



Material Mapper

**From Waste to Value -
Giving New Life to Construction Materials**

Ieva Sibilla Strupule
Founder & CEO @MaterialMapper

Did you know?



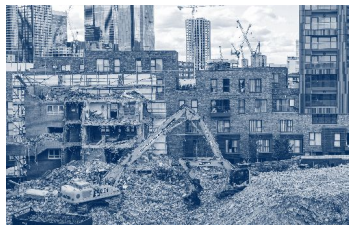
Material Mapper

40%



...of global waste comes from construction. 10% of global Co2 emissions result from concrete production.

500m



...tons of construction and demolition waste is generated in Europe p.a. We estimate that to be equivalent to EUR 132 bn.

By 2050



...the EU plans to be Co2 neutral. By 2030, Co2 emissions need to be reduced by 45%. Yet, we are lagging behind that goal.

More than 2x



...price increases in construction raw materials since 2021 because of shortage, inflation & energy costs.

Construction is the **most polluting industry** in the world. The **EU Green Deal 2020** requires **Construction projects** to change **as soon as possible**. This opens up a unique **business opportunity** for **Material Mapper**

The Idea



Material Mapper

Database for municipalities and property developers (NORWAY):

- Finding what, when, where will be built, demolished, renovated up to 7yrs in advance
- Connecting buyers and sellers of reused materials online
- Estimating the impact of CO2 emissions



The Database



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Database for material manufacturers (FINLAND):

- Finding bulk of reusables to be used in new material (cement) production
- Emission reduction in manufacturing
- Quality Control of material composition

The Platform



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Planning tools

Collects all data about which buildings are to be:

- Demolished
- Renovated
- Built (new)

Estimates of different material categories & quantity:

- Reusable materials from demolition sites
- Materials from renovations
- Surplus materials from new constructions

Our customer journey

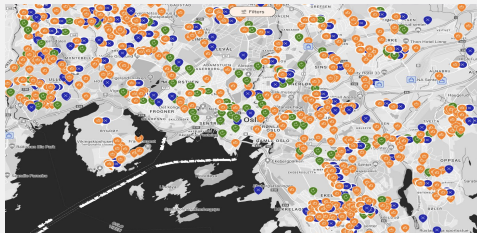


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1

Project Map

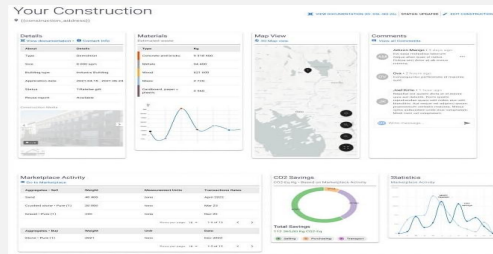
- Customer **accesses product map**, including information on
 - Demolishing projects**
 - Renovation projects**
 - New building projects**
 - Infrastructure (roads, railways, bridges)**
- Includes all **construction projects** taking place within the **next 7 years**
- For each project, the customer can see **full construction details, contacts** (for chat), **estimated amounts of materials resulting** from each construction, **CO2 emissions**, etc.



2

Construction Dashboard

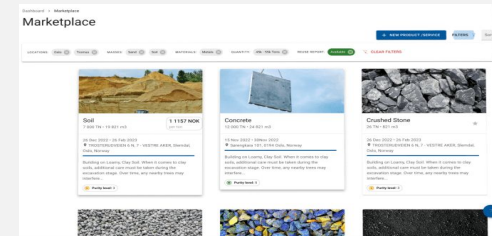
- Every user working on a construction project is getting **access to a customizable construction dashboard**
- Get **estimation of materials** resulting from their **project** and **Co2 emissions** throughout the construction period
- Get suggested **Co2** and **cost-reduction services** from Material Mapper and **partnering 3rd parties**
- All **Co2 emissions** and **cost reductions** are updated **in real-time on the dashboard**



