



Rare Earth Minerals: The Indispensable Resource for Clean Energy Technologies

TECHNOLOGY AND RARE
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What are "Rare Earth" Elements?

Rare earths are a group of 15 metals whose unique properties make them **indispensable for a wide variety of emerging and critical technologies:**

The Rare Earth Elements

Rare Earth Elements

La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71

Lanthanides

Clean Energy Technologies

Hybrid electric vehicles, wind power turbines, compact fluorescent lighting, and more.

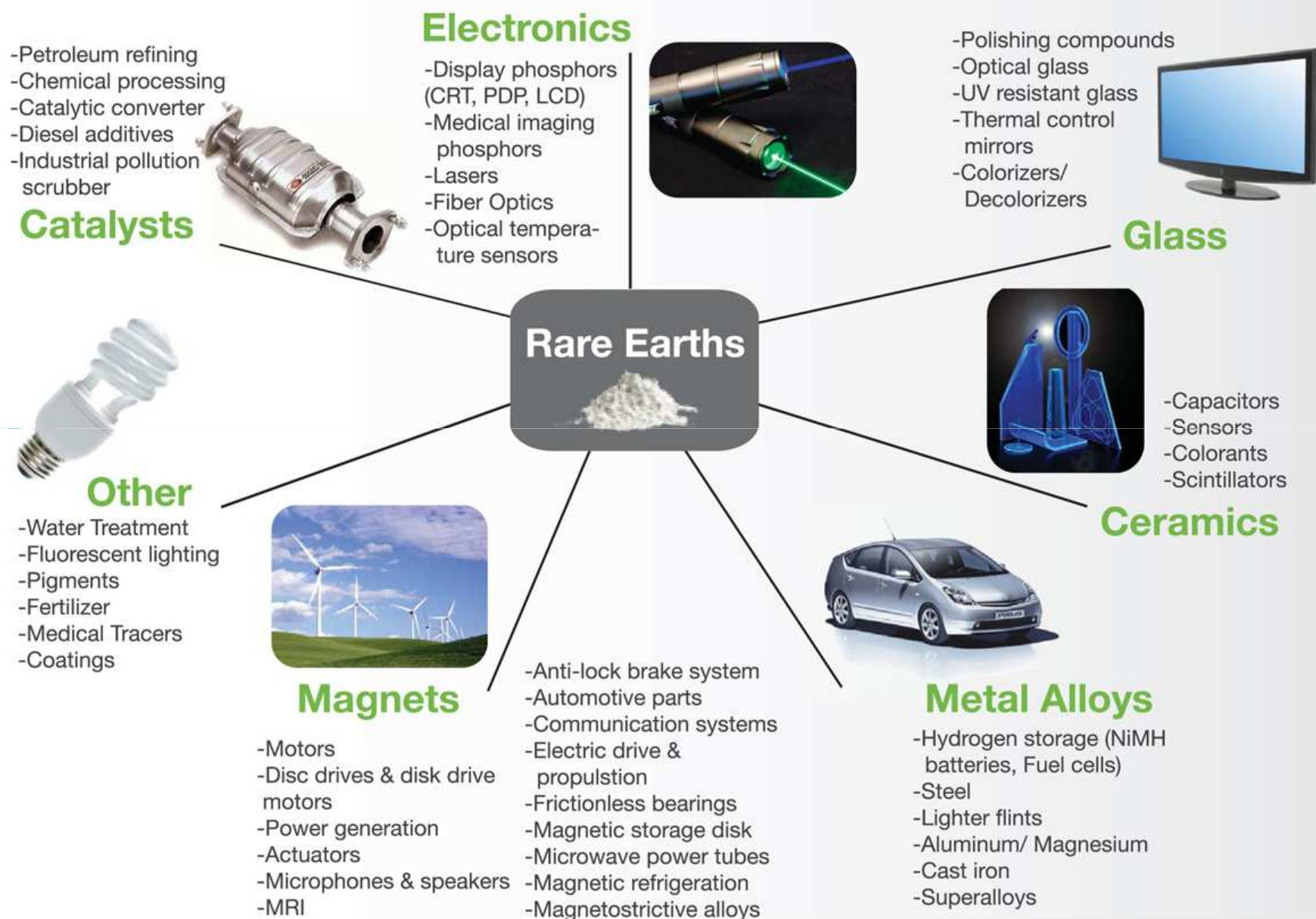
Advanced Water Filtration

Military, homeland security, domestic, and foreign aid applications.

