PRU
PÎRÎ REİS UNIVERSITY

2025

SUSTAINABLE DEVELOPMENT GOALS REPORT

13 CLIMATE ACTION

SDG 13

Climate Action

2024–2025 Academic Year and 2025 Financial Year



Piri Reis University
sustainability.pirireis.edu.tr

PRU
PÎRÎ REİS UNIVERSITY

PUBLICATION
Piri Reis University
SDG 13: Climate Action Report
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SCOPE
2024-2025 academic year and 2025 financial year (1 September 2024 – 31 December 2025); ongoing practices are also covered.

COMPANION PUBLICATIONS
Piri Reis University Sustainability Report 2025 and the other 16 SDG reports prepared according to the THE Impact Rankings indicators.

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This report presents Piri Reis University's policies, practices, research and activities under SDG 13, structured according to the THE Impact Rankings indicators and supported by evidence. Links in the indicator section lead to publicly available evidence; internal documents are available on request.

13 CLIMATE ACTION

INSTITUTIONAL PROFILE

Piri Reis University at a Glance

Piri Reis University (PRU) is a foundation university established by the Turkish Maritime Education Foundation (TÜDEV), which was founded in 1993 by leading representatives of the maritime sector with the support of the İMEAK Chamber of Shipping; the University acquired legal personality upon the publication of Law No. 5733 in the Official Gazette on 8 February 2008. Its roots go back to the TÜDEV Maritime Education Centre, which trained 2,034 officers between 1995 and 2012.

Guided by its vision "to be a specialised university that is a pioneer in Türkiye and respected worldwide, adding value to the sector by striving for excellence in education and research in every maritime-related field", PRU explicitly commits in its mission to educating individuals who have embraced the Sustainable Development Goals; "Social Responsibility, Sustainability and Environmental Awareness" and "Respect for Diversity and Human Rights" are among the institution's core values.

The University provides education through its Faculties of Maritime Studies, Engineering, Economics and Administrative Sciences, Law, and Arts and Sciences, its Maritime Vocational School and its Graduate Institute, on the Sea Campus and the Preparatory Campus on the Marmara Sea coast in Tuzla. The Sea Campus was designed as a BREEAM-certified "Green Campus" and features a trigeneration plant, greywater and rainwater recovery systems and seawater-based cooling infrastructure.

PRU is the only Turkish foundation university that is a member of the International Association of Maritime Universities (IAMU). It was granted institutional accreditation under the YÖKAK Institutional Accreditation Programme on 21 March 2025, and its Maritime Simulators Centre was accredited by The Nautical Institute as an approved Dynamic Positioning (DP) Training Centre on 22 October 2024.

Piri Reis University in Numbers

6,330
total students (2025): 2,171 associate degree, 4,004 undergraduate, 155 postgraduate

210
full-time academic staff (+109 hourly-paid lecturers)

168
full-time administrative staff

5 + 1 + 1
faculties, vocational school and graduate institute

15
maritime simulators (including 3 full-mission bridges)

6
research and application centres (PRUSAM, DENEKAM, PUSEM, etc.)

42
student clubs, 1,996 club members

5 + 4
national and international patent applications in 2025

29%
share of women among students placed in 2025-26 (2014-15: 14%)

Source: Institutional Self-Evaluation Report (KİDR) 2025 (as of 31 December 2025) and sustainability.pirireis.edu.tr. The share of women is based on the table of placed students published on the sustainability website.

SUSTAINABILITY GOVERNANCE

Our Sustainability Approach and Reporting

Piri Reis University's 2023-2027 Strategic Plan is structured in alignment with the United Nations Sustainable Development Goals (SDGs). For each SDG, the sustainability website publicly sets out the links with the Strategic Plan objectives (excellence of the learning environment, research quality, industry–university cooperation, institutional culture and becoming the best university in maritime) together with additional actions.

The Sustainability Research and Application Center (PRUSAM), established in 2024, works on energy management, decarbonisation, sustainable port operations and digitalisation in line with Net Zero targets; the Center's regulation lists the preparation of the sustainability report and similar outputs among its duties. The Social Contribution Commission, chaired by the Rector, and the Quality Coordination Office contribute to monitoring sustainability activities and disseminating them across the institution.

