



**An Exceptional Lithium Ion Battery**

## **Corporate Presentation**

**Electric Mobility  
Energy Transformation  
Climate Change Mitigation**

**Feb. 17th, 2021**

**Toronto Stock Exchange (TSX:EFL) & (OTCQB:EFLVF)**



*This presentation contains forward-looking statements, including statements that relate to, among other things, revenue forecasts and in particular the revenue forecasts for the fiscal year ending September 2020 and the calendar year ending December 31, 2020, continuation of anticipated positive EBITDA, preparation of US listing, anticipated further sequential revenue growth in fiscal 2020, the ability to satisfy the Company's order backlog, the Company's ability to satisfy its ongoing debt obligations, anticipated increased collaboration with OEMs and OEM channels constituting a source of sales growth for the Company, anticipated continued increase in sales momentum in fiscal 2020 through OEMs and directly to large global companies, including Fortune 500 companies, the future direction of the Company's business and products, the effect of the ongoing global COVID-19 public health emergency on the Company's operations, its employees and other stakeholders, including on customer demand, supply chain, and delivery schedule, the Company's ability to source supply to satisfy demand for its products and satisfy current order volume, technology development progress, pre-launch plans, plans for product development, plans for shipment using the Company's technology, production plans, the Company's markets, objectives, goals, strategies, intentions, beliefs, expectations and estimates, and can generally be identified by the use of words such as "may", "will", "could", "should", "would", "likely", "possible", "expect", "intend", "estimate", "anticipate", "believe", "plan", "objective" and "continue" (or the negative thereof) and words and expressions of similar import. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements. Certain material factors or assumptions are applied in making forward-looking statements, and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from expectations include but are not limited to: that current customers will continue to make and increase orders for the Company's products, and in accordance with communicated intentions, that the Company's alternate supply chain will be adequate to replace material supply and manufacturing, that the Company's interpretation of the effect of any comfort given to Litarion's auditors of the Company's financial support for Litarion's operations is correct, and that Litarion's insolvency process will proceed in an orderly fashion that will satisfy Litarion's debt without a significant negative effect on the Company or its assets, actions taken by creditors and remedies granted by German courts in the Litarion insolvency proceedings and their effect on the Company's business and assets, negative reactions of the Company's existing customers to Litarion's insolvency process, general business and economic conditions (including but not limited to currency rates and creditworthiness of customers), Company liquidity and capital resources, including the availability of additional capital resources to fund its activities, level of competition, changes in laws and regulations, legal and regulatory proceedings, the ability to adapt products and services to the changing market, the ability to attract and retain key executives, the granting of additional intellectual property protection, and the ability to execute strategic plans. Additional information about material factors that could cause actual results to differ materially from expectations and about material factors or assumptions applied in making forward-looking statements may be found in the Company's Annual Information Form for the year ended September 30, 2020 under "Risk Factors", and in the Company's most recent annual and interim Management's Discussion and Analysis under "Qualitative And Quantitative Disclosures about Risk and Uncertainties" as well as in other public disclosure documents filed with Canadian securities regulatory authorities. The Company does not undertake any obligation to update publicly or to revise any of the forward-looking statements contained in this document, whether as a result of new information, future events or otherwise, except as required by law.*

