



R500 - Downstream Partnership

Sustaining the climate and global economic growth

Eco-mining of critical metals in Greenland

Hydrometallurgical processing in industrialised countries

A major global supplier of metallic powders to the world

High grade Titanium - Vanadium - Ferric - Magnesium powders

Rationale

Meeting primary criteria for investment and partnership

1. Mine will operate on hydro and wind energy
Zero-carbon emissions
2. Shallow open pit deposit on the coast
Minimal footprint and low CAPEX and Opex
3. Hydrometallurgical processing of concentrate using green energy
Minimal carbon emissions producing high grade powders
4. Long term supply of critical metals essential to industrialised nations
Strengthening economic sustainability from a safe jurisdiction.
5. High returns based on conservative costings and increasing global demand
Benefiting both shareholders and multiple stakeholders
6. World class resource of titanium and vanadium
With potential credits of Ree, St, P, Co, Ni, Mg and carbon sequestration using contained olivine

Critical metals- essential to G20 economies

R500 Smart Mining: Choosing recyclable metals with longer lifespan and efficiency

Vanadium	Strength	1 kg doubles the strength of 1 tonne of steel	Steel Industry	Reduces requirements for iron ore, coking coal, smelter energy and transport
	Consistency	Main ingredient in Redox Flow Batteries	Battery Sector	Primary solution for solar and wind energy storage: No load constraints on charge/decharge, 35000+ life cycles.
	Temperature Control	Blocks temperature transmission at 25°C	Smart Windows	Reducing of winter heat loss and summer warming through windows. Less conditioning, less energy
Titanium	Light and Strong	Half the weight and double the strength of steel	Aerospace and construction	Reducing aircraft weight and consequently less fuel
	White	Responsible for whiteness in nearly everything	Pigments and Paints	White for solar reflection in hot climates reduces cooling requirements
	Non toxic	Harmonic with the human body	Bio-medicine	Essential to aging and heavier human population (knees, hips, stints, dentistry)
Magnesium	Light	Automobile industry	The metal for light parts	Reduces weight to reduce fuel and CO2
	Reactive	Sequesters CO2	Carbon Offsetting	Reducing atmospheric and industrial carbon dioxide
Cobalt, Nickel	Energy Density	Increases battery storage	Automobile	Essential for longer range making electric cars acceptable
Rare Earths	Essential	90% Controlled by China	Electronics	Catalysts, magnets, alloys, glass and lasers

Sourcing - Processing - Supplying

Vertical integration and advantageous access to global downstream markets

Upstream:

Greenland rich in resources

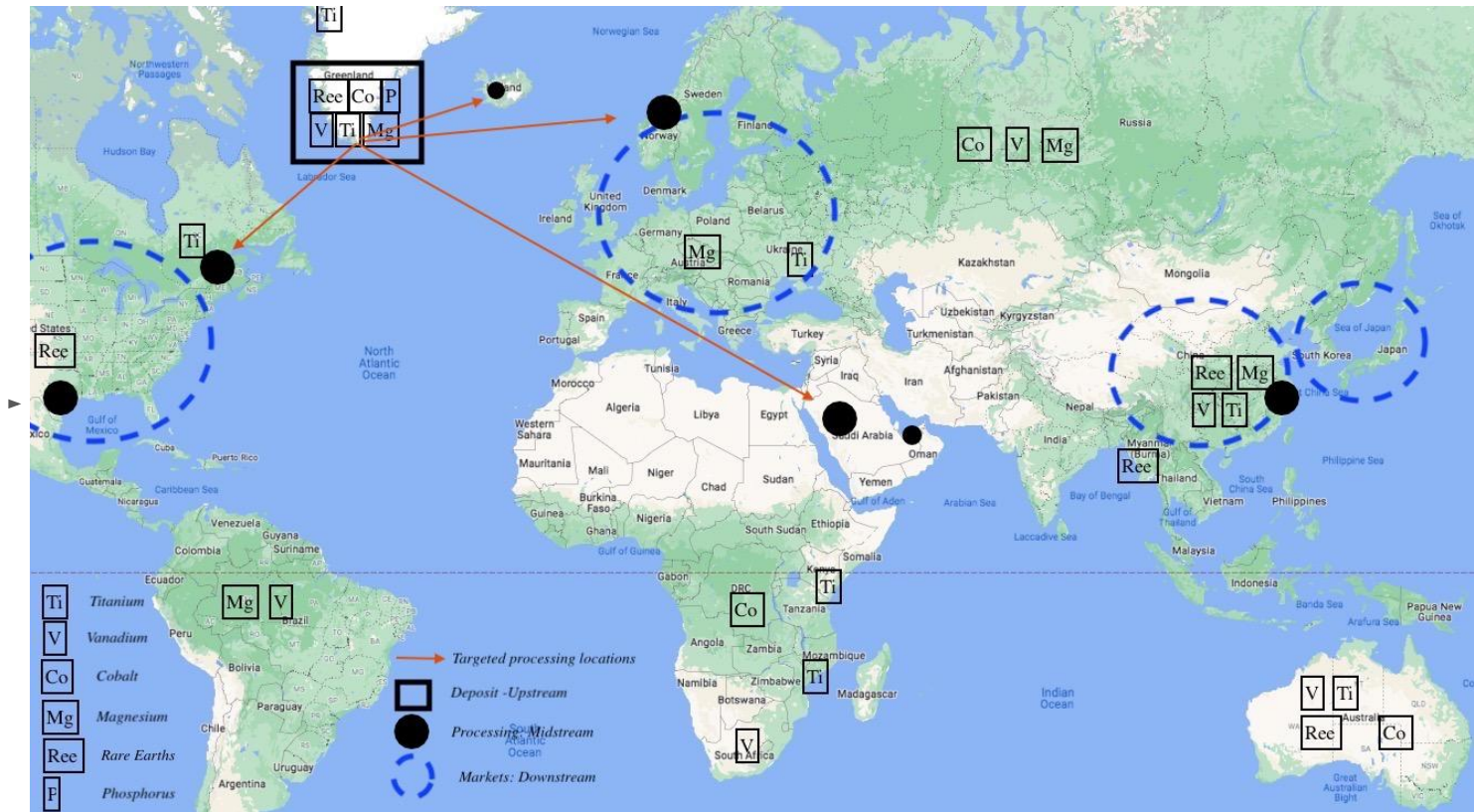
The Mine producing Ti-V-Fe and Mg concentrates and potential credits of Mg, P, Ree, Co, Ni.

Midstream:

Industrial infrastructure and support - Metallurgical plant producing high grade powders

Downstream:

Sale of powders to China, USA, EU, Japan.



Eco-friendly sourcing

The Isortoq deposit: A new source of critical metals

A world class deposit of essential metals for our climate sensitive world.

Marked by Simplicity

- Large high grade deposit at surface.
- Simple magnetic separation producing high grade concentrate
- 4 kms from shipping

Environmentally sensitive

- Powered by wind and hydro resources
- Adjacent docking bay
- Conveyors eliminate need for roads or rail.

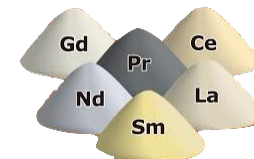
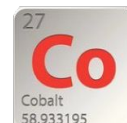
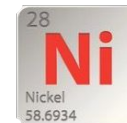
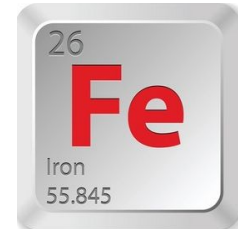
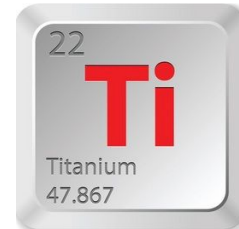
Enhancing communities

- Creating hundreds of direct and indirect jobs
- Enhancing local skills and traditions that can support mine & camp

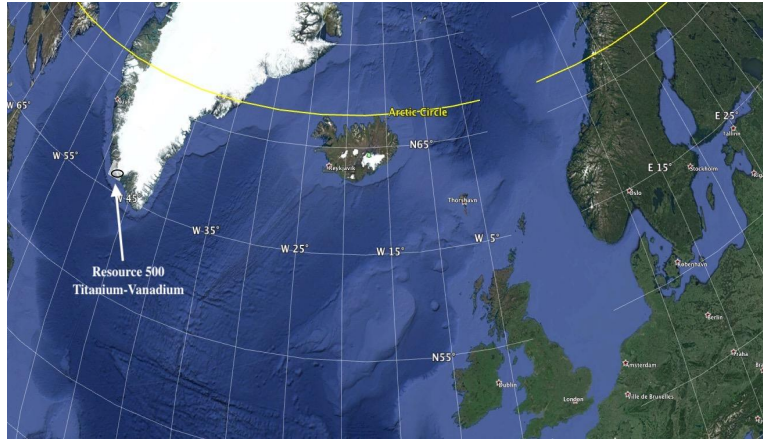
High Returns to

- **Shareholders:** IRR 42.3%, NPV \$550 mil. Annual EBITDA \$174M
- **Local communities:** Social programs & support. Shared-infrastructure.
- **Greenland Government:** 3% Royalty, 30% Corporate & Income Tax
- **Global Stakeholders:** Low cost sustainable supply of critical metals.

