

# Diversifying the rare earths supply chain

**NY Energy Forum webinar, 25 September 2025**

**Ellie Saklatvala – Editorial Lead, Metals**  
**[ellie.saklatvala@argusmedia.com](mailto:ellie.saklatvala@argusmedia.com)**

# | Argus Media group notices

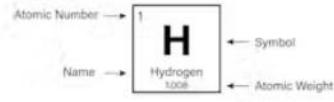
- The Argus Media group (referred to herein as “Argus”) makes no representations or warranties or other assurance, express or implied, about the accuracy or suitability of any information in this presentation and related materials (such as handouts, other presentation documents and recordings and any other materials or information distributed at or in connection with this presentation).
- The information or opinions contained in this presentation are provided on an “as is” basis without any warranty, condition or other representation as to its accuracy, completeness, or suitability for any particular purpose and shall not confer rights or remedies upon the recipients of this presentation or any other person. Data and information contained in the presentation come from a variety of sources, some of which are third parties outside Argus’ control and some of which may not have been verified.
- All analysis and opinions, data, projections and forecasts provided may be based on assumptions that are not correct or which change, being dependent upon fundamentals and other factors and events subject to change and uncertainty; future results or values could be materially different from any forecast or estimates described in the presentation.
- To the maximum extent permitted by law, Argus expressly disclaims any and all liability for any direct, indirect or consequential loss or damage, claims, costs and expenses, whether arising in negligence or otherwise, in connection with access to, use or application of these materials or suffered by any person as a result of relying on any information included in, or omission from, this presentation and related materials or otherwise in connection therewith.
- The information contained in this presentation and related materials is provided for general information purposes only and should not be construed as legal, tax, accounting or investment advice or the rendering of legal, consulting, or other professional services of any kind. Users of these materials should not in any manner rely upon or construe the information or resource materials in these materials as legal, or other professional advice and should not act or fail to act based upon the information in these materials.
- Copyright notice: Copyright © 2024 Argus Media group. All rights reserved. All intellectual property rights in this presentation and the information herein are the exclusive property of Argus and and/or its licensors and may only be used under licence from Argus. Without limiting the foregoing, you will not copy or reproduce any part of its contents (including, but not limited to, single prices or any other individual items of data) in any form or for any purpose whatsoever without the prior written consent of Argus.
- Trademark notice: ARGUS, the ARGUS logo, Argus publication titles, the tagline “illuminating the markets®”, and Argus index names are trademarks of Argus Media Limited. For additional information, including details of our other trademarks, visit [argusmedia.com/trademarks](https://argusmedia.com/trademarks).



# What are rare earths & why do they matter?

17 elements – diverse applications spanning the automotive, renewable energy, electronics, medical, catalysts, chemicals, glass and ceramics industries. Multiple uses for the defence sector → national security concern

