



# Processes for the environment



**Environmental protection and sustainable development are among the greatest challenges facing planet Earth in the 21<sup>st</sup> century. Others include climate change, biodiversity, natural hazards, health, natural resources, energy and so on.**

For a decade now the European Union has been developing a long-term strategy for environmentally sustainable development, the aim of which is to respect the limits of the planet's natural resources, provide high-level protection and improve environmental quality, prevent and reduce environmental pollution and promote sustainable means of consumption and production in order to sever the connection between economic growth and environmental degradation. Another of the strategy's objectives is to limit major public health risks. Risks for health and the environment due to chemicals are to be eliminated by 2020, and research on the relationship between health and environmental pollutants is to be stepped up.

As part of this strategy, the research carried out in our laboratory, both fundamental and technological, aims to improve environmental quality and waste treatment, again with a view to energy efficiency, a key issue in today's world.

The three areas of application of this strategy are:

- The treatment of air and gaseous effluents and particle transport
- Waste recovery
- Transport modeling and simulation in porous media