

TREASoURCE

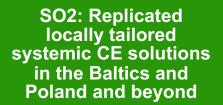
Territorial and regional demonstrations of systemic solutions of key value chains and their replication to deploy circular economy



Objectives

TREASoURcE aims to initiate systemic change by developing technologies and systemic circular economy solutions in cities and regions for currently underutilised or unused plastic waste, end-of-life electric vehicle batteries and bio-based waste and side streams.

Implementing these solutions together with companies, societies (including citizens, consumers, communities and regional actors) and experts in the field is expected to significantly increase product and material circulation in the Nordic and Baltic Sea Regions. SO1: Demonstrated environmental, social, economic and political impacts of the systemic CE solutions (Circular plastics, batteries, and biobased side and waste streams) in the Nordics



TREASoURcE

SO3: Inclusive and just transition to CE for all supported by high level cooperation with all relevant stakeholders



Facts & figuresStart01.06.2022

End	31.05.2026
Duration	4 years
Total budget	9,9 M€
Partners	16 partners Coordinator

Special about

<u>CCRI</u> project







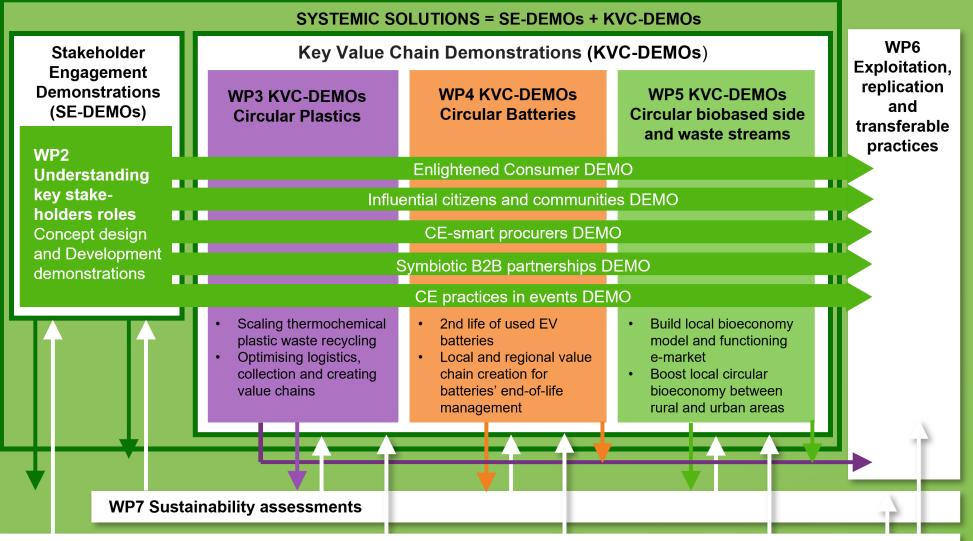
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WP9 Coordination and management

WP8 Communication and dissemination





WP1 Framework analysis and actions to enhance CE

Thematic and qualitative analyses that set the CE baseline and framework for the SE and KVC demonstrations and further replications

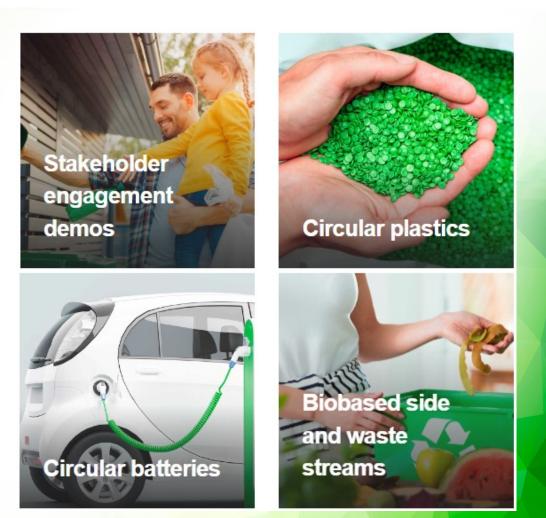


Systemic CE solutions

The systemic circular economy (CE) solutions integrate the two main elements of TREASoURcE:

stakeholder engagement demonstrations and key value chain demonstrations.

