Waste Treatment Structures and Circular Economy Correlations in Developed Nations

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# Executive Summary

This report provides a comprehensive analysis of waste treatment structures and their correlation with circular economy indicators across developed countries, with a specific focus on the period from 2023 to 2024. The analysis reveals a critical global paradox: despite a significant increase in policy focus and public discourse surrounding the circular economy, global circularity rates are declining, while ma‐ terial consumption and waste generation continue to accelerate. The global municipal solid waste gen‐ eration, estimated at 2.3 billion tonnes in 2023, is projected to reach 3.8 billion tonnes by 2050, with associated true costs potentially doubling to USD 640.3 billion.

Developed nations exhibit a wide spectrum of performance. European nations like the Netherlands and Sweden, alongside Asian leaders such as Singapore, Japan, and Taiwan, demonstrate high effective‐ ness in waste management. In contrast, other developed economies, including the United States, lag significantly. The European Union is advancing a robust legislative framework under its Circular Eco‐ nomy Action Plan, including the Ecodesign for Sustainable Products Regulation (ESPR), yet implement‐ ation remains slow, with recycling rates stagnating. Japan presents a deeply integrated national strategy, linking circularity with economic, social, and local revitalization goals, as detailed in its 2024 white papers.

A detailed case study of Israel highlights a nation in the midst of an ambitious transformation. Facing a legacy of high landfill dependency, Israel has launched a comprehensive strategy to reduce landfilling from 80% to 20% by 2030, backed by over one billion shekels in investment for advanced sorting and treatment facilities. The strategy integrates extended producer responsibility, landfill levies, and the promotion of innovative technologies like chemical recycling, positioning Israel as a dynamic case of policy-driven change.

The correlation between waste management structures and outcomes is stark. A business-as-usual ap‐ proach, heavily reliant on landfilling and open dumping, is directly linked to escalating greenhouse gas emissions, widespread pollution, and immense hidden economic costs. Conversely, a transition to a circular economy model, which prioritizes waste prevention, reuse, and high-quality recycling, is pro‐ jected to yield a net global economic gain of over USD 108 billion annually by 2050 while substantially mitigating environmental harm. This report concludes that closing the gap between circular economy ambitions and tangible outcomes requires integrated policy frameworks, robust and harmonized data for monitoring, significant investment in infrastructure and innovation, and effective mechanisms to ensure polluters bear the true cost of waste.

# Global Waste Management Landscape and Economic Implications

The state of global waste management in 2023-2024 presents a landscape of escalating challenges and profound economic consequences. According to the United Nations Environment Programme’s

“Global Waste Management Outlook 2024,” the generation of municipal solid waste (MSW) is projected to surge from an estimated 2.3 billion tonnes in 2023 to 3.8 billion tonnes by 2050. This dramatic in‐ crease is not merely a function of population growth; it is strongly coupled with economic develop‐ ment, as rising incomes and consumption patterns have a disproportionately large impact on waste generation. This persistent link between economic growth and waste production underscores a funda‐ mentally unsustainable model of resource use, particularly prevalent in higher-income countries which generate more waste per capita.

The economic ramifications of this trend are staggering. The direct global cost of waste management was estimated at USD 252 billion in 2020. However, this figure fails to capture the extensive external‐ ities associated with inadequate waste management. When the hidden costs of pollution, adverse health outcomes, and climate change impacts are factored in, the true economic burden in 2020 rises to USD 361 billion. Projections based on a business-as-usual scenario forecast this annual cost to nearly double to an alarming USD 640.3 billion by 2050. This trajectory highlights the immense finan‐ cial liability embedded in current waste management paradigms. In contrast, modeling demonstrates that a decisive global shift towards a circular economy—encompassing waste avoidance, sustainable business practices, and comprehensive waste management—could transform this liability into a signi‐ ficant economic opportunity, potentially generating a net gain of USD 108.5 billion per year by 2050.

