



14 LIFE
BELOW WATER



Message From the Rector

In an era when the world faces mounting environmental, social, and economic challenges, the role of universities has become more vital than ever. Institutions of higher education are not only centers of learning but also agents of transformation — shaping knowledge, values, and actions that define the future of our planet and humanity.

At Biruni University, we embrace this global responsibility with determination and vision. Guided by the United Nations Sustainable Development Goals (SDGs), we are committed to advancing sustainability through excellence in education, innovative research, and community-centered impact.

Our mission extends beyond academic achievement; it is about producing knowledge that heals, transforms, and sustains life in all its forms.

As a pioneering health sciences university, we channel our scientific expertise toward creating solutions that enhance well-being and social equity. Our multidisciplinary approach allows us to integrate health, innovation, and sustainability — transforming research into real-world benefits for people and communities. The projects and studies we carry out, particularly in the fields of medicine, health, and technology, stand as concrete reflections of this commitment.

Our understanding of sustainability transcends academic boundaries. It is woven into the fabric of our campuses, hospitals, and community initiatives — from energy efficiency and environmentally friendly infrastructure to nurturing students with the awareness and capacity to become responsible global citizens.

Through the dedication of our academic and administrative teams, and the unwavering support of our partners, Biruni University continues to build a resilient, inclusive, and sustainable future. Together, we reaffirm our pledge to serve humanity through science and compassion — today and for generations to come.



Prof. Dr. Adnan Yüksel
Rector, Biruni University

Message From the Editor

The world is entering an age of profound transformation — one that demands wisdom as much as it demands action. Climate disruption, social fragmentation, and economic imbalance have made it clear that the systems which once defined progress can no longer sustain it. Humanity needs a new compass — one that points toward balance, compassion, and collective renewal.

Universities stand at the very heart of this change. They are not merely institutions of teaching and research; they are the laboratories of humanity's future — places where science, conscience, and purpose must meet.

At Biruni University, we see sustainability not as a goal to be reached, but as a way of being. It is the thread that weaves through our research, our classrooms, our hospitals, and our partnerships. It is how we measure success —

by the difference we make in people's lives and the legacy we leave for the generations to come.

Guided by the **United Nations Sustainable Development Goals**, we are reimagining higher education as a force for healing — for reconnecting human progress with planetary well-being, for bridging innovation with empathy, and for transforming knowledge into impact.

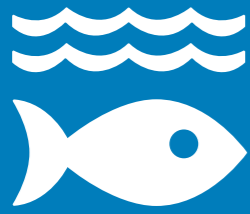
Our mission is both scientific and moral: to cultivate minds that create, question, and care; to generate ideas that build a more equitable, peaceful, and sustainable world. Every discovery, every collaboration, every act of learning becomes part of a larger story — the story of humanity's renewal through knowledge.

This report is more than an evaluation of where we stand; it is a reflection of who we choose to be. Biruni University stands as a living commitment

to the idea that education can heal, science can serve, and together we can build a future worthy of hope.



Aslıhan Güzin ALSAN, P.h.D. FHEA
Director of Institutional Impact,
Visibility and Corporate Reputation



BİRÜNİ UNIVERSITY COMMITMENT TO LIFE BELOW WATER

The oceans are the planet's greatest lungs — silent regulators of life, balance, and breath. They connect continents, sustain biodiversity, and provide food, energy, and meaning to billions. Yet today, these vast blue ecosystems are under threat from pollution, overconsumption, and neglect. To protect life below water is to protect the heartbeat of Earth itself.

At Biruni University, we embrace Sustainable Development Goal 14: Life Below Water as a call to reimagine our relationship with the oceans — to replace exploitation with stewardship, and indifference with understanding. We recognize that ocean health is inseparable from human health; that what we discharge into water eventually returns to us in air, food, and life itself.

Our mission is to cultivate scientific awareness, ethical responsibility, and collective action toward the preservation of aquatic ecosystems. As a health sciences university, we are deeply aware that marine degradation is

not only an ecological issue but a public health concern — influencing nutrition, disease, and the stability of global systems that sustain life.



