

Tukes – the mining authority role on exploration and mining in Finland,

Tallinn 17.5.2019

Terho Liikamaa

Head of Unit, Mining Authority



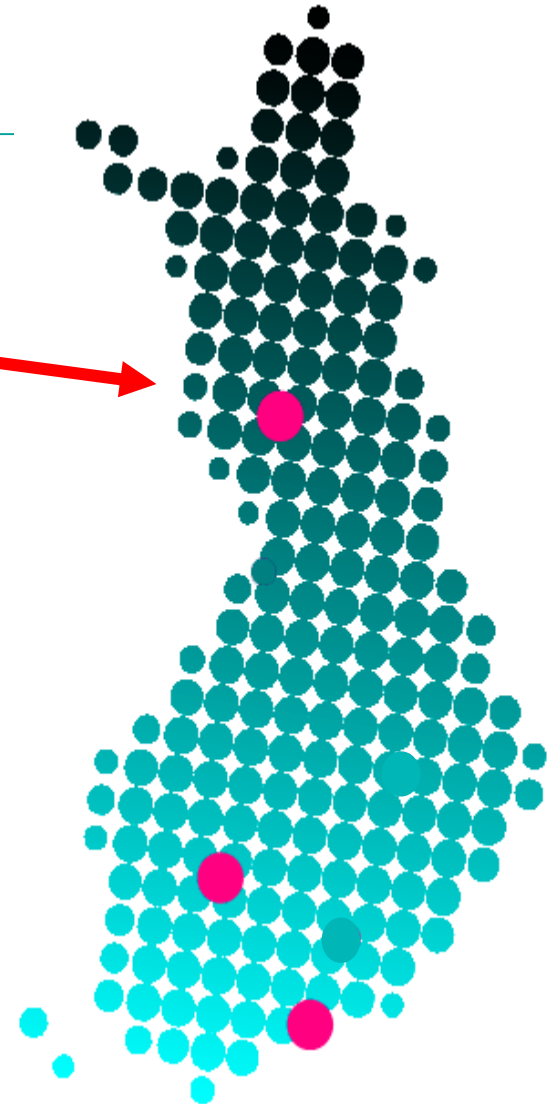
Tukes in brief

Offices are in

- Helsinki
- Tampere and
- Rovaniemi

Mining Unit
operates from
Rovaniemi
(10 employees)

- 250 employees
- **Tukes supervises and promote the safety and conformity of products, services and production systems in our branches.**



Employees in the mining unit of Tukes

Rovaniemi (10), Helsinki (1)

Administration

- Terho Liikamaa, Head of Unit, Mining Authority
- Tuula Sääskilahti, Lawyer

Mining permits and mining safety supervision

- Ossi Leinonen, Senior Specialist
- Maria Kivi, Senior Officer, Helsinki

Exploration permits

- Ilkka Keskitalo, Senior Officer
- Heikki Puhakka, Senior Officer
- Maija Viikinen, Senior Officer
- Esa Tuominen, Senior Officer
- Juho Veijanen, Planner

Gold panning permits

- Pasi Molkoselkä, Senior Officer
- Katja Palo, Senior Officer

LICENSING AUTHORITIES (Mining Act)

- **Tukes** as the mining authority shall make decisions concerning
 - exploration permits
 - mining permits
 - mining safety permits
 - gold panning permits
- **The Government** shall decide on matters concerning a redemption permit for a mining area and on mining permits related to the production of uranium or thorium.

TUKES, MINING AUTHORITY IN FINLAND

- 1) Tukes monitors the following of the Mining Act
- 2) Tukes makes decisions concerning reservation notifications, exploration, gold panning, mining and mining safety permits
- 3) Tukes maintains the mining register (cadastre)**
- 4) Tukes maintains **the map service of the mining register**. Mineral Deposits, Exploration and Mining Registry <http://gtkdata.gtk.fi/mdae/index.html> ; please select: Layers/Exploration layers/Mining Registry
- 5) **Once exploration permit has expired**, the exploration permit's holder shall within six months, submit to the mining authority an exploration work report and representative set of core samples. Tukes forwards **report and the core samples to the Geological Survey of Finland**.
- 6) Tukes monitors **mining safety**.

Mining Act (621/2011)

Section 32, Order of priority

The party first applying for a permit in accordance with the provisions laid down in section 34 herein **shall have priority** for an ore prospecting permit, mining permit, or gold panning permit.”

