

INVESTOR PRESENTATION

October 2017

*Battery technology that will
revolutionise the global
battery market*



ULTRACHARGE

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UltraCharge is a battery technology company which will revolutionise the global battery market

ASX Code: UTR

Total shares on issue: 635 m

Escrowed shares on issue: 25%

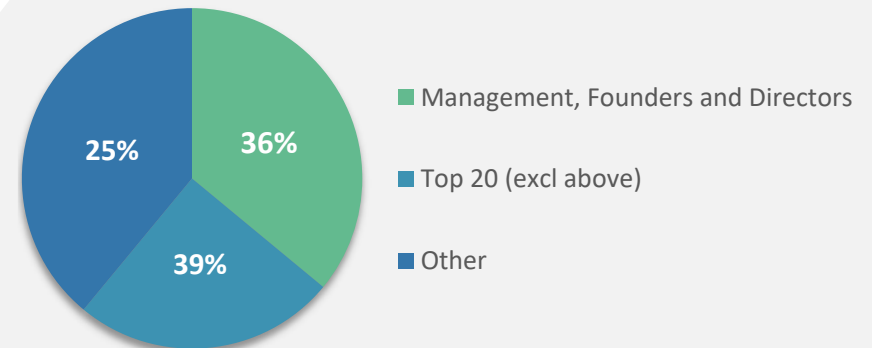
Performance rights: 41 m

Options: 82 m

Market Cap. @ 3.4c: A\$21M

Cash (30 Jun 17): US\$1.8 m

CAPITAL STRUCTURE





ADDRESSABLE MARKET

- US\$93.1 billion lithium-ion battery market by 2025.
- US\$185 million flow battery by 2020.



ON TRACK

- Shipment of anode material for commercial clients by end of 2017.
- Production of 1000mA/P pouch cell battery by end of 2017.



EXCELLENT DEVELOPMENT RESULTS

Working on increasing production efficiencies to meet customer requirements



MARKET DRIVERS

Massive increase in demand due to growth of renewable energy, consumer demand for faster charging, longer lasting batteries



KEY PARTNERSHIPS

In place with NTU, Epsilor, Leclanché and EVT Energy.



LEADERSHIP & MANAGEMENT

Experienced team with key expertise in battery technology

THE BOARD



Doron Nevo,
Chairman

Over 30 years experience in the high-tech industry. Co-founder & CEO, KiloLambda. CEO of NKO and of Clalco. BSc in Electrical Engineering from the Technion. MSc in Management from NYU



Kobi Ben-Shabat,
Co- Founder & CEO

Vast leadership experience. Founded OPS, with annual sales of \$14M, acquired by ASX listed Hills Limited. Holds an BA and MBA in Marketing and Information Technology.



David Wheeler

Over 30 years in executive positions. Experienced director & corporate advisor. Fellow of the AICD, Director of several ASX listed companies.



Yuri Nehushtan

Managing partner of Nehushtan, Zafran, Scharf, Jaffe & Co., Law degree from Hebrew University in Jerusalem. Masters from the London School of Economics.



John Paitaridis

25 years executive experience. Optus managing director. Member of Australia's Institute of Company Directors. Deputy chair, Australia's Information Industry Association. Bachelor of Economics.



Sharon Ben-Shabat VP
Operation

Over 17 years of experience in senior management of operation & manufacturing. Global design transfer management & NPI programs in multi locations with most advanced technologies. Extensive practice with Lean & SIX sigma methods. BA Studies from Haifa University



Danny Hacohen,
VP Marketing, Sales, Bus. Dev.

Over 25 years in high-tech. Multiple senior positions in business operations. BA in Social Science & Mathematics. MBA studies, University of Bradford.