Defense Applications

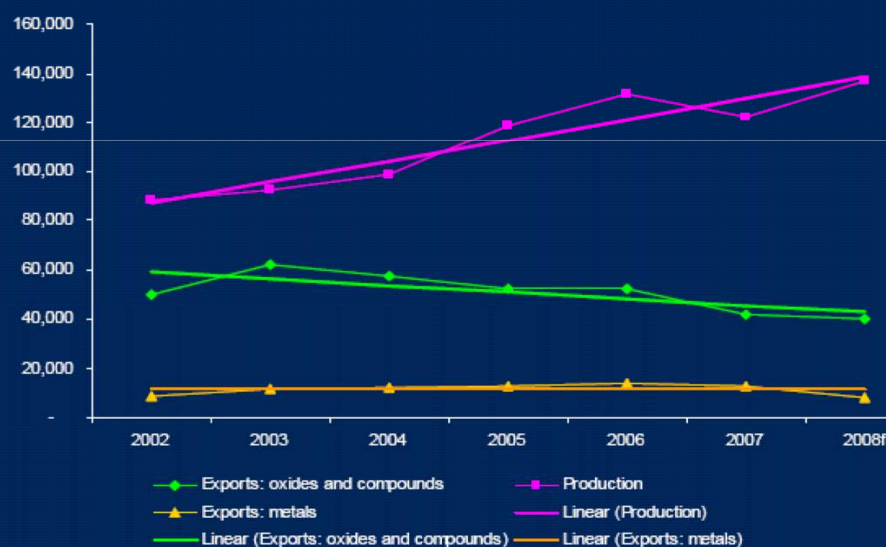
Enable a wide variety of critical defense technologies, including electric power generation platforms