The University's Climate Change Mitigation and Action Policy Document (2023-2027) sets out the goal of becoming a carbon-neutral university by 2050. Campus operations are assured through the ISO 50001:2018 Energy Management System (2024-2027), the ISO 9001:2015 Quality Management System and the Zero Waste Certificate (February 2025).

PRU took part in the Times Higher Education (THE) Impact Rankings 2025 with all 17 SDGs and was placed in the 1501+ band overall. Its strongest results were in SDG 14 Life Below Water and SDG 15 Life on Land (401–600), followed by 601–800 in SDGs 6, 8, 12 and 16, 801–1000 in SDGs 5, 9, 11 and 13, 801+ in SDG 2, 1001+ in SDGs 1, 7 and 10 and 1501+ in SDGs 3, 4 and 17. This report series has been prepared separately for all 17 SDGs based on the THE Impact Rankings indicators and is published together with the general Sustainability Report.

Scope of this report

- Reporting period: 2024-2025 academic year and 2025 financial year (1 September 2024 – 31 December 2025). Ongoing practices are also covered.
- Scope: Sea Campus and Preparatory Campus; all academic and administrative units, research centres and student clubs.
- Data sources: activities published on sustainability.pirireis.edu.tr, pirireis.edu.tr and unit subdomains, KİDR 2025, the 2023-2027 Strategic Plan, institutional directives and policies, and final reports of Scientific Research Projects (BAP).
- Structure: Indicators are organised according to the THE Impact Rankings methodology; publicly accessible evidence links are provided under each indicator.

SDG 13 · CLIMATE ACTION

The 2050 carbon neutrality target and climate action in maritime

Committed through its Climate Change Mitigation and Action Policy Document to becoming a carbon-neutral university by 2050, PRU is calculating its institutional carbon footprint and contributes to climate action at sector scale through summits, workshops and research on the decarbonisation of the maritime sector.

The policy document sets out strategic objectives for 2023-2027 under the headings of integrating climate issues into education and research, a sustainable campus (energy efficiency, renewable energy, waste reduction, water saving, sustainable transport), climate adaptation and disaster resilience, stakeholder cooperation and transparent reporting. The University's institutional carbon footprint is being calculated through a BAP Infrastructure project.

The Climate Change and Environment Symposium held on 19 November 2025, the Green Fuels for Green Shipping workshop, the Green Fuels and Technologies Session with İMEAK DTO and the 2nd Green Transformation in Maritime Summit opened emission reduction in the maritime sector to discussion. A project on the strategic use of ESG factors in maritime is an example of climate research.

28
related activities and practices (all periods)

17
activities in the reporting period (Sep 2024 – Dec 2025)

14
related research projects (BAP, TÜBİTAK, EU)

2050
carbon-neutral university target

Highlights of the period

- 2050 carbon-neutral university target (Climate Policy Document, 2023-2027)
- Institutional carbon footprint calculation project (BAP-A-2025-01-07)
- Climate Change and Environment Symposium (19 November 2025) and 2nd Green Transformation in Maritime Summit (24 December 2025)
- Climate Change and Environment Symposium (19 Nov 2025, free) and YÖK Science Café "Climate, Seas and Our Future" (27 Jun 2025)
- THE Impact Rankings 2025 SDG 13: 801–1000 band

THE IMPACT RANKINGS INDICATORS

Indicators, Explanations and Evidence

This section summarises Piri Reis University's policies, practices and activities against the indicators of the Times Higher Education (THE) Impact Rankings methodology for SDG 13. Evidence for each indicator is provided with links.

13.2 Low-carbon energy use

13.2.1 Low-carbon energy use

Campus energy consumption is recorded monthly by source (grid electricity, cogeneration electricity and heat, natural gas). The 2024 energy audit proposed a package of measures, including an 856 kWp rooftop solar power plant, with a reduction potential of about 615.9 tonnes of CO_2 per year. A solar hot-water system is installed on the roof of Block D3, and drawing condenser water from the sea saves about 40% of electricity.

