State of the Circular Economy of plastics in Finland

PlastTalk webinar 3.6.2026

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LIFE21-IPE-FI-PlastLIFE

PlastLIFE-hanke saa EU:n LIFE-ohjelmasta rahoitusta, jolla hankkeen materiaalit on tuotettu. Materiaalien sisältö edustaa ainoastaan hankkeen omia näkemyksiä, joista CINEA/Euroopan komissio ei ole vastuussa.

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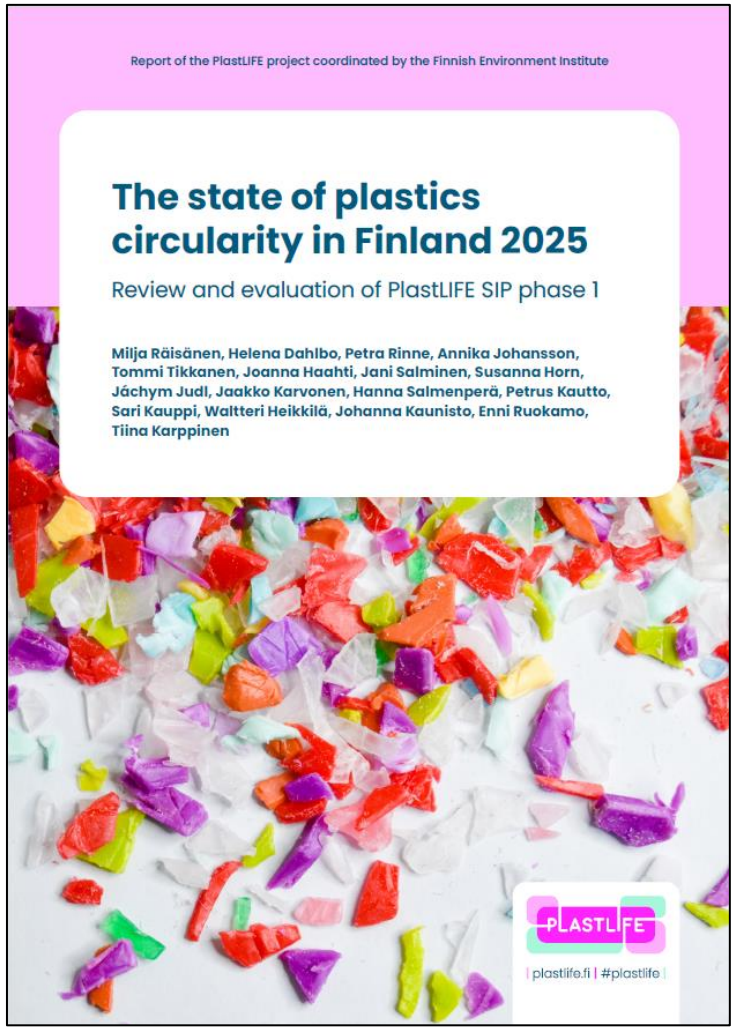

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To be published in English soon: A sustainable plastics value chain strengthens national resilience

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PlastLIFE is not alone:
The CE of plastics was advanced by 114 projects in 2021–2024, with total funding of €551 million

Picture: Microsoft Stock images

The main findings are grouped under the four key objectives of the Plastics Roadmap for Finland:

Reduce

Reduce littering of the environment and other environmental harm caused by plastics

Refuce

Avoid unnecessary consumption of plastics and promote the reuse of plastics.

Recycle

Enhance the recycling of plastics and recyclability of plastic products

Replace

Replace virgin plastic manufactured from fossil raw materials with recycled plastics or sustainably produced renewable materials.

The findings combine monitoring from PlastLIFE and other relevant projects.