Through education, research, and community engagement, Biruni University integrates marine and freshwater sustainability into its

broader environmental strategy. We aim to prepare future leaders who understand that sustainability is not limited to land — it extends to every drop that connects life in all its forms.

This report reflects our commitment to protecting the unseen foundations of life — the ecosystems that exist beyond our daily vision, yet define our collective survival.

Our Approach: Building Awareness from Shore to System

At Biruni University, our approach to SDG 14 is grounded in the understanding that protecting aquatic life begins with awareness — and awareness begins with education.

Our guiding principles are Protection, Prevention, and Partnership.

- **Protection:** We promote policies and practices that safeguard marine and freshwater ecosystems through responsible research, waste management, and awareness initiatives.
- **Prevention:** We reduce pollution and plastic waste through sustainable procurement, waste segregation, and educational programs focused on behavioral change.
- **Partnership:** We collaborate with governmental agencies, NGOs, and international organizations to advance research and advocacy for cleaner, healthier waters.

We believe that even institutions not located by the sea carry responsibility for its protection — because every campus, every city, and every human activity is ultimately connected to the ocean through the invisible web of life.



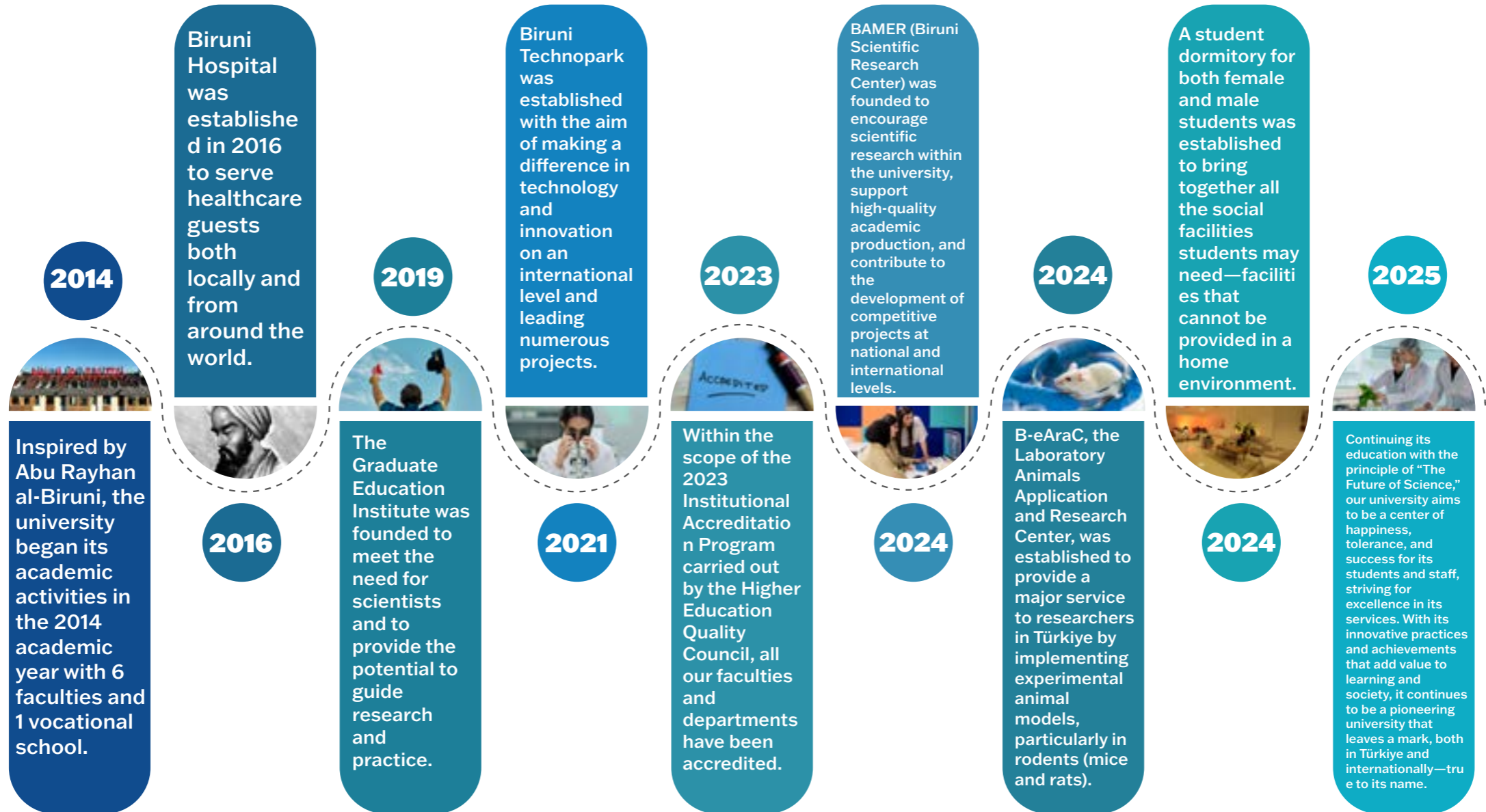
Institutional Framework: Integrating Water Stewardship into Education and Practice

