



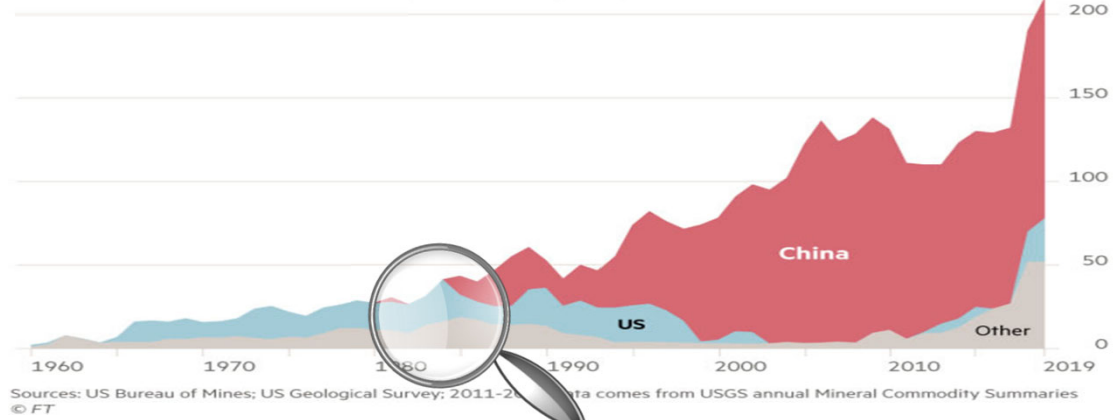
# RAW MATERIALS SUMMIT 2022

## THE STATUS OF THE EUROPEAN RARE EARTHS AND MAGNET INDUSTRY

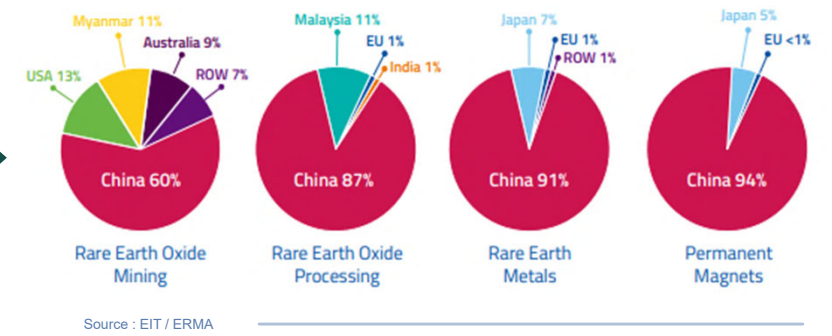
Tuesday, May 24th 2022

# From mid90<sub>s</sub> to 2022 China built its monopoly on Rare Earths

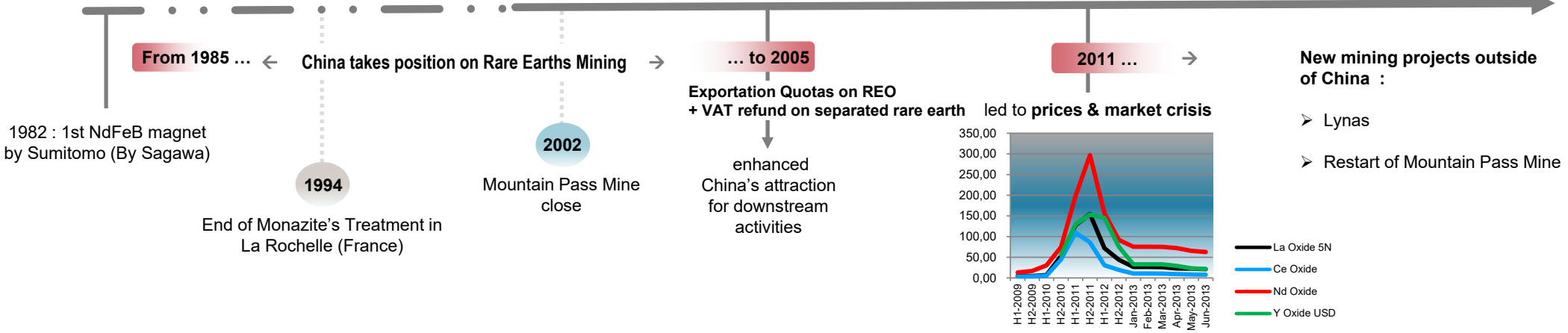
Rare-earths oxide mine production (metric tonnes, '000s)



In 2021 China lead in Mining & Processing steps



Zoom on key events timeline



➤ Today in Europe : No mining in operations and some units for light separation, metal or magnet making

# Ongoing Projects in Europe

## Potential Rare Earth projects

(source ERMA)



**Mining** : Several projects in Northern Europe



### Rare Earth Separations technologies

- New separations units for light rare earths (Poland, UK, Estonia (debottlenecking))
- New separations units for heavy rare earths (Carehub France)
- New separation technology (Norway, Ireland)



