



GREENLAND
MINERALS AND ENERGY LTD

Raw Materials for a Clean and Efficient Energy Future



May, 2016

| www.ggg.gl

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.

GMEL'S VISION



To develop a stable, long-term source of materials essential for clean energy generation and energy efficient technologies





GREENLAND

MINERALS AND ENERGY LTD

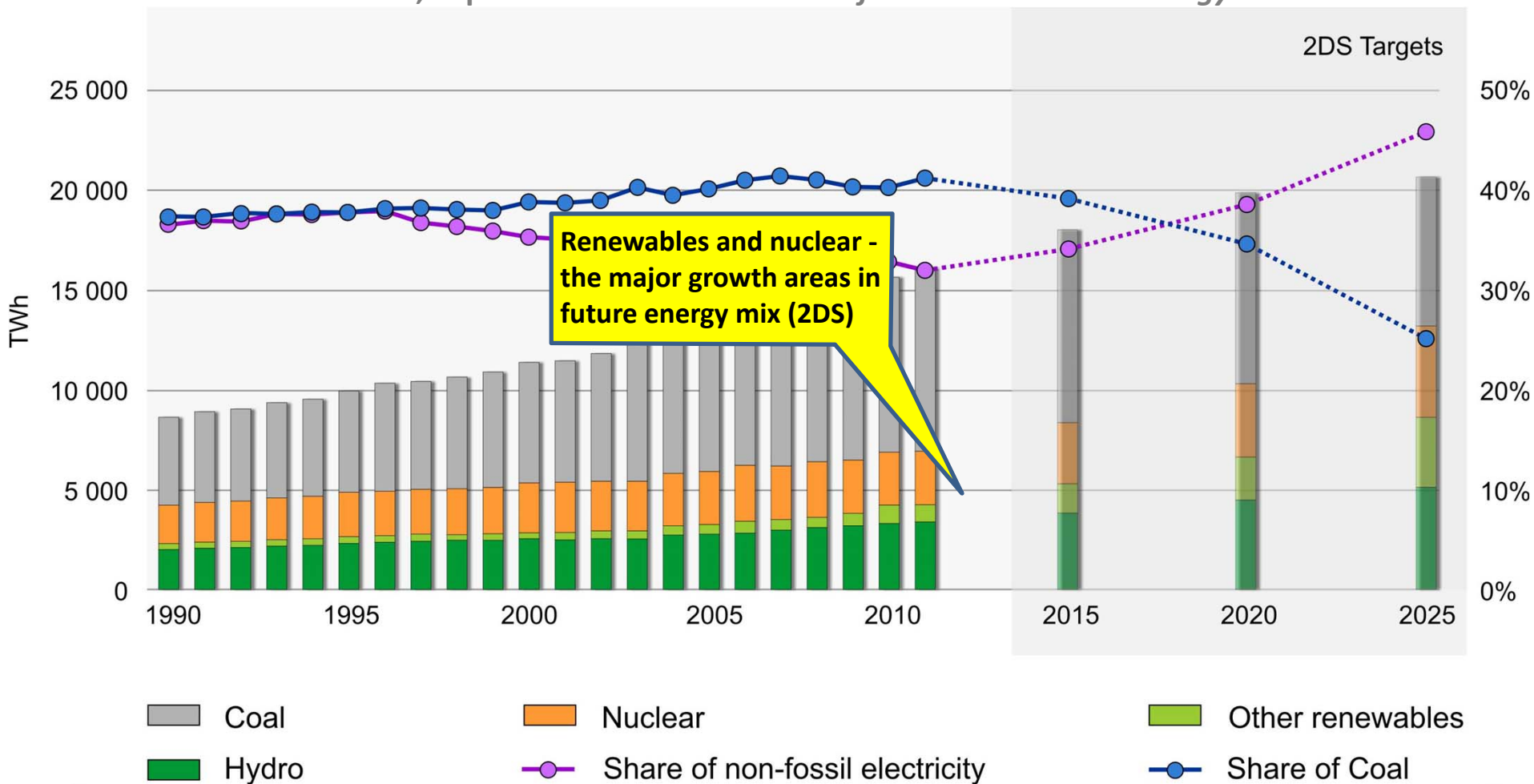
Greenland has a globally-unique natural resource opportunity. One that has been designed as the basis of a new, stable supply network of materials essential to clean energy generation, and energy efficient use.

The strength of the opportunity is backed by:

- *A world leading **rare earth** and **uranium** resource,*
- *A location which offers year-round direct shipping access,*
- *Operations that can be powered by hydro-electricity,*
- *Unique minerals that offer simpler, advantageous processing*
- *Multiple products, diversified revenue streams, low operational costs*

Greenland's Kvanefjeld: Leveraged to a Clean and Efficient Energy Future

UN declaration, September 2014 *"Coal has no future in the world energy mix"*



Source: International Energy Agency (IEA)

The 2°C scenario (2DS) describes an energy system with an emissions trajectory to limit warming to 2°C by 2050

Increasing International Focus on Arctic Resources

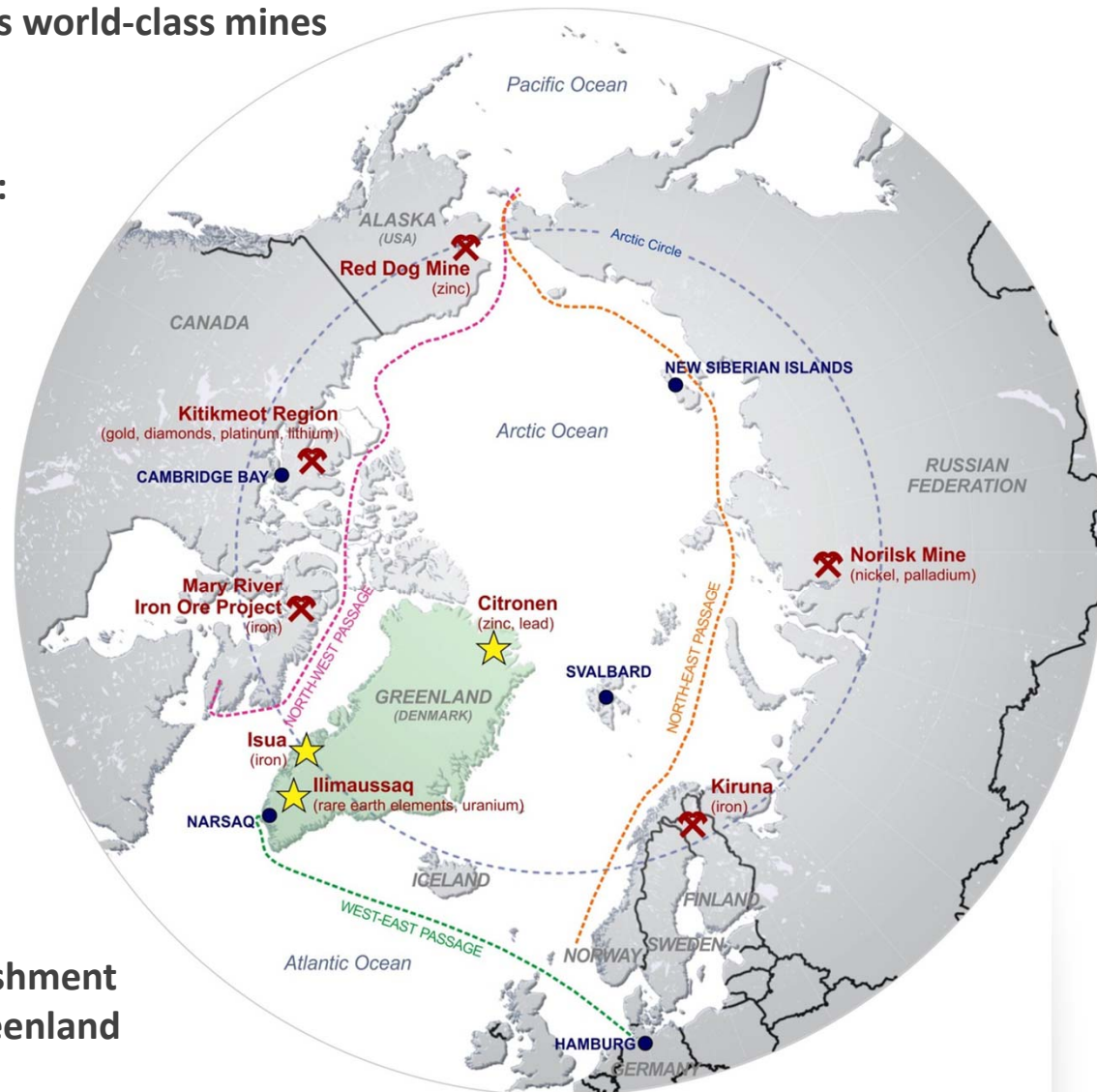
Greenland – the gateway to the Arctic

The Arctic region is host to numerous world-class mines

Greenland is increasingly the centre point of Arctic resource focus due to:

- *Political stability with increasing independence*
- *Political push to move toward a natural resource-based economy*
- *Numerous mineral resource projects awaiting development*
- *Mining licenses being issued*
- *Opening of Arctic shipping lanes providing access to Asia-Pacific*

A growing number of countries are looking to participate in the establishment of a new generation of mines in Greenland

