



# Sotkamo Silver AB Strategy 2021-2025

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# What is Sotkamo Silver?

- Supplier of metal concentrates to enable the change into the future world
- Part of the value chain with selected and reputable partners
- Underground mine and efficient supply chain enable small footprint
- Committed to responsibly improve and elaborate its performance





# Company facts

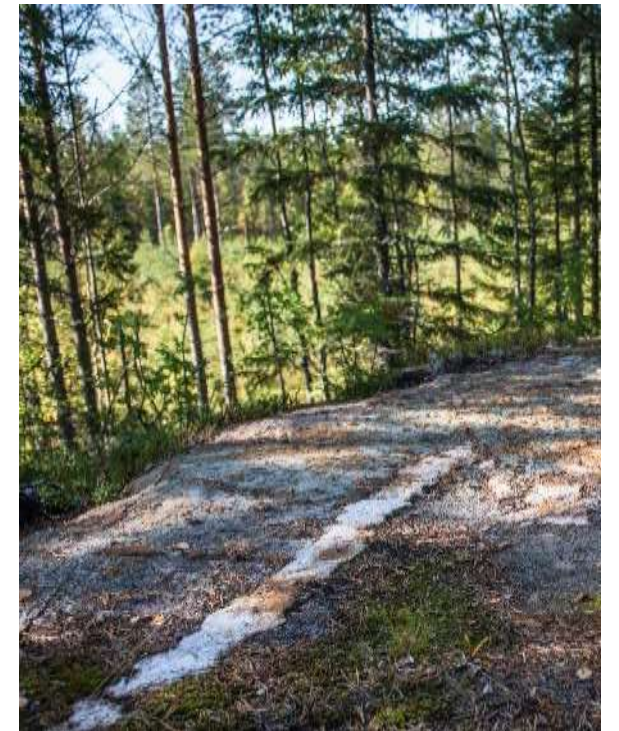
- Sotkamo Silver AB is listed in NGM Equity stock exchange in Stockholm and parallel in main list of Nasdaq Helsinki.
- Market cap ca. 50 million euros, 179 977 732 shares.
- Four largest shareholders (as per end of November 2020)
  - Hexof Oy 6.3 %
  - Ilmarinen Mutual Pension Insurance Co. 3.3 %
  - Timo Lindborg (through company) 2.7 %
  - Finnish Minerals Group Ltd. 1.5 %
- Total of 16 806 shareholders of which ca. 80 % from Finland owning ca. 90 % of the shares.
- Sotkamo Silver Oy is a fully owned subsidiary of Sotkamo Silver AB.

# Published Q3/2020 (YTD) results

- Net sales was 130 MSEK (YTD 287 MSEK)
- EBITDA was 58 MSEK (YTD 67 MSEK)
- EBIT was 40 MSEK (YTD -43 MSEK)
- Milled tonnes were about 142 000 (YTD 343 000)
- The production in the concentrates was about
  - 433 000 ounces silver (YTD 1 231 000),
  - 923 ounces gold, (YTD 2 996),
  - 419 tonnes lead (YTD 1 202) and
  - 818 tonnes zinc (YTD 2 497)
- The annual production guidance for 2020:
  - To mill 480 – 540 kt of ore.
  - Correspondingly, the silver production is forecasted to be 1.4 - 1.7 million ounces.

# Story of the Silver Mine – the flagship of the Company

- The genesis of the Silver Mine deposit dates to the volcanic activity which took place ca. 2.8 billion years ago.
- The deposit was discovered in 1980 and after almost a 40 years of persistent development the production was started in March 2019.
- Today, Silver Mine is the foundation of Sotkamo Silver to become “the best in class” exploration and mining company with a commitment to:
  - Be **responsible** and,
  - Be **local**
- to contribute for the benefit of the society and community.







# Our Mission and Values

Our Mission

“Discover, Mine and Deliver –  
metals and value”

We believe in being

**Responsible and Local**





# being Responsible and Local

We want to make the **Responsibility** into a new norm.

Sustainability,  
Transparency,  
Respect and  
Reliability

are natural elements of our daily behaviour as a corporate and human beings.

By being **Local**, we want to contribute to the well-being of our stakeholders:

Employees  
Neighbors  
Local community  
Society

by delivering metals and creating jobs and resulting in shareholder value.



