

Rare Earths Recycling & Clean Processing of CSM in Quebec

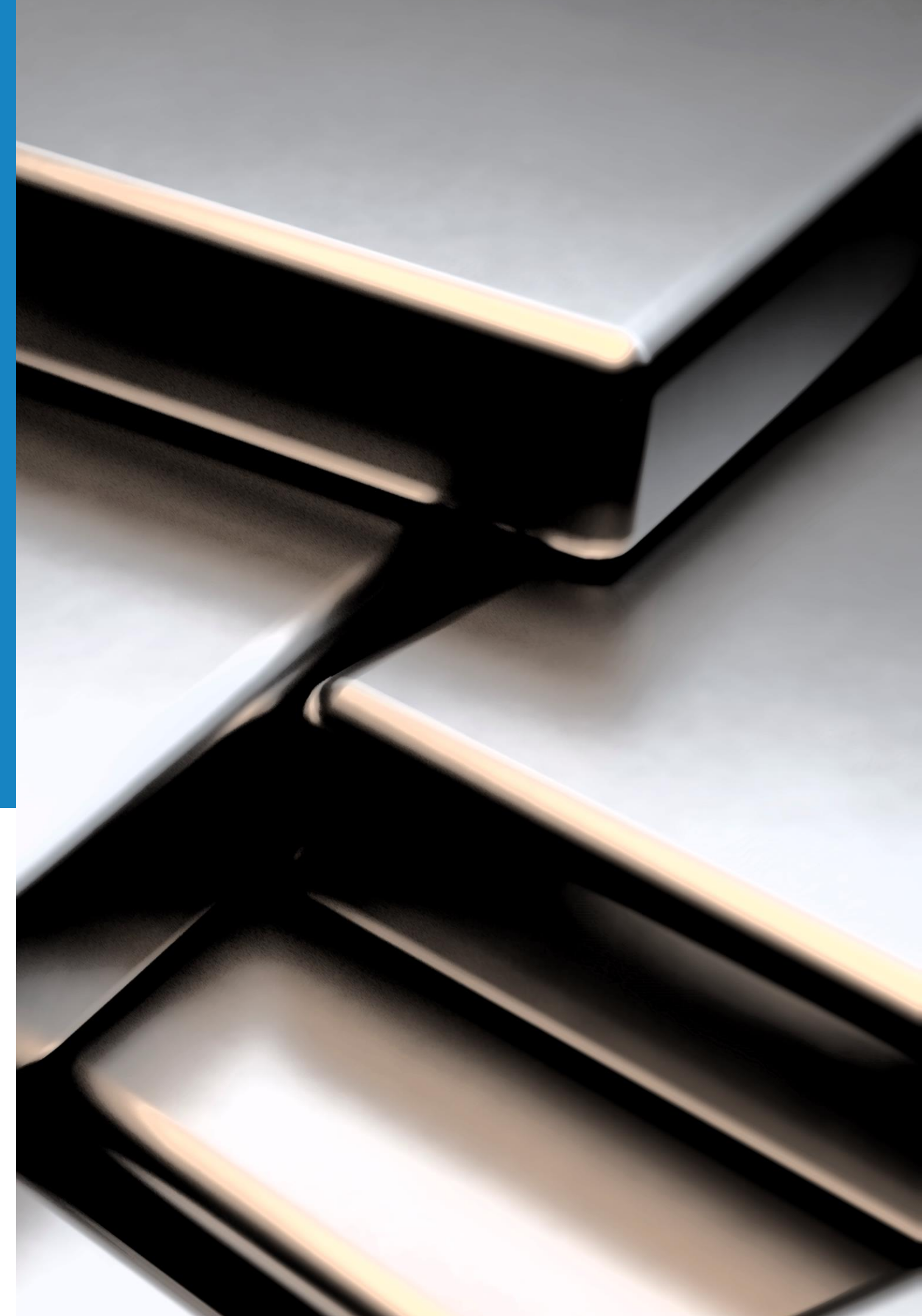
Critical & Strategic Minerals Investment Opportunities in Quebec

