GREENLAND
MINERALS AND ENERGY LTD

Materials For An Energy Efficient Future

Annual General Meeting
May 31st, 2017

Important Notice

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JORC Code (2012) *Competent Person Statement – Mineral Resources and Ore Reserves*

The information in this report that relates to Mineral Resources is based on information compiled by Mr Robin Simpson, a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Simpson is employed by SRK Consulting (UK) Ltd ("SRK"), and was engaged by Greenland Minerals and Energy Ltd on the basis of SRK's normal professional daily rates. SRK has no beneficial interest in the outcome of the technical assessment being capable of affecting its independence. Mr Simpson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Robin Simpson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in the statement that relates to the Ore Reserves Estimate is based on work completed or accepted by Mr Damien Krebs of Greenland Minerals and Energy Ltd and Mr Scott McEwing of SRK Consulting (Australasia) Pty Ltd.

Damien Krebs is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the type of metallurgy and scale of project under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

Scott McEwing is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as Competent Persons in terms of The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). The Competent Persons consent to the inclusion of such information in this report in the form and context in which it appears.

The mineral resource estimate for the Kvanefjeld Project was updated and released in a Company Announcement on February 12th, 2015. The ore reserves estimate was released in a Company Announcement on June 3rd, 2015. There have been no material changes to the mineral resource estimate, or ore reserves estimate since the release of these announcements.

Greenland Minerals and Energy Ltd

GMEL

ASX-Listed, Greenland-Focused Mineral Explorer and Developer

Board

Non-Executive Chairman	Tony Ho
Managing Director	Dr John Mair
Non-Executive Director	Simon Cato
Non-Executive Director	Wenting Chen

Top Shareholders

Shenghe Resources Holding	125M shares (12.5%)
Global X Uranium ETF	92M shares
Tracor Limited	53M shares

Capital Structure

Shares outstanding	1004M
Options outstanding	187M ex $0.08, Sept 20 2018
	7.5M ex $0.2, Feb 24th 2018
	7.5M ex $0.25, Feb 24th 2018
Undiluted market capitalization	**A$105M** (@10.5 cents)

Kvanefjeld Project Ownership - 100%

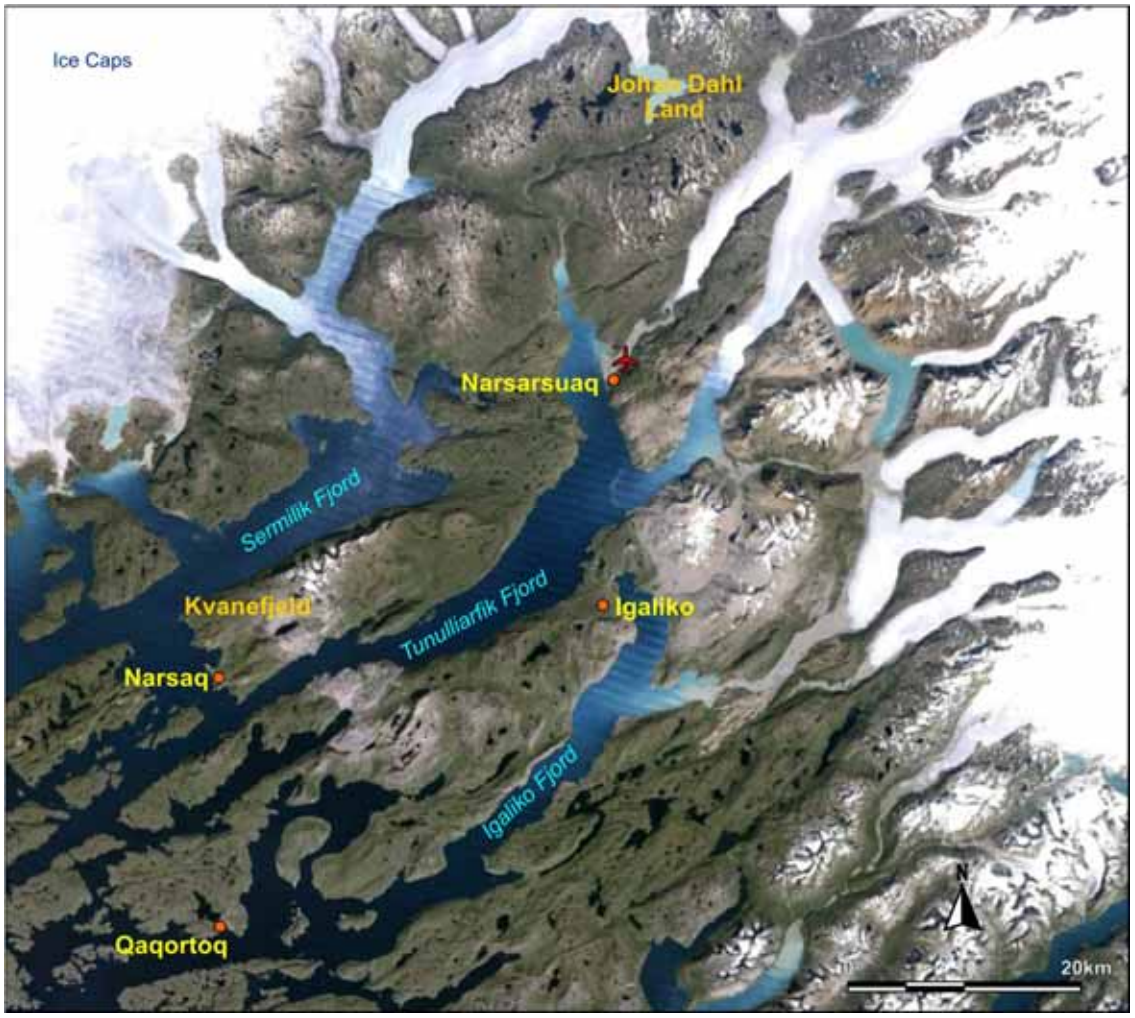
Kvanefjeld Project:

A cornerstone to future specialty metal supply

- **Globally unique, and significant multi-element project**
  - Rare earth elements, uranium, zinc, fluorspar, potential for further by-products
- **Ideally located in readily accessible southern Greenland, close to infrastructure**
- **Advanced project status – permitting underway, regulatory framework established**
- **Industrial project partner – Shenghe Resources Holding – 12.4% shareholder**
  - Brings downstream rare earth processing, international customer base