The effectiveness of waste management structures varies significantly across developed nations. The 2024 Yale Environmental Performance Index (EPI) provides a quantitative measure of this disparity. Na‐ tions such as Singapore, Taiwan, Japan, the Netherlands, and Sweden have achieved top scores, indic‐ ating highly effective systems. However, other major developed economies show considerable room for improvement, with Australia ranking 35th and the United States ranking 47th. This divergence re‐ veals that even among high-income countries, the implementation of effective waste management has not kept pace with the growth in waste generation. A critical contributing factor to environmental degradation is the mismanagement of wastewater. The 2024 UN-Water update, using the latest avail‐ able data from 2022, reveals that 42% of household wastewater globally is not safely treated before discharge. Data on industrial wastewater is even more limited and concerning, with only 27% reported as safely treated in the few countries providing data. This widespread release of untreated wastewater exacerbates pollution and poses significant risks to ecosystems and public health, further contributing to the hidden costs of inadequate waste infrastructure.

# The Nexus of Waste Management and the Circular Economy

The relationship between waste management and the circular economy is foundational; effective waste management is not merely a component of a circular system but an indispensable prerequisite for its success. International bodies like the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU) have extensively documented this correlation, framing the trans‐ ition from traditional, linear “take-make-waste” models to circular ones as a strategic imperative. The circular economy’s core objective is to maintain the value of products and materials in the economy for as long as possible, minimizing resource input and waste generation. This can only be achieved if end-of-life materials are efficiently collected, sorted, and reprocessed back into the production cycle, a function that lies at the heart of modern waste management.

OECD analyses, such as the 2019 cross-country review “Waste Management and the Circular Economy in Selected OECD Countries,” demonstrate a clear link between robust waste policies and circular eco‐ nomy progress. The review, covering countries like Japan, Israel, the Netherlands, and Korea, found that nations with strengthened policy frameworks, including economic instruments like landfill taxes, exhibited better performance in diverting waste from landfills and boosting recycling rates. For in‐

stance, the combination of landfill taxes and bans in Sweden proved highly effective. However, the OECD also identified persistent challenges that hinder a full transition, including fragmented institu‐ tional arrangements, a lack of accurate data for monitoring, and weak policy enforcement. These find‐ ings underscore that while progress has been made in improving material productivity and waste man‐ agement practices, a more integrated, lifecycle-based policy approach is necessary to overcome the remaining barriers.

The European Union has been a global frontrunner in embedding waste management within its broad‐ er Circular Economy Action Plan (CEAP). The EU’s legislative journey, from the first Framework Direct‐ ive on Waste in 1975 to the ambitious targets of the CEAP, illustrates a strategic evolution from waste as a problem to be managed to waste as a resource to be valorized. The EU’s target to reuse and re‐ cycle at least 65% of municipal waste by 2035 explicitly links waste treatment performance to circular‐ ity goals. Studies evaluating EU member states have found a positive correlation between the adop‐ tion of circular economy-oriented policies and superior performance in waste management. Germany and France, for example, have been identified as top performers due to their comprehensive regulat‐ ory instruments. Despite these advances, research also indicates that even leading EU nations need to do more to fully close material loops, requiring a greater quantity of Secondary Raw Materials (SRMs) to re-enter manufacturing processes. This highlights that the nexus extends beyond the waste sector itself, demanding stronger policies that influence product design, production processes, and market demand for recycled content.

# Circular Economy Indicators and the Challenge of Raw Material Consumption

The ability to measure progress is fundamental to the successful implementation of circular economy policies. In 2023 and 2024, significant efforts have been made by international bodies to develop and refine circular economy indicators, with a particular focus on raw material consumption. These indicat‐ ors are crucial for moving beyond simplistic recycling rates to a more holistic understanding of re‐ source efficiency and environmental impact. The European Commission, for instance, updated its monitoring framework in May 2023 to include new indicators such as the **material footprint** and

**consumption footprint**, which aim to quantify the total amount of raw materials extracted to meet a country’s consumption demands, thereby providing a clearer picture of its global environmental im‐ pact. Similarly, the UNECE and OECD jointly released guidelines in 2024 for measuring the circular economy, emphasizing indicators that track the material basis of the economy, including domestic material consumption and raw material consumption.

Despite these advancements in measurement, the global data paints a concerning picture. The Circu‐ larity Gap Report (CGR) 2024 reveals a stark and troubling trend: the global circularity rate—the share of secondary materials in the total material input into the economy—has declined from 9.1% in 2018 to just 7.2% in 2023. This 21% drop occurred during a period when discussions around the circular economy nearly tripled, exposing a significant gap between ambition and action. This phenomenon, termed “circular washing,” risks undermining genuine progress. Compounding this issue is the relent‐ less growth in material consumption; the world consumed over half a trillion tonnes of materials in the last six years, an amount nearly equivalent to the entire consumption of the 20th century. This trajectory has pushed the planet beyond six of its nine critical planetary boundaries.