EVIDENCE

- Internal document: Monthly energy consumption form (FR.BKM.32) (available on request)
- Internal document: Sea Campus Energy Efficiency Audit Report (January 2024) (available on request)

13.3 Climate change education and preparedness

13.3.1 Climate change education for the community

The Climate Change and Environment Symposium (19 November 2025, three sessions), the Green Fuels for Green Shipping workshop (20-21 March 2025), the Green Fuels and Technologies Session (30 January 2025, ~150 participants) and the 2nd Green Transformation in Maritime Summit (24 December 2025) were open to sector stakeholders and the public.

The symposium was organised with the participation of the Deniz Kültür Association and was free and open to the public. In addition, a public YÖK Science Café talk, "Climate, Seas and Our Future", was held at the Tuzla Municipality Seaside Stage on 27 June 2025.

EVIDENCE

- Climate Change and Environment Symposium Held at Piri Reis University! (19 November 2025) – https://sustainability.pirireis.edu.tr/etkinlikler/iklim-degisikligi-ve-cevre-sempozyumu-piri-reis-universitesinde-gerceklesti/
- Green Fuels for Green Shipping workshop (20-21 March 2025) – https://pirireis.edu.tr/haberler/green-fuels-for-green-shipping-sempozyumu-piri-reis-universitesinde-gerceklestirildi/
- "Green Fuels and Technologies Session" jointly organised by the İMEAK Chamber of Shipping and Piri Reis University (30 January 2025) – https://sustainability.pirireis.edu.tr/etkinlikler/imeak-deniz-ticaret-odasi-ve-piri-reis-universitesi-ile-ortaklasa-organize-edilen-yesil-yakitlar-ve-teknolojileri-oturumu-2/
- 2nd Green Transformation in Maritime Summit (24 December 2025) – https://pirireis.edu.tr/haberler/ii-denizcilikte-yesil-donusum-zirvesi-piri-reis-universitesinde-gerceklestirildi/
- YÖK Science Café (27 June 2025) – https://www.facebook.com/story.php?story_fbid=1326027972856840&id=pirireisuniversity

13.3.2 Shared climate action plan

The Climate Change Mitigation and Action Policy Document sets out the 2023-2027 strategic objectives and the 2050 carbon-neutrality target and is publicly shared on the sustainability website.

EVIDENCE

- Climate Change Mitigation and Action Policy Document (2023-2027) – https://sustainability.pirireis.edu.tr/wp-content/uploads/2024/11/Iklim-Degisikligi-Mucadelesi-ve-Eylemi-Politika-Belgesi.pdf
- Climate Policy Document page – https://sustainability.pirireis.edu.tr/iklim-degisikligi-mucadelesi-ve-eylemi-politika-belgesi/

13.3.3 Preparedness for climate-related disasters

Students of the Disaster Search and Rescue Club received AFAD Support Volunteer training and the General Directorate of Forestry's Forest Fire Volunteer training. Disaster awareness training and emergency drills are carried out with AFAD and Tuzla Civil Defence teams, and an Earthquake Handbook is provided to students.

EVIDENCE

- AFAD Support Volunteer training by our Disaster Search and Rescue Club (30 September 2024) – https://odek.pirireis.edu.tr/duyurular/afet-arama-ve-kurtarma-kulubumuzun-destek-afadgonullusu-egitimi/
- "OGM Forest Fire Volunteer Training" by our Disaster Search and Rescue Club (13 October 2024) – https://odek.pirireis.edu.tr/duyurular/afet-arama-ve-kurtarma-kulubumuzun-ogm-orman-yangin-gonullusu-egitimi-etkinligi/
- AFAD training: disaster awareness training – https://sustainability.pirireis.edu.tr/etkinlikler/afad-egitimleri-afet-farkindalik-egitimi/
- Earthquake Handbook for Students – https://pirireis.edu.tr/ogrenci/deprem-el-kitabi/

13.3.5 NGO cooperation for climate action

Climate-focused sessions are organised with İMEAK DTO within the Green Transformation Platform.