Southern Greenland:
A Readily Accessible Location

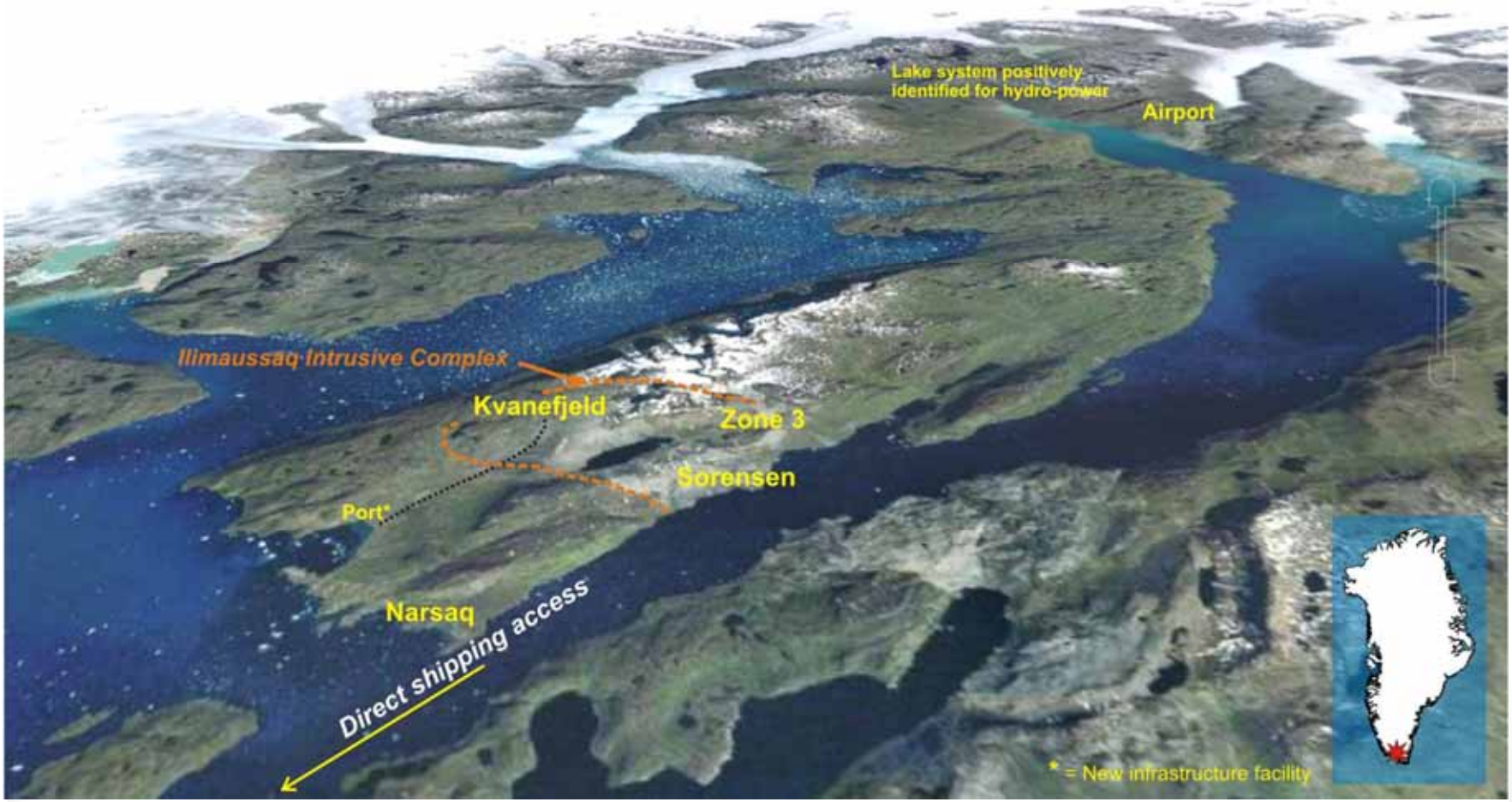
GMEL



“Year-round direct shipping access, airport nearby, hydropower opportunities”

Project Area Hosts Worlds Largest Code-Compliant* REE-U Mineral Resource

GMEL

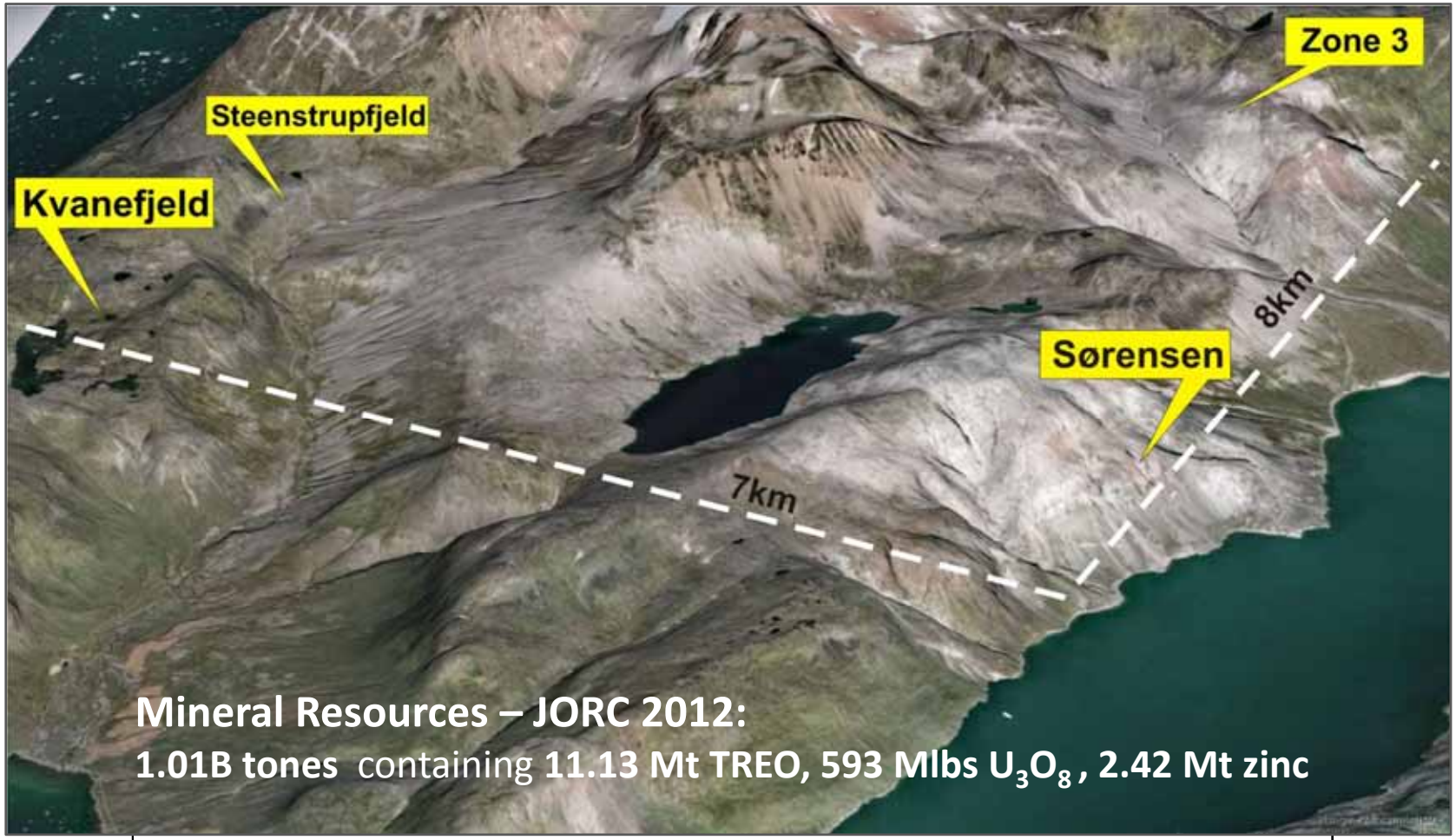


> >1 billion tonnes defined (JORC 2012), <15% of prospective area evaluated

*JORC or CIM

Mineral Resources – Multiple Deposits

GMEL



37 Year Mine Reserves at Kvanefjeld Deposit - 2015				
Classification (JORC 2012)	**Inventory (Mt)**	**REO (ppm)**	**U_3O_8 (ppm)**	**Zn (ppm)**
Proven	43	14,700	352	2,700
Probable	64	14,000	368	2,500
Total	**108**	**14,300**	**362**	**2,600**