The CGR 2024 provides a differentiated analysis by categorizing countries into three profiles based on their material footprint and development level. “Shift” countries, which include most high-income de‐ veloped nations, house 17% of the global population but consume 25% of raw materials, with a per capita material footprint far exceeding sustainable levels. Their primary mission is to radically reduce material consumption. “Grow” countries, primarily middle-income nations, must stabilize their con‐

sumption, while “Build” countries, the lowest-income group, need to increase material use to meet ba‐ sic needs. This framework highlights that a one-size-fits-all approach to circularity is inadequate. A concrete example from a developed nation, Slovenia, shows that its circular material use rate de‐ creased to 9.2% in 2023, while its per capita generation of municipal and food waste increased, illus‐ trating the challenges faced even by countries actively monitoring these indicators. This body of evid‐ ence strongly suggests that without systemic changes that decouple economic activity from virgin re‐ source extraction and consumption, the goals of the circular economy will remain elusive.

# Comparative Analysis of Waste Management and Circularity in Developed Nations

## The European Union: Ambitious Legislation Meets Implementation Hurdles

The European Union continues to spearhead the global transition towards a circular economy through its comprehensive Circular Economy Action Plan (CEAP). The years 2023 and 2024 have been pivotal for translating this plan into binding legislation. The **Ecodesign for Sustainable Products**

**Regulation (ESPR)**, which entered into force in July 2024, represents a cornerstone of this effort. It expands ecodesign principles beyond energy efficiency to encompass durability, reparability, and recyclability, and introduces the mandatory **Digital Product Passport (DPP)** to enhance transpar‐ ency throughout a product’s lifecycle. Other significant measures include the “Right to Repair” Direct‐ ive, a new regulation on Packaging and Packaging Waste (PPWR), and a new Waste Shipments Regula‐ tion to curb the export of waste challenges. These legislative advancements are supported by sub‐ stantial financial commitments, with the European Investment Bank (EIB) providing €3.83 billion between 2019 and 2023 to co-finance circular economy projects.

However, despite this robust policy framework, progress on the ground has been slow. The European Environment Agency’s (EEA) “State and Outlook 2024” report delivered a critical assessment, conclud‐ ing that Europe is making slow progress in moving away from its linear economic model. The EU’s cir‐ cular material use rate stood at a modest 11.5% in 2022, and recycling rates for municipal waste have largely stagnated across the bloc. In 2022, 40.8% of EU waste was recycled, while a significant 30.2% was still landfilled. The EEA report emphasizes that a narrow focus on end-of-pipe waste management is insufficient. It calls for bolder, more binding policies, including targets for resource use or material footprint, and stronger incentives to create robust markets for secondary raw materials. This assess‐ ment highlights a critical implementation gap, where the ambitious goals of the CEAP are yet to be fully realized in the form of tangible reductions in resource consumption and waste generation across member states.

## Japan: An Integrated Strategy for a Sound Material-Cycle Society

Japan offers a contrasting model characterized by deep strategic integration and a long-standing cul‐ tural and policy commitment to resource efficiency. The nation’s approach is detailed in its 2024 suite of government white papers on the environment, circular economy, and biodiversity, all framed by the **Sixth Basic Environmental Plan**. This plan seeks to create a “Regional Circular and Ecological Sphere,” a concept that promotes self-reliant, decentralized communities that utilize local resources to solve local challenges, thereby improving environmental, economic, and social conditions simultan‐ eously. This vision is supported by a robust legislative framework, including the Basic Act for Establish‐ ing a Sound Material-Cycle Society and numerous product-specific recycling laws for automobiles, home appliances, and packaging, which have achieved remarkably high recycling rates. For example, the recycling rate for Automobile Shredder Residue (ASR) has consistently exceeded 95%, far surpassing the 70% target.

The **National Plan towards Circular Economy (The 5th Fundamental Plan)**, approved in August 2024, further solidifies this strategy. It sets clear priorities for the next five years, focusing on ad‐ vanced recycling of materials like plastics and biomass, strengthening inter-industry collaboration, and enhancing infrastructure. A key aspect of Japan’s strategy is the empowerment of Small and Medium Enterprises (SMEs). The 2024 White Paper on SMEs highlights their increasing engagement in circular practices, driven by government incentives, consumer demand, and the traditional Japanese concept of *mottainai* (a sense of regret concerning waste). The government actively supports SMEs through grants, educational programs, and the promotion of “Eco-Town” initiatives where industrial clusters in‐ tegrate resource-sharing. This multi-layered approach, which combines top-down national strategy with bottom-up community and business engagement, positions Japan as a leader in operationalizing the circular economy.