April 22, 2021



OTC: GOMRF

TSX.V: GMA



Forward Looking Statement

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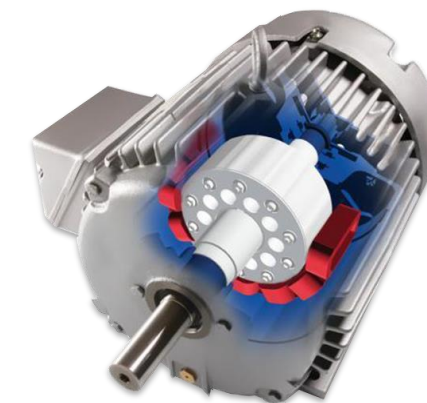
Neodymium Oxide



Neodymium Metal

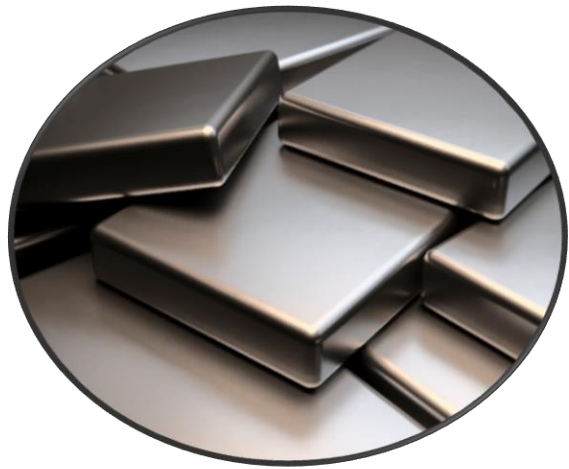


NdFeB Magnets



Electric Motors

Geomega's Main Activities



REE Recycling

- Developing the 1st rare earth magnet recycling facility outside of Asia
- Offering sustainable circular economy to the magnets that drive Transport Electrification and the global Renewable Energy movement
- Clean proprietary technology
- Fully funded

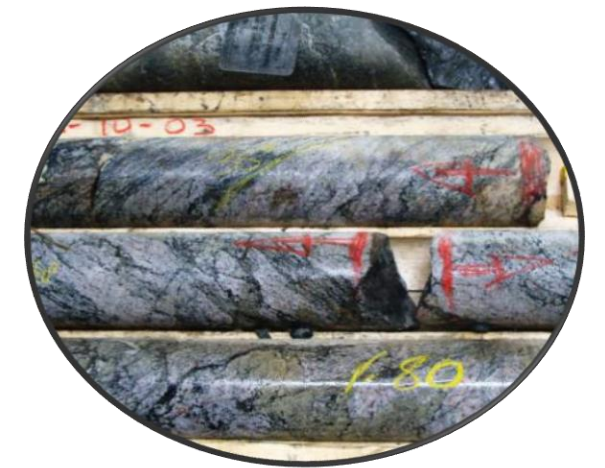


Critical Metals R&D

- Strong technical team led by CTO Dr. Pouya Hajiani
- Leveraging REE experience to evaluate other sources (mining, industrial & e-waste)



- Largest rare earth Bastnaesite 43-101 resource estimate in North America
- Patented metallurgical process
- Road and power infrastructure



Montviel REE Deposit

- Developing innovative technologies for the critical metals essential for a sustainable future
- Targeting various metals and sources such as Co, Li, V, Ni, Nb, Ti, Ta, Cr and others



- **2011** Montviel carbonatite discovered in Quebec, Canada
- **2015** Largest 43-101 bastnaesite resource estimate in North America published
- **2015** Developed an innovative hydrometallurgical process for Montviel. Low acid (HCl) and low power consumption
- **2017** ISR technology successfully extracts and purifies Nd, Dy oxides and Co from NdFeB scrap (lab scale)
- **2019** Technology demonstrated in a 20L pilot & initial supply agreements signed
- **2020** Engineering with Hatch and a 50L pilot
- **2020** Expands R&D to other critical metals to leverage its processing technologies

