

# A gap analysis of the financial support system for the mining, metal and mineral producing industries and recycling industry



## Project leaders

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## Project duration

202309 - 202312

# Background and purpose

LTU Business has conducted a gap analysis linked to the Swedish financing support system in the mining, metal, mineral producing industry and the recycling industry.

The need for a mapping and gap analysis is based on the lack of documentation and an understanding of what financing support exists and in which parts of the value chain there may be a lack of support.



The gap analysis will result in what **financing opportunities** that exist in the value chain.

It will also identify areas within the **value chain where support may be lacking**, and at which level in the **TRL scale**.



# The primary data collection has been done through interviews with funders in Sweden and the EU

## Funding sources in Sweden and the EU

*EIT Raw Materials*

*Energimyndigheten*

*Eramin programmet*

*Eureka ITEA Call 2023*

*Formas*

*Forte*

*Horizon Cluster 4*

*Kunskaps och kompetensstiftelsen*

*Mistra*

*Naturvårdsverket (Klimatklivet)*

*Nordforsk*

*Riksbankens jubileumsfond*

*SGU (Sveriges geologiska undersökning)*

*SIP Metalliska Material*

*SIP Pija*

*SSF (Stiftelsen för strategisk forskning)*

*SIP Swedish mining innovation*

*Tillväxtverket Fonden för rättvis omställning*

*Tillväxtverket nationella*

*regionalfondsprogrammet*

*Vetenskapsrådet*

*Vinnova Programmet Avancerad digitalisering*

*Vinnova Hållbar industri*

*Wallenberg*

## Scope of data collection

Explore funding opportunities based on SMI thematic areas.

- Open calls during 2023
- Closed calls where decisions have been made during 2023
- Upcoming calls for 2024
- TRL levels



# In the analysis, we have divided the funders into two different groups

## Funding sources in Sweden and the EU

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**TARGETED CALLS FOR THE SECTOR**

**UNTARGETED CALLS**

# The analysis have resulted in three gaps

## Identified gaps

**GAP 1**  
Funding opportunities for the sector will drastically decrease in 2024

**GAP 2**  
Funding opportunities for low and high TRL levels are limited

**GAP 3**  
Research funding dedicated to social aspects is underutilized

# **GAP 1**



## **Funding opportunities for the sector will drastically decrease in 2024**



# During 2023, the entire value chain was covered by the targeted calls to the sector






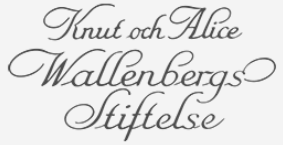
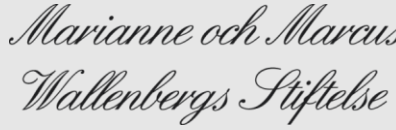





# In 2024, the number of targeted calls will decrease drastically

	Exploration	Mining	Primary extractive metallurgy	Recycling	Environment	Social	AI/Digitalization
			The program is ending				
			Most of all research funds have been distributed				
			The program is ending				
			No calls for proposals in the sector for the next few years				
			No calls for proposals in the sector for the next few years				
			No call for proposals for the sector in 2024				
	← ? →						
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# Of the upcoming calls for 2024, none of them are exclusively dedicated to the sector

