



“Executive summary”

In the sector of extraction of aggregates, (gravels and sands) the project has demonstrated important environmental benefits, which are of interest throughout Europe, through models based on clean technologies and the creation of final scenarios with positive environmental results:

1st.- “Minimization of negative environmental impact” with clean technologies.

a).- Introduction of a “hydro-cyclone battery” to recover 26% of the water from mud resulting from the washing of the mineral.

b).- Having tested various drying methods (spin-dryer, press filters and others), they were discarded due to the specific characterization of the mineral, an aspect which brought about the request for authorization to modify the original proposal to substitute the spin-dryer.

On June 9th, 2006 the E.C. approved “substantial modification” to experiment with a system for drying of mud, recovery of water and direct filling of exploitation holes, with natural deposits with a slanted clay base to force settling and pumping of water with renewable energy. This has made it possible to eliminate the settling basins, accelerate the drying of mud, reuse more than 80% of the water for mineral washing and reduce atmospheric emissions.

2nd.- Definition of a “model of sustainable extraction” which combines clean technologies with 15 Bat’s and GP’s applicable to the sector on a European scale.

Compiled by the transnational partner eco4ward 118 Bat’s and GP’s. On the European scale, more than 30 were selected for introduction. Having been followed up based on 15 environmental indicators, following Recommendation 2003/532/CE.; they have shown excellent environmental cost/benefit ratios (Reduction of emissions: >4.4 T CO₂/year through clean generation, utilization of rain water: >4,000 m³ in the experimental period, among others).

3rd.- Introduction of the concept “improving as opposed to restoring”, through improvement of the exploited lands, creating areas for biodiversity.

In collaboration with the University of Valladolid, after characterization and improvement of soils, various biotopes have been recreated which have reduced “ecological impact” and generated environmentally improved areas in the benefit of biodiversity and the environment, with great carbon-fixing capacity (>30 T/year).

4th.- Introduction of the concept “cooperation as opposed to litigation” in benefit of the environment and sustainable endogenous development:

On the “El Comodruelo” estate an uncontrolled dump was restored and a “proving ground for curbing of erosion, carbon fixing (>15 T/year), adaptability of plants and alternatives of sustainable endogenous development”. was created.

Through an “ideas competition”, in the “Prado de San Sebastián” a “proving ground for renewable energies (Reduction emissions: >4.9 T CO₂/year), the environment and intergenerational coexistence” has been created.

The project has created three jobs, as a formula demonstrating “endogenous development ” of the zone based on the environment.

5th Impact of diffusion and transnationality:

General public: more than 4,000,000 people (TV 1/2, local/regional; press and radio). Sectorial and companies: through the National (ANEFA) European (UEPG) Associations of aggregate producers, which bring together 15,000 companies and 27,000 exploitations; Spanish and Austrian Chambers of Commerce and specialized web sites. Authorities: more than 40 Institutions and Departments with authority in the areas of mining, environment and territorial planning through local, regional and national Authorities of Spain and Austria through the transnational partner eco4ward. Website: There have been more than 5,000 visits and 20,000 accesses to files.