



GEOLOGICAL  
SURVEY OF  
NORWAY

- NGU -

# ***"The" database; a key tool to redefine wastes to resources***

Pål Gundersen, Geological survey of  
Norway

# How to make simple things complicated

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**”I want 170 cm long cross country skis”**

=> ...google-ing ”second hand cross country skis.....”



# Ebay: "Cross country skiing" – "170"



ebay Shop by category ▼ 170cm Cross Country Skiing ▼

Refine your search for 170cm


**Categories**  
All  
Clothing, Shoes & Accessories  
Kids' Clothing, Shoes & Accs

**Condition** see all  
☐ Used (1)

All Listings Auction Buy It Now

Sort: Best Match ▼ View:  

1 result for 170cm [+ Follow this search](#)

Located in Norway 

0 results found in the [Cross Country Skiing](#) category, so we searched in all categories



50 cans of Norwegian Stabburet Makrell i Tomat (Mackerel in tomato) 170 gram tin

**NOK 1,908.98**

From Norway

Buy It Now

Free international shipping






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# "QXL"

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	 <b>3T</b> 2XU THERMAL COMPRESSION TIGHTS XL	19/9/2016 13:04	0	859,- NOK
	HOLMENKOLLEN SKJEE, FOR GOD SKISPORT 20,2 CM	24/9/2016 17:34	0	15,- NOK



# ...and so on....

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[skis.com](http://skis.com)

[snowinn.com](http://snowinn.com)

[corbetts.com](http://corbetts.com)

[playitagainsports.com/equipment](http://playitagainsports.com/equipment)

[geartrade.com/](http://geartrade.com/)

[xcottawa.ca/](http://xcottawa.ca/)

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# www.finn.no = 33 good matches...

FINN Mulighetenes marked

Siste nytt + Ny annonse Varslinger 3 Min FINN

Lagre søk Kart Sortér på Mest relevant

Q 170

Kategori

- ☐ Antikviteter og kunst (155)
- ☐ Dyr og utstyr (73)
- ☐ Elektronikk og hvitevarer (164)
- ☐ Foreldre og barn (326)

