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Finrenes Oy

- Biofuels and carbon capture



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Finrenes Oy
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To replace fossil fuels, we have created a lucrative bioenergy solution that provides affordable, clean and storable bioenergy



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Needs and Challenges



Traffic fuels without
food resources



Fertilizer need is growing &
nutrients are flowing to waters



Carbon capture



Control power to wind and solar



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Finrenes Solution



Step 1
**Collect waste
biomass**

Biodegradable agricultural
waste, logging Waste , hog
wood, bark, manure



Step 2
**Produce
Biogas**

Traffic Fuel



Step 3
**Make brown
pellets from
digestate**

Brown pellets



Step 4
**Use the brown pellets
to carbon capture as
fertilizer or as fuel to
replace fossil coal**

CHP
Heat, electricity

Patent in:

Finland, USA, Russia, South Africa,
China (pending), EU (pending)



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Benefits



Biogas

- Renewable traffic fuel
- Fully CNG compatible
- Existing Infrastructure



Energy brown pellets

- Fastest way to cut down existing CO2 emissions
- Fully usable in existing infrastructure in coal-firing plants



Fertilizer brown pellet

- Carbon capture with brown pellets
- Good nutrient content (NPK >3,1)
- Storm water management and supporting seedbed for urban planning



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Customer



Green City

- Carbon neutral
- Carbon negative
- Replace fossil fuels
- Emission compensation by carbon capture



Clean Traffic
Electricity
Biogas



Clean Energy
Replace fossil fuels
with solar, wind,
thermal storage and
biomass



Carbon capture
Carbon capture to
compensate
emissions that
cannot be replaced
by clean energy



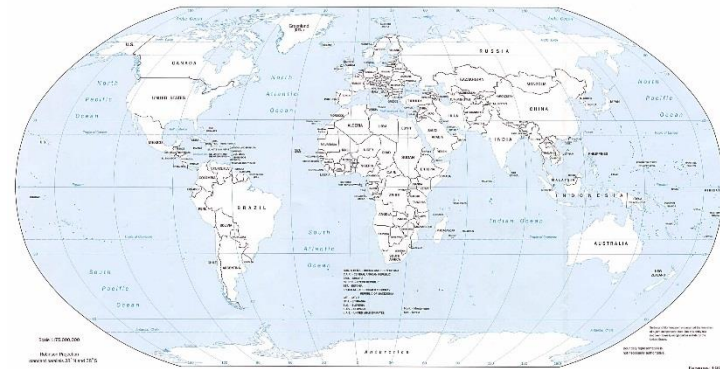
Global markets

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Market opportunity/inedible waste biomass potential

- **World waste biomass potential to be 10 Billion tons/a**

	Biomass M tons	Replacing Gasoline M barrels	Replacing coal M tons
FI	18	18	5,1
EU	596	588	168
China	716	707	201
USA	998	985	281
World	10000	9 870	2 813



- **Potential to produce 1 Billion tons of biomethane/a**
- **Bio coal pellets equivalent to 2,8 Billion tons of coal/a**
 - **All clean fuels!**



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Competition

Company/ Technology	Traffic fuel	Pellets	Cost	Revenue	Investment	Profit
Finrenes	+	+	Low	High	Med	High
Bioethanol	+	-	High	Med	High	Low
Biogas	+	-	Low	Low	Med	Low
Black pellets	-	+	Med	Med	High	Low
Pyrolysis pellets	-	+	Med	Med	Med	Med



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Core Team



**Petteri Salonen,
CEO and Founder**

Petteri has 20 years of experience in international technology development from Nokia and Samsung.



**Rami Helminen, Senior
Advisor**

Rami has over 20 years of experience in international business and operations from Nokia Tyres.



**Juha Roppo,
Combustion Technology**

Juha has 20 years of experience in biomass combustion, from Metso and Tampere University of technology



**Reijo Järviö,
Chief Engineer**

Reijo has over 40 years of experience in building power plants from Valmet and Metso in EU, China and Americas.



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Contacts and references

Contacts

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CLEANTECH
FINLAND

Tekes



Shell New Energy Challenge
Top 10 Finalist 10/2018



Horizon 2020
European Union Funding
for Research & Innovation

EU Horizon2020
11/2019 Phase 1 Grant



TOP 10 Finalist Verbund
Innovation Award for
Digital Energy
Munich Nov 2017



TiE 50 finalist 4/2018 California



TOP30
Most Promising
Energy Startups
in Europe 2016



Runar Bäckström's Säätiö
Runar Bäckström's
Foundation for Inventions