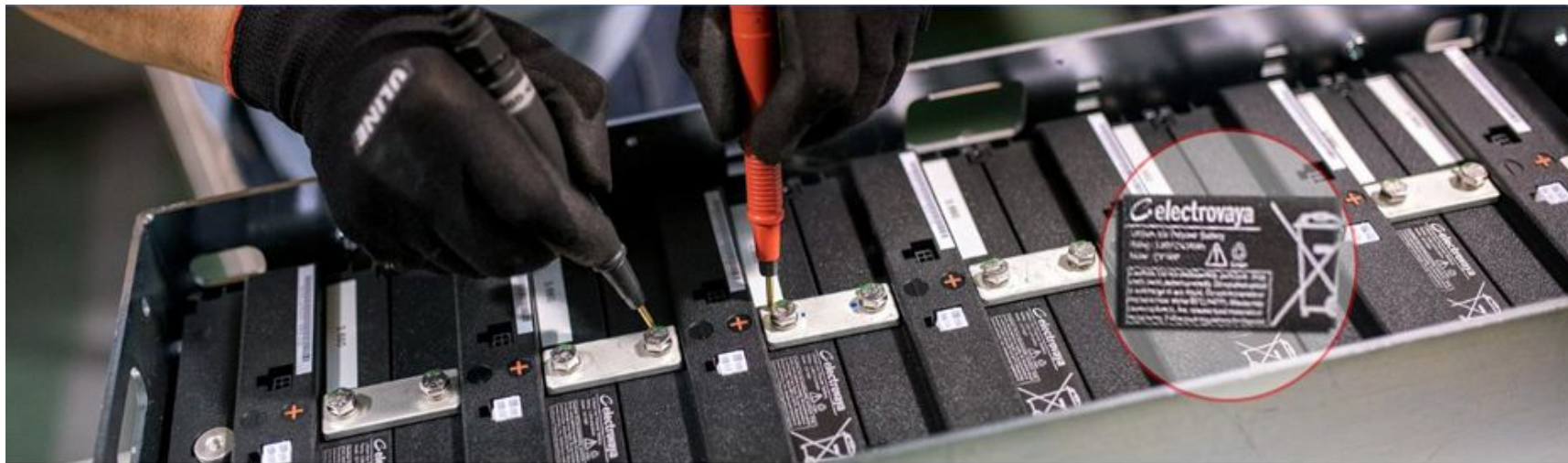
*Revenue forecasts herein constitute future-oriented financial information and financial outlooks (collectively, "FOFI"), and generally, are, without limitation, based on the assumptions and subject to the risks set out above under "Forward-Looking Statements". Although management believes such assumption to be reasonable, a number of such assumptions are beyond the Company's control and there can be no assurance that the assumptions made in preparing the FOFI will prove accurate. FOFI is provided for the purpose of providing information about management's current expectations and plans relating to the Company's future performance, and may not be appropriate for other purposes.*

*The FOFI does not purport to present the Company's financial condition in accordance with IFRS, and it is expected that there may be differences between actual and forecasted results, and the differences may be material. The inclusion of the FOFI in this news release disclosure should not be regarded as an indication that the Company considers the FOFI to be a reliable prediction of future events, and the FOFI should not be relied upon as such.*

# Battery is the Enabling Technology: Energy & Electrification



Bloomberg New Energy Finance uses Electrovaya's battery photo to illustrate BNEF's article:



<https://www.bloomberg.com/news/articles/2018-06-19/how-big-will-the-battery-boom-get-try-548-billion-bnef-says>

Photographer: James MacDonald/Bloomberg

Climate Changed

## How Big Will the Battery Boom Get? Try \$548 Billion, BNEF Says



# Electrovaya: Lithium Ion Battery Pioneers



**Founded in 1996**

**2010:** Partnered with Chrysler to develop EVs

**CHRYSLER**



**2015:** Developed NMC lithium ion cells with industry leading cycle life



**2016-18:** Electrovaya forklift battery systems being developed

**1996**

**2000**

**2002**

**2003**

**2004**

**2010**

**2013**

**2016**

**2017**



**2000:** Listed on the TSX



**2002:** Partnered with GM to develop EVs



**2003:** Electrovaya launches Scribbler



**2004:** Electrovaya works with NASA

**2013:** Delivered utility scale storage to SSE



**2015:** Electrovaya powers Daimler's electric smart car and acquires 700 MWh/year plant



**2018:** Walmart's first distribution center



**2019**

**2018**

**Mondelez International**

**2017:** Electrovaya eLivate powers Mondelez warehouse



**2017:** Delivered 1.5 MWh utility scale storage

**RAYMOND**

**2019:** OEM Sales Channel: Raymond (Sub. of Toyota) starts distributing Electrovaya's batteries



**2020:** Electrovaya develops high voltage electric bus battery



**2019:** Walmart chooses Electrovaya for multiple warehouse sites

**2020**

**2020:** Electrovaya acquires ceramic separator IP



**JABIL**

**2019:** Jabil chooses Electrovaya to power their AGVs



**2019:** High temperature operation added to Electrovaya's cells



- **2015-18:** Electrovaya acquires the largest Li-Ion facility in Germany & EU, built to supply battery for Daimler's Smart electric, and EU based electrification market
- **Daimler's E-Smart car,** low consumer interest; other markets does not emerge in EU; EFL exits

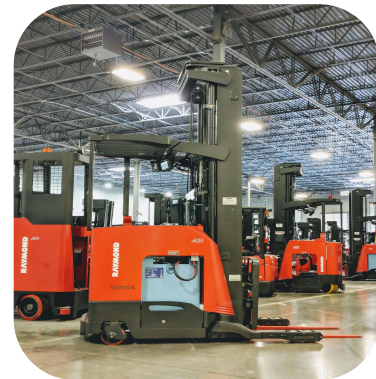
Electrovaya's Battery Technology ahead of the market.



