

Your partner for new business opportunities and a green future

Our team of specialists commands recognition and respect not only between Czech and European competitors, but is also appreciated and acknowledged at the academic level. This is evidenced by close cooperation with several leading universities and specialist authorities.

We bring together professionals with top theoretical knowledge and practical, scientific and pedagogical experience in the environmental field.

We have put into operation dozens of systems and peripherals to process and dispose of various types of waste.



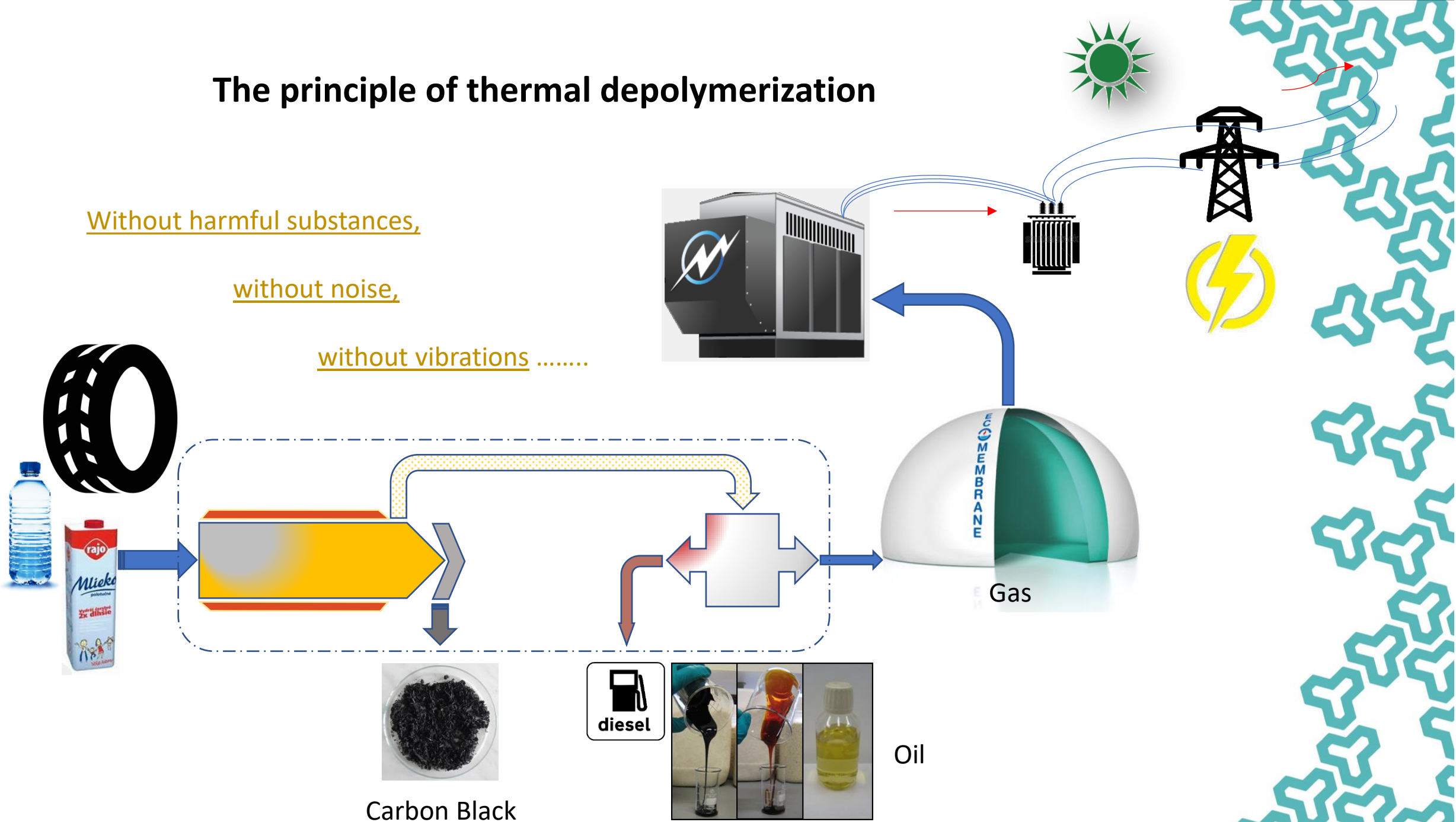


The principle of thermal depolymerization

Without harmful substances,

without noise,

without vibrations



Carbon Black

diesel

Oil

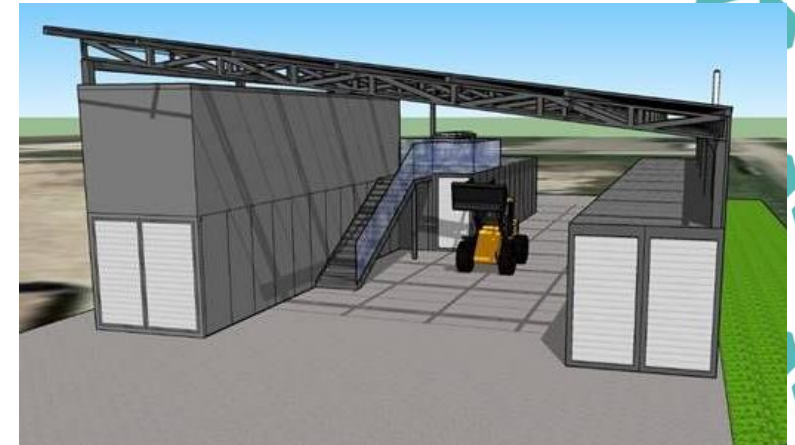
Gas

Waste depolymerization is a process of thermochemical conversion. This thermal decomposition process is based on the decomposition of organic substances by the action of heat without access to oxidizing substances, in an anaerobic environment.

Thermal decomposition of waste in the process results in three main products:

- solid residue of carbon
- process oil
- process gas

All of the obtained process raw materials can be used ecologically as an input raw material for further processing, but above all for the production of energy.



Technology

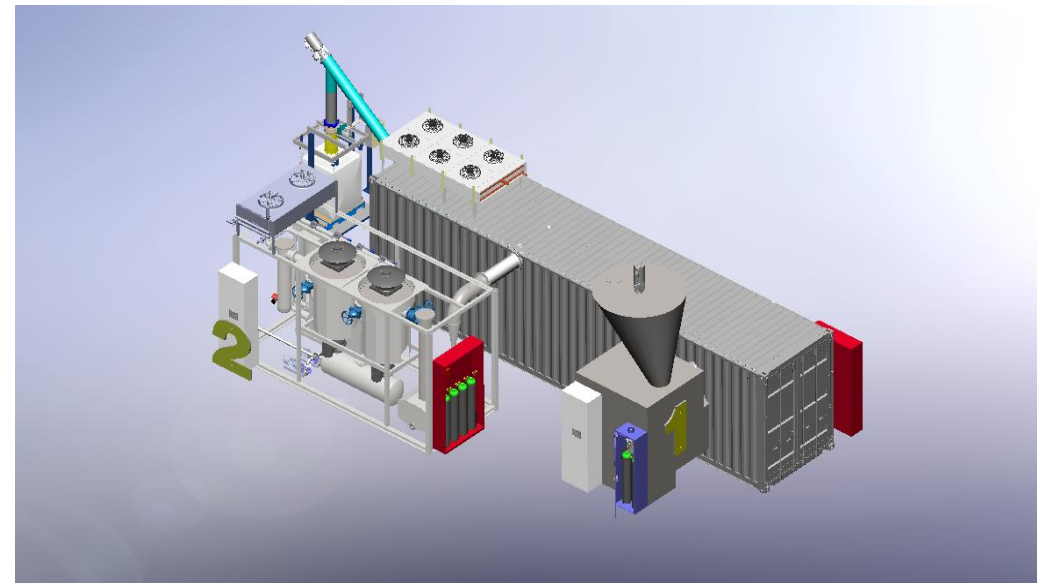
- Our pyrolysis system is delivered in **mobile units** which have many advantages:
 1. **full automatization**
 2. **safety procedures**
 3. **easy transport**
 4. **fast installation**
 5. **remote access and control**
 6. **24/7 support and monitoring** from the manufacturer
