

# KALVIS

Experts in engineering and production of biomass heating equipment



Private company



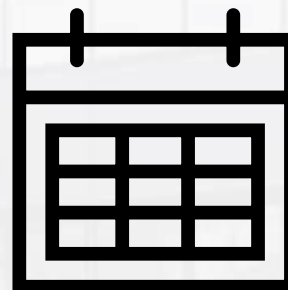
180 employees



16 000 m<sup>2</sup> production area



140 technological processes



Since 1994



Annual turnover 10 mln. €

## ACHIEVEMENTS



## CORE VALUES



## BUSINESS SEGMENTS



Industrial Heating  
Equipment



Domestic boilers



Subcontracting

## CERTIFICATES



ISO 9001



ISO 14001



ISO 45001

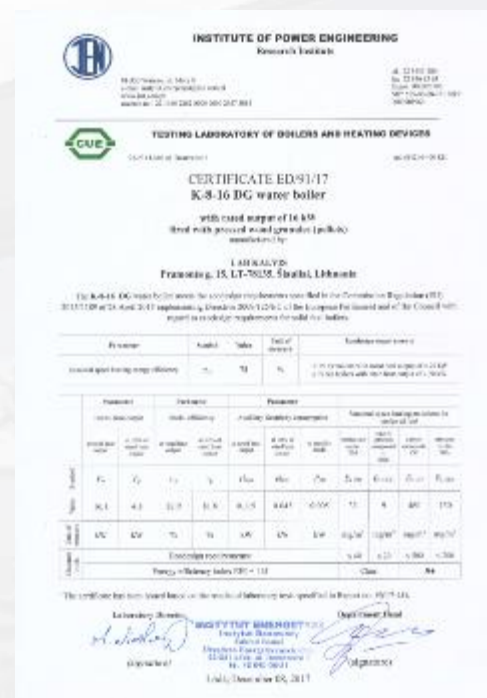


ISO 3834-2

## ENVIRONMENTAL RESPONSIBILITIES



ISO 45000

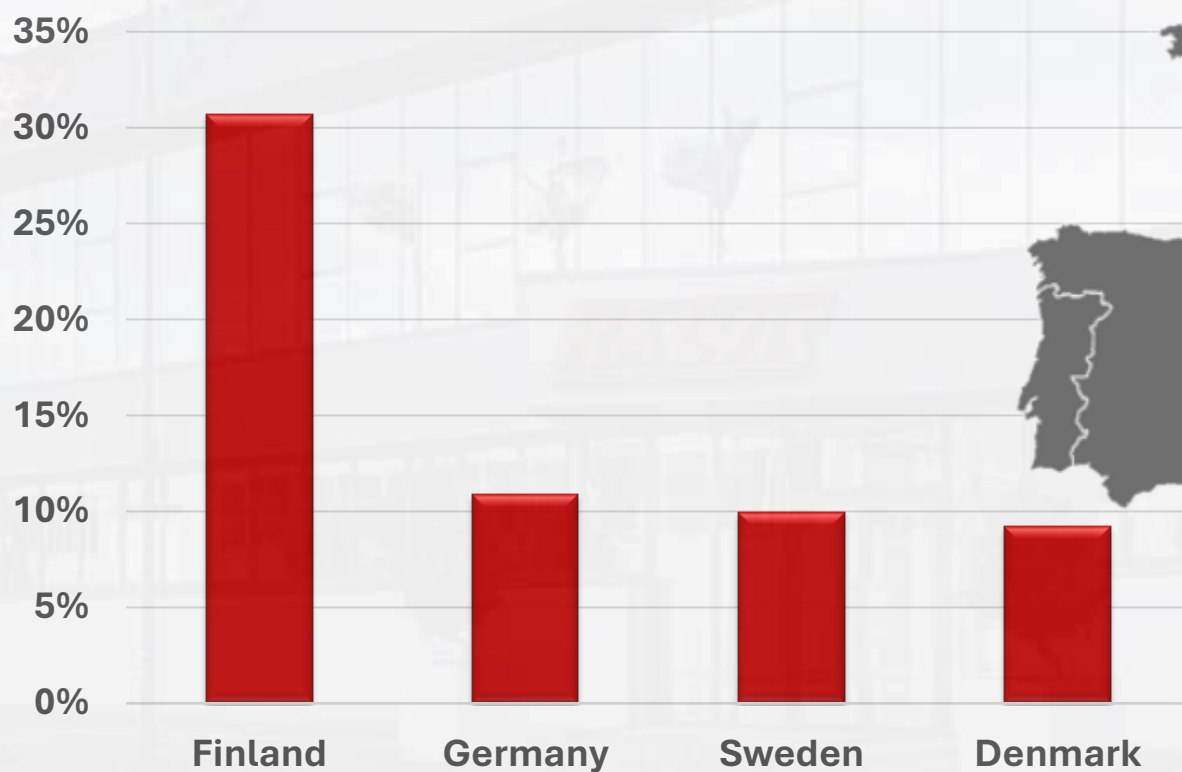


EcoDesign



5 class

EXPORT SHARE 80%



КАЛВИС

# KALVIS BRAND DOMESTIC HEATING EQUIPMENT



# KALVIS

## KALVIS BRAND INDUSTRIAL HEATING EQUIPMENT



## TYPES OF AUTOMATIC BOILER HOUSES



- ☐ Without permanent operating / standby personnel
- ☐ Autonomous
- ☐ Fully automatic