Dr. Linoam Eliad,
VP, R&D

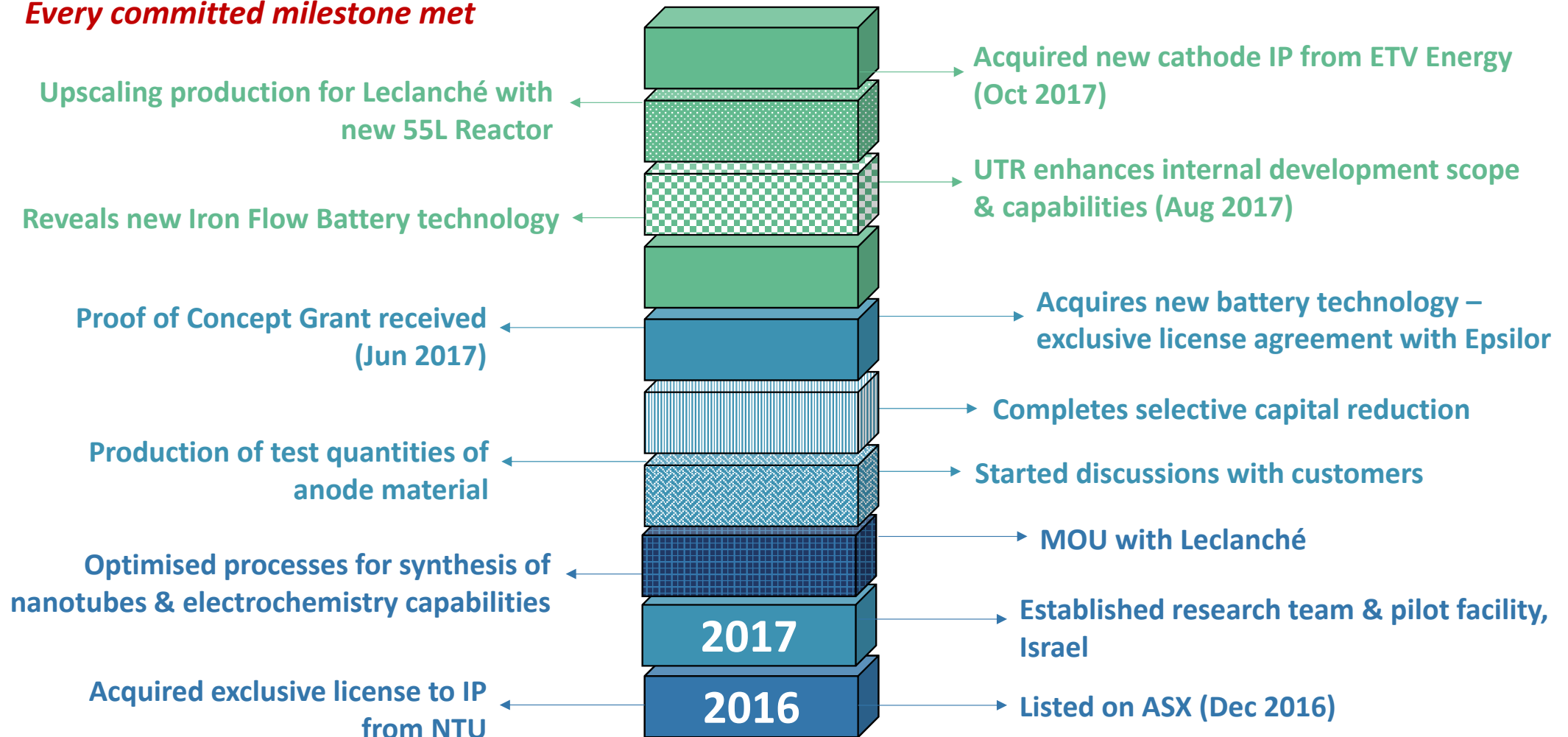
15 years in R&D of nano-materials for batteries and super capacitors. Lead projects for large corporations, smaller start-ups, & US Air Force. PhD in Physical Chemistry & Electrochemistry from Bar-Ilan University, Israel.



Prof. Chen Xiaodong,
Advisor

Associate Professor, School of Material Science and Engineering, NTU, Singapore. Domain expert in nano-bio interfaces & programmable materials for energy conversion.

Every committed milestone met



TECHNOLOGY TO ENHANCE ENERGY STORAGE IN LITHIUM-ION AND FLOW BATTERY MARKETS

ANODE TECHNOLOGY

- New Lithium ion Battery Technology
- Exclusive license to patented anode technology from the Nanyang Technology University in Singapore (NTU)



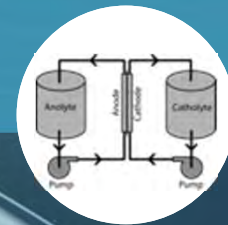
CATHODE TECHNOLOGY

- New Lithium ion Battery Technology
- Acquired a license to cathode IP from EVT ENERGY
- Access to new technology and industry leaders



