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Paper

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## **Accreditation and Quality Assessment in a Changing Profession**

"What's engineering, after all?". This is a question often voiced in the debates on engineering accreditation and quality assessment. The profession is changing at a fast pace and this is putting unexpected pressures on the education of engineers, their further development, the management of their carrier and their ethical profile. This paper starts by tracing a brief sketch of the evolution of the profession from its early days to the present. It then discusses the changes the profession is suffering in a world of increasing complexity, globalisation, and technology dependence and of growing concern with social and environmental issues. It then moves on to characterize the portfolio of competencies that should be typically held in our times by engineers, as skilled thinkers, integrators, doers and communicators. It follows by highlighting the major differentiating attributes of an engineer when compared with a scientist, namely in what regards the epistemological specificities of engineering design and practice. Against the background of such concerns, the paper then addresses the issues of engineering accreditation and quality assessment, departing from the reflections of the author as the past chairman of a national engineering accreditation committee and as a member of various national higher education quality assessment committees. In this context, it dwells on the concept of quality "in its multiple facets, including that of quality as transformation", on the complementary role of self-assessment and external quality assessment in engineering, and on the questions of process and product, closing with a number of proposals for broad international collaboration and reflection on the subject.