

**Health & Safety**

**Environment**

**Energy**

**SveMin**

**Swedish Association of Mines,  
Mineral and Metal Producers**

**Metalprod.  
issues**

**Exploration  
access to land**

**EU-  
monitoring**

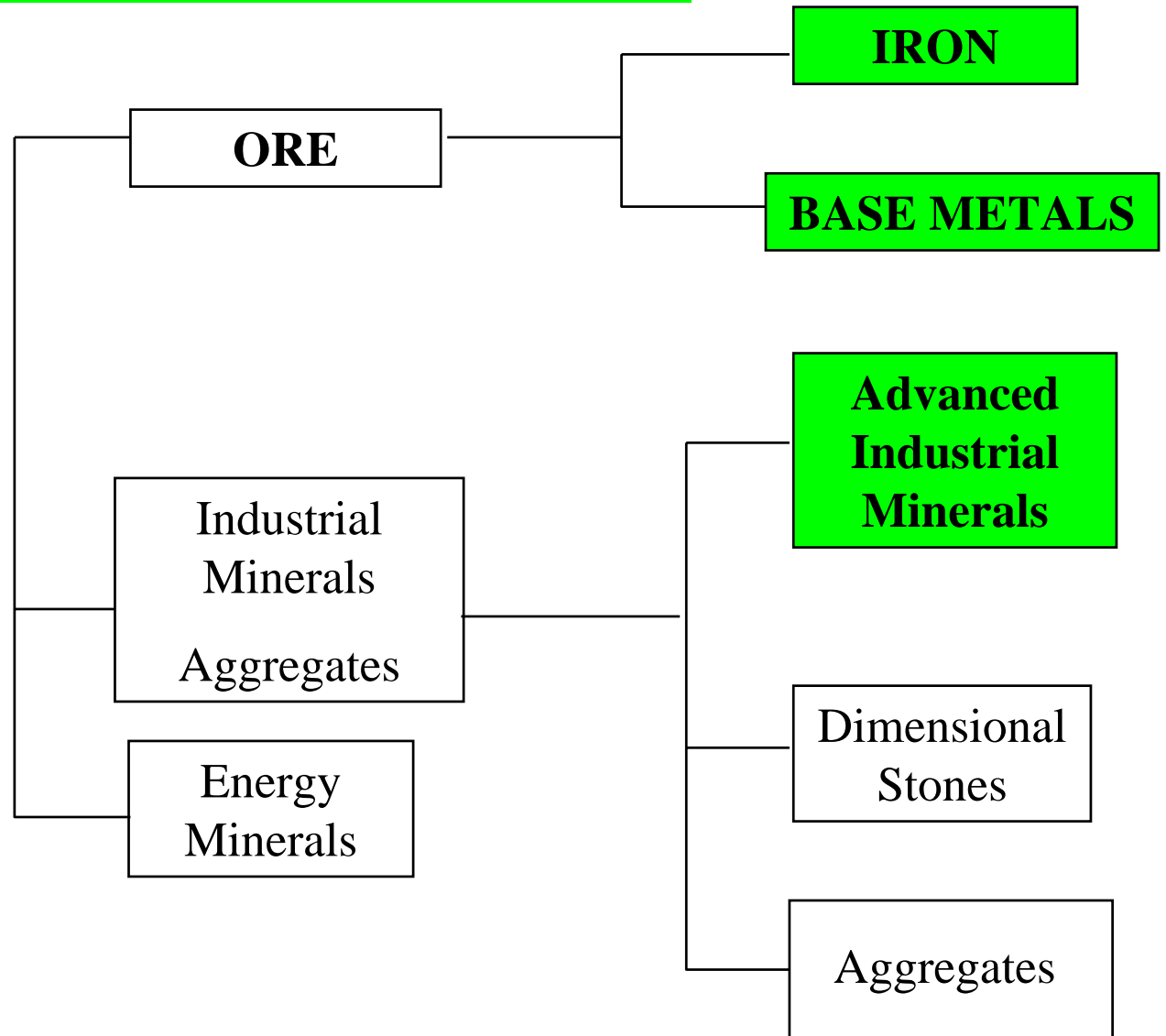
**Competence**

**Treaties  
with unions**

# Mineral Producers in SveMin

**Mining  
Industry**

**Minerals  
Industries**



# Mines and Quarries in Sweden

## Members of SveMin

- ▲ LKAB
- Boliden Mineral AB
- ★ Zinkgruvan Mining AB
- ◡ North Atlantic Natural Resources AB
- Björkdalsgruvan AB
- Dragon Mining (Sweden) AB
- Cementsa AB
- Nordkalk AB