“For the purpose of preparing an application for an ore prospecting permit, an **applicant may reserve** an area for himself **by submitting notification** to the mining authority about the matter (*reservation notification*). “

Reservation notification → Exploration permit → Mining permit

Valid

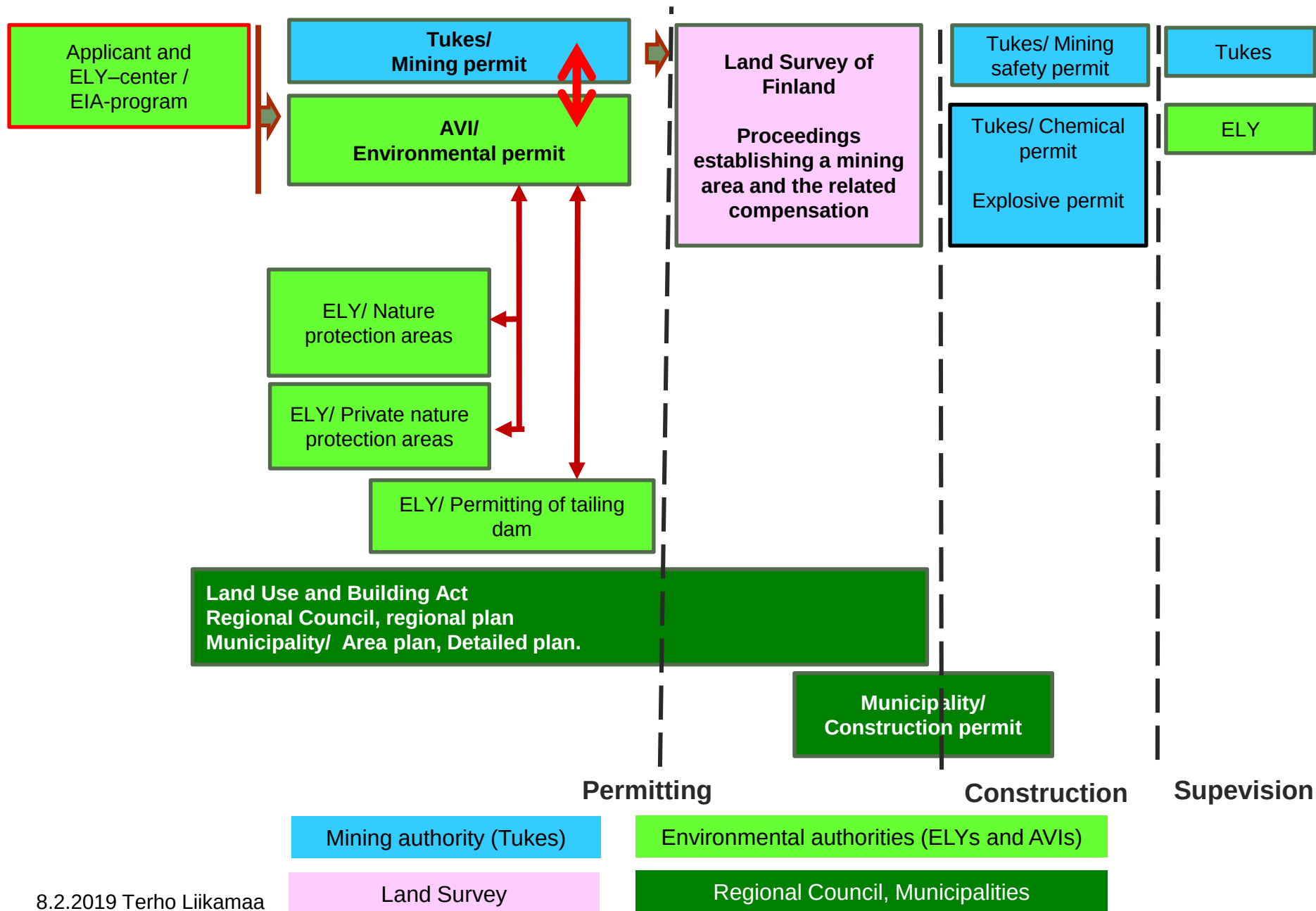
Max 2 years	Reservation notification
Max 15 years	Exploration permit
	Application of mining permit

For the purpose of **preparing an application** for an ore prospecting permit.

An exploration permit is required for gaining **a privilege exploiting the deposit.**

An exploration is subject to exploration permit if the property owner has not given consent to it.

Mining Act /mining permit vs. other permits



EXPLORATION AND MINING,

Statement on a permit application (Section 37 in Mining Act)

Tukes shall request a statement on an application for an exploration permit and mining permit from the following:

- 1) the municipality**
- 2) the environmental authority (ELY-centre)**
- 3) the authority or institution responsible for management of the area (nature protection area, Natura 2000 area);**
- 4) if necessary, other authorities overseeing public interests in their field of activity, and the appropriate regional council.**

EXPLORATION AND MINING,

Complaints and opinions (Section 39)

Before making a decision on the matter concerning an exploration permit, a mining permit and a redemption permit for a mining area, **Tukes shall reserve an opportunity for the parties (=landowners) involved** to lodge complaints concerning the permit matter.

