





Recycling & Clean Processing Technologies

Valorization of Primary & Secondary Resources

Oct. 25, 2023 – Annual Special General Meeting



# Forward Looking Statement

Our presentation contains "forward-looking statements" not based on historical facts. Forward-looking statements express, as of the date of this presentation, our estimates, forecasts, projections, expectations and opinions as to future events or results. The forward looking statements that are contained in this presentation are based on various assumptions and estimates by the Corporation and involve a number of risks and uncertainties. As a consequence, actual results may differ materially from results forecast or suggested in these forward-looking statements and readers should not place undue reliance on forward-looking statements. We caution you that such forward-looking statements involve known and unknown risks and uncertainties, as discussed in the Corporation's filings with Canadian Securities Administrators. Various factors may prevent or delay our plans, including but not limited to, contractor availability and performance, weather, access, mineral prices, success and failure of the exploration and development carried out at various stages of the program, and including as regards the commercialization of any of the technology, general business, economic, competitive, political and social conditions. The Corporation expressly disclaims any obligation to update any forward-looking statements, except as required by applicable securities laws.





#### **Board of Directors**

#### **Karine Emond**

- A seasoned commercial lawyer
- Specializes in manufacturing & supply chain
- Expertise in commercial negotiations and agreements
- Over 20 years legal experience

New addition to the board - new skills & expertise



## Financing Achievements

#### \$7M raised over the last 12 months

- \$6.5M from non-dilutive grants & partners
- \$420K from Pomme & Montviel Sud transactions (\$95K this year, balance over next 2 years) & shares in MTM
- \$70.5K from equity instruments

#### **Funds** raised for

- Magnet recycling demonstration plant
- Bauxite Residue Valorization technology
- HCl recycling for REE & Sc extraction
- Other lower TRL projects

Leveraging the technologies to attract new partners & more funding Avoiding dilution to maximize shareholder value



#### New Facilities at St -Hubert

#### In April 2023, Geomega announced the centralization of its future activities

- Standalone 18,000 sq.ft facility at the Gerard-Leclerc industrial zone of St Hubert, Longueuil
- New location will meet current needs and allow growth
- Facility will house the magnet recycling demonstration plant
- Analytical and bench scale laboratories and piloting will gradually migrate to this facility
- Corporate head office to be moved to St Hubert as well
- Will help create synergies between different departments & projects



#### **Human Resources**

#### **Technical & Admin team growing:**

- Team increased by over 30% for the 3<sup>rd</sup> year in a row
- Applied solutions helped reduce turnover rate to 20% from >50% a year ago
- More new employees joining in November 2023

Building a strong technical team for today and tomorrow

#### Challenges for upcoming year

- Demo plant construction will increase significantly number of consultants & contractors
- Transition to St-Hubert facility for both admin and R&D activities





### Technologies

#### REE and critical metals valorization from various sources



**REE extraction from** magnet recycling



**Integrated reagent** recycling technologies



**REE** extraction from various ores



**Bauxite residues** (BR) valorization



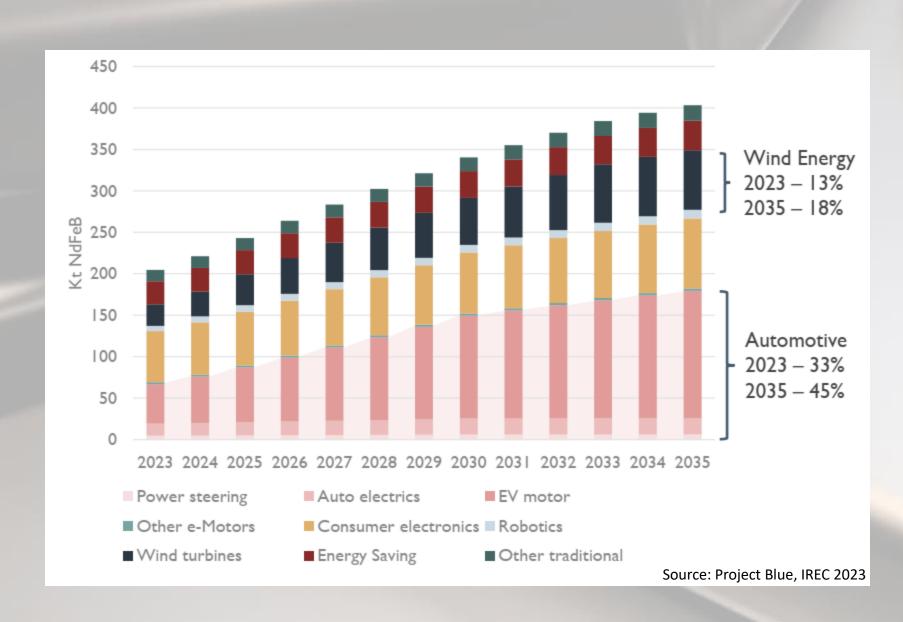
**Battery material** purification (graphite)

