Strategic Mining Research Programme

- *One step towards the implementation of the strategy programme for Metallurgy*

Objectives

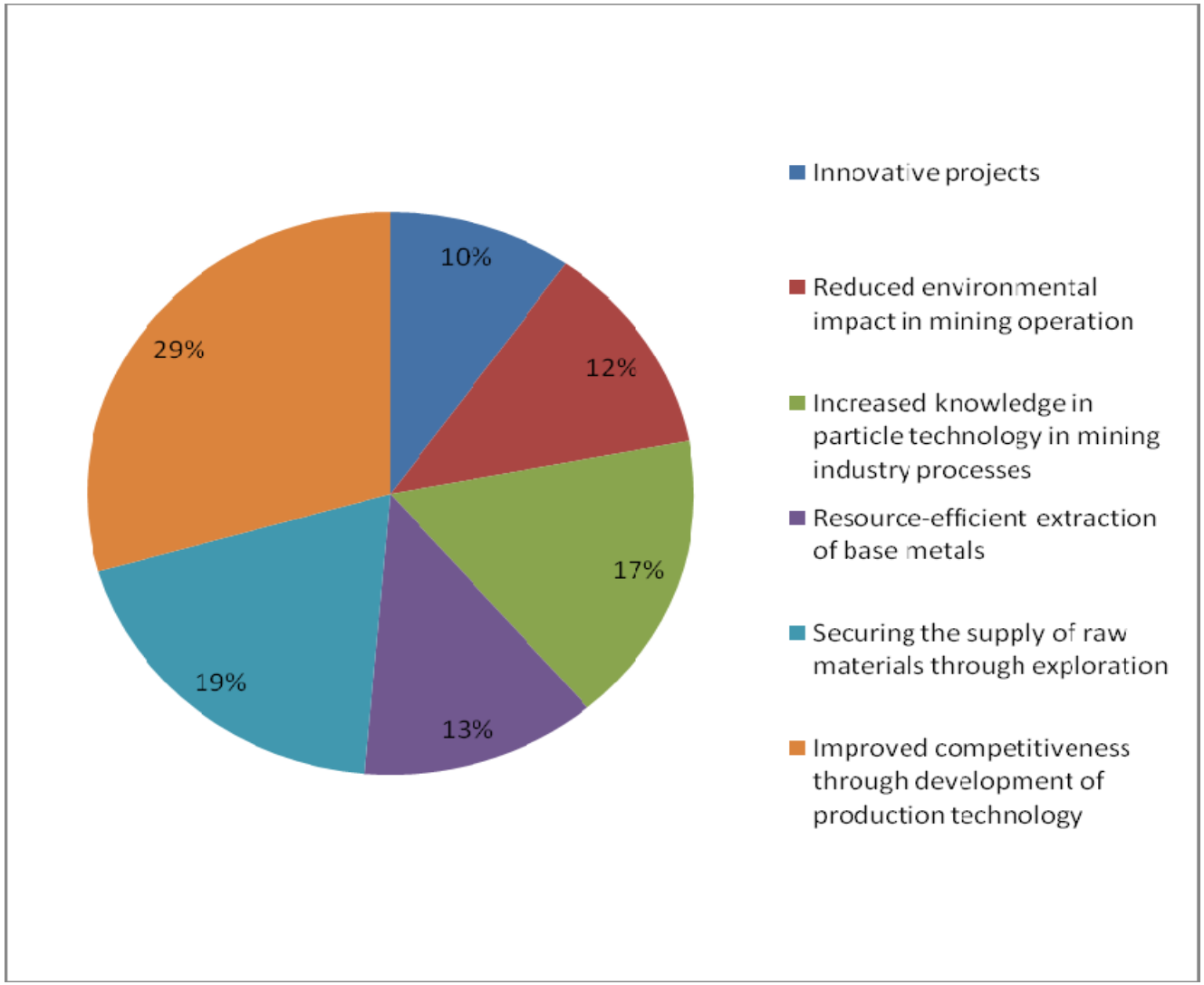

Photo: Atlas Copco

- to reinforce the leading position in terms of technology and international competitiveness of the Swedish mining industry in selected strategic niches,
- to create strong education, research and innovation environments,
- to contribute to successful Swedish participation in international joint initiatives.