1 <b>H</b> Hydrogen 1.008																	2 <b>He</b> Helium 4.002602						
3 <b>Li</b> Lithium 6.94	4 <b>Be</b> Beryllium 9.0121831																	5 <b>B</b> Boron 10.81	6 <b>C</b> Carbon 12.011	7 <b>N</b> Nitrogen 14.007	8 <b>O</b> Oxygen 15.999	9 <b>F</b> Fluorine 18.998403163	10 <b>Ne</b> Neon 20.1797
11 <b>Na</b> Sodium 22.98976928	12 <b>Mg</b> Magnesium 24.305																	13 <b>Al</b> Aluminium 26.9815385	14 <b>Si</b> Silicon 28.085	15 <b>P</b> Phosphorus 30.973761998	16 <b>S</b> Sulfur 32.06	17 <b>Cl</b> Chlorine 35.45	18 <b>Ar</b> Argon 39.948
19 <b>K</b> Potassium 39.0983	20 <b>Ca</b> Calcium 40.078	21 <b>Sc</b> Scandium 44.955912	22 <b>Ti</b> Titanium 47.867	23 <b>V</b> Vanadium 50.9415	24 <b>Cr</b> Chromium 51.9961	25 <b>Mn</b> Manganese 54.938044	26 <b>Fe</b> Iron 55.845	27 <b>Co</b> Cobalt 58.933194	28 <b>Ni</b> Nickel 58.6934	29 <b>Cu</b> Copper 63.546	30 <b>Zn</b> Zinc 65.38	31 <b>Ga</b> Gallium 69.723	32 <b>Ge</b> Germanium 72.630	33 <b>As</b> Arsenic 74.921595	34 <b>Se</b> Selenium 78.971	35 <b>Br</b> Bromine 79.904	36 <b>Kr</b> Krypton 83.796						
37 <b>Rb</b> Rubidium 85.4678	38 <b>Sr</b> Strontium 87.62	39 <b>Y</b> Yttrium 88.90584	40 <b>Zr</b> Zirconium 91.224	41 <b>Nb</b> Niobium 92.90637	42 <b>Mo</b> Molybdenum 95.95	43 <b>Tc</b> Technetium (98)	44 <b>Ru</b> Ruthenium 101.07	45 <b>Rh</b> Rhodium 102.90550	46 <b>Pd</b> Palladium 106.42	47 <b>Ag</b> Silver 107.8682	48 <b>Cd</b> Cadmium 112.414	49 <b>In</b> Indium 114.818	50 <b>Sn</b> Tin 118.710	51 <b>Sb</b> Antimony 121.760	52 <b>Te</b> Tellurium 127.60	53 <b>I</b> Iodine 126.90447	54 <b>Xe</b> Xenon 131.293						
55 <b>Cs</b> Caesium 132.90545196	56 <b>Ba</b> Barium 137.327	57 - 71 Lanthanoids	72 <b>Hf</b> Hafnium 178.49	73 <b>Ta</b> Tantalum 180.94788	74 <b>W</b> Tungsten 183.84	75 <b>Re</b> Rhenium 186.207	76 <b>Os</b> Osmium 190.23	77 <b>Ir</b> Iridium 192.227	78 <b>Pt</b> Platinum 195.084	79 <b>Au</b> Gold 196.966569	80 <b>Hg</b> Mercury 200.592	81 <b>Tl</b> Thallium 204.38	82 <b>Pb</b> Lead 207.2	83 <b>Bi</b> Bismuth 208.98040	84 <b>Po</b> Polonium (209)	85 <b>At</b> Astatine (210)	86 <b>Rn</b> Radon (222)						
87 <b>Fr</b> Francium (223)	88 <b>Ra</b> Radium (226)	89 - 103 Actinoids	104 <b>Rf</b> Rutherfordium (261)	105 <b>Db</b> Dubnium (268)	106 <b>Sg</b> Seaborgium (269)	107 <b>Bh</b> Bohrium (278)	108 <b>Hs</b> Hassium (285)	109 <b>Mt</b> Meitnerium (278)	110 <b>Ds</b> Darmstadtium (285)	111 <b>Rg</b> Roentgenium (282)	112 <b>Cn</b> Copernicium (285)	113 <b>Nh</b> Nihonium (286)	114 <b>Fl</b> Flerovium (289)	115 <b>Mc</b> Moscovium (289)	116 <b>Lv</b> Livermorium (293)	117 <b>Ts</b> Tennessine (294)	118 <b>Og</b> Oganesson (294)						