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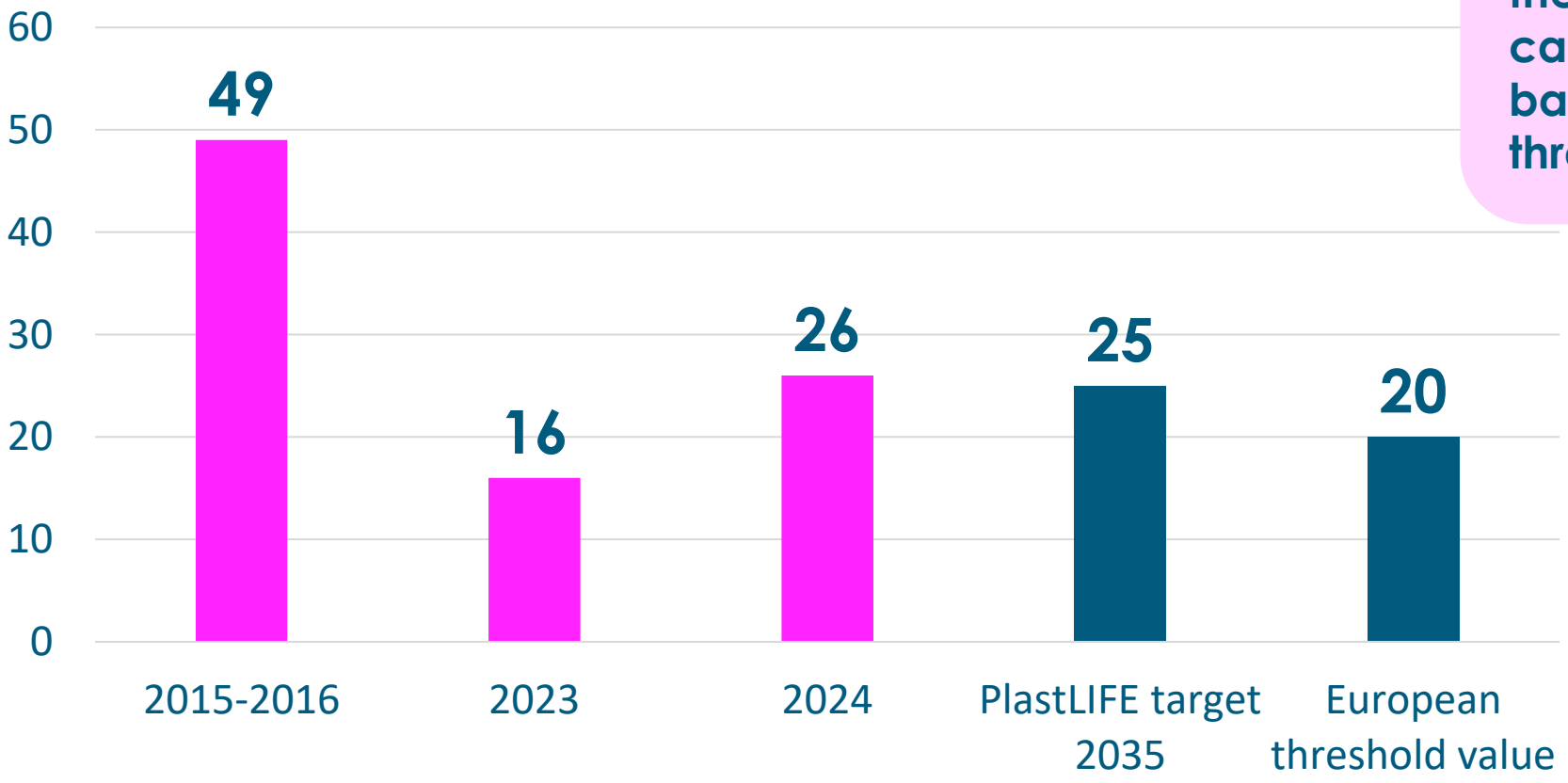
Reduce