This is a minimal footprint, low cost, low risk and positively impacting project.



Isortoq: Low cost carbon neutral mining strategy



The Isortoq property in South Greenland, has seven principle technical advantages over a majority of other assets

- **Green Project** – using hydro and wind potential, the metals mined contribute to reduction of greenhouse gasses and extracted olivine to be used in sequestration of CO₂
 - **Large tonnage** - well defined 70 mt inferred certified resource in limited area of one of two troctolite dykes hosting 1.17 billion tonnes (Behre Dolbear)
 - **High, consistent Ti-V-Fe grades** located in 2 parallel dykes extending over 15 km each
 - **Ideal Location** - immediately adjacent to a wide, deep water, **ice free fjord** at the same latitude as Oslo, Helsinki. Baltic style climate.
 - **High recoveries** - using a simple wet magnetic low intensity separation at 75 microns
 - **Clean concentrate** - **P** 0.02%, **S** 0.08%.
- Potential credits:** Co, Ni, P, Mg - Olivine, REE in apatite
- **Low capex and opex** Bond Index 16.4 kWh/t Low intensity magnetic separator, 4 km of conveyors.,

Grade	TiO ₂	V ₂ O ₅	Fe ₃ O ₄
<i>In situ</i>	10.85%	0.14%	40.9%
<i>Concentrate</i>	20.27%	0.28%	69.93%
<i>Recovery</i>	87.43%	87.21%	74.11%

Partnership

Industrialised Jurisdictions: Hydrometallurgical processing

Criteria of midstream

- Developed infrastructure
- Competitive costs; energy, labor, supplies.
- Adjacent port facilities
- Favourable taxation
- Safe jurisdiction (legal and political)
- Access to labour and availability of professionals
- Transparent environmental regulations
- Local support for industry

Access to Markets

- Located for easy access to downstream customers
- Politics supporting sustainability of international trade

Hydrometallurgy

- **Producing high grade metallic powders:**
- **Titanium, Vanadium, Iron, Magnesium**
- Reduction of energy costs using natural heat for hydrometallurgical needs (70 °c at 1 bar)

Advantages of hydrometallurgical processing over pyrometallurgy

- Low energy requirements
- Minimal carbon emissions
- High recoveries
- Premium products
- Closed systems that reduce risk to health and safety

Powder	Titanium (TiO ₂)	Vanadium (V ₂ O ₅)	Iron (FeO)	Magnesium (MgO)
Vol. tpa.	> 350,000	> 4,500	> 1,250,000	> 150,000
Price (t)	> \$3000	> \$19,000	> \$600	> \$200
Gross R. (mln)	> \$ 1050	> \$85.5	> \$750	> \$30

Project financials

Isortog: Low cost and high returns

Upstream Financial calculations include

- 50% add on for Greenland costs
- 40% Contingency on CAPEX and OPEX
- 40% Discount on value of Concentrate
- Concentrate value based on 10 year average prices of Titanium Dioxide (Ilmenite), Vanadium Pentoxide and Fe 62%.

CAPEX	OPEX (t. Concentrate)	Value (t. Concentrate)
\$190 M	\$32.6	~\$200
EBITDA pa*	IRR	NPV (8%)
\$174 mil	42.29%	\$552 mil

