A BOTTOM UP AND HYBRID EDUCATIONAL DYNAMICS:
TOWARD SOCIO-TECHNICAL ECO-DESIGNED INNOVATIONS

Pascal Jollivet † and Olivier Schoefs *

† Humanities and Technology Department, Université de Technologie de Compiègne,
BP 20 529, 60205 Compiègne Cedex, France, pascal.jollivet@utc.fr

* Industrial Process Engineering Department, Université de Technologie de Compiègne,
BP 20 529, 60205 Compiègne Cedex, France, olivier.schoefs@utc.fr

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Abstract

This poster aims at accounting for an ongoing - and we believe original - experience of setting up an educational project and dynamics on sustainable development & technology in a university of engineering in France. The originality of this project dynamics – at the humble stage of a Minor diploma, for time being– is double: first, it was “demand pulled” or, more precisely, mostly carried out by user-innovators (Von Hippel, 2005). In a context where the university was quite “passive” concerning sustainable development (SD) educational issues, with dispersed initiatives in partitioned departments, some students, involved in associative and political organizations, decided in 2003 to form a group in order to “mobilize” some professors and researchers of the university on the project of building up a diploma on SD. The second originality of the project rests on its hybrid composition (Callon & al., 2001). Were part of the conception group “Profanes” – i.e. students - and also representatives of heterogeneous but complementary fields of knowledge and level of expertise : professors and researchers from both engineering and humanities departments were mixed; last but not least, no member could pretend to the status of real expert in SD. But each could contribute to give a different light from its discipline.

We like to believe that this original “unforeseen” organization of an educational project on sustainable development – user-pulled and hybrid-managed – will impulse an original innovation dynamics at the university. We aim at going beyond the traditional approach of “social acceptability” of new technology under environmental constraints towards a socio-technical eco-designed innovation approach. This would be based on global performance & wealth indicators (UNEP HDI, A. Sen 1999) and life cycle thinking (Jolliet, 2005), both integrating environmental, social and economic aspects. Emerging projects seem to confirm this expectation.