# Need of metals in the future

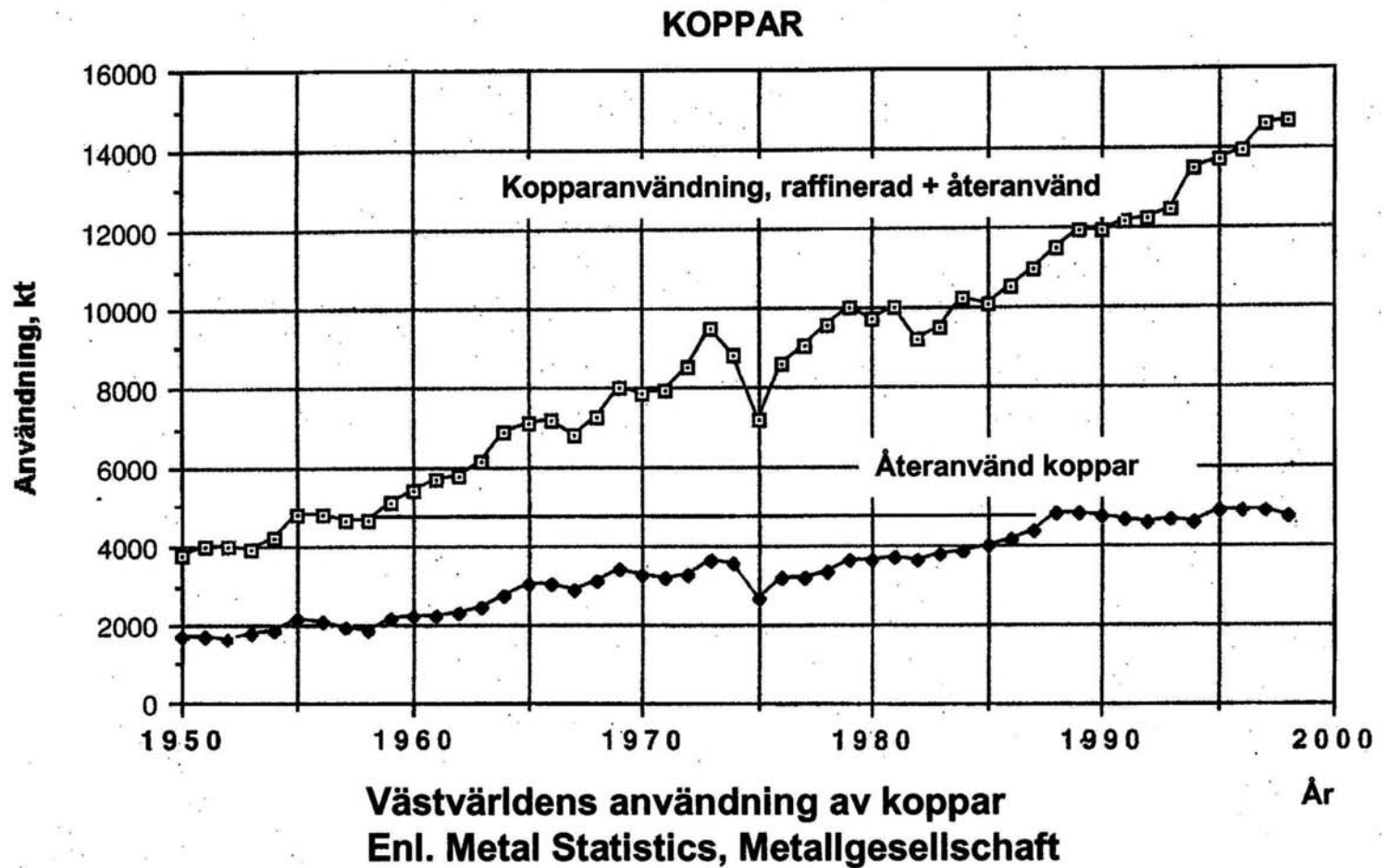
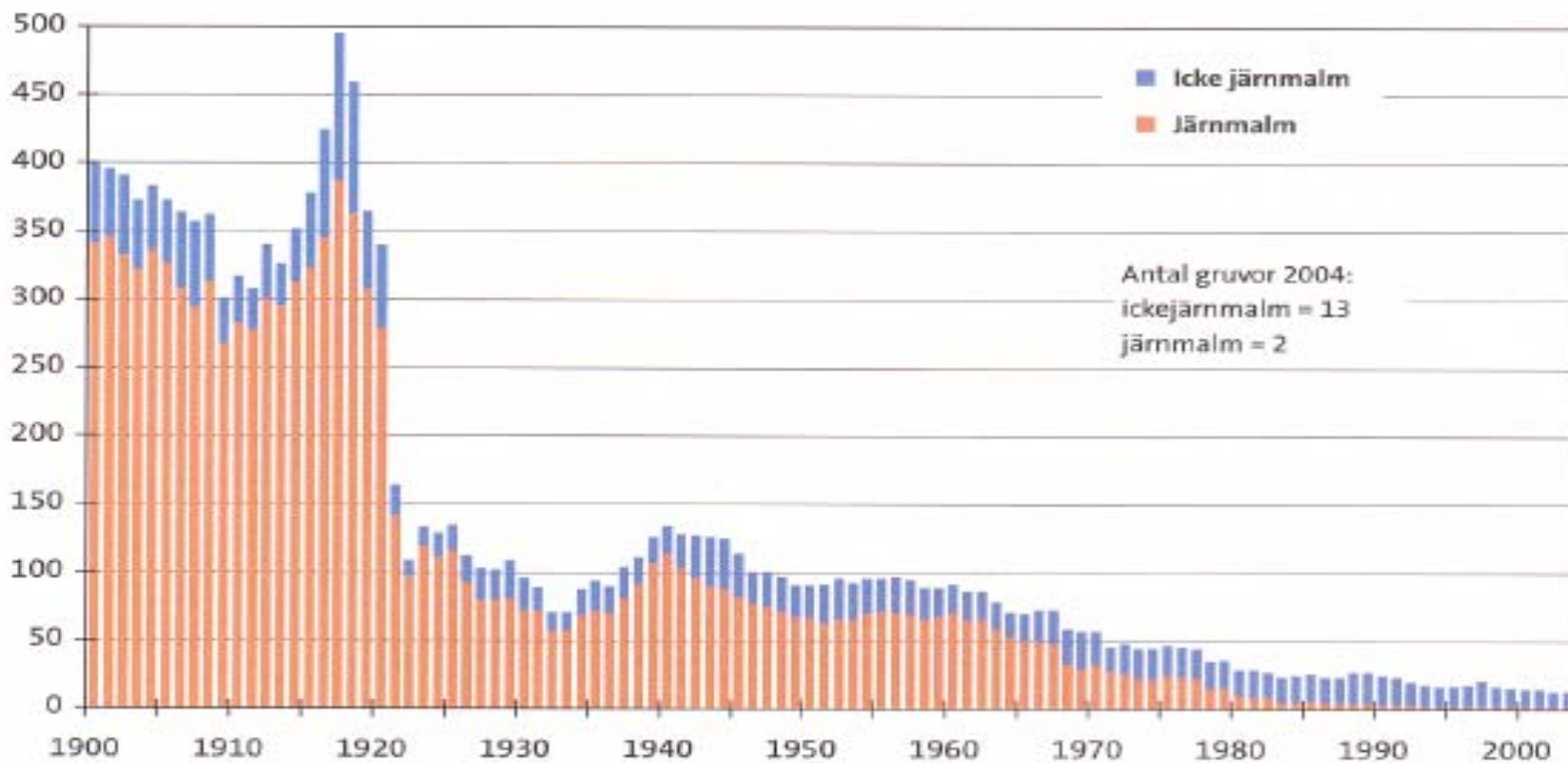