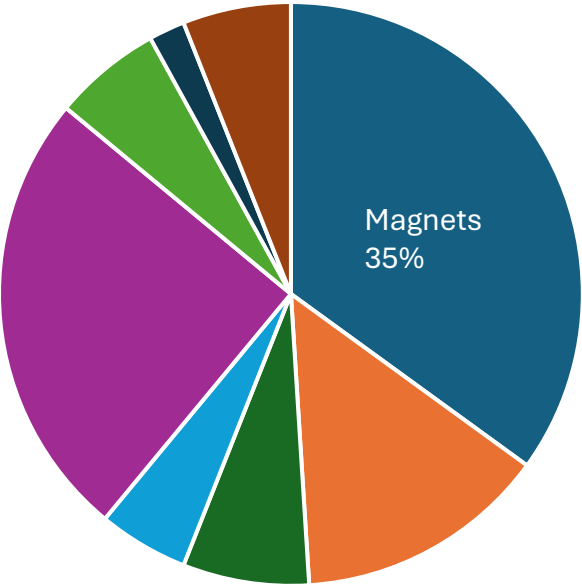


57 <b>La</b> Lanthanum 138.90547	58 <b>Ce</b> Cerium 140.16	59 <b>Pr</b> Praseodymium 140.90766	60 <b>Nd</b> Neodymium 144.242	61 <b>Pm</b> Promethium (145)	62 <b>Sm</b> Samarium 150.36	63 <b>Eu</b> Europium 151.964	64 <b>Gd</b> Gadolinium 157.25	65 <b>Tb</b> Terbium 158.92535	66 <b>Dy</b> Dysprosium 162.500	67 <b>Ho</b> Holmium 164.93033	68 <b>Er</b> Erbium 167.259	69 <b>Tm</b> Thulium 168.93421	70 <b>Yb</b> Ytterbium 173.045	71 <b>Lu</b> Lutetium 174.967
89 <b>Ac</b> Actinium (227)	90 <b>Th</b> Thorium 232.0377	91 <b>Pa</b> Protactinium 231.03688	92 <b>U</b> Uranium 238.02891	93 <b>Np</b> Neptunium (237)	94 <b>Pu</b> Plutonium (244)	95 <b>Am</b> Americium (243)	96 <b>Cm</b> Curium (247)	97 <b>Bk</b> Berkelium (247)	98 <b>Cf</b> Californium (251)	99 <b>Es</b> Einsteinium (252)	100 <b>Fm</b> Fermium (257)	101 <b>Md</b> Mendelevium (258)	102 <b>No</b> Nobelium (259)	103 <b>Lr</b> Lawrencium (260)

# Magnet applications are increasingly setting the agenda

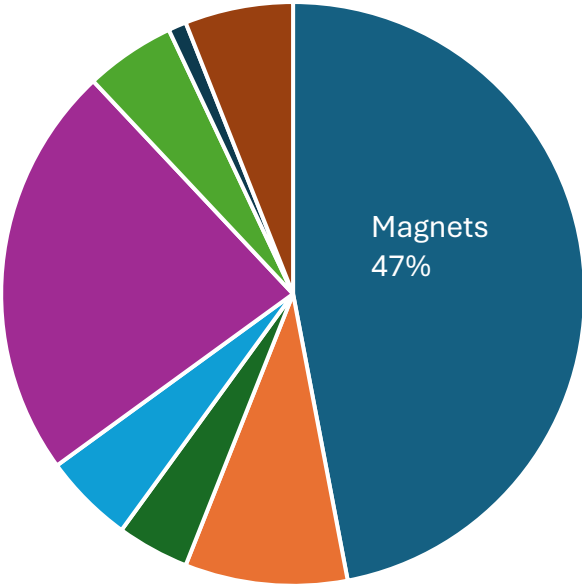
Magnet applications are estimated to represent approx. 35% of rare earth demand by volume in 2025. Argus expects that by 2040, magnets will represent almost half of RE demand by volume & over 90% of the value of the rare earths market.

RE demand by application, 2025



- Magnets
- Catalysts
- Batteries
- Metallurgy
- Glass
- Ceramics
- Phosphors
- Others

Forecast RE demand by application, 2040



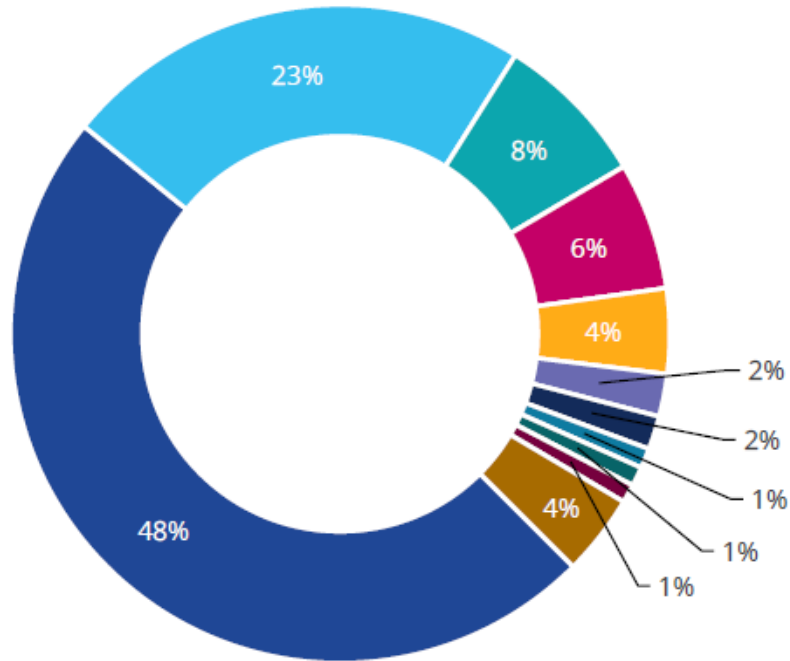
- Magnets
- Catalysts
- Batteries
- Metallurgy
- Glass
- Ceramics
- Phosphors
- Others



