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ENVIRONMENTAL SUSTAINABILITY OF PASTA PRODUCTION: AN EVALUATION THROUGH LIFE CYCLE ASSESSMENT

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Abstract – The recent policy of Green Deal aims to a transition towards ‘healthy, equitable and sustainable communities’. One of the key sectors analysed within the Green Deal is the agri-food chain, with the strategy ‘From Farm to Fork’, aiming to design a sustainable food system from production to consumption, passing through industry processing, distribution and all related activities. At the agricultural level, the objectives are in line with those presented in the United Nations 2030 Agenda, from technologies and digitalization, to organic farming. As for the transformation and distribution phases, the Commission is promoting technological and technical innovation, the restructuring of companies and the improvement of the quality of work. The aim of this study is to perform a Life Cycle Assessment related to one of the main products of a company of the agri-food sector in central Italy. The product analysed is durum wheat pasta. A cradle to gate analysis is performed, starting from the cultivation of the wheat, arriving to the final pasta product. The different transformation steps are evaluated (e.g. cleaning, grinding, compression, extrusion), including the packaging process. The analysis is aimed at identifying the most critical phases along the chain, to plan improvements in terms of efficiency of the production process, with consequent enhancement of the environmental performance.

Keywords – *Agri-food chain; environmental impact; Life Cycle Assessment; sustainable production*