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ESR 14: TECHNO-ECONOMIC ASSESSMENT OF THE COMMERCIAL VIABILITY OF THE REFLOW FERTILIZER PROCESSES AND PRODUCTS, REGULATORY COSTS AND FINANCIAL INCENTIVES & DETERRENTS

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Research goals and focus:

- Develop a techno-economic model of the REFLOW processes and fertilizer products for public agencies and investors incorporating process material flows, investment costs, processing capability, risks involved, and EC market activation instruments
- Model the economics of REFLOW processes for capital and operational expenses of the different fertilizer outputs and market value using key results and methodologies from WP1, WP2, and WP3
- Identify and test the sensitivity of the model to (i) regulatory requirement arising from the revised Fertilizers Directives and (ii) incentives arising from potential EC imposed market activation instruments
- Enhance the model functionality by embedding uncertainty to reflect the large variability of input flows and fertilizer prices using Monte Carlo simulation, risk modeling and, considering links to relevant value chains in Europe
- Develop business specific models for potential investors and industrial enterprises interested in deploying the REFLOW processes

Expected results: A model to identify cost effective REFLOW fertilizer products as well as detailed reports on the economic feasibility and economic risks of REFLOW products, while following regulatory compliance, as well as on relevant market activation instruments for policy-makers

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