Diagram 1

Antalet gruvor i drift i Sverige 1900–2004

*The number of mines in production in Sweden 1900–2004*

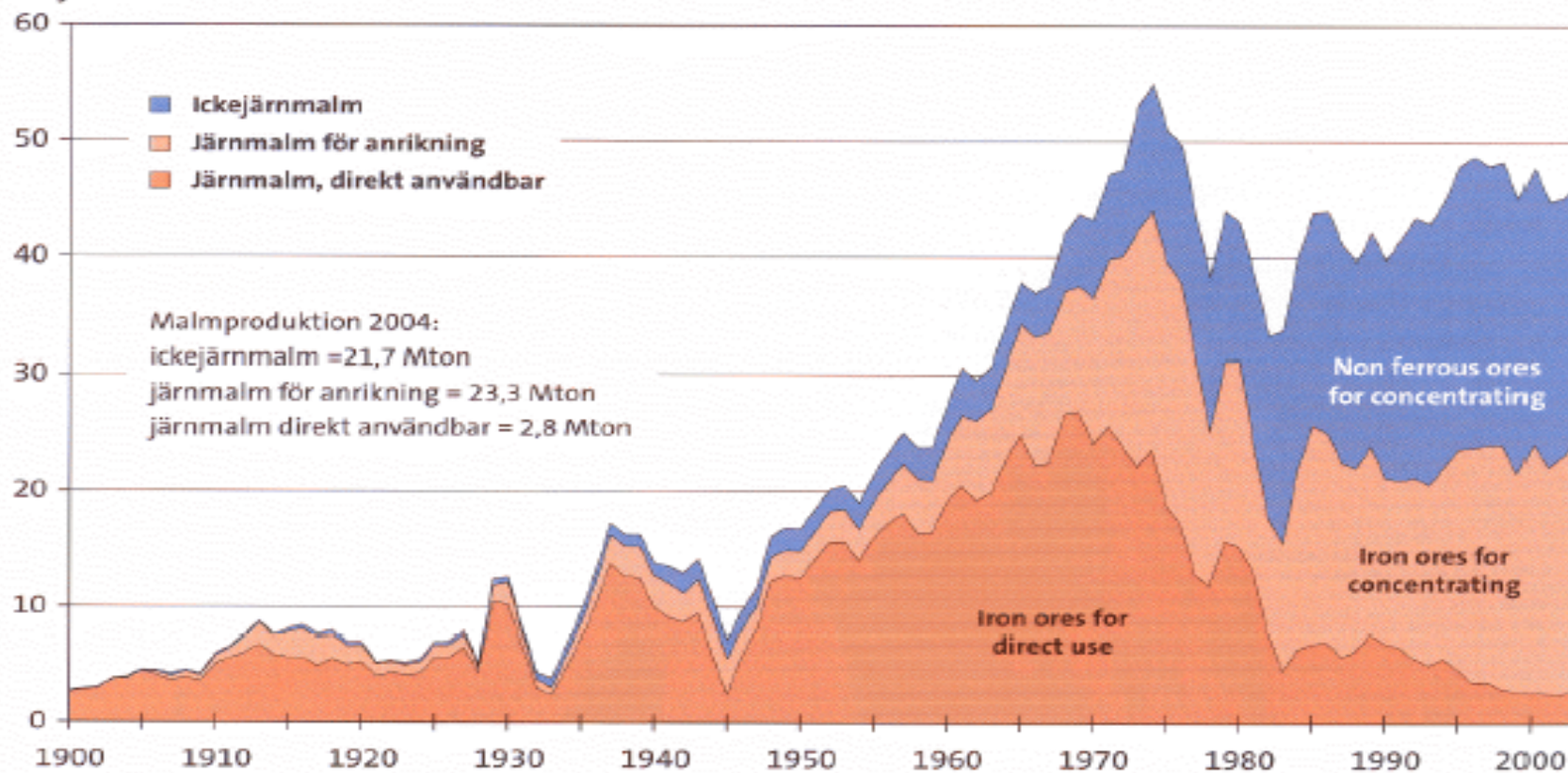
Antal



Källa: SGU

Diagram 2 **Malmproduktionen i Sverige åren 1900–2004**  
*Production of ores in Sweden in 1900–2004*