In 2025, the Climate Change and Environment Symposium was held with the Deniz Kültür Association, and the Marmara Sea Day clean-up with the Underwater Cleaning and Awareness Movement (STH) Association.

EVIDENCE

- Climate Change and Environment Symposium – https://sustainability.pirireis.edu.tr/etkinlikler/iklim-degisikligi-ve-cevre-sempozyumu-piri-reis-universitesinde-gerceklesti/
- Marmara Sea Day clean-up – https://sustainability.pirireis.edu.tr/etkinlikler/piri-reis-universitesi-marmara-deniz-gunu-kapsaminda-deniz-temizligi-etkinligine-katildi/

13.4 Commitment to a carbon-neutral university

13.4.1 Carbon-neutral university target

The Climate Change Mitigation and Action Policy Document sets out Piri Reis University's goal of becoming a carbon-neutral (zero carbon) university by 2050.

EVIDENCE

• Climate Change Mitigation and Action Policy Document (2023-2027) – https://sustainability.pirireis.edu.tr/wp-content/uploads/2024/11/Iklim-Degisikligi-Mucadelesi-ve-Eylemi-Politika-Belgesi.pdf

ACTIVITIES AND EVENTS

Our Activities under SDG 13



2nd Green Transformation in Maritime Summit Held at Piri Reis University!

24 December 2025

The 2nd Green Transformation in Maritime Summit, organised by the İMEAK Chamber of Shipping, was held on 24 December 2025 in the Rıdvan Kartal Conference Hall of Piri Reis University. Addressing sustainability, green transformation and carbon-neutral targets in the maritime sector, the summit brought together representatives of the public sector, academia and industry.

SDG 7 SDG 9 SDG 13 SDG 14

Source: https://sustainability.pirireis.edu.tr/etkinlikler/ii-denizcilikte-yesil-donusum-zirvesi-piri-reis-universitesinde-gerceklestirildi/



Climate Change and Environment Symposium Held at Piri Reis University!

19 November 2025

Piri Reis University hosted the Climate Change and Environment Symposium, which addressed the impacts of climate change on the maritime sector and ways to tackle them. The programme opened with speeches by Ayşe OLCAY, President of the Deniz Kültür Derneği (Maritime Culture Association), our Rector Prof. Dr. Nafiz ARICA, and Tamer KIRAN, Chairman of the Board of the İMEAK DTO and Chairman of our Board of Trustees.

SDG 13

Source: https://sustainability.pirireis.edu.tr/etkinlikler/iklim-degisikligi-ve-cevre-sempozyumu-piri-reis-universitesinde-gerceklesti/



Piri Reis University continues its EU-wide leadership in sustainable development projects

13 October 2025 • DENEKAM – Maritime Economics Research and Application Center

The news item describes Piri Reis University's contribution to integration with the EU in the field of green and digital transformation through the EU projects it carries out. Within the MINE-EMI project, completed under PRU's coordination and recommended to the EU as a 'Best Practice', an International Joint Master's Programme (JMP) on sustainability in maritime was prepared; through the BLUE4SEAS project, an original curriculum focusing on marine pollution and environmental protection was developed and incorporated into the course programme. The GREENPORT project, also coordinated by PRU with the participation of 10 institutions from 8 countries, is developing training modules aimed at reducing the environmental impact and emissions of port services within the framework of the European Green Deal.

SDG 17 SDG 13 SDG 12

Source: https://denekam.pirireis.edu.tr/duyurular/piri-reis-universitesinin-surdurulebilir-kalkinma-projeleri-konusunda-ab-capinda-onderligi-devam-ediyor/



GREENPORT Project featured at international conference

2 October 2025 • DENEKAM – Maritime Economics Research and Application Center

Project Coordinator Prof. Dr. M. Taner Albayrak presented the GREENPORT Project as an invited speaker at the plenary session of the 4th International Conference on Materials Technologies and Metallurgy, hosted by Istanbul Technical University in Istanbul on 2-3 October 2025. In the Sustainability Session, the project was introduced as a good practice model applicable to different industrial sectors, and its innovative approaches to sustainability awareness and behavioural change attracted strong interest from participants. As a result, new invitations were received to present the project in more detail at future conferences.