Parties other than those involved (= for example nature protection NGO's) shall be provided with an opportunity to express their opinions on a matter concerning an ore prospecting permit and a mining permit.

EXPLORATION AND MINING,

Publication of the permit application_(Section 40)

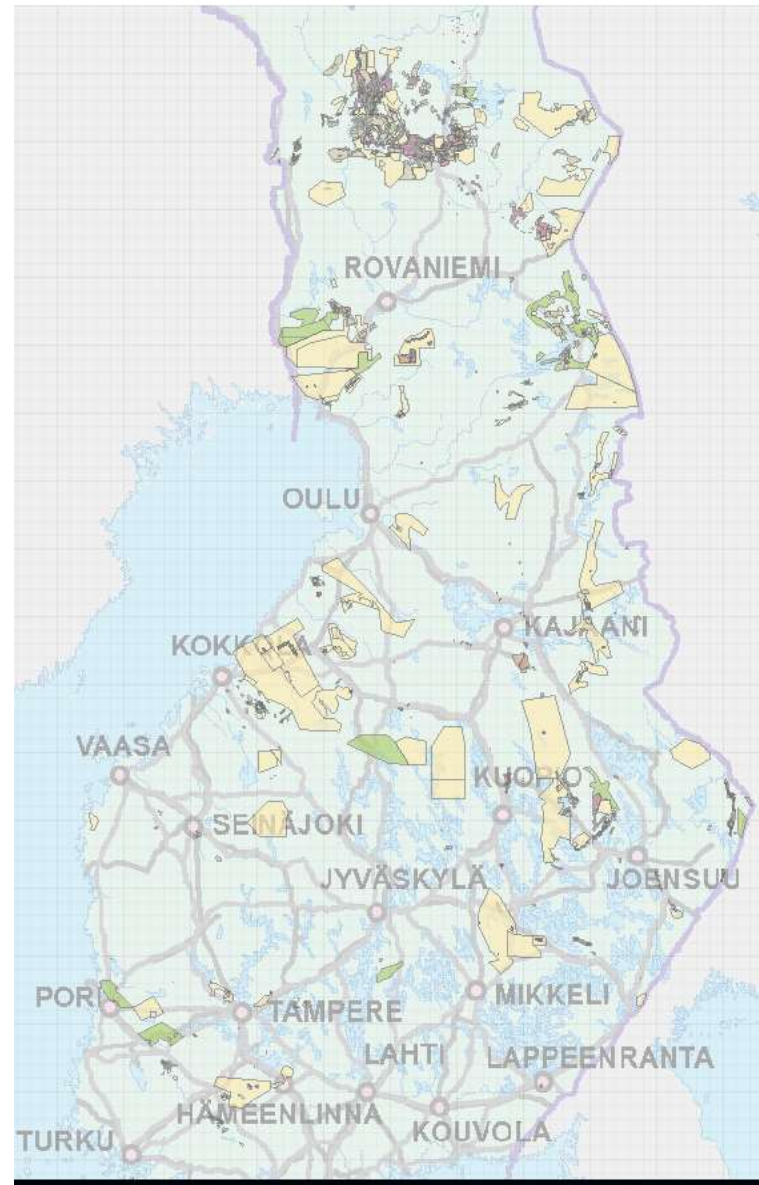
Tukes shall inform of an ore prospecting or mining permit application by posting notice there of for a **minimum of 30 days on its notice board, and those of the municipalities involved**. Publication of the public notice shall be announced in **at least one newspaper** in general circulation in the impact area of the activity, unless the matter is of minor significance or announcing it is otherwise *prima facie* unnecessary.

The parties involved in particular shall be separately informed about the public notice. If the application must be announced to more than 30 known parties or the number of persons is unknown, the matter may be announced through notice thereof in the newspaper that can be assumed to be the best source of information for the recipient.

