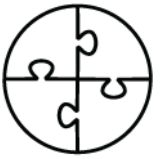
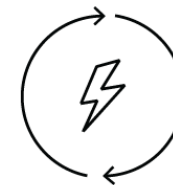
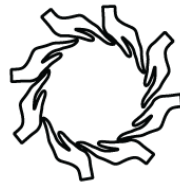


# The benefits of a supply chain perspective

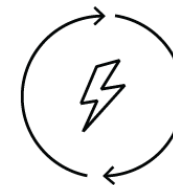
**Filip Johnsson**

Mistra Carbon Exit Program conference, Skogshem och Wijk,  
September 18-19, 2023



## The benefits of a supply chain perspective

- Cost and value distribution – from large increase to small increase in price
- Targets on entire supply chain – Scope 1, 2 and 3
- Flexibility in electricity system for efficient sector coupling
- Prepare for consumption-based emission attitudes and targets
- Security of supply



# Cost and value distribution – from large increase to small increase in price



## Cement industry

Price  
increase  
cement

**+70%**



Price  
increase  
building

**Less than  
+0.5%**

## Steel industry

Price  
increase  
steel

**+25%**



Price  
increase  
car

**Less than  
+0.5%**



# Targets on entire supply chain – Scope 1, 2 and 3



- Fitfor55 & EU-ETS



Other press releases

Peab is first construction company to use SSAB Zero, a new zero-emission recycled steel from SSAB

APRIL 25, 2023 10:15 CEST

4 MIN READ

**SKANSKA** We partner to share knowledge and to develop and innovate net-zero solutions for the built environment. Our goal is to transition to low-carbon construction across all our projects and ultimately achieve net-zero carbon emissions by 2045.



VOLVO



Climate change is happening. As a mobility provider we recognise that we're part of the problem of climate change and have a responsibility to act. By reducing emissions across our entire value chain, we're aiming to become a climate-neutral company by 2040.

Polestar



The Polestar 0 Project will eliminate, not reduce, all greenhouse gas emissions from every aspect of production. From conception all the way to customer delivery, our target will be met without resorting to offsetting until there are solutions with proven results in place. Zero will mean zero. This is how we define 0 CO<sub>2</sub>e.

# Flexibility in electricity system for efficient sector coupling

**Electricity**



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**Transport**



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**Industry**



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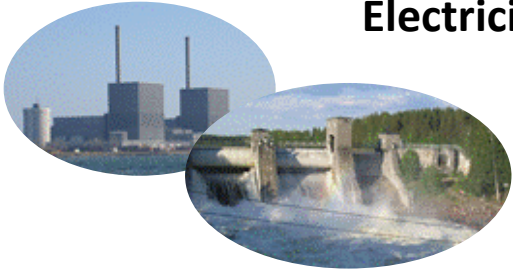
**Buildings**





# Flexibility in electricity system for efficient sector coupling

Electricity



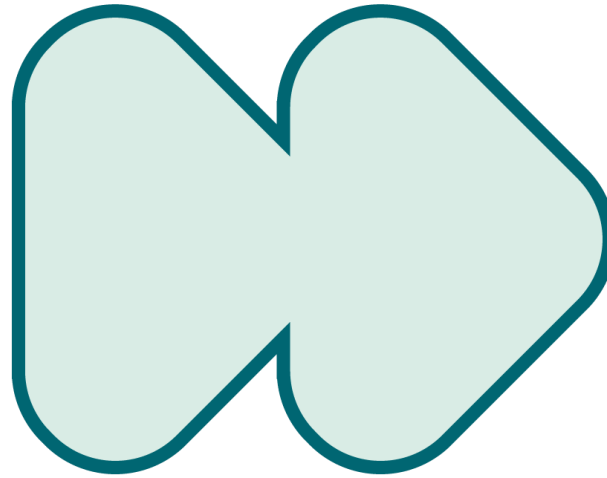
Transport



Industry



Buildings



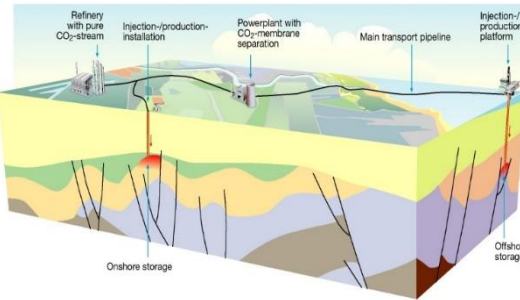
Electrification



# Flexibility in electricity system for efficient sector coupling - facilitated by diversity in technology

## Carbon Capture & Storage (CCS)

### Smart buildings



### Hydropower



## Combined Heat and Power (CHP)

### Energy infrastructure



### Solar power



### Electric Vehicles (EV)



### E-methanol



### Gas turbines - biogas and hydrogen



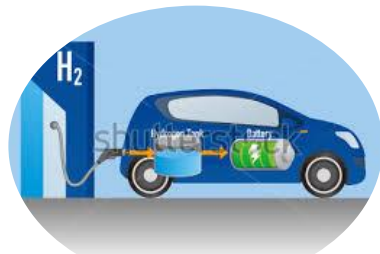
### Small Modular Reactors (SMRs)