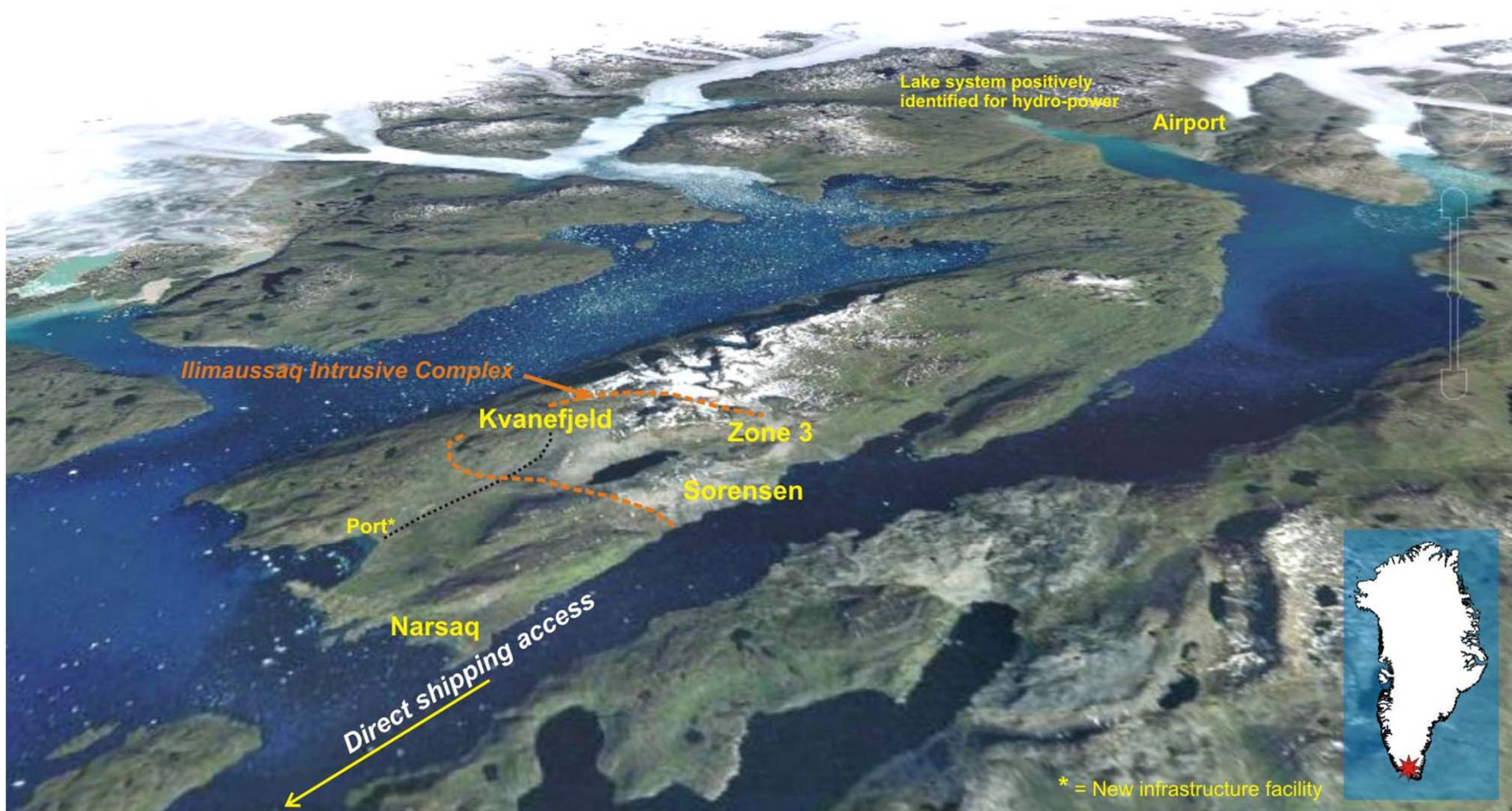


Southern Greenland: A Readily Accessible Location



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

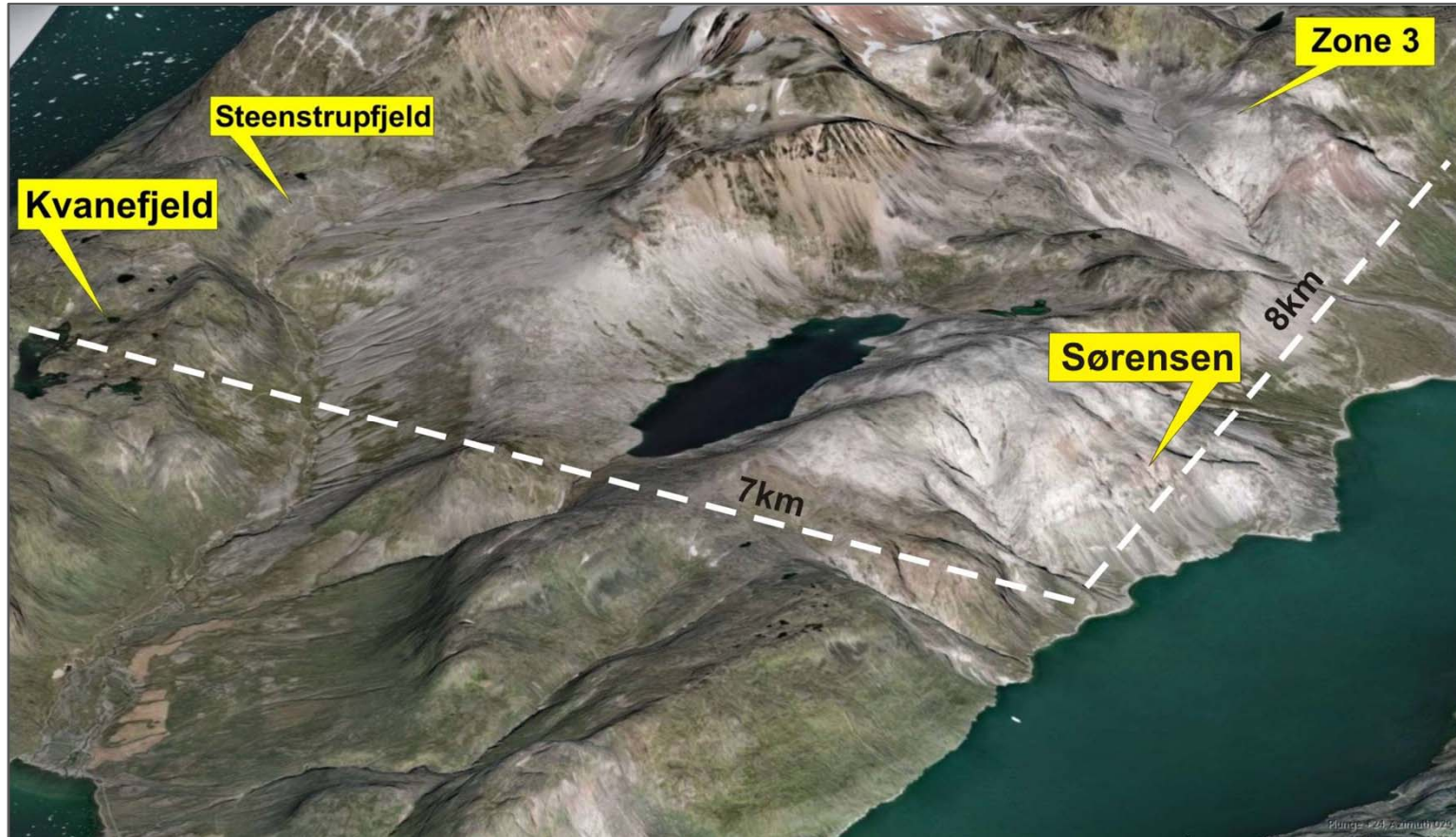
Project Area Hosts Vast Rare Earth and Uranium Resources



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

Mineral Resources – Multiple Deposits

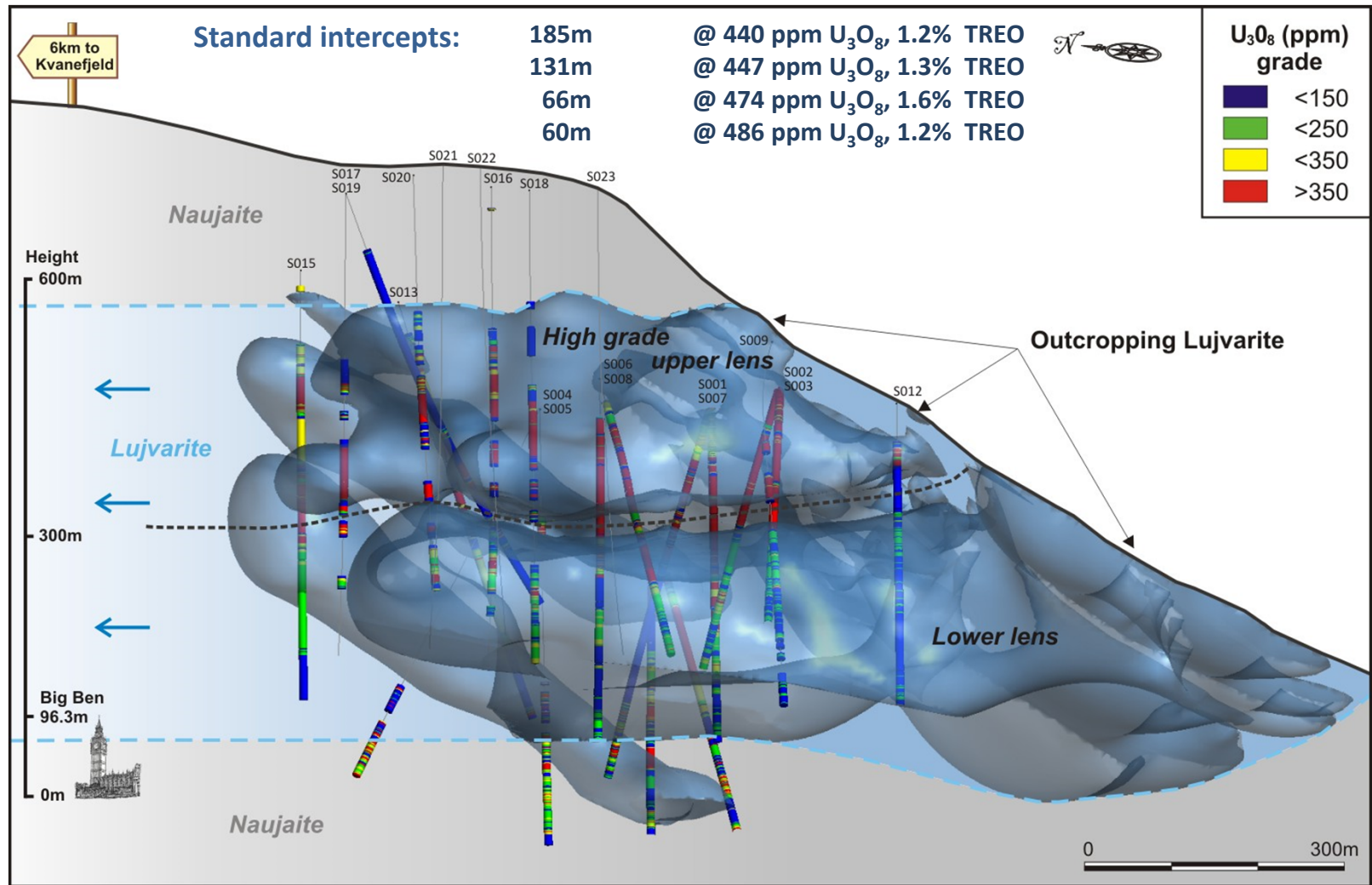
1.01B tones containing 593 Mlbs U_3O_8 , 11.13 Mt TREO, 2.42 Mt zinc