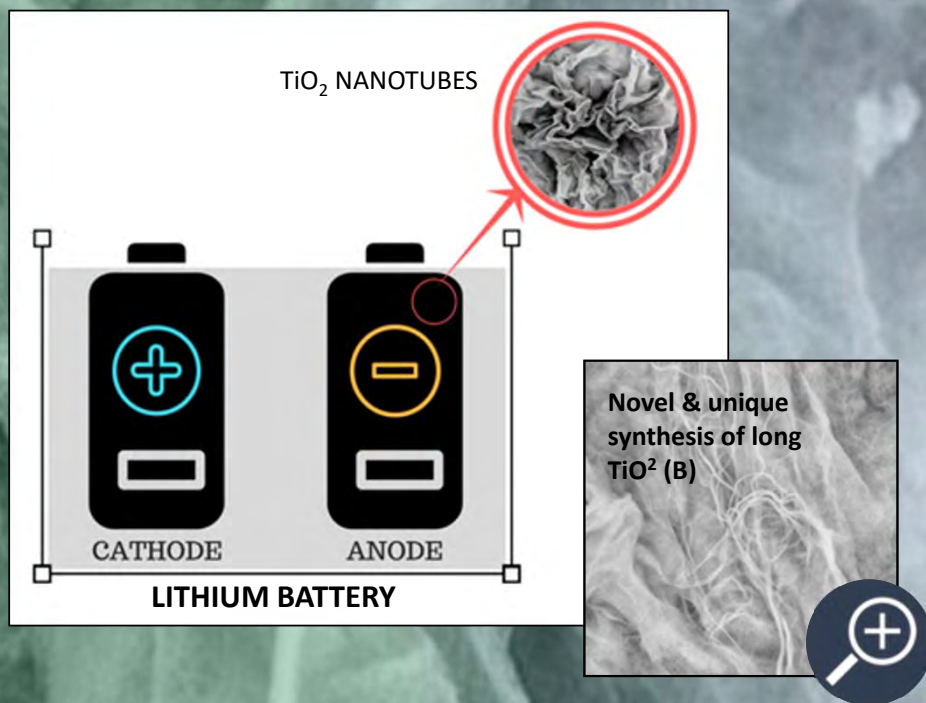
IRON FLOW BATTERY

- New Battery Storage Technology
- Exclusive license to patented iron flow battery technology from Epsilor
- This technology will allow efficient use of renewable energy production



ANODE TECHNOLOGY – UTR's technology

Breakthrough technology for lithium batteries replaces graphite used for the anode (negative pole) with UltraCharge's nanotube gel material made from titanium dioxide (TiO_2).



ULTRACHARGE

Significant benefits over current anode materials:



RAPID CHARGING

Smartphones: 70% charged in <6 mins
Electric cars: dramatic increase in capabilities with just 10-15 minutes charging



COST EFFICIENCY

Use of raw materials and patented affordable production method



ENHANCED SAFETY

Less carbon in batteries = No thermal runaway & overheating – safer than traditional lithium-ion batteries



LONGER LIFE CYCLE

Handle 20 times more charging cycles than today's batteries (between 10,000 and 20,000 charging cycles)

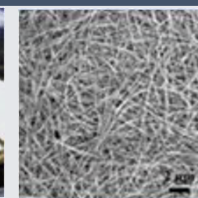
The Innovation:



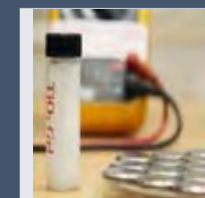
Patented technology low cost raw material. Simple hydrothermal stirring



TiO₂ nanotube gel



Electron microscopy of titanium dioxide nanotubes



Graphite replaced by titanate powder

UTR'S TECHNOLOGY IS AN IMPROVEMENT ON CURRENT ANODE TECHNOLOGIES

	Capacity (mAh/g)	Typical Charge Time (hours)	Cycle life	Safety	Cost	Technology Complexity
UTR's Nanotubes (Titanium Dioxide)	~250	0.02	> 10000	Medium	Low - Medium	Market Standard
Graphite	< 350	> 2	< 1000	Low	Low	Market Standard
Silicon	400 – 2500	2 - 3	700 - 1000	NA	Low	High
LTO	~ 170	0.02	7500	Medium	Medium	Low

Global lithium-ion battery market expected to reach **US\$93.1 billion by 2025**, growing at a CAGR of 17%
[Grand View Research].



