing the conventional Li-ion battery and its underlying chemistry. We enable this extreme fast charging solution by replacing the graphite in the cell's anode with nano-size silicon particles, incorporating proprietary synthesized organic and inorganic compounds in the anode and in the electrolyte and redesigning the cell – all of which are optimized by an Artificial Intelligence layer.
StoreDot's solution is mass-produced on available standard production lines and as such requires no special processes or equipment.

Patent Portfolio



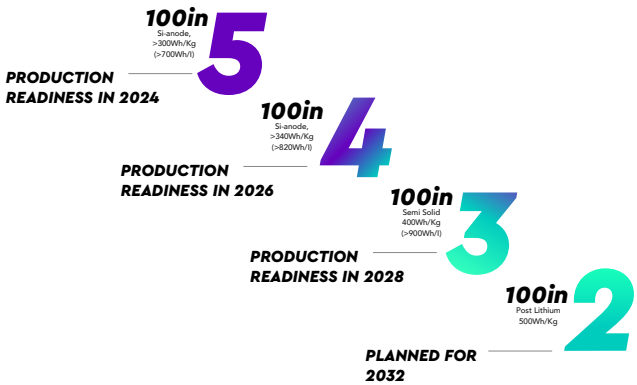
Highlights

- Launched in 2012 with over 500 Man-years of R&D
- HQ in Israel; R&D center in USA; Production in China
- World leading team of experts includes 40 PhD researchers
- Unique know-how that covers the entire battery ecosystem
- Extensive IP portfolio: over 100 granted and in process patents with global coverage
- Innovation across all battery domains: materials (cathode, anode, separator, and electrolyte), cell design, pack optimization, BMS and charging integration
- Strategic manufacturing partnership with battery manufacturer EVE Energy: standard Li-ion production lines
- $200M Raised to date
- Comprehensive network of partners, including 5 EV OEMS:

Volvo, Polestar, Daimler, VinFast, bp, OLA, EVE, TDK, Samsung

Range on Demand™ – Delivered!

Aiming to achieve the ultimate vision of fully charging an EV in just 5 minutes, StoreDot developed a comprehensive product road map, starting with the '100in5' battery cell which enables an EV to be charged for 100 miles, or 160km of range in just 5 minutes of charging. Through this '100inX' product road map, our battery technology is optimized for the best driver experience, offering the much needed 'Range on Demand™': 100 miles, or 160km, charged in 5 minutes (2024), extreme energy density (XED) solution of 100 miles charged in 3 minutes by 2028, and the ultimate goal of 100 miles to be charged in 2 minutes by 2032.



Challenge solved (1) : XFC at Any State of Charge

Fast charging with current technology

- Available models do not leverage full capability of available chargers
- Maximal charge rate is achieved only over small portion of pack capacity
- Charge rate slows down as SoC increases

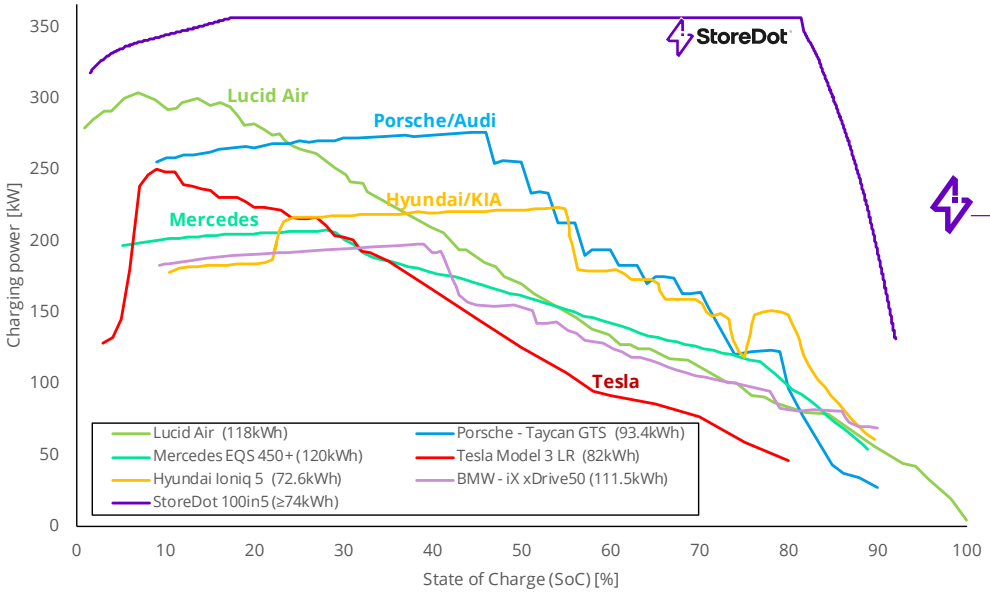
StoreDot's 100in5 technology

- Only cell chemistry to support full LV3 charging
- Enables 350kW charging for packs >~75kWh
- Extreme fast charge at any SoC of the battery
- Consistent 350kW charging over 10-80% SoC

Leadership

StoreDot's strong and cohesive leadership team brings massive track record leading global corporations.

Doron Myersdorf, DSc
CEO and Co-Founder
Dr. Myersdorf founded StoreDot with the vision of a better planet, after a successful top executive career at SanDisk, where he drove the mass adoption of the Solid State Drive flash memory solution.



StoreDot's solution:
- **Always 100in5, any car, any time- no matter what the SoC is when charging**
- **>x2 faster than any other solution in the market**

* StoreDot 100in5 simulated 74kW pack using a 350kW 500A limited charger Sources:

1) www.p3-group.com
2) www.insideevs.com

Challenge solved (2): Fast Charging Rapidly Degrades Battery

Real-world industry's challenge

- In today's market drivers with long commute or no access to overnight charging have to sacrifice battery health for convenient daily use
- Actual cases show rapid cell degradation even when fast charging only occasionally

StoreDot's XFC solution changes the game

Driver can fast charge every time with no harm to the battery

- 1200+ consecutive extreme fast charges (up to 3X faster)
- ~75% less degradation
- With charge rate consistency at any SoC

Cell Commercialization Roadmap

- StoreDot's EV-grade silicon-dominant anode based XFC A-samples are being evaluated by leading EV OEMs
- Samples produced on standard production lines with manufacturing partner
- Mass production-readiness: 2024

Visit our website