

Environmental and Health-Safety Impacts Assessment and Management

The efforts of international community and scientific discussion about sustainable development involve organizations and people in order to adopt innovative methodologies for reduction of environmental impacts. Since '90 years, CESQA research group is involved in several research projects to support organizations in assess and improve of environmental performances. Coherently with the research topics of CESQA group, my research activities focus on the integrated assessment and management of environmental and health-safety impacts of industrial processes, plants and products. Sustainability measurement is the topic of several research financed projects, in which I collaborated at companies' and public authorities' level. My institutional teaching activity concerns policies, methods and tools to support private and public organizations in assessment and management of environmental and health-safety impacts of products and processes.

The main references that guide my research concern the life cycle approach, as environmental footprint tools of products and plants, and risk management approach, as management tools of processes, plants and projects.

I am continuously interested, through environmental and health-safety performance assessment, to support companies in product innovation projects, marketing strategies, supply chain cooperation. Moreover, I can support public authorities to implement local sustainable strategies and actions.

Main research topics of my interest concern:

- sustainable assessment and management at local and regional level,
- environmental assessment and management in industrial processes,
- life cycle assessment projects of industrial and agrifood products,
- sustainable evaluation in waste management and recycling to support circular economy,
- quality assurance in testing and calibration laboratories and in higher education programs.

The results of my research activities are systematically discussed through publication in scientific journals and communication in national and international congresses.

For example, figure 1 represents an innovative integration model of environmental management system and life cycle assessment methodology that recently I have developed with other colleagues of CESQA group: from an applied research within an Italian Municipality, we propose the Life Cycle Impact Assessment method as framework to guide a public administration in the Environmental Impact Assessment phase at the territorial level (Mazzi et al, Environmental Impact Assessment Review 63 (2017) 59–71, <http://dx.doi.org/10.1016/j.eiar.2016.11.004>).

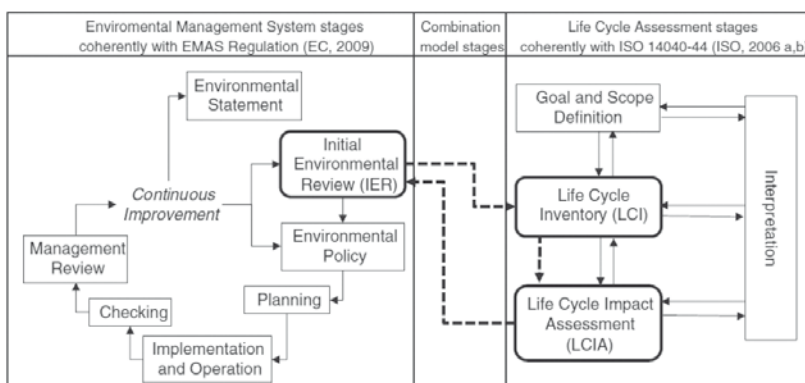


Figure 1: Combination model of EMS and LCA adopted in an Italian Municipality

Processi, prodotti e servizi
Processes, products and services

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The research in the field has been started with the cooperation of by Prof. Antonio Scipioni: it was my deepest privilege to have worked with him.

The research is ongoing and carried out in collaboration with the CESQA research group (Department of Industrial Engineering).

Main research topics:

- European project LIFE14 ENV/IT/000082
(Title of project: «LIFE M&M Man and Metal - New business model to increase efficiency of resources aimed at products great durability with use of recycled materials», Coordinator: Metallurgica Abruzzese S.p.A.)
- Partnership with Consorzio Cerea S.p.A. (Title of project: «Support in R&D projects related environmental performance evaluation, training on environmental legislation, sustainability studies [...]»)
- Partnership with Comune di Malcesine
(Title of project: «Implementation of an Environmental Management System and support to environmental legislation compliance [...]»)
- University of Padova - TESAF Department (Title of project «Design of quality management system of testing laboratory [...]»)
- University of Padova - PhD and Post Lauream service
(Title of project «Desing and implementation of quality management system in Medical Specialization Schools [...]»)