3

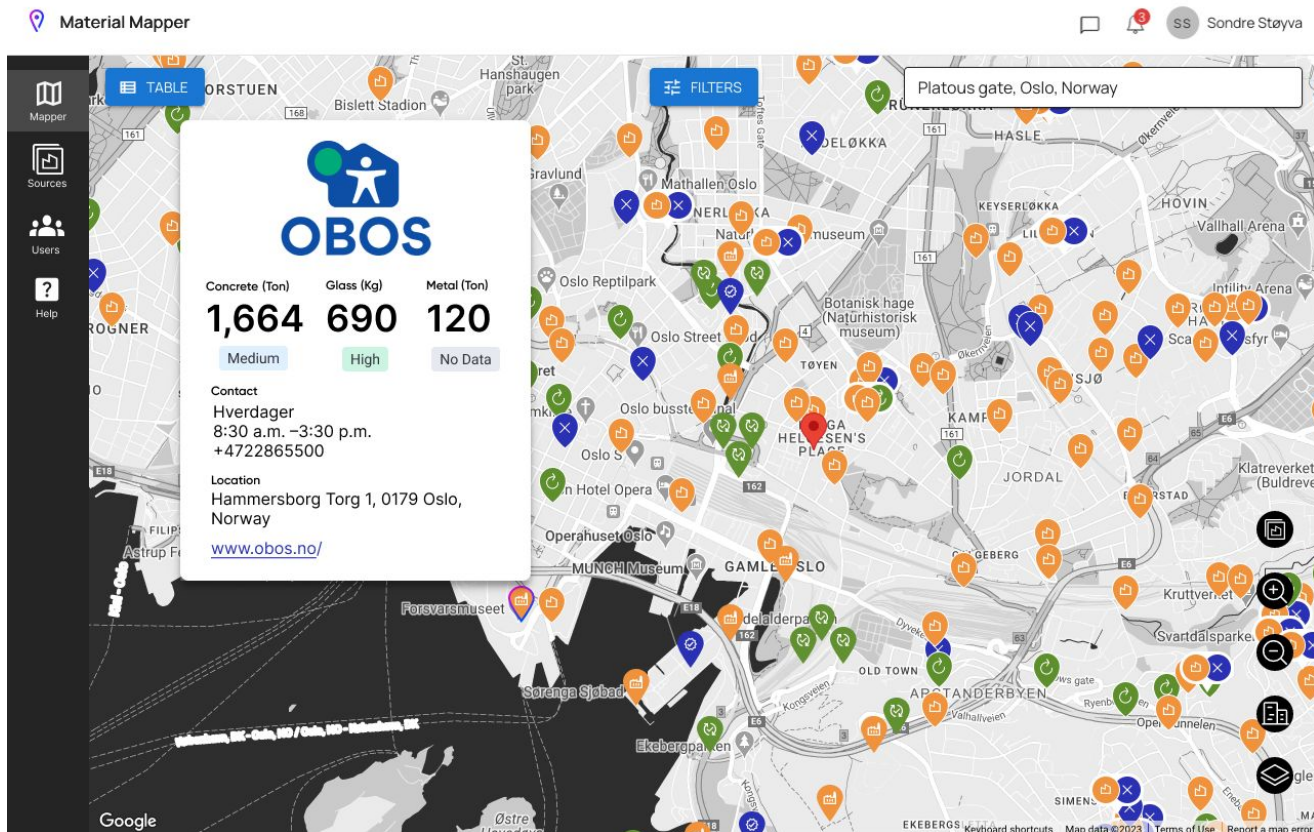
Marketplace

- Sellers can **advertise** their **surplus materials** on the platform and find **matching buyers effortlessly**
- Buyers can **search** and **order materials** (aggregates, etc.) that are relevant for their project. They can **filter** for **amounts and types of materials, purity levels, location, time of availability**, etc.
- All transactions are **automatically updated** with **respective Co2 & cost savings** for **buyer and seller**





Material Mapper



Scalability

Contact details of all construction project leaders available!

Available material, amounts and quality.

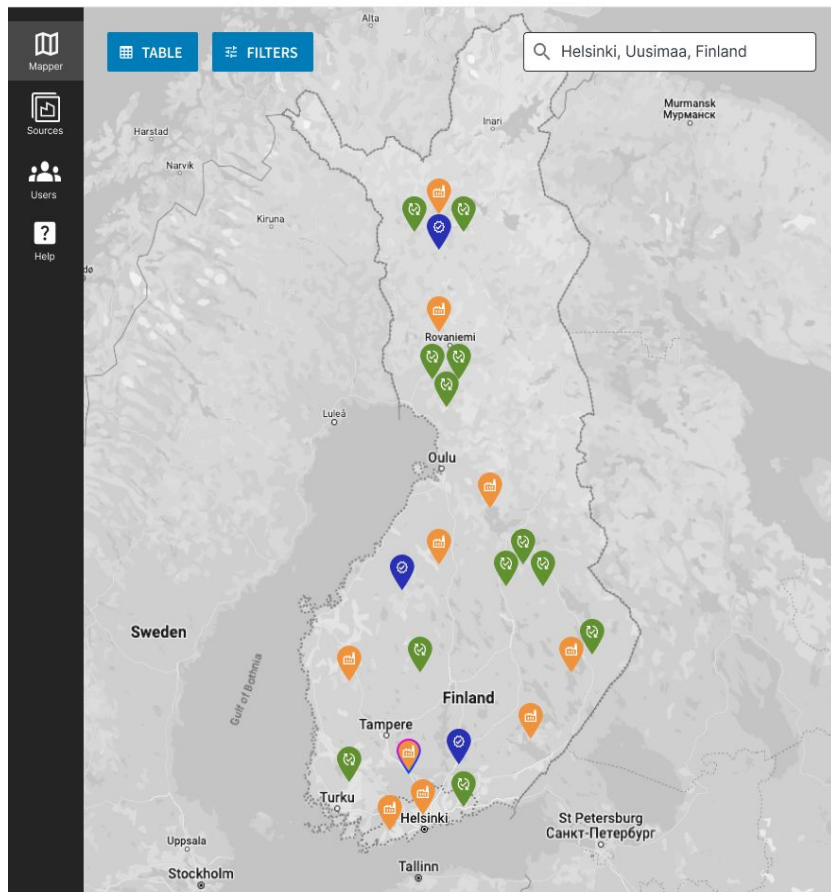
Location of the materials



Material Mapper

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SS Sondre Støyva



Kiertokapula

Full Page

KIERTOKAPULA

Contact Details

See All



Toni Pursiainen

Foreman of municipal contracts
tp@kiertokapula.com
+44 203 858 0516

Concrete

Purity level: 3

Volume (Ton)