### Wind power



### Hydrogen Electric Vehicles (HEV)



### Hydrogen Based Steelmaking

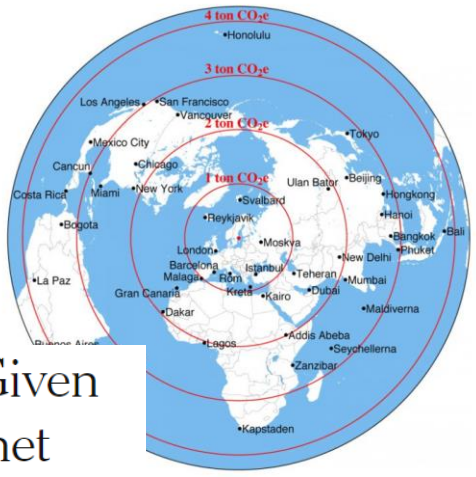


### Batteries





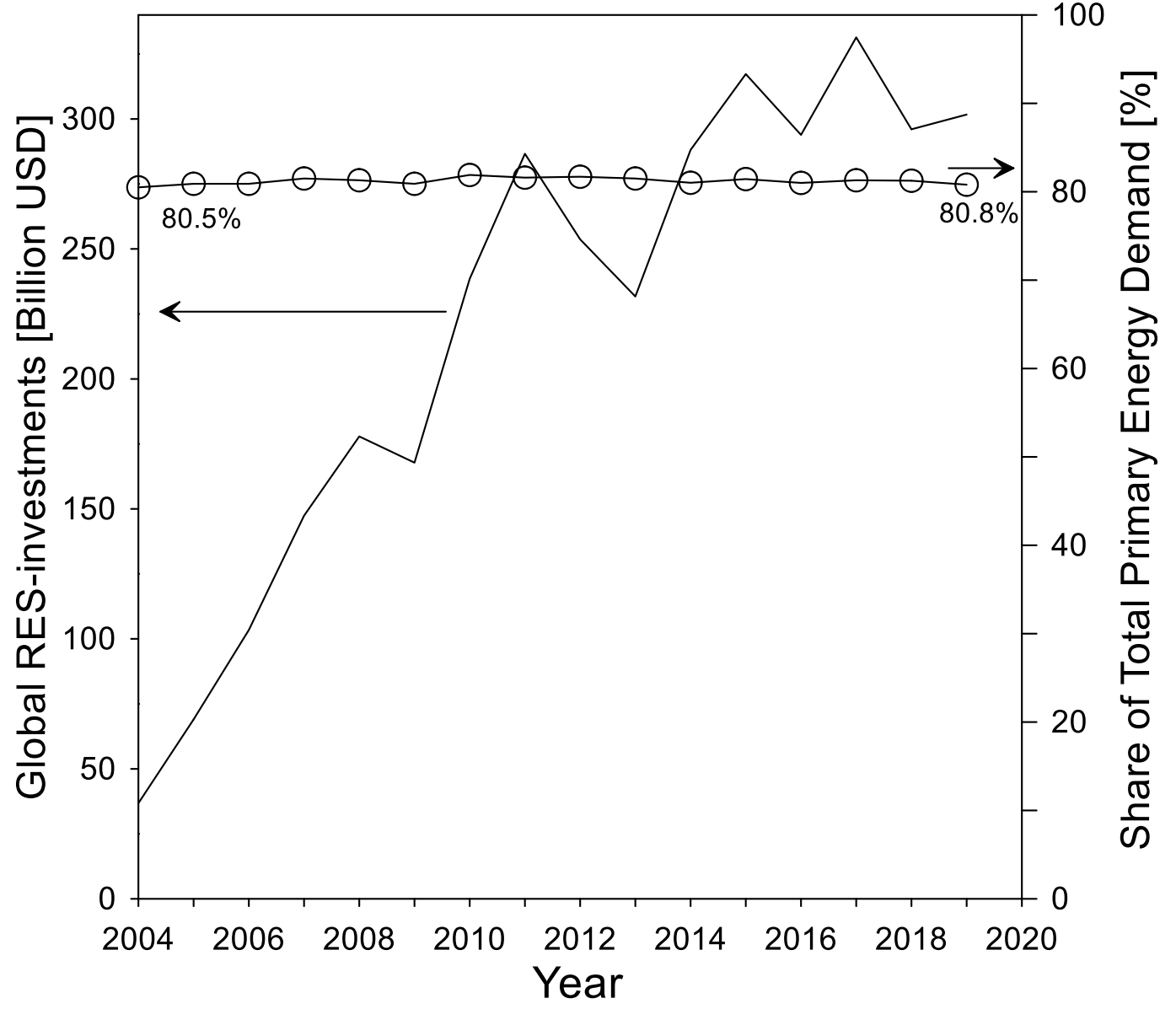
# Prepare for consumption-based emission attitudes and targets



The No-Jet Set: They've Given Up Flying to Save the Planet

With airplanes producing a large amount of climate-warming emissions, a growing number of travelers are signing pledges to keep their journeys on the ground.