Kvanefjeld Deposit – Starting Point

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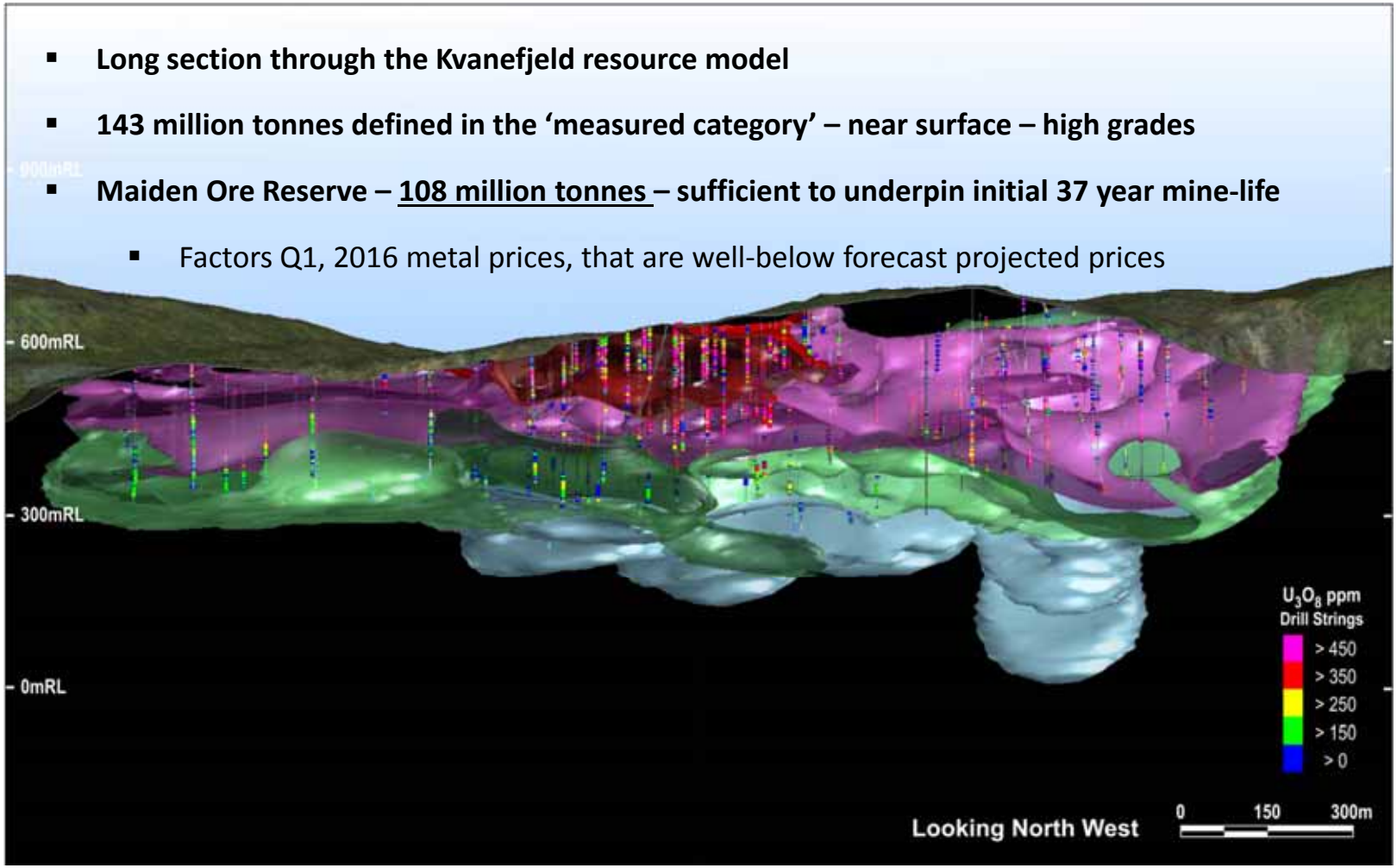
- **Long section through the Kvanefjeld resource model**
- **143 million tonnes defined in the 'measured category' – near surface – high grades**
- **Maiden Ore Reserve – <u>108 million tonnes</u> – sufficient to underpin initial 37 year mine-life**
  - Factors Q1, 2016 metal prices, that are well-below forecast projected prices



Advantageous, Pilot Plant Proven Metallurgy

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Residues

Flotation Tailings (>90% vol)

Refinery Tailings (<10% vol)

Mine and Concentrator

Leach Circuit

Products

Zinc Concentrate

Fluorspar

Uranium Concentrate

Rare Earth Intermediate concentrate

Rare Earth Separation

Rare Earths Metals
Rare Earth Oxides
Rare Earth Alloys

Magnets – A Vital Growth Area

GMEL

Magnetism:

'the interface between electricity and motion'

- **Rare earth metals make the worlds <u>strongest</u> permanent magnets**
- **Key to clean energy generation and efficient energy use**
- **Ongoing electrification of transport systems and push to increased energy efficiency driving *major* demand growth**