Biruni University's sustainability structure ensures that aquatic preservation is integrated into policy, research, and community programs.

- **Waste Reduction and Management:** Campus-wide efforts to minimize plastic use, promote recycling, and ensure responsible waste disposal help prevent pollution that affects marine life.
- **Research and Education:** Interdisciplinary studies explore microplastics, water contamination, and the intersection between marine health and human health.
- **Health and Ocean Connection:** Courses and seminars emphasize the impact of ocean degradation on food systems, mental health, and environmental justice.
- **Community Engagement:** Awareness campaigns, student-led initiatives, and partnerships with environmental NGOs promote active citizenship in marine protection.
- **Sustainable Procurement:** University purchasing policies prioritize biodegradable and ocean-friendly materials, reducing indirect harm to marine ecosystems.

At Biruni University, we see the ocean not as a distant entity, but as part of the living system that sustains all life — a system that demands our intelligence, our care, and our humility.

O U R S T O R Y



O u r V i s i o n

To be a pioneering university that, true to its name, leaves a lasting mark — leading change through knowledge, innovation, and impact.

O u r M i s s i o n

To be an innovative and leading university that cultivates qualified individuals through transformative education, produces original knowledge at both national and international levels, and contributes to solving societal challenges with scientific and ethical responsibility.

C O R E V A L U E S



K n o w l e d g e

Commitment to learning, discovery, and the pursuit of truth as the foundation of progress.



W i s d o m

Using knowledge with depth, reflection, and ethical judgment to serve humanity.



H u m a n i t y

Placing human dignity, empathy, and compassion at the heart of education, research, and service.



A c a d e m i c F r e e d o m

Protecting the right to think, question, and create freely within an environment of respect and integrity.



