

Turning waste into energy and food in an completely environmentally friendly way









## **Problem Statement**







Europe generates 2.135 billion tons of waste annually, only 70% treated.

- Waste utilization is expensive and ineffective
- Incineration emits a lot of toxins and pollutants affecting local air quality.
- Very poor tire and waste recycling in Estonia.



#### High energy prices

High energy prices strain households and businesses.

- Thousands of businesses at risk of insolvency due to soaring energy bills.
- In Estonia (2021-2022)
   323% rise in household electricity prices, 559% in natural gas prices.

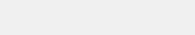


#### **High Greenhouse Costs**

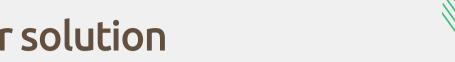
High energy expenses affect greenhouse business and food prices.

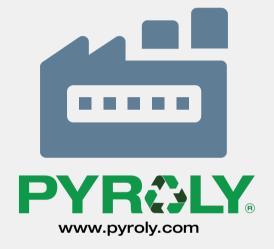
- Food prices 20-157% higher since 2022.
- Commercial greenhouses consume up to €460,000/ha for heating





# **Our solution**





A waste-to-energy plant in Estonia that will efficiently convert industrial and municipal waste into a range of fuel products and energy.

All achieved in an environmentally friendly manner. With zero CO2 footprint.











- Pyrolysis oil



# **Our solution**

# Self-sufficient industrial greenhouses



Our waste utilizing plant generates heat during the process that can be reused to operate greenhouse business without additional energy consumption.

This means we can grow crops 24/7 in Estonia without relying on external electricity.





 This way, we make the most of processed waste and grow crops for profit.



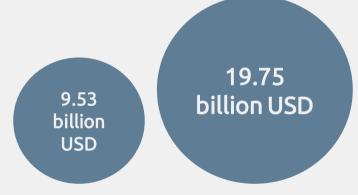


#### Our potential clients:

- Oil refineries
- Raw material resellers
- Landfills and tire collecting sites
- Power stations
- Food and tire manufactures
- Agriculture importers
- Government

PS. We already have pre-agreements with Estonian governmental firms and private companies.







Europe Waste to Energy industry market size in 2023 (CAGR 14.4%)



# **Application to the market**





All the necessary document, certificates and permits acqu certificates and permits acquired



Pre-contracts and agreements prepared with industrial customers and suppliers



Our license Nr. KI -509045 from Estonian Environmental Board





(Starting model)

- We have pre-agreements with Estonian tire landfills and will receive payments from them for utilizing their tires.
- We shred tires and generate revenue by selling crumbs to companies that are willing to sign long-term agreements with us.



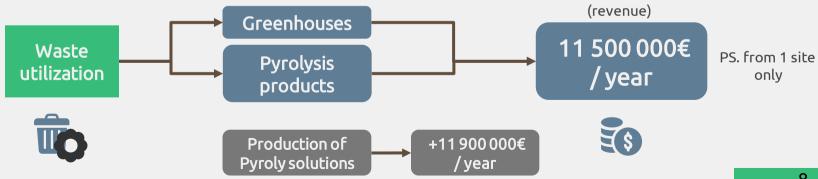
## **Business** model

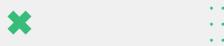
(Main model)

We want to use full potential of our technologies and waste.

#### That's why we plan to:

- utilize all kinds of waste and sell our recycled end products to other businesses.
- run our own greenhouses and sell the crops (ex. vegetables, seedlings).
- start manufacturing and sell our waste-to-fuel solutions that we have developed.





# Why now?



# Unutilizied waste is a problem

Tons of waste around the world, useless in landfills.

# Food prices are growing

Our greenhouses could provide cheap food, even in winter without worrying about the energy prices.

# The world seeks environmentally friendly solutions.

Our technolgies has no CO2 footprint.

# Favorable business environment

With low competition and free resources accessibility, we have a strong starting position.

#### High demand

Fuel and energy providers seek for cheap resources.