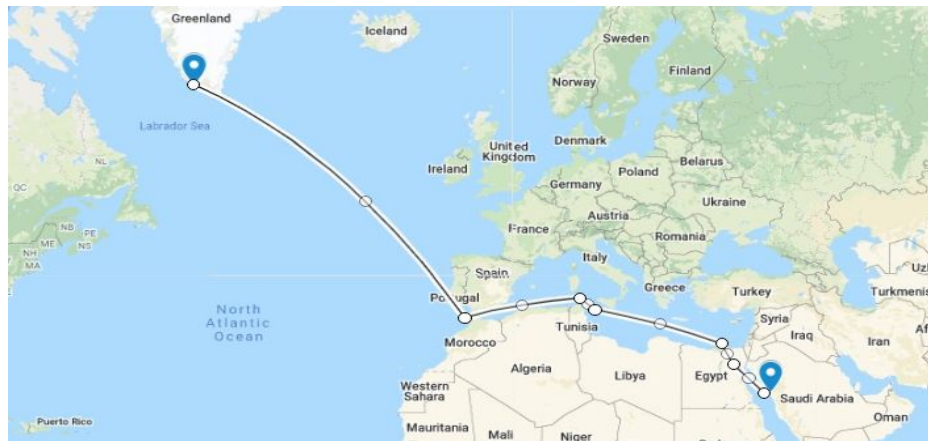
* Based on 5 million tonne ROM

Midstream eg. Saudi Arabia

- Shipment to processing in Saudi Arabia -\$15.20 t.
- 4900 nautical miles (46 kg CO2e per tonne concentrate)
- CAPEX: *tbd.*
- Funding: upto 75% finance available from Saudi ID Fund
- Hydrometallurgy OPEX est. \$150 tonne.
- Gross Annual Revenue target >\$1.5 bln

Premium products: Titanium, vanadium, ferric, magnesium powders

Annual contribution to global supply		Tonnes pa.	Market	CAGR
5%	Titanium dioxide (TiO ₂)	450,000	\$21 bln	6%
3-4%	Vanadium Pentoxide	6000	\$1.6 bln	10.6%
1.9%	Magnesium oxide	200,000	\$4.7 bln	5.34%
0.07%	High grade Iron (Fe ₃ O ₄)	1,700,000	\$375 bln	2.8%
0.36%	Cobalt	500	\$8.6	12.4%
0.002%	Nickel	600	\$50 bln	5%



Timeline

Halfway there

The Isortoq deposit discovered in 2004 has compliant resource of 70 million tonnes for an initial 15 year mining operation. The mineral license has a non-compliant resource potential of 1.17 billion tonnes, allowing for expanding production and life of mine.

Next steps (2022)

- Infill drilling (5000 meters) for Resource upgrade to Measured
- Detailed hydrometallurgical testwork - flowsheet design
- Prefeasibility
- Feasibility study including pilot testing in 2023
- Mining License application in 2024
- Production in 2025
-

Hydrometallurgical plant in KSA

1. 2023 Design
2. 2024 Construction
3. 2025 Operational

Investment-Budget for finishing Isortoq Feasibility Study and Hydrometallurgical Plant preliminary design \$20,000,000



Our value chain

Uniting the source with end users

Value to

Value from

Upstream	Greenlanders	Social contract and royalties, taxes and share in dividends. Infrastructure and jobs.	Holistic environmentalism
	Shareholders	Strong dividends with clean reputation.	Financial and industry support.
Midstream	International Partners and communities	New industry, metals hub, new skills and jobs.	Industrialised economy and dynamic downstreaming
Downstream	The Global Community	Carbon free products, supporting climate control, low cost materials.	The Global Community: Conscience and end-users.

Resource 500 Fevti Ltd

- ❖ Incorporated in Ireland,
- ❖ Holder of mineral exploration license MEL 2017-27 issued by the Government of Greenland.
- ❖ 100% owned by VTi Resources Ltd. (Isle of Man) whose majority shareholder is Resource 500 Group Ltd.

VTi Ltd. is inviting investors to join in the development of Isortoq and partners to establish a midstream hydrometallurgical plant and business.



PHILIP ANDREWS - Director & CEO

Principal in Pridolian, a resource focused investment advisory. Philip has advised the two previous license holders on the Isortoq property and is familiar with the project potential, characteristics and approach. He has worked in the role of Investment Advisor on a wide variety of mineral projects particularly in Russia, FSU and Sub-saharan Africa, covering Titanium, Tin, Tungsten, Lead & Zinc, Gold, PGMs, Coal, Iron Ore and mineral sands both in Greenland (Thule project prior to Blue Jay ownership) and Columbia. He has a license degree in Metaphysics and speaks several languages.



MICHAEL DE VILLIERS – Chairman

Michael qualified as a Professional Accountant with Ernst & Young in Cape Town. He gained his experience as Financial Manager at mining and chemicals operations in Botswana, Bulgaria, Ghana, Namibia and the United Kingdom. He was previously CFO of Eurasia Mining plc, Finance Director of Mercator Gold (now ECR Minerals plc), Oxus Gold plc and Navan Mining plc. He is currently the Chairman of AIM listed Arianna Resources, a company whose transformation he has overseen from being a gold exploration company to a gold producer.



