



ENSURGE™

Ensurge Micropower ASA

Terje Rogne

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Forward-looking Statements

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Background and next 12 months



Terje Rogne - Background

- Tandberg ASA
 - 15 years
 - From a «early-stage company» to a trade sale to Cisco for about NOK 19bn
- Instrumental in three spin-offs from Tandberg
 - Nordic VSLI (today Nordic Semiconductor)
 - Tandberg Television (acquired by Ericsson in 2007 for NOK 9bn)
- Nordic Semiconductor
 - Chairman
 - Current market cap of NOK 24bn
- Nokas
 - Chairman 2008-2018
 - Increased in size from NOK 0.75bn revenues in 2008 to NOK 7.5bn revenues in ten years
- The right background to be an important contributor to Ensurge Micropower
 - Not a battery expert, but with a strong track-record with regard to building strong teams and rapidly growing tech companies

The reason why I took this job?

- Visited the company in April 2023 in San Jose
- The company has an impressive group of engineers that has developed a Solid-State lithium battery
- In the testing- and manufacturing facility in San Jose, CA, they have been able to do extensive testing throughout the development phase
- The customers and partners I met, are in deep need for the Ensurge micropower battery - full focus is now on ramping up production
- The proof is in the pudding – we have to deliver on our first production order of 150k batteries to a medical wearables company
- Upon successful completion of this production order, Ensurge will capitalize on first mover advantage
- Above NOK 600 million invested last three years
- Testing- and manufacturing facilities not to be owned by Ensurge in the future – potential for freeing up capital

IOT is a perfect match for the Ensurge battery

- I have a deep understanding of the IOT market from my previous positions
- The big challenge for the IOT industry now is to get access to more efficient batteries, currently not available in the market
- What Ensurge is bringing to this market
 - **Energy Harvesting** – Solid State is perfect for recharging the battery whenever there is excess power in the system
 - **Pulse factor/Energy Transfer** – 5X current batteries in the market
 - **Form Factor** – What shape that is needed
 - **Energy Density** – Superior to any other player in the market given a fixed size of the battery

The 6-9 months plan (phase 1)

- Get the 150k battery order to the customer
- That will enable us to attract new customer relationships
 - A perfect proof of concept
 - We will send the finished batteries to customers – seeing is believing
- Get the cost levels further down
 - Co-Sharing of the testing and manufacturing facility
 - More than 50% of the monthly cash burn is from this part of the facility
- We believe a Co-Sharing agreement is highly attractive for a partner
 - In the middle of Silicon Valley
 - The Inflation Reduction Act has made these facilities a scarcity
- Make sure that Ensurge gets it fair share of grants available

9 months and beyond

- Scale the manufacturing to the already steady growing pipeline
- Increase the efforts towards the strategic partners and other Fortune 500 companies
- License our technology to verticals that will be outside our focus areas
 - We will not be able to serve all verticals
 - Very large customers typically want to control the production process themselves
- Build a solid organization able to handle the growth ahead



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The Technology and the superior Performance

Unique differentiated technology demonstrated



Novel architecture

- Delivers 2x energy density compared to Li-ion
- 10 μm steel substrate, anode-less, efficient stacking/packaging