Processing times of permit (an estimate to the new application)

Permit (Mining Act)	Days
Reservation notification	20
Exploration permit in forest land	120
Exploration permit in nature protection area	365
Exploration permit in Sami Homeland	730
Mining permit (EIA is not demanded)	90
Mining permit (EIA is demanded)	180
Gold panning permit in Sami Homeland	120

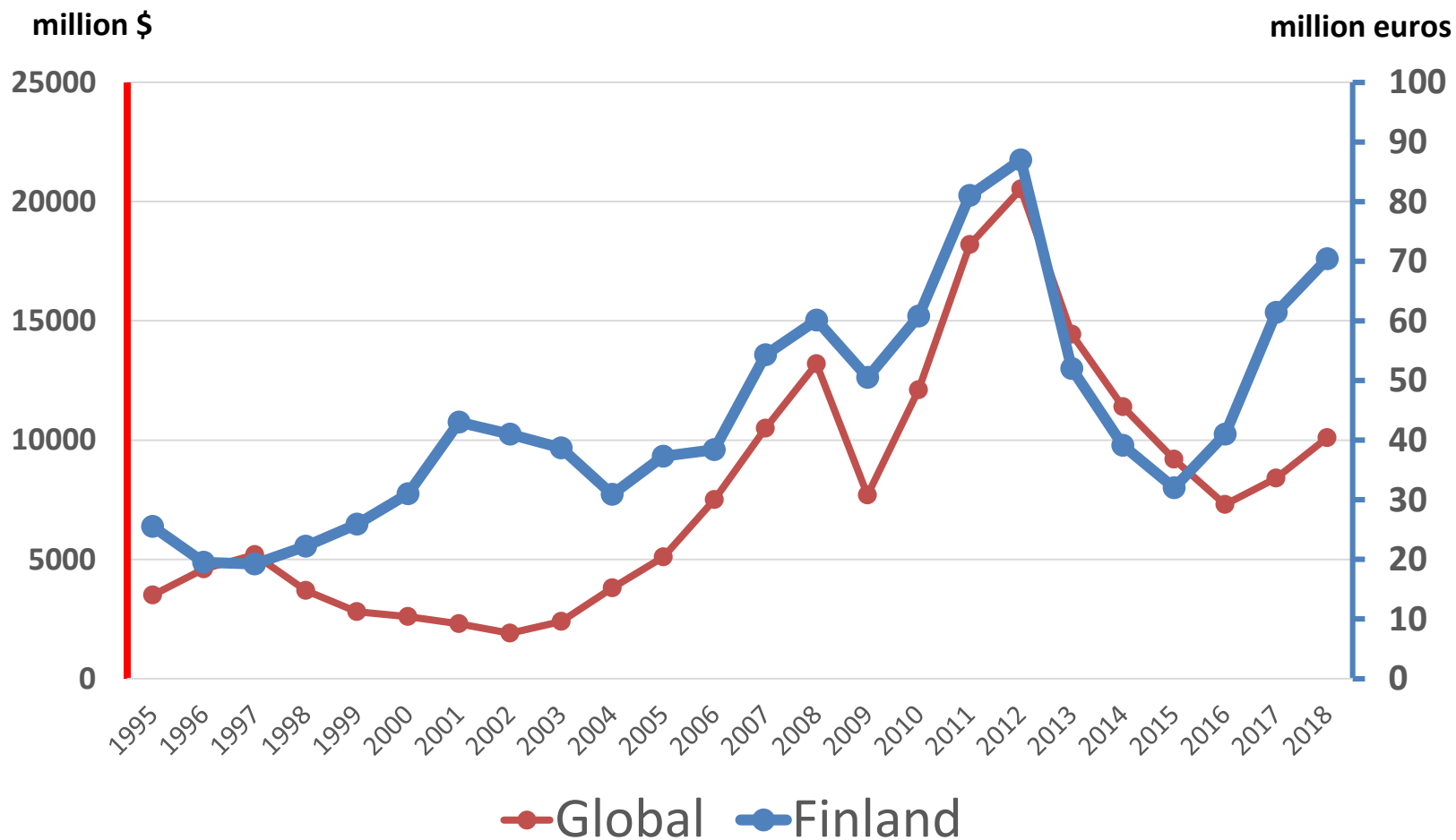
Review of mining authority on exploration and mining industry in Finland in 2018



Exploration in Finland 2009–2018

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Exploration (million €)	70.4 +15%	61.4	41	34.5	39.1	52.8	86.8	81.0	60.8	50.5
No. of prospectors	44	46	41	42	41	38	45	52	49	42
No. of reservation notifications	50	96	68	50	61	64	197	178	138	123
No. of exploration applications	148	185	98	70	120	125	250			
Area of claims/exploration (km ²)	1783	1610	1700	1930	1850	1400	1310	1080	890	960
Area of exploration applications (km ²)	3573	3420	2160	1980	3900	5450	8210	4620	2700	
Drilling (kilometres)	219 -20%	273	178	130	142	179	366	369	363	271
• Grassroot										
• Greenfield	•34	•40	•20	• 23	• 26	• 32	• 36			
• Brownfield	•73	•53	•57	• 51	• 46	• 51	• 103			
	•112	•180	•101	• 56	• 70	• 95	• 227			