SDG 9 SDG 13 SDG 14 SDG 17

Source: https://denekam.pirireis.edu.tr/haberler/greenport-project-featured-at-international-conference/



Assoc. Prof. Dr. Tutku Eker İşcioğlu delivers presentation on “The Importance of Vocational Training for Sustainable Port Operations and Greenport Alliances”

15 May 2025

During Maritime Pilots Week (12-16 May), at the panel titled “Those Who Steer the Course to Safety” organised by the Turkish Maritime Pilots’ Association, presentations were given by Captain Nildeniz Sütçü Şen, President of the Turkish Maritime Pilots’ Association, Captain Simon Pelletier, President of the International Maritime Pilots’ Association, and Captain Arie Palmers, representative of the European Maritime Pilots’ Association, together with a presentation on the Greenport Alliances project, led by Piri Reis University, by Assoc. Prof. Dr. Tutku Eker İşcioğlu.

SDG 4 SDG 13 SDG 17

Source: https://sustainability.pirireis.edu.tr/etkinlikler/doc-dr-tutku-eker-iscioglu-tarafindan-surdurulebilir-liman-operasyonlari-icin-mesleki-egitimin-onemi-ve-geeenport-alliances-sunumu-gerceklestirildi/



Greenport Alliances Project Featured at the European Maritime Summit

28 March 2025

At the European Shipping Summit, held in Brussels on 19-20 March with the aim of steering the future of the European maritime sector, key topics were addressed, including reducing carbon emissions by supplying ships in port with shore power, assessing Europe’s transition to competitive green maritime fuels, ship dismantling and recycling processes, diversity-focused leadership approaches, and decarbonisation of the sector through the role of the human factor beyond technology.

SDG 4 SDG 13 SDG 17

Source: https://sustainability.pirireis.edu.tr/etkinlikler/greenport-alliances-projesi-avrupa-denizcilik-zirvesinde-yerini-aldi/



“Green Fuels for Green Shipping” Workshop Held at Piri Reis University

24 March 2025

The “Green Fuels for Green Shipping” workshop, organised in cooperation with the Faculty of Law and the SHOC (Shipping and Ocean Law Group) working group of the University of Copenhagen, was held at our University on 20-21 March 2025 with Vice-Rector Prof. Dr. Funda Yercan, among others.

SDG 7 SDG 13 SDG 14

Source: https://sustainability.pirireis.edu.tr/etkinlikler/green-fuels-for-green-shipping-calistayi-piri-reis-universitesinde-gerceklestirildi/



Green Fuels for Green Shipping

20 March 2025 • Faculty of Law

The Green Fuels for Green Shipping Symposium, organised in cooperation with our Faculty of Law and the University of Copenhagen, will be held on 20-21 March 2025 in our University's Seminar-II Hall; it will also be possible to attend online via Teams.

SDG 13 SDG 14 SDG 7

Source: https://hukuk.pirireis.edu.tr/etkinlikler/green-fuels-for-green-shipping/



"Green Fuels and Technologies Session" jointly organised by the İMEAK Chamber of Shipping and Piri Reis University

30 January 2025 • PRUSAM – Sustainability Research and Application Center

The "Green Fuels and Technologies Session", jointly organised by the İMEAK Chamber of Shipping and Piri Reis University, was held on Thursday, 30 January 2025, from 14:00 to 17:00 at the Piri Reis University Sea Campus. Held within the Green Transformation Platform Programmes, launched to develop university–industry–public sector cooperation based on maritime energy, environment and sustainability, to produce solutions to sectoral problems and to develop recommendations, the session discussed sectoral innovations, talks with sector representatives, focal points based on the roadmap, and stakeholder solutions.

