
A framework to characterize eco-innovative concepts

Flore Vallet^{1,2} and Benjamin Tyl^{*4,3}

¹Laboratoire Génie Industriel - EA 2606 (LGI) – CentraleSupélec – CentraleSupélec - 9 rue Joliot-Curie
91190 Gif sur Yvette, France

²IRT SystemX (IRT SystemX) – xx – Institut de recherche technologique SystemX - 8 Avenue de la
Vauve, 91120 Palaiseau, France

⁴Institut de Mécanique et d'Ingénierie de Bordeaux – Institut National de la Recherche Agronomique :
USC1368, Université de Bordeaux, École Nationale Supérieure d'Arts et Métiers, Institut polytechnique
de Bordeaux, Centre National de la Recherche Scientifique : UMR5295, École Nationale Supérieure
d'Arts et Métiers, École Nationale Supérieure d'Arts et Métiers, École Nationale Supérieure d'Arts et
Métiers, École Nationale Supérieure d'Arts et Métiers, École Nationale Supérieure d'Arts et Métiers –
France

³APESA (APESA) – APESA – Technopole Izarbel Hotel d'entreprises n45, allée Théodore Monod
64210 BIDART, France

Résumé

Eco-innovation is the development of products, services or processes which bring value to the customers and the company while significantly reducing the environmental impacts. Within the eco-innovation process, the evaluation is crucial. It is defined as the stage where a proportion of concepts are selected for further development. Nevertheless systematic methods for the early evaluation of ideas are scarce, above when it requires to assess the concepts with environmental or social criteria. This paper is focused in the evaluation stage and proposes a framework to qualify and evaluate eco-innovation concepts generated during the eco-ideation stage. This framework is based on a systemic thinking, so the design team must qualify the concept at different levels (users, value chain and society) in order to limit the potential rebound effects. It is linked with the eco-ideation method previously developed in order to allow the maturation of the concepts and the iterative process between the generation and evaluation stage. As this paper is a first step of the research process, the framework is tested on a real case study coming from a French start-up company.

*Intervenant