Investments in ore prospecting 1995–2018



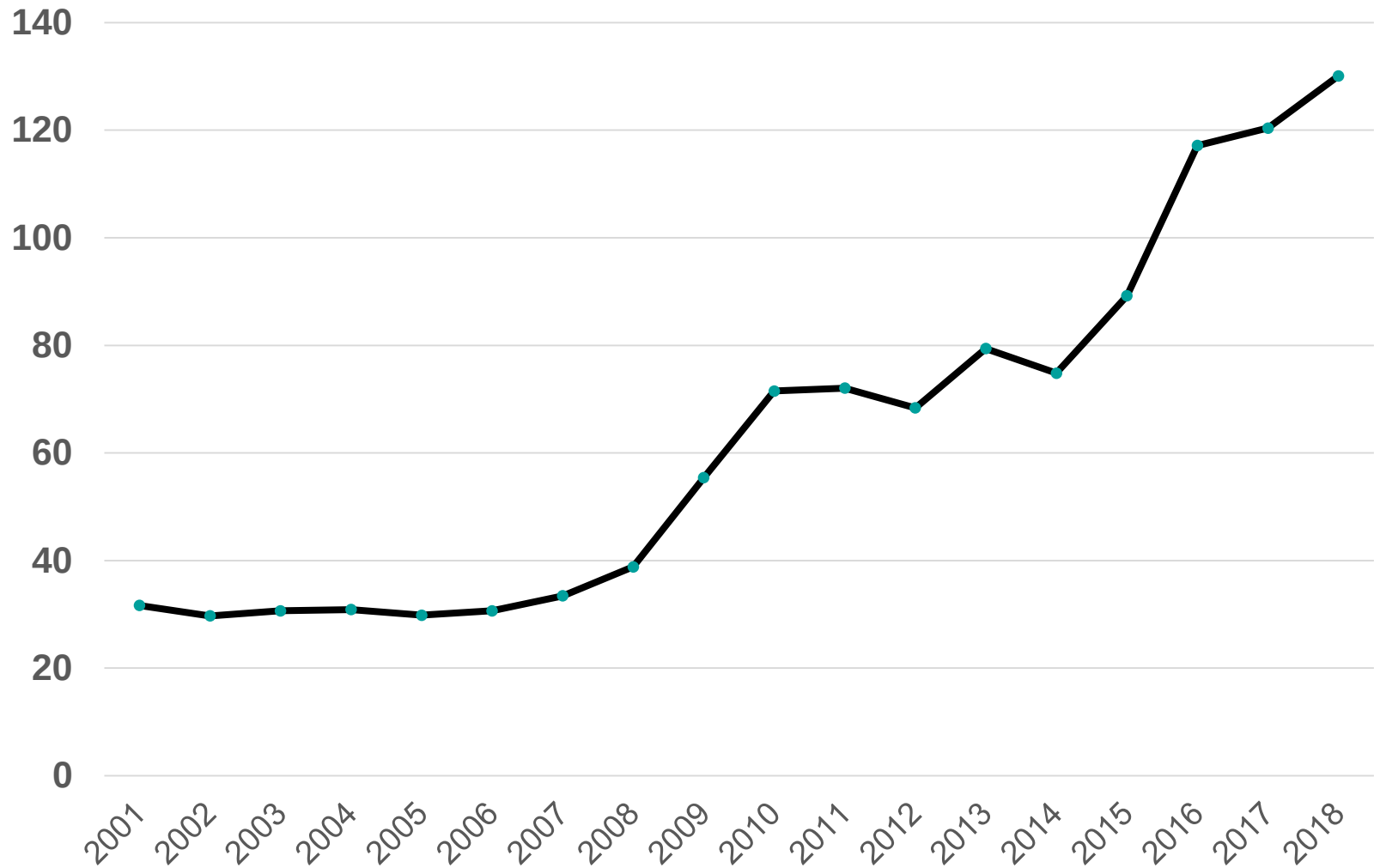
New geological data has been produced by foreign companies during last years

- * GTK drilled (1885-2015) on the average 12 km/year**
- * Outokumpu drilled (1951-2001) on the average 32 km/year**
- * "New companies" have drilled (2007-2018) on the average 250 km/year**

Tukes and GTK have developed digital geological data reporting system:

- mining and exploration companies → Tukes → GTK → back to new exploration companies!**

