



# Material Mapper

From Waste to Value -  
Giving New Life to Construction Materials

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# 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

## ***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



**Material Mapper**

## *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

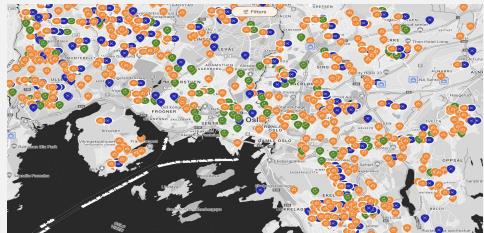


Material Mapper

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## Project Map

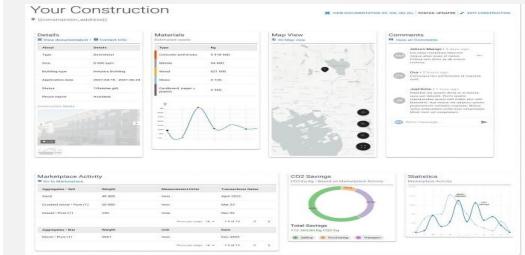
- Customer accesses product map, including information on
  - Demolishing projects
  - Renovation projects
  - New building projects
  - Infrastructure (roads, railways, bridges)
- Includes all construction projects taking place within the **next 7 years**
- For each project, the customer can see **full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



2

## Construction Dashboard

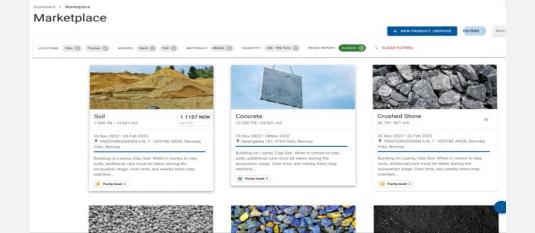
- Every user working on a construction project is getting **access to a customizable construction dashboard**
- Get **estimation of materials** resulting from their **project** and **CO2 emissions** throughout the construction period
- Get suggested **CO2** and **cost-reduction services** from Material Mapper and **partnering 3rd parties**
- All **CO2 emissions** and **cost reductions** are updated **in real-time** on the dashboard



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## 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

Material Mapper

TABLE

FILTERS

Platous gate, Oslo, Norway

OBOS

Concrete (Ton) Glass (Kg) Metal (Ton)

1,664 690 120

Medium High No Data

Contact

Hverdager  
8:30 a.m. –3:30 p.m.  
+4722865500

Location

Hammersborg Torg 1, 0179 Oslo, Norway

[www.obos.no/](http://www.obos.no/)

## Scalability

Contact details of all construction project leaders available!

Available material, amounts and quality.

Location of the materials



TABLE    FILTERS

Helsinki, Uusimaa, Finland

Harstad  
Kiruna  
Luleå  
Rovaniemi  
Oulu  
Murman  
Murmansk  
Tampere  
Helsinki  
Turku  
Stockholm  
Uppsala  
Tallinn  
St. Petersburg  
Санкт-Петербург

**KIERTOKAPULA**

**Contact Details** [See All](#)

**Toni Pursiainen** [Email](#)  
Foreman of municipal contracts  
tp@kiertokapula.com  
+44 203 858 0516

Concrete	Purity level: 3	
Volume (Ton)	Cost Savings (\$)	CO <sub>2</sub> Savings
<b>1,664</b>	<b>120k</b>	<b>60%</b>

Glass	Purity level: 5	
Volume (Kg)	Cost Savings (\$)	CO <sub>2</sub> Savings
<b>690</b>	<b>50k</b>	<b>76%</b>

Metal	Mixed Purity Data	
Volume (Ton)	Cost Savings (\$)	CO <sub>2</sub> Savings
<b>120</b>	<b>170k</b>	<b>91%</b>

**Location** [All Sources](#)

Kiertokapula Oy  
Vankanlähde 7, 13100 Hömeenlinna  
[www.kiertokapula.fi](http://www.kiertokapula.fi)