ELECTRIC
VEHICLES



PORTABLE CONSUMER
ELECTRONICS



GRID STORAGE
SYSTEMS

High drivers of lithium-ion battery demand [EPS News]

Immediate market is electric vehicles and industrial applications:



CARS



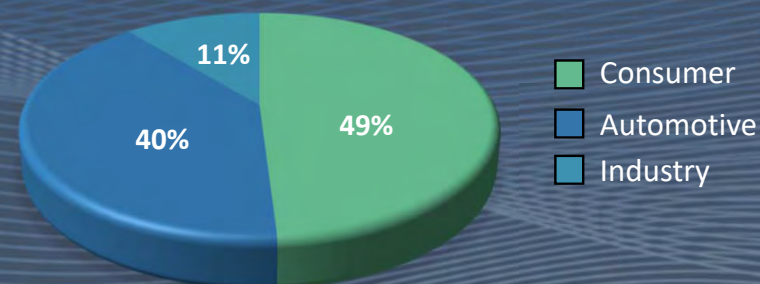
BUSES



FORKLIFT

Electric vehicle market predicted to be worth US\$731 billion by 2037 [Global Newswire]

Global Lithium Market*



*IDTechEx Research report, Lithium-ion Batteries 2016-2026

CATHODE TECHNOLOGY

ULTRACHARGE

High voltage cathode
for lithium ion batteries



P
R
O
D
U
C
T
S

Cathode

Battery Pack (with graphite anode)

Battery Pack (with UTR anode)

EXPECTED REVENUES 18-24 MONTHS

ADVANTAGES



HIGH
ENERGY



SMALLER
SIZE

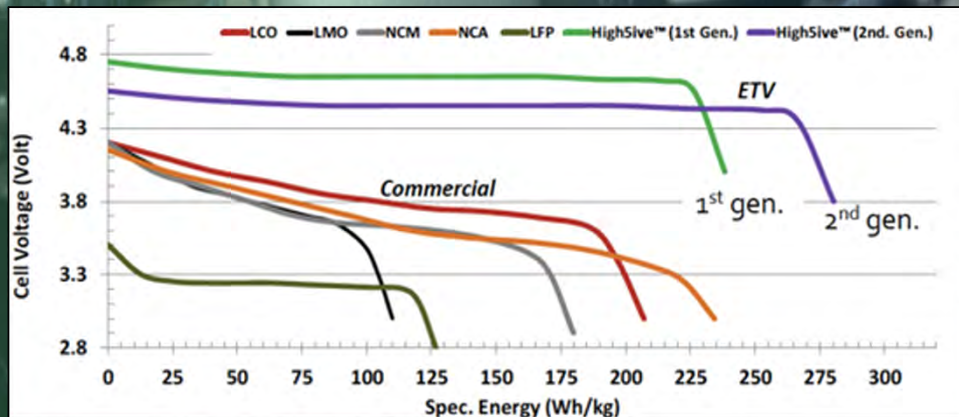


HIGH
VOLTAGE



HALF
COSTS
(THAN
COBALT)

COMPARISONS WITH OTHER CATHODES ON MARKET



1st generation:

high voltage, high energy

2nd generation:

in development, higher
voltage, higher energy

IMMEDIATE MARKETS



AVIATION



POWER BIKES



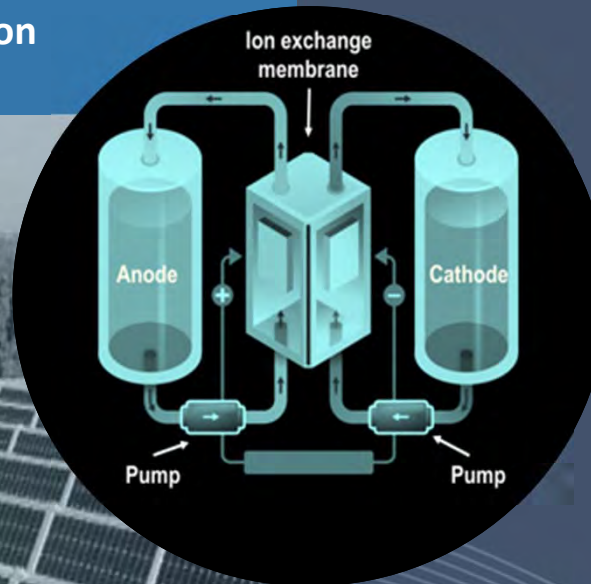
DEFENSE

US\$100 - \$500 million each
[EVT Presentation].