# Competitive Advantage



	Other foreign companies like TreaTech, Beston, Green Fuel Nordic Oy etc.	Pyrum Innovations	Our technologies
Has solutions for industrial scale	×	<b>~</b>	<b>©</b>
Has <b>no</b> exhaust/chimney	×	<b>⊗</b>	<b>S</b>
Energy self-sufficient	×	8	<b>S</b>
Emits <b>no</b> CO2	×		<b>S</b>
Short payback period	×	×	<b>S</b>
Offers mobile capabilities	×	<b>⊗</b>	<b>S</b>
Can be used as a power station	× ×	8	<b>©</b>
Has fully autonomous solutions		8	<b>S</b>

Our business model uses waste as a free raw material

We reuse heat for additional profit (greenhouses)



# Project Development Stage



- We have finished all the necessary research and tests of the systems we want to use.
- Our parts are patented, certified and documented.

Official results of tests conducted in Estonia in 2022 by SGS Laboratory





We have built a small working demo version for the proof.





## How much we need

(Starting model)

We are looking for 4.3 million EUR in funds to start our business in **Estonia** 

4 268 450 EUR

• • •

for

• •

5% Land procurement



33%` Land and facility preparations



62% Equipment, taxes and other







# 5-year Financial Plan

(Starting model)

#### Calculations are based on our **pre-agreements** and 25% risk buffer:

#### Note:

Initial setup phase is 6-8 months. Financial projections begin when operations are fully established.

#### Main sources of revenue (Year 1-4)

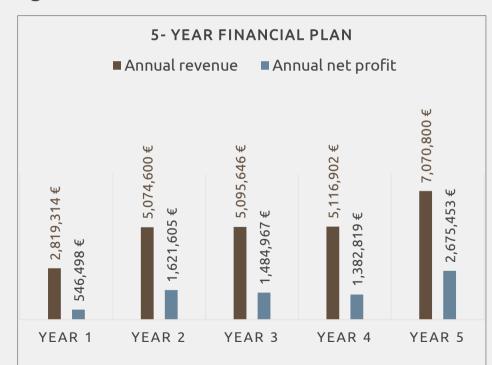
#### Acquisition of used tires:

Max yearly acquisition license 27,000 MT (Metric Tons)

Price per MT = 110 €/ MT Total revenue = **2,970,000**€

#### Tire crumb sales:

Price for 25x25mm crumbs = 45 €/MT Price for 0-5mm crumbs = 124 €/MT Total revenue = 1,870,000 €



# Timeline



Annual revenue: €5.1 million

Selling: Pyrolysis oil Liquid CO2 Carbon black Recycled steel cords

Starting sales of greenhouse crops

Annual revenue: €11.5 million

Investing in Pyroly

### X Team



**Juri** Founder / CEO

- 30+ years entrepreneurial experience
- Wide knowledge in Waste-to-Fuel industry
- Founder of Goldmaks, JTK and RAVLOS and other
- Experience in coordinating up to 235 employees
- Broad background in multiple industries



**Yuri**Co-Founder / CFO

- Over 30 years of cross-sector experience in mining, energy, and waste processing.
- Held leadership roles in major corporations like AMDON (USA), Aton (UKR), and Dalex (USA).
- Law degree from Donetsk State University, showcasing managerial expertise.



Alan
International Customer
Relations Manager and
Investor Relations
Specialist

- Experience as Quality Control Coordinator, Business Development Advisor and Bilingual Administrative Assistant
- Coordinates foreign communication strategies
- Brings a fresh, adaptive, and critical perspective to team planning



**Kaido**Regulatory Affairs
Specialist and Sales
Director

- 25+ years of leadership in import and sales
- Expertise in various industries, including agriculture and consumer goods
- CEO/Founder roles at Horsefood Estonia, Aikon Kaubanduse, and Alkon



**Ruslan**Production Director

- Versatile career spanning mechanical engineering, legal consulting, and metalworking.
- Key roles in metalworking sector and co-founder of several Estonian companies, showcasing entrepreneurial and project management abilities.
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#### Do you have any questions?

Feel free to request our business plan for more detailed information.

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