First high-VED* mAh solid-state lithium microbattery

- 1-100 mAh capacity
- Targeted at wearables, hearables and IoT devices



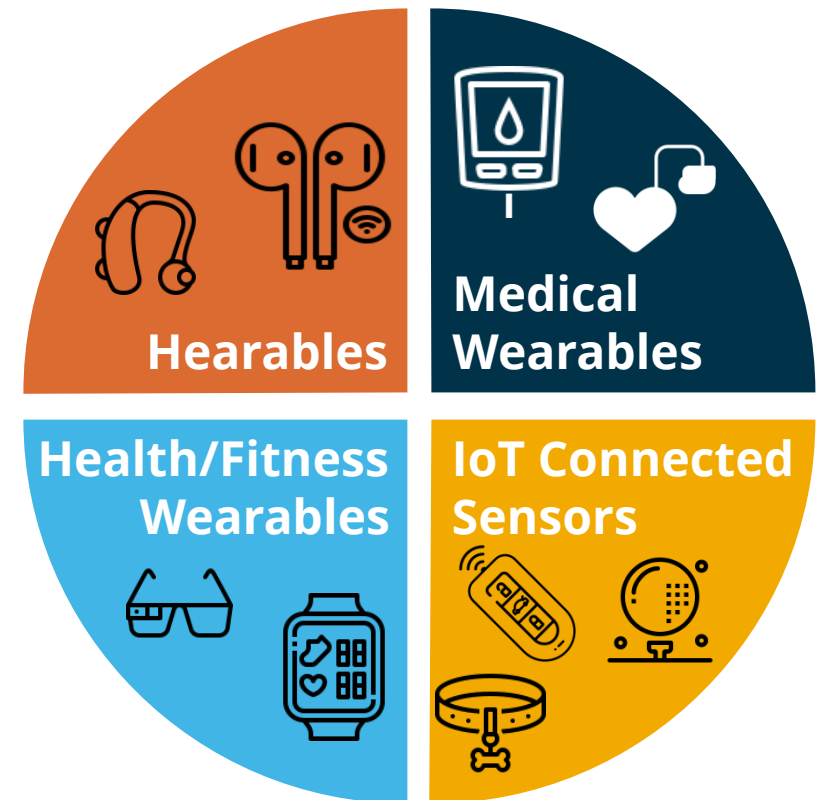
Significant progress achieved

- Cycling, capacity
- Fast charging



Go-to-market plan

- Engaging with strategic customers and partners



*VED: Volumetric Energy Density

Transforming the microbattery industry by delivering 1st mAh capacity solid-state microbattery*