# Electrovaya Pivot: From e-Cars to Mission Critical Commercial Applications

## Pivot from e-cars & Germany:

- Pivots to Mission critical application in e-lift trucks
- Improve technology, validation: OEM and user (Raymond/Toyota & Walmart)
- E-lift trucks multi-shifts indoors; needs 10X range over e-car and safety
- E-lift truck removes 12-16X Greenhouse Gases than 1 e-car
- 1 million e-lift trucks ~ 16 million electric cars,  
(equivalent GreenHouse Gas reduction)

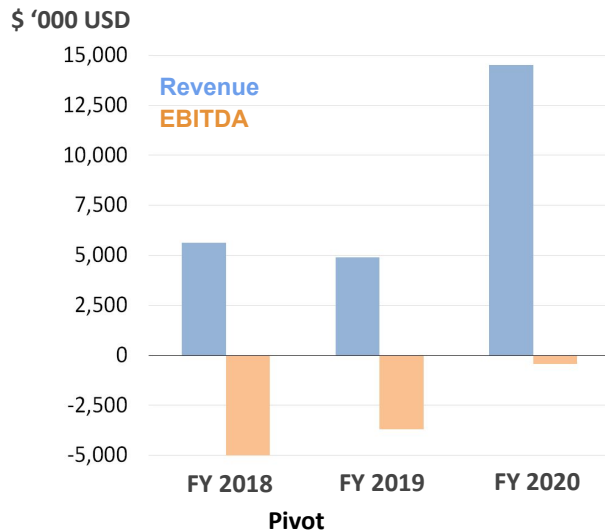




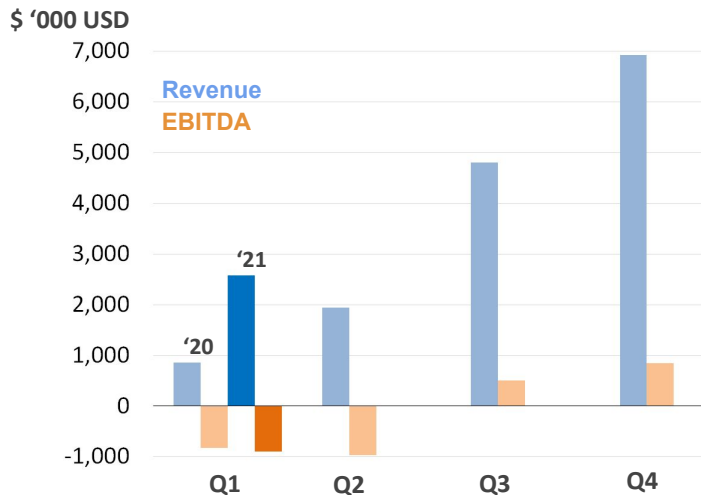
# Electrovaya Pivots to e-Forklift markets

**Mission critical** e-forklift markets drive revenue growth.

Annual Revenues, EBITDA\*



Quarterly Revenues and EBITDA\*,  
FY 2020 + Q1 FY 2021



## Highlights:

- Revenue triples in Q1-2021 over Q1-2020
- Quarterly revenue has a growth rate of 107% in FY-2020
- EBITDA grows positive in Q4-2020 of US\$0.8m compared to negative US\$0.9m in Q4-2019

*\* Non-IFRS Measure: EBITDA does not have a standardized meaning under IFRS. Therefore it is unlikely to be comparable to similar measures presented by other issuers. We believe that certain investors and analysts use EBITDA to measure the performance of the business. EBITDA is defined as loss from operations, plus finance costs, stock-based compensation and depreciation costs.*