Magnet Metals Are At The Heart of Kvanefjeld

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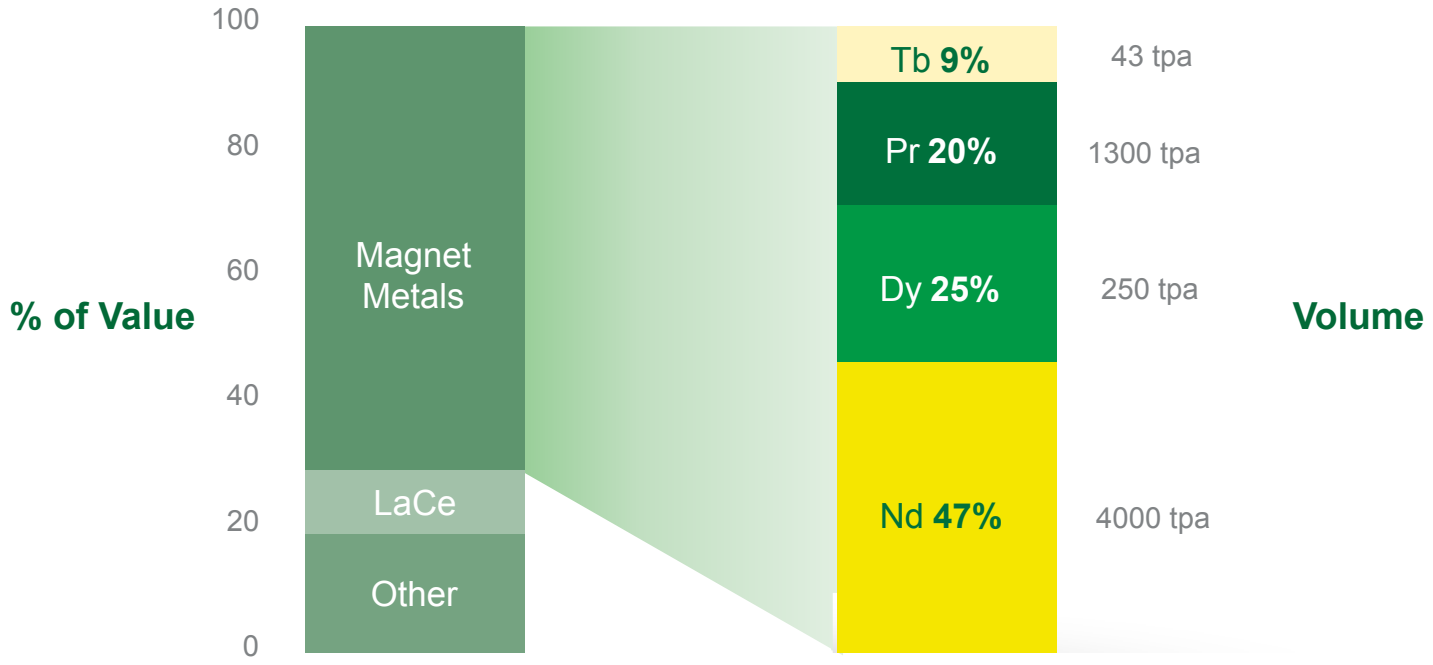
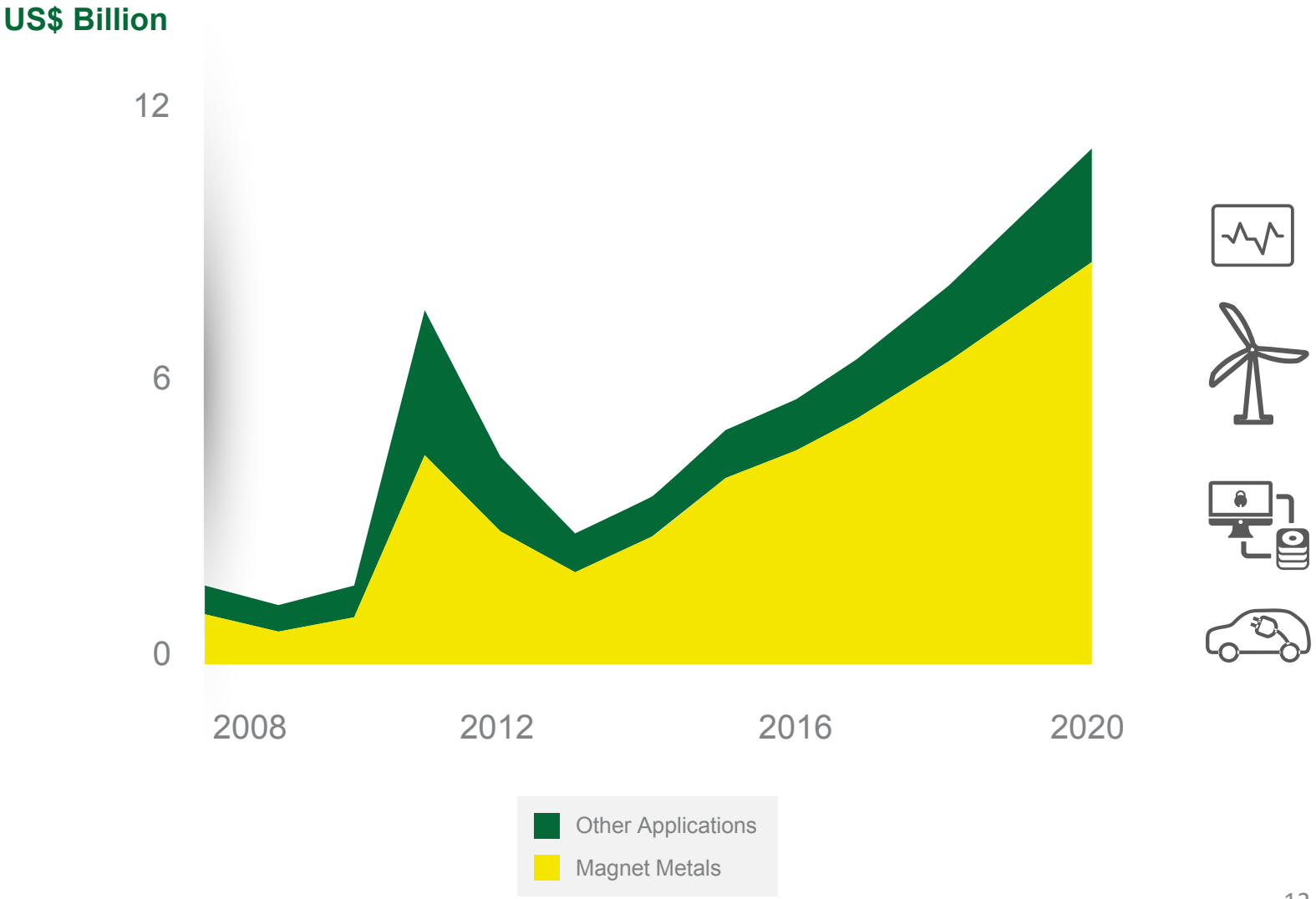
La	Ce	**Pr**	**Nd**	Sm	Eu	Gd	**Tb**	**Dy**	Er	Yb	Lu	Ho	Y



Uranium, a key by-product is set to contribute ~10% of revenues

[See Company Announcements, May 25th, 2015, and April 6th, 2016]