Miljoner ton



Källa: SGU



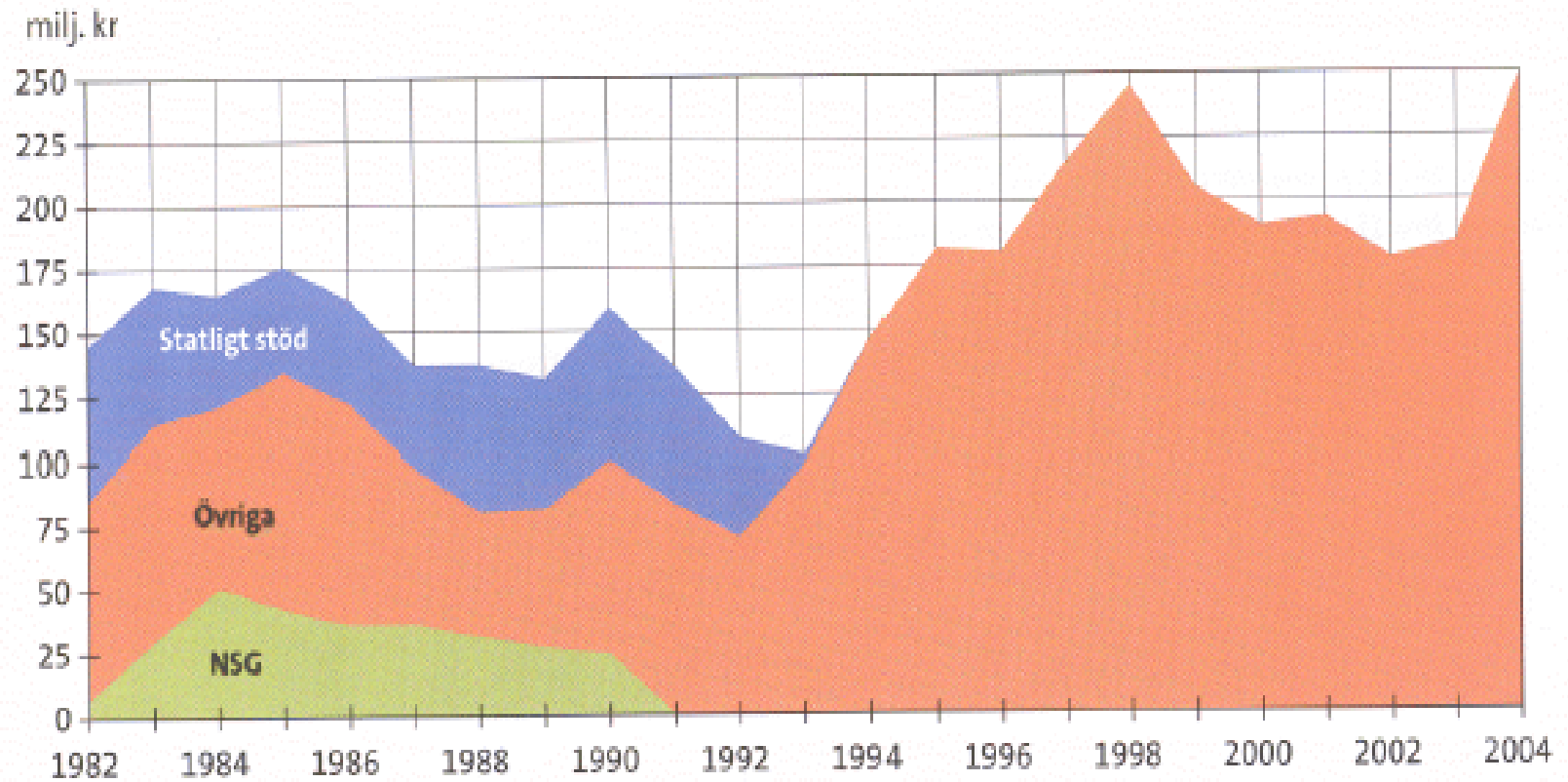


**Remote loading Kiruna**

Diagram 14

Prospekteringskostnader i Sverige 1982–2004 (löpande priser).

Value of exploration in Sweden 1982–2004 (million SEK, current price)

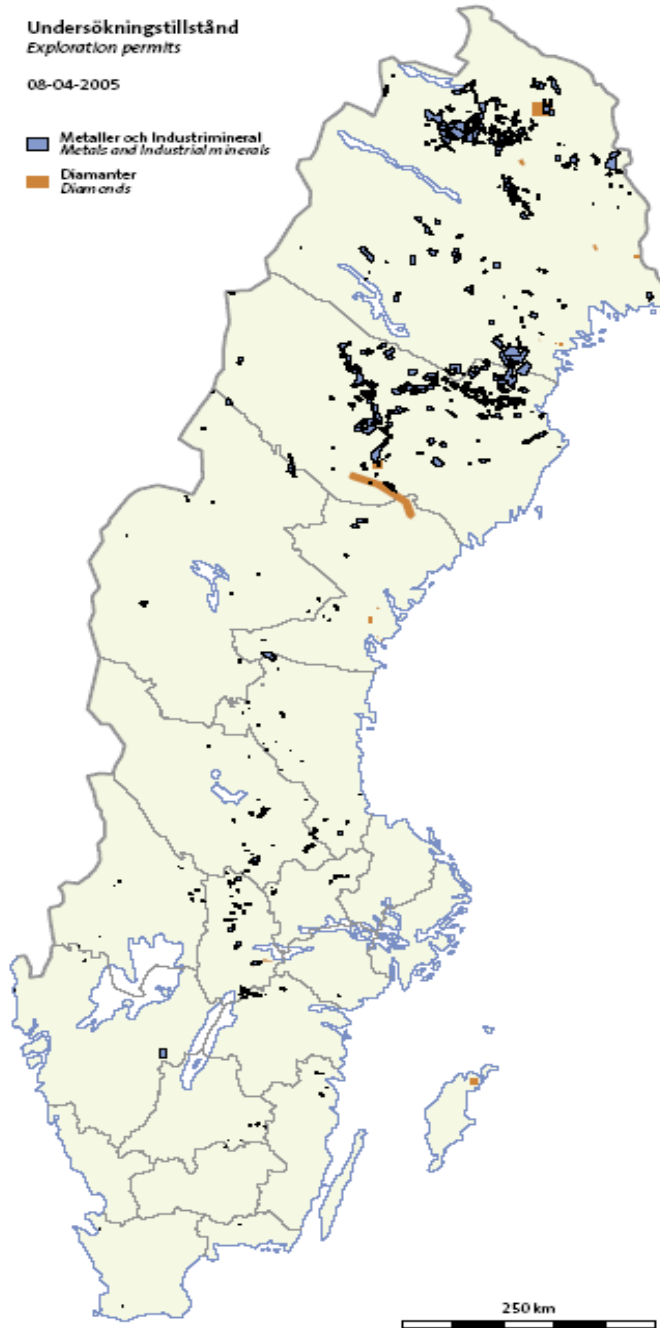


Källa: SGU

Undersökningstillstånd  
Exploration permits

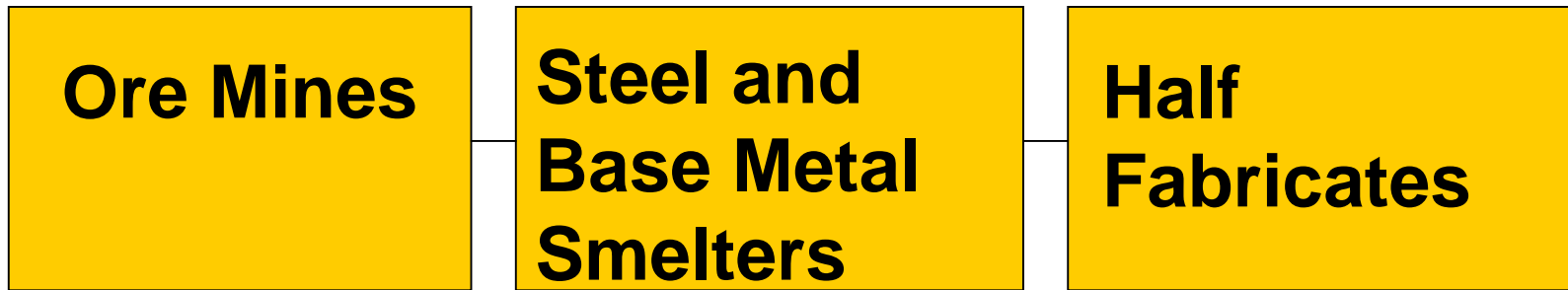
08-04-2005

- Metaller och Industrimineral  
Metals and Industrial minerals
- Diamanter  
Diamonds