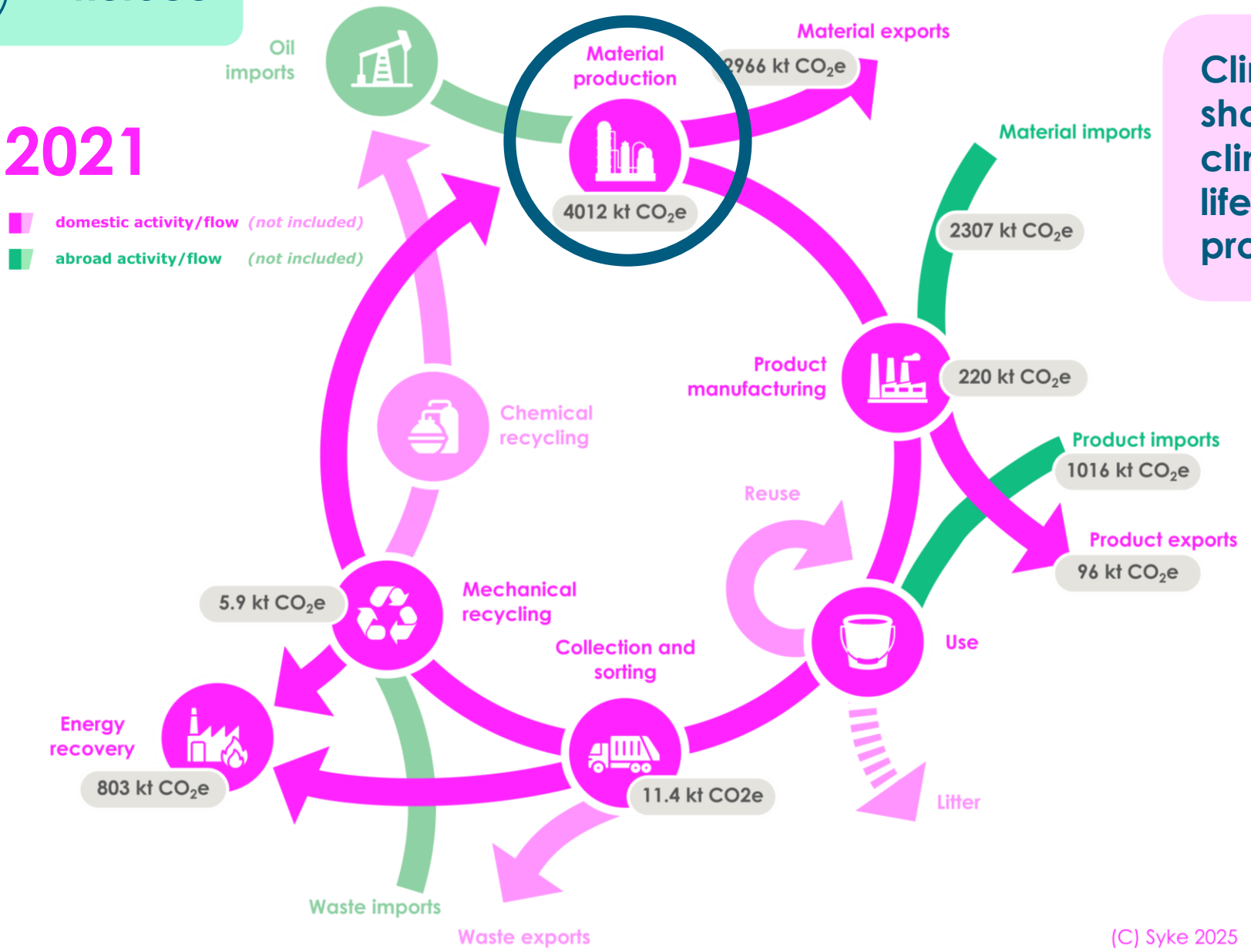
Number of litter items



Although the amount of litter has decreased over the years, the condition of our coasts still cannot be considered good based on the European threshold value.

Number of litter items per 100 meters of Finnish coastline. Median values represent all beach types, litter types and seasons. © Finnish Environment Institute. 2025. Around 90% of coastal litter in Finland in plastic (Piepponen et al. 2024).

