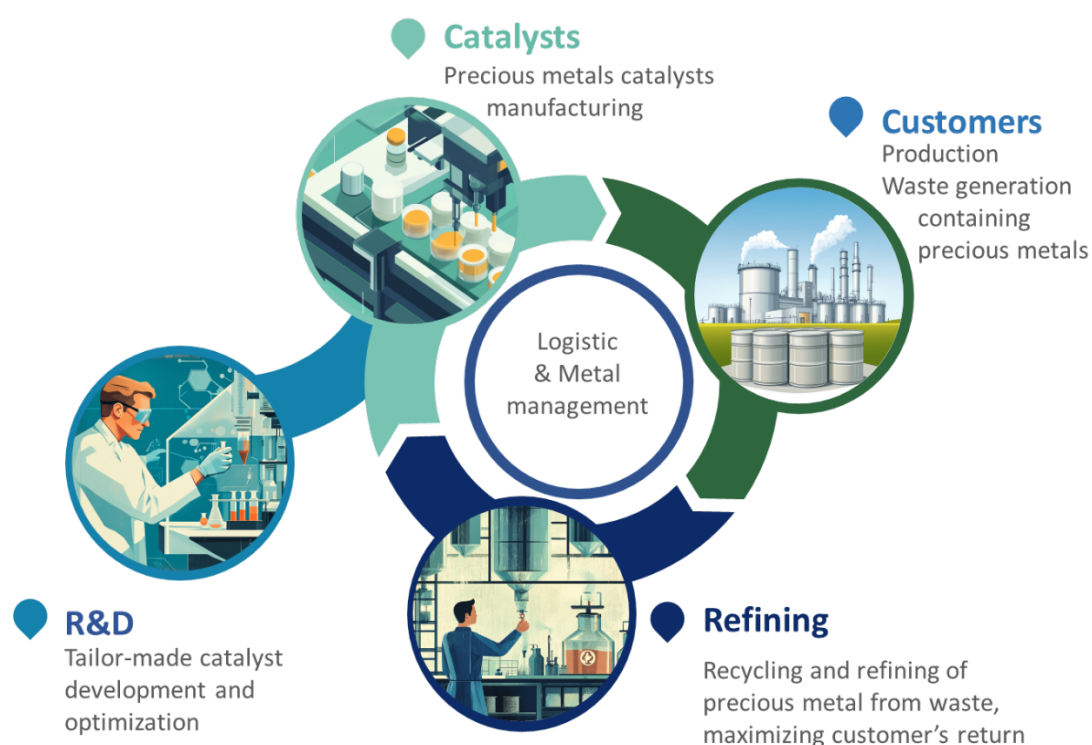


Circular Economy for precious metals catalyst

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Scheme 1: Metalor full loop (1)

To meet the growing needs of the fine chemical, pharmaceutical, and agrochemical industries in precious metals catalysts and recycling, Metalor technologies has placed its precious metals' expertise at the service of its customers. A dedicated department develops, manufactures precious metal catalysts and elaborate tailor-made recycling methodologies leading to the offering of a full loop service in Switzerland for a more sustainable future (Scheme1). An example of the impact of this offering will be presented.

To reduce operational costs and minimize dependence on precious metal prices, a novel concept for enhancing palladium recycling was developed and implemented as an intermediate step in fungicide production. This initiative built upon an existing setup that achieved approximately 25% palladium recycling, with the goal of closing the recycling loop and significantly increasing the recycling rate.

Throughout the design phase, various challenges were identified and addressed, particularly concerning the entire process and subsequent treatment at Metalor. The results indicate that calculated recycling rates of up to 96% are achievable, highlighting the potential for improved sustainability and cost-effectiveness in production.