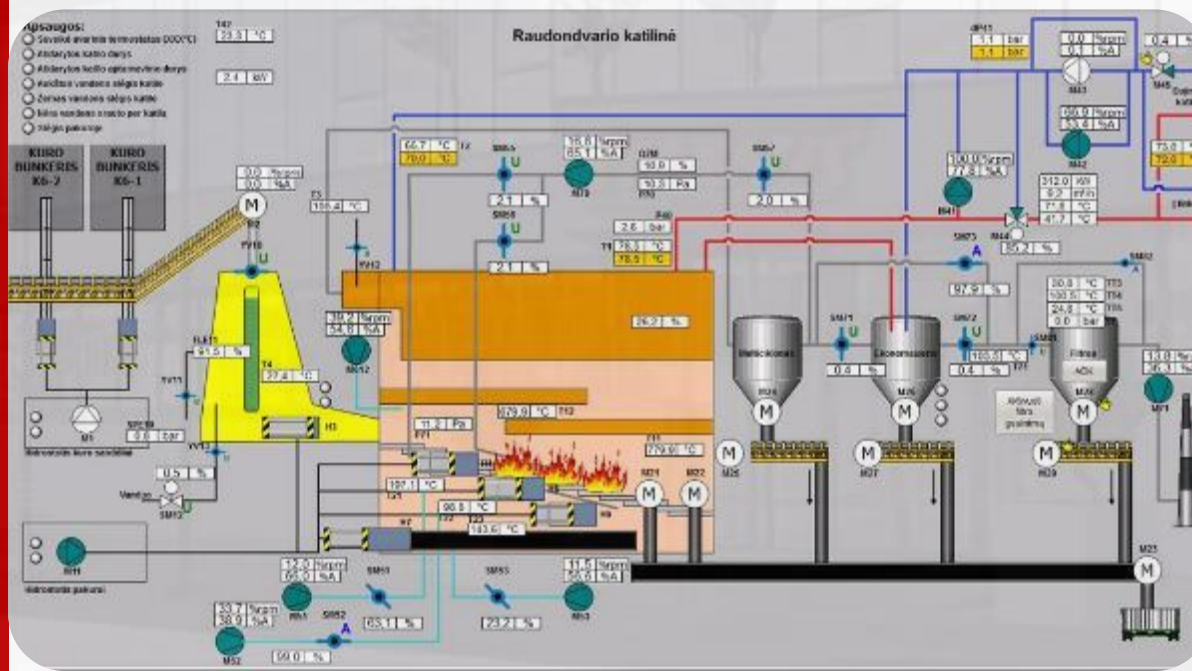
## ADVANTAGES OF KALVIS AUTOMATIC BOILER HOUSES

- ❑ Low maintenance and repair costs
- ❑ Automatic ash removal system
- ❑ Large ash container - does not require frequent cleaning
- ❑ Automatic ignition / extinguishing
- ❑ Design ensures easy access to maintainable parts
- ❑ Design ensures maintenance work can be carried out in compliance with hygiene requirements
- ❑ Modulating control
- ❑ Reduced personnel costs



# FULLY AUTOMATED PROCESSES

- ❑ Boiler combustion operation (fuel feeding, air control, draft maintenance)
- ❑ Ash removal control (from the boiler and other equipment)
- ❑ Temperature maintenance (supply and return water temperatures)
- ❑ Heat exchanger cleaning management
- ❑ O<sub>2</sub> concentration adjustment in flue gases
- ❑ Fault and emergency event detection and system shutdown