Refuce

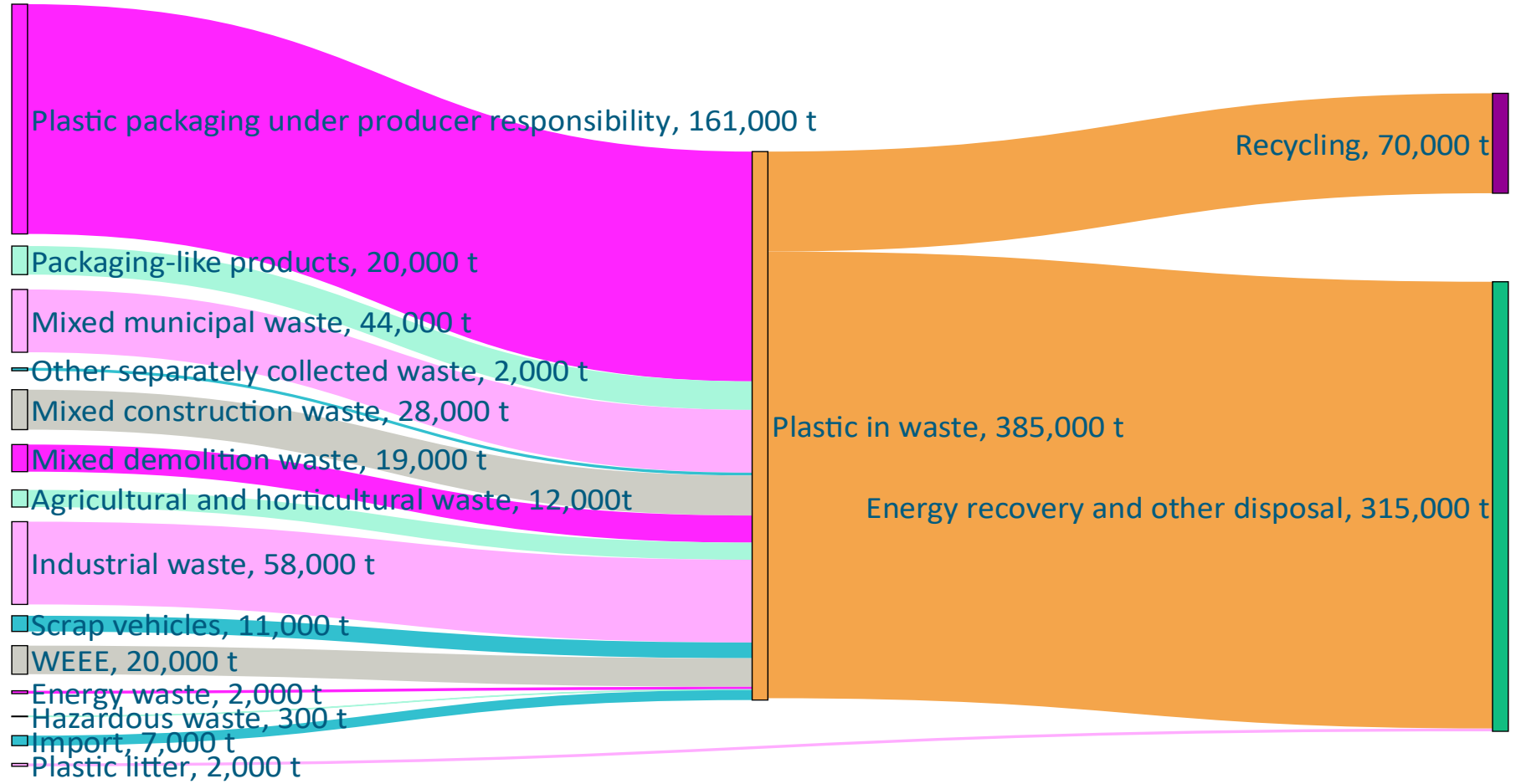


Climate impact evaluation shows that the most significant climate impacts in the plastics life cycle come from material production.

Climate impacts at different stages of the plastics value chain (Horn et al. 2025)

Recycle

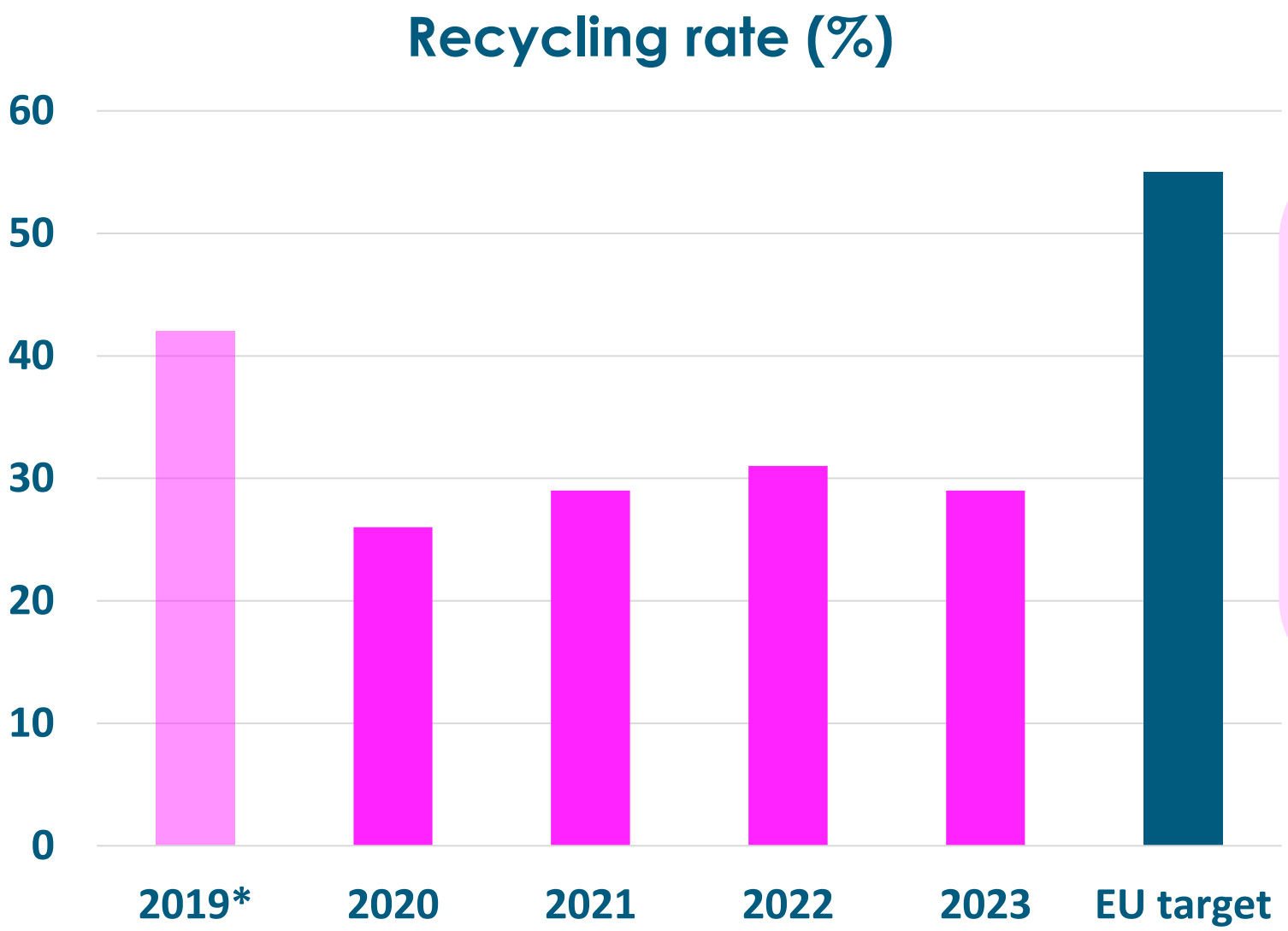
Plastic in various waste streams in Finland in 2022



Plastic recycling and its monitoring currently focus on packaging waste, even though plastic packaging accounts for less than half of the plastics found in waste (Salminen et al. 2025)

