

## The Light-weight Composite Environmental Performance Indicators (LWC-EPI) Framework

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Rapid environmental changes have necessitated a widely changing attitude regarding environmental sustainability, starting from individuals all the way to corporations and governments. In order to fulfil the growing customers demand for greener products companies have to act and adopt new technology to fill this information gap. Information Technologies (IT) plays a major role in speeding up the change in organizations' attitude by providing information that enables users to assess the current environmental impact of their processes and operations. In this regards, IT researchers introduced the concept of Environmental Management Information Systems (EMISs) as a type of Management Information System (MIS). Discussion about the architecture of these systems started in the 80s, and the topic has been continually attracting more attention over the past few decades (DEFRA, 2006).

To allow organizations to compare their environmental impacts of alternatives in a meaningful way, they should be presented with quantitative Environmental Performance Indicators (EPIs), which describe environmental impacts at an organizational, product, and process level in a comprehensive and concise manner (Jasch, 2000 p. 82).

The IT adoption rate has been visibly increasing during the last decade. The product and service lifecycle however is still narrowly focused on classical product or service attributes such as price, quality and availability. Hardly any of the current MIS for the midsize segment integrates environmental data. Considering the growing needs of on Small and Medium Enterprises (SMEs) for EMISs taking into consideration the relatively expensive available software solutions, the Light Weight Composite-Environmental Performance Indicators solution (LWC-EPI) research proposed a new framework for an EMIS targeting the SMEs. Within the frame of this paper, this framework will be demonstrated and discussed.

The (LWC-EPI) objective is to provide a base to enable the development of an efficient EMIS that can help any SME in selecting, creating, calculating, comparing, and reporting selected EPIs on the enterprise level. In short, the LWC-EPI vision is:

"Supporting SMEs to comply with environmental responsibility"

**Keywords**: Environmental Management Information System (EMIS), Management Information System (MIS), Environmental Performance Indicators (EPIs), Small and Medium Enterprises (SMEs).