Programme board

- **Ulf Marklund** Boliden Mineral AB
- **Göran Bäckblom** Stiftelsen MITU
- **Seija Forsmo** LKAB
- **Ulla Grönlund** Länsstyrelsen Västerbotten
- **Monica Hammarström** Svensk Kärnbränslehantering AB
- **Marie Holmberg** Boliden Mineral AB
- **Ulf Holmgren** VINNOVA
- **Manfred Lindvall** Northland Resources Inc
- **Kent Tano** LKAB
- **Lars Persson** SGU

Focus areas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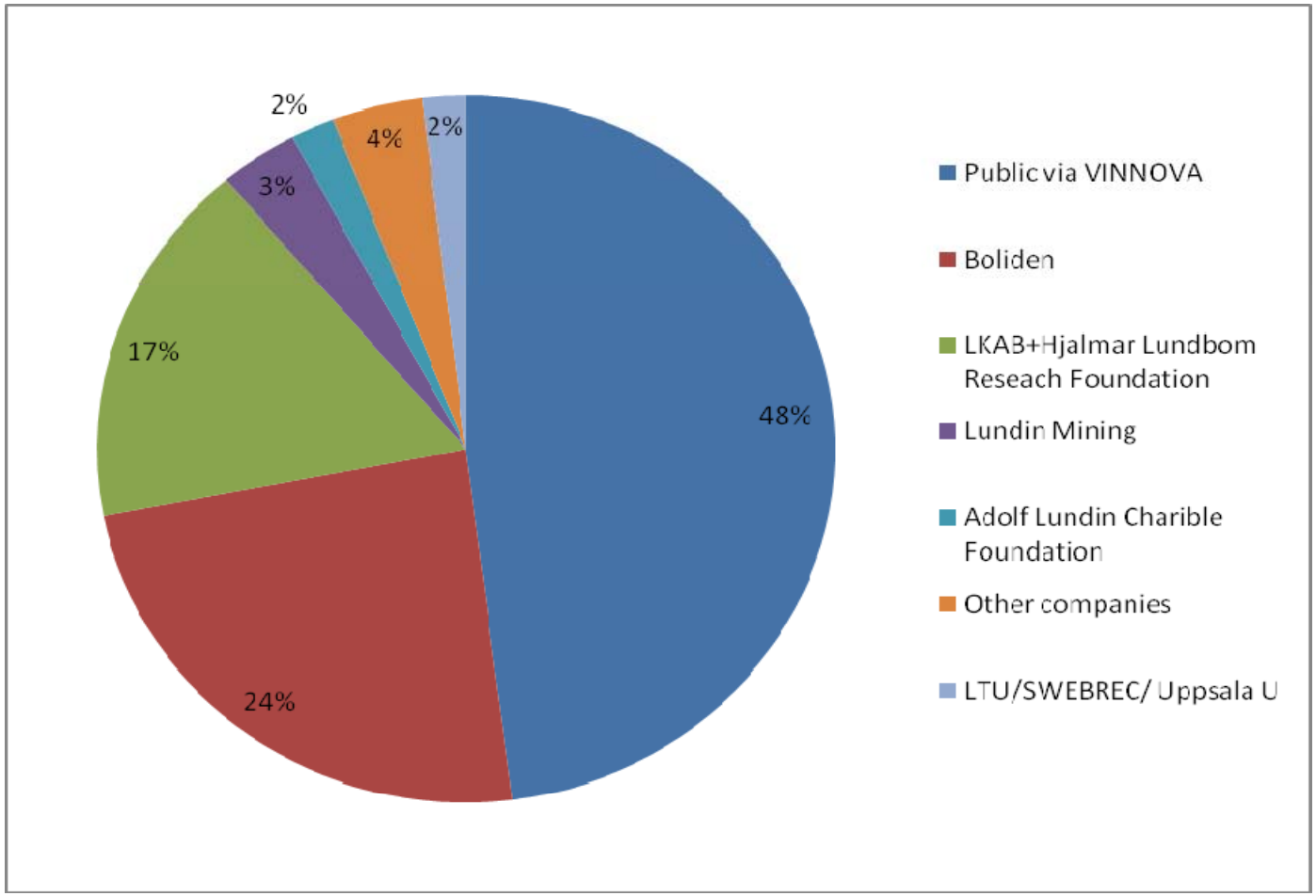
Innovative projects
Reduced environmental impact in mining operation
Increased knowledge in particle technology in mining industry processes
Resource-efficient extraction of base metals
Securing the supply of raw materials through exploration
Improved competitiveness through development of production technology

Programme Budget & Timetable

- 50 M SEK (VINNOVA)+
  at least 50 M SEK (Industry)
- Programme time 2007- 2010
- Some project continue until 2012