## INDUSTRIAL HEATING BOILERS FOR DIFFERENT FUEL TYPES



Pellets



Wood Chips



Logs

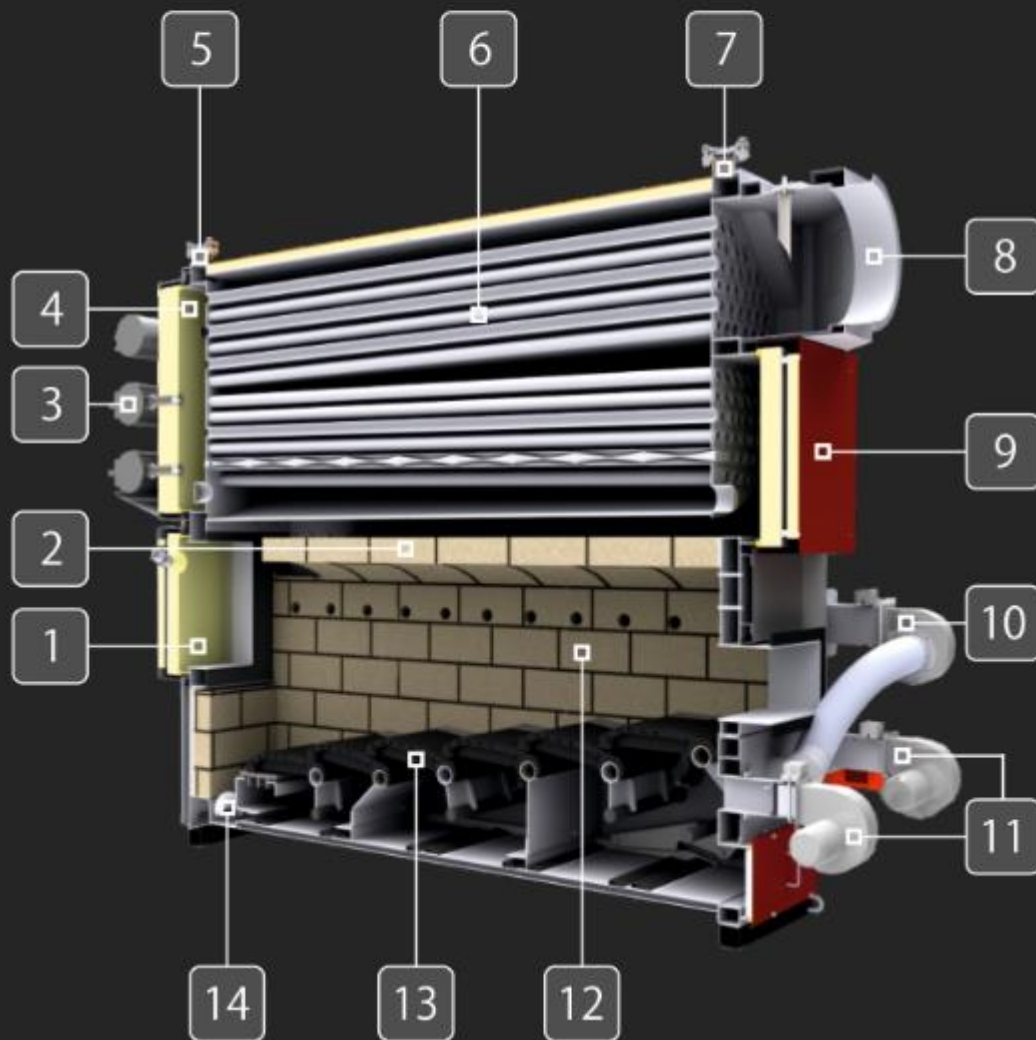


Waste Wood



Peat

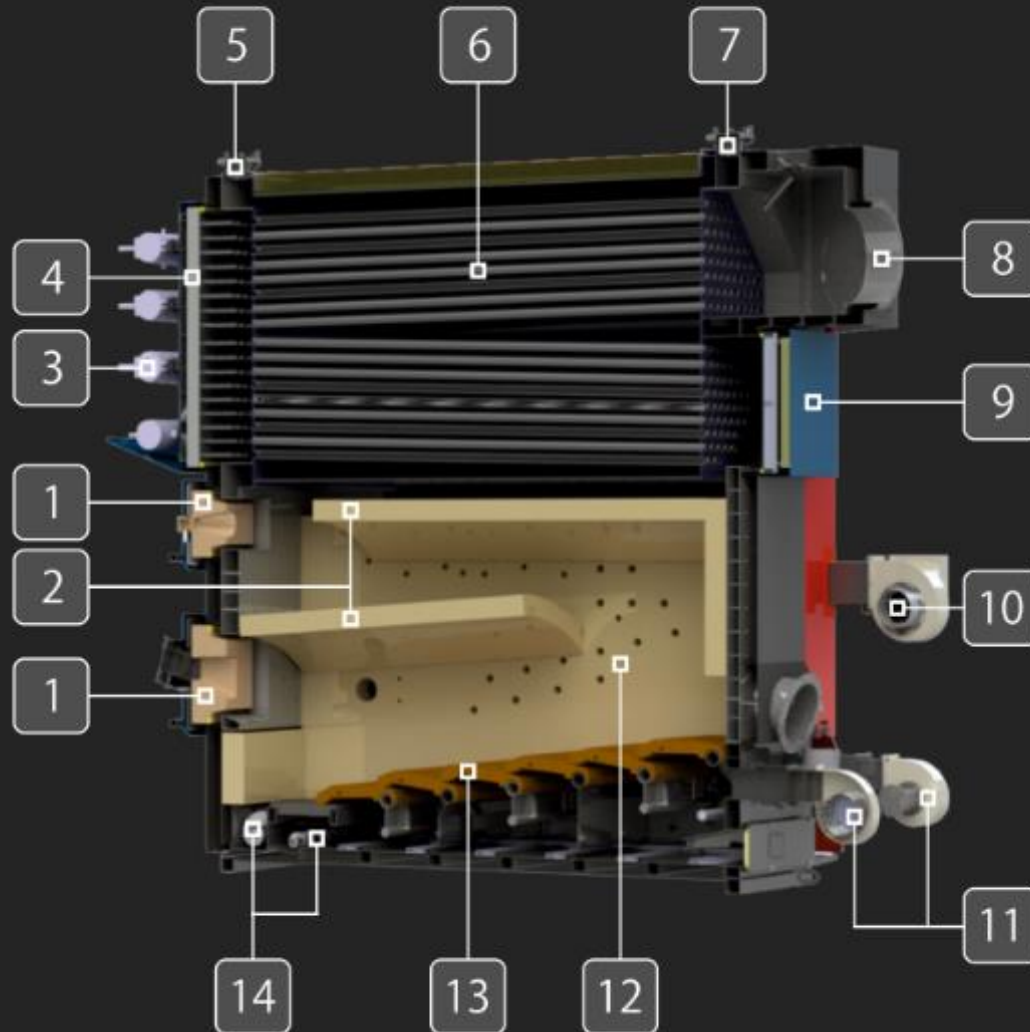
1. Servicing door
2. Heat resistant concrete arch
3. Compressed air receivers
4. Heat exchanger door
5. Return water pipe
6. Shell heat exchanger
7. Hot water pipe
8. Smoke outlet
9. Heat exchanger door
10. Secondary air fan
11. Primary air fan
12. Secondary air supply holes
13. Moving fire grate
14. Ash screw