SDG 7 SDG 13 SDG 14 SDG 17

Source: https://sustainability.pirireis.edu.tr/etkinlikler/imeak-deniz-ticaret-odasi-ve-piri-reis-universitesi-ile-ortaklasa-organize-edilen-yesil-yakitlar-ve-teknolojileri-oturumu-2/



The fourth newsletter of the Greenport Alliances project, managed by our University, has been published

24 January 2025

The fourth newsletter of the Greenport Alliances (Erasmus+) project, coordinated by Piri Reis University, has been published (January 2025). The newsletter includes project updates such as the advocacy of the European Tugowners Association (ETA) for exempting tugboats in European ports from the EU MRV Regulation.

SDG 4 SDG 13 SDG 17

Source: https://sustainability.pirireis.edu.tr/etkinlikler/universitemiz-tarafindan-yonetilmekte-olan-greenport-alliances-projesinin-dorduncu-haber-bulteni-yayinlandi/

AVL cooperation summit

10 October 2024 • Faculty of Engineering

The international cooperation established by the Faculty of Engineering in October 2022 with the Graz-based engineering and research company AVL List GmbH under its Partnership Programme continues. Active in development, simulation and testing in the automotive, maritime and energy sectors, AVL develops solutions for greener, safer and more efficient energy generation and mobility. Under the cooperation, the AVL BOOST, AVL CRUISE and AVL FIRE simulation programs have been made available to academics and graduate students.

SDG 7 SDG 13 SDG 17

Source: https://muhendislik.pirireis.edu.tr/etkinlikler/avl-isbirligi-zirvesi/



Green Transformation in Maritime Summit held under the leadership of the İMEAK Chamber of Shipping

2 October 2024 • PRUSAM – Sustainability Research and Application Center

The “Green Transformation in Maritime Summit” was organised by the İMEAK Chamber of Shipping on Wednesday, 2 October 2024, from 09:00 to 16:15. In light of the IMO’s emission reduction targets for 2030, 2040 and 2050 and EU regulations under the European Green Deal such as the Emissions Trading System and fuel taxation, the summit addressed the current situation, challenges and opportunities regarding new technologies, alternative fuels, policies, financing and training in the sector.

SDG 13 SDG 14 SDG 7

Source: https://prusam.pirireis.edu.tr/haberler/imeak-deniz-ticaret-odasi-onculugunde-gerceklesen-denizcilikte-yesil-donusum-zirvesi-duzenlendi/

RESEARCH AND PROJECTS

Research Projects Related to SDG 13

Below are research projects related to SDG 13 that were assessed as highly or moderately relevant to sustainability. They were compiled from final reports of Scientific Research Projects (BAP) and from BAP, TÜBİTAK and EU project records. 10 featured projects out of 14 are shown.

BAP-2024-02-01 · BAP · 2023-2024 (2nd call)

Strategic Use of ESG Factors in the Maritime Sector: A 10-Year Study

Prof. Dr. Aykut ARSLAN · Faculty of Economics and Administrative Sciences

The study investigated how maritime companies differ in terms of sustainability (ESG) and how sustainability ratings are used for strategic purposes. Using Refinitiv data, the 10-year ESG progress of firms was examined through time-series analyses.

OUTPUTS

'Strategic Typologies and ESG Integration in Maritime Firms...' – Maritime Policy & Management (SSCI Q1; under peer review); 'Strategic Use of ESG Scores in Maritime Companies...' – Business Strategy and the Environment (SSCI Q1; under review); 'ESG Performance and Financial Outcomes in the Maritime Industry...' – Transformations in Business & Economics (SSCI Q2; under review)

SDG 12 SDG 13 SDG 8

BAP-2024-02-03 · BAP · 2023-2024 (2nd call)

Optimal Site Selection for Post-Earthquake Emergency Response in Istanbul: A Neutrosophic Fuzzy EDAS Analysis Approach

Prof. Dr. Aykut ARSLAN · Faculty of Economics and Administrative Sciences

The Neutrosophic Fuzzy EDAS multi-criteria decision-making approach was applied for the proactive, science-based selection of emergency response points following the expected earthquake in Istanbul, a city of 15 million people close to the North Anatolian Fault. Work packages on field application, method/code, model and literature were carried out.