Source: Argus Consulting

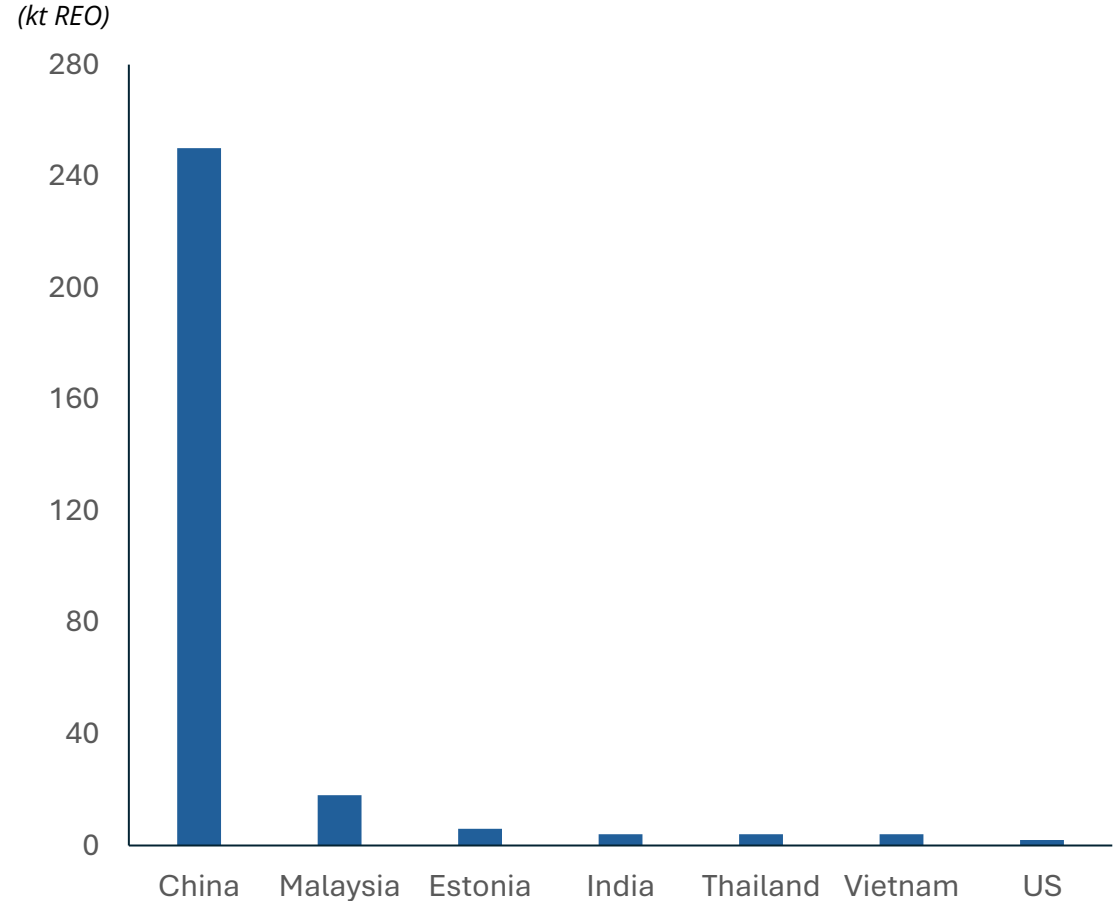
# The rare earth supply chain is heavily dominated by China

