

# Pulp and Paper Research Institute



## FOUNDATION

- 1949

## SIZE

- Middle-sized

## SERVICES /KEY PRODUCTS

- Research and development in the technological production of pulp, production of paper and paperboard, use and processing of secondary raw materials, processing and refining of paper, paperboard and manufacture of packaging
- Development of new products and materials
- Performance of state testing wrapping paper
- /SKTC-114/
- Standardization and metrological activity
- Chemical Analysis

### **Production and sales**

- Recycled Office Paper
- Imitation of hand paper
- Paper with watermarks
- Paper with protective elements
- Prestigious leaf paper with envelopes
- Assorted colours

## PROFILE

The Pulp and Paper Research Institute, Bratislava was established with the main target to promote the development of the pulp and paper industry. It has directed towards technological research and development and industrial application, on technical assistance to pulp and paper mills and converting plants, on enhancing the skill of the papermakers and on retrieval and dissemination of professional and economical information. The instrumental outfit and the pilot plant equipment of the Institute are of high level. Together with the skill and ability of the Institute staff they help to satisfy many local and foreign partners with the results of work during decades. The Institute and the staff members were awarded by local and international awards for the most important research results. The membership of the Institute and its staff members in international, nongovernmental associations of the pulp and paper industry (CEPI, EUCEPA, TAPPI, CPPA, FEFCO and others) was helpful in gaining the latest scientific and technical knowledge and enabled to present own results.

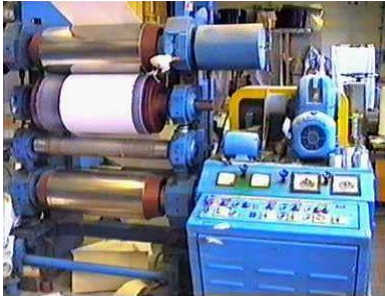
## SUSTAINABILITY, USING OF BIOMATERIALS

Packaging materials based on paper need finishing for suitable performance. Sustainability of such processing needs biodegradable plastics. This idea is also the mainspring for the new conception in national research in Slovakia. Intervention logic of the national project: to establish a strategic partnership for research organisations, universities and the business sector capable of effectively contributing to the transformation of forest-timber and cellulose-based industries to the higher value- added sector, through the implementation of the results of multidisciplinary research in practice. To support the acute need for a structural transition from a fossil to a low carbon economy based on a more effective assessment of the domestic renewable raw material - forest biomass, using the potential of the scientific and research base of the whole sector and to increase the degree of finalisation in the processing of wood raw materials.



## PRODUCTION SPECIALITIES

As described in self-contained section Services/Key Products, research at Pulp and Paper Institute is relatively extensive. On the present, biocomposite is not produced by the Institute. On the other hand, Institute is prepared immediately work on development new combined materials paper/biodegradable plastics. Institute offers the suitable equipment for R&D, e.g. the unique universal paper pilot line with three head boxes and on-line glei press, semi-operating cont and hood, semi-operating supercalender (LignoSilva-Gabčíkovo, The Pulp and Paper Research Institute Inc.)



## SUMMARY AND SOLUTION

The research strategy for a long-term strategic research project in Slovakia "High-value wood-based technologies" is coordinated by Pulp and Paper Research Institute. For the activities of this strategy in biologically degradable packaging based on lignocellulosic and bioplastic materials the Institute offers own technologies. Outputs of the activities will be focused on the research of special biologically degradable paper-based packaging and biodegradable plastics with special barrier properties permitting replacement of plastic packaging, on semi-operating devices under "open Laboratory", which cannot provide production-oriented combinations with its strong infrastructure. Publication and patent activity are foreseen. The contribution of the solution consists in increasing the degree of finalisation in the processing of less valuable packaging materials, achieving higher added value in line with the current trends in disposal and recyclability of packaging are the expected result. The main benefit of the solution is the replacement of plastic packaging, dangerously accumulated in nature and in the world's oceans, by biologically degradable and compostable packaging based on paper, cardboard and biodegradable plastics. Both patent protection and the implementation of technological transfer are foreseen. New jobs will be set up within the activity.



Výskumný ústav papiera  
a celulózy, a.s.  
Pulp and Paper  
Research Institute Inc.  
Dúbravská cesta 14  
84104, Bratislava 4  
Phone: +421 911 728611  
Mob.: +421 0911728601  
e-mail: bohacek@vupc.sk