

## Scaling Circular Cars – Project Study offered

Munich | 3-6 months | start as soon as possible

### Project study topic

**Context:** The global automotive industry is an enormous driver of prosperity. However, it is also responsible for more greenhouse gas emissions than the European Union. To achieve net-zero emissions in 2050 and limit global warming to 1.5 degrees above preindustrial levels, the industry's decarbonization is critical. Whilst current reduction measures (e.g., the electrification of cars) mainly focus on use phase emissions, reducing build phase emissions also presents a crucial lever to ensure the sector's transition. Already today, manufacturing emissions represent 20% of the total emissions and recent studies show that this might grow to 60% with the rise of electric vehicles. Hence, it is essential the industry considers the build phase in carbon-reducing measures. The Circular Economy (CE) principles offer a feasible and desirable approach to achieve this, taking into account decarbonization, material circularity, lifetime optimization and utilization improvements.

**Problem:** Whilst significant opportunities for innovation and improved material efficiency exist in car circularity (e.g., through new business models, better design principles, material loops), there is still only limited implementation in the automotive industry. To overcome short-term economic trade-offs and other externalities and barriers hindering circular car value chains, policy action is essential. However, existing measures are not sufficient to do so. Some reasons for this are that, first, they predominantly focus on closing material loops and neglect to address the other CE levers. Second, policy misalignments complicate implementation. Third, policy changes need to consider the various decision levels (e.g., EU, member states, municipalities) which complicates policy design.

**The Challenge:** To support decision makers in the introduction of feasible and effective measures, we are building a platform that develops recommendations for circular cars and promotes these among decision makers – together with you. The goal is to introduce a holistic policy agenda for the EU, as well as a general global agenda, which spark CE mobility.

The following questions can be used as guidelines for your challenge:

- What are the most important tools (e.g., financial, legislative, incentives, investment) that promote circularity in cars?
- What is the status quo of current policies to address the CE principles?
- How is the automotive industry progressing on their implementation? What challenges exist?
- Which changes are needed to move from the current status to concepts that effectively promote circular cars?

We will outline the exact scope of this project together and challenge, as well as iterate it, during the project phase.



## Profile

- 2-5 Students in Management & Technology (TUM-BWL/WIN/NAWI/MIM)
- Very good communication skills in English and German
- High degree of motivation and fast learning
- Passion for sustainability-related topics

## About SYSTEMIQ

SYSTEMIQ is a speciality firm for innovation and investment in disruptive systems of land use, energy generation, industrial production and urban living. The firm was set up in 2016 to drive the implementation of the Paris Agreement and the UN Sustainable Development Goals (SDGs) by transforming markets and business models in key economic systems. We have set out to achieve our mission through a unique portfolio of activities which include:

- building and supporting coalitions of leaders with the knowledge, experience and authority to shape policies and business strategies that will rapidly transform economic activity in line with the UN and Paris targets
- co-creating and incubating the market solutions most likely to build regenerative economic systems, in partnership with businesses, governments, non-profits and other institutions
- investing our own capital and expertise in early-stage ventures with the biggest potential to drive rapid system change

We are uniquely equipped for these activities by the experience, expertise and energy of our partners and associates, based in London, Munich and Jakarta.

## Supervisors

SYSTEMIQ: Marie Wehinger

TUM: Niclas-Alexander Mauß

## Application

Please apply as a team with your CVs via mail to Matthias Ballweg ([matthias.ballweg@systemiq.earth](mailto:matthias.ballweg@systemiq.earth)) and Niclas-Alexander Mauß ([niclas.mauss@tum.de](mailto:niclas.mauss@tum.de))

## Additional Project Studies

We are currently offering five project studies, please check the job board for detailed information on the other offers:

- **European Green Deal & Job Implications**
- **European Green Deal & Circular Economy**
- **European Green Deal & Intervention Points**
- **Circular Economy & Digital Product Passport**
- **Circular Economy & Cars**

