We would like to delve into 3 topics related to circular economy:

1. Second-life PV plants. The whole PV supply chain (manufacturer, installer, waste management company, …) should be involved. Supply and demand can be balanced by installing second-life PV plants and by controlling them. Moreover, PV plants can power electric vehicles, which could help with multi-modal mobility and supply-demand balancing (Grid-to-Vehicle and Vehicle-to-Grid modes). This could be tested in 3+ large-scale pilots. Each pilot could be set up as a PED (Positive Energy District).
2. Biofuels from municipal waste and agricultural residues. Biofuels can enable energy circularity and multi-modal mobility (by, e.g., powering buses). The whole biofuel supply chain (feedstock collection, biofuel producer, transportation company, …) should be involved. The production and use of biofuels could be tested in 3+ large-scale pilots.
3. Recycled concrete, bricks and bio-based insulation materials from municipal solid waste (urban mining) and industrial residues. These materials can reduce the carbon footprint of building materials, make buildings more energy-efficient, minimize energy waste and fight energy poverty. Once again, the whole supply chain (waste management company, manufacturer, refurbishment/maintenance company, …) should be involved. The production of the materials above could be tested in 4+ large-scale pilots.

Minimizing supply-chain costs is our goal.

IT companies could help track, monitor and optimize these supply chains and raise awareness of, e.g., multi-modal mobility, building renovation, energy efficiency and environmental impact by developing web and mobile apps.