



— ISTANBUL —
OKAN UNIVERSITY

MAKING THE WORLD A BETTER PLACE:

A Report On Our Progress with the
17 Sustainable Development Goals
SDG 9—INDUSTRY, INNOVATION AND
INFRASTRUCTURE



The 17 Sustainable Development Goals

The Sustainable Development Goals (SDGs), also known as Global Goals, are a set of 17 integrated and interrelated goals to end poverty, protect the planet and ensure that humanity enjoys peace and prosperity.



THE GLOBAL GOALS





Introduction

Aim of this report presenting the sustainability achievement of OKAN in 2022 for SDG 9. The report introduces the general practices and policies of the university on sustainability.

“Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”

Universities have a significant role to play in advancing SDG 9 by fostering innovation, education, research, and collaboration in fields related to industry and infrastructure. They can serve as catalysts for sustainable development in these areas and help address the global challenges associated with industrial growth and infrastructure development.

SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.



Istanbul Okan University, which educates individuals who contribute to the needs of society and national competitiveness and conducts education, training and research studies at an international level, has the mission of implementing innovative ideas and practices. It aims to offer all its employees and students an environment with low carbon intensity, a high quality of life that protects the existing ecosystem, supports biodiversity, and ensures environmental sustainability by preventing air, water and soil pollution. With this vision and purpose, our university aims to ensure a healthy and quality life by protecting human and environmental health.



SDG 9: Targets

Goal 9.1:	To establish quality, reliable, sustainable and durable infrastructure at the university.	Goal 9.4:	Creating collaborations and partnerships for product and commercialization of R&D.
Goal 9.2:	To educate students with high technical and professional skills to ensure sustainable economic growth in industry and technology.	Goal 9.5:	To contribute to the development of R&D capacities of underdeveloped and developing countries and their access to inclusive and qualified education.
Goal 9.3:	To develop national and international projects and to carry out R&D studies covering vocational education, information and communication technologies, technical, engineering and scientific programs.		



SDG 9: Indicators

Indicator 9.1: To establish quality, reliable, sustainable and durable infrastructure at the university.

Indicator 9.4: To create collaborations and partnerships for product and commercialization of R&D.

Indicator 9.2: To educate students with high technical and professional skills to ensure sustainable economic growth in industry and technology.

Indicator 9.5: To contribute to the development of R&D capacities of underdeveloped and developing countries and their access to inclusive and qualified education.

Indicator 9.3: To develop national and international projects and to carry out R&D studies covering vocational education, information and communication technologies, technical, engineering and scientific programs.



SDG 9: Publications

29 Publications has been published untill 2022 related to SDG 9

Alp, G., Murat, S., Yilmaz, B. (2019). Comparison of Flexural Strength of Different CAD/CAM PMMA-Based Polymers. Journal of Prosthodontics, 28(2) e491-e495

Alp, G., Subasi, M.G., Johnston, W.M. and 1 more (...) (2018). Effect of surface treatments and coffee thermocycling on the color and translucency of CAD-CAM monolithic glass-ceramic. Journal of Prosthetic Dentistry, 120(2) 263-268

Murat, S., Alp, G., Alatalı, C. and 1 more (...) (2019). In Vitro Evaluation of Adhesion of Candida albicans on CAD/CAM PMMA-Based Polymers. Journal of Prosthodontics, 28(2) e873-e879

Arslan, M., Murat, S., Alp, G. and 1 more (...) (2018). Evaluation of flexural strength and surface properties of prepolymerized CAD/CAM PMMA-based polymers used for digital 3D complete dentures. International Journal of Computerized Dentistry, 21(1) 31-40

Subaşı, M.G., Alp, G., Johnston, W.M. and 1 more (...) (2018). Effect of thickness on optical properties of monolithic CAD-CAM ceramics. Journal of Dentistry, 71 38-42

Alp, G., Subaşı, M.G., Seghi, R.R. and 2 more (...) (2018). Effect of shading technique and thickness on color stability and translucency of new generation translucent zirconia. Journal of Dentistry, 73 19-23

Alp, G., Subaşı, M.G., Johnston, W.M. and 1 more (...) (2018). Effect of different resin cements and surface treatments on the shear bond strength of ceramic-glass polymer materials. Journal of Prosthetic Dentistry, 120(3) 454-461

Source: SciVal



SDG 9: Publications

Atalay, S., Çakmak, G., Fonseca, M. and 2 more (...) (2021).Effect of thermocycling on the surface properties of CAD-CAM denture base materials after different surface treatments. Journal of the Mechanical Behavior of Biomedical Materials,121

