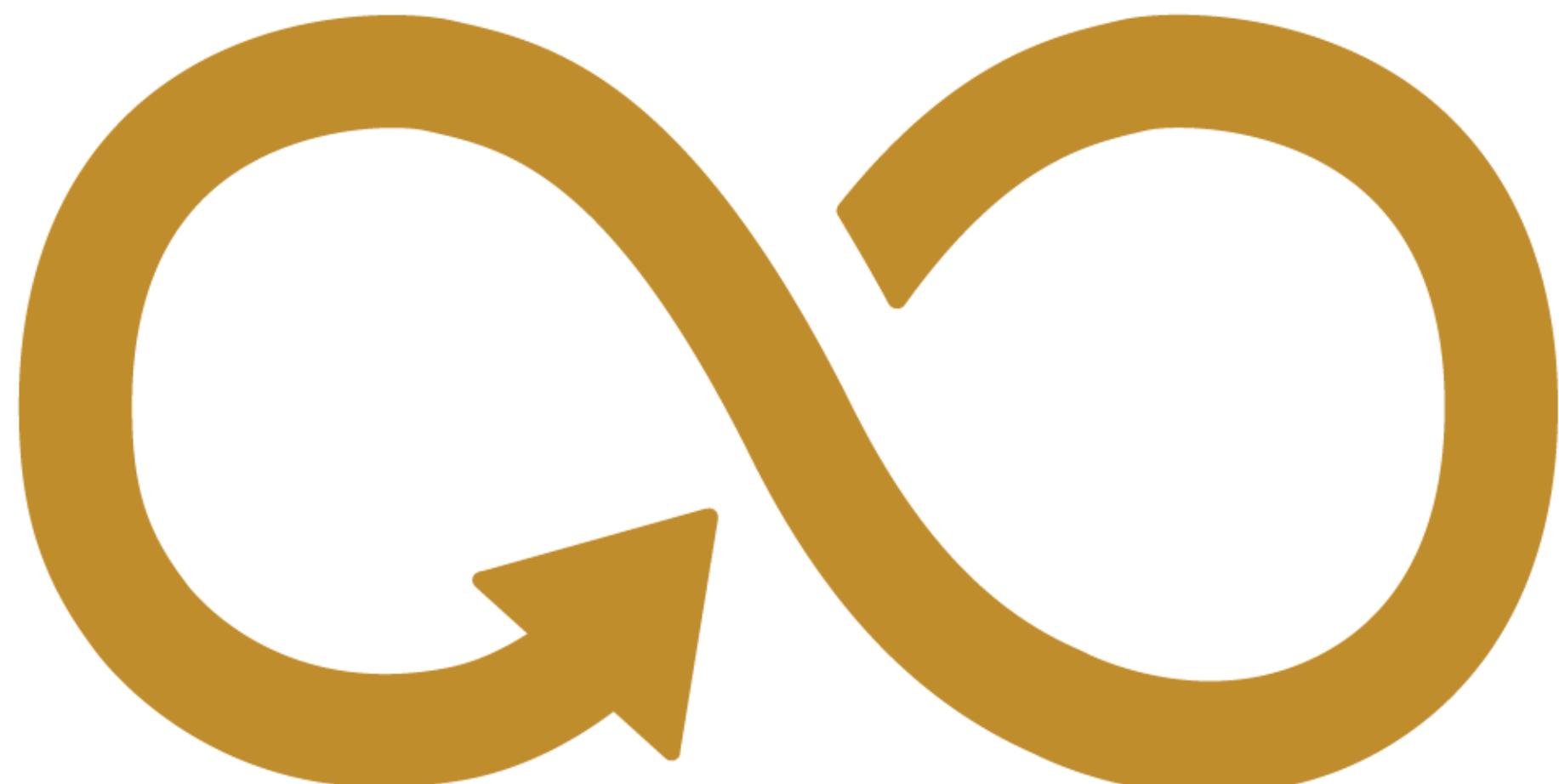


12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Global production and consumption patterns remain unsustainable. Özyegin University promotes responsible consumption through green campus operations, awareness programs on waste reduction, and research on circular economy models that inform business and policy.

33 **0.75** **4** **20**

Scholarly Publications
(2020-2024)

Citation Impact
(FWCI)

Funded
Projects

Student-Led
Activities

"We're Disposing of What We Consume!" Campus-Wide Recycling Initiative

Organized each semester as part of Özyegin University's Zero Waste Management System under the ISO 14001 Environmental Management framework, the recurring "We're Disposing of What We Consume!" event raises campus-wide awareness on recycling and environmental responsibility. Held in honor of Global Recycling Day on March 18, the event engages students in both learning and action, emphasizing empathy, collaboration, and shared responsibility for a clean campus environment.