Source: SGU

# Value Added Chain of the Total Industry 2001



- ❖ Employees 16 %
- ❖ Value Added 16 %
- ❖ Investments 16 %

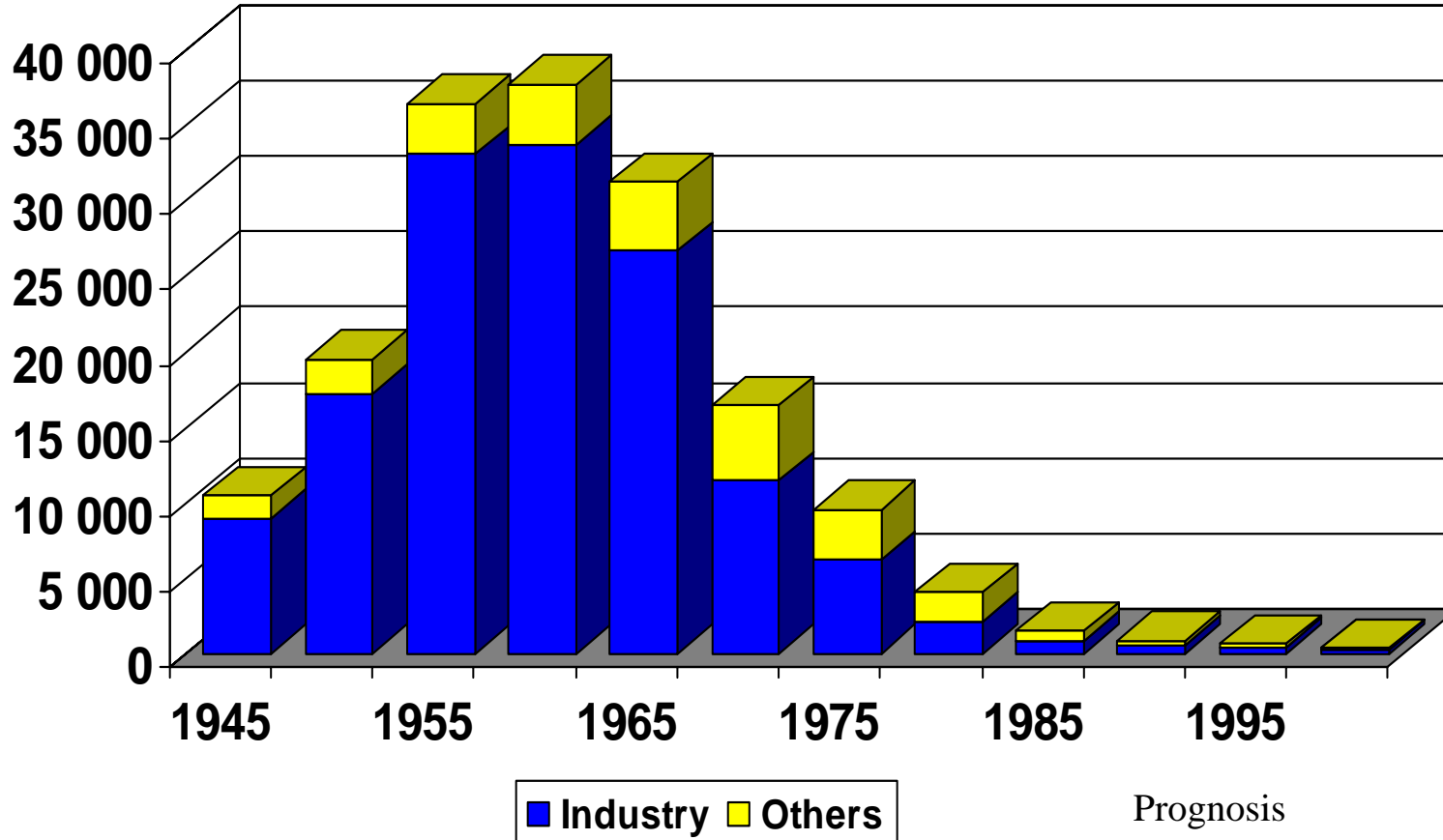
# Swedish mining is important in EU

Significant producer of ores EU-25 (2004)

<b><u>Metal</u></b>	<b><u>Production</u></b>	<b><u>Rank</u></b>
<b>Iron</b>	<b>89 %</b>	<b>1</b>
<b>Gold</b>	<b>27 %</b>	<b>2 next to Finland</b>
<b>Zink</b>	<b>24 %</b>	<b>2 next to Irland</b>
<b>Silver</b>	<b>17 %</b>	<b>2 next to Poland</b>
<b>Lead</b>	<b>30 %</b>	<b>3 next to Irland, Poland</b>
<b>Copper</b>	<b>11 %</b>	<b>3 next to Poland, Portugal</b>

