Arab Academy for Science, Technology & Maritime Transport

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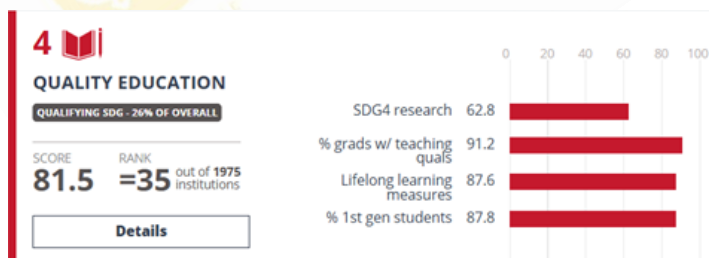
AASTMT SUSTAINABLE DEVELOPMENT GOALS

Report 2023 / 2024

SDG 4

SDG 4

Our Aim in 2023 -2024

- Expand lifelong learning with accessible diplomas and training in quality management, healthcare, food safety, AI, and more.
- Strengthen workforce development via hands-on technical programs in refrigeration, electrical control, ISO systems, and firefighting.
- Promote inclusive education for refugees and vulnerable groups through partnerships with NGOs like Caritas Egypt and GIZ.
- Broaden public access by offering free educational facilities and youth initiatives in robotics and coding.
- Enhance scientific literacy through public events and seminars on AI, machine learning, and sustainability.
- Support youth and early STEM development by hosting national and international competitions in ICT and robotics.
- Extend outreach with STEM sessions and school programs to inspire students in engineering and technical careers.
- Advance gender equity in education through women-centered scientific events and initiatives.
- Foster collaboration by hosting global conferences and workshops with partners from the Arab region, Africa, and Europe.
- Strengthen industry-academia synergy with advisory councils and training aligned with industrial needs.

THE Impact Ranking Scores 2022-2023

QUALITY EDUCATION

THE IMPACT RANKINGS

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QUALITY EDUCATION

QUALIFYING SDG - 26% OF OVERALL

SCORE **81.5** RANK **=35** out of **1975** institutions

Details

	0 20 40 60 80 100
SDG4 research	62.8
% grads w/ teaching quals	91.2
Lifelong learning measures	87.6
% 1st gen students	87.8

4 QUALITY EDUCATION

Key Milestones in 2023-2024

During the 2023–2024 academic year, the Arab Academy for Science, Technology & Maritime Transport (AASTMT) advanced its mission to expand equitable, high-quality education for all. Through community-focused training programs, international academic competitions, school outreach initiatives, public-access events, and inclusive capacity-building programs, the Academy served thousands of learners from diverse age groups, nationalities, and educational backgrounds. Evidence demonstrates AASTMT's sustained commitment to widening participation, strengthening digital and scientific literacy, and supporting lifelong learning across Egypt and the region.

Across 2023–2024, AASTMT delivered a vibrant ecosystem of lifelong learning, open-access education, and school outreach, supported by strong industry and governmental partnerships. Evidence demonstrates that the Academy not only meets but significantly advances SDG 4 by:

- Democratizing access to high-quality education.

- Empowering youth and underserved groups.

- Enhancing national skills in technology, AI, safety, and scientific research.

- Embedding gender inclusion and community engagement in all activities.

These achievements reflect a comprehensive and impactful commitment to promoting inclusive, equitable, and high-quality education in alignment with the expectations of the Times Higher Education Impact Rankings.

Lifelong Learning Programs

AASTMT delivered a broad portfolio of public, free, or low-cost training programs accessible to learners and professionals beyond enrolled students.

Professional Diplomas and Certificate Programs

Multiple waves of workforce-oriented diplomas in Quality Management, Healthcare Quality, Food Safety, Laboratory Accreditation, Administrative & Supervisory Skills, and Artificial Intelligence were offered in partnership with professional syndicates and industry partners. These programs strengthened practical skills in quality systems, health management, and industrial digitalization.

Examples include:

- Professional Diploma in Quality Management (Graduation on May 27, 2024).

- Healthcare Quality Management (multiple waves during 2024).

- Food Safety Diploma (August 30, 2024).

- Industrial AI Professional Diploma (100-hour applied program).

Vocational and Technical Training

The Academy offers high-impact vocational courses through the Industry Service Complex and the Port Training Institute. Programs included:

- Practical Electrical Control Course (April 2024).

- Refrigeration and Air Conditioning practical training (April 2024).

- First Aid, Firefighting, ISO 9001 Lead Auditor, and HACCP food safety training sessions.

The Port Training Institute reaffirmed its regional role with 100,000+ trained individuals across 425 programs, supporting employability and maritime sector readiness.

Targeted Capacity-Building for Vulnerable Groups

- Occupational safety training for 43 Sudanese participants, funded by GIZ and Caritas.