The program begins with a seminar on waste management and recycling practices at ÖzÜ, followed by a hands-on activity where students join cleaning staff and volunteers from the HSE Community and Conscious ÖzÜ to collect and sort waste across campus. Having reached around 600 participants to date, the event not only strengthens environmental awareness but also fosters appreciation for cleaning operations. In recognition of its impact, Özyegin University received the 2024 Türkiye Scale (Private Sector) Award at Akdeniz University's 27th Environmental Service Awards for this initiative.



Waste Management and Resource Efficiency

Özyegin University integrates circular economy principles into all campus operations through a comprehensive Waste Management Plan based on the 3R approach—Reduce, Reuse, Recycle—and supported by its integrated management systems. As the first university in Türkiye to receive the Zero Waste Certificate from the Ministry of Environment, Urbanization and Climate Change in 2020, and again following inspection this year, the university continues to strengthen its commitment to resource efficiency and waste minimization.

Plastic and paper cups have been eliminated from kitchens, and dual waste bins for recycling and general waste have replaced single bins across classrooms, offices, and outdoor areas. On-site segregation and recycling are practiced throughout the Çekmeköy campus and dormitories, while electronic waste is minimized through a six-year laptop replacement cycle in which components are reused when possible. Measurable targets set in the university's Strategic Plan guide efforts to reduce per-capita waste generation and increase recycling rates.

These initiatives are supported by integrated management systems including ISO 9001, ISO 14001, ISO 45001, ISO 50001, and ISO 46001. Awareness activities and trainings ensure that students, faculty, and staff are active participants in sustainable waste practices, creating a culture of efficiency and responsibility across the university's daily operations..

Collaborative Initiatives on Food Waste and Sustainability

On November 20, 2024, Özyegin University participated in "The Taste of Food Waste is Gone" panel organized by Şile Municipality. During the event, important information was shared about food waste and environmental sustainability. The opening speech was delivered by Mr. Özgür Kabadayı, Mayor of Şile, who emphasized the importance of social responsibility in reducing the environmental impact of food waste and developing sustainable solutions.

Paper Waste Donation to TEMA Foundation

Within the scope of information security, paper waste is collected and taken for destruction, and the proceeds are donated to the TEMA Foundation on behalf of Özyegin University. In 2024, a letter of appreciation was received from the TEMA Foundation in recognition of the donation made by the university. The donations are utilized by the TEMA Foundation for purposes such as combating erosion, afforestation, and protecting natural resources.





Lost Waters of Istanbul: Urban Heritage and Natural Resources

Dr. Kaan Özgün, faculty of Architecture at ÖzÜ, and his graduate student Beliz Bayraktar's research examines Istanbul, historically known as a water city, which has long relied on aquifers and conveyance structures. Today, urbanization and excessive groundwater use threaten these systems, leaving only 174 of 321 creeks. The study explores how natural elements like creeks and springs influenced Istanbul's urban heritage, including bostans (gardens) and hagiasmas (sacred springs).

Using GIS, researchers compared historical and modern land use through maps like the 1845 Mühendishane-i Berri Hümeyun map and the "Carte de Constantinople." Focusing on the historical peninsula, they analyzed its past and present features, revealing significant insights for sustainable land use, tourism development, and heritage policies that balance conservation with responsible resource management.

Sustainable Rural Heritage Management

The study "Sustainable Cultural Heritage Management: A Model Proposal for the Rural Settlements in Türkiye" led by Dr. Didem Boyacıoğlu, aims to develop a rural cultural heritage management model through on-site observation, analysis, and stakeholder

interviews in German rural settlements, and to discuss its adaptability to Turkish rural areas. The research builds upon ongoing work on Şile villages in Istanbul and is prompted by similarities between Şile and German villages.

By evaluating the effectiveness of German cultural heritage management plans, the study seeks to create an adaptable model for Turkish rural settlements, with potential application in Şile villages as a future case study. The research employs mixed methods, combining conceptual and methodological approaches with quantitative and qualitative techniques to define a rural-specific management model that promotes sustainable use of cultural resources and heritage sites.

Innovative Concrete Technologies and Sustainable Building Materials

Two ÖzÜ laboratories managed by Assoc. Prof. Zeynep Başaran Bundur, Chair of Civil Engineering, bring together faculty, interns, students, and technical staff from various disciplines to advance sustainable construction materials. The Advanced Construction Technology Laboratory conducts cutting-edge research on building materials, focusing on sustainable concrete technologies, 3D-printing, bio-based systems, and digital design tools while welcoming global and local researchers and companies.



The Advanced Concrete Technologies laboratory develops conceptual methodologies, theoretical knowledge, and experimental validation for innovative and sustainable building materials through holistic approaches.

The Construction Materials laboratory tests various building materials, primarily concrete, with facilities to investigate both mechanical and chemical structures of cement-based materials. These laboratories contribute to responsible production by developing materials that reduce environmental impact while maintaining structural performance and durability.

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