# Swedish emissions of mercury, cadmium and lead

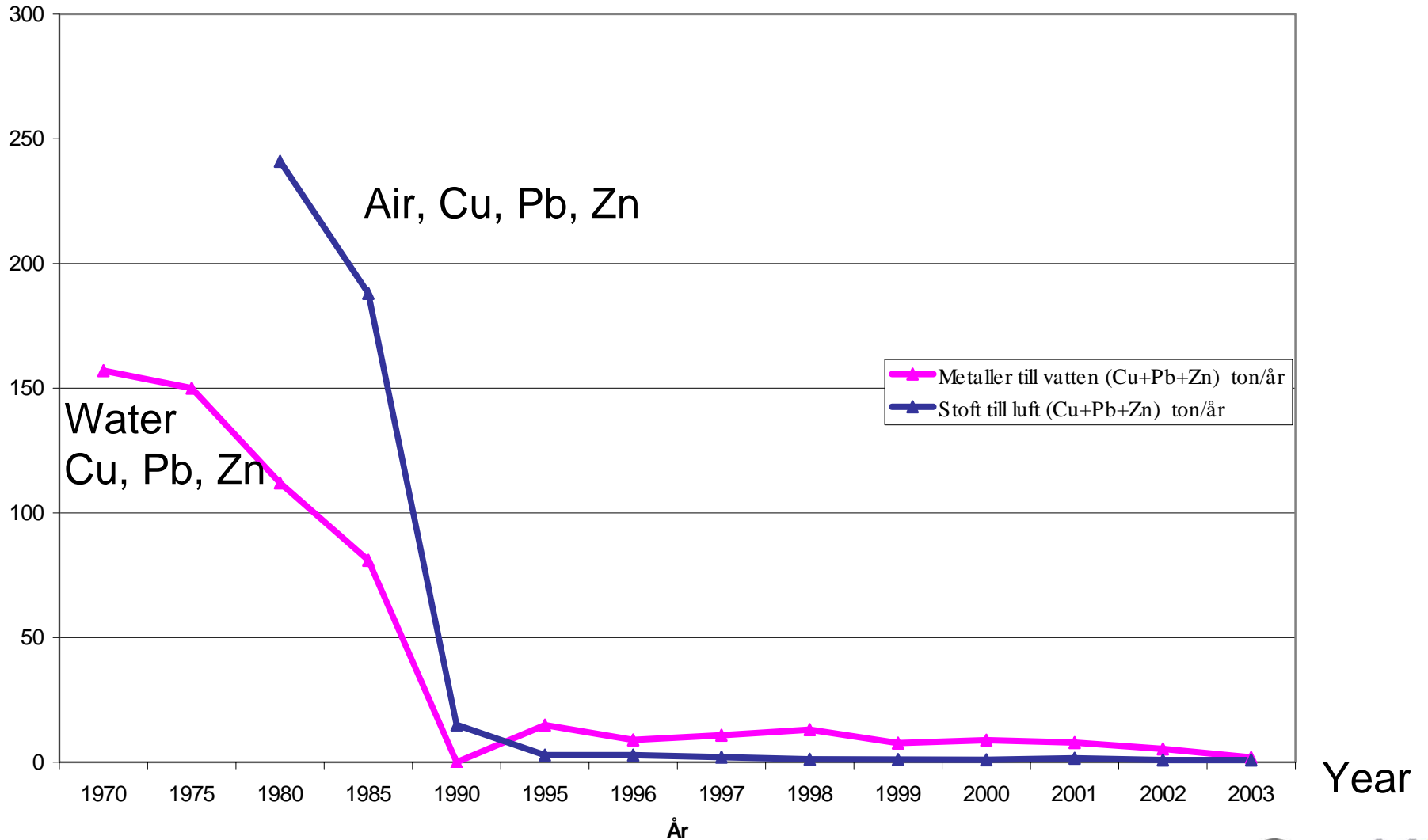
(Weighted according to CML Heijings)



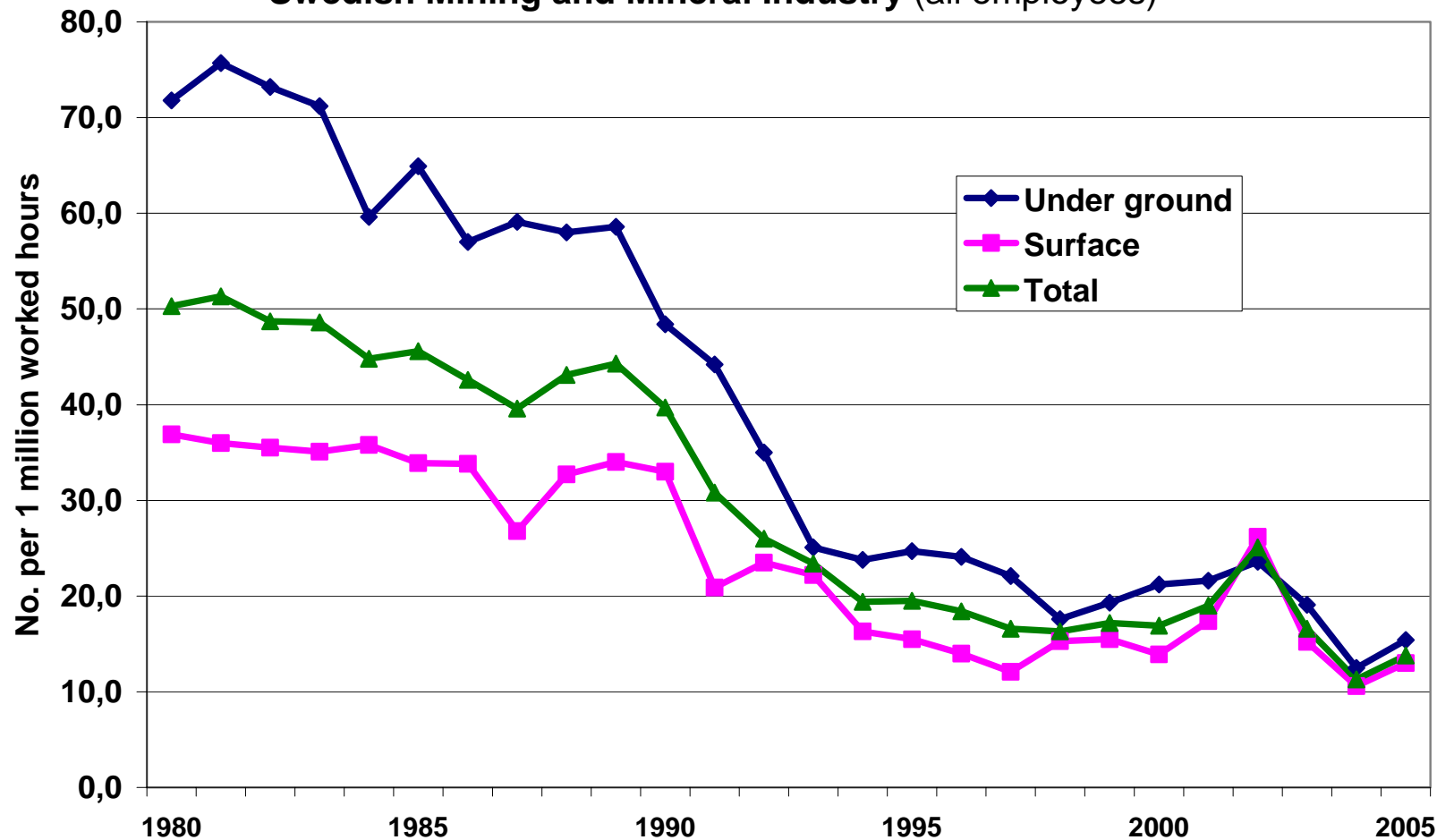
Supposed emissions of mercury and cadmium according to lead 1945-1965