Targeting Wearables, Hearables and Connected Sensors (IoT) markets

billion+ units market opportunity

Ensurge microbattery unique benefits

Higher energy density – 2X

More energy capacity in same space or smaller battery for same energy capacity

Customizable form factor

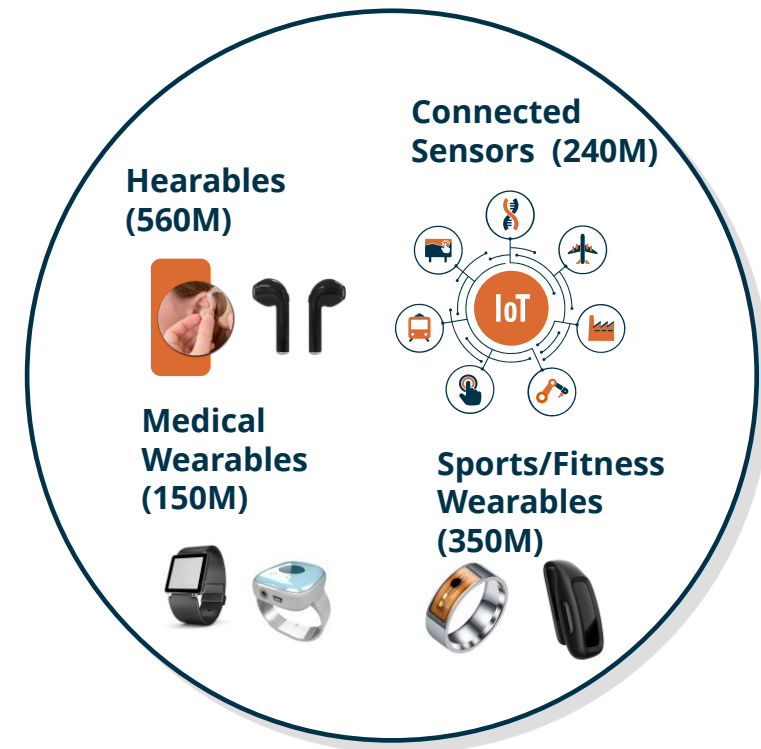
Optimized for customer device needs

Benefits of solid-state vs. current players

Fast charge – 3X

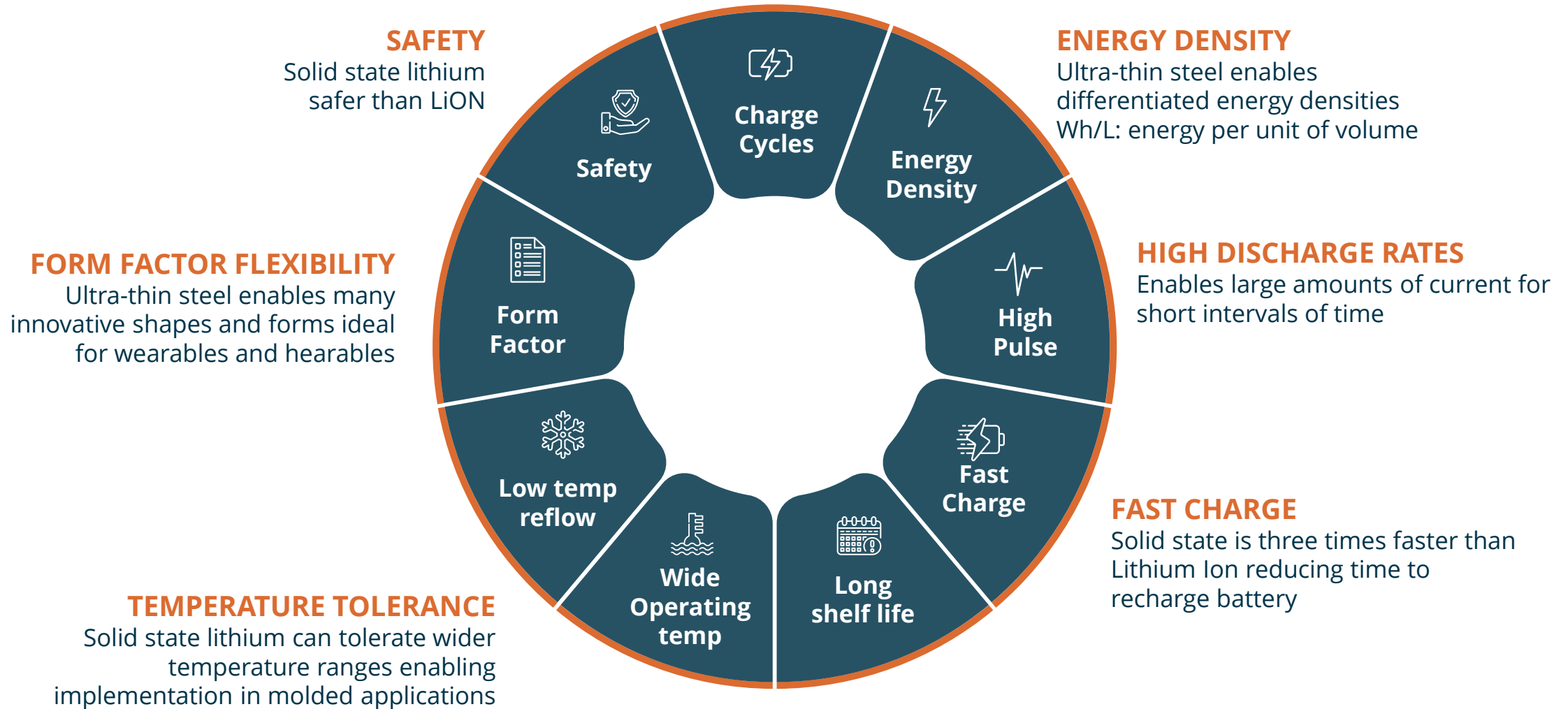
High pulse discharge - 5X+

Charge cycles – 2X+



* mAh and microbattery refer to 1-100 mAh capacity required by a range of personal electronics, medical devices and IoT connected sensors

Value Propositions Driving **BOTH** Strategic and Customer Engagements



Innovative microbattery architecture

Ultra-thin 10 μ m steel substrate

- High energy density
- High mechanical strength

Roll-to-Roll manufacturing facility

- High throughput, low cost
- Conventional manufacturing environment







Innovative cell-stacking & packaging

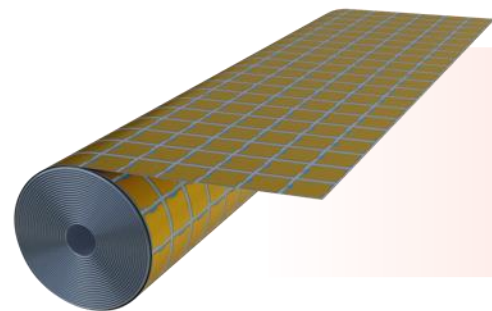
- Maximizes energy density
- Customizable
- Contacts for direct PCB connection

