

MED TEST III

Contributing to a more circular plastic industry in Israel



Overview

Cheap, light and versatile, plastics have become the universal material of our economies. Consumers as businesses alike rely on plastics, but most plastic waste rarely gets a second chance. This pattern not only creates significant amounts of waste, but also results in an economic loss for the society. In 2015, the global production of plastics was 407 million metric tons (t), correspondingly 302 million t of plastic waste was generated. These figures are expected to twofold by 2030, while only 10% of this amount will have made it to a recycling bin.

The plastic industry in Israel, involves about 25,000 people, 400 companies, and with a turnover of 5 billion Euro per year, it contributes with 5-6% to the national GDP. Out of the 1 million t plastic waste that Israel generates each year, merely 6% gets recycled and only less than 50,000 t of recycled plastic resins are annually produced. Nevertheless, demand for recycled resins from the local plastic industry is growing, and reached approximately 120,000 t in 2019.

A significant amount of post-consumer plastic waste collected through the deposit and the Extended Producer Responsibility (EPR) schemes in Israel, is exported instead of being recycled locally. Considering that Israel is importing almost 80% of the virgin resins to supply its plastic sector, an efficient plastic waste recycling value chain could reduce dependence from raw material imports.

Apart from insufficient capacities, locally produced recycled plastic resins have low quality also due to the lack of national standards related to recycling processes, products, including food contact packaging material. Economic incentives and policy instruments can create an enabling environment for increasing the demand and the offer of recycled plastic resins, spurring innovation and new market opportunities along the plastic value chain.

MED TEST III in Israel

Since 2014, the United Nations Development Organization (UNIDO) has demonstrated in Israel the benefits of a resource efficient and sustainable production through the EU funded SwitchMed programme. The next level is to support industries to become more circular producing with recycled sourced materials that can, again, be recycled.

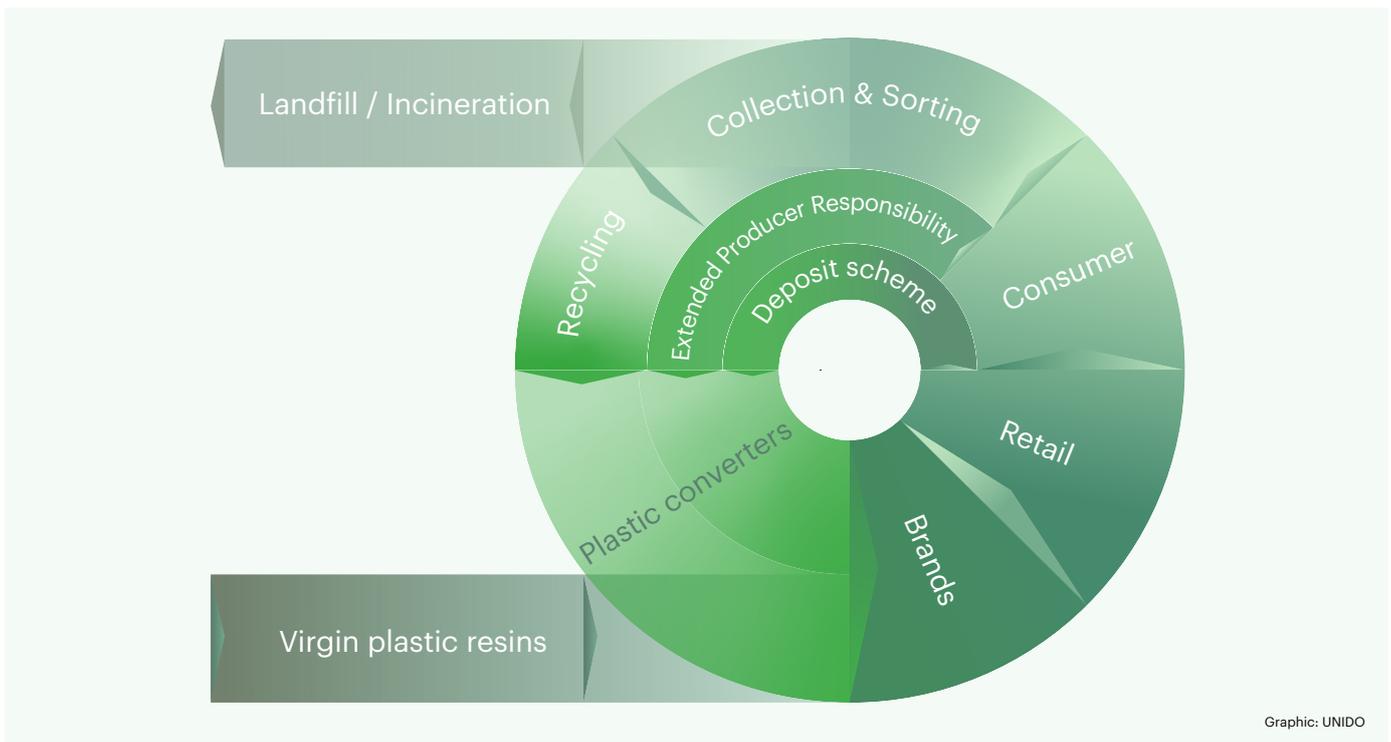
Israel is in the process of upgrading the waste collection system to increase the quantity and the quality of sorted plastic waste, while improving the ability of the local recycling industry to handle higher volumes of post-consumer plastic waste. The Ministry of Environmental Protection is also developing a new national strategy on plastic that will upgrade the existing EPR scheme for plastic packaging.