## Q1 & YTD 2021 Highlights:

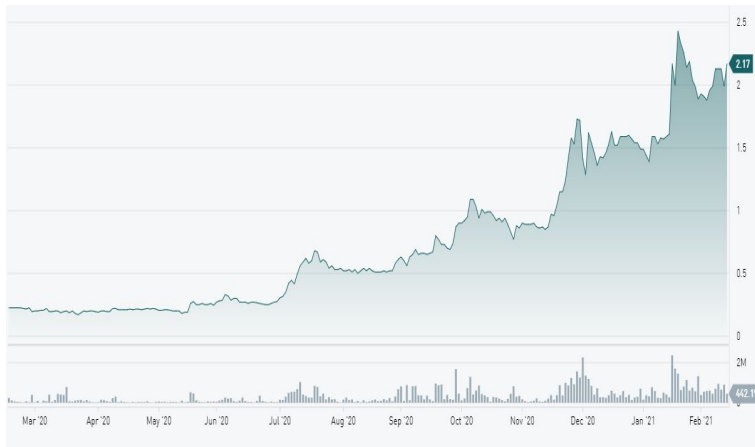
- **Revenue Triples:** Q1 2021 US\$2.5m over Q1 2020 US\$0.86m
- **Strong Cash for growth:** Jan 2021 USD \$6.4m equity proceeds.
- **Debt Reduced:** C\$2.3 million payment to reduce credit facility
- **Debenture debt reduced:** C\$15 million; eliminated Sept 2020
- **Strategic Growth Plans:** investment in R&D, investment in process, production and scale-up equipment.
- **Focus on Shareholder Value:** preparing application for US listing.
- **Increasing Price, Volume and Liquidity :**  
mid Feb 2020 ~C\$0.23 volume ~45,000  
mid Feb 2021 ~C\$2.10 volume >500K



# Capital Share Structure



**Ticker:** TSX:EFL  
**Shares Outstanding\* :** 136,025,207  
**Share Price\* :** CAD \$2.17  
**Market Cap\* :** CAD \$295,174,699  
**Insider Ownership:** ~ 45%



\* Stock prices, shares, and market cap are current as of 4:00 PM EST, Feb 12, 2021

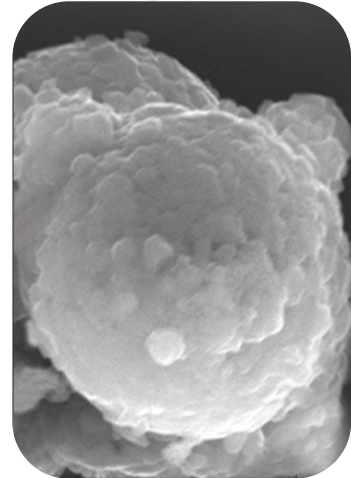


**Ticker :** OTCQB:EFLVF  
**Share Outstanding\* :** 139,392,511  
**Share Price\* :** USD \$1.71  
**Market Cap\* :** USD \$238,361,194  
**Insider Ownership:** ~ 45%





- **Arguably** the highest performing battery available today
- **Safety:** Key IP (>30 patents) for ceramic separator materials and cell designs. UL2580 listed(batteries for use in electric vehicles) NMC battery packs available
- **Cycle Life:** Cell chemistries, additives and electrolytes; setting industry standard
- **Fast Charging:** proprietary battery management systems & Design allow for rapid charging
- **IP and Patents:** 100+ patents covering key IP, from electrode manufacturing, composite separators, cell design and battery management systems
- **System Design for Electric Vehicles:** withstands high levels of vibration, shock & abuse
- **UL 2580 (Batteries for use in Electric Vehicles):** Over 25 Electrovaya batteries models are UL listed, validating its enormous safety performance; possibly the only high energy Lithium Ion battery (NMC) with this safety listing & validation





# Research/Technology Direction:

Solid State Cells/batteries; non toxic electrode processing,  
ultra-high Energy Density; High Safety

- Lithium Ion Battery is a complex device and every material & component has to work in concert with others, otherwise system does not work
- Solid State Cells
- Non Toxic Electrode Processing
- Ultra-High Density Cells & Lowest Cost
- High Safety



# Targeting Mission Critical Markets

## E-cars:



**Usage:** 1-2 hrs/day

**Focus:** Capital Cost  
Range  
Safety

**Market:** Existing,  
multi billion  
dollar

## E-buses:



12-20 hrs/day

Ownership cost  
Lifetime  
Efficiency  
Safety

Nascent,  
high potential

## E-forklifts/ warehousing:



20-24 hrs/day

Ownership cost  
Lifetime  
Efficiency  
Safety

Existing, multi  
billion dollar

## E-delivery trucks:



12-20 hrs/day

Ownership cost  
Lifetime  
Efficiency  
Safety

Nascent,  
high potential

## Autonomous Robotics (AGV):



12-20 hrs/day

Ownership cost  
Lifetime  
Efficiency  
Safety

Nascent, high  
potential

Cycle equivalent ~1.5- 2.5 per day. That's like driving your Tesla  
**600 miles/day, 220,000 miles/year or 2,200,000 miles over its life.**

# Channels to the Market: OEM Strategic Sales Agreement



## RAYMOND

- **Raymond Corp.** (100% subsidiary of Toyota) is the largest electric forklift manufacturer in North America\*.
- **Raymond:** Dec 2021: Strategic Sales Agreement; Electrovaya's batteries integrated into LiftTrucks
- **Sales** through their OEM ChannelM channel
- **Top selling** electric forklift in North America.