Global rare earths reserves, 2024



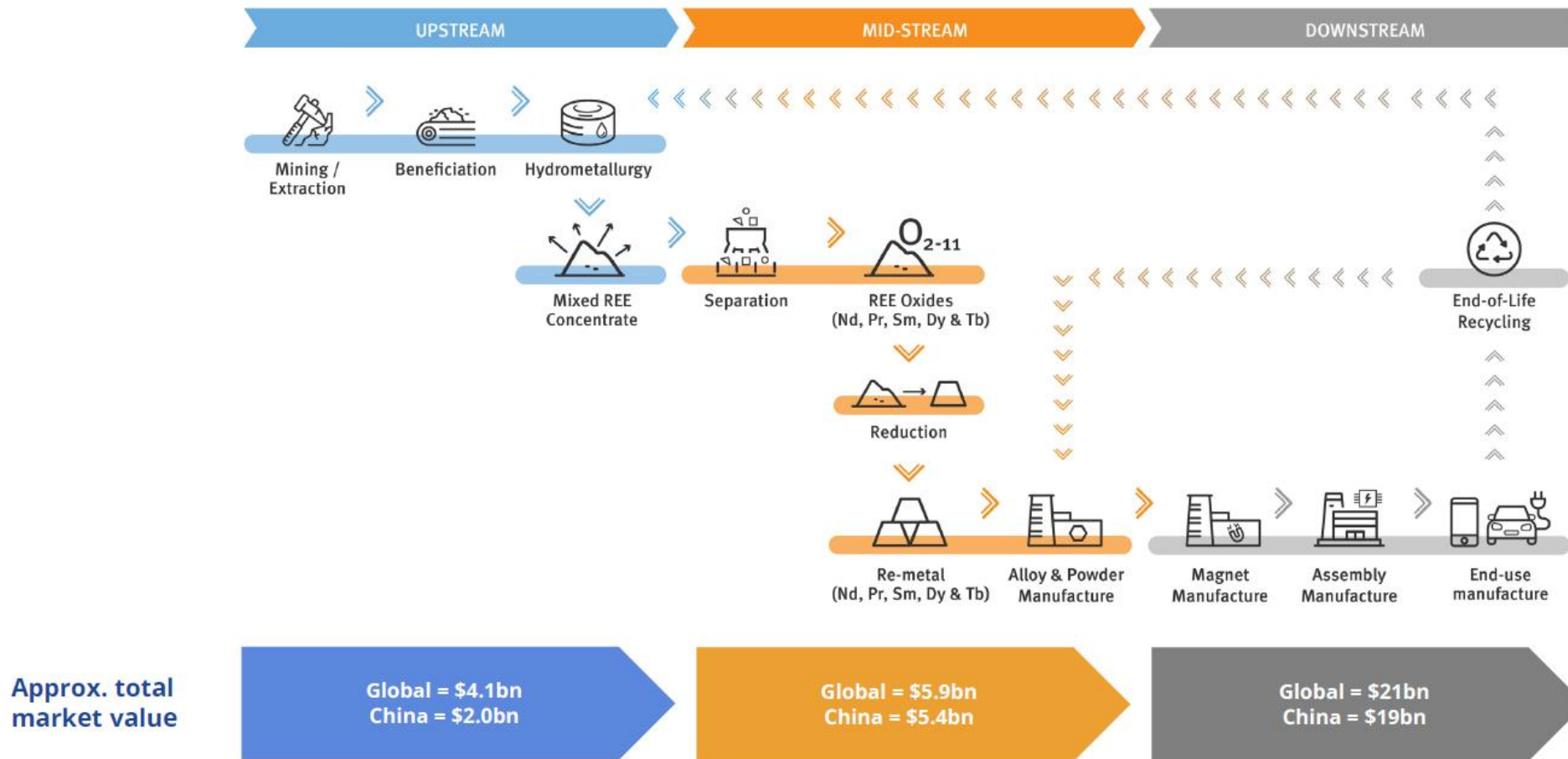
- China
- Brazil
- India
- Australia
- Russia
- US
- Greenland
- Tanzania
- South Africa
- Canada
- Other

Estimated rare earth separation capacity, 2024



# The rare earth supply chain is heavily dominated by China

Rare-earths magnet supply chain



Source: Argus Consulting



# Why are rare earths hitting the headlines this year?

War in Ukraine + Add to myFT

## Donald Trump wants Ukrainian rare earths deal in return for US military support

US proposal appears to align with President Zelenskyy's strategy to keep Washington onside



POLITICO

EU-US relations | War in Ukraine | Newsletters | Podcasts | Poll of Polls | Policy news | Events

NEWS > POLITICS

President Volodymyr Zelenskyy, left, presented an outline of the plan to Donald Trump in September during the US election campaign © Shannon Stapleton/Reuters

## Greenland dangles rare earths partnership with EU as Trump looms

“We want to expand our cooperation on our critical minerals and energy,” Vivian Motzfeldt says.