Established anode-less solid-state chemistry

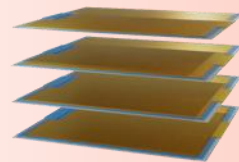
- Lower cost
- 1000+ cycles
- Rapid charging and high pulse discharge

Ensurge: performance and customizability, at scale

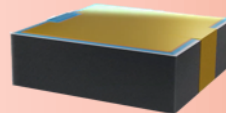
		energy density more battery life per unit volume	recharge cycles longer lasting hearables, wearables, sensors	charging speed improved user experience	safety no fire, explosion, heat risk	form factor enabling unique end products
	Ensurge SSLB	2x	2-3x	2x		rectangle ultra thin
	vs.					
	Li-ion button cell	1x	1x	1x		thick circle



Scale via roll-to-roll fabrication



precision stacking & encapsulation



Microbattery product platform



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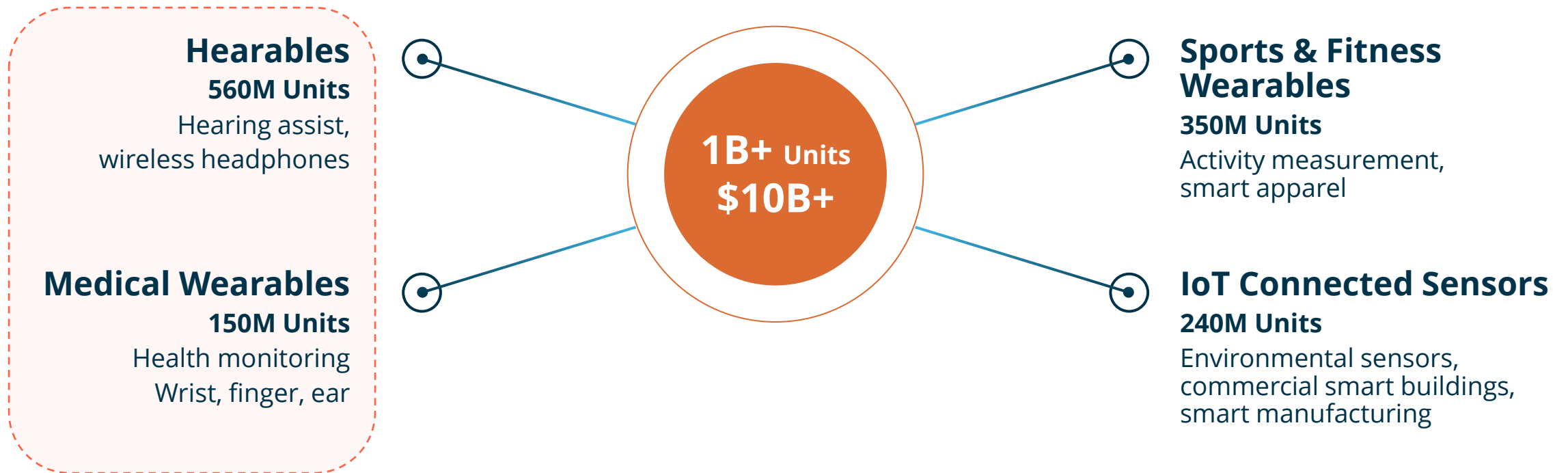
Go-To-Market



Growing Addressable Market (\$10B+)

- We are addressing a \$10B+ and growing micro-batteries market with unique game-changing solid-state technology.

Established and growing markets



Our Twin Go-to-Market Strategy

Strategic Partners

- Partner with major technology companies
 - Engage with major consumer device companies
 - Focus on signing funded development agreements
 - Wearables & hearables requiring unique and proprietary technology development for their own products
 - Leverage Ensurge high energy density core cells
- Technology commercialization
 - Up front and on-going NRE and/or equity investments
 - Licensing model
 - Manufacturing rights, thru royalty and/or investment

Commercial Customers

- Wearable, hearable and Industrial IOT markets focused on innovative solutions
- Deliver customized complete batteries
 - Require performance or form factors not available
 - Fast charging, energy density, and form factor matter
- The market is in need for our battery
 - The Ensurge battery is critical to get new product offerings with new features to the market