## The United States: A Fragmented Landscape with Data Deficiencies

The United States presents a more fragmented and challenging picture regarding waste management and circularity. A primary obstacle to a comprehensive national analysis is the significant lag in federal data. As of mid-2025, the U.S. Environmental Protection Agency’s (EPA) most recent comprehensive “Facts and Figures” report on Municipal Solid Waste (MSW) generation and disposition is for the calen‐ dar year 2018. This 2018 data showed a national recycling and composting rate of just 32.1%, with 50% of MSW still being landfilled. This data deficiency makes it difficult to accurately track recent progress and assess the effectiveness of current policies at a national level.

In the absence of recent comprehensive federal data, a picture of the U.S. landscape in 2023-2024 must be pieced together from other sources. Industry reports indicate that the waste management sector is a major economic force, generating over USD 140 billion in revenue in 2023. However, the market is highly consolidated, with two major companies managing half of the nation’s landfill volume. Analysis from 2023 shows significant M&A activity, rising labor costs, and a notable decrease in the value of key recycled commodities like paper and plastics, which can disincentivize recycling efforts.

On the policy front, action is largely decentralized to the state and local levels. In 2023, numerous states introduced extended producer responsibility (EPR) and “right-to-repair” legislation. The federal government’s role has been more focused on providing funding, such as the SWIFR grants for recyc‐ ling infrastructure, and addressing specific issues like PFAS contamination and food waste. This patch‐ work of state-level initiatives and industry-led activities, combined with a lack of current national data and overarching federal strategy, results in a less coherent and effective approach to circularity compared to the EU or Japan.

# In-Depth Case Study: Israel’s Strategic Transition to a Circular Economy

Israel provides a compelling case study of a developed nation undertaking a rapid and strategic pivot from a linear, landfill-dependent waste management system towards a circular economy. Historically, Israel has faced significant environmental pressure from waste, with reports from 2020 indicating that approximately 80% of its six million tons of annual municipal and commercial waste was sent to land‐ fills. This practice has led to soil and groundwater contamination, air pollution, and greenhouse gas emissions, prompting a decisive policy response from the Ministry of Environmental Protection (MoEP).

The cornerstone of this transformation is the **New Waste Strategy**, which sets ambitious targets: re‐ ducing the landfilling rate to 20% by 2030 and achieving a full transition to a circular economy by 2050. To realize these goals, the MoEP has committed over one billion shekels to overhaul the nation’s waste infrastructure. This investment is funding the construction of state-of-the-art facilities for sorting

and recycling. Key projects underway include a facility in the Eshkol Regional Council set to process 150,000 tons of organic waste annually and a major complex near Rishon Lezion designed to handle 400,000 tons of mixed household waste, with a focus on converting organic fractions into green en‐ ergy. These facilities are being built to strict environmental standards and will employ automated sort‐ ing to recover recyclables, produce Refuse Derived Fuel (RDF) from high-energy value materials, and direct organic waste to specialized treatment, thereby minimizing the final residue sent to landfills.

Israel’s strategy extends beyond infrastructure to a comprehensive policy and innovation ecosystem. The government is implementing a robust regulatory framework that includes five Extended Producer Responsibility (EPR) laws, a deposit-return system for beverage containers, a landfill levy, and the 2017 Plastic Bags Law. Policies currently under consideration include a tax on single-use virgin plastics. This regulatory push is complemented by a strong focus on innovation and entrepreneurship. The SwitchMed program, supported by UNEP, fosters green and blue economy start-ups, while UNIDO is assisting the plastics industry in mapping its recycling value chain and developing guidelines for recyclable packaging design. A significant development is the formal introduction of **chemical recyc‐ ling** into the national strategy, a move seen as critical for closing the loop for hard-to-recycle plastics.

