Innovative capacity building for circular behaviour change in citizens

Lounais-Suomen Jätehuolto Oy, Finland

Circular Cities & Regions Initiative
Communities of Practice

Funded by the European Union

Innovative capacity building for circular behaviour change in citizens

Sectors:

Household waste & consumer goods

Policy Instruments:

Citizen education and behaviour change

Associated EU Policy/Strategy:

EU Circular Economy Action Plan, Waste Framework Directive (2008/98/EC, as amended)

Time Frame

LSJH was established 10 years ago.

All core activities — citizen education, school programmes, behaviour surveys, waste composition studies, and digital guidance tools — have been part of its work since and are continuously developing.

Stakeholders

- 18 municipalities
- 450,000 residents (+40,000 summer homes)
- Finnish Solid Waste Association
- Extended Producer Responsibility Organisations
- Educational Institutions
- Ministry of the Environment
- Finnish Environment Institute
- Natural Resources Institute Finland
- Economic Development Centres

Cost and Financing

Education, guidance and citizen engagement at LSJH are financed through its operational budget, funded by municipal waste fees and service charges. Staffing environmental educators, development of educational materials and digital tools, and delivery of school programmes and public events cost €500k annually. Long-term financial sustainability is maintained through an annual budgeting process in which LSJH presents a service-level description and proposed waste fee to municipality representatives. Adjustments influence the service delivery, ensuring educational services are balanced with available funding and municipal priorities.

Abstract

Turku's local municipal waste company Lounais-Suomen Jätehuolto Oy (LSJH) illustrates how citizen education can operate as a core lever for circular waste management: Through systematic guidance and advisory services, LSJH reaches tens of thousands of residents annually and supports measurable improvements in system performance, including reduced contamination rates in key waste streams and consistently high sorting accuracy across municipalities. Education-related KPIs are monitored alongside operational indicators, linking citizen behaviour to improved recycling outcomes and EPR compliance. The case demonstrates how education-driven approaches can deliver tangible, trackable results at regional scale across urban, rural and archipelago contexts.

Contextual Background

Lounais-Suomen Jätehuolto Oy (LSJH) is as a municipality-owned waste management company serving 18 municipalities in Turku, Southwest Finland, covering approximately 450,000 residents and 40,000 summer homes. The region combines urban centres, rural areas, and archipelago communities, requiring adaptable waste services and strong citizen engagement. LSJH has a long track record in integrating education, guidance and advisory services into everyday waste management, making learning and behaviour change essential drivers of their success.

The approach is anchored in Finland's Waste Act (2021) and national circular economy and waste prevention strategies, which emphasise high-quality separate collection, reuse and informed consumer behaviour. At EU level, the case aligns with the Circular Economy Action Plan, the Waste Framework Directive, and the European Green Deal, translating these policy objectives into practical, locally embedded actions through sustained education and data-informed service design.

Vision, Objectives, and First Steps

LSJH's long-term ambition has been to ensure that circular economy objectives are not delivered only through "top-down" measures on infrastructure and regulation, but also understood and practiced by citizens in everyday life. The organisation sees education and guidance as essential features that enable correct sorting, waste prevention and reuse, and ultimately improve the performance and cost-efficiency of municipal waste services.

The main objectives of this approach have been to increase sorting accuracy, reduce contamination across waste streams, and support compliance with national and EU waste legislation, while maintaining public trust and service quality across each municipality's specific context. LSJH's education programs also aim to promote higher-level "R-strategies", including reduce, reuse and refurbish, by encouraging behavioural change at citizen and consumer level. Rather than focusing on short-term campaign targets, LSJH has concentrated on building continuous learning mechanisms supported by data, feedback and long-term engagement.

To incentivise action, LSJH works closely with its 18 owner municipalities, schools, and service contractors. Early steps included establishing a dedicated environmental education team, integrating advisory services at recycling centres, launching structured school programmes, and developing citizen surveys and waste composition studies to inform and improve education efforts over time.

Source: LSJH

Implementation, Deployment, and Upscaling

LSJH operates a comprehensive, multi-layered education system that prioritises higher-level R strategies, reaching residents of all ages through adapted formats tailored to different groups. A team of five full-time dedicated environmental educators delivers programmes across the region, engaging approximately 15,000–16,000 people annually through site visits, mobile outreach, classroom programmes and hands-on educational tools.

For adults, housing associations, community groups and organisations, LSJH offers free advisory sessions, lectures and guided visits at its visitor centres in Kahmari and Hehku, as well as at key waste treatment sites. Educators also take part in local events and markets. These formats combine waste-sorting guidance with broader themes such as composting, and waste prevention and reduction. For younger populations, LSJH provides age-specific programmes from preschool to secondary level, including classroom lessons, immersive role-play experiences, and organised site visits supported by free transport. For example, in the Yrityskylä simulated miniature city, students take on real-life roles such as citizens, employees and managers of a waste management company, providing an experiential learning setting for financial literacy, working life skills, and an understanding of society and the economy. Moreover, interactive learning materials, such as sorting games, puppets, memory games and activity tracks, can be borrowed by educators to extend learning independently.

