

Specialty Chemicals Manufacturing SMEs Toolbox to Support Environmental and Sustainable Systems (TESS)

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The TESS project is an EU funded project designed to assist Speciality and Fine Chemicals Sector SMEs in moving to more sustainable supply chains in the framework of the novel REACH legislation (Registration, Evaluation, Authorisation and Restriction of Chemicals). It relies on a collaboration of 18 partners. The project is essentially aiming at developing an on-line toolbox containing important information and guidelines related to the REACH regulation and the use of renewable resources in the industry for the SMEs. The chart below presents the segments of the work and the structure of the TESS project and the interactions between them.

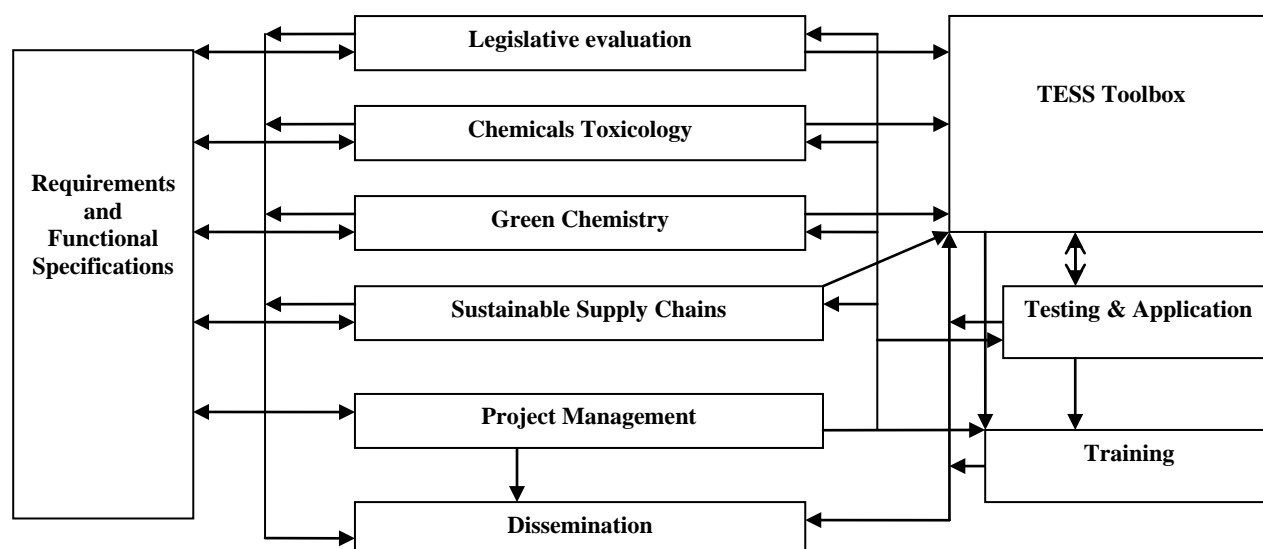


Figure 1: TESS PERT chart

Part of the research directed on promotion of sustainable chemistry is conducted by Ghent University (BE) and the University of York (UK). The main goal of the work is the development of renewable substitutes for petrochemical products under legislative pressure by the new REACH regulation, as well as the development of flow charts for incorporation into the toolbox.

A database of the renewable building blocks has been designed and is soon to be published on-line; the content of the database relies on a great number of published data containing information on the renewables and is supported by the corresponding references.

The experimental research has been focused on three targets: flame retardants, sulfur containing compounds and Lewis acid metal complexes. Renewable resources have been employed as starting materials for the desired products, instead of the currently employed petrochemical sources. The ongoing work is showing promising results which are evaluated to be implemented into the current manufacturing routes of the SME partners.