IRON FLOW BATTERY

ULTRACHARGE

High power density flow battery based on breakthrough Nano-iron anodes



ADVANTAGES

Very high MW capabilities

Low installation cost -
\$250/kwh vs CAPEX:
~\$200/kwh DC

Long term stability

Safer & more environmentally
responsible than traditional
lithium-ion batteries

Low manufacturing & running
costs – lifecycle costs by
2020: 13c/kwh vs Telsa's
PowerPack: 15-16c/kwh

Ability to supply 4-12 hours
continuous power without
recharge



Storage of billions of
Watt-hours from
renewables



Load shifting
to peak demand



Efficient utilization
of production



UPS for large users
and long times

Energy storage systems expected to witness
fastest growth over forecast period at CAGR of
21% from 2017-2025 [EPS News].

MARKET



Electrification of Rural
Areas - \$154B



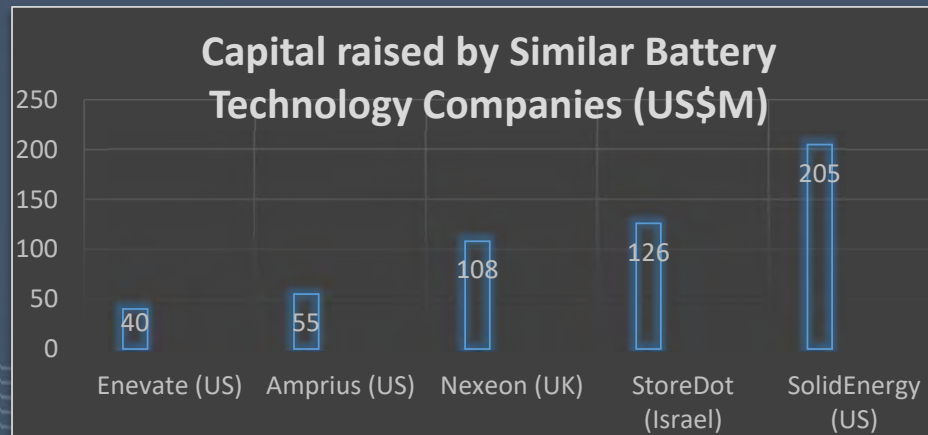
Replacement of
Gensets on Remote
Islands - \$18B



Replacement of
Gensets in Developing
Countries - \$11B

Global flow
battery market to
**reach US\$185
million by 2020.**
[Businesswire]

COMPARATIVE COMPANIES



Source: CrunchBase, TMT Analytics

Examples of private companies established within the last five years similar to UTR. With Commercialisation slated within the next two to three years.



StoreDot is a similar Israeli company (private), which is two years ahead of UTR in terms of development, scaling facilities and pilot production. The company has a valuation of US\$500 million and has recently raised US\$60 million [Bloomberg].

UltraCharge will initially focus on applications that bring simplicity for the energy storage market, by offering a game-changing battery that is: ***Fast charging, has enhanced safety, is cost efficient, and has a longer lifespan.***

PHASE 1

1. Production of test samples of Anode material
2. Ship samples to selected clients for commercial evaluation
3. Potential 1st Business Collaboration

Completed

PHASE 2

1. Ramp up production capabilities
2. UltraCharge to sell anode material at limited volumes
3. Initiate license agreements to Tier 1 battery manufacturer

12 months

PHASE 3

1. Achieve mass production capabilities
2. Ability to sell volumes Anode material to battery manufacturers
3. Provide multiple licenses to battery manufactures

Within 24 months

The ability of Ultra Charge to meet these timelines is subject to various factors including availability of staff and equipment at production facilities and Ultra Charge Anode material being suitable for use by end users in accordance with its proposed business plan. Ultra Charge believes that the funds raised under the public offer will be sufficient to commence production and sales of the Anode material. However, grant financing cannot be guaranteed and further funding may be required to meet the objectives stated above.

STRATEGIC PARTNERSHIPS



Nanyang Technology University (NTU), Singapore

Leading technology university. UltraCharge has an exclusive license over the anode material developed at NTU.