Applications For Rare Earth Elements



Rare Earth Production: Growing Rare Earth Supply Issues

China: A widening gap between production and exports, 2002-2008



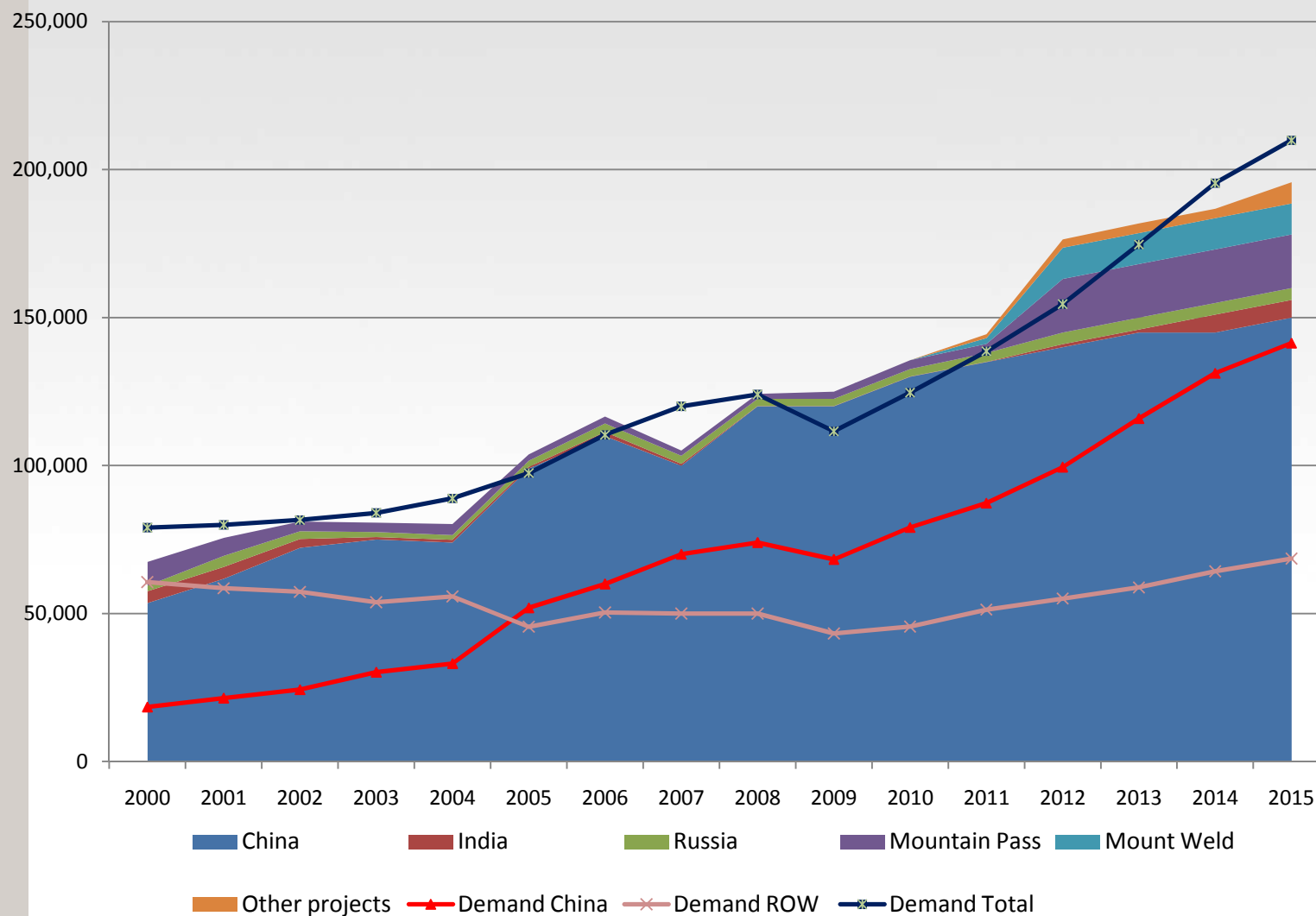
- Decreasing availability of REOs and rare earth metals to processors outside China
- Decline in exports of metals and alloys has not been as steep as exports of oxides and compounds but forecasts for 2008 show a significant decline.