Çakmak, G., Yilmaz, H., Aydoğ, Ö. and 1 more (...) (2020).Flexural strength of CAD-CAM and conventional interim resin materials with a surface sealant. Journal of Prosthetic Dentistry,124(6) 800-800.e7

Iban, M.C., Aksu, O. (2020).A model for big spatial rural data infrastructure in Turkey: Sensor-driven and integrative approach. Land Use Policy,91

Gurpinar, B., Tak, O. (2022).Effect of pulp chamber depth on the accuracy of endocrown scans made with different intraoral scanners versus an industrial scanner: An in vitro study. Journal of Prosthetic Dentistry,127(3) 430-437

Çakmak, G., Subaşı, M.G., Yilmaz, B. (2021).Effect of thermocycling on the surface properties of resin-matrix CAD-CAM ceramics after different surface treatments. Journal of the Mechanical Behavior of Biomedical Materials,117

Ozdal, T., Yolci-Omeroglu, P., Tamer, E.C. (2019).Role of encapsulation in functional beverages. Biotechnological Progress and Beverage Consumption: Volume 19: The Science of Beverages,195-232

Yalcin, E., Ozdal, T., Gok, I. (2022).Investigation of textural, functional, and sensory properties of muffins prepared by adding grape seeds to various flours. Journal of Food Processing and Preservation,46(5)

Söyleyici Cergel, M., Atay, F. (2019).The role of the annealing process in different gas environments on the degradation of the methylene blue organic pollutant by brookite-TiO₂ photocatalyst. Ionics,25(8) 3823-3836

Source: SciVal



SDG 9: Publications

Saatci, E.Y., Ovaci, C. (2020).Innovation competencies of individuals as a driving skill sets of future works and impact of their personality traits. International Journal of Technological Learning, Innovation and Development,12(1) 27-44

Atalay, S., Çakmak, G., Fonseca, M. and 2 more (...) (2022).Effect of different disinfection protocols on the surface properties of CAD-CAM denture base materials. Journal of Prosthetic Dentistry,

Karimkhani, H., Özkoç, M., Shojaolsadati, P. and 3 more (...) (2021).Protective Effect of Boric Acid and Omega-3 on Myocardial Infarction in an Experimental Rat Model. Biological Trace Element Research,199(7) 2612-2620

Yalcin, A.S., Kilic, H.S., Caglayan, N. (2020).An integrated model with interval valued neutrosophic sets for the selection of lean and sustainable suppliers. Advances in Intelligent Systems and Computing,1029693-701

Tokuc, M., Yilmaz, H. (2022).Comparison of fit accuracy between conventional and CAD/CAM-fabricated band-loop space maintainers. International Journal of Paediatric Dentistry,32(5) 764-771

Ustun, O., Kivanc, O.C., Mokukcu, M.S. (2020).A linear brushless direct current motor design approach for seismic shake tables. Applied Sciences (Switzerland),10(21) 1-13

Kayserili, A., Kiyak, M. (2019).Evaluation of R&D activities and the perspectives of the participants of pharmaceutical companies on r&d in Turkey. Hacettepe University Journal of the Faculty of Pharmacy,39(2) 65-80

Oyar, P., Ulusoy, M., Durkan, R. (2022).Effects of repeated use of tungsten carbide burs on the surface roughness and contact angles of a CAD-CAM PMMA denture base resin. Journal of Prosthetic Dentistry,128(6) 1358-1362

Source: SciVal



SDG 9: Publications

Baker El-Ebiary, Y.A., Hatamleh, A., Aseh, K. and 6 more (...) (2021).Blockchain as a decentralized communication tool for sustainable development. 2021 2nd International Conference on Smart Computing and Electronic Enterprise: Ubiquitous, Adaptive, and Sustainable Computing Solutions for New Normal, ICSCEE 2021,127-133

Yavuz, M., Etiler, N. (2022).The correlation between attack rates and urban health indicators during the third wave of the COVID-19 outbreak in Turkey. Frontiers in Public Health,10

Gozukirmizi, A.S., Kivanc, O.C. (2022).Detection of surface anomalies on electric motors based on visual deep learning methods. IEEE Global Energy Conference, GEC 2022,208-216

Kayserili, A., Kiyak, M. (2019).Assessment of R&D activities in the pharmaceutical sector. Ankara Universitesi Eczacilik Fakultesi Dergisi,43(3) 239-258