12. sep 2016 Skui

Fisher langrennski 170 cm

150,-

11. aug 2016 Drammen

Nye Nanosonic Carbon Skate Jr. 165 cm og 170 cm

2 500,-

4. sep 2016 Kongsberg

Godt brukte langrennski selges

50,-

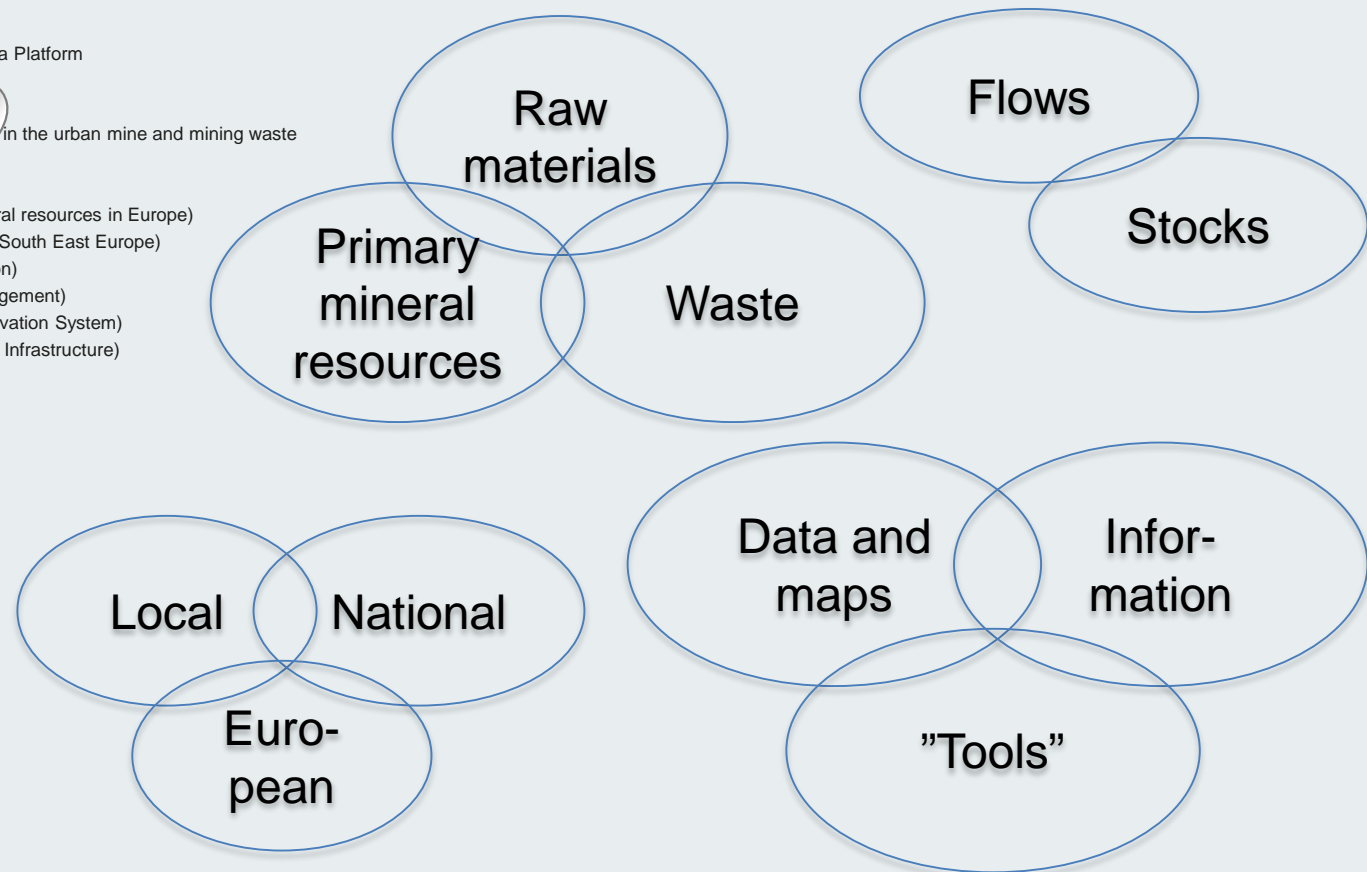


# Projects – databases - web sites

[EU-MKDP](#) (European Minerals Knowledge Data Platform)  
[MICA](#) (Mineral Intelligence Capacity Analysis)  
[Minerals4EU](#)  
[PROSUM](#) (Prospecting secondary raw materials in the urban mine and mining waste)  
[EIP on Raw materials](#)

[ProMine](#) (Nano-particle products from mineral resources in Europe)  
[SNAP SEE](#) (Sustainable aggregates planning in South East Europe)  
[EURARE](#) (EU Rare Earth Sustainable Exploitation)  
[SARMA](#) (Sustainable Aggregates Resource Management)  
[AEGOS](#) (African-European Geological Sources Observation System)  
[EGDI – SCOPE](#) (Pan-European Geological Data Infrastructure)  
[EURO-GEOSOURCE](#)  
[Minventory](#)

[Close WEEE](#)  
[Colabats](#)  
[Countering Illegal Trade](#)  
[CRM-Innonet](#)  
[CRMRecycle](#)  
[E-RECYCLET](#)  
[European Remanufacturing Network](#)  
[GreenCloudS](#)  
[Join Research Centre](#)  
[Knowledge on Raw Materials](#)  
[Low Innonet](#)  
[ORAMA](#)  
[Realizing resource-efficient recycling of vehicles](#)



Project under [H2020](#) in 2014: Secondary raw materials inventory for secondary sources



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# How to make complicated things simple when:

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## Using european waste = a lot of:

Databases (european, national, local levels...)

Projects

Organizations, networks, researchers.....

Conferences and workshops

Waste stocks and flows

Types of waste stocks and flows

Funding and funding possibilities....

*Does anyone really have the whole picture here?*





# European Union Raw Materials Knowledge Base (EU-RMKB)

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- “One stop shop for all information on raw materials in the EU”
- Provide EU level data and information on raw materials in a harmonised and standardized way
- Harvesting data from different sources



# MICA: Mineral Intelligence Capacity Analysis 2016 ->

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Establish “European Union Raw Materials Intelligence Capacity Platform” (EU-RMICP)

Stakeholder needs in Raw Material Intelligence (RMI)

Review datasets relevant to RMI.