This multi-pronged approach is facilitated by the **Israeli Circular Economy IL Platform**, a national stakeholder body that connects local initiatives with European counterparts to exchange knowledge and foster collaboration. The economic commitment is also substantial, with private investments in plastics circularity alone totaling USD 3.8 billion between 2018 and mid-2023, led by major corporate investments in refill and reuse models. Through this combination of ambitious targets, significant pub‐ lic and private investment, a strong regulatory framework, and a focus on innovation, Israel is actively constructing the foundations for a circular economy, demonstrating a clear pathway for other nations facing similar challenges.

# Conclusion and Policy Implications

The analysis of waste treatment structures and circular economy indicators in developed nations dur‐ ing 2023-2024 reveals a critical juncture. While awareness and policy ambition have never been high‐ er, tangible progress in decoupling economic growth from resource consumption and waste generation remains alarmingly slow. The global circularity rate is in decline, and the sheer volume of waste con‐ tinues to grow, posing severe environmental and economic threats. The stark contrast between the projected costs of a business-as-usual scenario and the potential net economic gains of a circular economy model presents a clear and urgent case for transformative action.

Developed countries offer diverse models, from the comprehensive legislative framework of the European Union and the deeply integrated societal approach of Japan to the fragmented, state-led landscape of the United States. The case of Israel demonstrates that rapid, policy-driven transforma‐ tion is possible, but requires a combination of ambitious targets, substantial investment, robust regulation, and a supportive innovation ecosystem.

Based on this analysis, several key policy implications emerge for researchers and policymakers. First, the development and adoption of harmonized, comprehensive circular economy indicators, including material and consumption footprints, are essential for accurate monitoring and effective policymaking. The data lag seen in the U.S. is a significant impediment to progress and must be addressed. Second, policy frameworks must move beyond a narrow focus on end-of-life waste management to encompass the entire product lifecycle. This includes implementing policies like ecodesign regulations, promoting markets for secondary raw materials, and establishing effective Extended Producer Responsibility schemes that hold producers accountable. Third, economic instruments are critical drivers of change. Landfill taxes have proven effective in diverting waste, and mechanisms that ensure polluters pay the

full environmental and social cost of their products are necessary to level the playing field for circular business models. Finally, fostering collaboration—between government ministries, across national bor‐ ders, and among public and private stakeholders—is paramount to accelerating the transition. The path to a truly circular economy requires a systemic shift, and the evidence presented indicates that while the challenge is immense, the tools and strategies for success are within reach.

# References

[UNEP](https://www.unep.org/resources/global-waste-management-outlook-2024) [(https://www.unep.org/resources/global-waste-management-outlook-2024)](https://www.unep.org/resources/global-waste-management-outlook-2024)

[Statista](https://www.statista.com/chart/31449/waste-management-score-on-the-yale-environmental-performance-index-by-country/) [(https://www.statista.com/chart/31449/waste-management-score-on-the-yale-environmental-](https://www.statista.com/chart/31449/waste-management-score-on-the-yale-environmental-performance-index-by-country/) [performance-index-by-country/)](https://www.statista.com/chart/31449/waste-management-score-on-the-yale-environmental-performance-index-by-country/)

[UN-Water](https://www.unwater.org/publications/progress-wastewater-treatment-2024-update) [(https://www.unwater.org/publications/progress-wastewater-treatment-2024-update)](https://www.unwater.org/publications/progress-wastewater-treatment-2024-update) [UNECE](https://unece.org/sites/default/files/2024-06/S2_1_The%20Global%20Waste%20Management%20Outlook%202024.pdf) [(https://unece.org/sites/default/files/2024-06/](https://unece.org/sites/default/files/2024-06/S2_1_The%20Global%20Waste%20Management%20Outlook%202024.pdf) [S2\_1\_The%20Global%20Waste%20Management%20Outlook%202024.pdf)](https://unece.org/sites/default/files/2024-06/S2_1_The%20Global%20Waste%20Management%20Outlook%202024.pdf)

[Capacity4dev](https://capacity4dev.europa.eu/library/global-waste-management-outlook-2024-beyond-age-waste_en) [(https://capacity4dev.europa.eu/library/global-waste-management-outlook-2024-beyond-](https://capacity4dev.europa.eu/library/global-waste-management-outlook-2024-beyond-age-waste_en) [age-waste\_en)](https://capacity4dev.europa.eu/library/global-waste-management-outlook-2024-beyond-age-waste_en)