# Social license and Responsibility

- Strong local community support and acceptance.
- Environmental collaboration with stakeholders.
- Continuously improvement of the process to improve the material efficiency.
- Committed to the Finnish Towards Sustainable Mining –standard (Network of Sustainable Mining).
- Committed to implement the management systems for Quality, Environment and Occupational Health and Safety.
- An underground operation with a small footprint.



# Commitment to Sustainability

Company will:

- Implement an **Energy-Efficiency Initiative** among its key partners to reduce overall energy consumption per produced silver ounce
  - Increase the share of renewable energy
  - Define its CO<sub>2</sub> footprint of the production and road map to reduce CO<sub>2</sub> emissions
- Promote recycling and principles of circular economy in its activities
- Rehabilitate the mine area including reforestation and restoration

# Steps to the future success

The long-term success and development of the Company will be built on the key projects:

- **Project 700** to extend the Silver Mine's life of mine until 2030
- **Project REX**, Regional Exploration, to discover and develop new exploitable ore deposits in the Kainuu region.

# Project 700 – Mining continues until year 2030

**Project 700:** 10 MEUR investment to increase life of mine (LOM) until 2030, expenditure in phases over a period of 5-7 years.

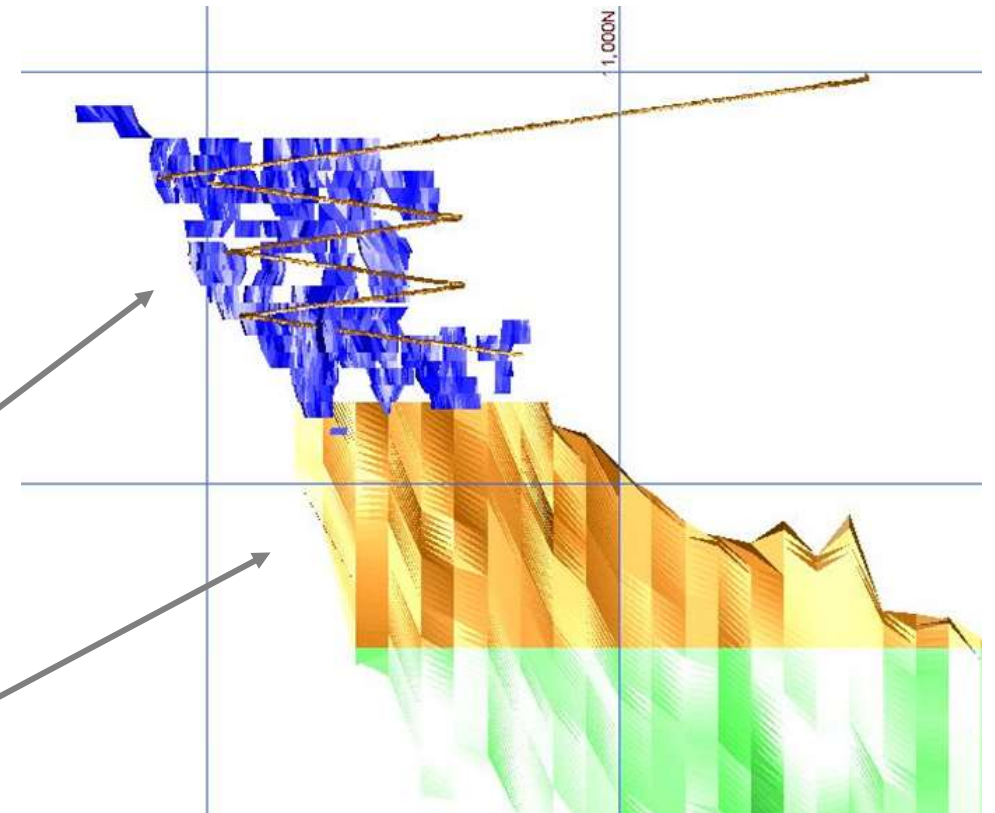
The works include the core drilling and the development of the mine decline and infrastructure.

Current LOM of the Silver Mine is based on Ore Reserve down to 400-level.