Other projects include: CO<sub>2</sub> storage, sulfide tailings, refractories treatment and more





### Permanent Magnet Sector





NdFeB demand continues to grow at 5.8% per year



NdFeB substitution mostly in non-essential applications



Growth driven by wind energy & EV motors. Expected to reach 250kt NdFeB demand by 2035



Recycling contributes 10-15% of REO supply currently Expected to reach up to 30% by 2050



Recycling feed shifts from primarily swarf to balanced supply from both End of Life and swarf by 2050 Main growth outside China



### Permanent Magnet Sector

















Announcements for NdFeB plants in Europe and Americas continue

Commercial production expected to start from 2025 onwards

Demand for swarf recycling will increase gradually

Important opportunity for Geomega to offer its technology

Licensing model envisioned offering local sustainable solution

Source: Woodmackenzie, IREC 2022



### REE Recycling Demo Plant

Plant to process 1.5 tpd of magnet scrap

Detailed engineering, procurement & permitting ongoing



Major delays in 2023 due to having to switch location to St Hubert

Main deliverables from BBA are expected by end of November

Bids from construction firms are being requested

Funding for plant secured and evaluating additional non-dilutive opportunities



# REE Recycling Technology





# REE Recycling Technology

Integrated closed water circuit

Minimal liquid effluents

Minimizes solid waste by producing by-products (Fe, B, Cu/Ni)