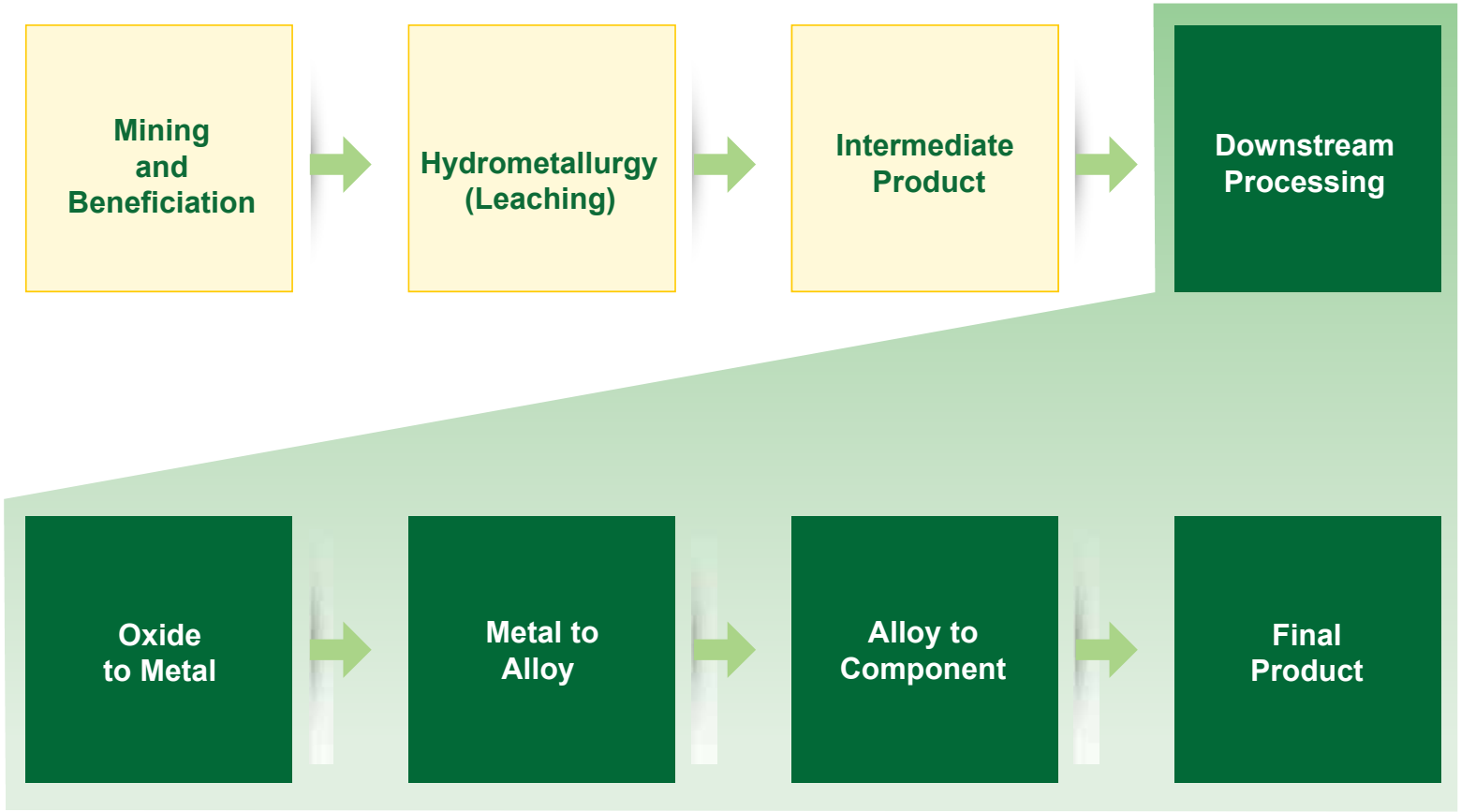
Demand for Rare Earth Magnet Material



Source: Adamas Intelligence

The Rare Earth Supply Chain

GMEL



- China is the world-leader in downstream processing technology and capacity
- Major reforms to RE industry in China is leading to reductions in primary mine supply
- New, stable, long-life, cost-competitive mines needed – [Kvanefjeld]

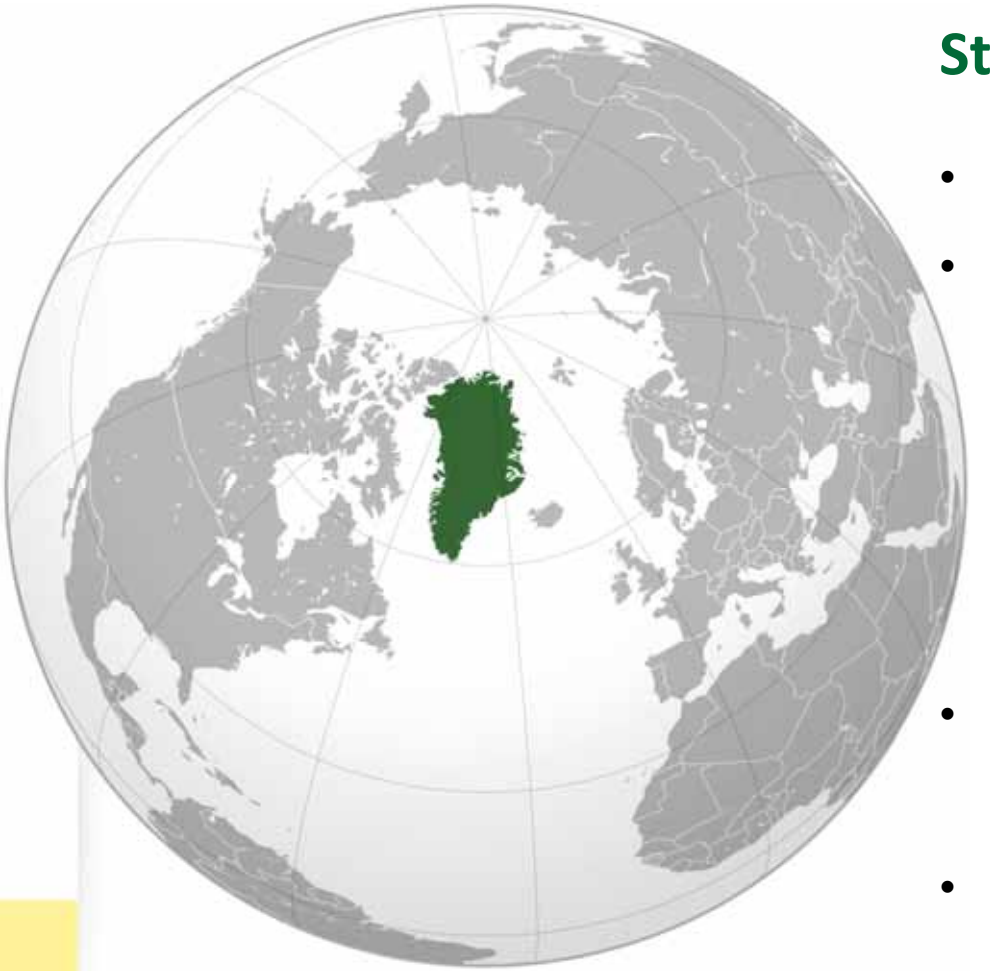
‘Strategic Partner’:

Shenghe Resources Holding

- GMEL and Shenghe have commenced strategic co-operation with the aim of jointly developing Kvanefjeld
- Shenghe is a leading rare earth company, very strong technical expertise, large down stream processing capacity, strong international customer network
- Shenghe is 14.9% owned by one of China’s premier technical institutes **IMUMR**, that is a world leader in rare earth processing technology
- Shenghe now a **12.5%** shareholder in GMEL, commenced technical co-operation to enhance the project and align with down steam processing
- Utilising access to technology to recover addition products – targeting Li, Sc, Zr, Hf,

‘Strategic Partner’:

Shenghe Resources Holding



Strategy: – Optimise and Integrate

- **GMEL: Premier specialty metal project**
- **Shenghe: Leading processing technology,**
  - ✓ *International customer base,*
  - ✓ *Processing facilities in China, Vietnam,*
  - ✓ *Kvanefjeld could feed a number of facilities globally*
- **Opportunity:** Major structural change in supply networks opens window
- **Agenda:** Through integration with Shenghe, Greenland to become a *cornerstone* supplier to global industry