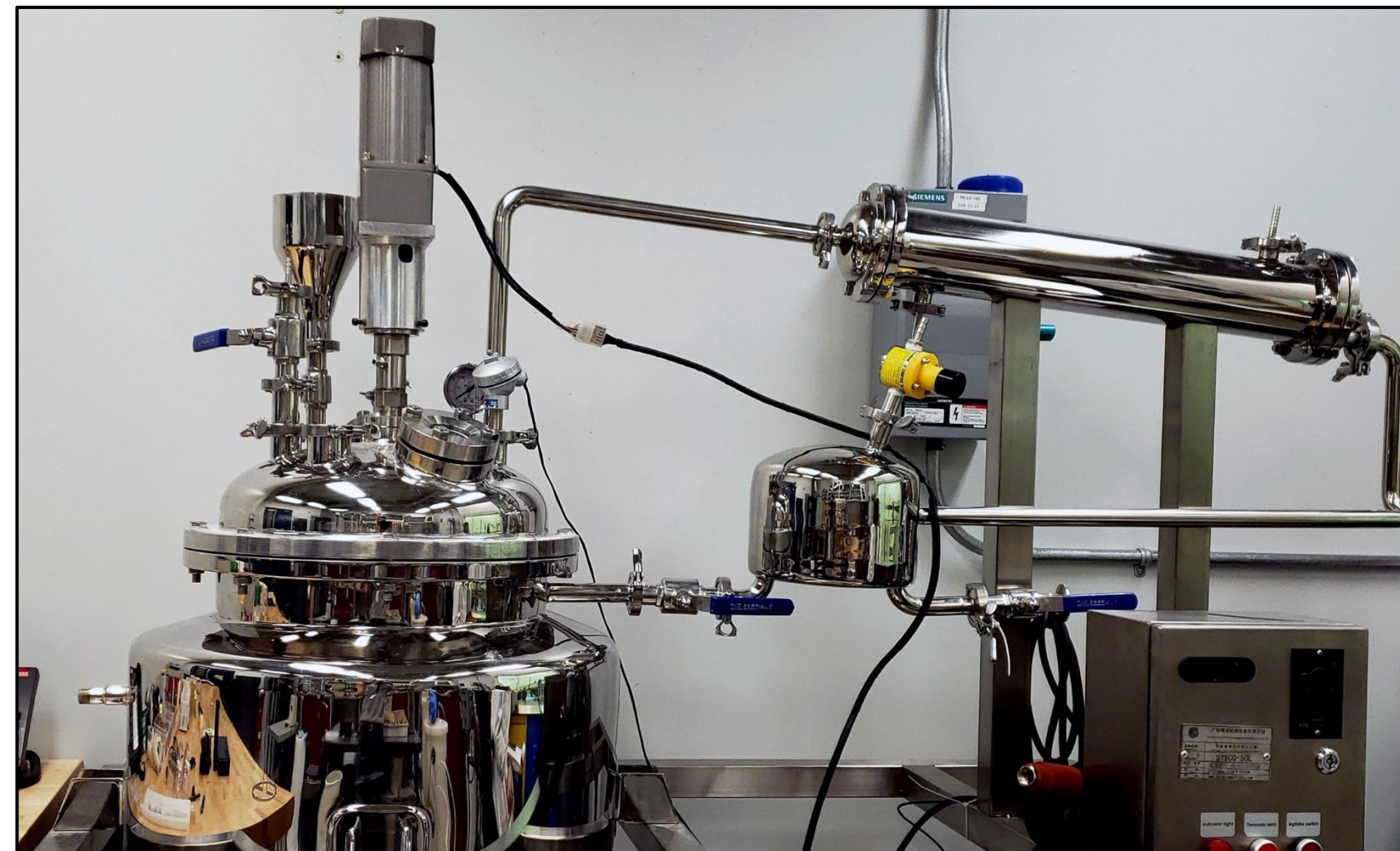
Geomega's ISR Technology

- Proprietary technology
- Environmentally safe
- Small footprint
- Low CAPEX



Source: Rocklink GMBH

Magnet Feed



Pilot Unit



REO Product

- Recovery of main reagents > 90%
- No liquid effluent produced
- High purity, >99.5% REO Product
- Iron oxide as by-product
- Lower GHG emissions than conventional mining



Iron By-Product

REE Recycling Demo Plant

- Facility in Saint-Bruno secured and construction complete
- Majority of equipment selected
- Detailed engineering ongoing
- Fully funded:
 - \$3M debt facility from Investissement Québec
 - Over \$3.5M raised in equity
- Upcoming milestones:
 - Equipment ordering
 - Plant construction & assembly



St Bruno facility

REE Recycling Demo Plant

Demo Plant Economics	
Demo plant feed throughput	1.5 tpd / 8hr day
Average grade of feed stock	30% TREO (Nd, Pr, Dy, Tb)
Capital costs (inc. W/C)	\$4.8 M
Direct operating costs	\$3 / kg of TREO
Targeted Sales*	\$10 M
Target Profit Margin	20%
Conversion to Commercial Plant	Up to 4.5 tpd / 24hr operation Additional costs \$1M-\$2M Targeted Sales \$30 M
*Based on REO bottom prices pre 2020 increase	