OUTPUTS

Work on an article is continuing with field research

SDG 11 SDG 13 SDG 3

BAP-2023-03 · BAP · 2022-2023

Design of a Waste Heat-Driven Organic Rankine Cycle System for Ships

Prof. Dr. Cüneyt EZGİ · Faculty of Maritime Studies

In the context of IMO emission rules, electricity generation by organic and inorganic Rankine cycles driven by the exhaust waste heat of ships' main and auxiliary diesel engines was analysed thermodynamically. Cycle/exergy efficiencies, net power and irreversibilities were calculated for dry, wet and isentropic working fluids; R718 (water), with ODP=0 and GWP=0, was found to be one of the most suitable fluids at high turbine inlet temperatures.

OUTPUTS

Ezgi C., Kepekci H. (2024), 'Thermodynamic Analysis of Marine Diesel Engine Exhaust Heat-Driven Organic and Inorganic Rankine Cycle Onboard Ships', Applied Sciences 14(16):7300 (SCIE, Q1); A chapter was submitted to the Springer book 'Energy Rationality and Management for Decarbonization'

SDG 7 SDG 13 SDG 14

BAP-2020-02 · BAP · 2020-2021

Reducing Ship Resistance by Means of Channels Opened in the Ship Hull

Prof. Dr. Ahmet TAŞDEMİR · Faculty of Maritime Studies

The effect of channels opened in the hull to reduce ship resistance (and hence the required engine power) was investigated through CFD (computational fluid dynamics) analyses and experiments in the AF100 wind tunnel. After the channels were found to increase viscous resistance on NACA12 profiles, the study focused on bluff prismatic bodies. For a prismatic model with three 40 mm-wide channels, total resistance was found to decrease by up to 40% according to CFD and by up to 37% according to the experiments (around 30% on average); numerical and experimental results agreed within a deviation of 6–23%.

OUTPUTS

The report states that work on one publication, one presentation and one patent application is ongoing

SDG 14 SDG 13 SDG 7 SDG 9

BAP-A-2025-01-01 · BAP Infrastructure · 2024-2025 (1st call)

Feasibility and Roadmap for the Electrification of Small Boats for the Decarbonisation of the Sea of Marmara (MAR-DEC)

SDG 13 SDG 14 SDG 7

BAP-A-2025-01-05 · BAP Infrastructure · 2024-2025 (1st call)

Performance and Emission Modelling of a Hydrogen-Assisted Combustion Application in a Diesel Engine

SDG 13 SDG 7 SDG 14 SDG 3

BAP-A-2025-01-07 · BAP Infrastructure · 2024-2025 (1st call)

Calculation of the Institutional Carbon Footprint of Piri Reis University

SDG 13 SDG 12

BAP-2025-03-01 · BAP · 2024-2025 (3rd call)

Investigation of the Potential Use of Bio-Based Binders in Sodium-Ion Batteries

SDG 7 SDG 12 SDG 13

BAP-A-2024-02 · BAP Infrastructure · 2024-2025 (2024 BAP Infrastructure call)

Design of a Rim-Driven Propeller Propulsion System for Small Electric Boats

SDG 7 SDG 13 SDG 14 SDG 9

BAP-2024-03 · BAP · 2023-2024 (1st call)

Investigation of an Innovative Solvent-Based Carbon Dioxide Capture and Storage System Using Guanidine- and Imidazole-Based Ionic Liquids for Ships

SDG 13 SDG 14 SDG 7

ANNEX

SDG 13 Activity Inventory

The table below lists all activities associated with SDG 13 during and before the reporting period that are publicly available on the university's websites. The links serve as evidence.

