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From Fragmentation to Foresight: The Role and Labour Market Value of New STEM Programmes in Higher Education

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Abstract

STEM education has diversified rapidly, with new programs emerging alongside long established engineering and applied science degrees. While these programs are often promoted as future-oriented responses to technological and societal change, empirical evidence on their labour market value remains limited. This study develops a curriculum-based typology of all STEM programs in Dutch universities of applied sciences using systematic text analysis of official program descriptions. Programs are clustered into five substantive domains and linked to their year of introduction, enabling comparison between new and established provisions. Graduate employment outcomes are examined using HBO-Monitor survey data one year after graduation. Results show substantial variation across curriculum clusters and indicate that program orientation, rather than novelty alone, shapes early labour market outcome.

Keywords: *STEM education; curriculum analysis; labour market outcomes; program, diversification; higher education policy*

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