## Industrial heating boilers M-1 type

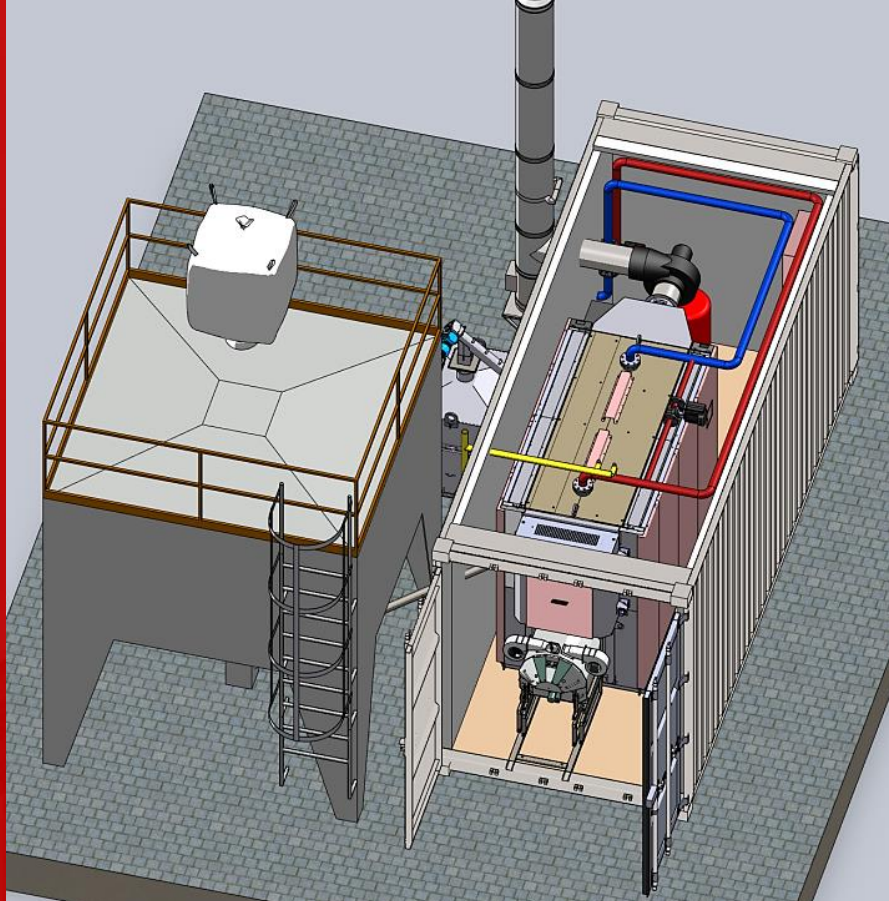
For different types of fuel  
(wood chips MC-48%, pellets,  
sawdust, waste wood)  
(up to 5MW)

1. Servicing door
2. Heat resistant concrete arch
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## Industrial heating boilers M-2 type

