

Summary

The OPTRA Eco-comparator was developed by Egis as a simulation tool for planning road works so as to maximise efficiency and minimise impact of roadworks on society and the environment.

Developers: Egis

Applicable sectors							Themes		
All Infrastructure	Buildings	Roads	Water	Energy	Transport	Construction	Materials	Ecology	Wastewater
							Potable Water	Carbon/GHG	Other

Countries	France	Access	Commercially available from Egis
Compatibility with other tools	The tool is compatible with other Egis tools such as Tandem Empreinte.	Guidance for users	OPTRA support comes in the form of Egis consulting services.
Inputs & outputs	<p>The user is prompted to insert road works characteristics. Tool outputs consist of traffic modelling including:</p> <ul style="list-style-type: none"> - Simplified demand forecast; - Simulation of existing capacity constraints; - Simulation of queues backing up across junctions and of queues of access slips. <p>Also, the tool outputs impact data including:</p> <ul style="list-style-type: none"> - Queue lengths and transit times for passing the affected section of road; - Total waiting time; - Congestion extent; - Total length driven across congestion; - Consumption and pollutant emission models; 	Methodology	<p>OPTRA is a calculator and simulator which determines roadwork impact on traffic, carbon emissions, noise and mobility around the works. This is achieved by calculating the extent of congestion, time wasted, increased fuel consumption and increased emissions.</p> <p>The tool advises design of diversion measures so as to minimise impact and offers the optimum time window for road works so as to minimise disruption.</p> <p>Real-time use of the calculator offers transit time information to users and optimal traffic management plan for operation. It also offers post-roadworks impact evaluation through simulation of traffic counts observed.</p> <p>The user can ask the tool to simulate the impact of the road works with a predefined time period. Alternatively, the user can define the duration of the works and a larger time period during which he/she wants the works to be done and ask the tool to automatically find the time window within this period which produces the minimum</p>
Database library	The tool is accompanied by inbuilt and external databases with data for traffic and emissions modelling.	Data intensity & flexibility	Data intensity is reduced by the tool's accompanying database and consultancy services.