

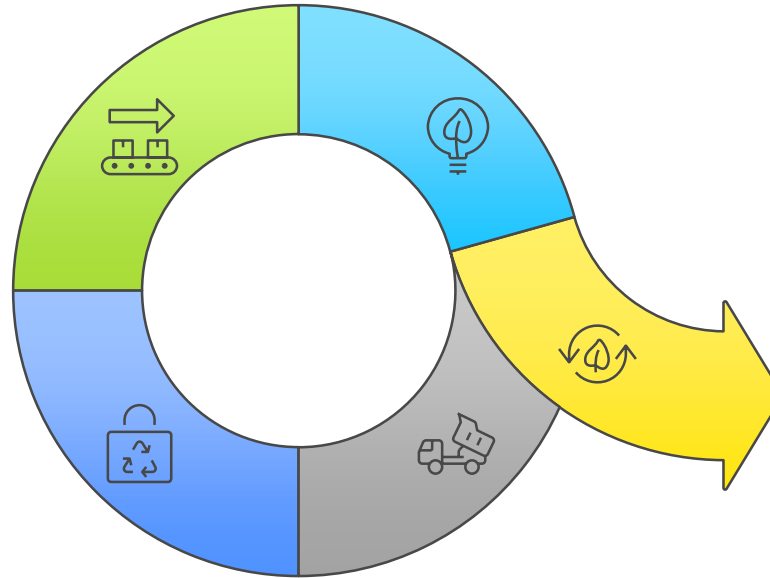


# GREENWIN

Driving small business innovation in Ukraine's circular economy

## Who We Are

# GREENWIN's Recycling Cycle



1

### Collect Used Materials

Tires, textiles, hard wastes

2

### Develop Recycling Technologies

Creating innovative recycling processes

3

### Convert to Raw Materials

Transforming waste into valuable resources

4

### Promote Sustainability

Encouraging eco-friendly industrial practices

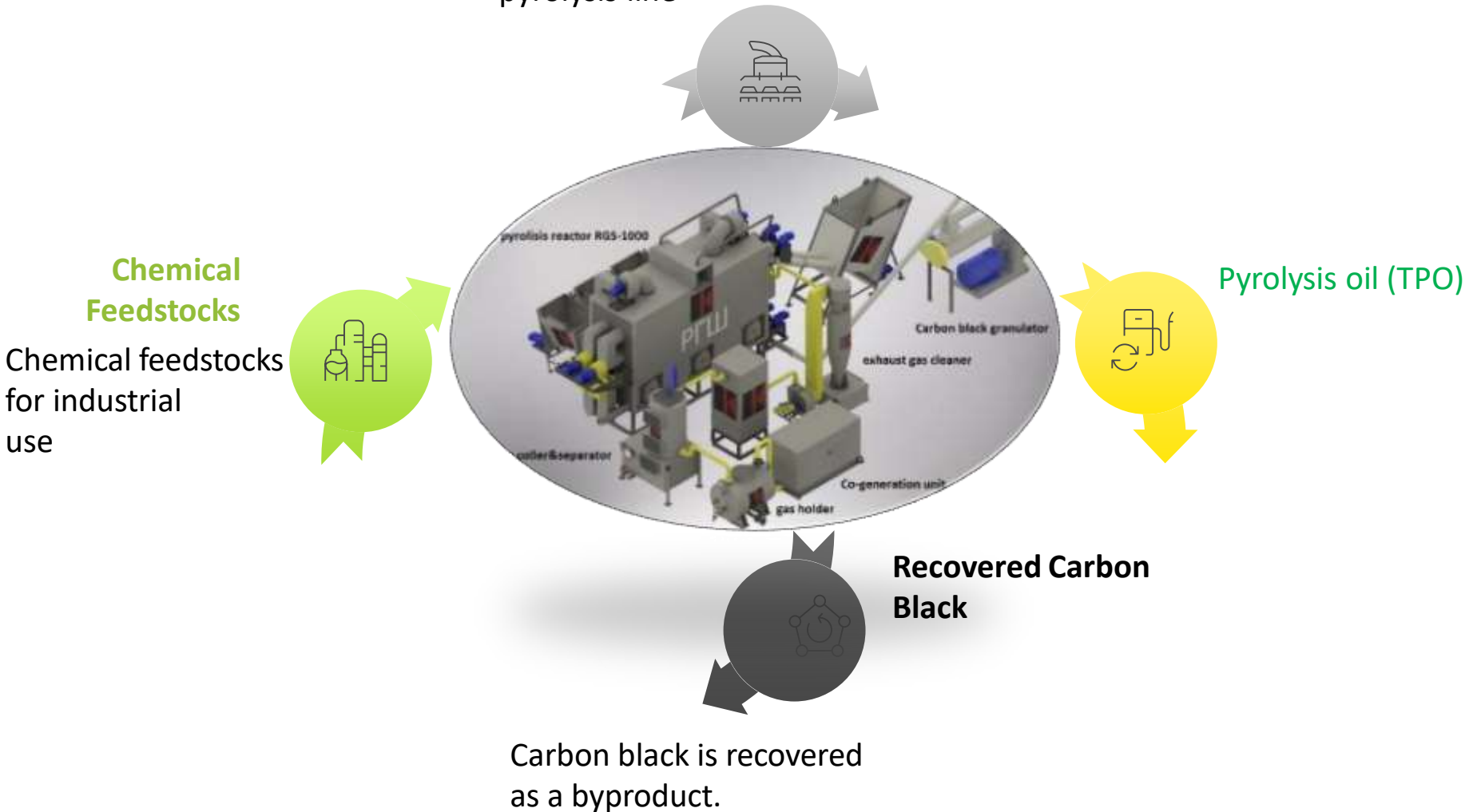
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### Build Modern Recycling Sector