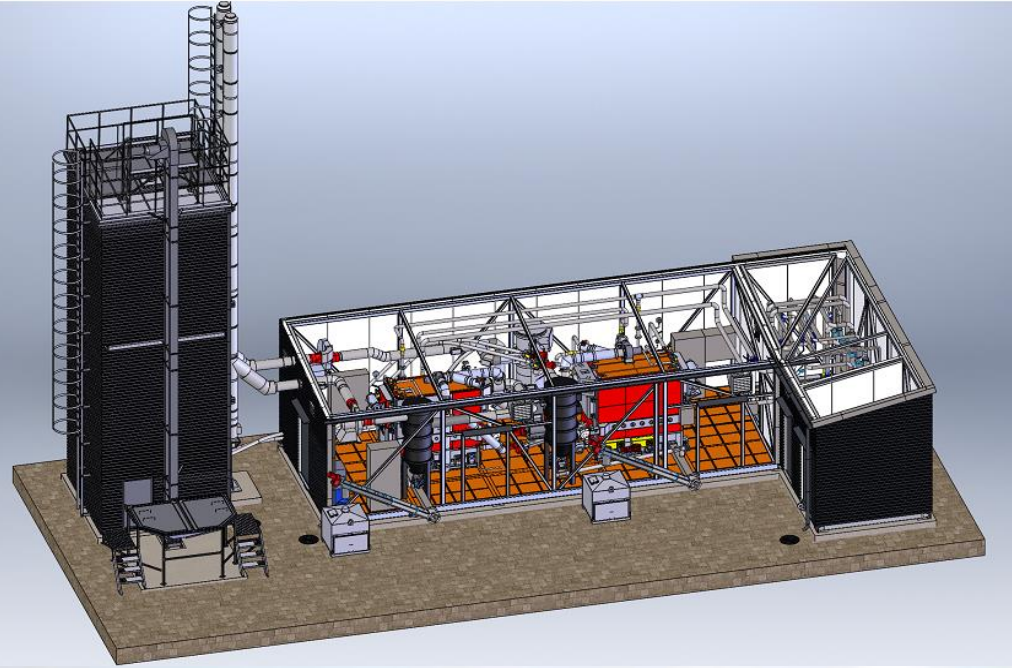
For different types of fuel  
(wood chips MC-55%, sawdust,  
waste wood)  
(up to 3MW)



## Pellet boilers with burners (MG type)

Industrial boilers for schools,  
companies, greenhouses, or other  
bigger size buildings (100-500 kW)





## Turnkey solutions - containerized boiler houses

320kW + 500kW boiler house

Fuel: industrial wood pellets

Location: Lithuania



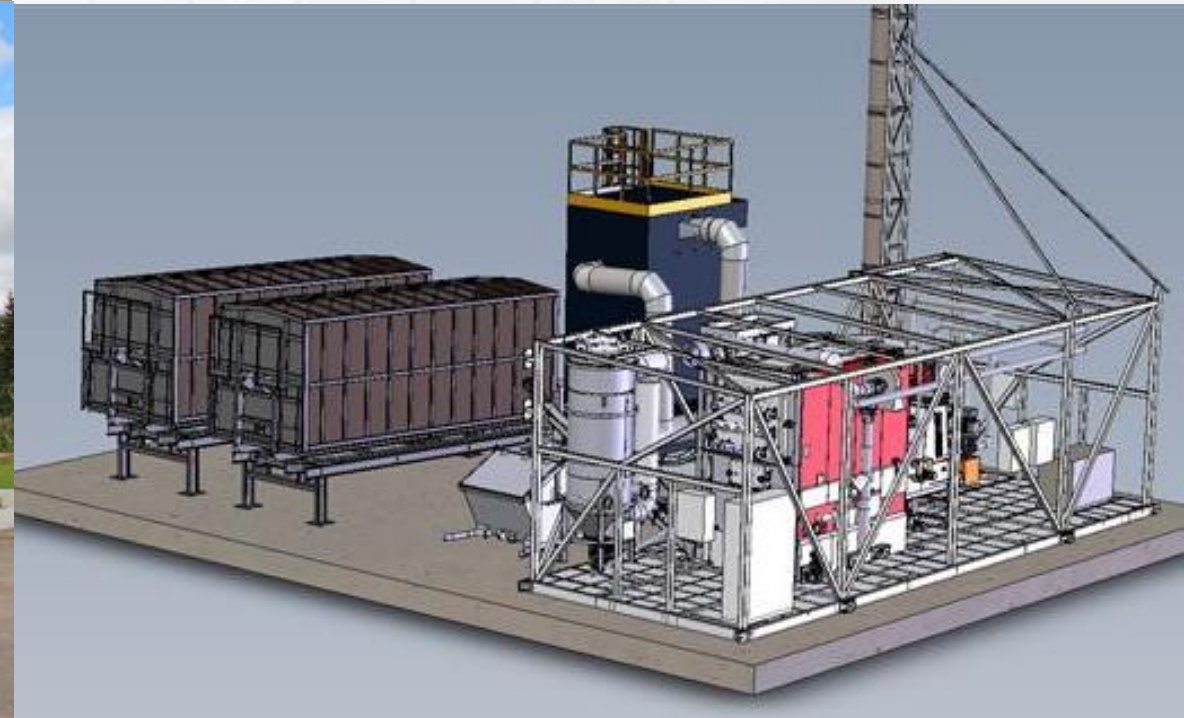
## Turnkey solutions - containerized boiler houses