The share of plastics in mixed household waste is approximately 17% (KIVO 2024)

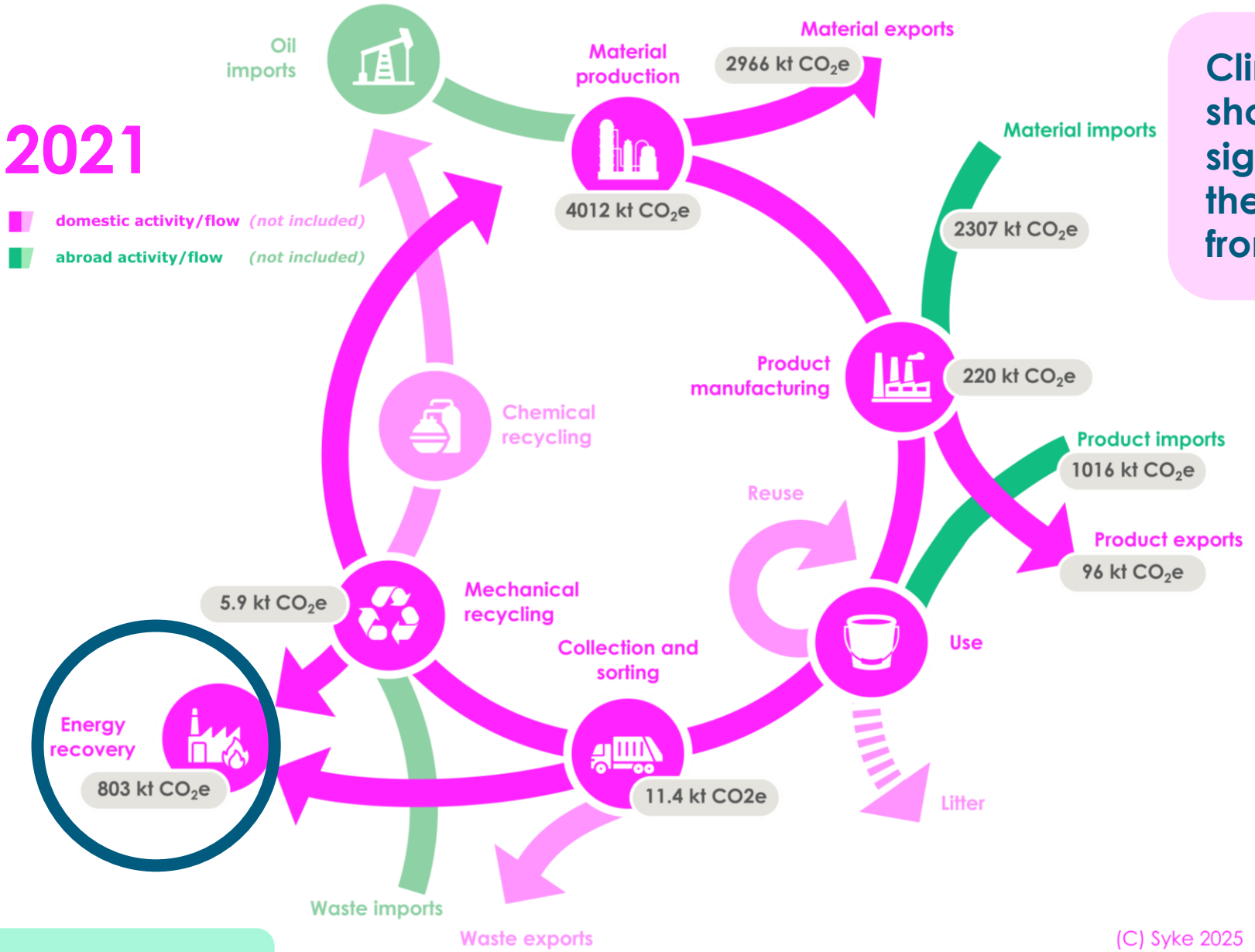
Volumes of plastic packaging waste and other waste containing plastics, recycling and incineration in Finland (Salminen et al. 2025)



The recycling rate of plastic packaging waste is behind the targets (EU: 50 % by 2025, 55 % by 2030).

► **Plastic own-resource fee as part of the EU membership contribution: €0.80/kg. Total €90 million in 2024.**

Recycling rate of plastic packaging 2019–2022. *The recycling rate for 2019 is not comparable with the years 2020–2022 due to a change in the calculation method. (Pirkanmaa ELY Centre 2024)



Climate impact evaluation shows that the second most significant climate impacts in the plastics life cycle come from energy recovery.