- Dispose of waste **without producing new harmful emissions**: no vibration, no noise, no smell and no new waste.
- Our pyrolysis unit connects different technologies to recycle waste, e.g.: gas turbines, shredders, bunkers.
- Our technology is 100 % self-sufficient. We use syn gas to run the gas turbines to produce electricity for our units.





Applications:

1. build our pyrolysis unit in the same place where the waste is created
2. small areas where there is no space
3. disaster areas after earthquakes
4. recycling ships
5. small islands without proper power systems
6. recycling yards, where the waste is sorted



The depolymerization unit with peripherals processes annually about 8,000 tons of crushed waste plastics, tires, or TETRAPACK packaging.

Technology produced annually:

4,100 tons of process oil with calorific value > 40 MJ / kg

2,000 tons of solid inert residue

1,800 tons of process synthetic gas with a calorific value of 31 MJ / kg for the micro-turbine power plant with production of about 4,800 MW of electricity per year.

The power plant will further produce about 7,500 MW of thermal energy per year. This heat output can be changed in the cold through sorption exchanger without the need for additional energy.

Area needed for installation of this plant is a minimum 600 m².

Cooperation

- We see our possible cooperation as a win-win for both companies
- You can extend your portfolio when you get a new source of energy from our pyrolysis system
- We choose gas turbines, because they are more ecological, more technologically advanced, less noisy and easy to maintain.



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Aurelia Turbine




Thank you


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 **CIRCULAR ENERGY**