SHARE

TECH

## Rare earths are China's bargaining chip in the trade war — the U.S. is trying to fix that

PUBLISHED TUE, JUL 29 2025 8:00 AM EDT

Magdalena Petrova @MAGDALENAPETROVA1 | Jeniece Pettitt @JENIECEP | Jason Reginato

SHARE f X in



VIDEO 15:00

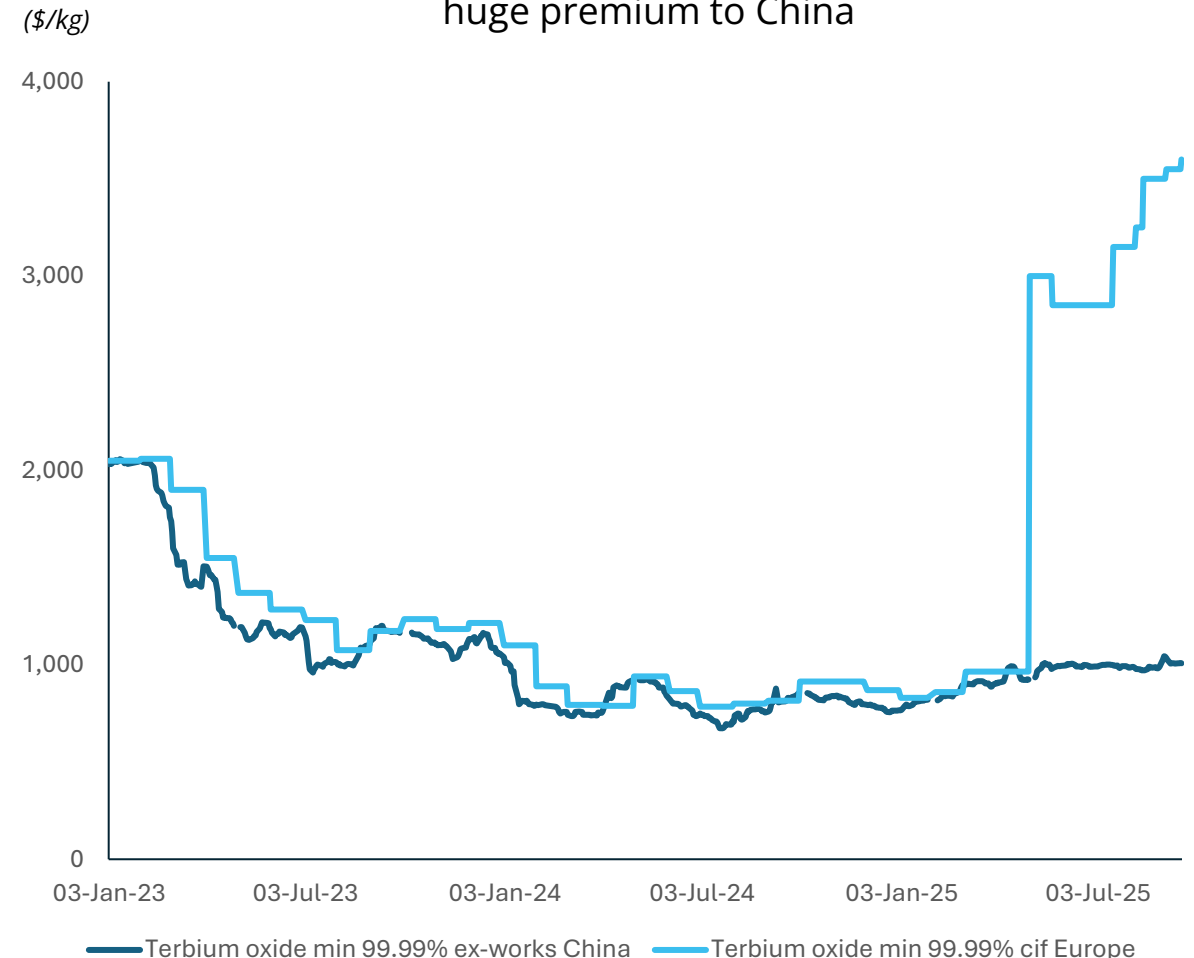
Can the U.S. break China's rare earth dominance?