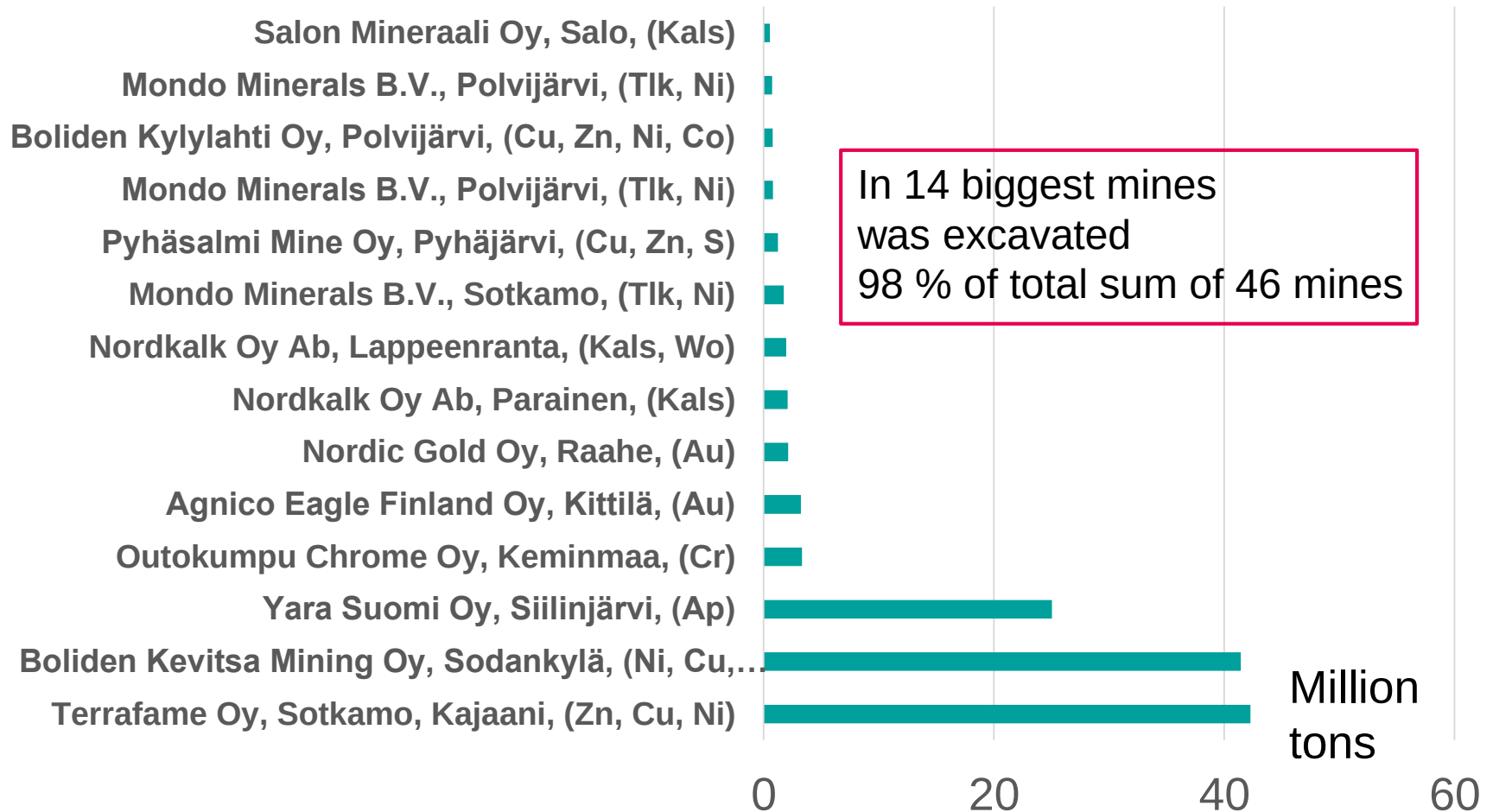
Total excavation (million tons) of mines in Finland 2001–2018