[WHO](https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/monitoring-and-evidence/wash-monitoring/2023-country-files-for-sdg-6.3.1) [(https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/](https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/monitoring-and-evidence/wash-monitoring/2023-country-files-for-sdg-6.3.1) [monitoring-and-evidence/wash-monitoring/2023-country-files-for-sdg-6.3.1)](https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/monitoring-and-evidence/wash-monitoring/2023-country-files-for-sdg-6.3.1)

[Results in Engineering, 24](https://www.sciencedirect.com/science/article/pii/S2590123024017377) [(https://www.sciencedirect.com/science/article/pii/S2590123024017377)](https://www.sciencedirect.com/science/article/pii/S2590123024017377) [OECD](https://www.oecd.org/en/publications/waste-management-and-the-circular-economy-in-selected-oecd-countries_9789264309395-en.html) [(https://www.oecd.org/en/publications/waste-management-and-the-circular-economy-in-selected-](https://www.oecd.org/en/publications/waste-management-and-the-circular-economy-in-selected-oecd-countries_9789264309395-en.html) [oecd-countries\_9789264309395-en.html)](https://www.oecd.org/en/publications/waste-management-and-the-circular-economy-in-selected-oecd-countries_9789264309395-en.html)

[ScienceDirect](https://www.sciencedirect.com/science/article/pii/S0956053X24005567) [(https://www.sciencedirect.com/science/article/pii/S0956053X24005567)](https://www.sciencedirect.com/science/article/pii/S0956053X24005567)

[European Circular Economy Stakeholder Platform](https://circulareconomy.europa.eu/platform/en/knowledge/waste-management-and-circular-economy-selected-oecd-countries) [(https://circulareconomy.europa.eu/platform/en/know‐](https://circulareconomy.europa.eu/platform/en/knowledge/waste-management-and-circular-economy-selected-oecd-countries) [ledge/waste-management-and-circular-economy-selected-oecd-countries)](https://circulareconomy.europa.eu/platform/en/knowledge/waste-management-and-circular-economy-selected-oecd-countries)

[Springer Link](https://link.springer.com/article/10.1007/s10668-021-02050-3) [(https://link.springer.com/article/10.1007/s10668-021-02050-3)](https://link.springer.com/article/10.1007/s10668-021-02050-3)

[gbv.de](https://www.gbv.de/dms/zbw/1687863237.pdf) [(https://www.gbv.de/dms/zbw/1687863237.pdf)](https://www.gbv.de/dms/zbw/1687863237.pdf)

[mlgp4climate.com](https://www.mlgp4climate.com/uploads%2FMLGP%20Library%2FUseful%20Documents%2FEnglish%2FL545%20eng.pdf) [(https://www.mlgp4climate.com/up‐](https://www.mlgp4climate.com/uploads%2FMLGP%20Library%2FUseful%20Documents%2FEnglish%2FL545%20eng.pdf) [loads%2FMLGP%20Library%2FUseful%20Documents%2FEnglish%2FL545%20eng.pdf)](https://www.mlgp4climate.com/uploads%2FMLGP%20Library%2FUseful%20Documents%2FEnglish%2FL545%20eng.pdf) [Stanford University Libraries](https://searchworks.stanford.edu/view/13461949) [(https://searchworks.stanford.edu/view/13461949)](https://searchworks.stanford.edu/view/13461949)

[Present Environment and Sustainable Development](https://www.pesd.ro/articole/nr.18/nr.1/pesd2024181003.pdf) [(https://www.pesd.ro/articole/nr.18/nr.1/pes‐](https://www.pesd.ro/articole/nr.18/nr.1/pesd2024181003.pdf) [d2024181003.pdf)](https://www.pesd.ro/articole/nr.18/nr.1/pesd2024181003.pdf)

[thejudean.com](https://thejudean.com/index.php/news/science-technology/1789-transforming-waste-management-in-israel-a-path-to-80-recycling-by-2030) [(https://thejudean.com/index.php/news/science-technology/1789-transforming-waste-](https://thejudean.com/index.php/news/science-technology/1789-transforming-waste-management-in-israel-a-path-to-80-recycling-by-2030) [management-in-israel-a-path-to-80-recycling-by-2030)](https://thejudean.com/index.php/news/science-technology/1789-transforming-waste-management-in-israel-a-path-to-80-recycling-by-2030)

[gov.il](https://www.gov.il/en/pages/waste_strategy_2030_circular_economy_2050) [(https://www.gov.il/en/pages/waste\_strategy\_2030\_circular\_economy\_2050)](https://www.gov.il/en/pages/waste_strategy_2030_circular_economy_2050)