37 Year Mine Reserves at Kvanefjeld Deposit - 2015

Classification (JORC)	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

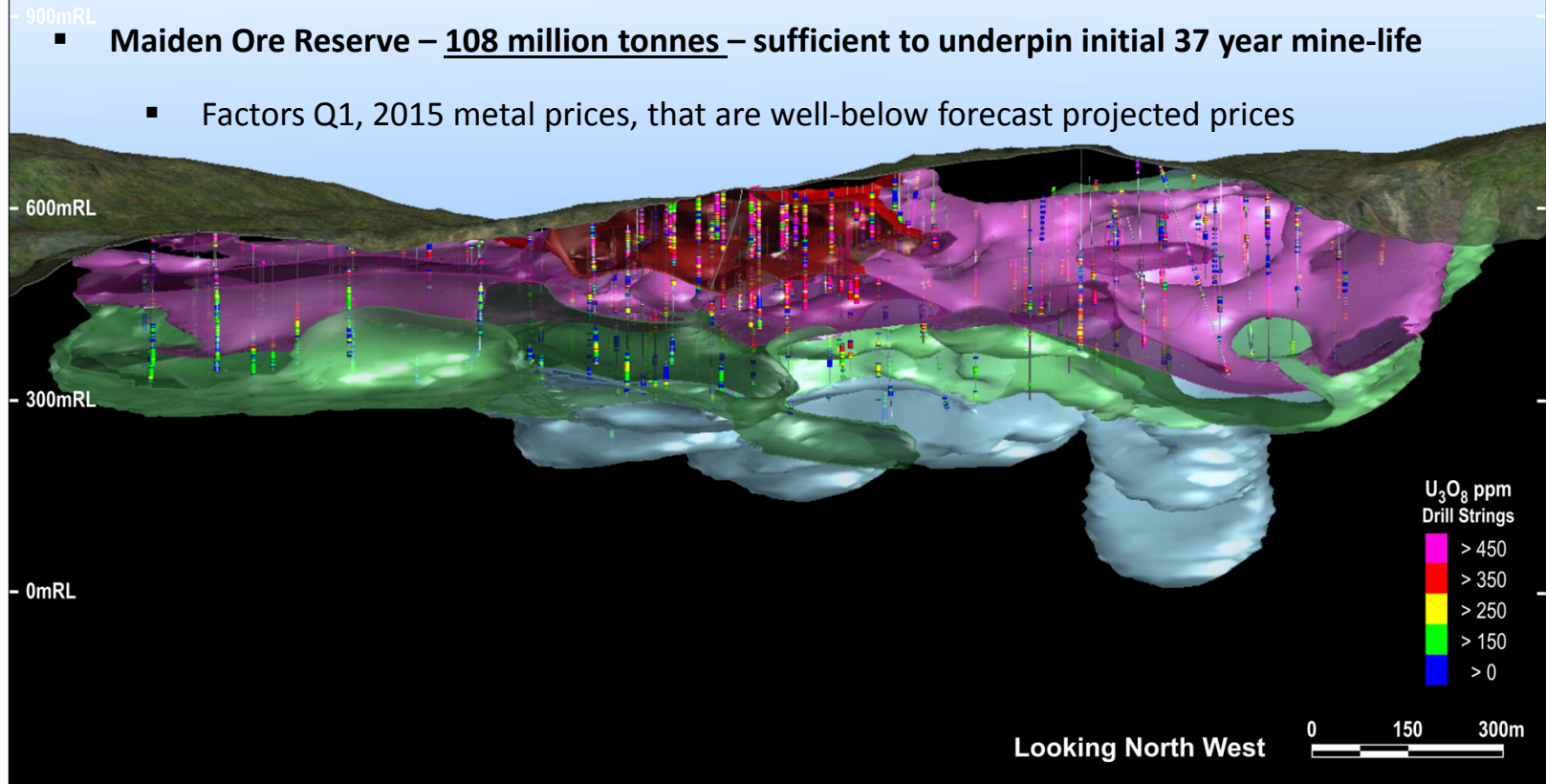
Scale – Laterally Persistent Ore Seam



“ A cross section through the ore seam at Sørensen highlights
 ” the scale and simplicity of a globally-unique ore system

Kvanefjeld Deposit – Starting Point

- Long section through the Kvanefjeld resource model
- 143 million tonnes defined in the ‘measured category’ – near surface – high grades
- Maiden Ore Reserve – 108 million tonnes – sufficient to underpin initial 37 year mine-life
 - Factors Q1, 2015 metal prices, that are well-below forecast projected prices

