

Enabling environmental decision making on energy sources

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The EU is getting serious about tackling transport emissions, which are responsible for some 25 % of all greenhouse gases. For example, mandatory EU emission reduction targets for new cars have been put in place, with specific targets set for 2015 and 2021. New innovative ways of achieving fuel efficiencies are also being explored.

One such initiative, which has been carried out by the BIOLCA project with funding from the EU's LIFE+ Programme, has developed software capable of assessing the environmental, social and economic impacts associated with different sources of [energy](#).

Sources of energy covered include petrol, diesel, bioethanol, biodiesel,

electricity, natural gas, LPG and kerosene. Most significantly, the environmental impact of each of these energy sources is calculated with the whole lifecycle in mind - from extraction, generation or cultivation right up to use. This is important, as emission levels can depend on the type and origin of raw materials used and the method of production employed.

This new tool, which could help both manufacturers and businesses make important fuel efficiency savings, is currently in the testing phase. The tool is being validated and demonstrated with two actual end users that have important road transport fleets: waste management firm CESPAs, with a fleet of 18 waste collection trucks, and Bilbao City Council, with a fleet of 152 urban buses.

The idea is that this software will help organisations involved in transport to make informed decisions over which source of energy to use. It will also help policy makers to prioritise or promote specific sources of energy. In this way, BIOLCA is tapping into a key EU priority: promoting [energy efficiency](#) and alternative fuels for road transport.

Indeed, cutting transport emissions will go a long way to helping Europe meet its 2020 targets: a 20 % reduction in EU [greenhouse gas emissions](#) from 1990 levels; raising the share of renewable energy to 20 %; and achieving a 20 % improvement in energy efficiency.

The BIOLCA project promises to make an important contribution to evaluating the sustainability of fuels throughout their life cycle, in order to establish which ones are the most sustainable. Finding feasible alternatives to petrol for [road transport](#) will also help Europe to reduce security and cost concerns from the current over-reliance on imported oil.

The BIOLCA tool was previously developed within the remit of a

project financed by the GAITEK Programme of the Basque Government's Department of Industry. The objective of the current project, which is due for completion on 31 December 2014, is to enhance and extend the tool's capabilities in order to enable an analysis of a greater number of biofuels.

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