



Research School for Operations
Management and Logistics

Optimization models for faster and affordable access of orphan drugs

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There are 30 million patients who suffer from rare diseases in Europe. Medical drugs used in the treatment of these rare diseases are called orphan drugs. There are more than 7000 known rare diseases but treatments are available only for 300 of them. Improving accessibility and affordability of these treatments is an important societal concern. To address this societal concern, the proposed research will develop optimization models to provide insights for pharmaceutical manufacturers and policy makers. A research foundation will be developed combining stochastic optimization, manufacturing systems engineering and game theory. The research outcomes will stimulate innovation, reduce costs and lower lead times for orphan drugs.