



Mistra REES in brief

The Mistra REES research program is a collaboration between leading academic environments, industrial companies and societal actors with the aim of creating knowledge about more resource-efficient and effective solutions (REES) based on a circular economy. The research has been ongoing since 2015, and behind the initiative is a consortium of three universities – Linköping University, Lund University and Chalmers – as well as a number of small and large companies. Since December 2019, the research program’s focus has been expanded to also include financial analysis and business economics aspects of the circular shift.

Through close cooperation and mutual learning between leading industrial companies and academia, Mistra REES focuses on supporting the Swedish manufacturing industry’s ability to develop world-leading and resource-efficient solutions - all to promote a transition to a more circular and sustainable economy. This includes, among other things, creating knowledge about the design of products / services and business models, what policy measures are needed for sustainable solutions and their economic and financial effects.

Mistra REES is part of the work to meet the growing global concern about overexploitation and depleted natural resources. Reports from the UN as well as the ambitious EU initiative “A resource-efficient Europe” clearly show the need for innovative solutions and strategies to solve challenges related to environmental and resource issues. Mistra REES is an important contribution to the European and global work of developing and refining resource-efficient working methods and methods.

Mistra REES Phase 2 consists of three research projects, Project 1 (PR1) on REES design support at the company level, Project 2 (PR2) on policies and laws that affect REES in companies and Project 3 (PR3) on the environmental and economic assessment of REES. The research within PR1 creates conditions for increasing knowledge about REES design support at the company level. During Phase 1 of Mistra REES, researchers in this field focused on developing and applying design methods and support (e.g., models, frames, procedures and tools) to companies in the manufacturing sector. During Phase 2, the researchers build on results from their previous research by evaluating the design support that was developed during the first phase. In addition, users’ learning outcomes and the technical, organizational potential at Swedish manufacturing companies are evaluated.

The policy research within PR2 in Mistra REES Phase 2 is further based on knowledge from previous results but applies new approaches that enable the examination of new policies and policy areas. The purpose of the research within this subproject is to identify which policies, policy packages and laws affect different types of REES. It will also provide a deeper understanding of the connection between different policies and collaboration between business models, business methods, product and service design and decision makers.

In PR3, the goal is to achieve new knowledge about resource use, financial and environmental consequences of design, policy and business management for REES. The research within this sub-project will support companies and decision-makers in the shift towards a more resource-efficient and circular society. Mistra REES researchers will primarily support companies in their initial attempts to change the design, management and policy adapted to the shift towards REES. The research in this sub-project is further based on results from Phase 1, but here also a component that has not been studied before – namely the economic and financial consequences of REES. Mistra REES researchers will evaluate complex financial consequences from both supplier and customer perspectives. Based on this, it intends to develop new methods that illustrate the complexity of capital budgeting and costing processes for REES and life cycles for investments.