Permanent Magnet Sector

- NdFeB market is over 180,000 tonnes per year and valued at around \$12B
- Demand expected to surpass 300,000 tonnes by 2030
- China produces over 85% of the world's magREO (Nd, Pr, Tb, Dy) and over 90% of the NdFeB magnets
- Demand driven by electrification of transport and sustainable power generation
- Magnet demand from the EV & Wind sectors expected to grow from 14,500 tpy to over 66,000 tpy in 2030

¹Source: Adamas Intelligence, Walter T. Benecki LLC & Dr. John Ormerod (2018), Roskill

What is recycled?

- Swarf: > 50,000 tpy globally
- Pre & Post Consumer assemblies:
 - Several established programs for collecting end of life magnets from motors and wind turbines
 - Manufacturers get back material back from clients
 - >15,000 tpy available worldwide with volumes increasing in some application and decreasing in others

Pre & Post Consumer assemblies



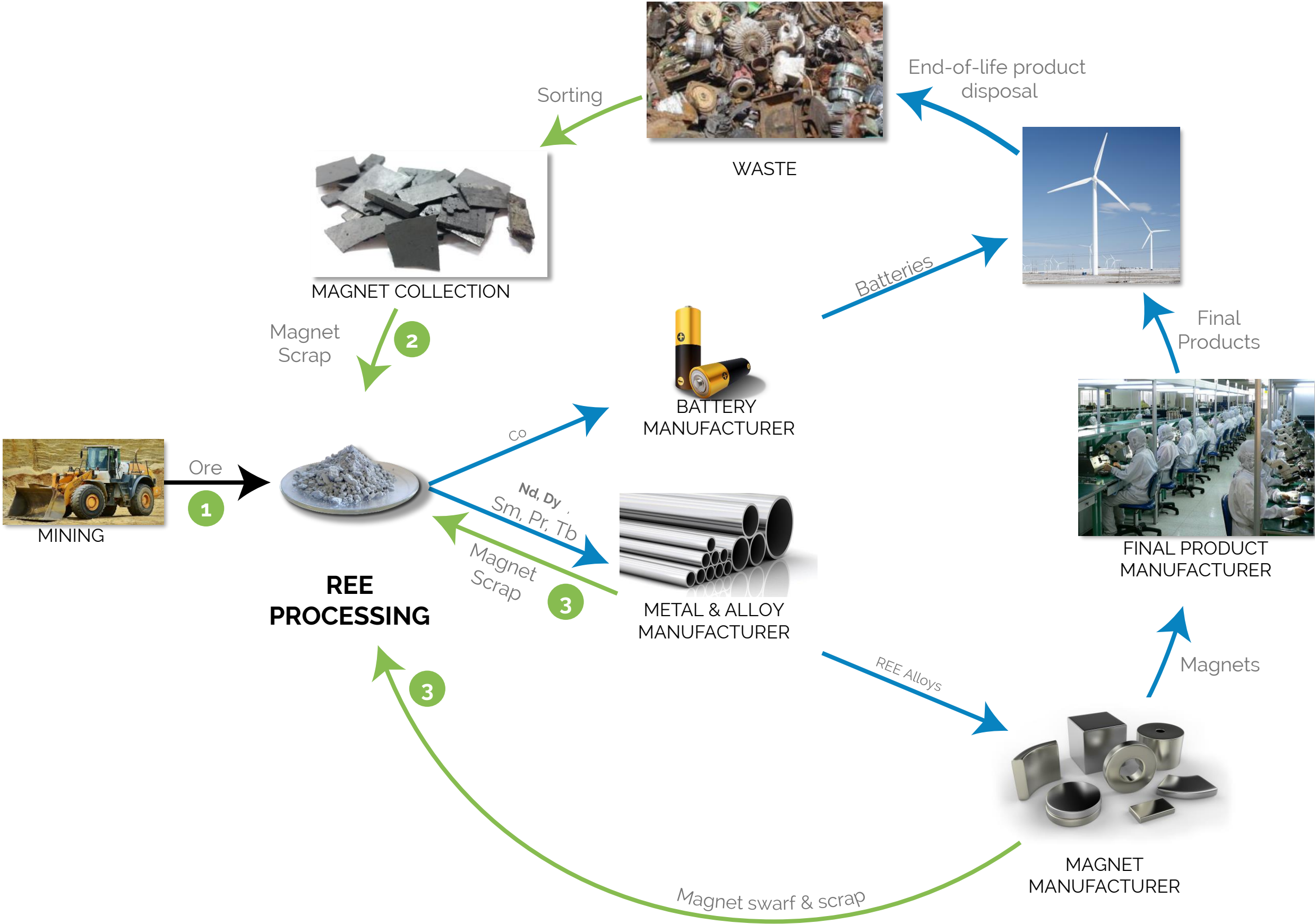
Swarf