- Ore Reserve 2.75 Mt (as at day one)

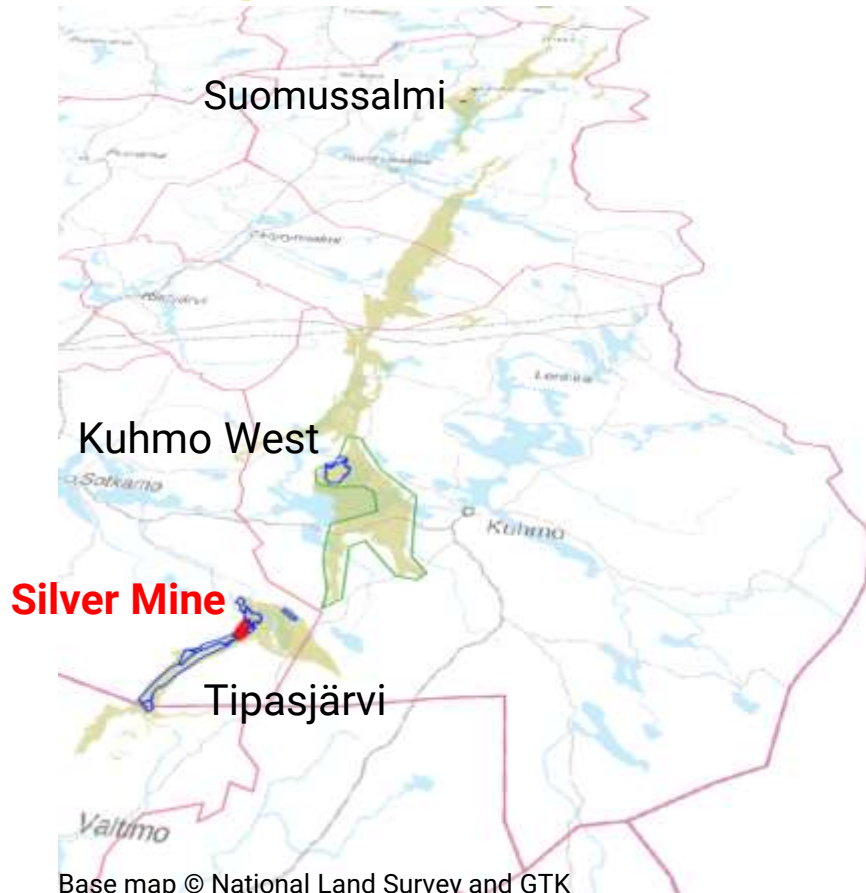
Project 700 and planned **core drilling** program

- Targeted Ore Reserve tons min. 2.25 Mt





# Project REX – creating opportunities



## Regional Exploration and Development:

- To develop an attractive and explorative portfolio of mineral assets, and
- To discover new exploitable ore deposits in the Kainuu region.

Our homebase:

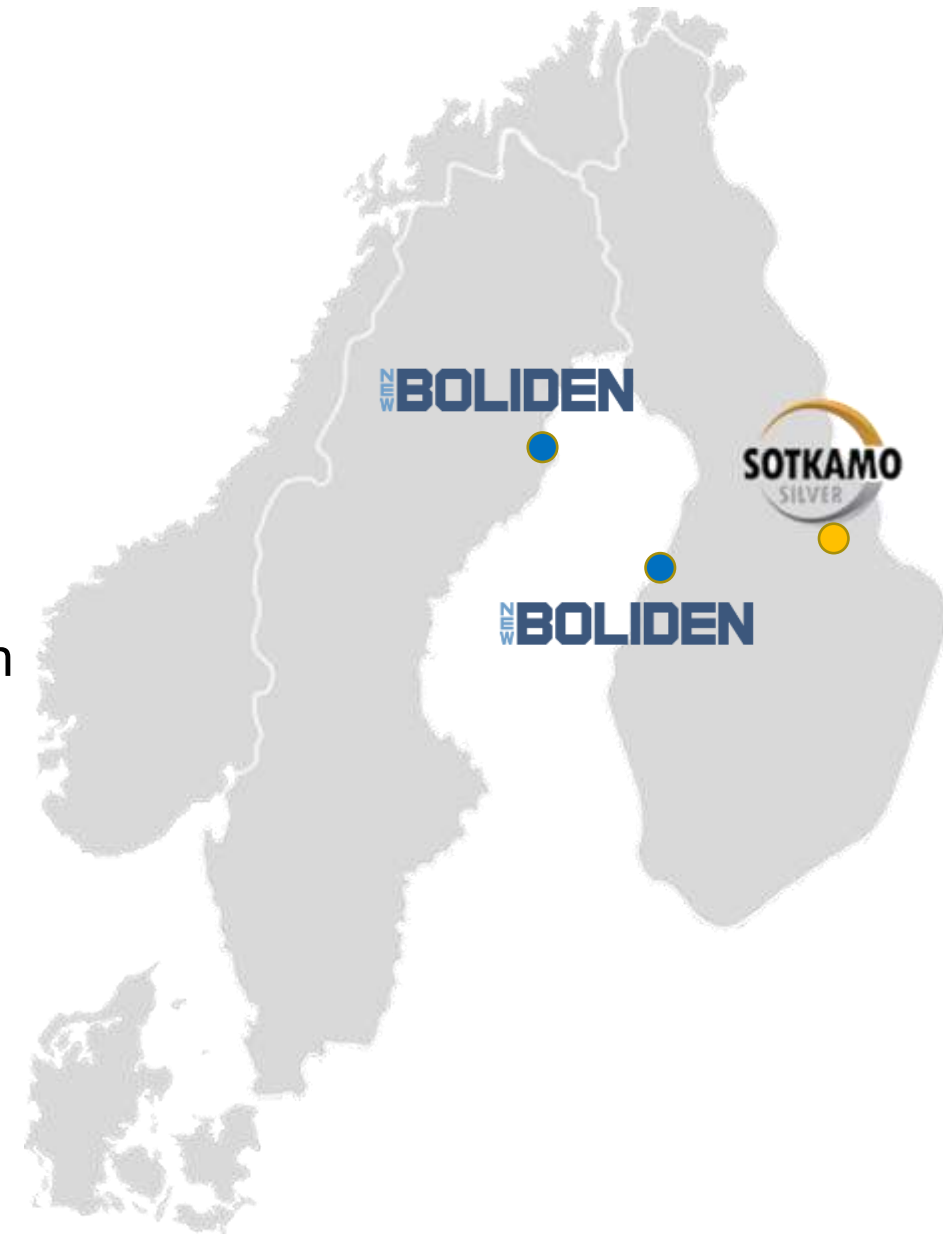
**Tipasjärvi**

Our vicinity:

**Kuhmo West and Suomussalmi**

# Metal production

- Metal concentrates produced at **the Silver Mine** are delivered to the smelters at **Rönnskär**, Sweden, and **Kokkola**, Finland, for refining by Boliden AB.
- Ca. 3 100 tons of **silver-gold-lead concentrate** per annum
  - 1.5 million ounces of silver (45 tons)
  - 4 500 ounces of gold (140 kg)
  - 1 700 tons of lead
- Ca. 6 500 tons of **zinc-silver concentrate** per annum
  - 3 600 tons of zinc
  - 100 000 ounces of silver (3 tons)





# Silver and gold in the electrification of the modern society

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Electric vehicles  
Renewable energy  
Photovoltaics  
Smartphones





# Silver and gold in the electrification of the modern society:

Annual demand of silver is ca. 1 000 million ounces; more than 50 % is industrial demand dominantly in Photovoltaics and Automotives.

## Electric vehicles (EVs) and Renewable Energy

- Silver and gold in semiconductors, sensors, harnesses, controls, displays, etc.
- Silver-carbon anodes in the lithium metal solid-state batteries
- Concentrated solar power, wind turbines and new battery technologies

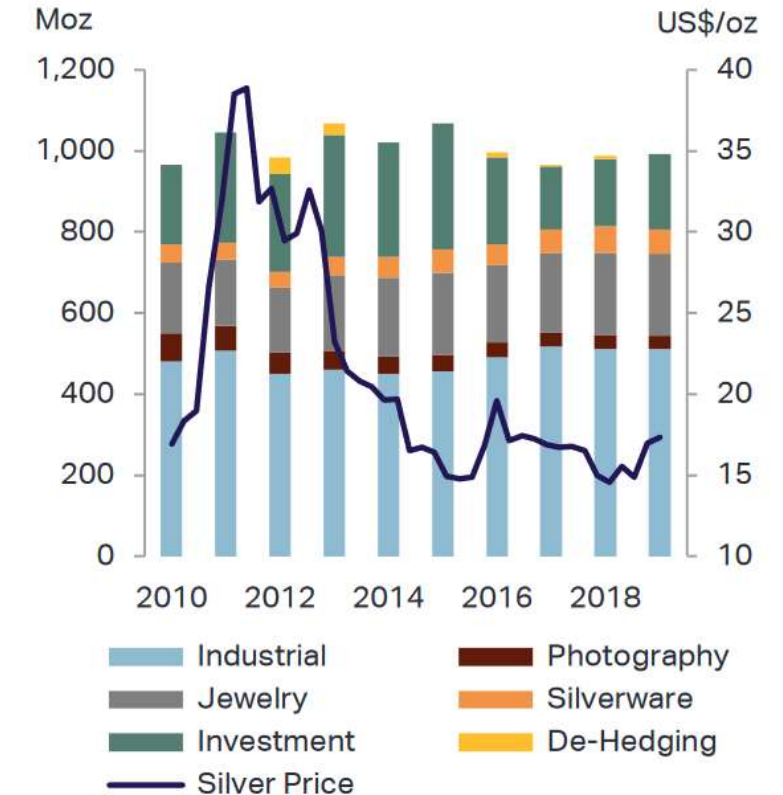
## Photovoltaics are a leading option in the renewable energy

