

# INNOVATING THE FOREST-BASED BIOECONOMY





#### LignoSilva aims to:

- Create an independent Centre of Excellence of European significance in the field of forestry, forest products and the bio-economy
- Create long-term synergies through cooperation with leading EU-based research organisations and networks.
- Speed up Eastern Europe's role in the development of the Green Economy and base growth of its forest-based industries on science and innovation.
- Increase efficiency of research and innovation within the Forest-based Industry in the Central-East European and to utilise the existing knowledge and know-how for the benefit of the European Research and Innovation Area.
- Offer R&D and innovation services to private and public organisations, SMEs as well as large industrial partners.
- Examples of development and innovation activities that the Centre of Excellence aims to develop include e.g. multi-purpose management of forests; enhanced biomass production; secured wood supply, forest operations and logistics; cascade use, reuse and recycling systems of wood and energy from wood.

## LignoSilva aims for forest sector growth and innovation through:

- Scientific excellence
- Excellent infrastructure
- Research synergy and continuity
- Cooperation with decision makers and business

### **INNOVATION AREAS**

LignoSilva Centre of Excellence aims to have the following Innovation Areas and Innovation Priorities within these:

#### Forest resources and sustainable wood production

- Ecosystem dynamics and risk management that supports sustainable wood production
  - To support forest management under climate change
- Silvicultural systems supporting sustainable wood production
  - To maintain, extend and intensify wood production
- Forest technologies and technical infrastructure
  - To incorporate new technologies for gathering and processing data within various aspects of forest and wood production chain.
- Forest management in the context of securing increasing demands on wood supply, sustainability and multifunctional use of forests
  - To support complexity, flexibility and efficiency of forest management

#### **Biomass and bioenergy**

- Efficiency increase of the energy production from wood
  - To stimulate widespread adoption of green energy technology.
- Transfer of advanced technologies for the wood biomass decomposition into practice
  - To advance technology to produce chemicals for green chemistry

#### Paper-pulp technologies

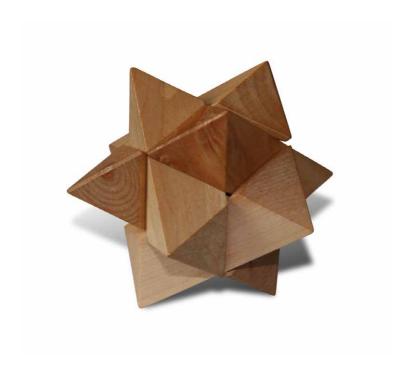
- Incubator of the special paper production and testing
  - To demonstrate and pilot innovative paper industry production techniques.
- Functional fiber formation and development of paper surface treatment
  - To develop and demonstrate new paper modification techniques

## Recycling and cascading systems of wood and wood products' use

- Cascade use of wood in mechanical processing in Slovakia
  - To improve the efficiency of wood use and wood recovery
- Increase the volume of recycling of used wooden products
  - To improve recycling and recovery of wooden materials and recycling processes

#### Regional development and stimulation

- Stimulation of interlinkages within sustainable bioeconomy
  - To focus on the added value of the bioeconomy that lies in the interaction of the bioeconomy areas providing opportunities for new innovations





**Project coordinator:** National Forest Centre, Slovakia

**Project partners:** European Forest Institute

Paper and Pulp Research Institute, Slovakia

More information: http://lignosilva.nlcsk.org