How to scale – seeing is believing

- Get a manufacturing ready batteries available for the market
 - Already test batteries manufactured
- Complete the first 150k battery order to our first customer
 - Representing a game changer
- Distribute finished batteries to our growing pipeline of customers - for them to test
- Distribute finished batteries to our Fortune 500 partners (3 companies) - for them to test
- Convert our pipeline and strategic partners into significant battery purchase orders



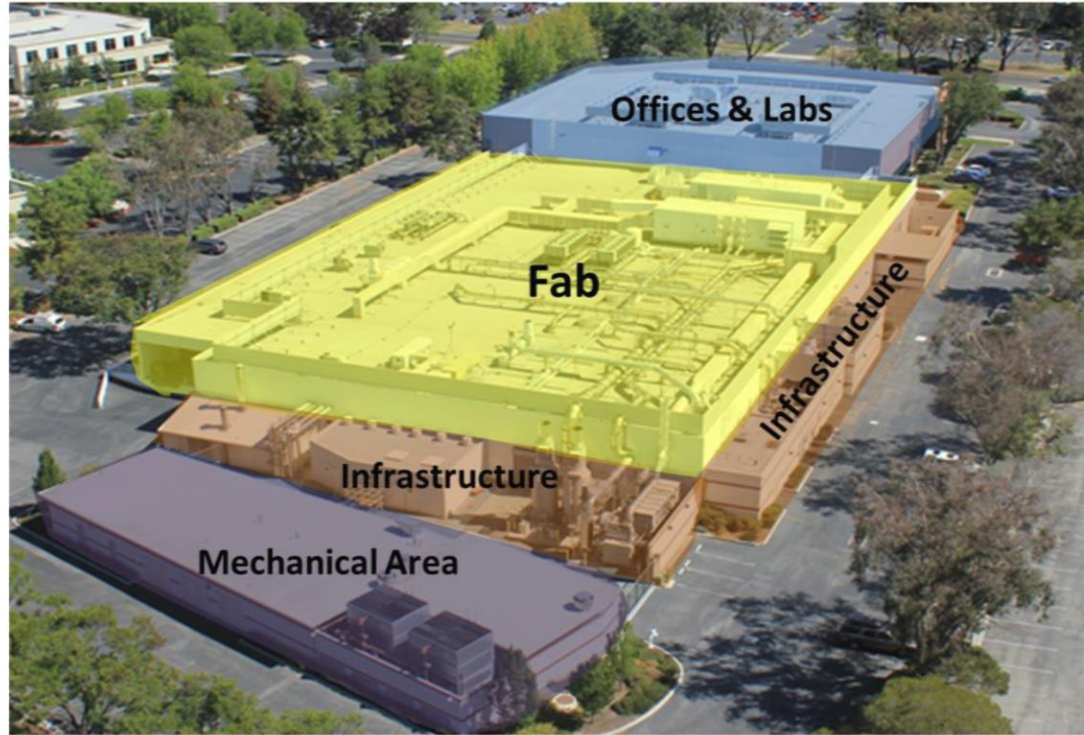
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HQ and the manufacturing facility

Manufacturing facility in San Jose, California

San Jose, CA



- 20,000 ft² (2,000 m²) cleanroom
- 70,000 ft² (6,500 m²) office & labs
- Class H5 manufacturing facility

State of the Art Facility in the center of Silicon Valley

- Qualcomm invested USD 100m in the facility
- Taken over by Ensurge in 2017 for a fraction of the original cost
- Unique composition of machinery, clean rooms and manufacturing equipment for battery manufacturing and/or semiconductor companies
- Significant valuation upside to current balance sheet figures
- A stand alone very attractive acquisition target in the current «Inflation Reduction Act» environment
- Ensurge will invite partners to co-invest in the facility
 - Longer term, Ensurge likely to divest the facility and to enter into contract manufacturing agreements

Summary

First Solid-State mAh & 10's mAh Microbattery



Roadmap fits the \$B market needs

- After delivering on first production order, a huge market will open up for the company
- Experienced leadership and management team



Targeting multiple BU, multiple \$B market

- Hearables, wearables, medical wearables, IoT
- Ensurge microbattery improves existing applications and enables new ones



Novel Architecture

- Delivers superior energy density, customizable form factors, 2X charge cycles, fast charge and high pulse discharge
- 10µm steel substrate & innovative stacking/packaging



Ready to deploy

- Significant progress achieved
- Ongoing process to ramp up production