1500kW biomass plant

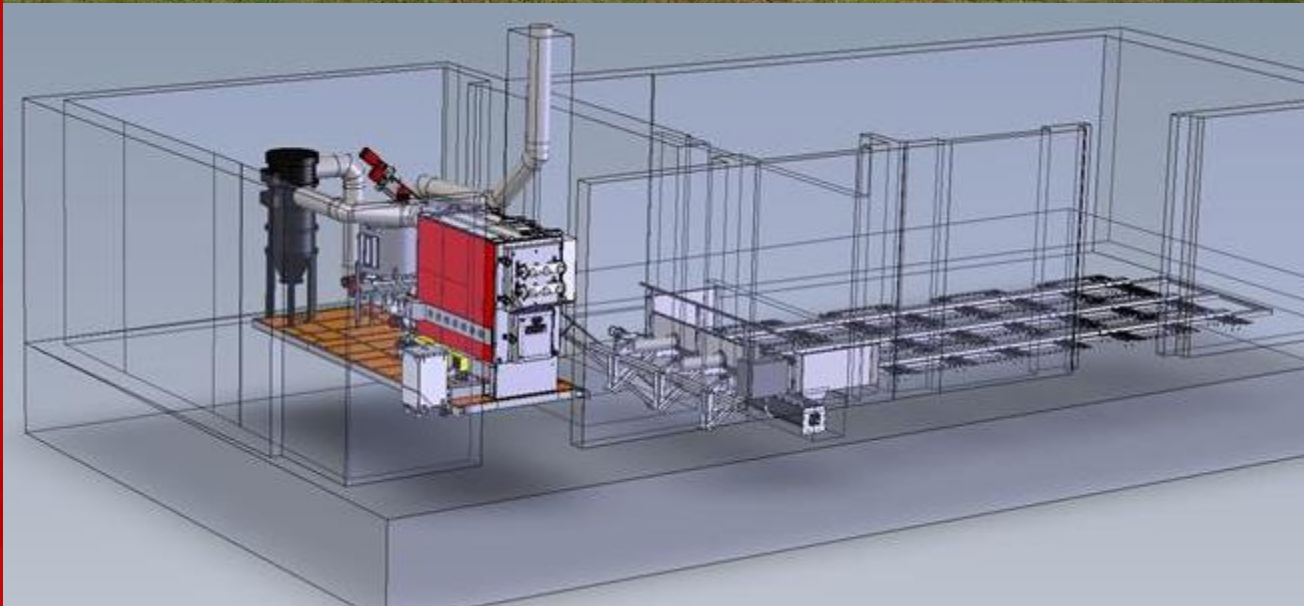
Fuel: wood chips

Location: Lithuania (Raudondvaris, KE)