1,664

Cost Savings (\$)

120k

CO₂ Savings

60%

Glass

Purity level: 5

Volume (Kg)

690

Cost Savings (\$)

50k

CO₂ Savings

76%

Metal

Mixed Purity Data

Volume (Ton)

120

Cost Savings (\$)

170k

CO₂ Savings

91%

Location

All Sources

Kiertokapula Oy
Vankankäde 7, 13100 Hämeenlinna
www.kiertokapula.fi

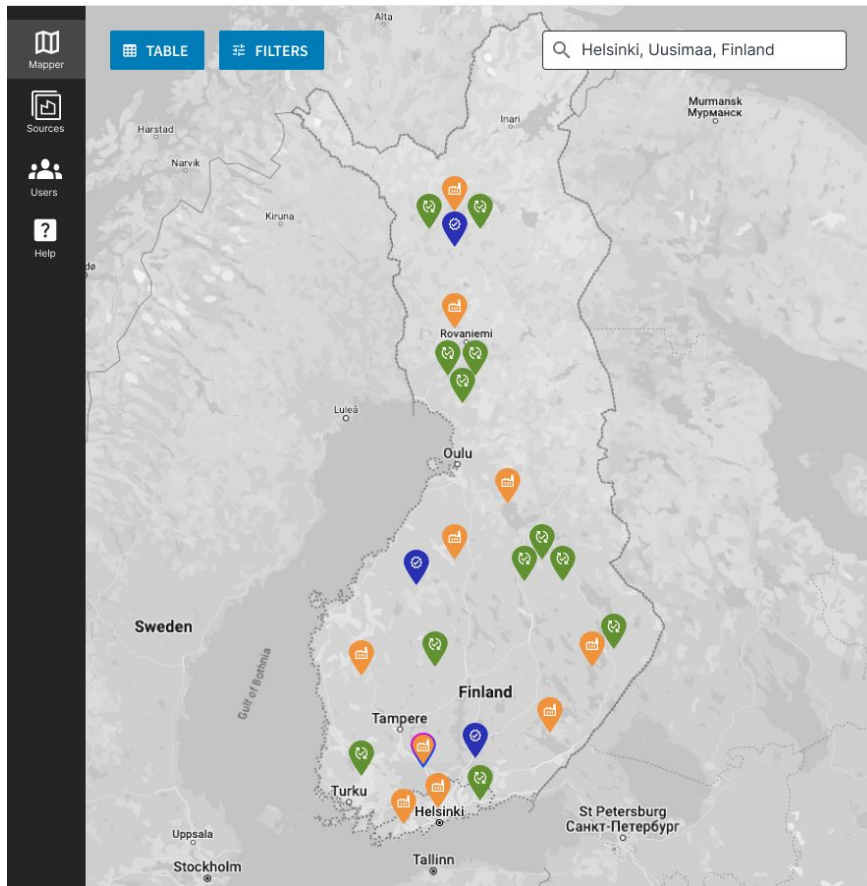
Expanded company view

Link to full page with material data sheets (if available)

Available quality/purity levels

Cost savings estimates

CO₂ saving estimations



KIERTOKAPULA

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Trend graphs

Price of material vs
market price vs market
price

Aggregate of material
volume vs time

CO₂ savings vs time



Material Mapper

Material Mapper

Mapper

Sources

Marketplace

Users

Help

Marketplace

BUY

SELL

FAVORITES

MY OFFERS

+ ADD OFFER

Sort by: Recent first

Crushed Concrete
400 €
3,711 Tons
per Ton

I forbindelse med utfylling av sprengstein i sjø (Bodø Lufthavn). Tiltaksområde vest.

BUY

BID

SAVE FOR LATER

Olav V gate, Bodø, Norway

Crushed Concrete
400 €
3,711 Tons
per Ton

Utfylling av sprengstein i sjø i forbindelse med ny Bodø lufthavn. Denne er i forbindelse med tiltaksområde Øst.

BUY

BID

SAVE FOR LATER

Olav V gate, Bodø, Norway

Glass
205 €
2,455 Tons
per Ton

Fylling i sjø i forbindelse med ny flyplass

BUY

BID

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The Benefits



Material Mapper

Recirculating Material

- Money savings
- Environmental benefits
- No dependence on raw material availability

Take away

Same problem but the context in each country requires that we provide different solutions or ways to tackle it. Our platform allows a great deal of flexibility and we constantly iterate and adapt to grow according to the needs of the organizations that want to take action.



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Thank You! Questions?

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Circularity for Construction