Scrap

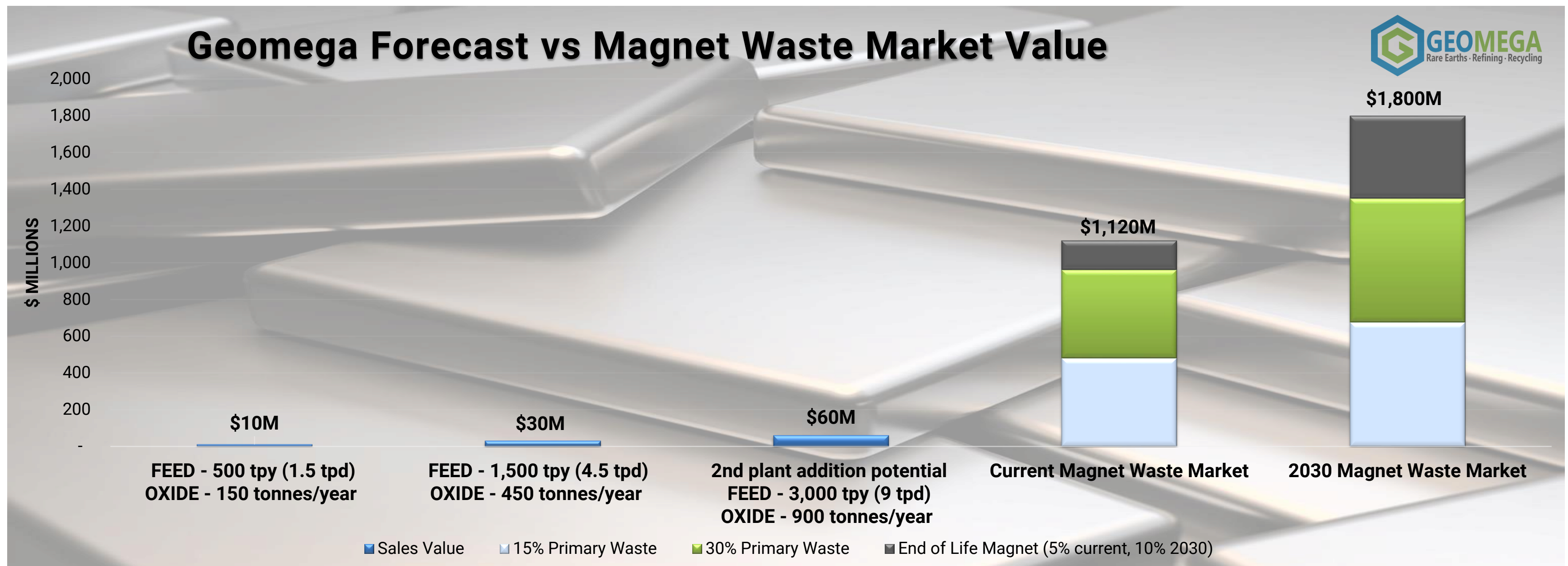


REE Circular Economy



REE Recycling Growth Potential

- Starting from a robust demo model & then upgrading to commercial plant
- Significant growth opportunity in magnet recycling from a growing global production
- Continuous growth from end of life sources



- Leveraging expertise and technology strengths to evaluate other sources (mining, industrial & e-waste)
 - Iron-friendly technology (iron byproduct instead of tailings)
 - Recyclability of main reagents
- Applying technology to other feeds with similar characteristics
 - Iron impurities / high acid consumption
 - REE and other CSM present but not accessible with traditional hydrometallurgical routes
 - No current environmental or economical solution
- Potential for royalties & licenses with major partners looking to
 - Reduce environmental footprint (GHG & land/water usage)
 - Advance circular economy within their production