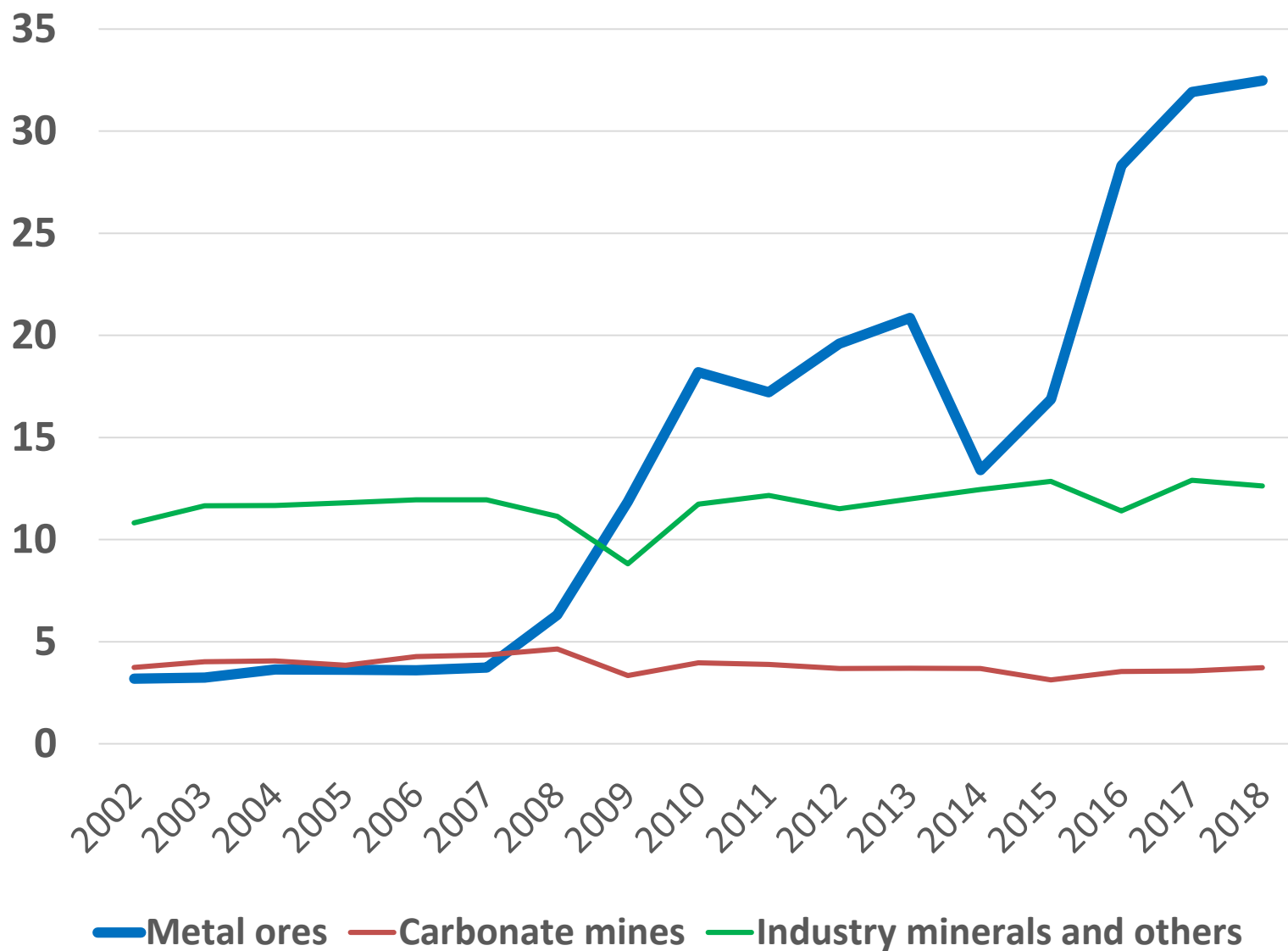
Mining activity 2010–2018

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Number of mines (REPORTED EXCAVATION)	46	44	42	45	40	46	50	52	51
Mine investments (million €)	390 M€ (+29%)	303 M€	242	157	190	200	320	555	297
Excavation of ore (million tons)	49.0 Mt (+1%)	48.4 Mt	43.7	32.9	29.5	36.5	34.8	33.2	33.9
Total excavation (million tons)	130.1 Mt (+8%)	120.4 Mt	117.2	89.2	74.8	79.4	68.4	72.0	71.5

14 biggest mines in Finland (Excavation more than 0,5 million tons)