- Memorandum of Understanding with Caritas Egypt to provide technical training for refugees (April 2024).

These programs demonstrate AASTMT's commitment to inclusive, socially responsive educational initiatives.

Community Engagement

Open access to laboratories, research facilities, and robotics labs was established, with initiatives aimed at engaging youth with the Sustainable Development Goals (SDGs). Public seminars were conducted on various topics, including artificial intelligence, sustainability, machine learning, modern control systems, and effective problem-solving. Communities were actively engaged through educational caravans, awareness programs for technical schools, and sustainability-focused learning visits. Gender inclusion was advanced through initiatives such as the Women in Engineering (WIE) Forum, RENEW MENA workshops, and events supported by UNESCO.

Public Access to Educational Resources

AASTMT provided free and open access to learning spaces, events, competitions, and community programs.

Access to Labs and Research Facilities

The Academy continued to offer free educational access to laboratories and learning spaces through initiatives such as:

- **Robotak Initiative** for youth aged 7–17, providing hands-on robotics and coding training.

- **SDG School Initiative** for youth aged 8–17, providing SDG awareness and competition

Educational Outreach Beyond Campus

AASTMT actively engaged schools, youth organizations, and communities through direct outreach.

STEM and School Outreach

- STEM outreach programs for high school students (August 2024).

- Technical school educational caravans and seminars supporting vocational awareness.

- "Toward a Green and Sustainable Future" initiative, combining planetarium visits, labs, and energy-awareness sessions for youth.

Youth Programs and Regional Engagement

- League of Arab States Youth Summer Camp (2024), promoting cultural learning and leadership.

- Hosting international events such as the 2024 World Junior Modern Pentathlon Championships, which doubled as educational community engagement.

ICT, Robotics, and Informatics Competitions for Schools

- Hosting national and international Olympiads (EOI, IOI meetings).
- MATE ROV regional robotics competition, welcoming both school and university teams.

These outreach activities strengthen early interest in coding, engineering, AI, and scientific discovery.

Events

Public Lectures, Conferences, and Seminars

AASTMT hosted over a dozen public, no-cost scientific events, including:

- Young Researcher Conferences (2023, 2024), engaging pre-university students in real research.

- International Day of Women and Girls in Science (2024), empowering 150 participants.

- Open seminars on problem-solving, modern control technologies, AI, and sustainability.

Open Competitions and Technology Workshops

Thousands engaged in public, free or low-cost participation competitions:

- Egyptian Programming Competition (ECPC) with over 12,000 students participating.

- Beaver Computational Thinking Challenge with 85,000 school students across Egypt.

- IEEE and AAST technology workshops and hackathons (Cybersecurity Vigilance Expedition, WebWave Workshop, Tech Talks).

These events significantly improved digital literacy, computational skills, and research engagement nationwide.

Inclusive Education Policies and Programs

AASTMT's programming reflects a clear commitment to equity, gender inclusion, and accessible learning.

Gender Inclusion & Women's Empowerment

- Women in Engineering (IEEE WIE) and RENEW MENA workshops advancing equality in STEM and climate-related careers.

- International Day of Women and Girls in Science celebrations with UNESCO.

Support for Refugees and At-Risk Groups

- Technical training via Caritas partnership (2024).

- GIZ-funded training for displaced Sudanese participants (2024).

Accessibility Through Open Participation

Almost all public events—workshops, hackathons, scientific forums, and competitions—offered:

- free participation

- official certificates

- accessible learning without prerequisites

This inclusive approach expands educational access across socio-economic backgrounds.

Upcoming Goals

The Arab Academy for Science, Technology and Maritime Transport (AASTMT) has established ambitious objectives to enhance its commitment to Sustainable Development Goal 4 (SDG 4) in the coming year. Upcoming initiatives include the development of specialized training programs for educators, designed to incorporate SDG-focused teaching methodologies, as well as fostering interdisciplinary research initiatives that address pressing global challenges. AASTMT also seeks to establish new partnerships with international universities and organizations to promote knowledge exchange and collaborative projects. Furthermore, plans are in place to launch community engagement programs, including workshops and competitions, to inspire students to devise innovative solutions to real-world problems. These initiatives exemplify AASTMT's commitment to empowering learners and contributing to the global pursuit of inclusive and equitable quality education.

In addition to these efforts, AASTMT aims to expand lifelong learning programs and technical training to reach broader regional and underserved populations. Key actions include:

- Increasing public engagement through additional free-access STEM laboratories, robotics camps, and digital literacy events.

- Strengthening collaborations with global and regional partners to enhance the quality of education and workforce readiness.

- Broadening outreach to refugees, marginalized groups, and at-risk youth through sustained, socially responsive partnerships.

- Advancing women's participation in STEM through new leadership programs and expanded community initiatives.