The systemic solutions implemented address major challenges of effectively applying circular economy concepts beyond just resource management and recovery. The solutions implemented address economic, social and environmental dimensions of the transition to CE that include science, technology, citizen-science and governance components.









Stakeholder engagement

TREASoURcE brings together a wide range of stakeholders, including businesses, decision makers, consumers and local communities, to innovate collaboratively and cross-sectorally in order to overcome the challenges related to geography or formation of value chains.

Five different types of stakeholder engagement **demonstrations** will be designed, implemented, tested and replicated to improve sorting and quality of raw materials and to enhance the uptake of circular products on the market.

These demos will include concrete cooperative actions, such as workshops for consumers and industry actors, fixing workshops, seminars and trainings, and larger cultural or sports events.





TREASOURCE

Circular plastics

Target feedstocks include currently non-recycled collected municipal plastic waste, agricultural plastics and plastics from batteries.

Target waste streams will be treated with both **mechanical and chemical recycling** to identify optimum technological routes from both technical and sustainability (environmental, social and economic) perspective.

Scale-up of thermochemical recycling and production of BTX and polyolefins.







Circular batteries

Repurposing of end-of-life electric vehicle (EV) batteries as stationary energy storage systems.

Demonstrated functionality and sustainability of second-life EV batteries in **three demo cases** for energy storage of solar power. Demos take place in Norway and Finland.

Developing methods to test and verify used EV battery condition.







Biobased side and waste streams

Target streams include sludge, manure, grass, other side and waste streams from agriculture and forestry, as well as household biowaste.

A functioning local bioeconomy model, emarketplace and a rural-urban symbiosis tool demonstrated and validated for replication in project countries.

New business opportunities created from side and waste stream processing that result in going from economic loss to profit for primary producers.

Value chain formation supported by bestavailable-technologies and practices reviews and dedicated workshops and events.







Sustainable circular economy solutions

To ensure the sustainability of the circular economy solutions, TREASoURcE also includes the development of a novel sustainability assessment method. The Sustainability Assessment Framework combines prospective life cycle assessment and system dynamics.

It enables regional sustainability assessments by not only including sustainability indicators, but context and market indicators. This allows stakeholders to make informed decisions and focus on CE solutions that are more feasible and potentially more successful for certain regions.



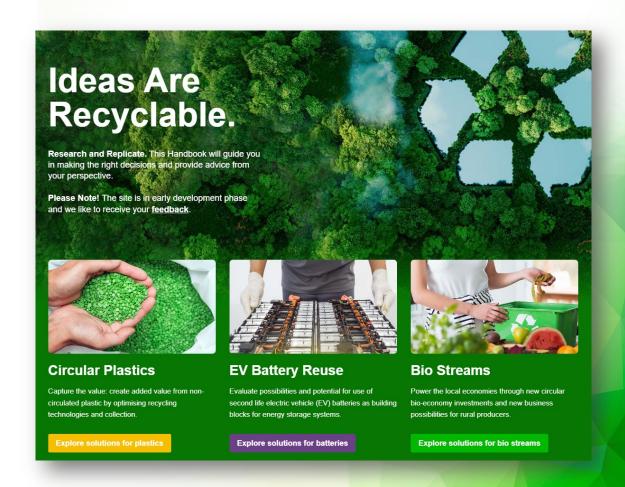


TREASoURcE Replication Handbook

TREASoURcE generates new replicable practices and use cases, which are presented in the evolving **Replication Handbook**.

You can explore the Handbook by topic – plastics, batteries, or biobased side streams – and study 'Best Practices' to learn the key steps to follow, or 'Use Cases' to see how we applied them in the project.

Explore it at <u>handbook.treasource.eu</u>





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