*Limited calls!*

	Exploration	Mining	Primary extractive metallurgy	Recycling	Environment and fossil free	Social	AI/ Digitalization
					●		
					●		
				●	●	●	
	←				●		○ →
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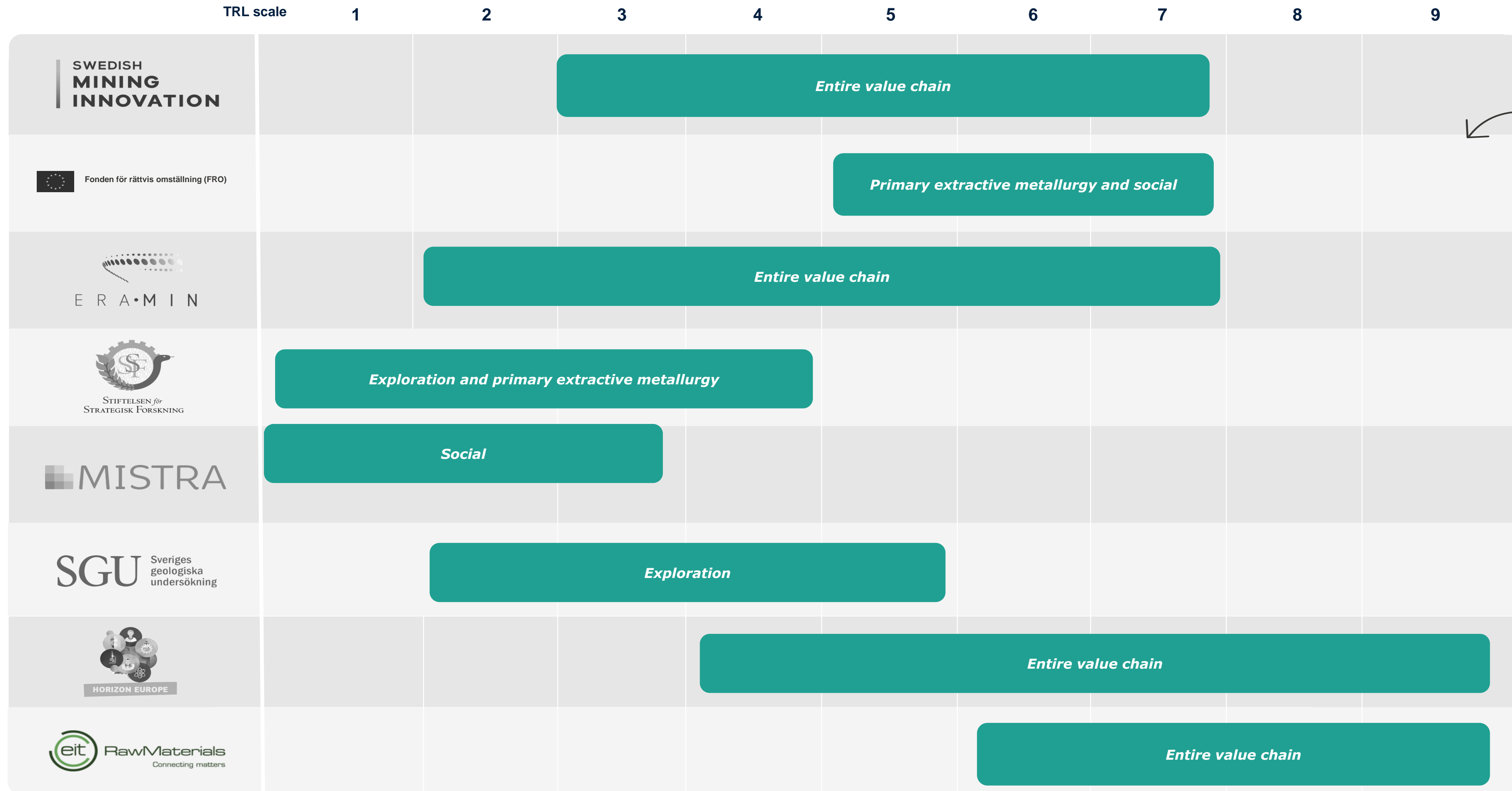
Hållbar industri och Avancerad digitalisering

# **GAP 2**

## **Funding opportunities for low and high TRL levels are limited**



# The entire TRL scale has been covered by calls in 2023



↖ The higher TRL levels 8 and 9 have the fewest targeted calls for proposals

# Although the targeted calls cover the entire value chain, the size of the funds available is unevenly distributed

	Exploration 153 MSEK	Mining 118 MSEK	Primary Extractiv metallurgy 178 MSEK	Recycling 118 MSEK	Environment and fossil free 118 MSEK	Social 178 MSEK	AI/ Digitalization 118 MSEK	
 SWEDISH MINING INNOVATION	4,9	4,9	4,9	4,9	4,9	4,9	4,9	34 MSEK
 Fonden för rättvis omställning (FRO)			30			40		70 MSEK
 ERAMIN	1,9	1,9	1,9	1,9	1,9	1,9	1,9	13 MSEK (Vinnovas financing)
 STIFTELSEN för STRATEGISK FÖRSKNING	30		30					60 MSEK
 MISTRA						20		20 MSEK
 SGU Sveriges geologiska undersökning	5							5 MSEK
 HORIZON EUROPE	111,5	111,5	111,5	111,5	111,5	111,5	111,5	781 MSEK
 eit RawMaterials Connecting matters	?	?	?	?	?	?	?	N/A MSEK

# There is a clear gap for low TRL (1-3), most of the calls are in the middle of the TRL scale regarding calls for all sectors