Mironiuc, M., Huian, M.C., Țaran, A. and 1 more (...) (2022).FINANCIAL MARKET REACTION TO R&D VOLATILITY IN THE PHARMACEUTICAL INDUSTRY. A MULTI-COUNTRY STUDY. Journal of Business Economics and Management,23(5) 1234-1256

Alp, G., Johnston, W.M., Yilmaz, B. (2019).Optical properties and surface roughness of prepolymerized poly(methyl methacrylate) denture base materials. Journal of Prosthetic Dentistry,121(2) 347-352

Source: SciVal



SDG 9 Industry, Innovation and Infrastructure

"Within the framework of our university's University-Industry cooperation, an R&D company was established on 07.10.2013, 50% of which was transferred to the university after the university's shares, and which will combine information and technology and carry out research and development activities. Okan Tekno Arge - Teknopark Istanbul

Okan University Research Project Development Directorate (ARPROGED) offers academic studies and new technologies developed at Okan University to the industry in order to meet the needs of institutions and organizations and to provide added value to the national development of our country. Founded to serve as the university-industry interface of Okan University, ARPROGED aims to bring 'information' together with the industry and commercialize the added value acquired.

ARPROGED, which was established in 2011 to ensure easy access to scientific and technological information, to produce technology-based information, to lead the commercialization of the produced information and to support technology transfer and entrepreneurship, TÜBİTAK 1601 "TÜBİTAK Support Program for Capacity Increasing in the Fields of Innovation and Entrepreneurship" TTO as of 2015-2016 It was evaluated within the scope of support and was entitled to be supported within the scope of TTO Support for the second time in 2018-2019.

The vision of ARPROGED, defined as Okan University's 'Technology Transfer Office', is to increase the scientific and technological information production capacity on an international scale and to commercialize the produced information and make it useful to society.

Its mission is to increase the scientific and technological knowledge production capacity through academy-industry cooperation, to present new technologies based on this knowledge to the industry, to provide resources for research through national and international support funds, to create suitable platforms for entrepreneurs by protecting the produced knowledge and transforming knowledge into value.



ARPROGED
ARAŞTIRMA VE PROJE GELİŞTİRME DİREKTÖRLÜĞÜ
OKAN ÜNİVERSİTESİ TEKNOLOJİ TRANSFER OFİSİ



SDG 9: What Have We Done?



We held the Ergonomics, Light and Color course at Yatsan, an important company in the sector.



Turkish Technic Visit of Our Aircraft Technologies Program Students



SDG 9: What Have We Done?

A lesson within the industry, our Interior Design Program students held an ergonomics lesson at Ikea.



Turkish Technic Visit of Our Aircraft Technologies Program Students



SDG 9: What Have We Done?



Measurement and documentation work was carried out at Kadıköy Municipality Cartoon House



A technical trip was organized to the Iznik Suriçi region



SDG 9: What Have We Done?



Kanlıca Mosque three-dimensional documentation work



TILA Composite Academy event
A practical event was held on "Composite Materials and Manufacturing".



SDG 9: What Have We Done?



A Technical Trip to Turkish Technic was organized for our Aircraft Technologies Department students



Future Production Technologies interview with POLIGON Engineering



SDG 9: What Have We Done?



A practical event was held on NDT Teknik "Non-Destructive Material Examination".



SOLIDWORKS/CAD/Cam Applications with ABK Technic

SDG 9: What Have We Done?



DAIKIN FUHA Academy Visit



Science and Technology Week Event in Tuzla Mesleki ve Teknik Anadolu Lisesi



SDG 9: What Have We Done?



Drone-Unmanned Aerial Vehicles Seminar



**OKAN Informatics Student Society
Blockchain Summit**



SDG 9: What Have We Done?



OPINA, European Union Calls Information Workshop



RECIPROCITY Mobility Mission Paris



SDG 9: What Have We Done?



OPINA at ADAS & Autonomous Vehicle Technology Expo



European Congress for Intelligent Transport Systems



SDG 9: What Have We Done?



**EIT Urban Mobility Marketplace
Reciprocity Webinar**



**OPINA Workshop for Future
Technologies**



SDG 9: What Have We Done?



**Trainings on New Generation
Technology Held at OKAN
University**



The Future of Mobility Webinar



SDG 9: What Have We Done?



What will Drive a Green and Just Mobility Transition?



JRC Enlargement and Integration Workshop