Technical Cooperation Underway

GMEL

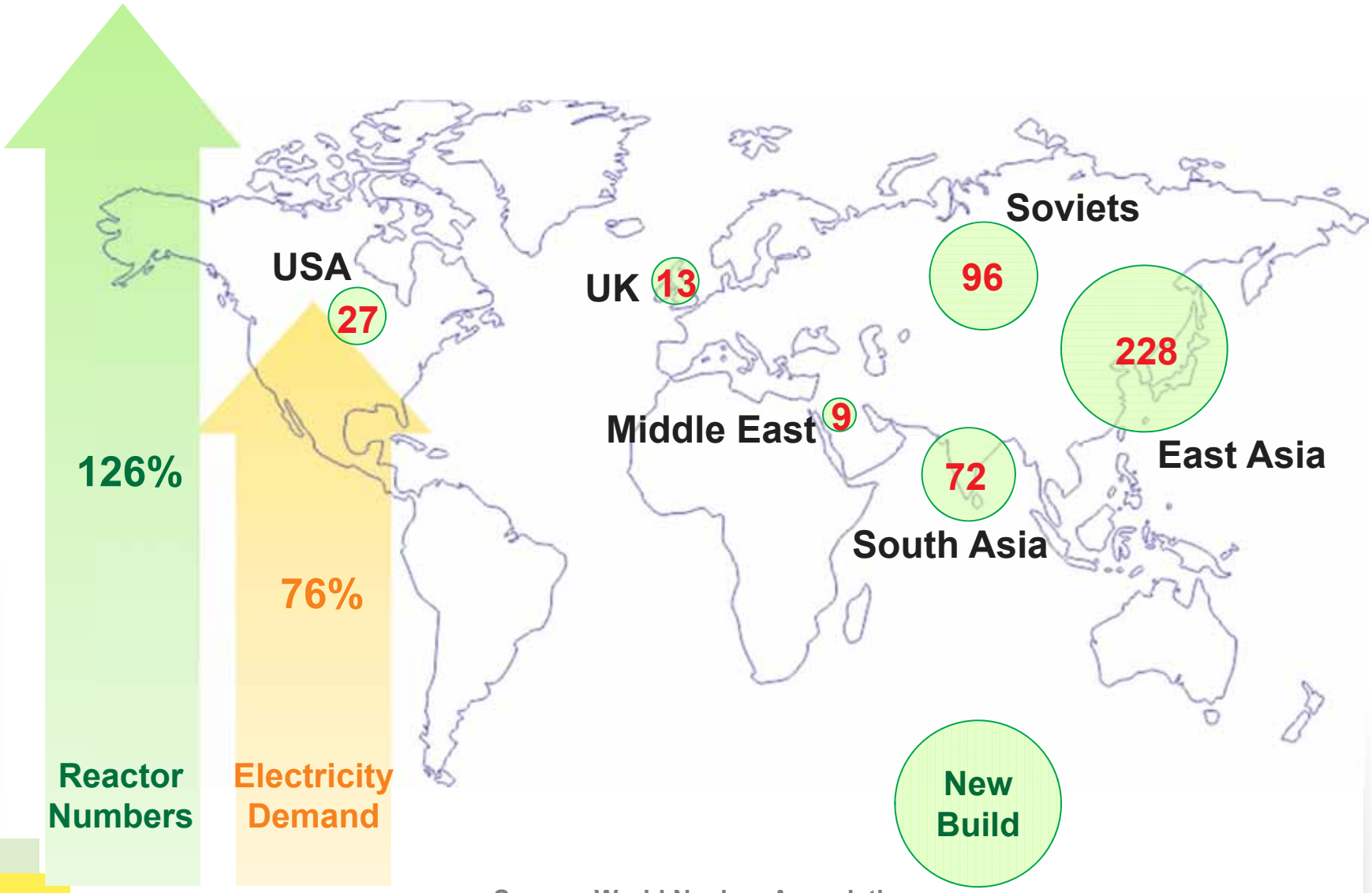
- **Technical Committee established, work programs planned, sample material deployed, test work underway**
- **IMUMR working to enhance concentrator (flotation) circuit**
  - Aim – improve grade, simplify, improve operating costs
- **Leach circuit optimisation work underway in Australia**
  - Aim – simplify circuit and best align with downstream processing

Multi Element Advantage:
By-Products Strengthen Economics

- Uranium is to be a key by-product from the Kvanefjeld, with strong demand outlook
- Recovered at a very low incremental cost (<$5/lb U_3O_8), thereby providing a stable revenue stream
- Zinc concentrate (sphalerite) and fluorspar are to be produced at the concentrator circuit
- GMEL looking into recovering further by-products from the leach solution, with technical support from Shenghe and IMUMR

Energy from Nuclear by 2030

GMEL



Source: World Nuclear Association

Growth in Reactors and Nuclear Capacities

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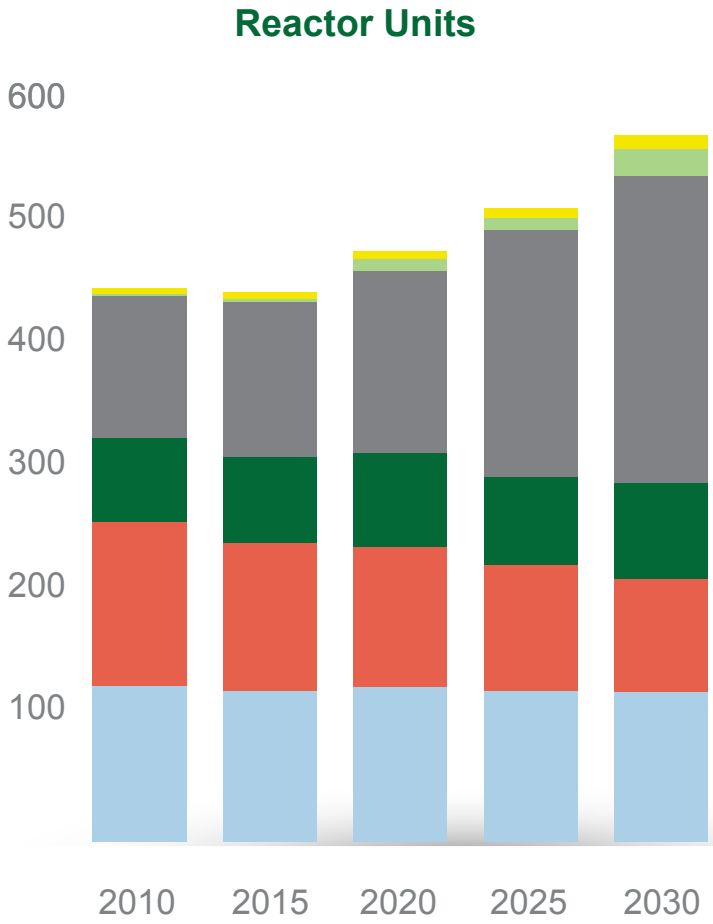