# Total emissions from Boliden Swedish Mines

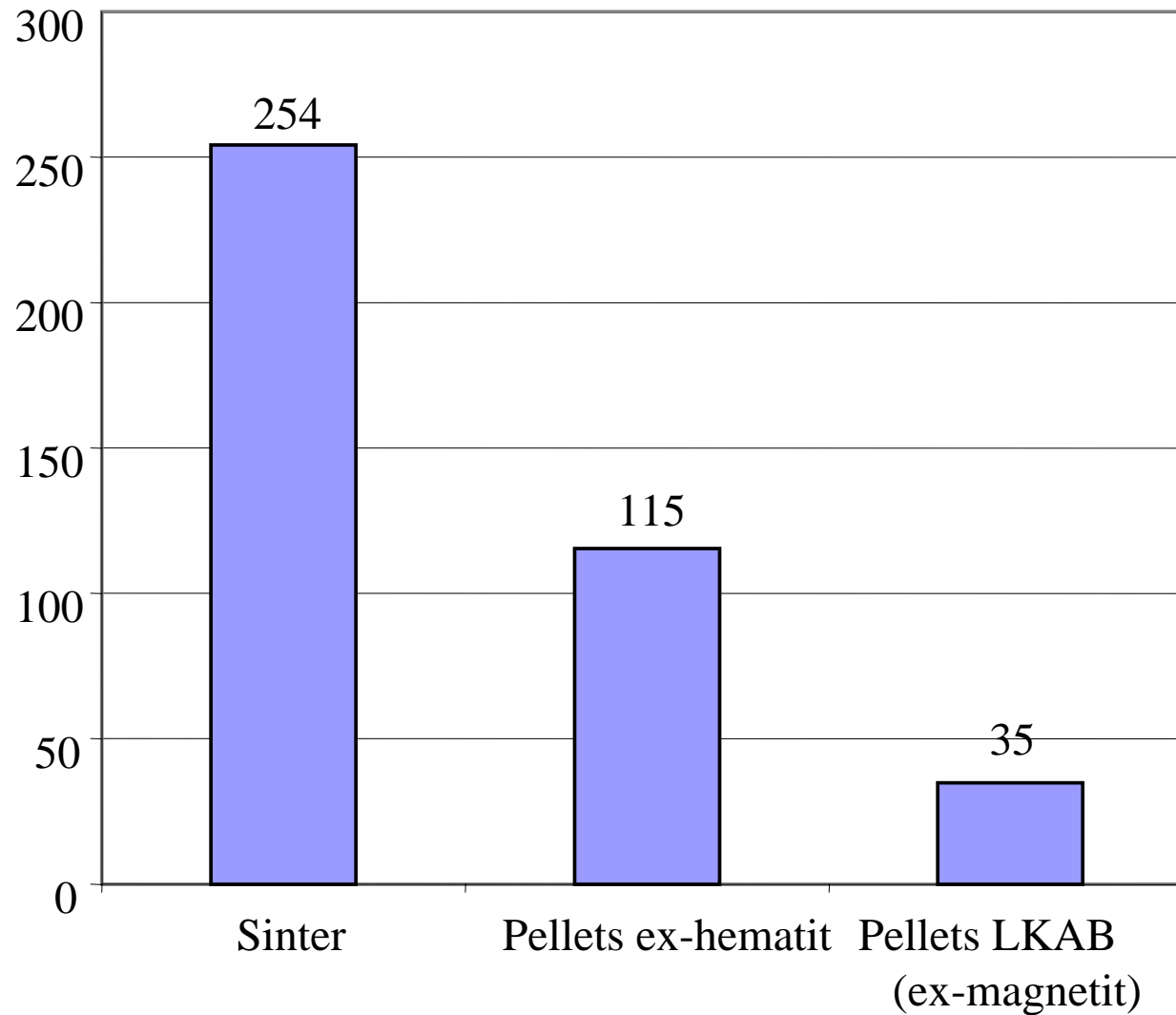
Ton/Year



# Occupational Accidents Lost Day Injury Frequency Rate 1980-2005 Swedish Mining and Mineral Industry (all employees)



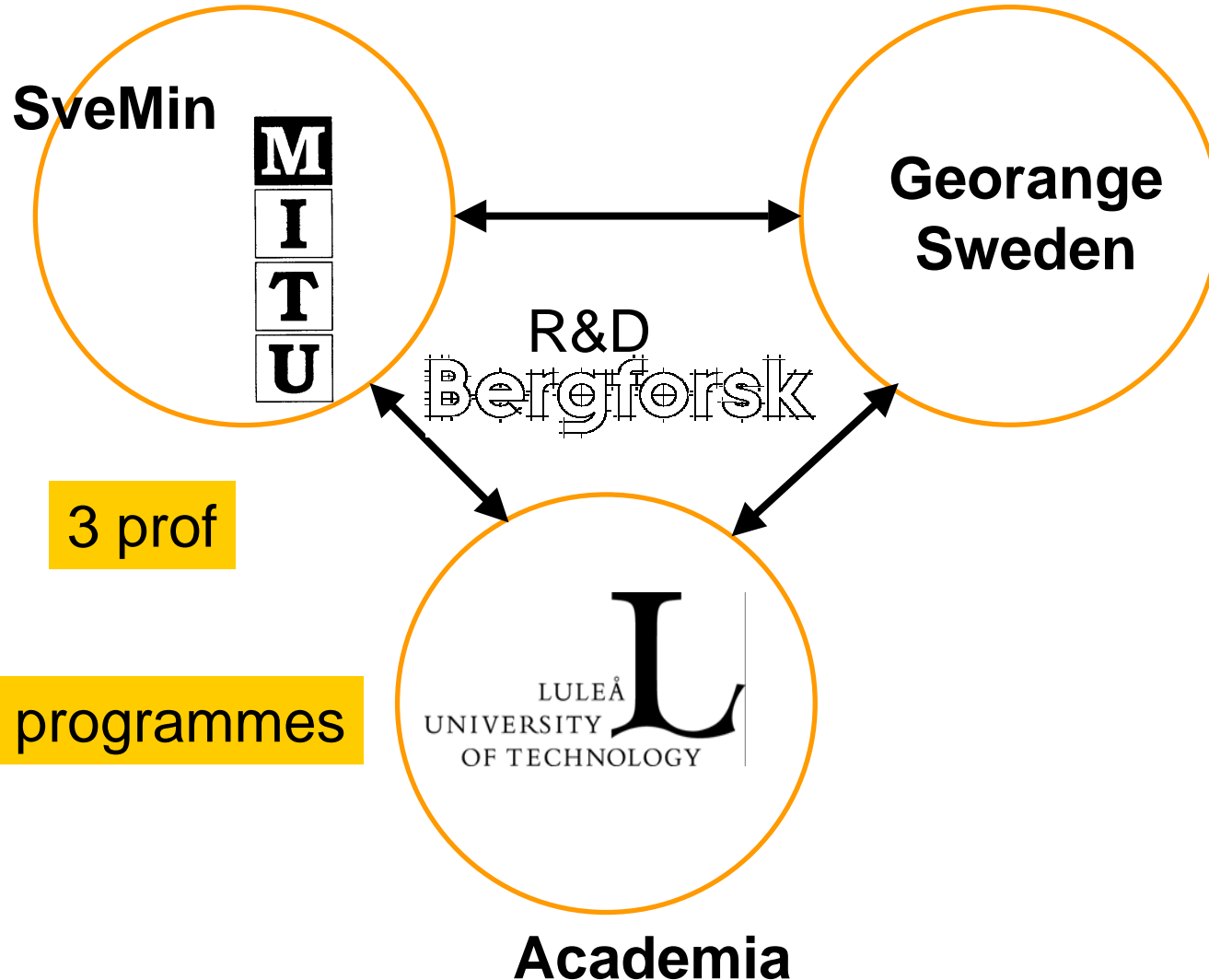
## Emissions of CO<sub>2</sub> (kg/ton steel)



# "Triple Helix" for Mining Industry in Sweden

Industry

Society/communities



3 prof

Masters programmes

# Metallurgy

– An integral part of Innovative Sweden



REGERINGSKANSLIET

- In June 2004 the Government presented its innovation strategy *Innovative Sweden: A strategy for growth through renewal* (Ds 2004:36).
- Sweden is to be Europe's most competitive, dynamic and knowledge-based economy and ***Swedish metallurgy (and mining, minerals and stone industries) is to be the most competitive in Europe.***

# Vision

*“The Swedish metallurgy and mining industries are at the forefront of international developments in strategically selected areas. Cutting-edge technology, products with high added value and sustainable resource use characterise the whole value chain from natural resources to customer. This provides for strong international competitiveness and contributes to prosperity and growth in our country.”*

# Strategy program

- 1. Strategy for Research and Development**
- 2. Strategy for Skills Provision**
- 3. Strategy for Sustainable Development**

# 1. STRATEGY FOR RESEARCH AND DEVELOPMENT

- ***Steel research programme, Vinnova-JK***
- ***Mining research programme, Vinnova***
- ***Geoscientific research, SGU***
- ***Energy research, STEM***
- ***Programme for industrial minerals, aggregates and dimensional stone, SGU***

# 1. STRATEGY FOR RESEARCH AND DEVELOPMENT

- *Programme for the equipment industry, STC*
- *Metals processing skills centre in Värmland, Lst*