In line with this development, the second phase of the EU funded SwitchMed programme - MED TEST III project, will focus on specific actions to improve the circularity of the plastic industry in Israel in partnership with a pool of institutional stakeholders, such as, Ministry of Economy, Ministry of Environmental Protection, EPRs/Deposit schemes, the Manufacturers Association of Israel, and the Standards Institute of Israel.

The actors in the plastic value chain will benefit from:

-  **Plastic converters** will be able to incorporate more recycled resins into their products, according to national guidelines for recyclability;
-  **Brands** from the beverage & food sector, may source rPET resins locally produced, to align with their corporate targets on increasing recycled contents in their packaging;
-  **The plastic sorting and recycling sector** will gain from resource efficient technology foresight for better separation of plastic waste and improved quality of recycled resins;
-  **Policy makers** will receive support for designing instruments that support a conducive environment and stimulate circularity in the plastic sector.

Circularity in the plastic packaging value chain



Mapping the plastic waste recycling value chain and identifying pilot projects

A national survey of the value chain for plastic waste (sorting and recycling plants, converters, end users) will be conducted with the aim of understanding current drivers, barriers and the market potential related to the demand and offer of recycled resins within key plastic production sectors; and define the training needs on “design for recyclability” of plastic products, especially by plastic converters. Next to the mapping and consultations with key stakeholders along the value chain, comes the identification of pilot projects on plastic circular economy. The objective of the pilot projects is to demonstrate innovative business models through partnerships and long terms agreements connecting key market players along the plastic value chain to enable stable, good quality and lower price supply of recycled content in plastic products (closing the loop).

Undertaking a market study for setting up an rPET bottle to bottle recycling plant

As one of the most popular packaging materials, PET is also globally the most recycled plastic resin. Recycled PET resins (rPET) from post-consumer waste streams (e.g. deposit collection schemes), such as bottles, can also be used for food contact packaging material. In Israel the PET bottles waste is largely exported. UNIDO will support the government of Israel in a market study for establishing a bottle-to-bottle PET recycling plan to produce flakes and resins of different grades, including food grade, approved by the Food and Drug Administration (FDA). Alternative scenarios will be explored with respect to the business model and the technological solutions to fit the Israeli context, considering global and EU best practices.

Supporting the development of guidelines for “design for recyclability of plastic packaging”, standards and policy incentives

UNIDO will engage with key stakeholders (policy makers, plastic manufacturer associations, EPR scheme) in a consultation process to adopt national guidelines for better design of plastic packaging to increase their recyclability, based on European and international best practices. A review of international standards for plastic recycled resins and products will be undertaken to inform the pre-standardization process led by the Standards Institute of Israel. Recommendations on potential improvements of existing policy instruments (e.g. green building standard, public procurement regulations, etc.) will be drafted to support incentives that can upscale the use of plastic recycled products in the construction and the public sector. Economic incentives for plastic converters to use recycled resins into their products or for strengthening the recycling industry, will also be explored, following European experience and blue print models.

In cooperation with:

המשרד להגנת הסביבה



الوزارة لحماية البيئة
Israel Ministry of Environmental Protection



Ministry of Economy and Industry
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