- Silver has the best conductivity and reflectivity of metals and is used in silicon cells

## Smartphones and other devices

- Silver nano-wires replace indium tin oxide in the touchscreens

## Global demand of Silver



Source: Metals Focus, Bloomberg

# Zinc and lead are vital for many areas of the human life ...

..and the most used non-ferrous metals after aluminum and copper.

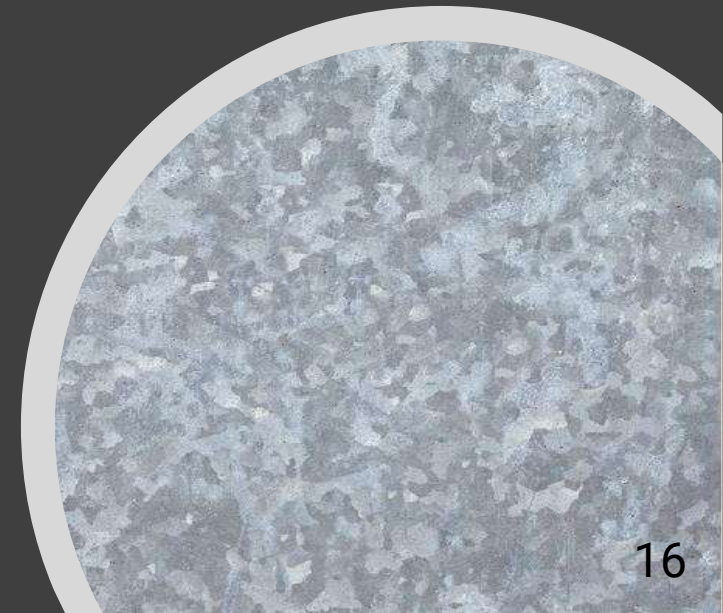
## ZINC – global mine production 12.9 Mtpa

- Galvanizing (50%)
- Zinc Alloying (17%)
- Brass and bronze (17%)

## LEAD – global mine production 4.7 Mtpa

- Widely used in lead-acid batteries (80%)
- Rolled and extruded products (6%)
- Pigment and corrosion resistant materials (5%)
- Efficient recycling, usage 12.2 Mtpa

Source: International Lead and Zinc Study Group (ILZSG)



# Lead – the mother of all battery metals

- Global primary lead production was 4.7 Million tons in 2019, while total metal production and usage was 12.2 Million tons. <sup>(1)</sup>
- 80% of the global production is used in manufacturing of **lead-acid** batteries. <sup>(1)</sup>
- As a comparison, global lithium production in 2019 was 77 000 tons and usage 57 000 tons. <sup>(2)</sup> Ca. 54% of lithium was used in the rechargeable batteries. <sup>(3)</sup>

(1) Source: International Lead and Zinc Study Group

(2) Source: USGS MINERAL COMMODITY SUMMARIES 2020

(3) Source: Roskill Market Report

*“Even most pure electric vehicles use lead-acid batteries for Starting, Lightning and Ignition purposes”*

*“Overall demand for lead in automotive batteries will continue to grow”*

*“Lead should be a core component of future energy storage, given its proven technical track record, relatively low cost and security of supply based on an already high recycling rate.”*

*“COLUMN-The battery metal no one wants to talk about”  
By Andy Home, Reuters*





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