P i o n e e r i n g S p i r i t

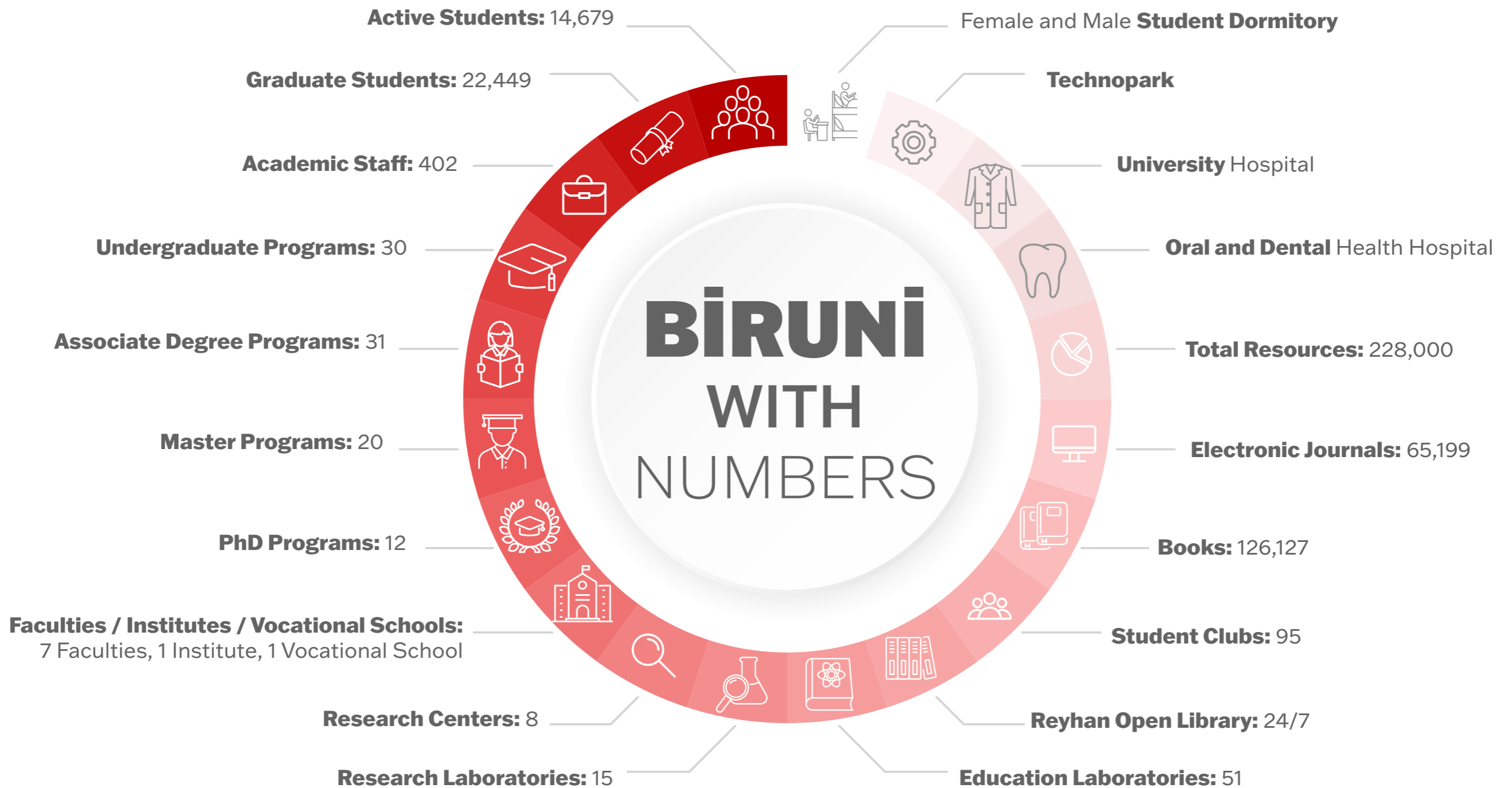
Challenging conventions with creativity and vision; leading transformative change in education and science.



C o u r a g e

Acting with integrity and resilience in the face of uncertainty — daring to stand for what is right and meaningful.

BİRÜNİ WITH NUMBERS



Marmara Sea Day Waste Collection Event: Community Awareness and Policy Action within the Scope of Sustainable Development Goal 14

The Biruni University Climate and Energy Community organized the “Marmara Sea Day Waste Collection Event” to support an environmental policy directly linked to Sustainable Development Goal 14 (Life Below Water), in line with the university’s principles of institutional sustainability and social impact. This experiential learning activity not only served as a direct action to mitigate pollution pressures on marine ecosystems but also demonstrated the university’s commitment to environmental policy advocacy. The event maximized participation among both staff and students, while also collaborating with individuals requiring personalized support, thereby putting inclusivity into practice on the ground. The data collected and the social awareness generated have strengthened the university’s efforts to find lasting solutions to critical issues such as pollution and mucilage in the Marmara Sea and to influence relevant public policies.