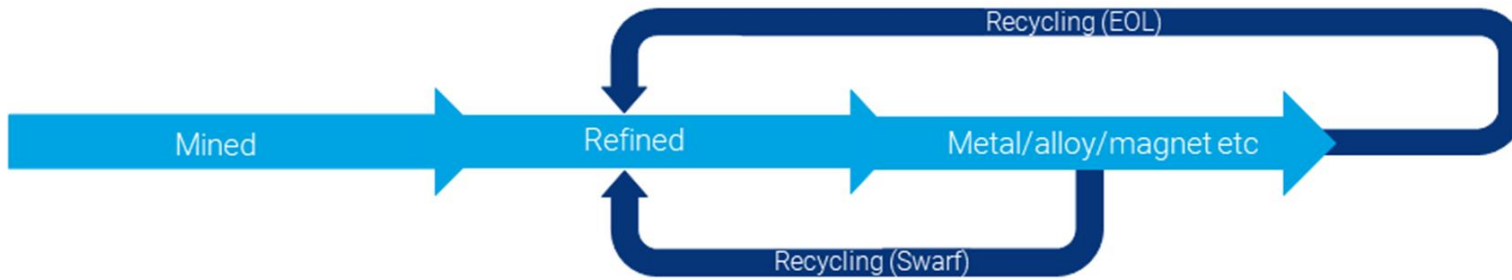
**Få svenskar vill avstå flyg för att skona klimatet**



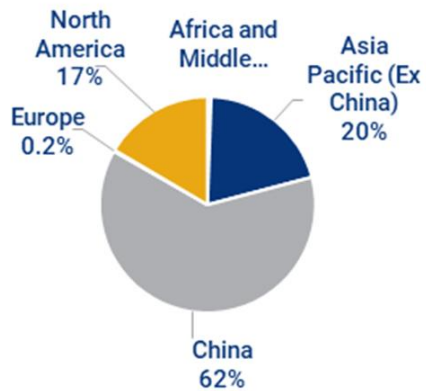


# Security of supply

China is dominant at all stages of the rare earths supply chain, though the global market is evolving

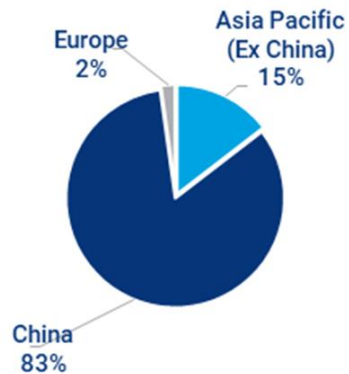


Mined supply

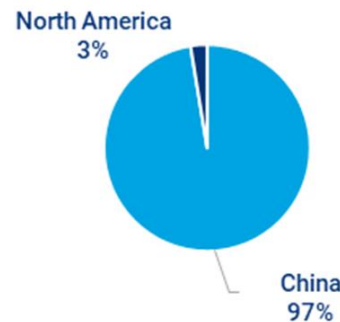


Source: Wood Mackenzie

Refined supply



Recycled supply



Europe's largest deposit of rare earth metals is located in the Kiruna area

January 12, 2023

Per Geijer Deposit



DEN SVENSKA INDUSTRIEN  
LKAB: Fynd i Kiruna 25 procent större



Järnmalmen vid Per Geijer-området i Kiruna innehåller ovanligt rikliga mängder av de sällsynta jordartsmetallerna. Bild: Johan Hallnäs

# Security of supply



Trends | Thursday | 24 February 2022 | 10:00h

## Strong rise predicted in reshoring of critical parts and final assembly to Europe and US

Over 60% of European and US companies expect to reshore some of their production activities from Asia back to Europe or the US over the next three years.

“The research results clearly show that reshoring is a hot topic on the agenda in the boardrooms of international companies”

Source: Global Reshoring & Footprint Strategy' survey by Buck Consultants International (BCI) and Supply Chain Media.

Source: Wood Mackenzie

<https://www.woodmac.com/news/opinion/rare-earths-vital-elements-of-the-energy-transition/>

Europe's largest deposit of rare earths is located

China is though

Mined supply

North America 17%  
Europe 0.2%

<https://www.tn.se/article/29481/lkab-fynd-i-kiruna-25-procent-storre/>

Järnmalmen vid Per Geijer-området i Kiruna innehåller ovanligt rikliga mängder av de sällsynta jordartsmetallerna. Bild: Johan Hallnäs

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