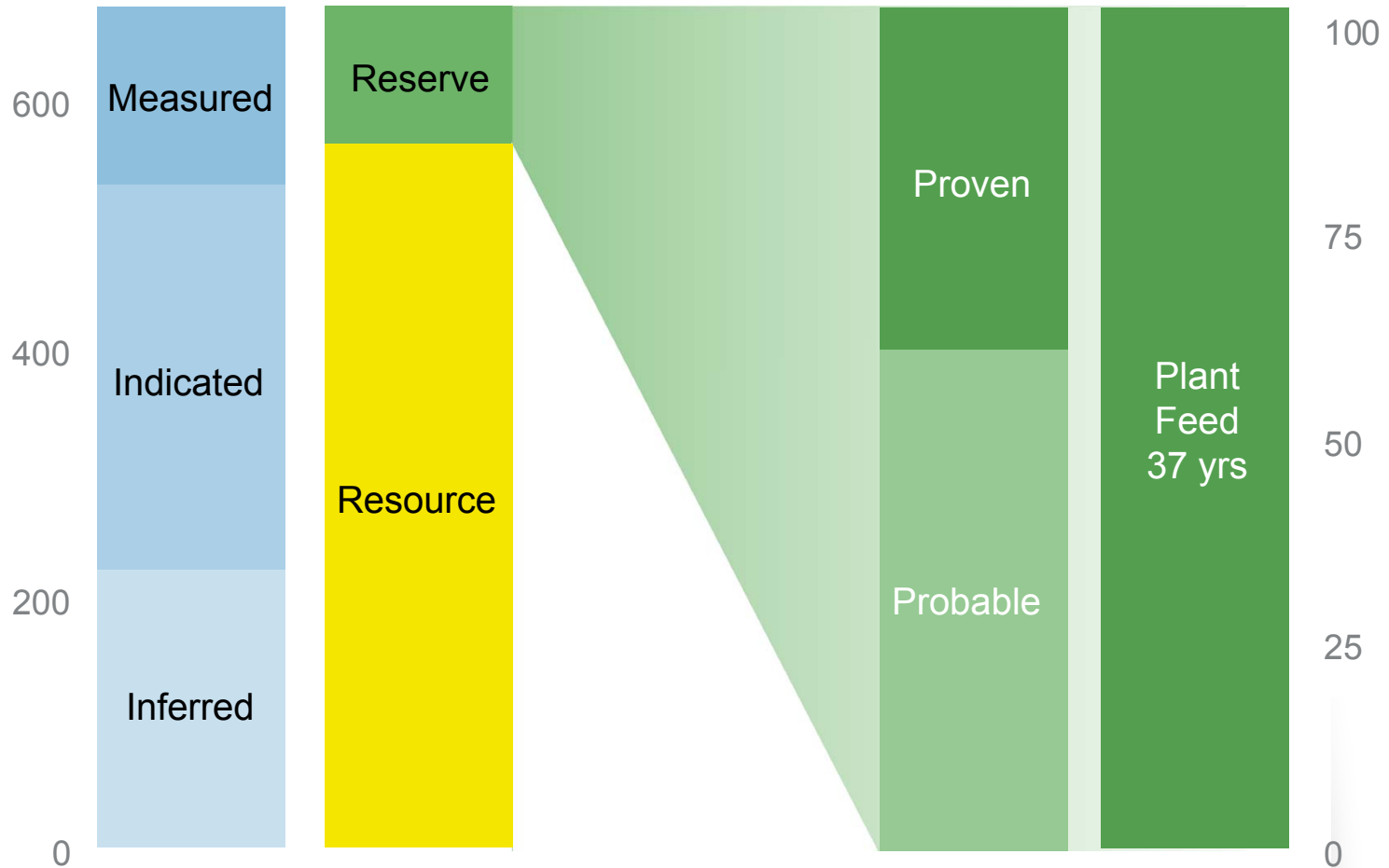


Kvanefjeld Deposit – Reserves, Resources

Sufficient reserves to underpin initial 37 year mine-life

Tonnes [M]
Resources

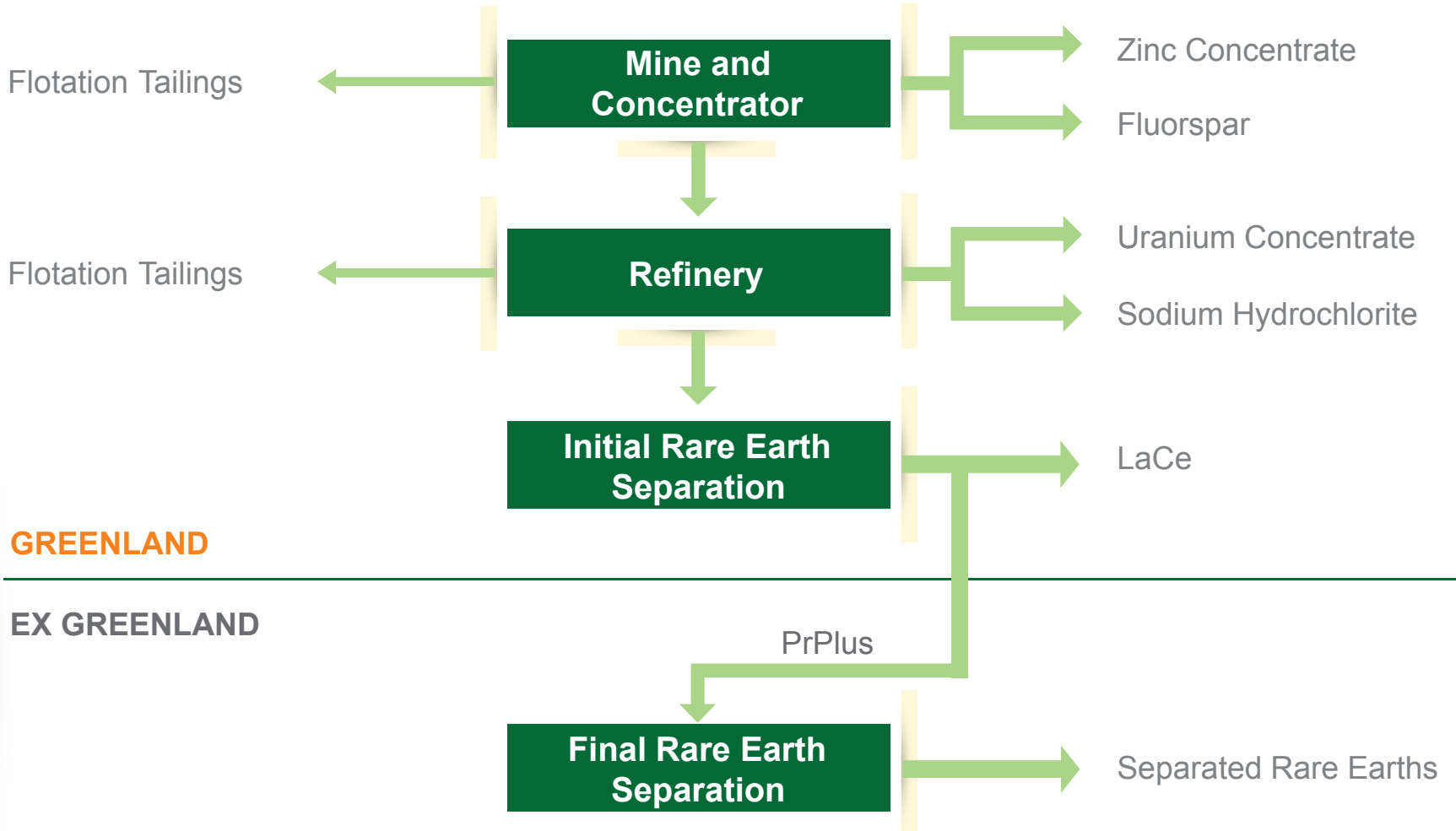
Tonnes [M]
Reserves



Extensive Feasibility Program

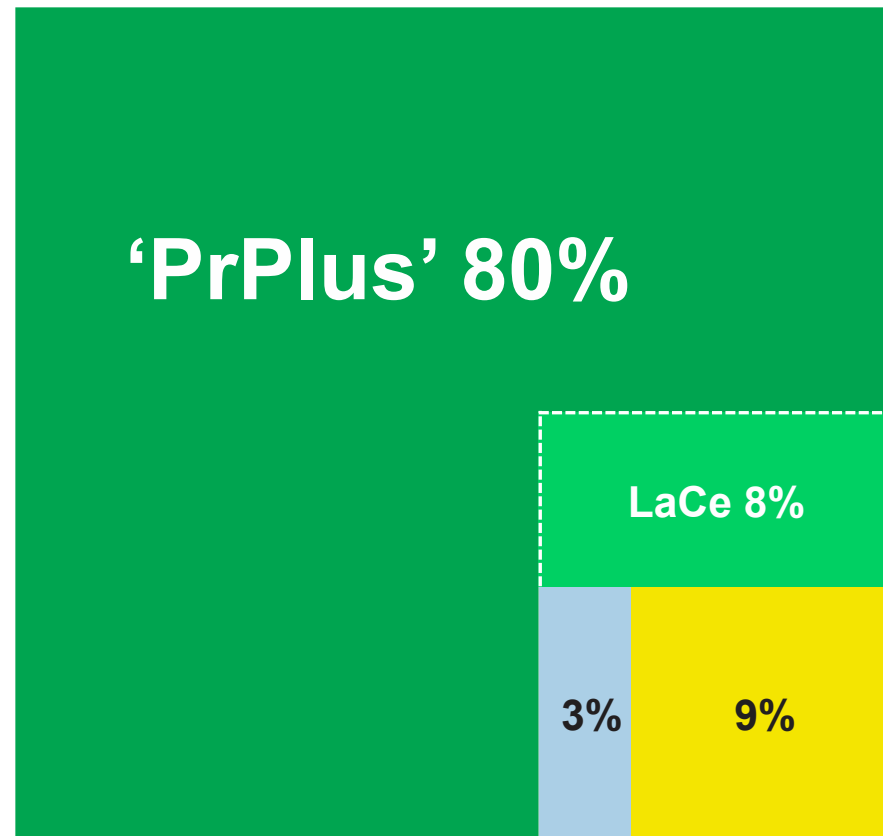
Residues

Products



Pilot Plant Proven Metallurgy

Product Distribution by Value



See Company Announcement, April 6th 2016

 **Uranium**

[1Mlb's U₃O₈/year]

 **Rare Earth Products**

[PrPlus – 9,900 t/year]

 **By Products**

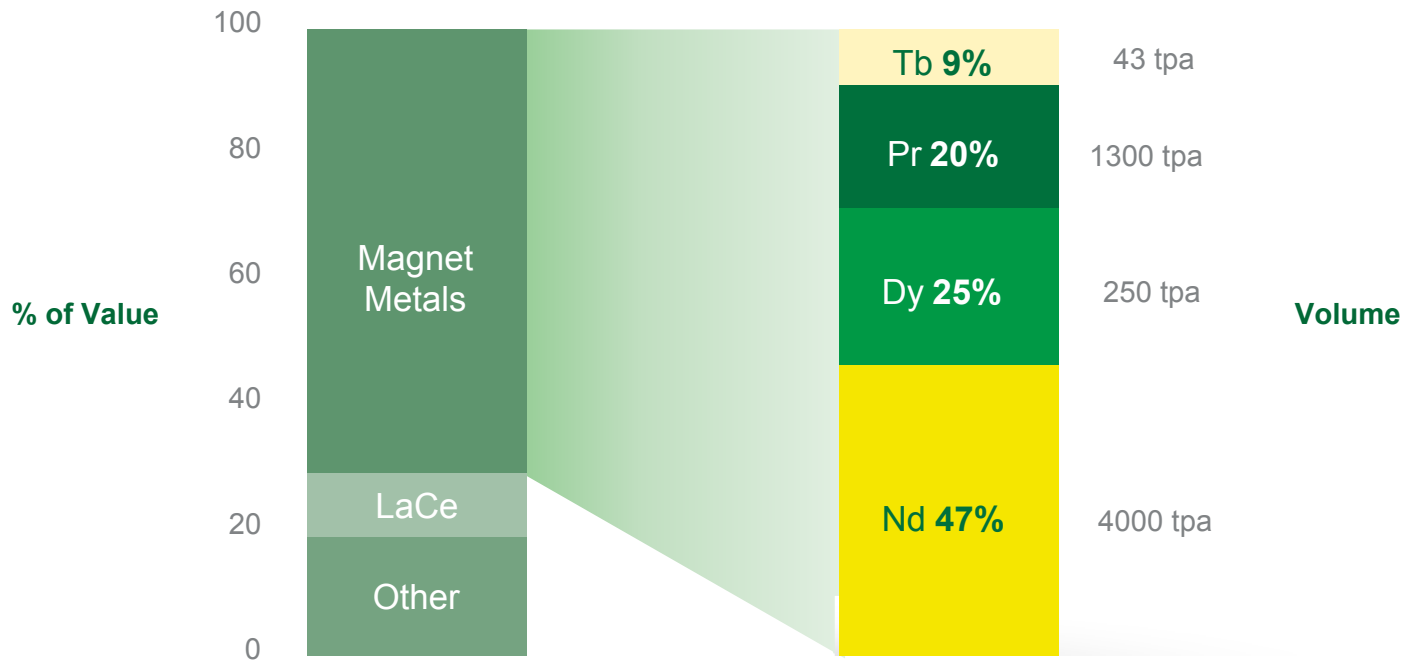
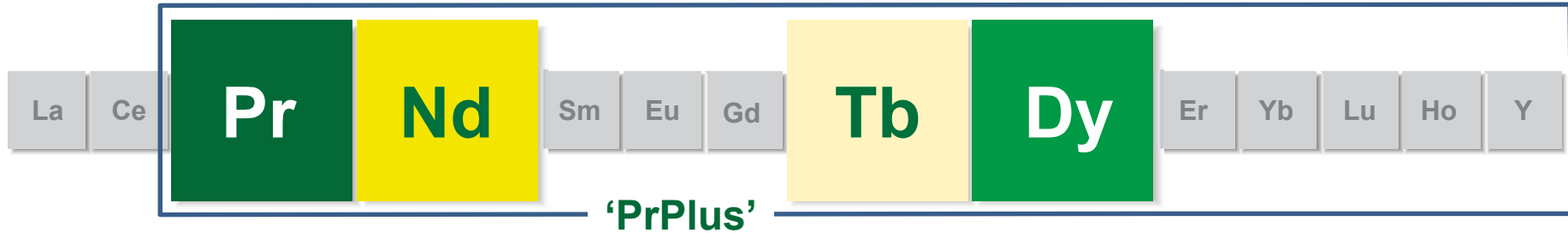
Zinc

Fluorspar

NaClO

“ **'PrPlus'** is rare earth product containing key magnet metals **Pr, Nd, Dy, Tb,** along with other heavy rare earth elements ”

Magnet Metals Are At The Heart of Kvanefjeld



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

Magnets – A Vital Growth Area



Magnetism:
'the interface between electricity and motion'



- Rare earth metals make the worlds strongest 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