# Material Mapper

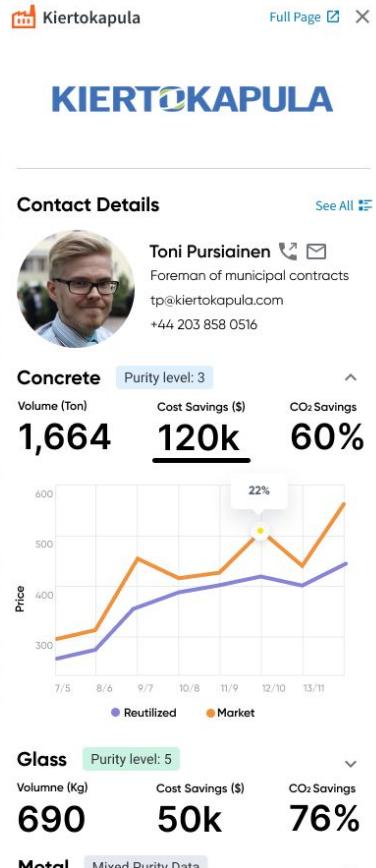
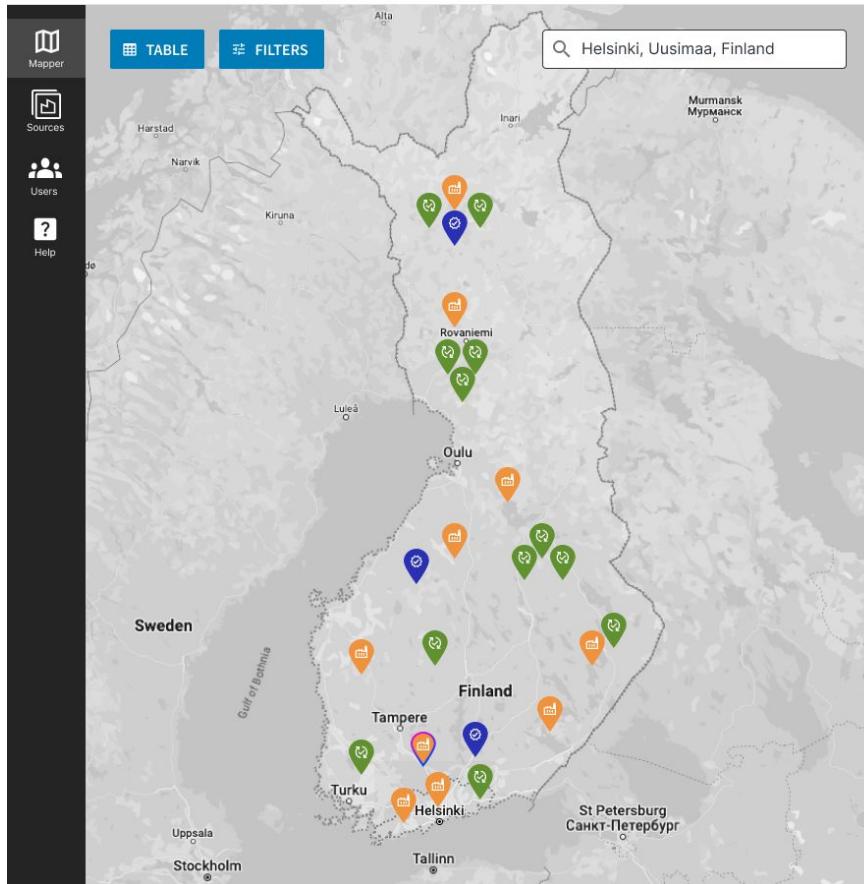
## Expanded company view

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

Available quality/purity levels

Cost savings estimates

CO<sub>2</sub> saving estimations



# Material Mapper

## Marketplace

BUY SELL FAVORITES MY OFFERS + ADD OFFER

Sort by: Recent first

Enter a location

Choose category



Crushed Concrete 400 €  
3,711 Tons per Ton

I forbindelse med utfylling av sprengstein i sjø (Bodø Lufthavn). Titaksområde 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 titaksområde 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** **SAVE FOR LATER**

Olav V gate, Bodø, Norway



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# The Benefits

## 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.



**Material Mapper**

# Thank You! Questions?

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# Material Mapper

Circularity for Construction