### Metal making

- Debottlenecking in UK
- New unit in Estonia



### Magnets making

- Debottlenecking project in Germany, Slovenia
- New unit in Estonia



### Recycling

- Short loop : UK, France
- Long loop : Caremag



Based on EIT/ERMA source

# Key success factors to growth?

## For Mining

- **A long term vision & help to support high capital intensive projects CAPEX investments translated quickly into actions**  
e.g.: Lynas (JOGMEG), Iluka (AUS), MP Materials (« Grand Strategy » in US)
- **Minerals which have already been industrially operated ...**  
⇒ Monazite, Bastnaesite, Ionic Clay, Xenotime  
Polymetallic ores add complexity
- **... or Minerals where Rare Earth is a co-product**  
Helps to facilitate treatment and reprocessing (recovery of a waste product)  
Increases societal acceptability



Necessary to accompany the growth in demand 

## For Recycling

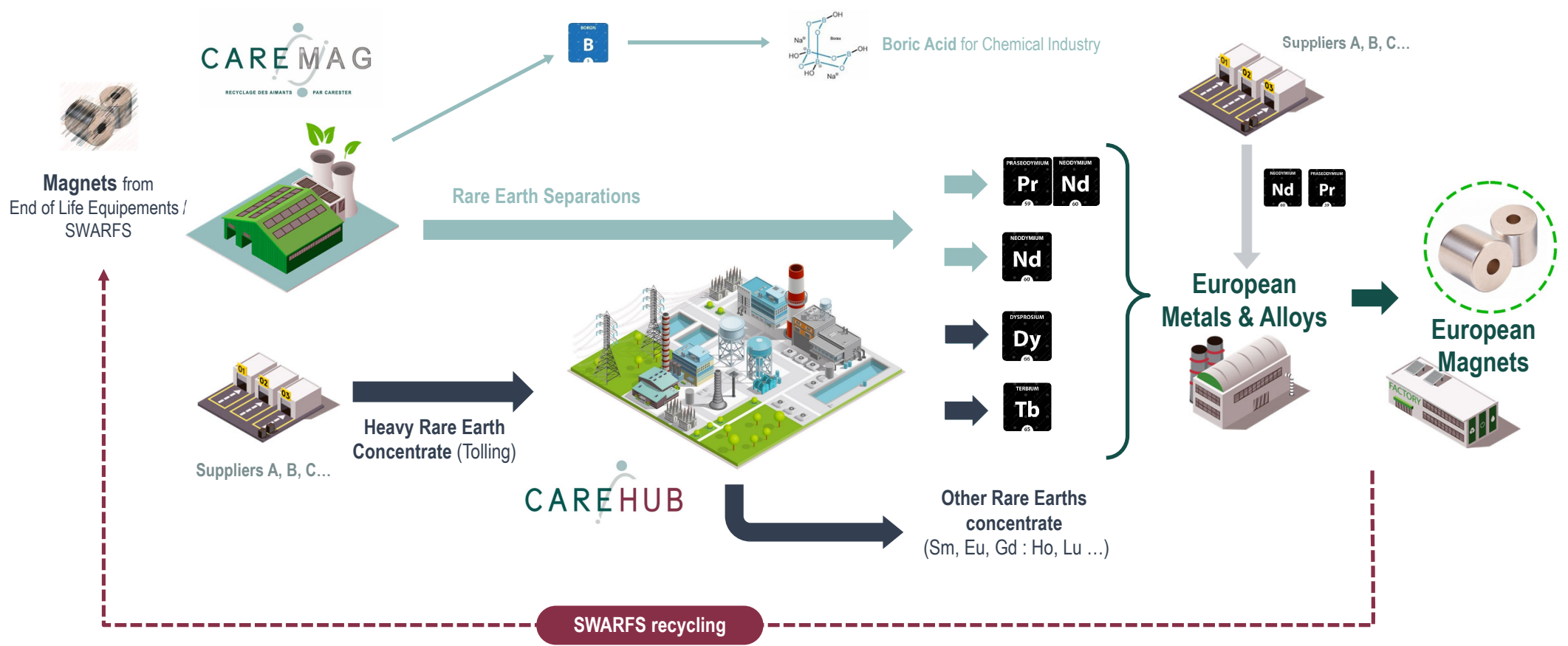
- **Access to Resource** : Used Magnet is the best possible ore to make magnets again
    - Keep products in Europe : regulation can be an enabler
    - Favor magnet recycling instead of letting it going to wastes
  - **Innovation** : Develop innovative processes that will create  
Economic differentiation  
Ecological Differentiation (CO2, Energy, Wastes)
  - **A long term vision** to bring **financial support** that Industry needs to build up capacity while applications are ramping up
- Recycling will exist in the future** and Europe has all cards in hand to become a reference : **let's do it**



A must for the future of our Planet 

➤ Both are linked & has to be promoted and supported

# CARESTER projects combining Recycling and Heavy Rare Earth concentrates from Mines from end 2024



*« As for the future,  
your task is not to foresee it,  
but to enable it.»*

Antoine de Saint-Exupéry

  
**CARESTER**  
Your partner for Rare Earths

Acting for our children