The education effort is underpinned by a strong evidence base, which LSJH has built progressively drawing on annual citizen surveys, with over 1,700 responses per year, and mixed-waste composition studies conducted every two years, to identify persistent sorting and contamination challenges. These studies and surveys are managed and budgeted by LSJH's Research and Development team, and consistently inform what to target and prioritise in the education programme. Results consistently indicate high quality of offers and learning effects for participants.

Highlight

LSJH runs one of Finland's most comprehensive municipal environmental education programmes, supported by a dedicated team of educators and continuous feedback loops (combining citizen behavioural monitoring data from surveys and waste composition studies).

Results, Impact, and the Way Forward

LSJH's education and guidance programmes have contributed to measurable improvements in sorting behaviour from citizens across its service area. Continuous advisory services, lectures, site visits, and school programmes help residents better understand the importance of waste prevention and separate waste stream collections, as well as citizens' sphere of influence through sustainable consumption habits and higher-level R strategies such as reuse and repair. Data on waste volumes show that the region's mixed solid waste collection per household is declining rapidly over the past few years, and recyclables have gone up. Also, annual citizen surveys show improvements in self-reported sorting habits, particularly for recently introduced streams like plastic packaging, biowaste, and textiles. Bi-annual mixed-waste composition studies provide additional insights into persistent sorting challenges, including residual bio-waste, and help LSJH target education efforts where they are most needed.

Looking ahead, LSJH aims to strengthen education as a permanent municipal function while addressing structural gaps, including limited transparency and feedback from producer responsibility organizations. Planned initiatives over the next few years include digital tools, reuse-oriented infrastructure such as a planned eco-mall concept, and support for local circular entrepreneurship. These measures are expected to increase participation, deepen locally embedded circular practices, and increase the replicability of LSJH's model in other regions. Overall, the approach demonstrates how education-driven strategies can support behaviour change and operational efficiency at regional scale.

Source: LSJH

Source: LSJH

“If source sorting fails at household level, everything else in the system fails after that.”

(Miia Jylhä, LSJH, on the outstanding importance of education and capacity building)

Lessons Learned

- **Treating education and guidance as continuous municipal services** with permanent staffing ensures continuity, trust and scaling of efforts, eventually contributing to higher sorting quality than through individual and time-limited campaigns
- **Reaching less interested or motivated population segments remains a challenge** - creative educational measures (such as gamified approaches) and their embedding in institutional contexts (such as school visits) might offer access
- **Embedding reuse, repair, and reduction strategies going beyond recycling** guidance substantiates education efforts greatly
- **Combining education with feedback data** from surveys and waste composition studies allows municipalities to identify areas of improvement and adapt guidance over time
- **Allocating consistent funding** requires continuous lobbying and justification with decision-makers, and adequate data on programme success can support this negotiation
- **Education approaches require a flexible and broad portfolio of activities and services**, which should be adapted to the specific needs and contexts of diverse target groups to ensure equal access and participation.

General reflections

LSJH’s experience shows that embedding circularity permanently in education efforts is a critical yet often overlooked pillar of circular economy implementation. Its effectiveness depends on institutional commitment, data-informed design, and long-term resourcing.

Main takeaway

Embedding education at the core of municipal waste governance is a powerful, scalable lever for turning circular economy policy into everyday practice.

Contact details

CCRI Community of Practice team

Contact person: Miia Jylhä
Job title: R&D Manager, LSJH
City: City Name

Email: miia.jylha@lsjh.fi
Website: https://lsjh.fi

Sources

- Lounais-Suomen Jätehuolto Oy (LSJH). (2025, September). *LSJH presentation* [Presentation].
- Lounais-Suomen Jätehuolto Oy (LSJH). (2025, October 23). *Interview with LSJH – Minutes* [Interview minutes].
- Lounais-Suomen Jätehuolto Oy (LSJH). (n.d.). *Official website*. https://lsjh.fi
- Lounais-Suomen Jätehuolto Oy (LSJH). (n.d.). *Order waste advice or book an educational visit*. https://lsjh.fi/neuvontapalvelut/
- Lounais-Suomen Jätehuolto Oy (LSJH). (n.d.). *ABC of waste (sorting guidance for citizens)*. https://lsjh.fi/mita-haluat-lajitella/

Publication Date

April 2026

About this case study

This case study contributes to the Circular Cities and Regions Initiative (CCRI), which supports European cities and regions in advancing the circular transition.

It was produced as part of the Circular Cities and Regions Initiative (CCRI) Communities of Practice (CoP) project, funded under Horizon Europe, which brings together stakeholders for structured peer learning, knowledge exchange, and capacity building across eight thematic communities.

This case study was developed by Shirin Betzler (CSCP), Sorina Uleia (EIT Raw Materials) and Johannes Klement (CSCP), with the direct input of Miia Jylhä from LSJH, participating in the community of practice on “Municipal Waste Companies for Circular Cities”.

More information: Circular Cities and Regions Initiative website

Circular Cities & Regions Initiative
Communities of Practice

This document has been prepared for the European Commission and the European Research Executive Agency (REA), however it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Funded by the European Union