Develop tools that help users to choose technologies based on existing data and information channels.

Experts from natural and technical to social sciences ensure that the **raw materials intelligence** is collected, stored and made accessible **according to stakeholders needs**.



# PROSUM (2015-2017)

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Prospecting Secondary raw materials in the Urban mine and Mining wastes.

Data and information on arisings, stocks, flows and treatment:

- waste from electrical and electronic equipment (WEEE)
- end-of-life vehicles (ELVs)
- batteries
- mining wastes

Especially critical raw materials (CRM)

Complementary to MINEA...



# European Life Cycle Database; 2006 ->

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**Keeping track of all material flows during  
a product lifetime.**



# ***Really;* why is there so many places...?**

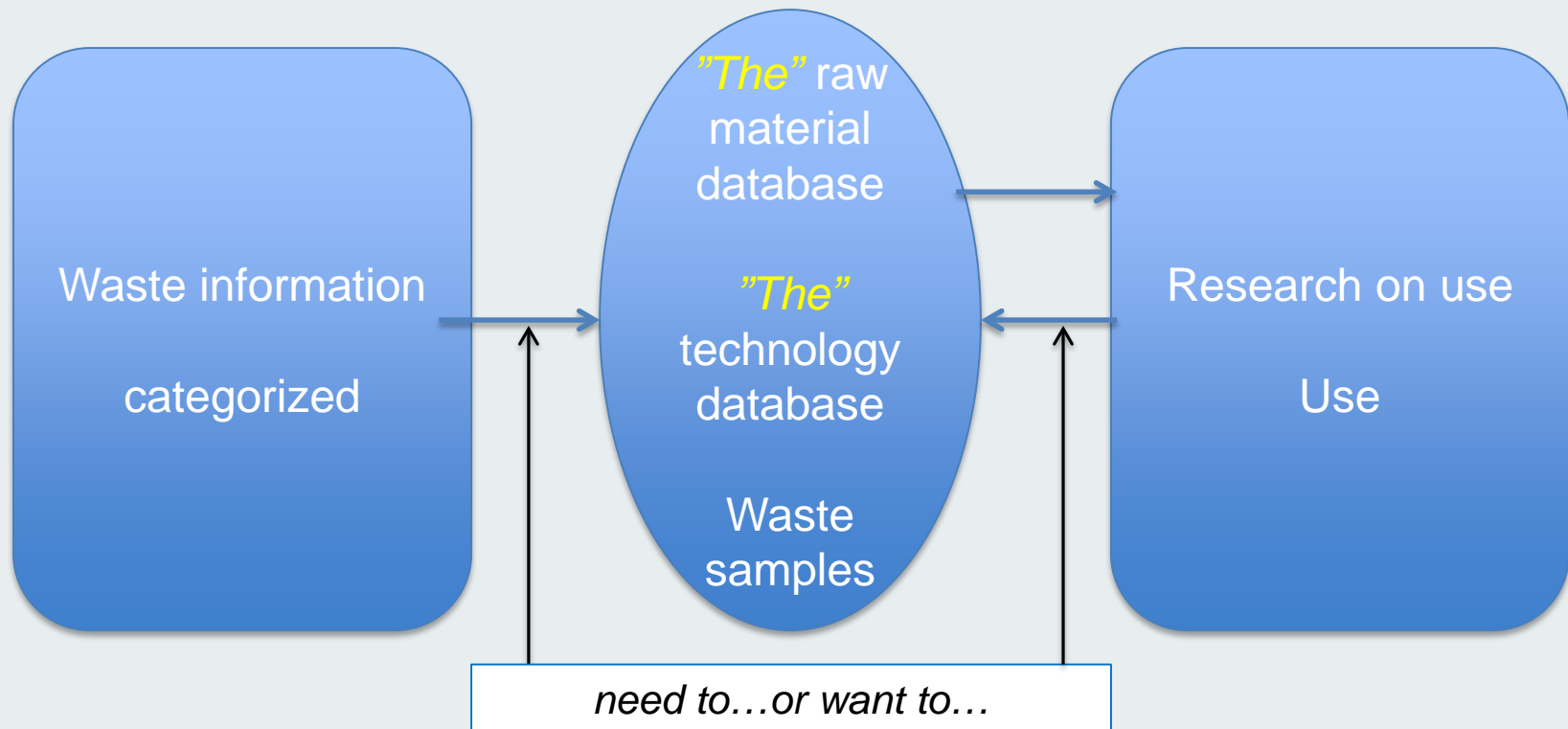
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- = Historic data and systems**
- = Historic legislation**
- = Historic thinking**
- = Competition**
  
