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INTEGRATION OF A GEOGRAPHIC INFORMATION SYSTEM IN A TRANSPORT EXTERNALITIES ASSESSMENT TOOL

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ABSTRACT

The environmental and health damages caused by air pollution are some of the most important transport externalities. The impacts induced by transport activities depend on the vehicle type and technology, as well as on location-specific parameters such as traffic conditions, meteorology and receptors distribution. In the present work, "Ecosense", a computer tool for the assessment of air pollution externalities, was modified in order to calculate the environmental cost of road transport. The new modules operate within a Geographic Information System (G. I. S.) exploiting its capability in handling complex road geometry and location-specific parameters, and revealing the spatial relation between the location of transport activities and the resulting externalities.