[switchmed.eu](https://switchmed.eu/country-hub/israel/) [(https://switchmed.eu/country-hub/israel/)](https://switchmed.eu/country-hub/israel/)

[circulareconomy.europa.eu](https://circulareconomy.europa.eu/platform/en/dialogue/existing-eu-platforms/israeli-circular-economy-il-platform) [(https://circulareconomy.europa.eu/platform/en/dialogue/existing-eu-](https://circulareconomy.europa.eu/platform/en/dialogue/existing-eu-platforms/israeli-circular-economy-il-platform) [platforms/israeli-circular-economy-il-platform)](https://circulareconomy.europa.eu/platform/en/dialogue/existing-eu-platforms/israeli-circular-economy-il-platform)

[thecirculateinitiative.org](https://countryfactsheets.thecirculateinitiative.org/assets/images/pdf/Israel.pdf) [(https://countryfactsheets.thecirculateinitiative.org/assets/images/pdf/Is‐](https://countryfactsheets.thecirculateinitiative.org/assets/images/pdf/Israel.pdf) [rael.pdf)](https://countryfactsheets.thecirculateinitiative.org/assets/images/pdf/Israel.pdf)

[circulareconomy.co.il](https://circulareconomy.co.il/) [(https://circulareconomy.co.il/)](https://circulareconomy.co.il/)

[stat.si](https://www.stat.si/StatWeb/en/News/Index/13442) [(https://www.stat.si/StatWeb/en/News/Index/13442)](https://www.stat.si/StatWeb/en/News/Index/13442)

[circularity-gap.world](https://www.circularity-gap.world/2024) [(https://www.circularity-gap.world/2024)](https://www.circularity-gap.world/2024)

[sgi-network.org](https://www.sgi-network.org/docs/2024/thematic/SGI2024_Circular_Economy.pdf) [(https://www.sgi-network.org/docs/2024/thematic/SGI2024\_Circular\_Economy.pdf)](https://www.sgi-network.org/docs/2024/thematic/SGI2024_Circular_Economy.pdf) [securesustain.org](https://securesustain.org/report/global-waste-management-outlook-2024/) [(https://securesustain.org/report/global-waste-management-outlook-2024/)](https://securesustain.org/report/global-waste-management-outlook-2024/) [clariter.com](https://clariter.com/israels-new-waste-strategy-and-the-introduction-to-chemical-recycling/) [(https://clariter.com/israels-new-waste-strategy-and-the-introduction-to-chemical-recyc‐](https://clariter.com/israels-new-waste-strategy-and-the-introduction-to-chemical-recycling/) [ling/)](https://clariter.com/israels-new-waste-strategy-and-the-introduction-to-chemical-recycling/)

[trade.gov](https://www.trade.gov/country-commercial-guides/israel-environmental-technologies) [(https://www.trade.gov/country-commercial-guides/israel-environmental-technologies)](https://www.trade.gov/country-commercial-guides/israel-environmental-technologies) [innovationisrael.org.il](https://innovationisrael.org.il/en/calls_for_proposal/environmental-protection-and-climatech-pilots/) [(https://innovationisrael.org.il/en/calls\_for\_proposal/environmental-protection-](https://innovationisrael.org.il/en/calls_for_proposal/environmental-protection-and-climatech-pilots/) [and-climatech-pilots/)](https://innovationisrael.org.il/en/calls_for_proposal/environmental-protection-and-climatech-pilots/)

[wedocs.unep.org](https://wedocs.unep.org/handle/20.500.11822/43851) [(https://wedocs.unep.org/handle/20.500.11822/43851)](https://wedocs.unep.org/handle/20.500.11822/43851)

[European Commission](https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en) [(https://environment.ec.europa.eu/strategy/circular-economy-action-plan\_en)](https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en) [transition-pathways.europa.eu](https://transition-pathways.europa.eu/news-events/news/accelerating-circular-economy-europe-state-and-outlook-2024-2024-03-26_en) [(https://transition-pathways.europa.eu/news-events/news/accelerating-](https://transition-pathways.europa.eu/news-events/news/accelerating-circular-economy-europe-state-and-outlook-2024-2024-03-26_en) [circular-economy-europe-state-and-outlook-2024-2024-03-26\_en)](https://transition-pathways.europa.eu/news-events/news/accelerating-circular-economy-europe-state-and-outlook-2024-2024-03-26_en)