Source: Global Trade Atlas, Roskill estimates

Roskill

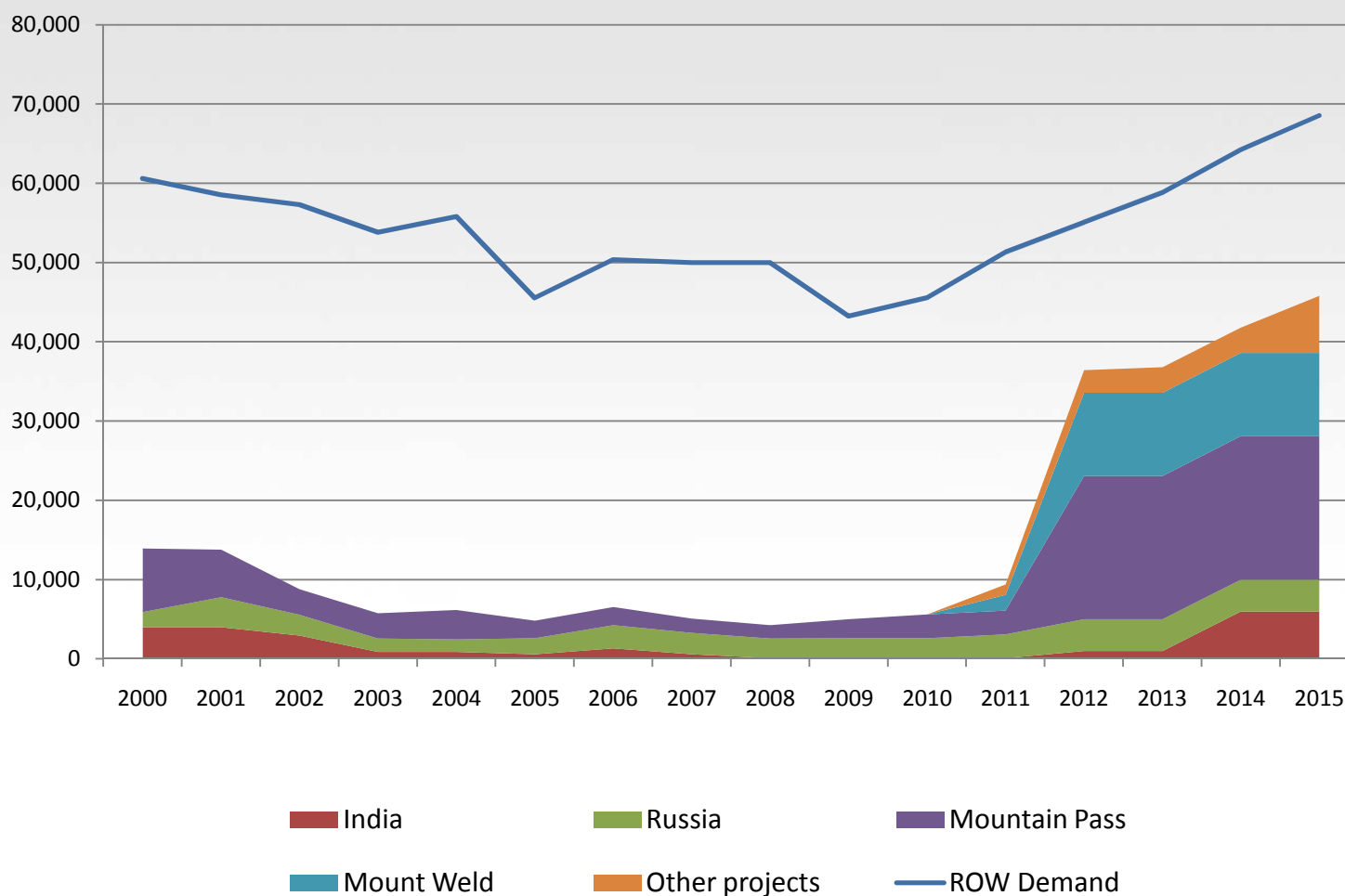
EXPANDING THE WORLD'S KNOWLEDGE OF METALS AND MINERALS MARKETS

Global Rare Earth Supply/Demand



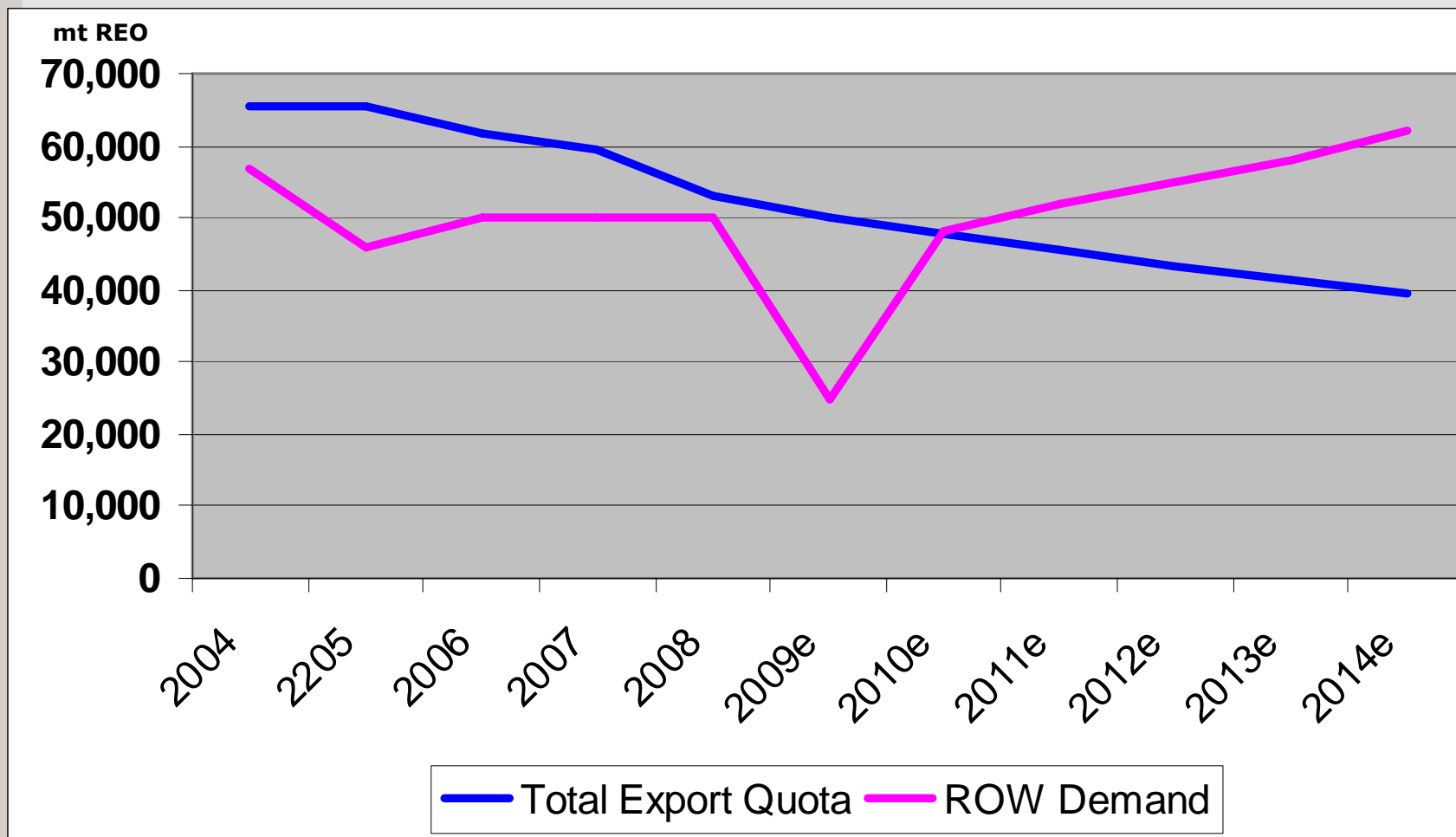
Source: Roskill Consulting

ROW Rare Earth Supply and Demand



Source: Roskill Consulting

ROW Rare Earth Supply Issues: declining China Export Quota



Petroleum Supply Chain



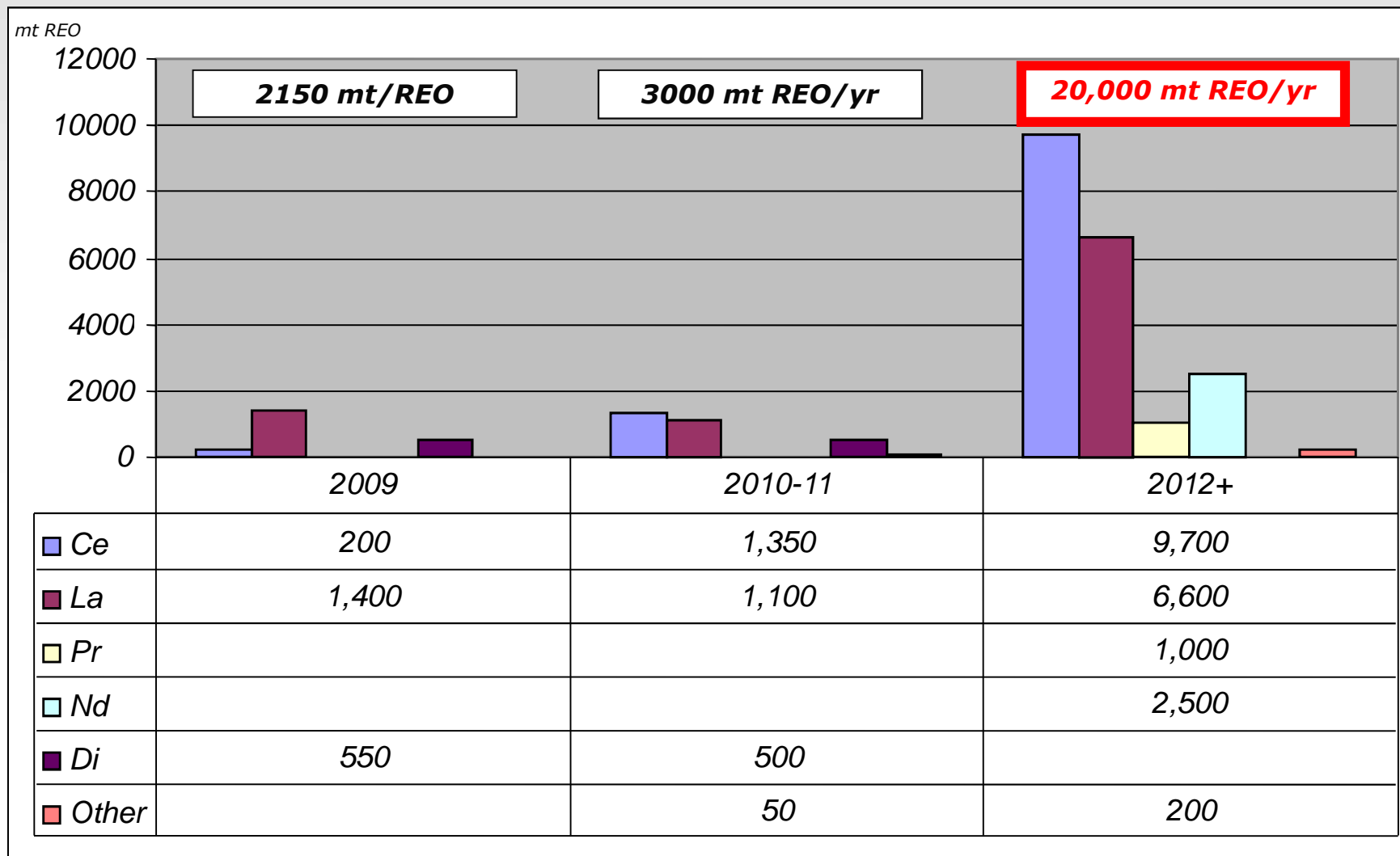
**Dependent
on the
Middle East**

Hybrid Vehicle Supply Chain



Dependent on China

Mt. Pass Production Through 2012



- Reestablish key Western Rare Earth Supply Chains
- Produce a full suite of high purity products
- Exceed all environmental requirements
- Be globally cost competitive

Reestablish Supply Chains

