

Decision-Support Tool: Tendem Empreinte[®] - An Egis Solution

vimeo.com/69226059 & vimeo.com/69226057

Summary

Tendem Empreinte was developed by Egis as a sustainability monitoring and decision-making tool. It is intended for use by project teams throughout a project's life cycle in order to track the sustainability footprint of operations, ensure that planned considerations are realised during design and construction, and provide accurate results during operations. The tool itself relates to project management. The method provides the most "sustainable input" in the project's tasks.

Developer: Egis

Applicable sectors				Function			
All Infrastructure	Water	Energy	Organisations	Design Guide	Option Appraisal	Construction Guide	Op&M Guide
Countries	France			Process summary	<p>The first step is to define the framework's themes, targets, key performance indicators. The next step is to tailor this according to the stakeholder's needs derived from focus groups.</p> <p>At each major stage of the project performance is assessed. The assessment system is custom made so that it takes into account national and local regulations and guidelines, and decision makers' policies.</p> <p>The tool aggregates the scoring on key performance indicators for each theme. A graph (imprint) illustrates the benefits and multidisciplinary impacts of planning, design, implementation and operational choices. It makes sharing and discussing the priorities much easier.</p> <p>The point is not to comply to a checklist, but to monitor the key factors that influence the sustainability of the project.</p> <p>Videos are available on Egis' website.</p>		
Deployment & developments	The first version of Tendem Empreinte [®] was released in 2008 as an Excel spreadsheet. Bespoke software was released in 2011. The version available in august 2013 is Tendem Empreinte 3.5.5. The software remains property of Egis and is not intended for client use.						
Use with other tools	<p>The tool is customizable. It helps define and keep track of sustainability targets and performance.</p> <p>It is also supported by a database of materials and sustainability techniques, by research and development projects, development innovations of Egis, and it can utilise results of other calculation tools (for ex. Variways, Egis OPTRA eco-comparison tool for GHG impact of road construction).</p> <p>Results are displayed graphically. The tool itself does not provide guidelines. Result interpretation and guidance is offered by Egis</p>						
Level of support services	Tendem Empreinte is currently used internally within Egis to enhance the sustainability aspects of services offered to clients and their projects. The tool is not currently commercially available.						
Sustainability criteria	<p>The assessment is based on achieving sustainability in the four overarching themes of:</p> <ul style="list-style-type: none"> - Social cohesion/solidarity; - Climate change; - Biodiversity & resources; - Human Development; - Production & consumption. <p>Each theme contains a series of sub-themes and performance indicators. It has been developed based on the principles of the Project Sustainability Logbook (CBDD[®] - "Carnet de Bord Développement Durable) [See Standards & Guidelines section].</p>						
				Design option appraisal functions	<p>The flower-like imprint can display up to 3 different states of the project : for example preliminary design, design, works supervision, ... scenario 1, 2 etc.</p> <p>So it shows the impact of past or future decisions on the SD imprint, assuming that performing well on a target can play against another. A detailed dashboard (list of actions, targets, ...) helps analysis and finding solutions.</p> <p>Two types of decisions can be expected: enforcement of actions to achieve displayed imprint, or target adaptation.</p>		

Fee	15 to 150 k€	Level of materiality (tailoring)	<p>The tool accommodates for assigning of weightings on sub-themes according to sustainability priorities. The assigned performance scores and weightings are then aggregated to produce the overall project performance against the overarching themes.</p> <p>The tool is flexible and items can be modified, added, suppressed (themes, sub-themes, indicators, assessments rules).</p>
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Case Study

Project: Urban Boulevard east of Vichy, France

Brief Information:

For the specific project 33 themes and 66 indicators were selected.

The tool enabled identification of new opportunities for example a greener structure for the road (-40% GHG emissions) and better collaboration with side-projects.

Some extra features that were made possible through building awareness and proper design include: better use of recycled material, improvement of walkability and cyclability, increase of green areas, less trucks for the works, small units of urban farming, novel considerations for urban biodiversity.

