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Management Systems' Influence on Sustainable Innovation: A Comparative Analysis of Two Large MNCs

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The aim of this paper is to contribute to the understanding of how sustainability is integrated into product development in large firms and how this integration is influenced by management systems. This research is based on the authors' experiences as insider and outsider researchers at two large international firms. A conceptual framework by Marmgren et al. (2012) is used to analyse, interpret and visualise the experiences.

Firm A integrated a 'sustainability way of thinking' into its culture in the beginning of the 1990s, both through its strategy process and compulsory training for all employees. In addition, 'Sustainability thinking' is continually communicated as good stories across all the firm's activities. Culture is probably the most important component of the management system and therefore, this has been a successful approach, resulting in employees at all levels naturally feel responsible to act 'sustainably', since not doing so would not be in accordance with the culture.

Firm B started with Life Cycle Assessment (LCA) already in the end of the 1980s. The LCA approach was developed by a specialist in the environmental department supported by the responsible manager, which is in line with the firm's management system, reliance on specialists and specific areas of responsibility. The firm gained great status outside (and inside) the firm for having this expert knowledge and control. LCA was formally made as tollgate in the firm's stage-gate product development model in early 1990s and documented in the 'project handbook'. Since then, at least two LCAs have been performed in each product development project, one screening LCA in an early stage and a 'full' LCA at a later decision point.

Firm A made an attempt to utilise the tool LCA in product development. This, however, proved difficult as the management system was not rigged to incorporate specialist tools. Furthermore, its processes are not controlled by making specific requirements supported with documentation, but rather evolve dynamically in interaction between powerful informal networks. In contrast, Firm B's way of working with LCA means that the environmental department gains a deep knowledge of the firm's environmental performance and that reference material for decisions is being produced in the projects. The workers in the product development team, however, do typically not see any link between the life-cycle-thinking ambitions of the firm and their daily work. Consequently, although both firms have substantial experiences working with sustainability, their approaches are very different and can be viewed as reflections of their cultures and management systems. The paper concludes with a discussion about how these different management systems influences product innovation practices and collaboration at the two firms.