Climate impacts at different stages of the plastics value chain (Horn et al. 2025)

Recycle

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Replace

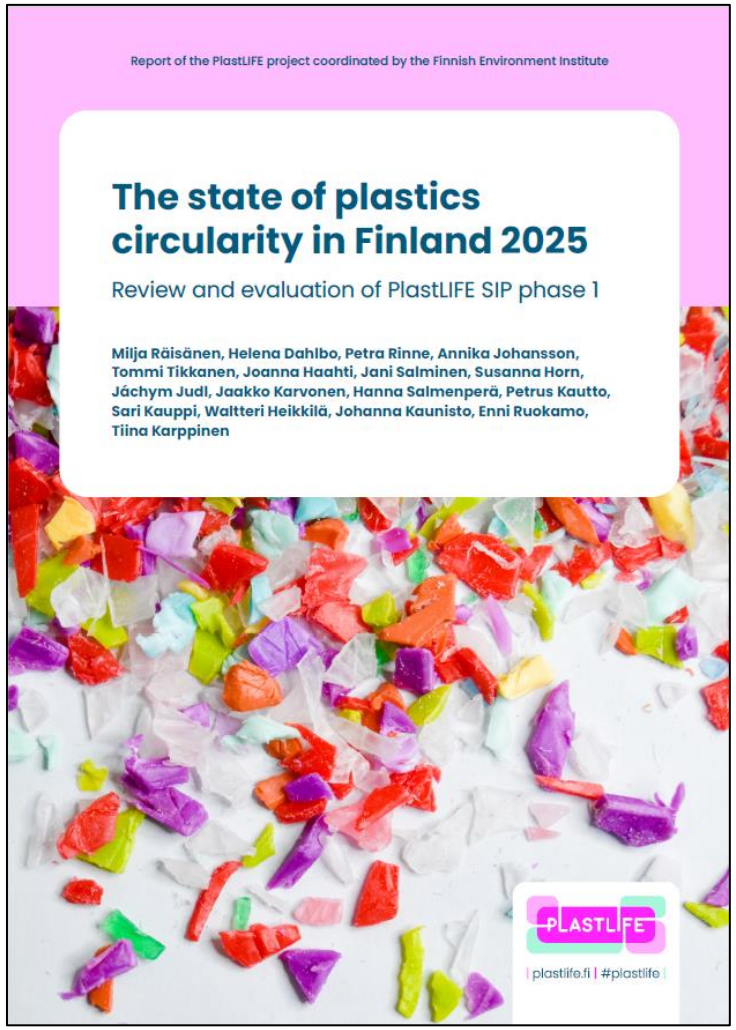
- The demand for virgin plastic has slightly decreased between 2019 – 2021 (3000 t)
- The production of recycled plastic increased between 2019 and 2021, but in 2021 it accounted for only 3.5% of all plastic raw material production.
  - So far, the demand has not been strong. PPWR will increase it.
  - Cheap recycled plastic from Asia poses a challenge for European recycled plastic producers.

The status

- Littering remains a significant problem, and solutions require more knowledge.
- Reducing consumption is perhaps the greatest challenge for the CE, requiring stronger steering.
- Plastics recycling and its monitoring must be further developed and expanded to cover all plastic waste streams, not just packaging.
- As the raw material base of plastics expands, solutions with the highest overall sustainability should be prioritized, while ensuring the safety and quality of alternative materials.The progress of this change cannot yet be systematically monitored.
- Overall, the knowledge base for monitoring the CE of plastics is weak and available information is fragmented.

Phase 2 of PlastLIFE

- Continuing the work in all the themes.
- **Avoiding unnecessary consumption of plastics** and **increasing reuse** shall get more emphasis from the PlastLIFE activities.
- Communicating, disseminating and scaling up the results.
- Co-operation with different stakeholders is strengthened.



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A sustainable plastics value chain strengthens national resilience

The recommendations are based on the analysis report and a discussion session organized for the PlastLIFE consortium.

In short: The circular economy for plastics has progressed in Finland as a result of cross-sector collaboration. A sustainable circular economy for plastics supports the economy, security of supply and the environment. However, further actions are still needed to achieve it.

1) Strengthening markets for sustainable products and business models

- Introduce tax incentives and financial support to increase reuse
- Develop reuse deposit systems and pilot large-scale solutions
- Support repair and maintenance services to make them accessible and profitable
- Reduce the appeal of short-lived products through regulation and awareness
- Focus product design, manufacturing and imports on bringing durable and repairable products to the market.

2) Strengthening security of supply and creating stable circular economy markets for domestic raw materials

- Accelerate new recycling technologies and expand systems beyond plastic packaging
- Drive demand as quickly as possible through public procurement and recycled content requirements in products
- Strengthen domestic recycled material production and reduce harmful low-cost imports
- Ensure the quality of recycled raw materials through regulation and supervision and prioritise them over virgin raw materials
- Establish a high-level EU-funded pilot project for a sustainable recycled plastics ecosystem in Finland, with strong networking links across the EU.