Rare Earth Permanent Magnets – Growth Area

Growth Drivers

Efficiency

Miniaturisation

Urbanisation

Globalisation

Portability

Ageing Populations

Climate Change

Technological Change

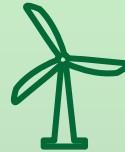
Clean Technology



Growth Sectors



Transportation



Renewable Energy



Consumer Electronics



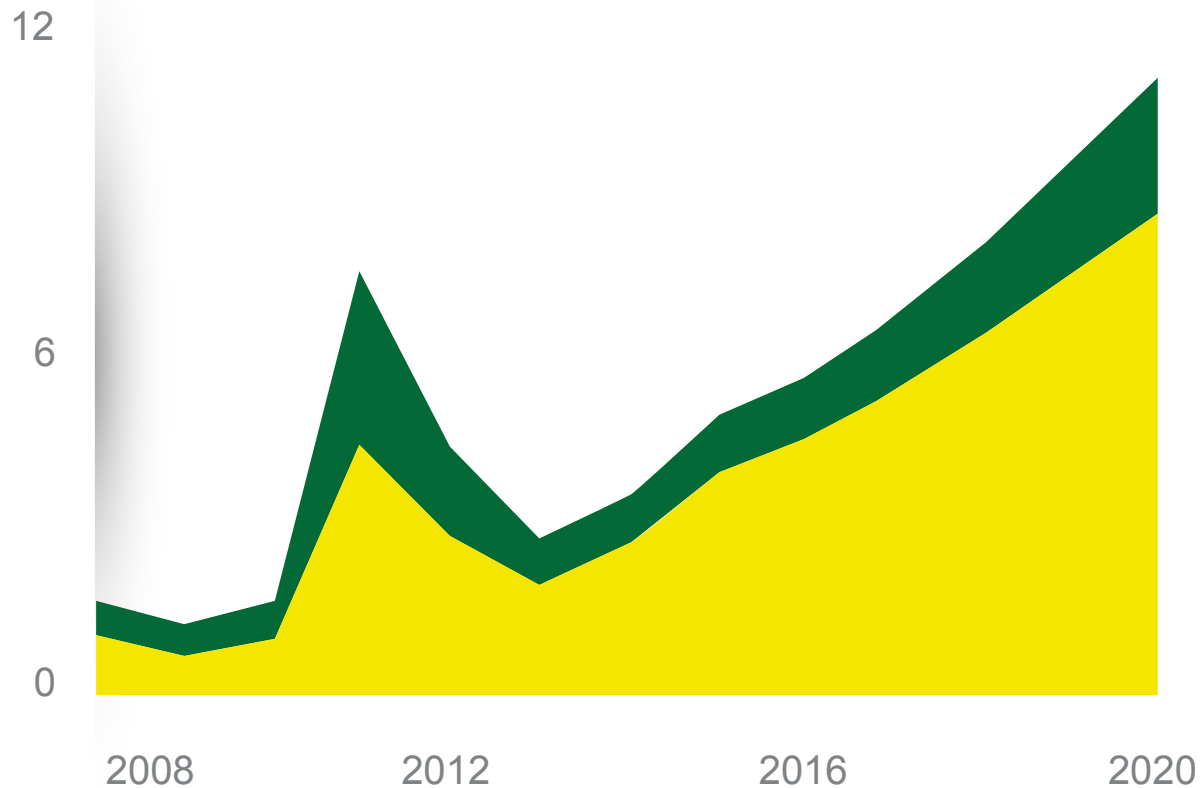
Medical Technology



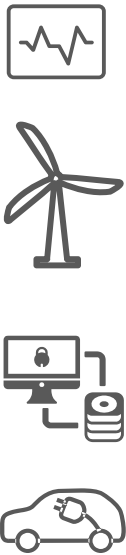
Magnets

Demand for Rare Earth Magnet Material

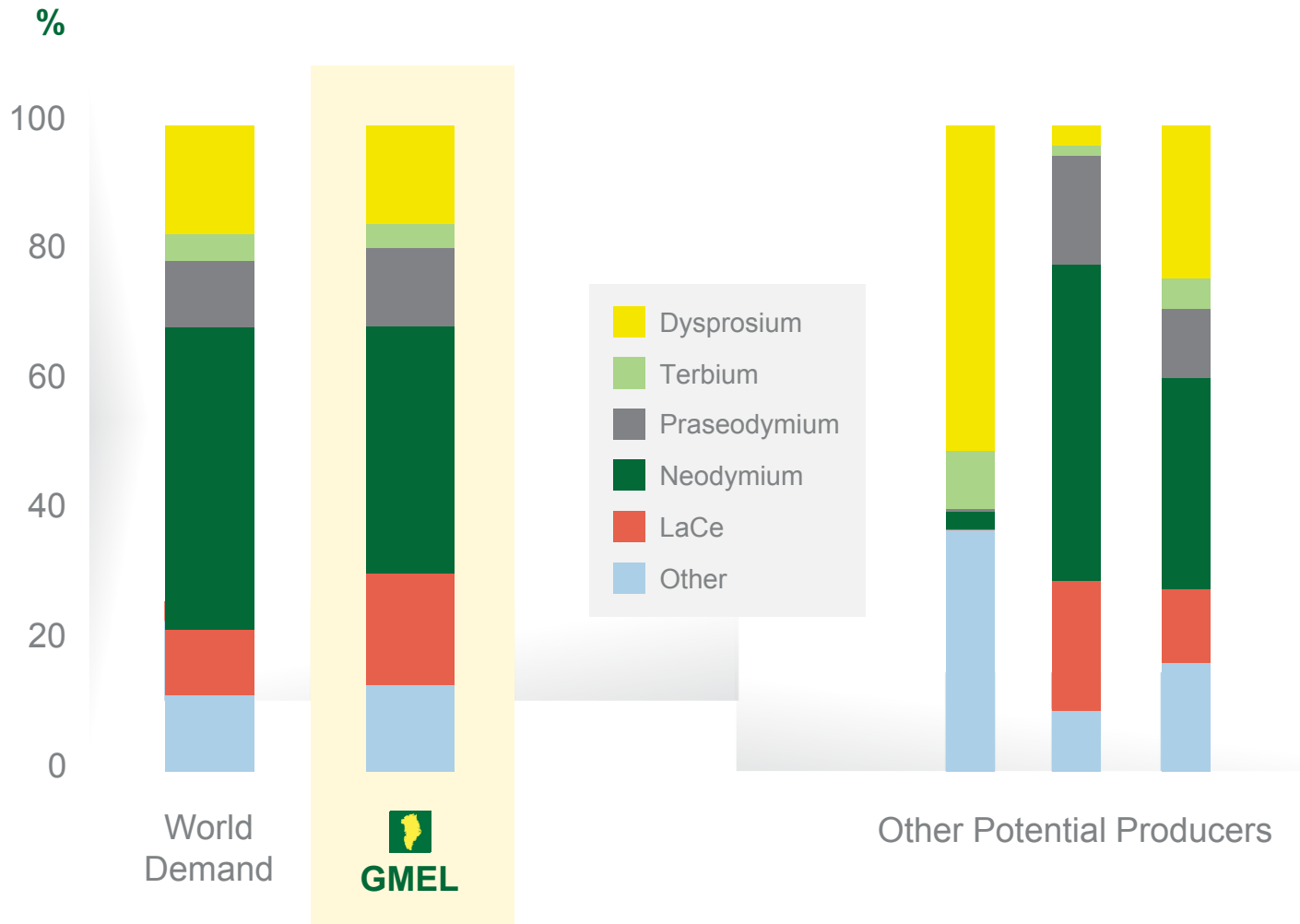
US\$ Billion



Other Applications
Magnet Metals

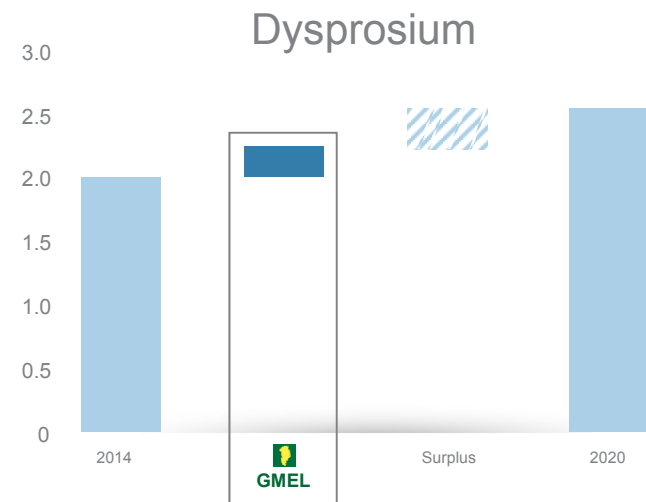
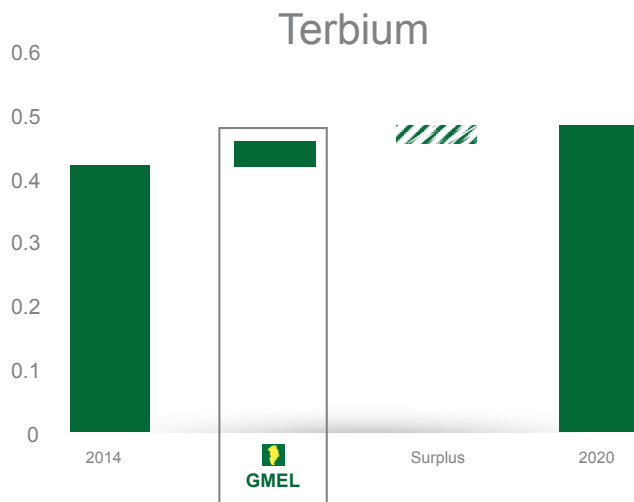
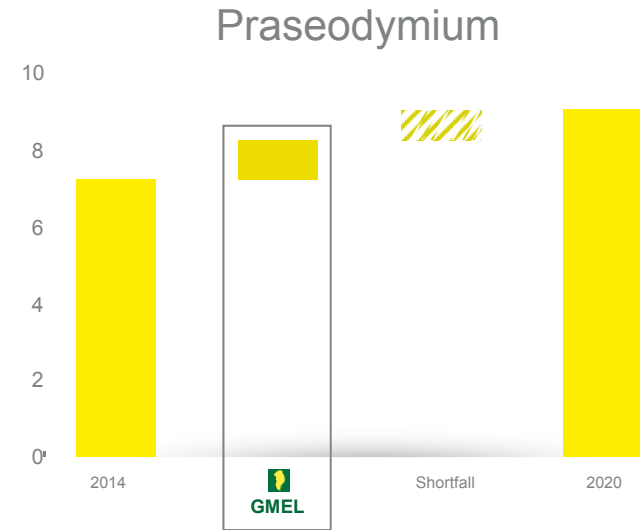
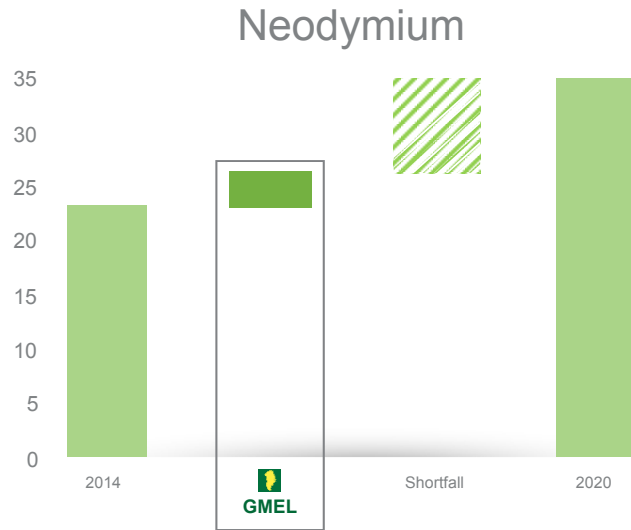


Rare Earth Production Profile [by Value]