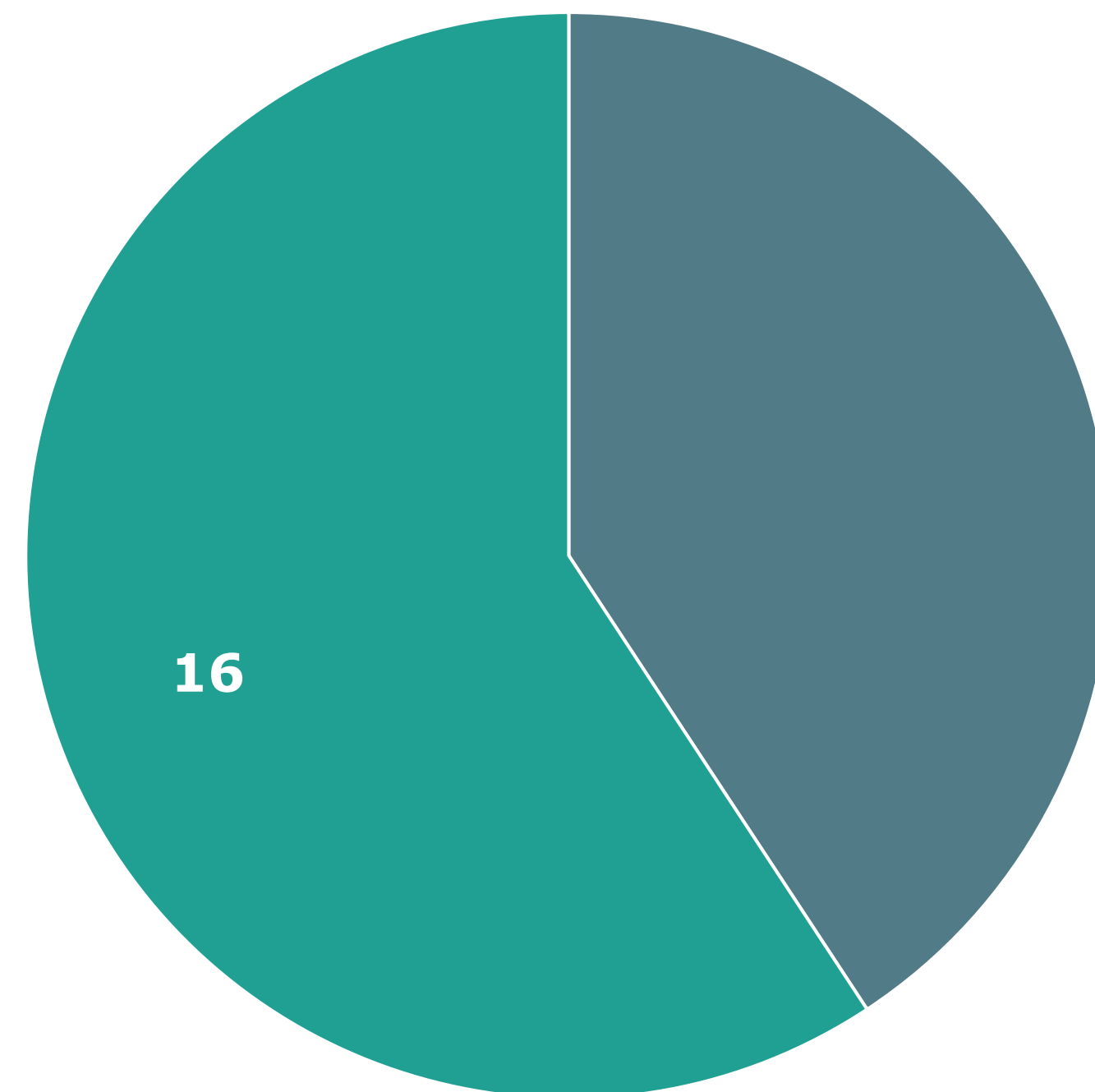


## **GAP 3**

**Research funding dedicated to social aspects is underutilized**



# Even though there are several calls for the social sector, there has been a low number of applicants in general



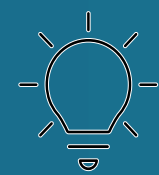
- The social sector in the value chain, which includes research on attractive workplaces, gender equality and diversity, and the role of mines in society, is the area where most respondents mentioned that there has been a low number of applicants in general.
- At the same time, it is these areas that have had the largest number of funding opportunities overall. Out of a total 27 calls, the social sector could seek funding from 16 of them.

# Summary



## **Funding opportunities for the sector will drastically decrease in 2024**

— Since SMI and ERA-MIN , which have played an important role in funding the sector, will soon be ending and since none of the surveyed financiers will have targeted calls for the sector in the next few years, there is a clear gap in funding for the entire value chain.



## **Funding opportunities for low and high TRL levels are limited**

— The higher TRL 8 & 9 have the fewest targeted calls for proposals. SMI, ERA-MIN, and EIT RawMaterials together play a crucial role as they collectively cover the entire scale except for TRL 1.



## **Research funding dedicated to social aspects is underutilized**

— The social area have the largest number of funding opportunities and at the same time low number of applicants.



# Mining innovation for a sustainable future