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REPROMO
Project Idea

POLAND

Energy from the biomass a pilot project

Production of pellets environmentally friendly solid bio-fuel
- combined with an own biomass source

plantation of an energy plant from the hollyhock family

Sida hermaphrodita as a sustainable option for development
of an industrial area around the copper mining and metallurgy plant.

Location:

- south-western Poland
- community Rudna located within the industrial area of copper mining
- declining agriculture
- high unemployment rate

Technical Parameters

Pellets production line: production capacity 1 t/h
Expected annual output: 6000 tons pellets
Energy consumption: 600 MWh

Product characteristics: High density pellets
environmentally friendly solid bio-fuel,
very comfortable in use for households and industrial plants

- diameter: 6-8 mm
- length: 2-3 cm
- density: 1,15 kg/m³
- calorific value: 18 MJ/kg
- low ash content (<0,5%)
- without binding agents
- high grade of homogeneity

Raw material supply for the pellets production:

- in the long run - processed biomass from a hollyhock species *Sida hermaphrodita*
- initially (2-3 years) waste wood (saw dust, wood chips) gradually replaced by *Sida hermaphrodita*

Plantation of energy plant *Sida hermaphrodita*

- over the surface 300 ha
- unique productivity yields even > 20t/ha
- low soil, climate and nutrients requirements
- suitable for industrial land
- traditional cultivation methods
- reaches maximal yields after 3 years' cultivation

Pilot project

- Model system of the bio-fuel production line combined with an own source of biomass
- Source of knowledge and experience,
- Centre of seeds' dissemination and RES-promotion

Future developments

- Network of similar small pelleting plants and *Sida* plantations is planned to be established
- High development potential: thousands ha land suitable for *Sida* cultivation site

INVESTORS for next projects and pellets distributors wanted!

- Developing the domestic market for pellets
- Modernisation of small heating systems (power:several MW) by switching from coal to pellet combustion due to the high EU emission standards

PARTNERS offering technologies for pellets' combustion in the heating plants and INVESTORS searched for!

Financial Details

Total cost of the investment: 1 mln EUR

➤ Pellet production plant: 650.000 EUR

➤ Plantation: 350.000 EUR

Initial capital: 670.000 EUR

Public grant in the frames of EU Structural Funds or PHARE

Programme is to be applied for

Annual revenues from pellets sales: 450.000 EUR

Annual operating costs: 300.000 EUR

Annual operating profit: 150.000 EUR

Project Developer

SEGI-AT Sp. z o. o private company from the sector of environmental services that has been running an own pellet production line (1t/h) and a small experimental plantation of *Sida hermaphrodita*. Pellets have so far been produced from pine saw dust delivered by the wood industry plant nearby.



REPROMO Partners

ENVIROS, Czech Republic

Estonian Biomass Association

ETA Renewable Energies

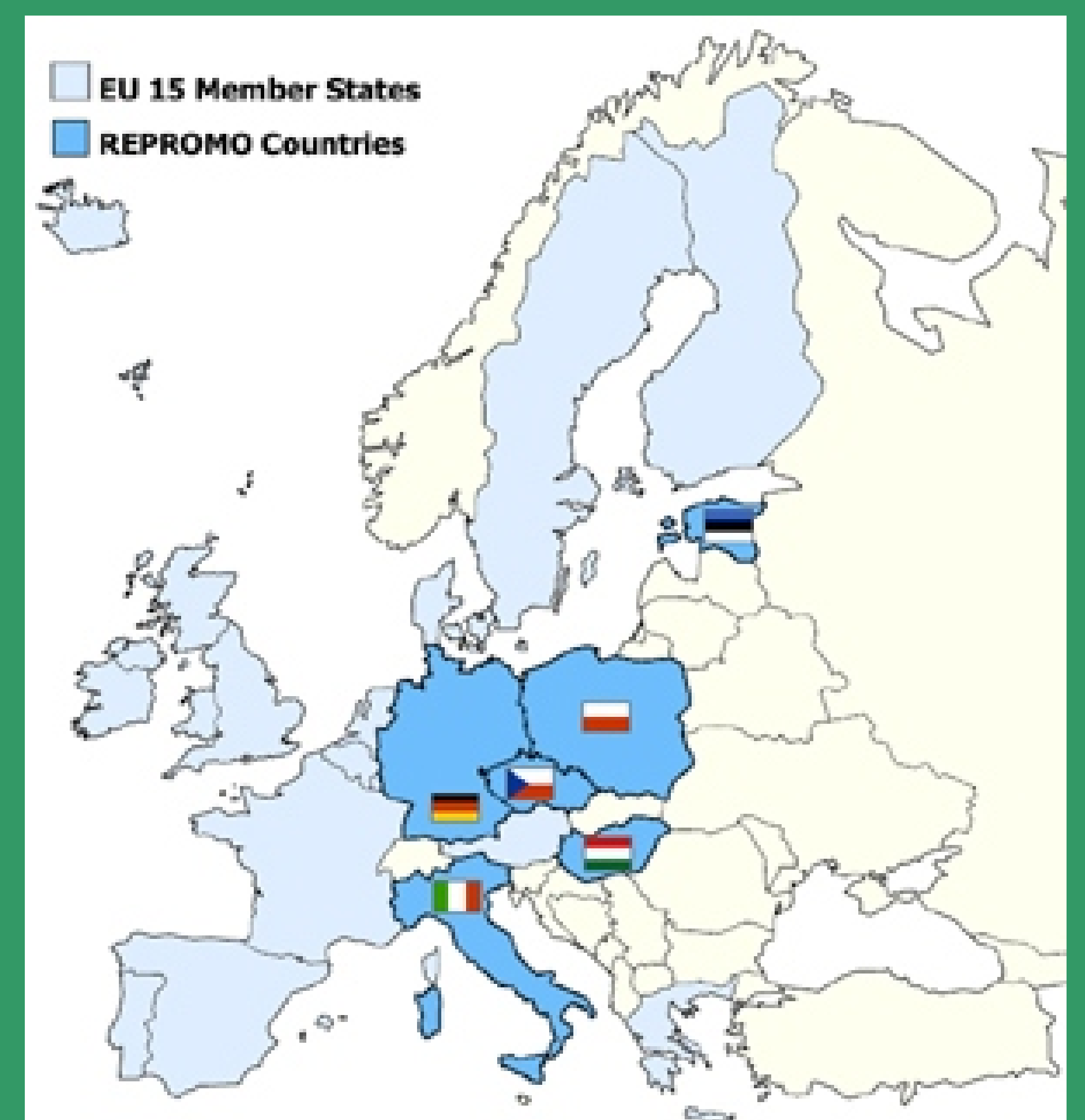
European Biomass Industry Association

European PV Industry Association

GEONARDO, Hungary

KAPE, Poland

WIP Renewable Energies



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