The name plate capacity of the plant will be 40MM lb/yr REO, expandable to about 80MM lb/yr REO

Molycorp has LOI's in hand for >145% of planned production.

Molycorp will move as far down stream as is necessary to establish viable supply chains.

“Mining to Magnets”: Molycorp will produce Nd oxide, Nd metal, NdFeB alloy and partner with magnet producers to manufacture finished products.

Attractive product offerings are crucial to meet our goals.

Molycorp will produce a suite of high purity (>99%) products including:

- Neodymium
- Praseodymium
- Lanthanum
- Cerium
- Europium
- Dysprosium
- Samarium
- Gadolinium
- Others as markets dictate

- 30 year Mine Permit and EIR are approved.
- More than adequate fresh water available for full production.
- Through recycling and treatment, fresh feed water will be reduced from 850 gpm to <30 gpm
- Molycorp has several workable options to choose from for waste water disposal, including evaporation and recycling.

Variable Costs

The most fundamental driver for our variable cost is HCl and NaOH consumption

Power and fuel costs are the second most significant cost

Molycorp has developed and is implementing innovative approaches and proprietary technologies that will significantly reduce these key costs, including onsite power generation and chemical recycling.

Cost Competitiveness – Cerium Products

Cerium consumption is an issue for the entire rare earth industry.

- Traditional markets have diminished and new applications have not replaced demand.