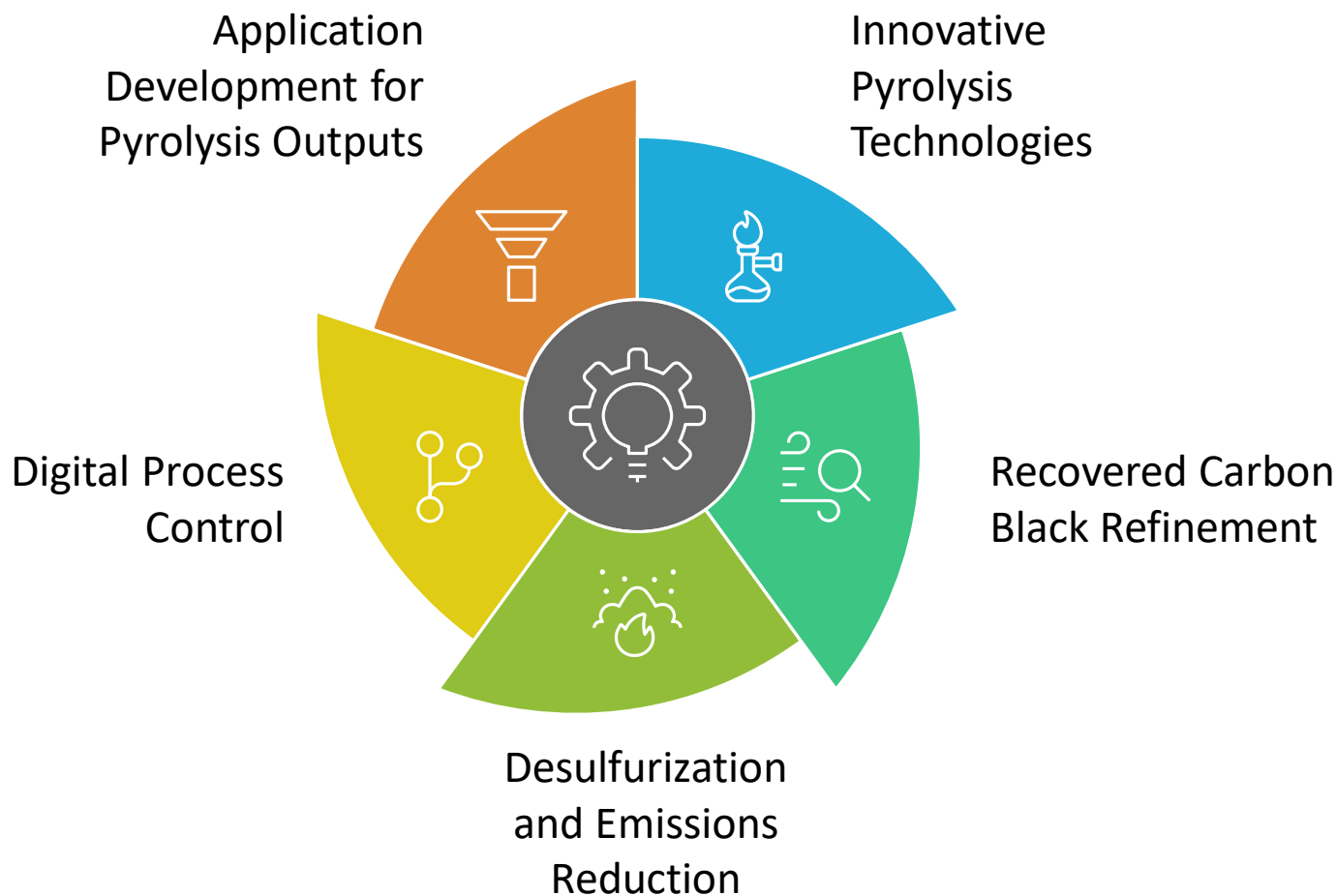
Establishing advanced recycling infrastructure