3) Reducing negative environmental impacts through knowledge and cooperation

- Improve risk assessment of microplastics and set emission limits for industry
- Strengthen research, monitoring, and communication on plastic pollution
- Engage citizens and stakeholders in reducing litter and clean-up efforts
- Influence EU regulation and support global plastics treaty implementation

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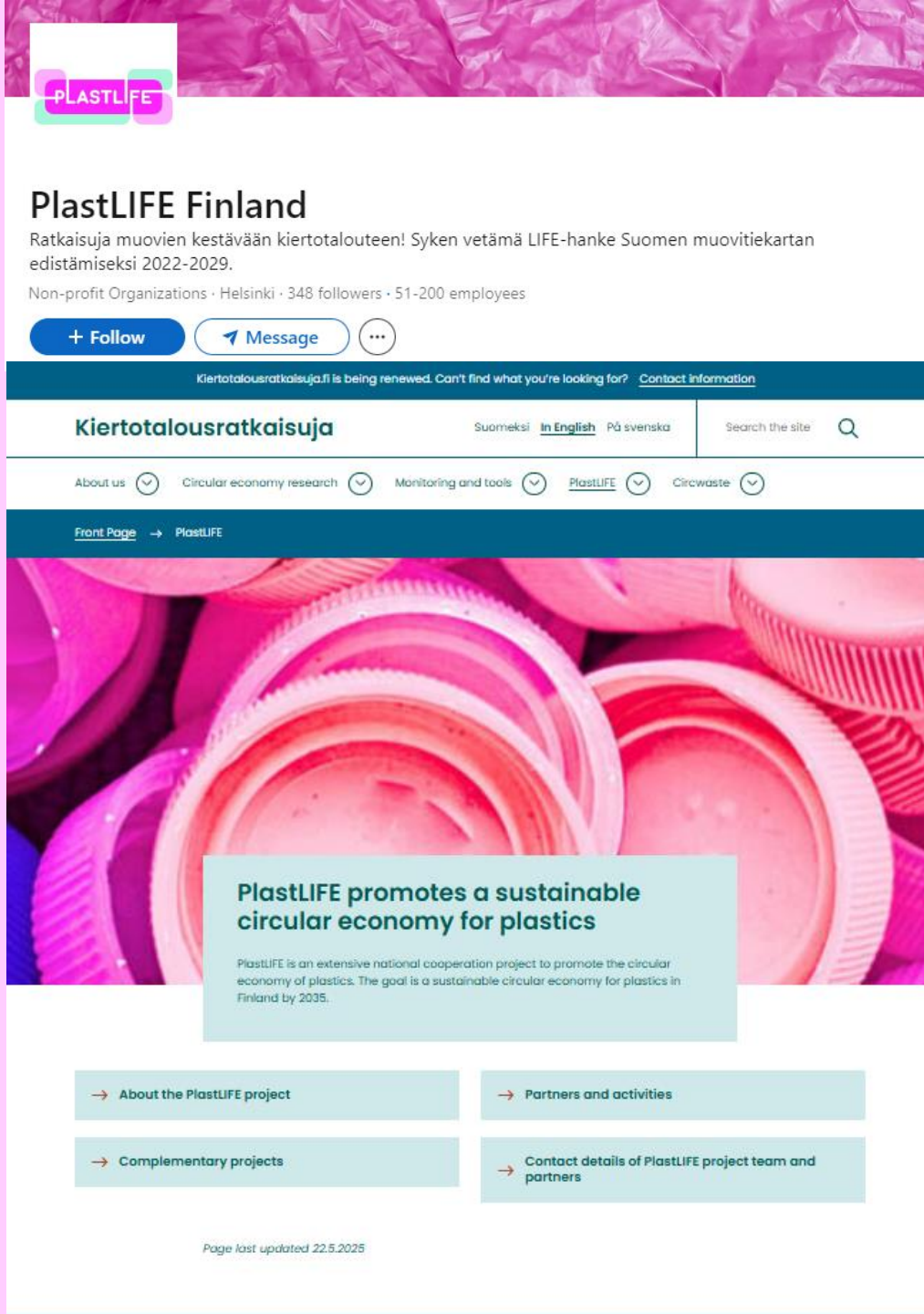

Sustainable circular economy of plastics

Thank You!