Toyota Material Handling showcased .  
Electrovaya's ELivate battery systems in their lift trucks at ProMat, Chicago..

\* [https://www.mmh.com/article/top\\_20\\_lift\\_truck\\_suppliers\\_in\\_2019](https://www.mmh.com/article/top_20_lift_truck_suppliers_in_2019) Sales for Raymond/Toyota are listed under Toyota corp.

# Channels to the Market: Direct Sales & Upgrade Channel



- **Multi-billion dollar addressable market:** ~2.5 million forklifts (lead acid, fuel cell & ICE) may need upgrading in North America
- **Performance, lifetime, & ROI:** Electrovaya's lithium ion batteries is outstanding
- **Electrovaya batteries** are compatible with most e-forklifts.
- **Field Tested:** Validation over 20 months showed substantially improved reliability and productivity
- **Walmart:** Electrovaya now powering multiple sites
- **Current customers** include many fortune 500 companies



Electrovaya batteries powering a Walmart Distribution Center





# Operating Sites: Electric Lift truck sites










\*Some dots represent multiple sites

~48 sites in North America

Repeat orders starting

## Types of Businesses:

-  E-Commerce
-  High velocity distribution centers
-  Cold/freezer storage
-  Manufacturing
-  Food processing
-  Furniture
-  Logistics
-  Recycling

# Emerging Markets: Electric Bus & Trucks



High voltage battery packs for e-buses and e-delivery trucks.



Electrovaya's liquid cooled 670V battery packs for e-buses and e-trucks.

E-buses and electric delivery trucks are a potential billion dollar market with a **predicted CAGR of 26%** through 2025 in North America.\*

<https://www.globenewswire.com/news-release/2020/11/19/2130343/0/en/North-America-Electric-Bus-Market-Growth-Trends-and-Forecast-2020-2025.html>

# Mississauga Assembly Facility





## Board of Directors

- Prof. Alex McLean: Chair of the Board, distinguished scientist; Visiting Prof. at MIT, Kyoto U. and Prof. Emeritus at UofT; tech startup, authored 6 books.
- Dr. James Jacobs; Director, Co-Founder Electrovaya; BA Oberlin College, Ph.D. UofT.
- Dr. Bejoy Das Gupta; Director; Chief Economist e-Currency; B.Sc. LSE, Ph.D. Oxford U.
- Prof. Carolyn Hansson: Director; Order of Canada, Ph.D. Imperial College London.
- John Macdonald, EE UofT, Nortel and CEO Enercare, sold to Brookfield for \$4.3B.

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## Management

- Dr. Sankar DasGupta: CEO, Director & Co-founder: Ph.D. Imperial College London.
- Richard Halka: EVP-CFO over 20 years experience with TSX and Nasdaq listed companies.
- Dr. Raj DasGupta; COO and VP Tech: 10+ years w/ EV, Imperial College London, MIT and Cambridge U.
- Jason Roy; Director IR and Communications: over 15 years of Capital Markets experience.
- Murray Pickrem: Director Sales: 20+ years exp in Materials Handling Industry.
- Keith Baker: System Eng. Lead; B.ASc. UofT, M.ASc. EE Waterloo; 12 years experience at RIM.
- Dr. Jeremy Dang; Director Business Development and Projects; Ph.D. UofT
- Leonid Borshchak; Director Software: 30 years firmware design.
- Dr. Elmira Memarzadeh: Manager Electrochemistry; Ph.D. Alberta U.



# Conclusion: An Exceptional Battery

- **Annual Revenue growth:** Revenue nearly triples to US\$14.5 in FY2020 from US\$4.9m in FY2019
- **Exceptional Battery Performance:** IP and performance is the difference
- **UL-2580** Listing and Safety
- **Game-changer:** Industry leading cycle-life & safety combined with excellent energy & power
- **Substantial IP:** Over 100 patents
- **Mission Critical Markets: Material Handling (operating 48 Locations)**
  - OEM Channel: Strategic Sales Agreement
  - Direct Sales into Upgrade Channel
- **Other Markets:** Electric buses, e-AGV's, e-trucks
- **Climate Change Mitigation:** Enabling technology
- **US Listing:** preparation ongoing; no assurance listing will happen
- **Shareholder Value** increased by 8-10X during last 12 months