Leclanché, Switzerland

One of the world's leading fully integrated battery energy storage solution providers. Ultracharge has a MOU in place to undertake a project, focused on the electrical bus market.



Epsilor Electric Fuel Limited, Israel

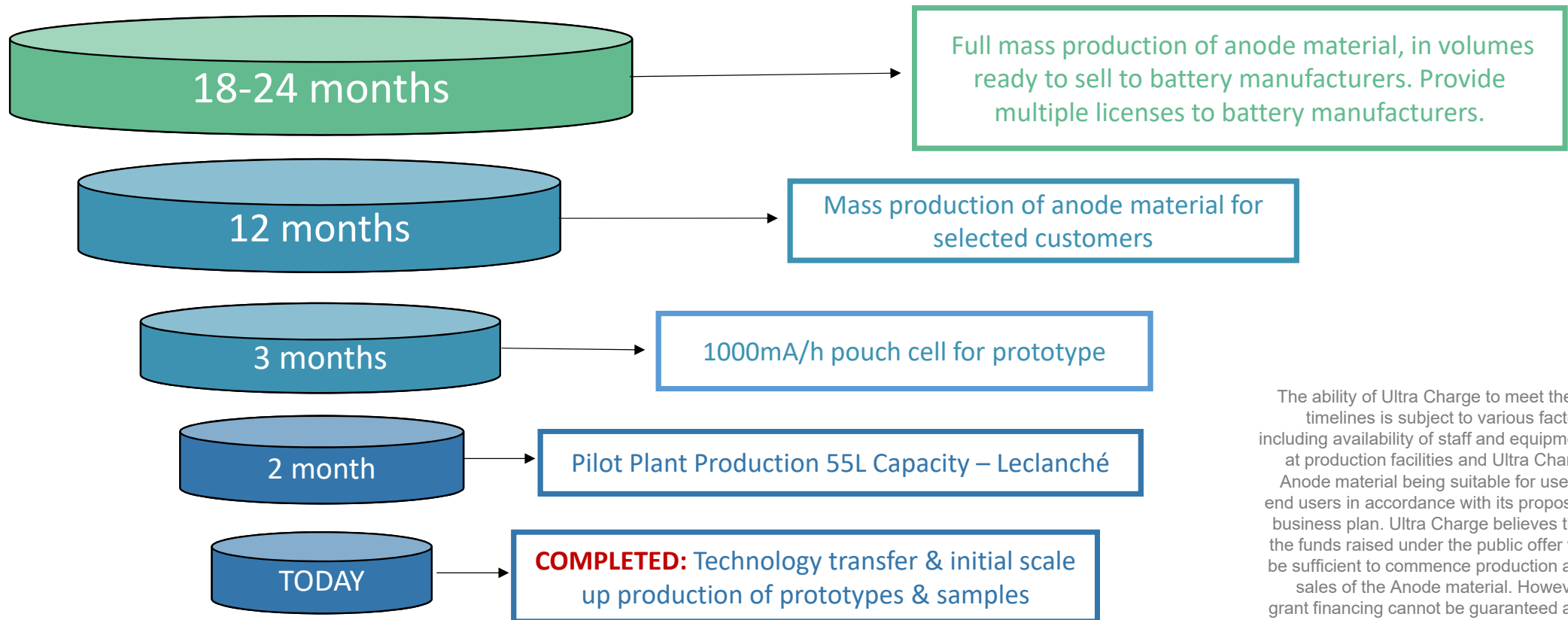
Subsidiary of Arotech Corporation's power sources division. UltraCharge has a licensing agreement which provides an exclusive license option for new battery intellectual property (Iron Flow Battery).



EVT Energy

Israeli battery technology company established in 2008. UltraCharge has access to EVT's high voltage cathode IP.

UltraCharge's energy storage technology is a game-changing battery that is: ***Fast charging, has enhanced safety, is cost efficient, and has a longer lifespan.***



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RAPID CHARGING TECHNOLOGY



ENHANCED SAFETY



**HUGE GROWTH MARKET
PROJECTED FOR LI-BATTERIES**



IP SECURED



LONG LIFE SPAN TECHNOLOGY



COST EFFICIENT



**STRATEGIC COMMERCIAL
COLLABORATIONS IN PLACE**



FAVOURABLE ECONOMICS

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UltraCharge

Israel
Head Quarters

Israel
R&D Facility

Brisbane
Product Development