Marmara Sea Pollution and Marine Life Diving Training



To embody its institutional sustainability vision and regional social impact commitment, Biruni University, through the initiative of the Underwater Student Club, organized the “Marmara Sea Pollution and Marine Life Diving Training,” an activity that directly contributes to Sustainable Development Goal (SDG) 14: Life Below Water. This critical experiential learning initiative aimed to equip students with practical competencies in marine ecosystem conservation and pollution mitigation.

Participants observed the biodiversity of the Marmara Sea first-hand and examined threats such as mucilage (sea snot) and plastic waste, collecting data using scientific observation techniques and obtaining concrete evidence related to the sustainability of marine life. The program’s philosophy was to integrate technical expertise with the principle of inclusivity; during field visits and training phases, special access and tailored briefing mechanisms were established to ensure that individuals requiring personalized support could conduct observations from land-based and near-surface vantage points.

This effort generated strong social awareness, reinforcing the need for marine conservation consciousness to be disseminated across all segments of society. Conducted with high student participation, the field trip demonstrated how Biruni University leverages its academic expertise (Engineering, Science, and Health Sciences) to address regional environmental challenges. In doing so, it provided a multidimensional contribution to SDG 14 and affirmed the university’s active social responsibility role in combating marine pollution.

Institutional Policy Framework and Strategic Approach to Marine and Freshwater Ecosystem Protection

Biruni University recognizes the protection of water ecosystems and the sustainability of marine life as a core component of its institutional sustainability framework. Guided by the “Water and Marine Ecosystem Protection Policy,” the University implements systematic actions across education, research, campus operations, and community engagement to ensure efficient water use, prevent pollution, and contribute to the preservation of aquatic biodiversity.

Within this scope, the Wastewater Management and Water Quality Monitoring Procedure (2024) and the Plastic Reduction and Refill Campus Action Plan (2024) have been developed and put into full implementation.

Moreover, the University collaborates with municipalities, NGOs, and environmental institutions to advance public awareness and expand collective action toward the protection of marine and coastal ecosystems.



Awareness Activities, Community Engagement, and Multi-Stakeholder Environmental Events



Biruni University organizes and supports a wide range of awareness activities dedicated to the protection of water and marine ecosystems. These initiatives are coordinated by the Sustainability and Data Valuation Office, the Department of Health, Culture and Sports (SKS), and relevant faculties.

Marmara Sea Day Coastal Clean-Up Event (2024)

- Objective: Draw attention to microplastic pollution in the Marmara Sea and promote the protection of coastal ecosystems.
- Organizer: Climate and Energy Student Community
- Participants: 150 students and volunteers
- Partners: Istanbul Metropolitan Municipality, local environmental NGOs
- Outcome: 100 kg of coastal waste collected and sorted by type; recycling analysis conducted.

Water Efficiency Awareness Conference (13 March 2025)

- Objective: Raise awareness among students and staff on the importance of efficient water use.
- Speakers: Prof. Dr. İzzet Öztürk, Prof. Dr. Hüseyin Selçuk
- Participants: 200 attendees
- Coordinators: Sustainability and Data Valuation Office, Climate and Energy Community
- Outcome: Online broadcast reaching over 1,000 viewers; “Water Ambassador” volunteer registration initiated.

Biruni Water Week (2024)

- Objective: Conduct multi-stakeholder activities focused on protecting marine and freshwater ecosystems.
- Activity Types: Exhibitions, seminars, environmental workshops
- Participants: 400 students and staff
- Partners: Ministry of Environment, Urbanization and Climate Change; Fatih Municipality; water treatment companies
- Outcome: 20 student projects exhibited; “Refill Campus” campaign launched.

