



PROLIPAPEL PROJECT

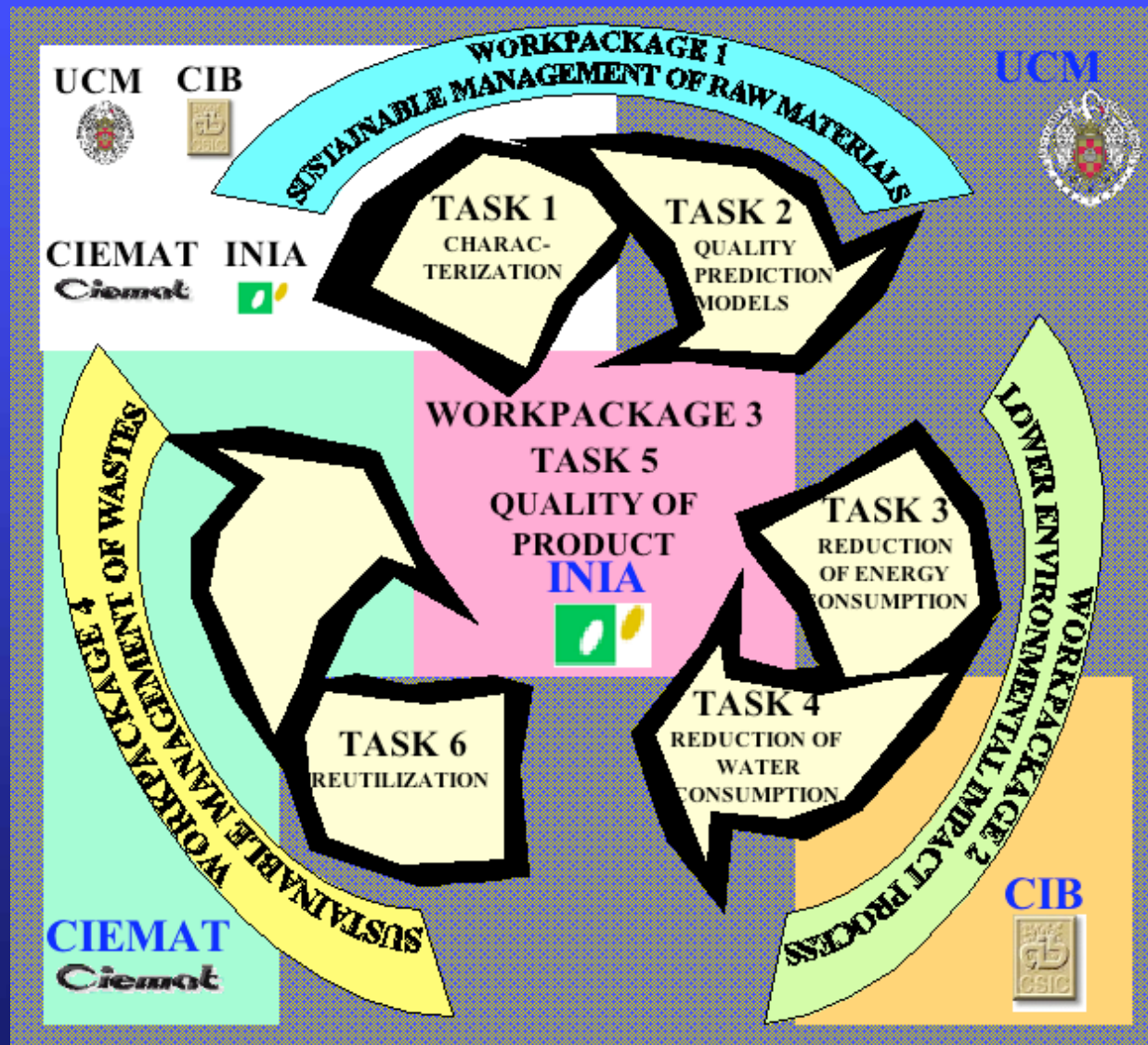
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Milan, 10-11 May 2006 1

PROJECT OBJECTIVES



- The aim is to develop an industrial process of lower environmental impact, “Sustainable Paper Recycling”, by the management of:
 - **Raw material (recovery);**
 - **Clean production (recycling) through the reduction of water and energy consumption;**
 - **Product quality (recyclability) and**
 - **Improving waste management (reutilization and valorisation).**

PLAN OF ACTIVITIES: SCIENTIFIC PROGRAMME



SUSTAINABLE MANAGEMENT OF RAW MATERIALS

- STO-1: Characterization of RP.
 - To quantify the recyclability of the RP it, it is necessary to develop methodologies of characterisation and analysis of the RP quality.
- STO-2: Development of prediction models for used paper quality in the future.
 - For the sustainable utilization of the raw materials it is necessary to predict the quality of the future used paper in order to specify the adaptation needs of the productive schemes. These predictions will be applied to improve paper recyclability.

CLEAN PRODUCTION

- STO-3: Reduction of the energy consumption.
 - The optimization of the design of papermaking operations, through the knowledge of the rheological behaviour of fibre suspensions, would allow decreasing energy consumption. The stirring, mixing and pumping processes will be optimized.
- STO-4: Reduction of water consumption.
 - The integration of wet-end chemistry and sheet formation with the closing-up of circuits will be studied, in order to decrease the water consumption and the environmental impact of the effluents. The colloidal material (stickies) will be treated using novel enzymatic treatments.



DETAILED SCIENTIFIC PROGRAMME



PRODUCT QUALITY

- STO-5: Development of prediction models of printing quality of recycled papers.
 - To reach the printing quality demanded by both consumers and new printing technologies it is required a better understanding of the paper-printing interface.

SUSTAINABLE MANAGEMENT OF WASTES

- STO-6: Reutilization of deinking sludges in the fibercement production.
 - **Fibercement companies had to modify the fibrocement process due to the prohibition of asbestos using cellulose fibres as reinforced. The innovative proposal is the incorporation of deinking sludge as raw material for fibrecement production.**
- STO-7: Obtaining by-products and energetic valorisation of paper wastes.
 - **Waste valorisation (production of bioethanol and energy) will be carried out in order to decrease the environmental impact of the industrial process and to fulfil the legislation (landfills, biomass and incineration).**

PROJECT DATA



Project Title:	CLEAN PRODUCTION OF RECYCLED PAPER: SUSTAINABLE PAPER PRODUCTION IN THE COMMUNITY OF MADRID
Project Acronym:	PROLIPAPEL-CM
Reference:	S-0505/AMB/0100
Source:	Comunidad de Madrid
Duration:	4 years
Starting Date:	1/1/2006
Initial Budget:	553,628 €
Partners:	R+D Groups Associate R+D Groups Associate Companies

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U C M

PARTNERS



R+D GROUPS



ASSOCIATE R+D GROUPS



ASSOCIATE COMPANIES



Papelera del Jarama, s.a.
fábrica de papel

PAPELERA DEL CENTRO, S.A.
FABRICA DE CARTONCILLO

Gil Vidal Papel, S.A.
FABRICA DE PAPEL