Financing of granted projects



Performance targets

Short term

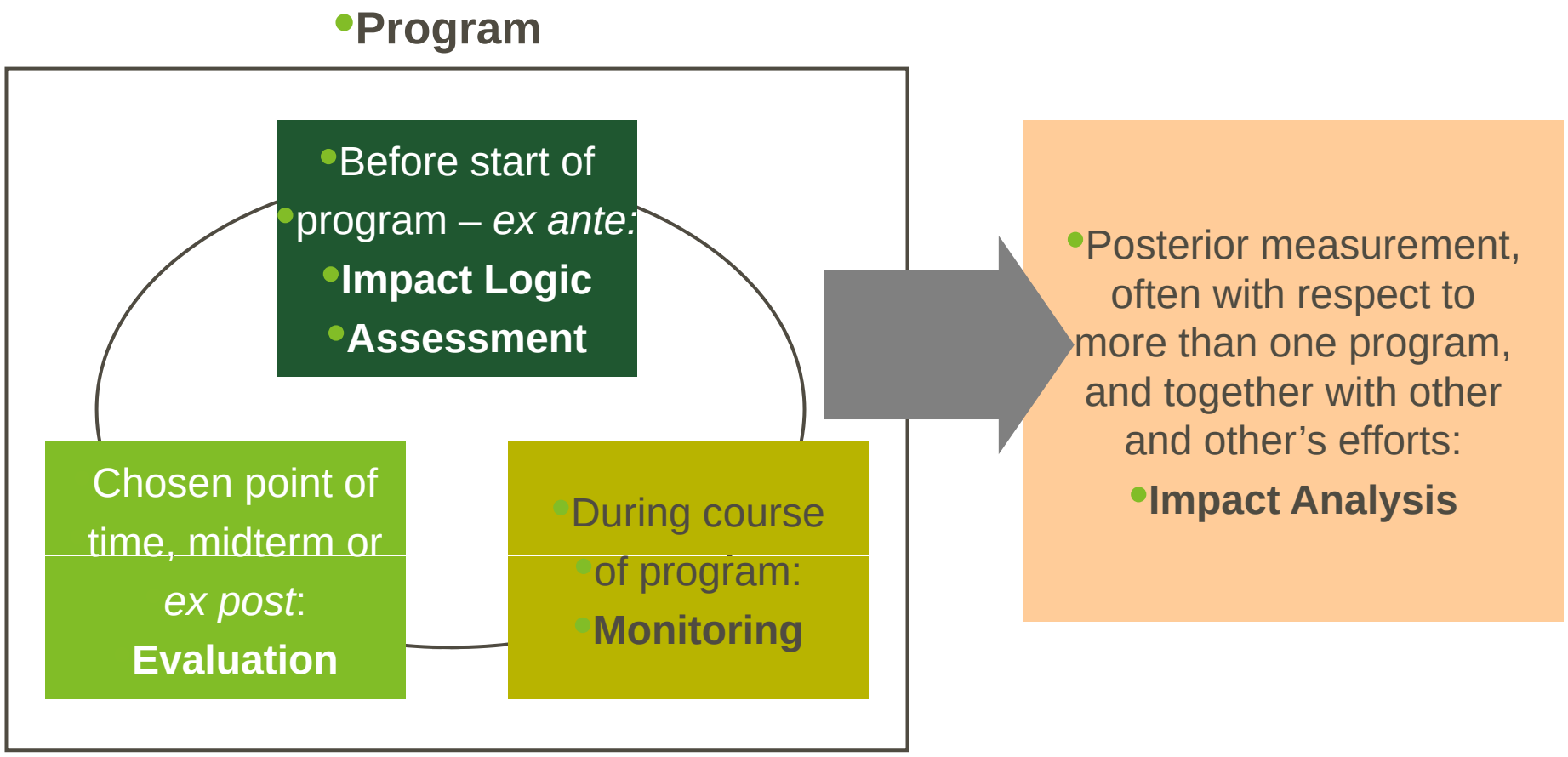
- Industry relevant research carried out
- Industry relevant education of PhDs
- International contacts

Medium term

- Swedish mining industry even more competitive in strategic nisches
- “Critical mass”, Sweden more attractive for international as well as Swedish researches
- Successful co-operation

Long term

- securing the national supply of skills and expertise
- R&D with international competitiveness
- Mining industry and related industry makes a substantial contribution to sustainable growth


Program
Before start of program – *ex ante*:
Impact Logic
Assessment
During course of program:
Monitoring
Chosen point of time, midterm or *ex post*:
Evaluation
Posterior measurement, often with respect to more than one program, and together with other and other's efforts:
Impact Analysis

Chosen point of time, midterm or *ex post*: **Evaluation**

- *Evaluation:* Carried through in close connection with the program. Performed mid term or *ex post*. Answers questions about accomplishment of goals, or about functionality and efficiency of program.

- Supports decision making on changes in programs or designing new programs.

Projects

- 4-dimensional geological modelling of mineral belts
- Improved blasting results with precise initiation
- Rock support system in interaction with the rock
- Modelling of the interaction between charge and lining in tumbling mills
- Increased production systems effectiveness through condition monitoring and prognostics
- Interactions in Multi-component mineral systems
- Wise process routes for varying feedstock in base metal extraction
- Tracing Granular Products Using RFID
- Nitrogen effluents from mine sites - environmental effects and removal of nitrogen in recipients
- Attenuation of metals in tailings
- The Mine of the Future