Established together with a partner  
AXIS Technologies



## 500kw boiler house heats castle in France



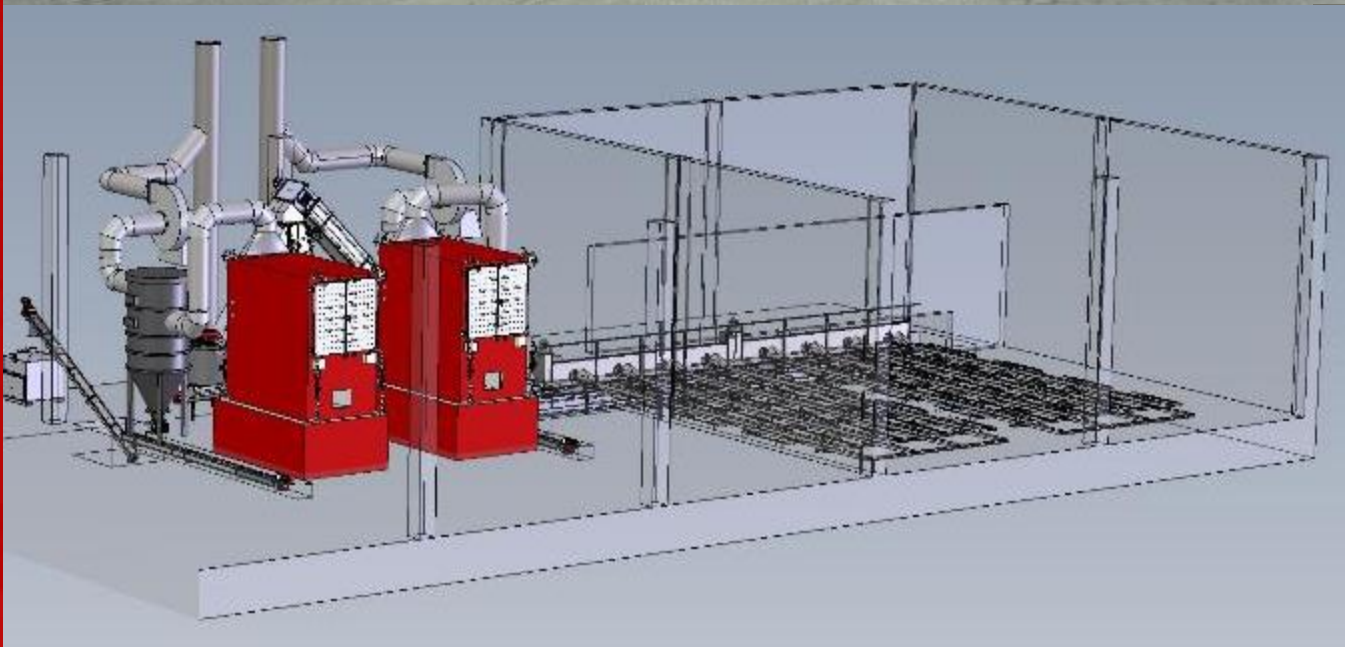
500kW biomass plant  
Fuel: wood chips





## 2 x 950kW boiler house

Fuel: wood chips  
Location: Poland





## 500kW boiler house (in sea container)

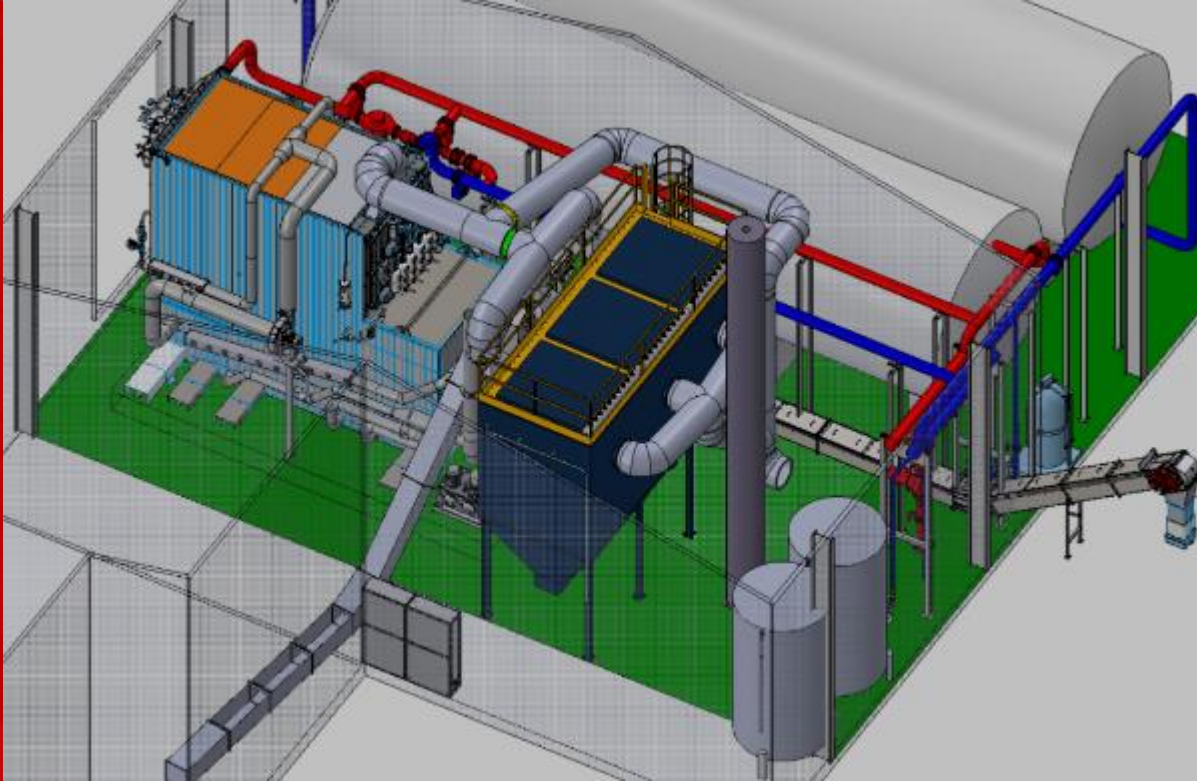
Fuel: waste from the rose farm  
Location: Kenya



