

**1. Title of the Project:** *Circular Logic Hub: Developing a Business Case for Urban Construction Material Reuse and Integrated E-Truck Charging Infrastructure.*

**2. Please select one from each column of the following table**

**Topic of the project**

*We are dealing with this ...*

**site:** *Ideas to prevent the destruction of bio p.e. ideas to prevent the destruction of a certain building, biological feature, or social context; or ideas to build/grow such a feature*

**type:**

*e.g. cooperative dwellings, suburban office estates, single family houses*

**Initiative:** *An initiative working towards new that works towards new, non-polluting and non-exploitative living patterns, and that is anchored in space (cooperative, NGO, ...)*

**planetary boundary (Stockholm Resilience Center)**

*With our project we want to help fixing ...*

**Climate change**  
*Increased greenhouse gases and aerosols in Earth's atmosphere trap heat that would otherwise escape into space. The climate change planetary boundary assesses the change in the ratio of incoming and outgoing energy of the Earth. More carbon dioxide in the atmosphere and more trapped radiation causes global temperatures to rise and alters climate patterns.*

**Freshwater change**

*The alteration of freshwater cycles, including rivers and soil moisture, impacts natural functions such as carbon sequestration and biodiversity, and can lead to shifts in precipitation levels.*

**Land system change**  
*The transformation of natural landscapes, such as through deforestation and urbanization, disrupts habitats and biodiversity and diminishes ecological functions like carbon sequestration and moisture recycling.*

**Biosphere integrity**

*The diversity, extent, and health of living organisms and ecosystems affects the state of the planet by co-regulating the energy balance and chemical cycles on Earth. Disrupting biodiversity threatens this co-regulation and dynamic stability.*

**type of project**

*We want to do this with a ...*

**plan**

*An urban design proposal on a certain site. As a matter of principle, we avoid land take and the creation of impervious surfaces as well as demolition.*

**strategy**

*develop a framework or strategy outlining principles and guidelines for the desired change in a given spatial setting*

**intervention**

*create an intervention in urban space through iteration and reflection that addresses an urbanistic issue. Only BA Thesis, only Summer semester ("Interventionsklasse").*

**start-up**

*develop an urbanistic business idea, or an idea for a new institution.*

**3. What is the occasion?** Why is your project necessary and why now?

*The construction sector is a primary driver of resource depletion and CO2 emissions. Currently, urban areas lack the physical infrastructure to facilitate material reuse (Reverse Logistics) while simultaneously supporting the mandatory transition to electric heavy-duty vehicles. This project is necessary now to align urban logistics with tightening climate regulations and circular economy targets*

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**4. How do you want to accomplish this?** Which scientific or artistic methods do you want to use and with which partners do you want to work?

*Business Model Development: Designing a financial and spatial framework for an urban hub that manages the intake, testing, and resale of secondary building materials. High-Power-Charging (HPC) Integration: Establishing HPC infrastructure as a Unique Selling Point (USP) to solve the "range anxiety" of electric construction fleets. By combining material handling with charging sessions, we optimize vehicle downtime. Methods: Spatial mapping of material flows, logistics chain simulation, and stakeholder analysis within the urban design context. Partners: Collaboration with circular economy NGOs, energy providers for grid connection, local construction firms, and municipal planning departments*

## 5. Participants:

name	Matrikelnummer	e-Mail	program	semester

**6. Are you open for more Participants?**

yes  no

**7. Sent everything to [info.ud\(at\)ed.tum.de](mailto:info.ud(at)ed.tum.de)**