## What We Do

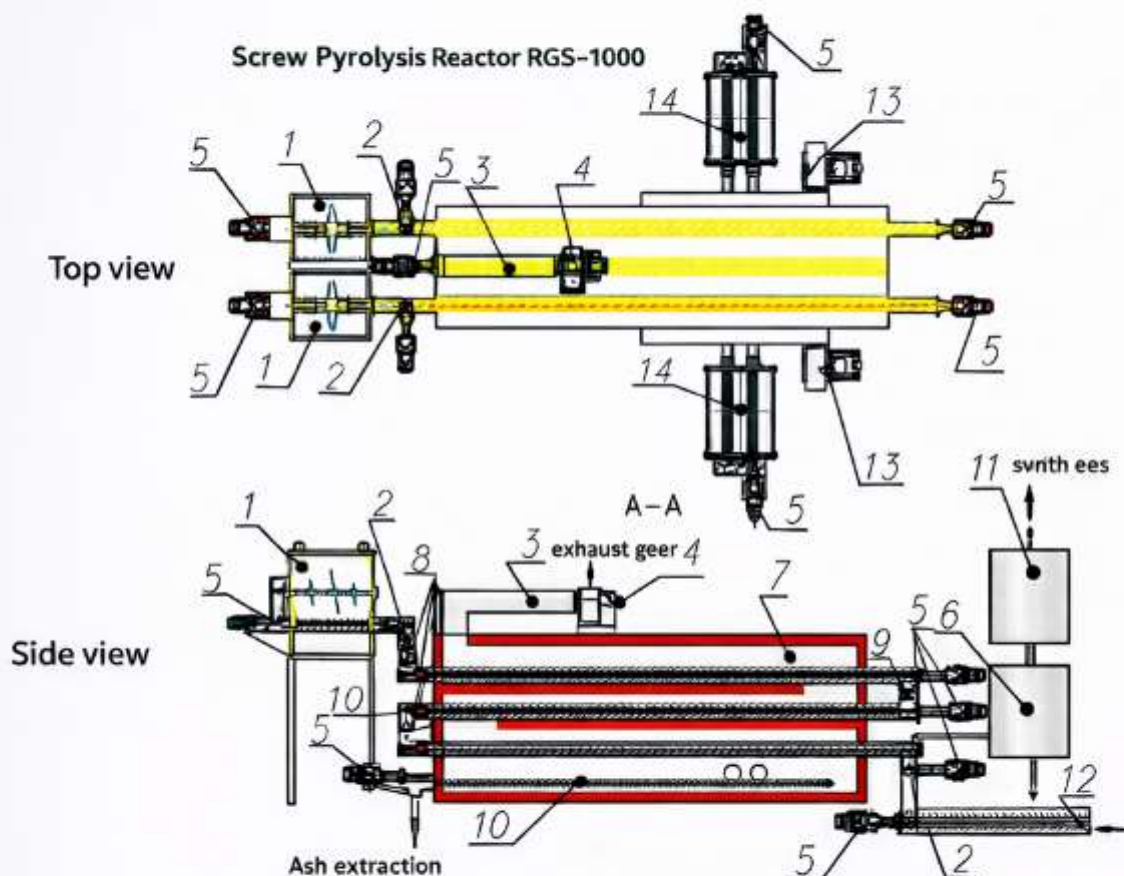
Raw materials are fed into the continuous pyrolysis line