Potential Hydrogen recovery

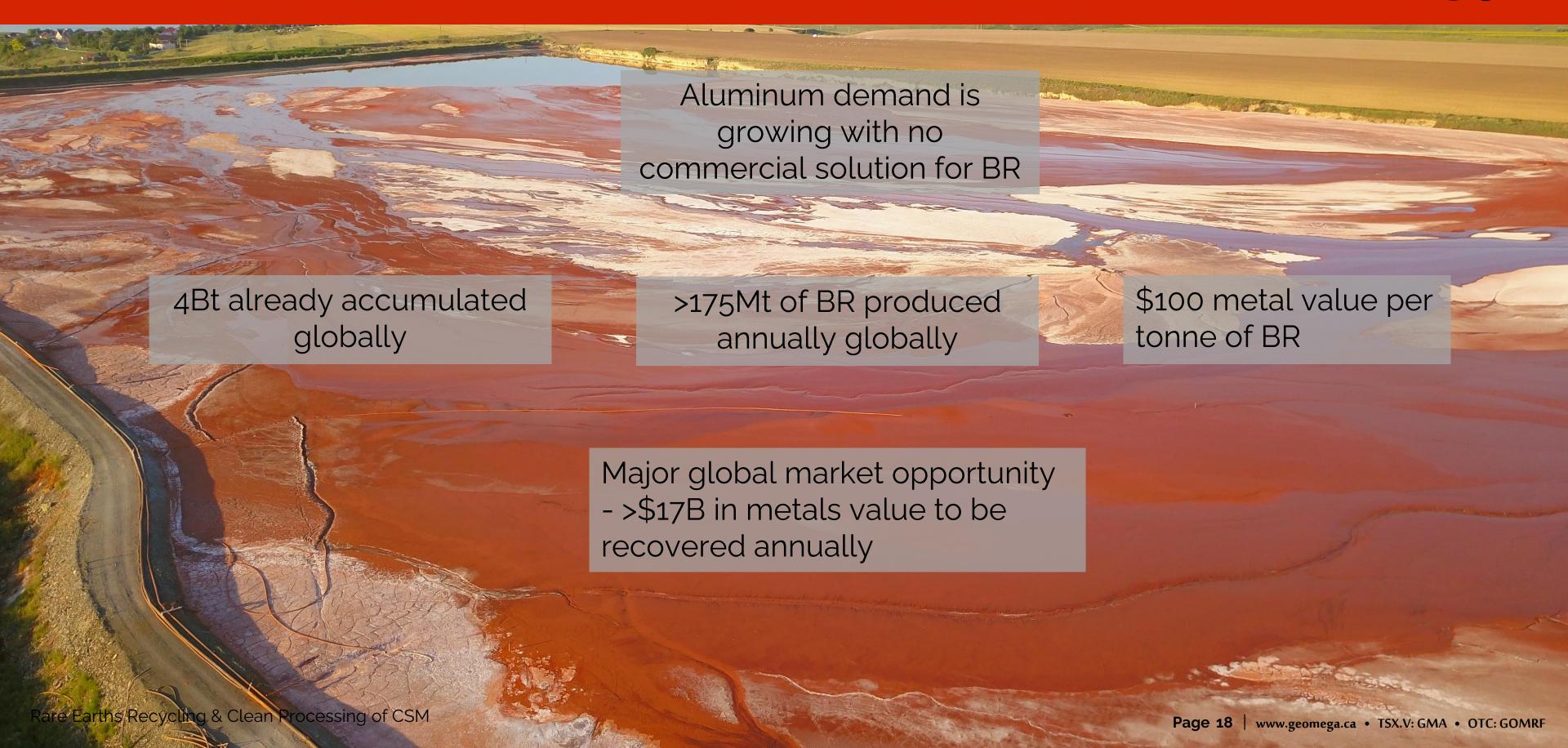
Competitive OPEX

Feed agnostic (scrap, swarf, etc)

