



Petroleum and natural gas are critical to the world economy, providing transportation and heating fuels and raw materials for the chemical industry. However, major concern for the environment, governmental regulations and higher consumer expectations for clean fuels make research and development necessary to meet the above challenges.

Refineries for the future will integrate state of the art technology (separations, catalysts, sensors and control, biotechnology) to provide a wider range of products from cruder of variable quality as well as non-conventional feed stocks. In addition, new sources of energy for transportation (fuel cell for cars) will demand high purity hydrogen.

The [laboratory of Environmental Fuels and Hydrocarbons](#) (LEFH), is one of the key labs of Chemical Process Engineering Research Institute (CPERI) and it carries out applied research in the area of hydrocarbons and provides technical services to petroleum industry. Since its establishment (1985) the laboratory has participated in numerous competitive national and European and structural research projects and has developed technology for catalyst evaluation for two very important refinery processes: Fluid Catalytic Cracking (FCC) and Hydrodesulfurization (HDS). The state-of-the-art equipment of the laboratory has been acquired mainly with the support of the European Union and the General Secretariat for Research and Technology (GSRT).