# BIOLCA - DEMONSTRATION OF A TOOL FOR THE EVALUATION AND IMPROVEMENT OF THE SUSTAINABILITY IN THE TRANSPORT SECTOR

LIFE11 ENV/ES/000585


Project description Environmental issues Beneficiaries Administrative data
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Project description:

Background

Transport was responsible for approximately one-quarter of the EU´s greenhouse gas (GHG) emissions in 2008 - 12.8% of overall emissions are generated by aviation, 13.5% by maritime transport, 0.7% by rail, 1.8% by inland navigation and 71.3% by road transport. Furthermore, whilst many sectors have been reducing CO2 emissions, transport's share has been steadily increasing. Road transport is the sector that has shown the most significant increase. To achieve an efficient reduction in GHG emissions, the sector needs substantial change to reduce its consumption of fossil fuels. The promotion of energy efficiency and alternative fuels for road transport in particular is vital. According to an evaluation of the Science and Technology Options Committee of the European Parliament, biofuels could be one of the best replacement options in the short and medium terms. Finding feasible alternatives to petrol for road transport would also reduce the security and cost concerns that emerge from the current reliance on imported oil.

Objectives

The main objective of the 'BIOLCA' project is the demonstration of an innovative web-based tool that can identify the best options for the development of biofuel use in the transport sector. The tool will use the lifecycle assessment (LCA)

methodology to analyse, from the sustainability point of view, different scenarios of development, production and use of biofuels in transport. It will enable comparison in order to identify those options that offer a better performance in terms of environmental, social and economic impacts. It will also identify key points in the lifecycle of biofuels requiring targeted action to improve sustainability. To make the tool work, the project will:

- Model the biofuel lifecycle, quantifying the inputs and outputs of each process, and establishing the relationship among the different parameters and processes;
- Develop specific indicators to assess environmental, social and economic impacts of biofuels at each stage of the lifecycle;
- Develop systematic calculation methods for measuring these indicators; and
- Create and feed a database with enough data to carry out the demonstration of the tool in all scenarios proposed by the real users participating in the project.

  The project will demonstrate the usefulness of the tool as a means for identifying the most sustainable option of design, production or use of a biofuel in two real-scale examples. It will implement the tool for the public bus fleet of Bilbao´s City Council and for the refuse truck fleet of a private company.

Expected results

- Delivery and demonstration of the first tool capable of including social and economic parameters in the assessment of the sustainability of biofuel development in the transport sector;
- Promotion of improved sustainability in the transport sector, by reducing emissions, pollution, costs and dependency on oil imports in the long term;
- Increased development of the biofuels sector as an important alternative energy source for transport with improved sustainability over its lifecycle; and
- Increased potential for the definition of future regulation on the use of biofuels in transport.

Results

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Environmental issues addressed:

Themes

Services & Commerce - Transportation - Storage
Climate change Mitigation - Renewable energies
Climate change Mitigation - GHG reduction in non EU ETS sectors

Keywords

decision making support, emission reduction, greenhouse gas, public transport, information service, on-line service

Natura 2000 sites

Not applicable

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Beneficiaries:

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| Coordinator | EKOTEK, INGENIERÍA Y CONSULTORÍA MEDIOAMBIENTAL, S.L. |
| Type of organisation | SME Small and medium sized enterprise |
| Description | EKOTEK is an Engineering and Consultancy Company (SME) specialised in the development and delivery of innovative engineering solutions to the environmental sector, from R&D to execution. |
| Partners | Factor CO2 Integral Services, S.L. Fundación Tecnalia Research & Innovation Fundación Gaiker Cespa Compañía Española de Servicios Públicos Auxiliares, S.A. Ayuntamiento de Bilbao |

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Administrative data:

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|---|---|
| Project reference | LIFE11 ENV/ES/000585 |
| Duration | 01-JUL-2012 to 31-DEC -2014 |
| Total budget | 1,222,915.00 € |
| EU contribution | 611,457.00 € |
| Project location | País Vasco(España) |

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