“Kvanefjeld’s output is strongly aligned to market, balancing risk

GMEL Will Not Meet The Demand Shortfall

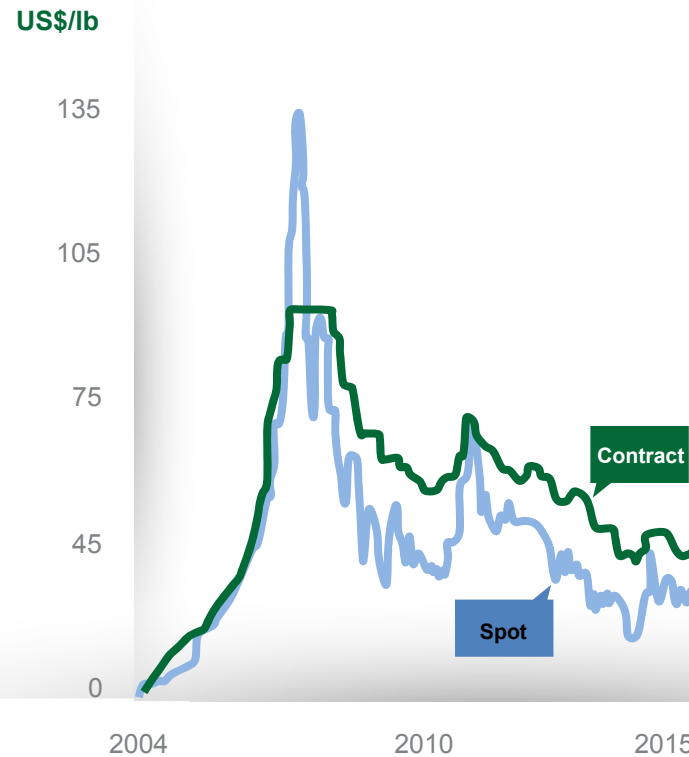


Uranium - Stable Co-Product Revenue Stream

Annual Deliveries



Prices

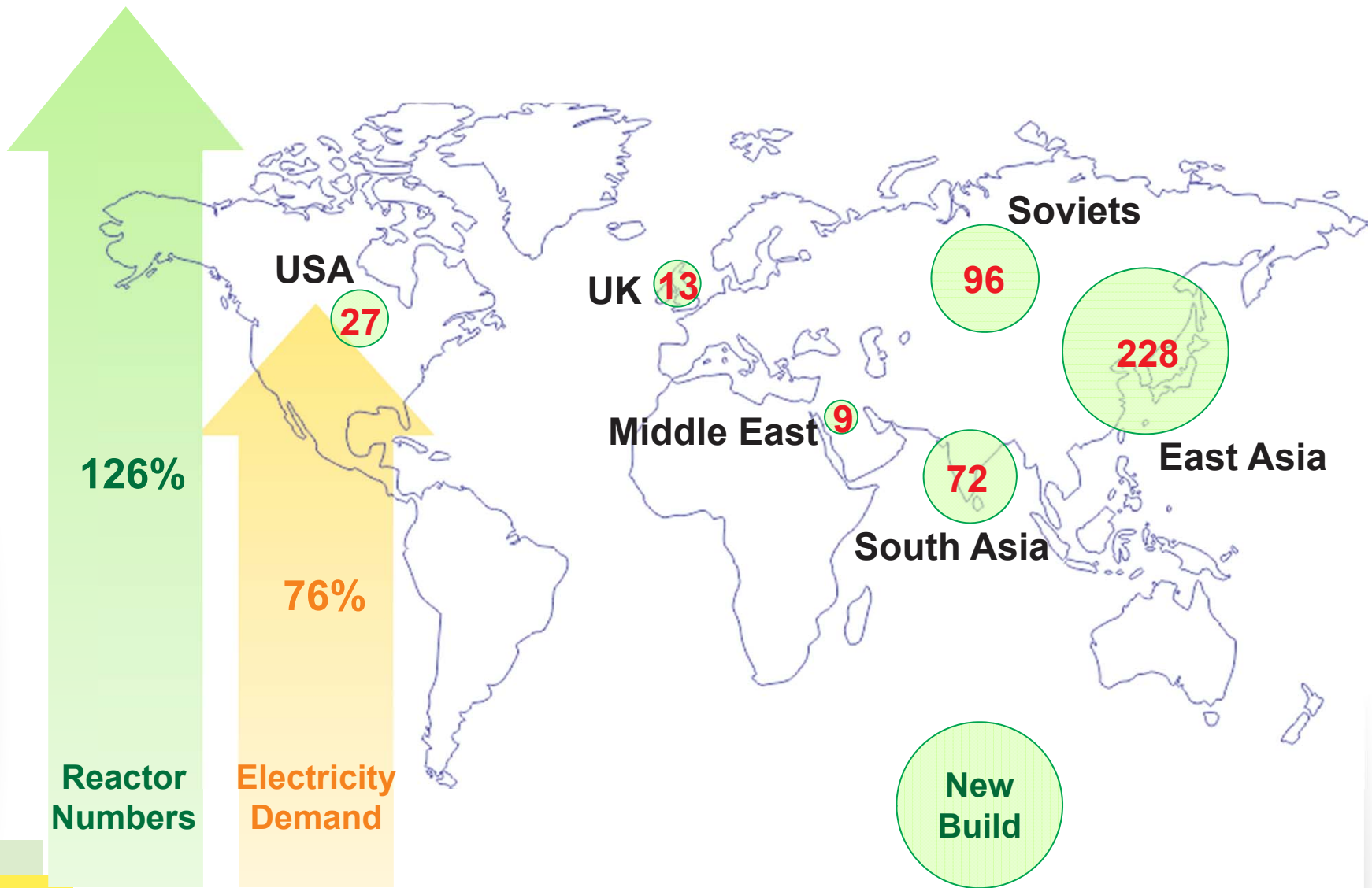


Customers

435
reactors

11.5%
of world electricity
production

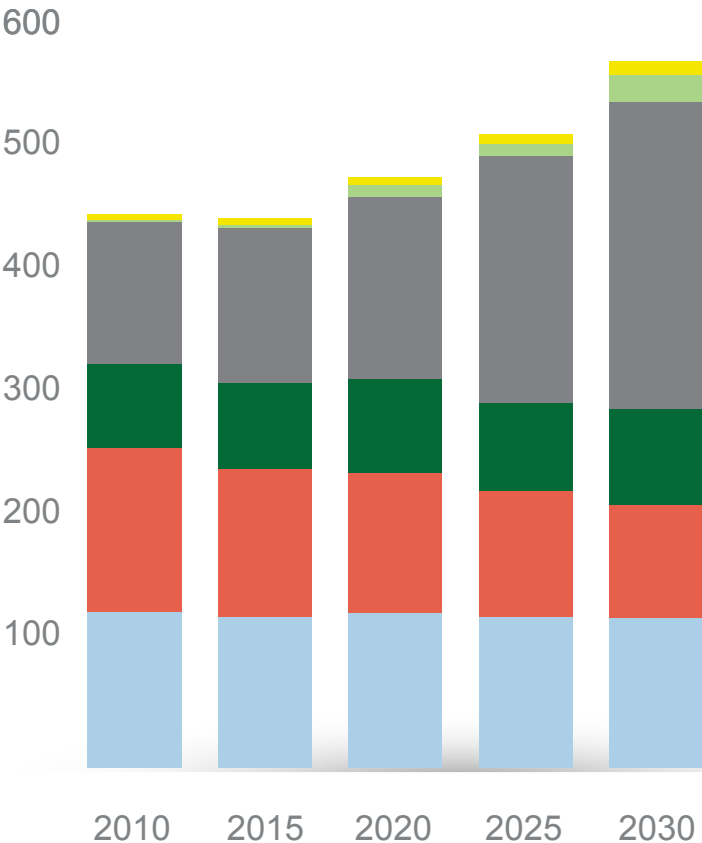
Energy from Nuclear by 2030



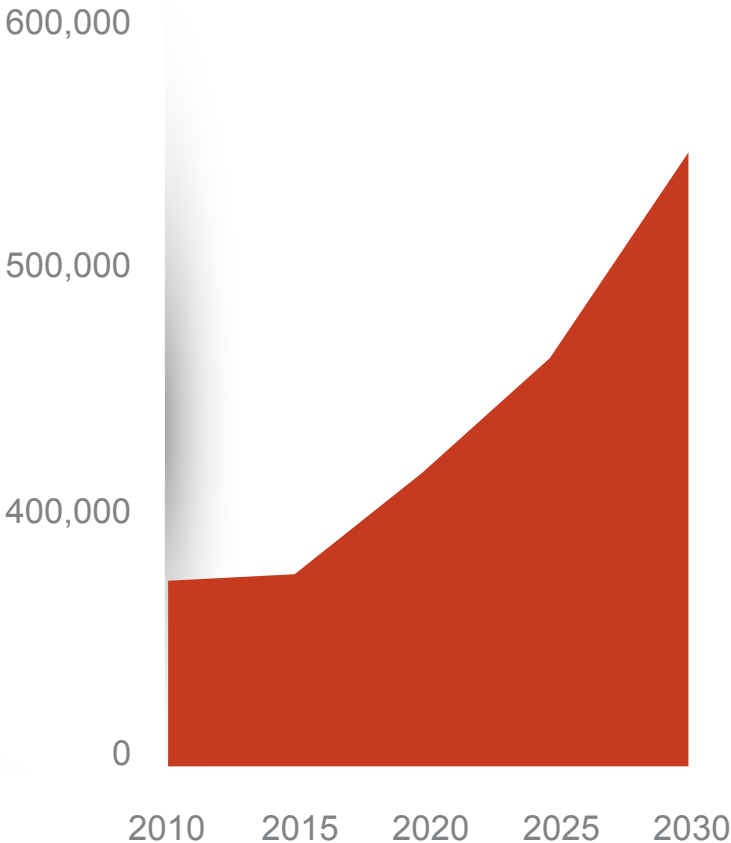
Source: World Nuclear Association

Growth in Reactors and Nuclear Capacities

Reactor Units



Capacity (MWe)

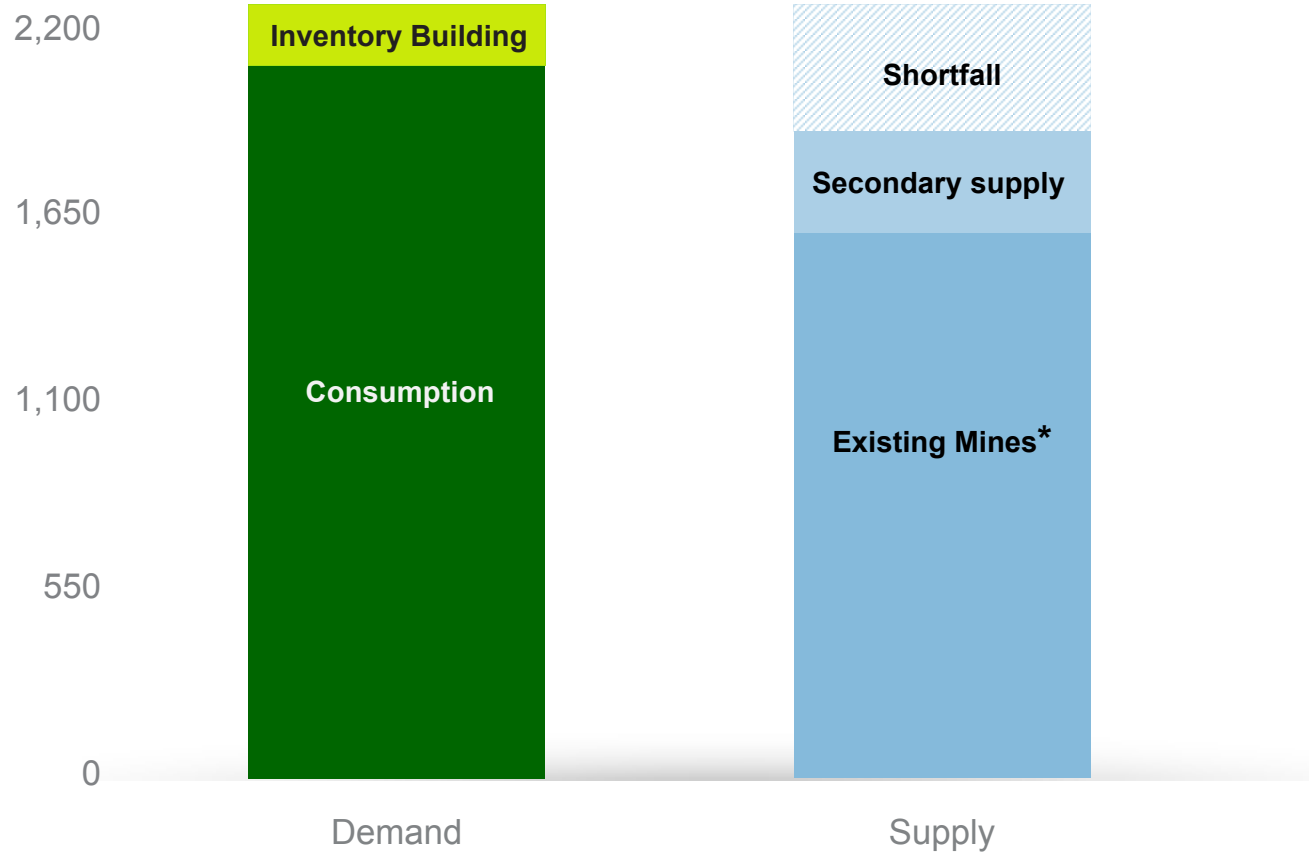


- North America
- Eastern Europe
- Africa & Middle East
- Western Europe
- Asia & Oceania
- South America