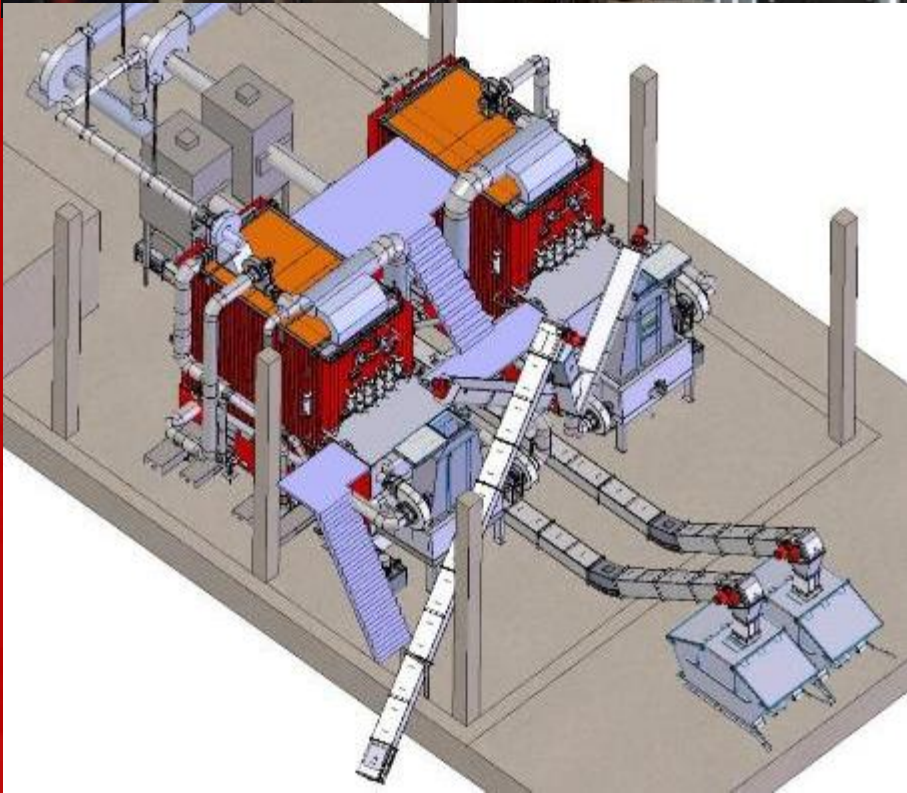
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4MW plant



4MW plant on woodchips in the  
UK for greenhouse industry



2 x 3MW district  
heating plant

Fuel: wood chips  
Location: Latvia (Maduona)

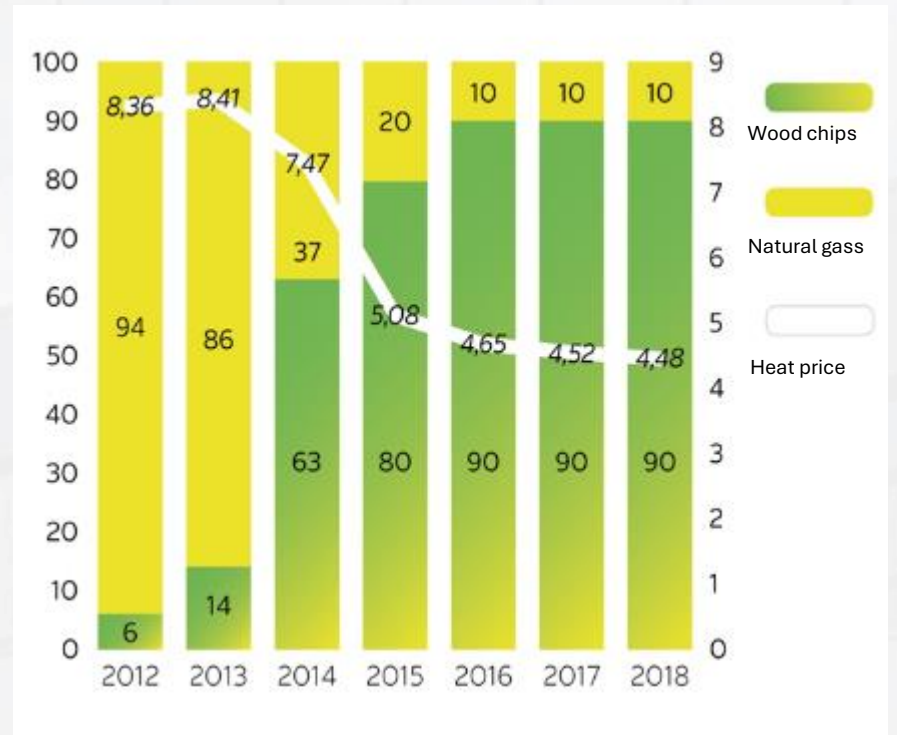
# Bioenergy technology development in Lithuania

## Reduced heat prices in Lithuania

THE PRICE OF HEAT IN LITHUANIA REDUCED  
(OVER 5 YEARS)

-35 %

### KAUNAS CITY SUCCESS



Differences depend on used Biomass share percentage

## DIFFERENT EXPERIENCE WITH DIFFERENT TYPES OF IMPLEMENTATION



## TESTING OF NEW BOILERS EQUIPMENT PERFORMED IN KALVIS LABORATORY



# KALVIS

Thank You!

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