

# Circularity

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Circularity plays a vital role in understanding how large-scale events impact host cities. Applied to large, temporary events like Milan Design Week, the circular economy model aims to reduce environmental and other impacts on cities, improving resources use, reducing waste, and promoting sustainable structures, products, and activities over the event's entire lifecycle. For eventful cities<sup>1</sup> event sustainability largely depends on attracting a diverse and balanced number of visitors proportionate to the local population, by valuing their territory and related infrastructures without compromising them<sup>2</sup>. Cities must design and plan events with local stakeholders to achieve a sustainable long-term impact.

Over the last decade, the interest and focus on circularity-related issues related to large-scale events has grown in Milan among institutions, businesses, experts and the general public. The Olympics, from London 2012 to Paris 2024 and the upcoming Milano-Cortina 2026<sup>3</sup> winter games, are examples of this phenomenon. These events inspired the establishment of international norms and standards like ISO 20121,<sup>4</sup> which help organizations and institutions manage increasingly sustainable events (conferences, trade shows, concerts, and festivals). Major events deploy circularity strategies by focusing on sustainable and reusable infrastructure and setups, adopting sustainable mobility and smart logistics, reducing energy consumption and waste production, and reducing pollutant emissions.

We investigated these circularity-related factors within the Milan design ecosystem. The Italian trade fair sector and the corresponding exhibition industry<sup>5</sup> are moving toward a sustainability and digital transformation strategy, by planning and promoting recyclable materials and solutions for recovering and reusing setups as part of a circularity-based perspective.

Our research identified two levels of circularity-related initiatives promoted by prominent private and public actors. The first and most advanced of these levels involves adopting technical standards for trade fair sector event sustainability. Salone del Mobile.Milano has implemented a strategy and tools to address

this. Since 2023, it became an ISO 20121 certified event (see Ch. 2, Section 2.a). The system of indicators through which Salone del Mobile.Milano measures its overall performance includes *Criteri Ambientali Minimi* (CAM), or Minimum Environmental Criteria<sup>6</sup> for the selection of exhibitions materials. Nineteen indicators measure waste production, storage and disposal; other indicators measure energy consumption, transport emissions and, last, trade fair event inclusivity and accessibility.

The second level focuses on actions to promote sustainability and accessibility best practices within the Design Week events in the city. The Municipality of Milan's Call for projects and initiatives to be included in the 2024 Milano Design Week programme<sup>7</sup> prioritized the circularity of exhibitions to encourage good practice<sup>8</sup>.

Politecnico di Milano took a snapshot of the current situation by surveying the city's event organisers during the most recent Design week, dedicating a specific set of questions to exhibition sustainability (Ch. 3, Section 3.c). Most of 260 respondents (81.3%) self-declared that they would partially or fully reuse their exhibitions; 14.2% stated that it will be partially or totally recycled; just 4.4% stated that they will dispose of it. These figures should be interpreted within a highly diversified exhibitions landscape, ranging from setting up furniture elements in historic buildings to reconfiguring existing showrooms, creating site-specific installations, and trade fair-style setups (without reaching Large and Extra-large sized spaces), often using modular systems already available on the market.

According to data provided by the Directorate for Green and Environment, Municipality of Milan, and AMAT (Figure 5.17, p. 204), in 2024 waste collected in Milan during the Design Week amounted to 13,425 tonnes compared to 12,757 tonnes in 2023 (+5.2%). In 2024 more waste was collected during the Design Week than during the 7 days before and after the event. Same trend in 2023. If we extend the analysis to January-May 2024, we finally find that the volume of waste collected during the Design Week was the second highest recorded, 737 tonnes more than

the weekly average for that period (12,688 tonnes), and that only 8 out of 21 weeks exceeded 13,000 tonnes of waste collected. In 2023, 9 out of the 52 weeks recorded collection volumes exceeding 13,000 tonnes, and as many as 23 out of 52 weeks recorded volumes above 12,500 tonnes.

These data show that the Design Weeks produce higher-than-average quantities of waste, albeit with values lower than the highest peaks and similar to several other weeks during the year. Various factors can influence waste production volume trends, not least ever-higher numbers of visitors and tourists, large-scale collective events, and trends related to specific periods or seasons of the year (May and November register some of the highest values). The available data is not sufficiently granular to verify differences in waste volumes collected in different parts of the city.

For all waste production and disposal-related data at the Salone del Mobile.Milano, please refer to Chapter 2 (Section 2.a). We wish to highlight two findings regarding 2024: the first concerns an 18.6% increase in the volume of unsorted waste (from 2.15 kg/m<sup>2</sup> in 2023 to 2.55 kg/m<sup>2</sup> in 2024), correlating with an increase in the number of visits to the exhibition (up 20.2% in 2024); the second relates to a virtuous decrease in mixed demolition waste, and the near-total elimination of plasterboard.

Data on exhibition sustainability and waste production offers two interesting insights. The first is the Salone del Mobile.Mila-

no's concrete commitment to a sustainable event. Considered together with the Municipality of Milan's growing focus on circularity for events during the Design Week, they constitute two examples of good practice, moving toward a common goal of encouraging business, industry professionals to adopt and disseminate sustainable practices and stimulating a circular transition of this large-scale event.

The second insight emphasizes the importance of adopting new tools and methods to more analytically and extensively measure material and resource consumption and waste during the Design Week, taking into account activities undertaken by organizers and suppliers and the behaviour of general public attendees. Analysing the impact of the various activities and associated consumption and waste entails associating such data with the life cycle (LCA) of the entire event, including energy consumption.

To conclude, all data must be compared against consumption trends already monitored by the Salone del Mobile.Milano, and contextualized against research into the urban metabolism of a city like Milan, which is experiencing a steady growth in visitors with a consequent impact on the city.

**5.17  
Waste  
collected in  
Milan**

Weekly variance of waste collected in the Municipality of Milan (in tonnes). Data regards the period from the 1st of January 2023 to the 26th of May 2024 (73 weeks total).

**Source:** Directorate for Green and Environment, Municipality of Milan and Mobility, Environment and Territory Agency of the Municipality of Milan (AMAT).