Montviel REE Project

- 100% owned by Geomega
- Located in Quebec with power and road infrastructure available
- Largest rare earth Bastnaesite 43-101 resource estimate in North America
- 82.4 Mt @ 1.5% TREO & 0.17% Nb₂O₅ Indicated and over 184Mt Inferred
- Patented metallurgical process (US15/578,498)
- Strong support from the Quebec government, local communities and the CREE First Nation
- The most accessible REE project in Canada
- Project has been on stand-by since 2015 to allow scale up of Geomega's processing technologies

Montviel REE Project

- Geomega's technology developed with Montviel in mind
- Technology to demonstrate Montviel as a robust project even at low REO prices
 - Recyclability of main reagents
 - Reduction of environmental footprint
 - Simplified process
 - Iron as by-product
- Creating a project that can be supported by revenues from REE recycling
- Technology more mature than it was in 2015
- Market demand stronger than it was in the last 10 years and only growing

Management Team

Kiril Mugerman

Director, President & CEO

Dr. Pouya Hajiani

Chief Technology Officer

Mathieu Bourdeau

Chief Financial Officer

Alain Cayer

VP Exploration

Board of Directors

Gilles Gingras

Ex-partner at Deloitte

Kosta Kostic

Partner at Fasken

Mario Spino


Financial Modeling at
National Bank Financial

Nicholas Nickoletopoulos

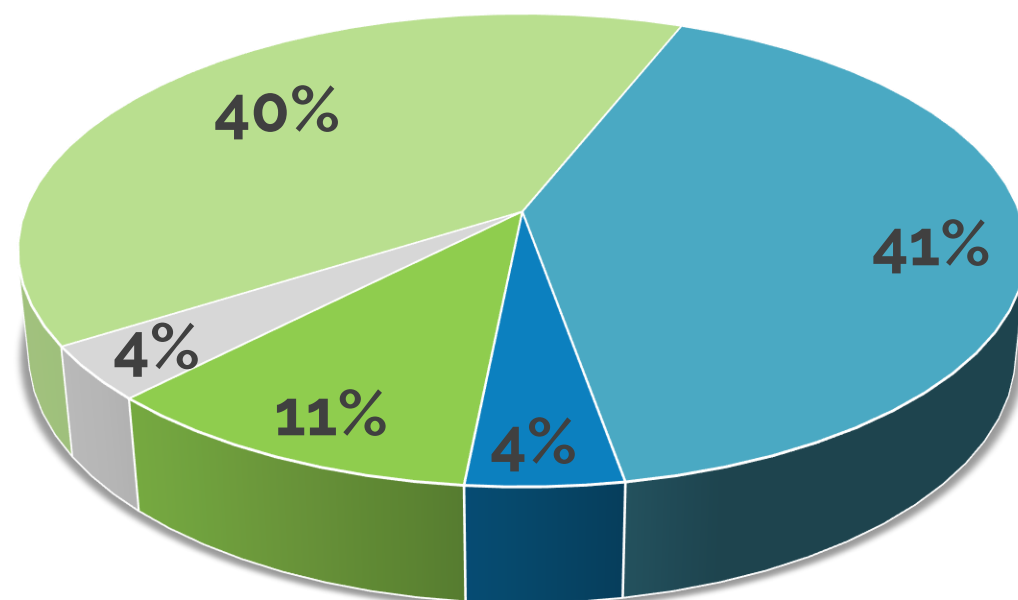
President & Managing Director of Metalunic
Prev. President & CEO of Urecon

Matt Silvestro

President & Owner of
Jobmaster Magnets

- 
- **Clean processing technologies for Critical & Strategic Metals**
 - **Low CAPEX & Low OPEX REE recycling**
 - **Several R&D projects ongoing to apply technology to other feeds**
 - **Major REE Montviel project in the pipeline**
 - **Royalties & licenses opportunities on major global waste streams of CSM**

Share Structure



- Management & Insiders
- Quebec Inst. Funds
- Strategic Investor
- Private Large Positions
- Retail

*As of November 30, 2020. Over 6M options & warrants have been exercised since

Issued & Outstanding*	120,206,799
Stock Options	10,311,094
Warrants	23,500,201
Fully-Diluted	154,018,094
Equity assets	16.8M shares of KTR.V
Cash	>\$3M & \$3M debt IQ



Source: StockCharts.com

Rare Earths Recycling & Clean Processing of CSM in Quebec



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