THOMAS WALLMACH Non Executive indep. Director - Mineralogy and Metallurgy

With over 35 years of experience, Thomas is a worldwide expert in geometallurgy. He has a Master of Science degree in mineralogy and is a Doctor of Science in geology. Thomas joined ERAMET Research in 2009 after 25 years in South Africa where he worked in various fields related to mining and metallurgy. He contributed to the development of automated mineralogy (Qemscan software) to model potential improvements of physical beneficiation. Thomas has specific expertise in heavy minerals, precious metals, iron and Pb/Zn/Cu ores. He is a specialist in Geometallurgy, Geology, Mineralogy and Mineral Processing.



CHRISTIAN SCHAFFALITZKY Director and Secretary of Resource 500 Fevti Ltd. - Geology

Managing Director of Eurasia Mining plc, currently developing a platinum mine in Russia. With more than 40 years experience in minerals exploration and development, he co-founded the international consultancy CSA Global and subsequently was a founder of Ivernica West plc, where he led the exploration, discovery and development of the Lisheen zinc deposit in Ireland. More recently, he was Managing Director of Ennex International PLC working on zinc and served on the boards of Chelyabinsk Zinc and Rapsadskaya Coal in Russia. He is also non-executive chairman of Kibo Mining plc and on the board of three other exploration companies. Christian is a fluent Danish speaker.



ROB BOWELL PhD Advisor - Geochemistry

Geochemist with 27 years experience. Rob is a director at SRK with a background in applied geology in tropical and deeply weathered terrain's and mining consulting in the fields of due diligence, financial and technical audits, process chemistry, environmental geochemistry, environmental engineering and mineralogy. He specializes in the application of chemistry and mineralogy to solve engineering problems. Specialization in vanadium uranium, copper and REE deposits and experience in gold, lithium, base metals, nickel-PGE, coal, iron, phosphate, tin, beryllium, fluorite and manganese. Experience in North America, South America, Greenland, Africa and in Eastern Europe.



ANNA POBEREZHNA Advisor - ESG and investment

Anna is a sustainability and fintech entrepreneur with a focus on value chains of natural resources and infrastructure, systems transformation & ecosystems creation. Founder of Smart4tech. Committee member of Sustainable Finance Live initiative. A published author on sustainable innovation and finance, UN COP24 (SIF Forum), Bloomberg Environment, Global Water Intelligence, Women in Mining, EBRD publications and discussions. She has taken various project from idea through MVP, pilot and deployment, building the business cases throughout these initiatives following an incremental systemic approach, including award-winning projects and start-ups worth over £30M today.



KRISHNA KUMAR – Advisor - Mining economics

Krishna was business development director for one of India's largest private sector mining companies, Thriveni, until 2014 with responsibility for leading exploration teams into west Africa for Iron ore, gold, heavy mineral sands, copper, manganese, bauxite and other minerals. He also was responsible for exploration in Brazil, Chile, Peru and successfully closed the Mini-Minas project with Vale. He has worked on mineral processing plants for beneficiation, agglomeration (pellet plants, DRI) and downstream metallurgy processes. Similarly he has a high level of professional knowledge of open pit mining processes and associated costs which is coupled with knowledge of pyro- and hydrometallurgy.



DIDIER FOHLEN – Advisor

Didier has an engineering degree (School of Geology and Mines - Nancy). He 39 years' experience in natural resources, energy and geoscience including senior management positions in project finance, exploration, mine development, operations, and closure/rehabilitation. This included 15-years in the World Bank Group/IFC mining group working worldwide. He spent 3 years¹² with Areva Mines, looking after their new projects in Canada, Niger and Namibia as well as historical mines in the US and France. More



DIDIER FOHLEN – Advisor

Didier has an engineering degree from the School of Geology and Mines of Nancy, France. He has 38 years' experience in natural resources, energy and geoscience including senior management positions in project finance, exploration, mine development, operations and closure/rehabilitation, and setting up junior explorers. This included 15-years in the World Bank Group/IFC mining group working in Europe, Africa, Middle East, Asia and Russia. He spent 3 years with Areva Mines, looking after their new projects in Canada, Niger and Namibia as well as historical mines in the US and France. More recently during 7 years, he held various top positions in Lydian International, and he was a Founder and Executive Director of Tethyan Resources. Didier created SustainRisk in 2016 providing related consultancy services.



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Contact

Philip Andrews

Email: pa@resource500.com

pa@vti100.com

Tel: +353 83 141 1304

Website: www.vti100.com

Resource 500 FeVTi Ltd.

Incorporated in the Republic of Ireland

Registration No. 600904

Address: 1 Marine Terrace, Dun Laoghaire, Dublin