- *Supply of capital, Teknikbrofonden*
- *More effective national and international cooperation, ETP*

## 2. Measures under the strategy for skills provision

- ***Skills provision, LKAB Gymn, etc***
- ***Cooperation with Finland on education and research, LTU-Oulu, LTU-KTH-HDa-HUT***
- ***Promoting increased Swedish participation in international educational programmes, LTU-Oulu-Krakow***

### 3. Measures under the strategy for sustainable development

- ***Dialogue on energy and climate policy, Government-Industry***
- ***Programme for energy efficiency in energy-intensive enterprises, STEM***
- ***Voluntary commitments/CSR, SveMin Ethical rules, Mineral resources reporting, Damm safety policy, Guidelines for exploration work***

### 3. Measures under the strategy for sustainable development

- ***Drafting of a guide on exploration in Natura 2000 sites, SGU-EPA***
- ***Aerial survey campaign in Norrbotten, Västerbotten and Bergslagen, SGU***
- ***Effective access to data of interest for exploration, SGU***

# Stekenjokk – aftertreated minesite



# Process

- Continuous close co-operation between government and industry, authorities and organizations.
- Follow up meetings once a quarter

# SveMin:

## Holistic view and Balance

- Traditional Swedish way:  
Environmentally motivated – technically possible  
– economically reasonable
- Many new political initiatives suffer from only environmental perspective
- Modern society needs metal products
- Industry needs faster authorities, decision making

# Messages of SveMin

1. Safeguard access to land for exploration and mines
2. Electric power at prices that build competitive industry
  - Allow building of new capacity
3. Bergforsk – Swedish R&D-platform for EU
  - Governmental co-financing
4. University financing shall allow education with few students