# R&D and Technological Focus



# Screw Pyrolysis Reactor Model RGS-1000



## Main Components

- 1 Uploading bunker
- 2 Screw feeder
- 3 Gas afterburner
- 4 Smoke exhauster
- 5 Gear motor
- 6 Gas separator and cooler
- 7 Combustion chamber
- 8 Screw pyrolysis reactor
- 9 Spillway channel
- 10 Ash extraction screw
- 11 Gas holder
- 12 Water cooled carbon black extraction screw
- 13 Combustion chamber air compressor
- 14 Bunker of combustion chamber

## Efficiency Data of RGS-1000

- ✓ Production capacity by raw materials  
0,5-1,5 t/h (24/7)
- ✓ Efficiency up to 85% (COP)
- ✓ Thermal efficiency of hybrid burner  
0.5 – 4.5 MW
- ✓ Average electricity consumption –  
75 kW per hour
- ✓ Working shift: 1 operator + 2 workers
- ✓ Automatic uploading and extraction
- ✓ Pyrolysis reactor and screw are made of  
high quality stainless steel
- ✓ Each unit is tested by pressure of 12 atm
- ✓ Warranty 3 years

### Energy self efficiency

- ✓ Rapid heating within 1 hour  
(consuming 100L of liquid fuel),
  - ✓ quickly reaches self-sufficiency mode –  
3 hours with 30L of liquid fuel.
  - ✓ **Total consumption – 200L furnace oil for  
unit startup and reaching operating mode**
- 
- ✓ Average electricity  
consumption – 75 kW  
per hour