Total Mwe

New Uranium Supply Needed Through 2024

U_3O_8 Mlbs



* Excludes projects under construction
Source: Cameco

Milestones and Achievements

A solid foundation for project development

Government

2016 Agreements with Denmark on U

2015 International safety conventions ratified

2014 New pro development coalition Government

2013 Zero tolerance for uranium removed

2011 Uranium added to GMEL's exploration license

2010 Greenland assumes responsibility for its mineral endowment

2009 Self Government replaces Home Rule

1979 Denmark grants Home Rule

Company

2015 Lodged Mining Application
First mining reserve, > 100Mt
Completed Feasibility Study
Resource > 1 Billion tonnes

2014 Signed MoU with NFC

2013 Completed Mine and Concentrator Study

2012 Moved to 100% ownership of Kvanefjeld
Completed Pre-Feasibility Study

2011 Completed 50,000m of drilling

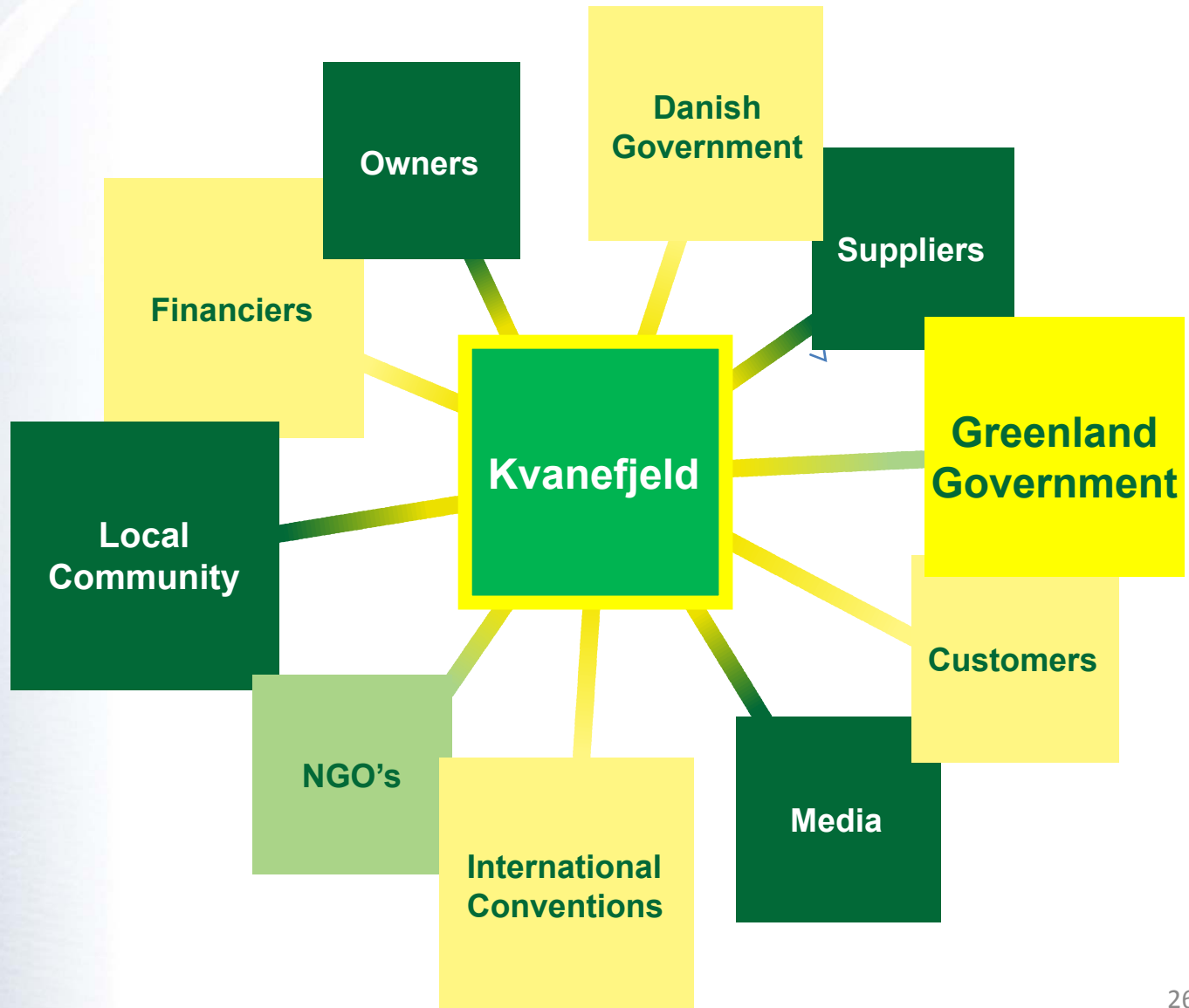
2008 Announced first JORC resource

2007 Commenced drilling
Acquired interest in Kvanefjeld project

“ Systematic progress at both project
” and government/regulatory levels

Stakeholder Engagement

Ongoing Cooperation Integral to Achieve Positive Outcome



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.



Greenland Minerals and Energy Ltd

Materials for a Clean and Efficient Energy Future



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

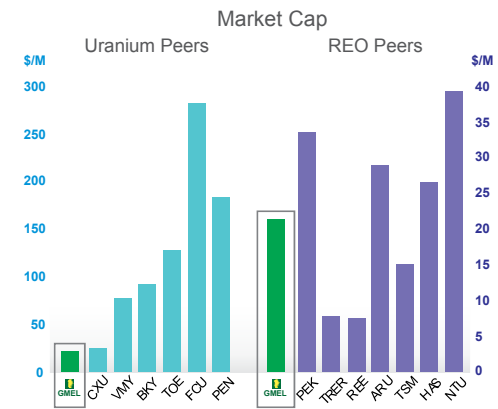
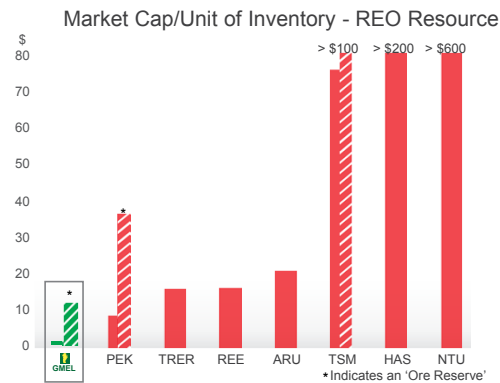
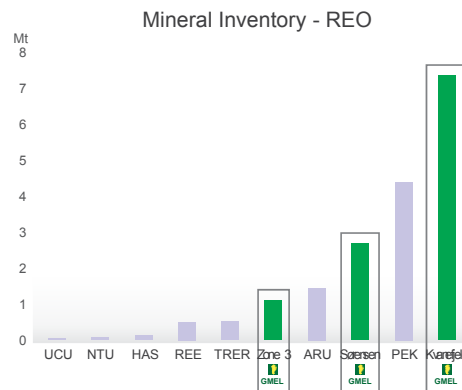
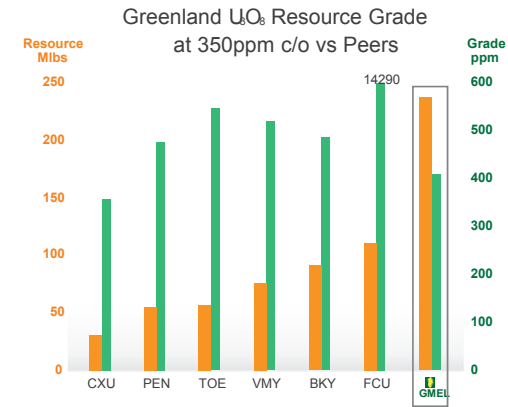
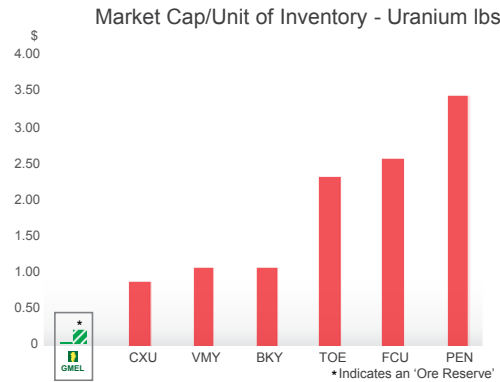
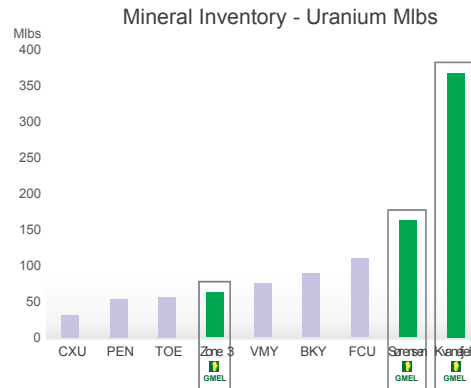
- **Scale** – world leading rare-earth uranium resources, poly-metallic advantage
- **Location and access** – direct shipping access, year round
- **Processing advantage** – pilot plant proven metallurgy, unique, simple methodology
- **Advanced project status** – permitting underway, clear political support

“ *A globally important natural resource project* ”



Peer Comparisons

(as of Q1, 2016)



Companies

Uranium:

GGG
BKJ
CXU
FCU
PEN
TOE
VMY
Greenland Minerals and Energy Ltd
Berkley Energia Ltd
Cauldron Energy Ltd
Fission Uranium Corp
Peninsula Energy Ltd
Toro Energy Ltd
Vimy Resources Ltd

Advanced
Intermediate
Early
Early - Intermediate
Commissioning
Advanced
Intermediate

Rare Earth:

GGG
ARU
HAS
NTU
PEK
REE
TRER
TSM
Greenland Minerals and Energy Ltd
Arafura Resources Ltd
Hastings Technology Metals Ltd
Northern Minerals Ltd
Peak Resources Ltd
Rare Element Resources Ltd
Texas Rare Earth Resources Corp
Tasman Metals Ltd