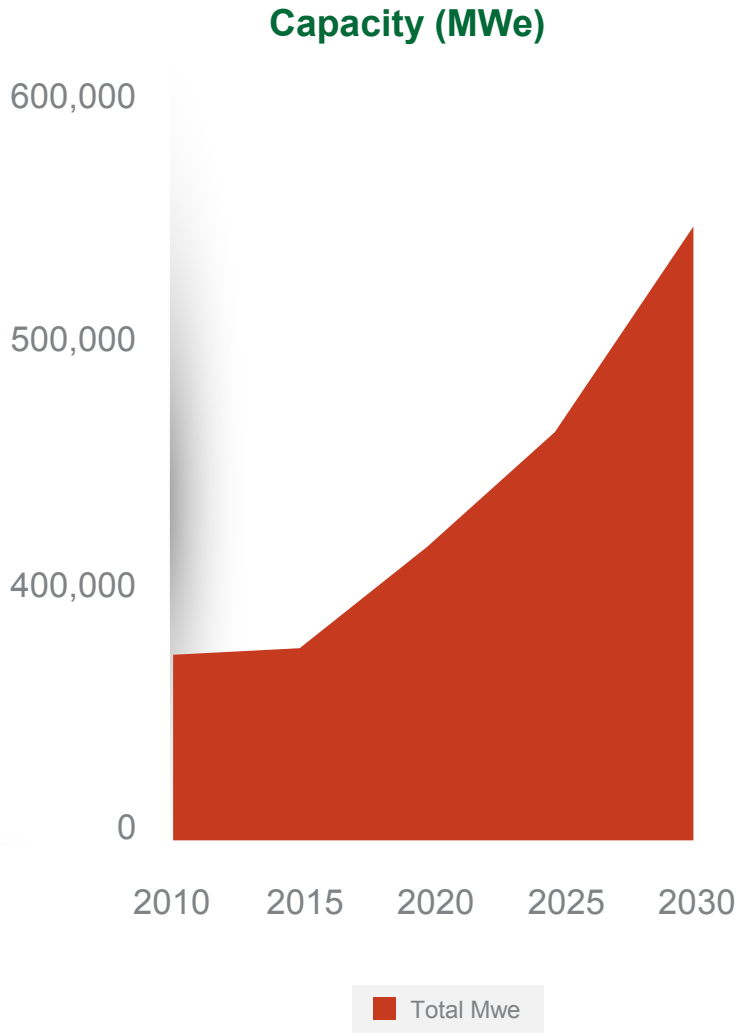

Towards a License to Operate

Uranium is a projected by-product at Kvanefjeld, but establishing regulations to manage the production and exports of uranium has been essential to project permitting and development. On this front, a solid foundation is in place.

MINING LICENSE

IBA

PUBLIC CONSULTATION

2017

ADDRESS RECOMMENDATIONS

EXPERT REVIEW of APPLICATION

2016

URANIUM EXPORT LEGISLATION

2015

APPLICATION FINALISED

Terms of Reference APPROVALS

SUPPORTIVE & PROACTIVE GOVERNMENT

URANIUM ZERO-TOLERANCE GONE

2011

URANIUM ON LICENSE

CONCEPT

2007

OPPORTUNITY

STAKEHOLDER ENGAGEMENT

Kvanefjeld - Strong Focus on Minimising Project Impacts

GMEL

- The confluence of access, scale and process advantage at Kvanefjeld cannot be replicated
- *Innovation* has been the key to unlocking the potential, ultimately accessing the value
- Development strategy established with stakeholder input, and designed to minimise impacts

Project Layout:
Designed to Minimise Impacts

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Established project scope, Terms of Reference (ToR) approved

Permitting Process – Status

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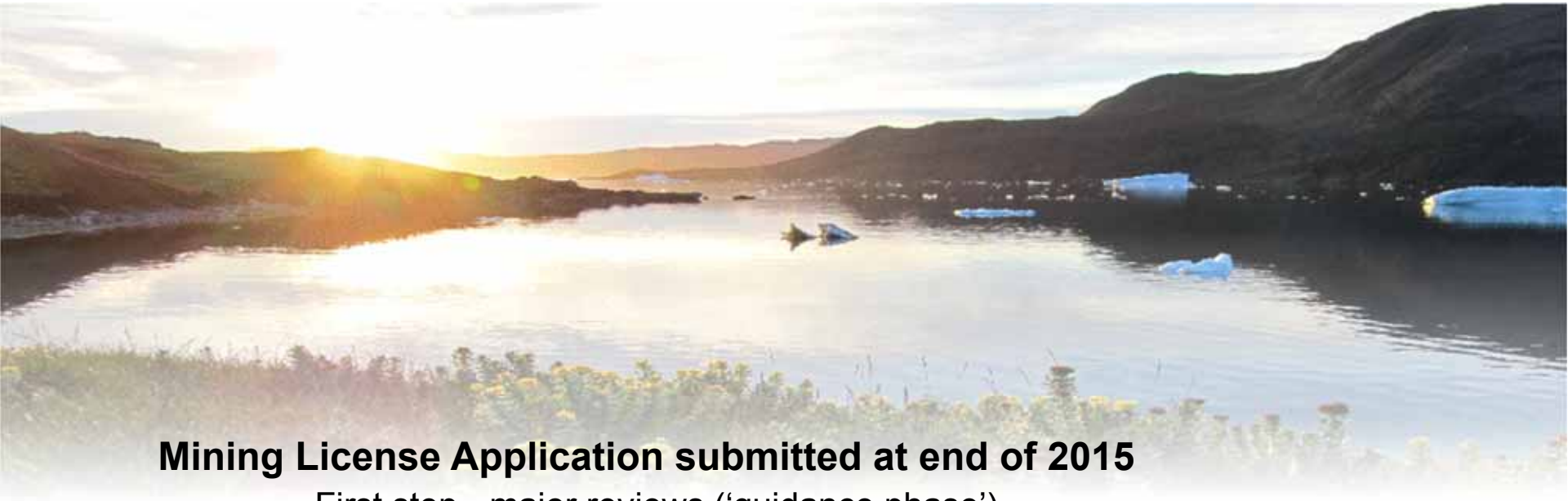

Mining License Application submitted at end of 2015

First step - major reviews ('guidance phase')

Key components, Environmental and Social Impact Assessments

- **SIA reviews** – Ministry for Industry Trade and Labour (Greenland)
- **EIA reviews** – Environmental Agency for Mineral Resource Activities
  Danish Centre for Environment,
  Expert Consultants

Detailed reviews conducted through 2016,

- Recommendations currently being addressed

Regulatory Framework Implemented

GMEL

IAEA Director General visits Kvanefjeld – May 2017

- The Governments of Greenland and Denmark have worked to establish a regulatory framework to manage the production and export of uranium from Greenland
- Enabling legislation passed by both respective parliaments to implement safeguards and export controls in accordance with IAEA and EURATOM safeguards
- In September 2016, Greenland formalised status as signatory to IAEA conventions