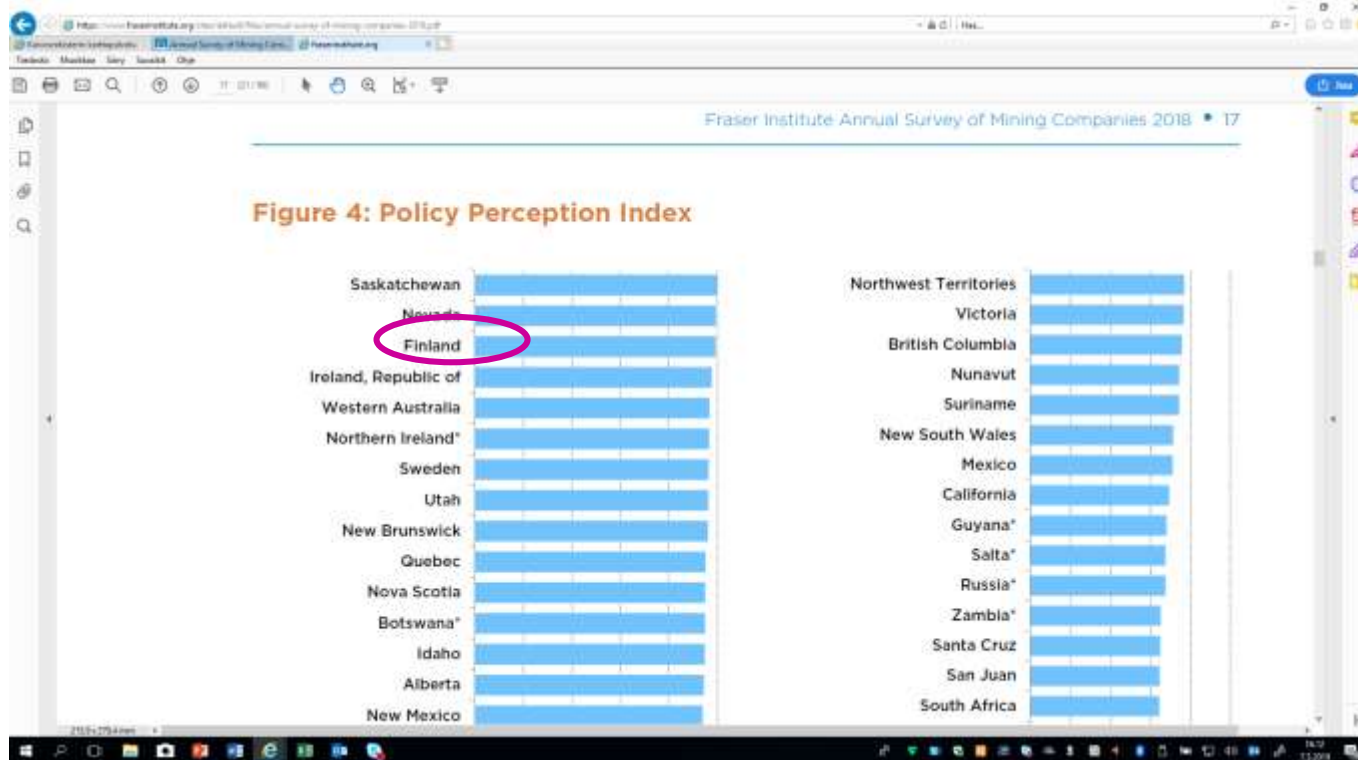
Excavation (million tons) for ore in 2002–2018



Fraser Institute Annual Survey of Mining Companies 2018, Finland

Investment Attractiveness Index/ **Finland 17. globally , 1. in Europe**

- Policy Perception Index /**Finland 3. globally**
- Best Practices Mineral Potential Index / Finland **31. globally**



Social acceptance of mining is growing challenge in Finland just now - Increasing resistance towards exploration & mining

- NGOs (especially nature protection organisations) will ban exploration in **nature protection areas and Natura2000 areas**
- Especially conflicts are common near **tourist centres**.
- Rights of **indigenous people(sami people)** and reindeer husbandry is on agenda in Northern Lapland.
- Projects are getting more and more complex and costly
 - documentation is getting more and more voluminous
 - authorities have to cope with changing conditions
 - administrative procedures are getting more complex

Finland's strengths as a producer of mineral raw materials are:

- Good geological potential
- Transparent and predictable legislation
- Nationwide infrastructure networks
- Trained and skilled workforce
- Two feedbacks in Fraser Institute Survey 2018
 - (+)Finland has a straightforward and transparent regulatory environment which creates certainty for investors.***
 - An exploration company, Company president
 - (-)Court challenges related to natural resources projects come at a high cost for investors and ultimately create uncertainty.***
 - An exploration company, Chairman

More information about mining and exploration in Finland

Contact to Mining Authority

Finnish Safety and Chemicals Agency (Tukes)

Address: Valtakatu 2, 96100 ROVANIEMI

- kaivosasiat@tukes.fi / miningauthority@tukes.fi

Mining Authority website

- <https://tukes.fi/en/industry/mining-ore-prospecting-and-gold-panning>

Map service of the mining register in Finland (in Finnish)

- <http://gtkdata.gtk.fi/kaivosrekisteri/>

Mineral Deposits, Exploration and Mining Registry (in English)

- <http://gtkdata.gtk.fi/mdae/index.html>



Aitäh

Safe, reliable and
ecologically sustainable society

www.tukes.fi

www.tukes.fi/en/Branches/Mining/



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