Status:

Advanced
Intermediate
Early
Advanced
Intermediate
Intermediate
Early
Intermediate

Source: Company Announcements or Websites

Greenland Minerals and Energy Ltd

ASX-Listed, Greenland-Focused Mineral Explorer and Developer



Board

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

Top Shareholders

Tracor Limited	53M (6.7%)
Global X Uranium ETF	31.3M

Capital Structure

Shares outstanding	788M
Options outstanding	105.7M ex \$0.2, June 30 2016 100.7M ex \$0.08, Sept 20 2018 7.5M ex \$0.2, Feb 24 th 2018 7.5M ex \$0.25, Feb 24 th 2018
Undiluted market capitalization	A\$24M (@3 cents)

Project Ownership - 100%

Kvanefjeld Project – Mineral Resources

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

Cut-off (U ₃ O ₈ ppm) ¹	Multi-Element Resources Classification, Tonnage and Grade									Contained Metal				
	Classification	M tonnes Mt	TREO ² ppm	U ₃ O ₈ ppm	LREO ppm	HREO ppm	REO ppm	Y ₂ O ₃ ppm	Zn ppm	TREO Mt	HREO Mt	Y ₂ O ₃ Mt	U ₃ O ₈ M lbs	Zn Mt
<i>Kvanefjeld - February 2015</i>														
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

Kvanefjeld Project – Mineral Resources

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

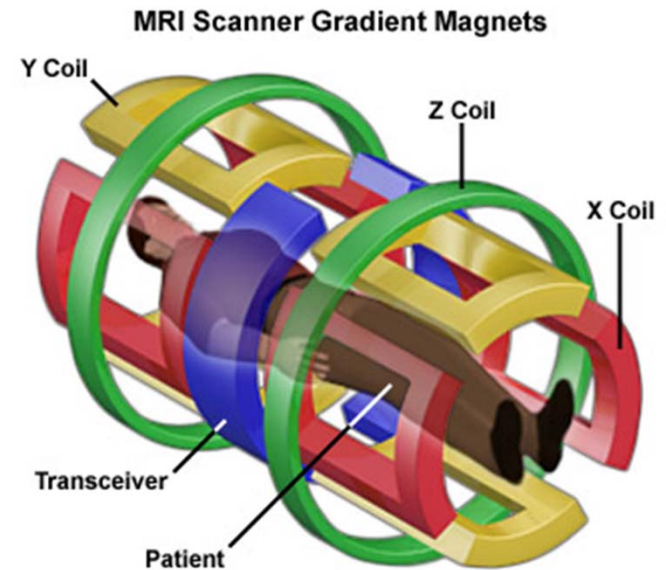
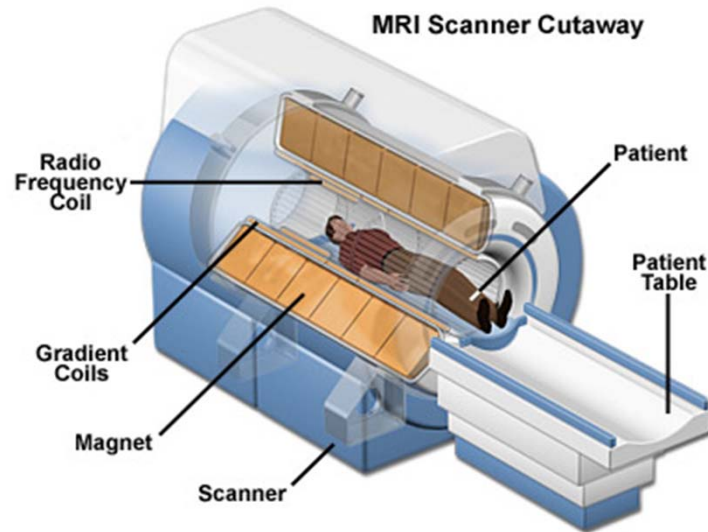
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Cut-off (U ₃ O ₈ ppm) ¹	Classification	M tonnes Mt	TREO ² ppm	U ₃ O ₈ ppm	LREO ppm	HREO ppm	REO ppm	Y ₂ O ₃ ppm	Zn ppm	TREO Mt	HREO Mt	Y ₂ O ₃ Mt	U ₃ O ₈ M lbs	Zn Mt
Sørensen - March 2012														
150	Inferred	242	11,000	304	9,700	398	10,100	895	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

¹There is greater coverage of assays for uranium than other elements owing to historic spectral assays. U₃O₈ has therefore been used to define the cutoff grades to maximise the confidence in the resource calculations.

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

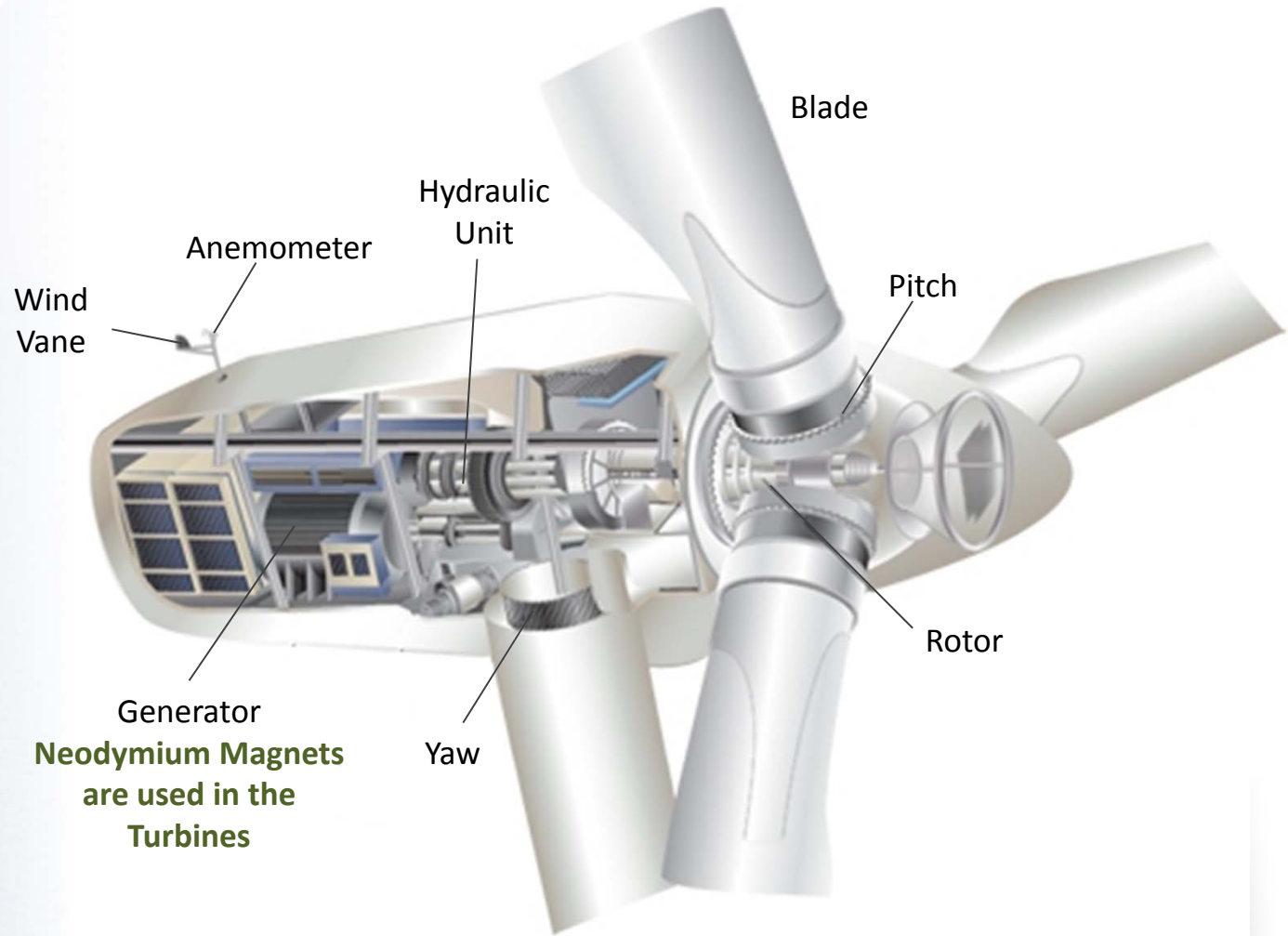
Note: Figures quoted may not sum due to rounding.

High End Magnets - MRI

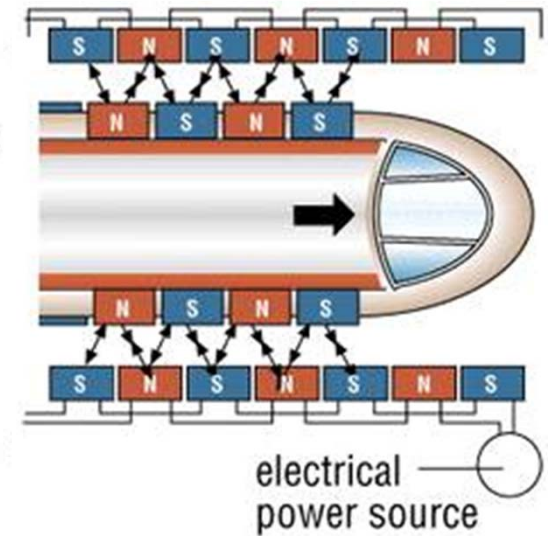
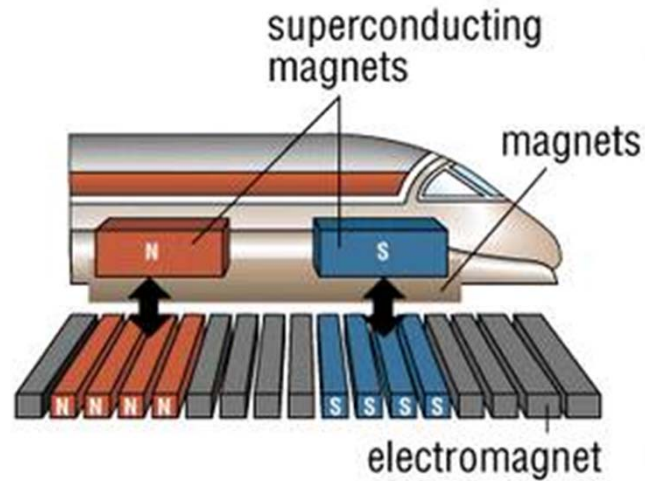


These diagnostic tools, powered by strong superconducting magnets, save countless lives with their ability to pinpoint tumours and other abnormalities

High End Magnets – Wind Turbines



High End Magnets – Maglev Trains



Maglev (magnetic levitation) trains use magnets to hover just above the track, reducing friction to zero and allowing the trains to achieve a much higher speed while using much less energy than a classic train.