- = The money don't have the overview**
- = Those who would benefit don't have a voice**



# If no databases or legislation existed:

**Waste owner** → **Information** → **Waste user**



# So; what to do, WG2.....?

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**Development of a common understanding and definitions regarding material resources/reserves in all types of landfills (e.g. municipal solid waste landfills, industrial waste landfills), which are closed and in operation.**

**Coordinating the establishment of a knowledge base, including technologies for material recovery from landfills and data sources on materials in landfills.**

**Input to policy makers on the resource potential in landfills.**

T1: Reviewing technologies to survey, excavate, separate and upcycle waste from landfills into products from a technical, environmental and economic viewpoint.

T2: Reviewing metallurgical systems required to extract and treat waste from monolandfills containing critical metals, targeting a zero-waste approach where metals and minerals are valorized.

T3: Collecting inventory data on European landfills and information on the resource potential.

T4: Integrating the WG outcomes into policy strategies and roadmaps.



# In short:

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## **Make an overview about landfill and mining waste:**

- Terminology
- Find how to convert landfills and mining residues to products;  
surveys, categorization, technology, metallurgy
- Find the sources to data/ information on the waste  
and on its potential

## **Recommend new policy and legislation**





# MINEA-WG2: Make Europe a better place for waste recovery?

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## **Policy - legislation - coordination**

Less databases, web sites and projects ; but bigger!

Coordinate those that exist

Common systems and legislation for  
data delivery and use

Search engines and harvesting

*Future projects; collect the information!*

**MINEA**; *find our place in the jungle!*

**MINEA**; *invite other initiatives to a joint effort?*



# Conclusion:

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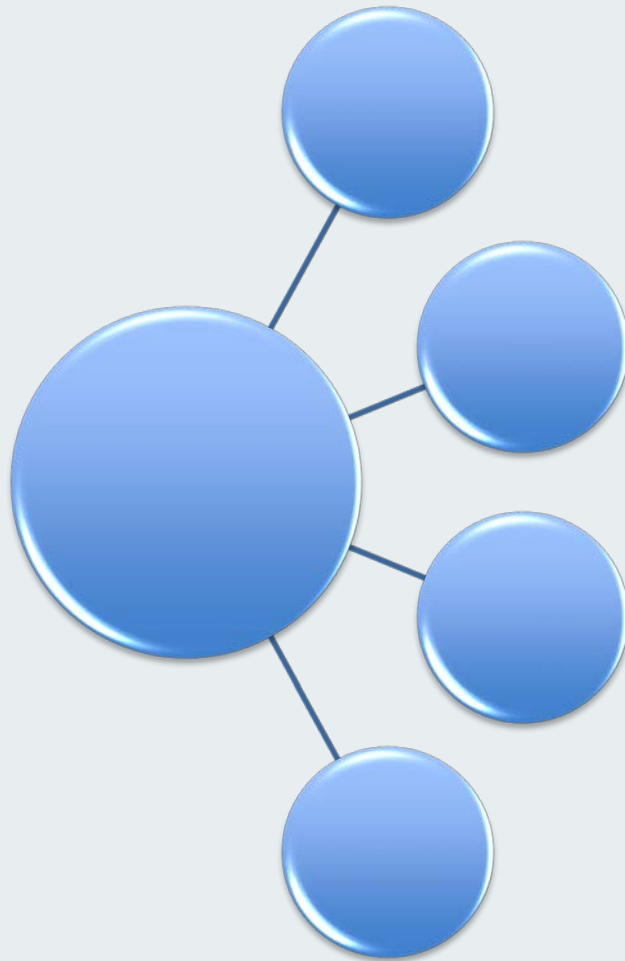
**MINEA; part of the problem or part of the solution?**





# Strålediagram; european level

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