Biruni University aims to foster an environmentally conscious lifestyle across its campus by taking concrete and sustainable measures to reduce plastic waste. Within the scope of this action plan, reusable thermoses have been distributed to students and university staff, and the consumption of single-use plastic cups and bottles has been actively discouraged. This initiative not only seeks to decrease the volume of plastic waste but also aims to cultivate environmental awareness and sustainable consumption habits among students. Implemented campus-wide, this effort contributes measurably to reducing plastic pollution affecting both marine and terrestrial ecosystems, aligning with Biruni University’s broader vision of sustainability and social impact.

Wastewater Management, Water Quality Monitoring, and Compliance with Environmental Standards

Biruni University has established the Wastewater Management Procedure (2024) to ensure that wastewater generated on campus is treated and discharged without harming the environment.

- Audit Frequency: Four times a year (quarterly)
- Responsible Units: Environmental Health and Safety Unit; Sustainability and Data Valuation Office
- Scope: Wastewater from laboratories, dentistry clinics, and hospital units
- Implementation: Wastewater is passed through pre-treatment systems and grease traps before discharge into the municipal sewage network.
- Analysis: Water samples are analyzed in accordance with Turkish Environmental Regulations.

“Within the scope of the Biruni University Wastewater Management Procedure, wastewater originating from campus laboratories is analyzed four times a year and compliance with national limits is documented.”

Biruni University prioritizes the generation of knowledge on ecosystem conservation and biodiversity as a core institutional mission. Faculty members and researchers actively engage in studies addressing sustainable land use, species preservation, and environmental health, developing projects and producing scientific publications. These efforts not only provide valuable contributions to academic literature but also directly support the development and implementation of conservation strategies at national and international levels.

The University conducts research using multidisciplinary approaches, integrating fieldwork, laboratory analyses, and community-based projects to deliver tangible outcomes for sustainable ecosystem management. Through these initiatives, Biruni University aims to advance both scientific knowledge and environmental awareness, fostering a culture of sustainability and ecological responsibility.



Plastic Reduction Strategy, Refill Campus Program, and Waste Minimization Efforts



Biruni University implements a comprehensive initiative under the “Plastic-Free Biruni Campus” framework, targeting the reduction of single-use plastics across all campus units.

Key actions include:

- Prohibition of single-use straws, cups, and bottles in campus canteens and cafeterias.
 - Installation of over 40 water dispensers and refill stations across the campus.
 - Distribution of reusable thermoses and bottles to students and staff.
 - Annual “Refill Campus Week” events to raise awareness about plastic pollution and marine debris.
- Results (2024): Single-use plastic consumption reduced by 40%, and 5 tons of plastic waste were recovered for recycling.

Volunteer Programs and Student Engagement Incentives for Ocean and Water Protection - Blue Volunteers Program (2024-)

- Objective: Enable students and staff to actively participate in marine and water conservation projects.
- Participants: 250 students
- Results: 2 tons of plastic waste collected; 300 kg of microplastics analyzed.
- Incentives: Participants receive a “Blue Volunteer Certificate” and a sustainability badge.
- Partners: Istanbul Metropolitan Municipality, Turkish Red Crescent Youth, local environmental associations



Water Saver Ambassador Certificate Program (2025–)



Biruni University actively contributes to marine and freshwater research and integrates sustainability themes into academic curricula:

- COST Action CA22131 (LUCES): Development of chemical sensors for detecting water and air pollutants, supporting early warning systems.
- Student Research: The Climate and Energy Community conducts annual analyses of plastic components in the Marmara Sea.
- Academic Courses: Courses such as “Environmental Education” and “Sustainable Water Management” aim to cultivate early awareness of aquatic ecosystem protection.

Governance, Reporting Mechanisms, and Digital Monitoring Systems

All SDG14-related campus activities are coordinated by the Sustainability and Data Valuation Office, with annual reporting published as part of the University's Sustainability Performance Report. The University's water management performance is additionally monitored through the Biruni DataHub system.

“Biruni University has adopted the principle of safeguarding every drop of water for future generations as a core governance commitment.”