Molycorp has developed non-traditional high volume, high value, patent protected uses for new, cerium enriched, rare earth based products.

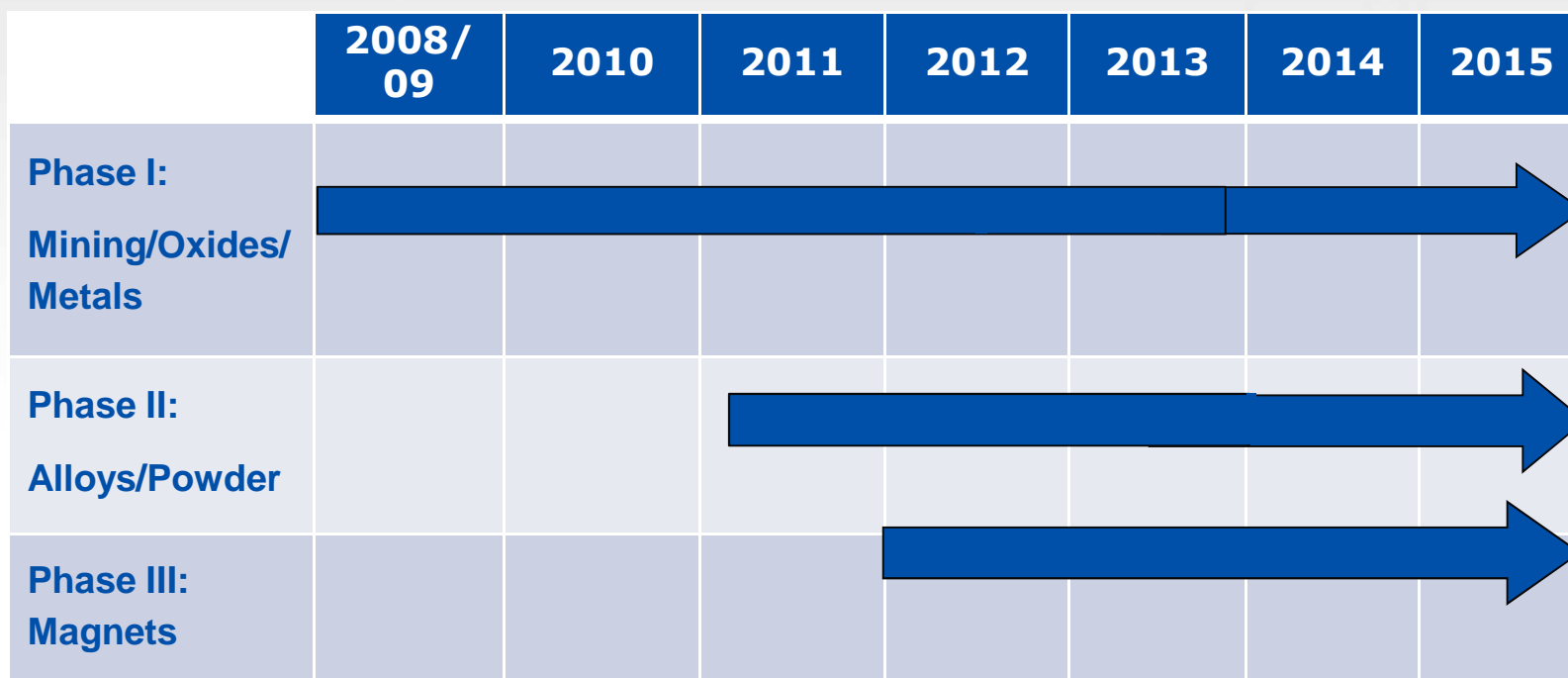
- Arsenic sequestration for Copper and Nickel manufacturers
- Advanced water treatment

**Molycorp's Phased Approach:
 Cultivating Capacity
 of at least 20,000 tons/year REO**

Phase I: Complete refurbishment of processing plant and produce metal.

Phase II: Build alloying and magnet powder facilities.

Phase III: Build magnet production and finishing facility.



**900 direct jobs created with addition of
 metals and magnet manufacturing**

Thank You for your time.
Any Questions?