# China's April export controls are having a profound impact

- **Imposed:** 4 April 2025
- **Applied to:**
  - Select medium & heavy rare earths: dysprosium, terbium, gadolinium, yttrium, samarium, lutetium, scandium
  - High-performance rare earth magnets (those containing the restricted REs)
- **Context:**
  - 'Tech trade war' – restrictions on chips
  - US tariffs 2<sup>nd</sup> April
  - China's wider 'dual use' restrictions
- **Impact:**
  - Record high spot prices for stock already held outside China
  - Very little progress getting export licenses
  - Consumers' stocks waning

Bifurcating markets: Atlantic spot prices at a huge premium to China



Source: Argus

© 2025 Argus Media group. All rights reserved.

# US taking steps to offset supply risks – but is it enough?



[View All News →](#)

## MP Materials Announces Transformational Public-Private Partnership with the Department of Defense to Accelerate U.S. Rare Earth Magnet Independence

July 10, 2025

Multibillion-Dollar DoD Commitment to MP Materials to Catalyze Domestic Production; DoD Positioned to Become Company's Largest Shareholder

Building on MP's Existing Capabilities at Mountain Pass and Magnetics Operations in Texas, Company to Rapidly Construct "10X" Magnet Manufacturing Facility to Reduce Foreign Dependency

10-year NdPr Price Floor Commitment and 10-year Magnet Offtake Agreement Positions MP as a National Champion with a Durable and Scalable Economic Platform



Argus News & analysis



### US seeks critical minerals to grow stockpile

08 Sep 25, 19:35 - Metals, Non-ferrous, Base metals, Aluminium, Ferro-alloys and ores, Ferro-niobium, Minor metals, Bismuth, Cob...

Houston, 8 September (Argus) – The US Defense Logistics Agency (DLA), an agency within the Department of Defense, has issued tenders and requests for information (RFI) for several "critical minerals" to add to the national defense stockpile.

Within the past month, the DLA has issued requests for proposals (RFP) for cobalt, bismuth, high purity aluminum, scandium flake, niobium and ferro-niobium. It has published RFIs for the potential acquisition of rhenium, indium, vanadium pentoxide (V2O5), heavy rare earth oxides, and tungsten ores and concentrates.

Across the metals requested, market participants were surprised by the large quantities sought by the DLA, with many finding the requested tonnages unrealistic given the five-year timeframes. The quantities requested typically exceed US total production and imports on an annual basis. The DLA will likely require "years to accumulate" the minerals, as a result, traders said.

#### DLA critical mineral requests

Metals	RFP or RFI	Quantity Sought	Contract Value
Bismuth metal	RFP	5,167,272 lbs	-
Cobalt cut cathode/rounds	RFP	-	\$2mn-\$500mn
Dysprosium oxide	RFI	30 mt	-
Gadolinium oxide	RFI	900 mt	-
High purity aluminum	RFP	235,213,611 lbs	-
Indium ingots	RFI	222 mt	-
Niobium metal ingots	RFP	-	max \$50mn
Rhenium metal	RFI	40 mt	-
Samarium oxide	RFI	3500 mt	-
Scandium metal flake	RFP	-	\$1mn-\$5.4mn
Terbium oxide	RFI	10 mt	-
Tungsten ore and concentrates	RFI	1715 mt	-
Vacuum-grade ferroniobium	RFP	1,709,560.63 lbs	\$3mn-\$160mn
Vanadium Pentoxide	RFI	4000 mt	-

"mt" denotes metric tonnes, "lbs" denotes pounds, RFP denotes request for proposal, RFI denotes request for information

Source: System for Award Management

# Thank you

Feel free to get in touch:

Ellie Saklatvala – Editorial Lead, Metals

[ellie.saklatvala@argusmedia.com](mailto:ellie.saklatvala@argusmedia.com)

[www.argusmedia.com](http://www.argusmedia.com)