[unece.org](https://unece.org/sites/default/files/2024-05/ECE_CES_2024_10_E.pdf) [(https://unece.org/sites/default/files/2024-05/ECE\_CES\_2024\_10\_E.pdf)](https://unece.org/sites/default/files/2024-05/ECE_CES_2024_10_E.pdf)

[eib.org](https://www.eib.org/en/publications/circular-economy-overview) [(https://www.eib.org/en/publications/circular-economy-overview)](https://www.eib.org/en/publications/circular-economy-overview)

[interoperable-europe.ec.europa.eu](https://interoperable-europe.ec.europa.eu/news/rolling-plan-ict-standardisation-2024-published_en) [(https://interoperable-europe.ec.europa.eu/news/rolling-plan-ict-](https://interoperable-europe.ec.europa.eu/news/rolling-plan-ict-standardisation-2024-published_en) [standardisation-2024-published\_en)](https://interoperable-europe.ec.europa.eu/news/rolling-plan-ict-standardisation-2024-published_en)

[epa.gov](https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling) [(https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling)](https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling) [wastedive.com](https://www.wastedive.com/news/2023-waste-recycling-news-by-the-numbers/703275/) [(https://www.wastedive.com/news/2023-waste-recycling-news-by-the-numbers/](https://www.wastedive.com/news/2023-waste-recycling-news-by-the-numbers/703275/) [703275/)](https://www.wastedive.com/news/2023-waste-recycling-news-by-the-numbers/703275/)

[zenbird.media](https://zenbird.media/japan-publishes-2024-white-papers-on-environment-circular-economy-and-biodiversity/) [(https://zenbird.media/japan-publishes-2024-white-papers-on-environment-circular-](https://zenbird.media/japan-publishes-2024-white-papers-on-environment-circular-economy-and-biodiversity/) [economy-and-biodiversity/)](https://zenbird.media/japan-publishes-2024-white-papers-on-environment-circular-economy-and-biodiversity/)

[jica.go.jp](https://www.jica.go.jp/activities/issues/env_manage/jcci/__icsFiles/afieldfile/2025/03/26/3-1_Circular_Economy_Ko-Matsuura.pdf) [(https://www.jica.go.jp/activities/issues/env\_manage/jcci/ icsFiles/afieldfile/](https://www.jica.go.jp/activities/issues/env_manage/jcci/__icsFiles/afieldfile/2025/03/26/3-1_Circular_Economy_Ko-Matsuura.pdf) [2025/03/26/3-1\_Circular\_Economy\_Ko-Matsuura.pdf)](https://www.jica.go.jp/activities/issues/env_manage/jcci/__icsFiles/afieldfile/2025/03/26/3-1_Circular_Economy_Ko-Matsuura.pdf)

[onestepbeyond.co.jp](https://onestepbeyond.co.jp/blogs/smes-and-the-circular-economy-strategies-for-resource-efficiency-in-japan/) [(https://onestepbeyond.co.jp/blogs/smes-and-the-circular-economy-strategies-for-](https://onestepbeyond.co.jp/blogs/smes-and-the-circular-economy-strategies-for-resource-efficiency-in-japan/) [resource-efficiency-in-japan/)](https://onestepbeyond.co.jp/blogs/smes-and-the-circular-economy-strategies-for-resource-efficiency-in-japan/)

[sdg.iisd.org](https://sdg.iisd.org/news/unece-oecd-issue-guidelines-for-measuring-circular-economy/) [(https://sdg.iisd.org/news/unece-oecd-issue-guidelines-for-measuring-circular-economy/)](https://sdg.iisd.org/news/unece-oecd-issue-guidelines-for-measuring-circular-economy/)

[oecd-events.org](https://www.oecd-events.org/ggsd-2024/en/content/key-resources) [(https://www.oecd-events.org/ggsd-2024/en/content/key-resources)](https://www.oecd-events.org/ggsd-2024/en/content/key-resources) [Eurostat](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_statistics) [(https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste\_statistics)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Waste_statistics) [OECD Environment Directorate](https://www.oecd.org/environment/) [(https://www.oecd.org/environment/)](https://www.oecd.org/environment/)

[Circularity Gap Reporting Initiative](https://www.circularity-gap.world/2025) [(https://www.circularity-gap.world/2025)](https://www.circularity-gap.world/2025)