Date	Activity	Unit	SDG
24 December 2025	2nd Green Transformation in Maritime Summit Held at Piri Reis University!		7 9 13 14
19 November 2025	Climate Change and Environment Symposium Held at Piri Reis University!		13
13 October 2025	Piri Reis University continues its EU-wide leadership in sustainable developme nt projects	DENEKAM – Maritime Economics Research and Application Center	17 13 12
2 October 2025	GREENPORT Project featured at international conference	DENEKAM – Maritime Economics Research and Application Center	9 13 14 17
15 May 2025	Assoc. Prof. Dr. Tutku Eker İşcioğlu delivers presentation on "The Importance o f Vocational Training for Sustainable Port Operations and Greenport Alliances"		4 13 17
28 March 2025	Greenport Alliances Project Featured at the European Maritime Summit		4 13 17
24 March 2025	"Green Fuels for Green Shipping" Workshop Held at Piri Reis University		7 13 14
20 March 2025	"Green Fuels for Green Shipping" event by our PRU-ILAWS Club and the Shippi ng and Ocean Law Group	ÖDEK – PRU-ILAWS Club	13 14 7
20 March 2025	Green Fuels for Green Shipping	Faculty of Law	13 14 7
6 February 2025	"6 February 2023 Earthquake Remembrance Day" by our Disaster Search and Rescue Club	ÖDEK – Disaster Search and Rescue Club	11 13
30 January 2025	"Green Fuels and Technologies Session" jointly organised by the İMEAK Cham ber of Shipping and Piri Reis University	PRUSAM – Sustainability Research and Application Center	7 13 14 17
24 January 2025	The fourth newsletter of the Greenport Alliances project, managed by our Univ ersity, has been published		4 13 17
25 December 2024	"Disaster Awareness" seminar by our Disaster Search and Rescue Club	ÖDEK – Disaster Search and Rescue Club	11 13 3
13 October 2024	"OGM Forest Fire Volunteer Training" by our Disaster Search and Rescue Club	ÖDEK – Disaster Search and Rescue Club	15 13 11
10 October 2024	AVL cooperation summit	Faculty of Engineering	7 13 17
2 October 2024	Green Transformation in Maritime Summit held under the leadership of the İM EAK Chamber of Shipping	PRUSAM – Sustainability Research and Application Center	13 14 7
30 September 2024	AFAD Support Volunteer training by our Disaster Search and Rescue Club	ÖDEK – Disaster Search and Rescue Club	11 13 17
30 May 2023	Work carried out and decisions taken at the 2022-2023 meetings of the IMO LE G, MSC and MEPC Committees, and the IMO London Convention of 15 Decemb er 2021	DHUAM – Maritime Law Research and Application Center	14 16 13

Date	Activity	Unit	SDG
30 May 2023	Work carried out and decisions taken at the 2022-2023 meetings of the IMO LEG, MSC and MEPC Committees / Conduct barring the right to limit liability under the 1976 London Convention in light of the IMO interpretative resolution of 15 December 2021	Faculty of Law	14 13 16
28 April 2023	Recent developments in companies' environmental and human rights obligations	Faculty of Law	16 12 13
17 May 2022	Work carried out at the 2021-2022 meetings of the IMO LEG, MSC and MEPC Committees	DHUAM – Maritime Law Research and Application Center	13 14 16
25 March 2022	On the Climate Council: justice, adaptation, mitigation	Faculty of Law	13 16
28 February 2022	Climate change in the Mediterranean	Faculty of Law	13 14
3 December 2021	Climate change, COP26 and Türkiye: a legal perspective	Faculty of Law	13 16 17
4 December 2019	The political and legal importance of the Arctic region and its assessment from Türkiye's perspective	DHUAM – Maritime Law Research and Application Center	13 14 16
	Türkiye: a legal perspective		13
	Lecturer Y. Barbaros Büyüksağanak's polar climate research in the Arctic Ocean		13
	Climate Change Mitigation and Action Policy Document		7 11 12 13 14 15 17

CONCLUSION

Conclusion and Assessment

The Climate Change Mitigation and Action Policy Document with its 2050 carbon-neutrality target, the institutional carbon footprint study, the public Climate Change and Environment Symposium and climate and marine-ecosystem work with civil society show PRU's commitment to climate action. Summits and workshops on green fuels and emission reduction in shipping carry this commitment to sector level.

Priority steps are to set interim targets towards 2050, to begin the transition to low-carbon and renewable energy, to share the climate action plan with local government and to document joint planning with public bodies for climate-related disasters.



PÎRÎ REİS UNIVERSITY

SDG 13: Climate Action

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