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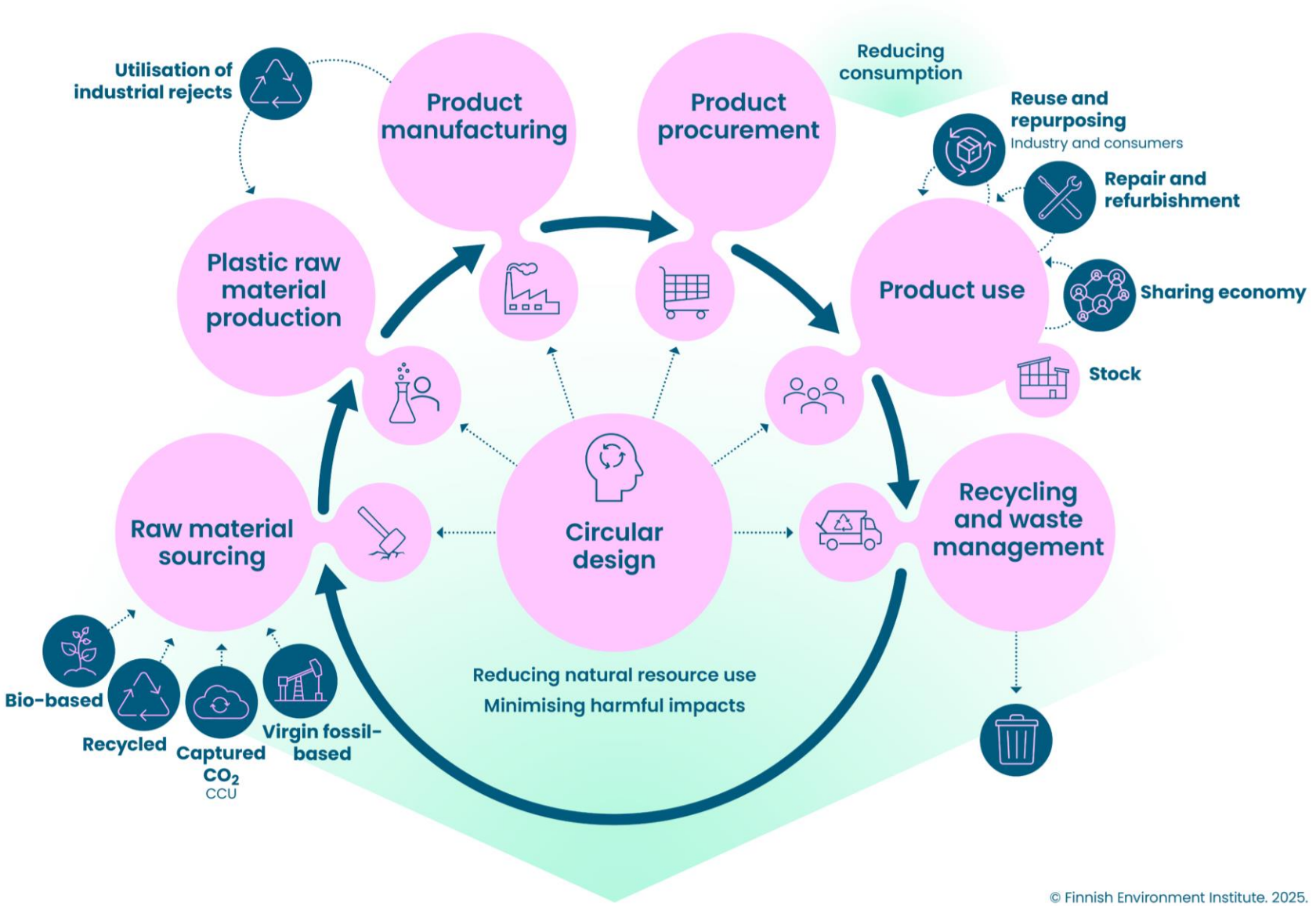

References

- Horn, S., Judl, J., Karvonen, J., Dahlbo, H. & Ekvall, T. 2025. Framework for Assessing the Life Cycle Impacts of the Circular Economy of Plastics. Deliverable D88 (D9.3)
- Kauppi, S., Salmenperä, H., Dahlbo, H. & Räisänen, M. Kestävällä muovien arvoketjulla kansallista sopeutumiskykyä (A Sustainable Plastics Value Chain Strengthens National Resilience) (In Finnish, soon published in English) Toimintasuosituksia. PlastLIFE-projekti. Maaliskuu 2026. ISBN 978-952-11-5834-6. http://hdl.handle.net/10138/629063
- KIVO. 2024. Suomen Kiertovoima ry (KIVO). Koostumustietopankki. https://www.kivo.fi/toiminnan-tueksi/koostumustietopankki
- Piepponen, H., Laamanen-Nicolas, L., Korpinen, S., Back, M., Ekebom, J., Suomela, J., Lahtinen, T., Paavilainen, P. & Rinne, H. 2024. Suomen meriympäristön tila 2024. Verkkojulkaisu: https://www.ymparisto.fi/fi/luonto-vesistot-ja-meri/meri/suomen-meriymparistön-tila-2024 . Suomen ympäristökeskus.
- Räisänen, M., Dahlbo, H., Rinne, P., Johansson, A., Tikkanen, T., Haahti, J., Salminen, J., Horn, S., Judl, J., Karvonen, J., Salmenperä, H., Kautto, P., Kauppi, S., Heikkilä, W., Kaunisto, J., Ruokamo, E. & Karppinen, T. 2025. The state of plastics circularity in Finland 2025 - Review and evaluation of PlastLIFE SIP phase 1. Report of the PlastLIFE project coordinated by the Finnish Environment Institute. ISBN 978-952-11-5813-1. http://hdl.handle.net/10138/604241
- Salminen, J., Rinne, P., Valve, H., Johansson, A., Turunen, T., Räisänen, M., Fjäder, P., Kautto, P., Fraser-Vatto, A., 2025. The key questions of plastics recycling (in Finnish) [online publication]. https://julkaisut.valtioneuvosto.fi/handle/10024/166239.