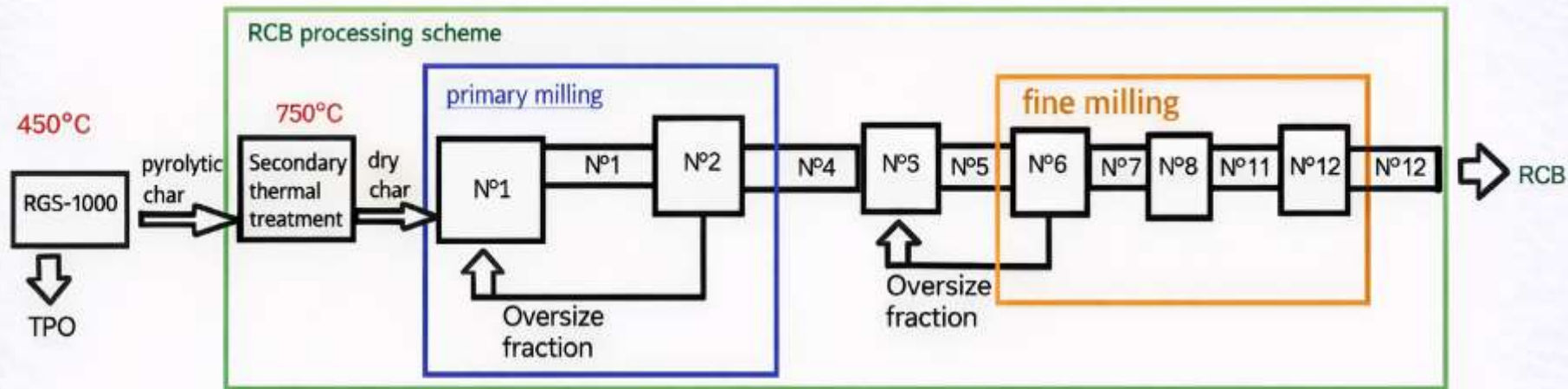


# Quality Data of TPO

Quality Indicator	Light oil	Medium oil
✓ Density at 20°C, g/cm <sup>3</sup>	0.9216	1.0399
✓ Volumetric water content, %	0.4	0.2
✓ Mass fraction of sodium ions, %	0.0007	0.0006
✓ Mass fraction of potassium ions, %	0.0002	0.0005
✓ pH value	5.2	5.7
✓ Mass fraction of sulfur, %	0.68	0.88
✓ Mass fraction of mechanical impurities, %	0.008	0.004
✓ Coking tendency, %	1.1	11.6
✓ Ash content, %	0.069	0.02
✓ Dynamic viscosity at 80°C, mPa-s	8.4	13.6
✓ Dynamic viscosity at 60°C, mPa-s	10.0	16.8
✓ Kinematic viscosity at 80°C, cSt	11.4	20.8
✓ Kinematic viscosity at 60°C, cSt	11.1	20.8
✓ Kinematic viscosity at 50°C, cSt	12.6	20.4
✓ Conditional viscosity at 80°C, conditional grade	1.1	1.4

## The content of TPO:

- ✓ aromatic hydrocarbons – 42%
- ✓ phenolic hydrocarbons – 1.2%
- ✓ bicyclic hydrocarbons – 12.7%
- ✓ biphenyl hydrocarbons – 4.8%
- ✓ heterocyclic hydrocarbons – 20.4%
- ✓ naphthalene hydrocarbons – 17.3%
- ✓ terpenes – 0.4%
- ✓ thiazoles – 0.7%
- ✓ thiophenes – 0.5%.



- ✓ Receiving hopper with vibrator
- ✓ Screw conveyor with VFD
- ✓ Roll crusher with aspiration system
- ✓ Conveyor with magnetic separator
- ✓ Receiving hopper
- ✓ Screw conveyor with VFD
- ✓ Fine grinding mill or jet mill
- ✓ Pre-product storage hopper
- ✓ Dosing screw

- ✓ Fine grinding mill or jet mill
- ✓ Pipeline
- ✓ Pre-product storage hopper
- ✓ Dosing screw
- ✓ Pin mixer (granulator)+dryer
- ✓ Packaging line
- ✓ 11. Pin mixer (granulator)+dryer
- ✓ 12. Packaging line





# Ukrainian Network & Partnership



**CLUSTER  
OF CIRCULAR  
ECONOMY**





## EU Grant Experience & FSTP



Funded by European Union



SME Innovation  
Support



(Training, Networking)  
Green Materials  
and Technologies for Sustainability



Training on polymer recycling



Start-up Acceleration  
for Ukraine



The Innovation Grants  
in energy intensive industries



Strengthening cooperation among CEI  
Member States.

**Single Market Programme (SMP – COSME Component)**

**Project Duration:** 1 October 2025 – 30 September 2028  
(36 months)

**Total Budget: €2,695,182.20**



Funded by European Union

## Project Objective

Support 40 industrial textile SMEs in advancing their digital and green transition, strengthening resilience and competitiveness across the sector.

## Key Actions

- **Cascade funding:** €50,000 grants for 40 SMEs
  - 20 for **digital innovation** (automation, AI, data analytics)
  - 20 for **green innovation** (circularity, waste reduction, sustainable materials)
- **Capacity building:** training, mentoring, and tailored expert support
- **Innovation ecosystem:** cross-border collaboration and knowledge exchange to accelerate technology adoption



## Our Team



**Maksym  
Pavlovskyi  
CEO**



**Andriy  
Syvokon  
R&D**



**Olena  
Mariuk  
Project  
Manager**



**Andriy  
Babenko  
Operation  
Team  
Lead**



**Andriy  
Paslyon  
Pyrolysis  
Engineer**



**Vitaliy  
Kusturov  
rCB  
Researcher**





# GREENWIN

We believe in the EU philosophy of shared progress — where nations and partners move forward together. This is what makes our work meaningful - building innovation and success across borders, hand in hand