Jakob Rohmann Hard (Chief of Protocol, Foreign Department, Greenland), Liselotte Plesner (Danish Ambassador, Vienna), Nuka Møller (Greenland Business), Jørn Skov Nielsen (Deputy Minister, Industry Trade and Labour, Greenland), Kim Kielsen (Greenland Premier), John Mair (Managing Director, GMEL), Yukiya Amano (Director General, IAEA)

Greenland Minerals and Energy Ltd

Materials for a Clean and Energy Efficient Future

GMEL

Greenland's Kvanefjeld – an optimum cornerstone to new rare earth supply chains

- **Scale** – world leading rare-earth uranium resources, poly-metallic advantage
- **Location and access** – direct shipping access, year round
- **Processing advantage** – pilot plant proven metallurgy, unique, simple methodology
- **Advanced project status** – permitting underway, key uranium legislation passed
- **Strategic partner** – Leading rare earth group Shenghe looking to jointly develop the project, provide downstream processing, and marketing to international customer base

Kvanefjeld Project – Mineral Resources

GMEL

Statement of Identified Mineral Resources – (JORC-Code 2012 Compliant)

Multi-Element Resources Classification, Tonnage and Grade										Contained Metal				
Cut-off	**Classification**	**M tonnes**	**TREO[2]**	**U_3O_8**	**LREO**	**HREO**	**REO**	**Y_2O_3**	**Zn**	**TREO**	**HREO**	**Y_2O_3**	**U_3O_8**	**Zn**
(U_3O_8 ppm)[1]		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Kvanefjeld - February 2015														
150	**Measured**	143	12,100	303	10,700	432	11,100	978	2,370	**1.72**	0.06	0.14	**95**	0.34
150	**Indicated**	308	11,100	253	9,800	411	10,200	899	2,290	**3.42**	0.13	0.28	**172**	0.71
150	**Inferred**	222	10,000	205	8,800	365	9,200	793	2,180	**2.22**	0.08	0.18	**100**	0.48
150	**Grand Total**	673	10,900	248	9,600	400	10,000	881	2,270	**7.34**	0.27	0.59	**368**	1.53
200	**Measured**	111	12,900	341	11,400	454	11,800	1,048	2,460	**1.43**	0.05	0.12	**83**	0.27
200	**Indicated**	172	12,300	318	10,900	416	11,300	970	2,510	**2.11**	0.07	0.17	**120**	0.43
200	**Inferred**	86	10,900	256	9,700	339	10,000	804	2,500	**0.94**	0.03	0.07	**49**	0.22
200	**Grand Total**	368	12,100	310	10,700	409	11,200	955	2,490	**4.46**	0.15	0.35	**252**	0.92
250	**Measured**	93	13,300	363	11,800	474	12,200	1,105	2,480	**1.24**	0.04	0.10	**75**	0.23
250	**Indicated**	134	12,800	345	11,300	437	11,700	1,027	2,520	**1.72**	0.06	0.14	**102**	0.34
250	**Inferred**	34	12,000	306	10,800	356	11,100	869	2,650	**0.41**	0.01	0.03	**23**	0.09
250	**Grand Total**	261	12,900	346	11,400	440	11,800	1,034	2,520	**3.37**	0.11	0.27	**199**	0.66
300	**Measured**	78	13,700	379	12,000	493	12,500	1,153	2,500	**1.07**	0.04	0.09	**65**	0.20
300	**Indicated**	100	13,300	368	11,700	465	12,200	1,095	2,540	**1.34**	0.05	0.11	**82**	0.26
300	**Inferred**	15	13,200	353	11,800	391	12,200	955	2,620	**0.20**	0.01	0.01	**12**	0.04
300	**Grand Total**	194	13,400	371	11,900	471	12,300	1,107	2,530	**2.60**	0.09	0.21	**159**	0.49
350	**Measured**	54	14,100	403	12,400	518	12,900	1,219	2,550	**0.76**	0.03	0.07	**48**	0.14
350	**Indicated**	63	13,900	394	12,200	505	12,700	1,191	2,580	**0.87**	0.03	0.07	**54**	0.16
350	**Inferred**	6	13,900	392	12,500	424	12,900	1,037	2,650	**0.09**	0.00	0.01	**6**	0.02
350	**Grand Total**	122	14,000	398	12,300	506	12,800	1,195	2,570	**1.71**	0.06	0.15	**107**	0.31

Independently Prepared by SRK Consulting

Kvanefjeld Project – Mineral Resources

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Multi-Element Resources Classification, Tonnage and Grade										Contained Metal				
Cut-off	**Classification**	**M tonnes**	**TREO[2]**	**U_3O_8**	**LREO**	**HREO**	**REO**	**Y_2O_3**	**Zn**	**TREO**	**HREO**	**Y_2O_3**	**U_3O_8**	**Zn**
(U_3O_8 ppm)[1]		Mt	ppm	ppm	ppm	ppm	ppm	ppm	ppm	Mt	Mt	Mt	M lbs	Mt
Sørensen - March 2012														
150	**Inferred**	242	11,000	304	9,700	398	10,100	895	2,602	**2.67**	0.10	0.22	**162**	0.63
200	**Inferred**	186	11,600	344	10,200	399	10,600	932	2,802	**2.15**	0.07	0.17	**141**	0.52
250	**Inferred**	148	11,800	375	10,500	407	10,900	961	2,932	**1.75**	0.06	0.14	**123**	0.43
300	**Inferred**	119	12,100	400	10,700	414	11,100	983	3,023	**1.44**	0.05	0.12	**105**	0.36
350	**Inferred**	92	12,400	422	11,000	422	11,400	1,004	3,080	**1.14**	0.04	0.09	**85**	0.28
Zone 3 - May 2012														
150	**Inferred**	95	11,600	300	10,200	396	10,600	971	2,768	**1.11**	0.04	0.09	**63**	0.26
200	**Inferred**	89	11,700	310	10,300	400	10,700	989	2,806	**1.03**	0.04	0.09	**60**	0.25
250	**Inferred**	71	11,900	330	10,500	410	10,900	1,026	2,902	**0.84**	0.03	0.07	**51**	0.20
300	**Inferred**	47	12,400	358	10,900	433	11,300	1,087	3,008	**0.58**	0.02	0.05	**37**	0.14
350	**Inferred**	24	13,000	392	11,400	471	11,900	1,184	3,043	**0.31**	0.01	0.03	**21**	0.07
Project Total														
150	**Measured**	143	12,100	303	10,700	432	11,100	978	2,370	**1.72**	0.06	0.14	**95**	0.34
150	**Indicated**	308	11,100	253	9,800	411	10,200	899	2,290	**3.42**	0.13	0.28	**172**	0.71
150	**Inferred**	559	10,700	264	9,400	384	9,800	867	2,463	**6.00**	0.22	0.49	**326**	1.38
150	**Grand Total**	1010	11,000	266	9,700	399	10,100	893	2,397	**11.14**	0.40	0.90	**593**	2.42

[1]There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U_3O_8 has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

[2]Total Rare Earth Oxide (TREO) refers to the rare earth elements in the lanthanide series plus yttrium.

Note: Figures quoted may not sum due to rounding.

Independently Prepared by SRK Consulting