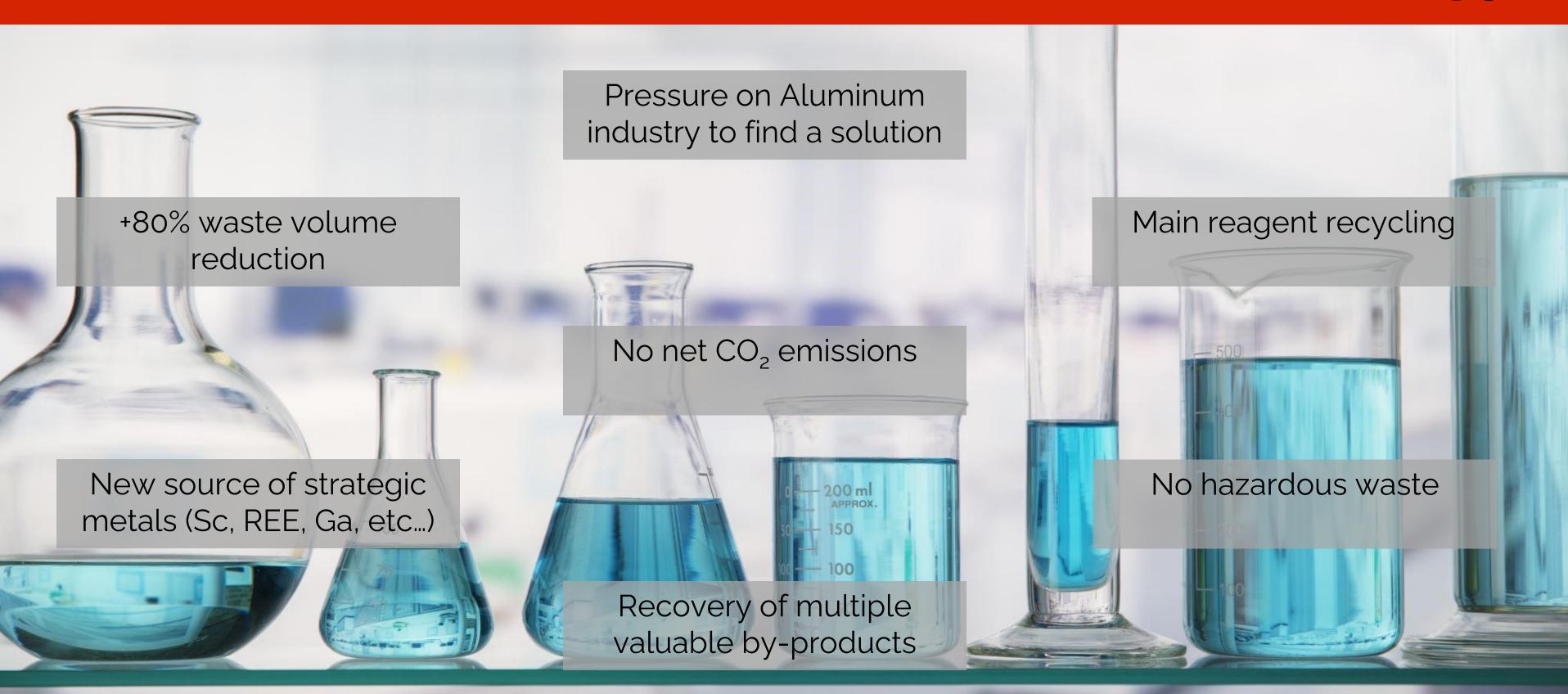
Uses standard equipment



## **Bauxite Residues Technology**



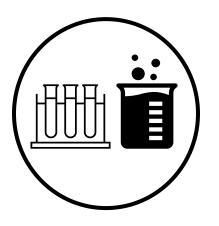
## Bauxite Residues Technology



## Bauxite Residues Technology



- R&D on bauxite residues began in 2020
- Bench scale successfully demonstrated in 2021
- Pilot plant and feasibility study funded in 2022
- Over \$5M funded from government and partners
- Pilot plant commissioning ongoing



- Majority of analytical equipment in preparation for the pilot plant test work received
- Other analytical equipment is being ordered











### Adjustable Business Model

Building a demo plant in Quebec for magnet recycling Looking to partner with magnet producers

License the technology / Owner operator



Working with Rio Tinto to derisk the BR technology (pilot)

Looking to work with major partners to demonstrate the technology at commercial scale

License the technology

#### 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

**Matt Silvestro** 

President & Owner of Jobmaster Magnets

Nicholas Nickoletopoulos

President & Managing Director of Metalunic Prev. President & CEO of Urecon **Karine Emond** 

Lawyer at Delegatus

#### Strategic Advisor

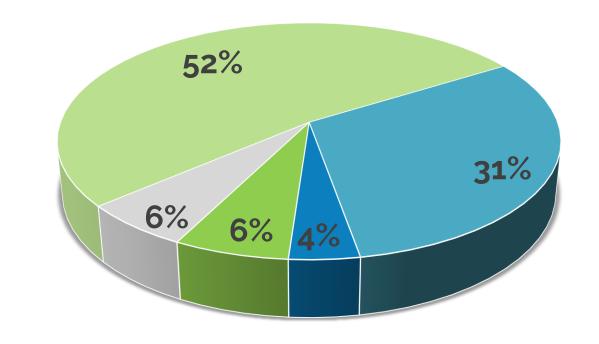
Michael Gentile, CFA (largest shareholder)



### Summary

- Clean processing technologies for Critical & Strategic Metals
- Developing the REE demonstration plant
- Piloting the bauxite residues technology
- Diversifying the applications of our technology (more industries & more partners)
- Lowering commercialization risk
- Leveraging technologies in portfolio to lower dilution
- Royalties & licenses opportunities on major global waste streams of CSM

# Share Structure



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

#### **Analyst coverage:**

Fundamental Research: \$1.20 target

\*Debt financing from IQ for \$3M has not yet been withdrawn

#### Issued & Outstanding (31/05/2022) 141,826,521

Stock Options 10,295,500

Warrants (11.4M - \$0.25, 0.7M - \$0.40, 4.4M - \$0.32) 16,517,788 (exp '23, '24, '25)

Fully-Diluted 168,639,809

Equity assets 16.8M shares of KTR.V

Working Capital \$3.2M & \$3M IQ\*



# Rare Earths Recycling & Clean Processing Technologies



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