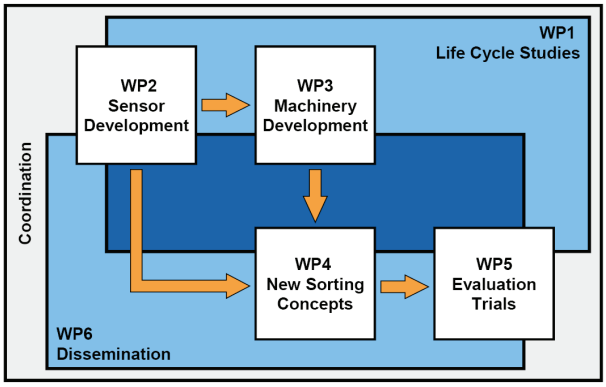
SORT IT:
Recovered Paper Sorting with Innovative Technologies

Project summary:
Number: 21188; *Call identifier*: FP7-ENV-2007-1
Activity code most relevant topic: ENV.2007.3.1.3.2 – New Technologies for Waste Sorting.
Starting date: 1st May 2008; *Duration*: 36 months

Project concept aims the development of new sensors and automatic identification units that will be integrated into the sorting processes in order to provide optimal separation of unwanted materials as well as characterization of the final output from recovered paper sorting.

Project main objectives:
● to enable sustainable and cost effective paper recovery at higher than 95% yield of all recyclable paper and board grades;
● to provide tailor made recovered paper for the best possible re-use in paper & board products.

Work packages:



SORT IT includes the research and development on improved separation of unwanted materials by providing a breakthrough in sensor sorting technology for recovered paper from various collection systems. Combined image analysis, colour measurement and near-infrared sensor units will enable secure identification of materials and paper converting. Chemometrics will allow detailed characterization of the sorted raw materials and provide the information on the optimal future utilization. State-of-the-art sorting equipment as well as new and improved solutions will be assessed for establishing the highest possible sorting efficiency. The impacts of sorting will be evaluated in a complete Life Cycle study, including assessment of the environmental, economic and social impacts. The dissemination and communication plan includes conventional dissemination activities, introducing of new findings on the market and production of foreground for the development of the European environmental policy.

Project main targets:
● *Improve the recovery of used paper and increasing the collection rate:*
- analyzing European collection systems in terms of quantitative, qualitative and cost potentials, considering typical social and geographic conditions of EU member states;
- identifying collection systems with great acceptance and high separation ration;
- providing optimized sorting technologies.

● *Develop technological processes for optimum use of recovered paper:*
- optimum sorting technologies for recovered paper to produce significant increase in yield and a further improved purity of recovered paper;
- dry separation of non-paper components from recovered paper to allow their optimum use as secondary raw material or fuel;

● *Lowering the environmental impacts in recovered paper processing and papermaking related processes:*
- evaluating the influence of recovered paper sorting systems on the specific energy demand of secondary fiber production in order to identify solutions for decreasing the specific energy demand;
- dry sorting and improved quantities and controlled quality of recovered paper in order to reduce resource use in transportation, stock preparation, papermaking and further processing.

Participating institutions:
- Papiertechnische Stiftung (DE*), Coordinator*
- Centre Technique de l'Industrie des Papiers, Cartons et Celluloses (FR)
- STFI-Packforsk AB (SE), *Leader WP1*
- Universitatea Tehnica "Gheorghe Asachi" Iasi (RO), *Leader WP6*
- Instituto Tecnológico del Embalaje Transporte y Logística (ES)
- Bumaga BV (NL), *Leader WP4*
- Bollegraaf Recycling Machinery (NL), *Leader WP3*
- EVK DI Kerschhaggl GmbH (AT), *Leader WP2*
- Rauch Recycling Dienstleistungs GmbH (AT)
- Vrancart S.A. Adjud (RO)
- GREGOIRE SA (FR)
- Norske Skog (NO), *Leader WP5*
- RTT Systemtechnik GmbH (DE)
- Papeles y Cartones de Europa S.A. (ES)

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More on: http://www.sortit.eu/

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