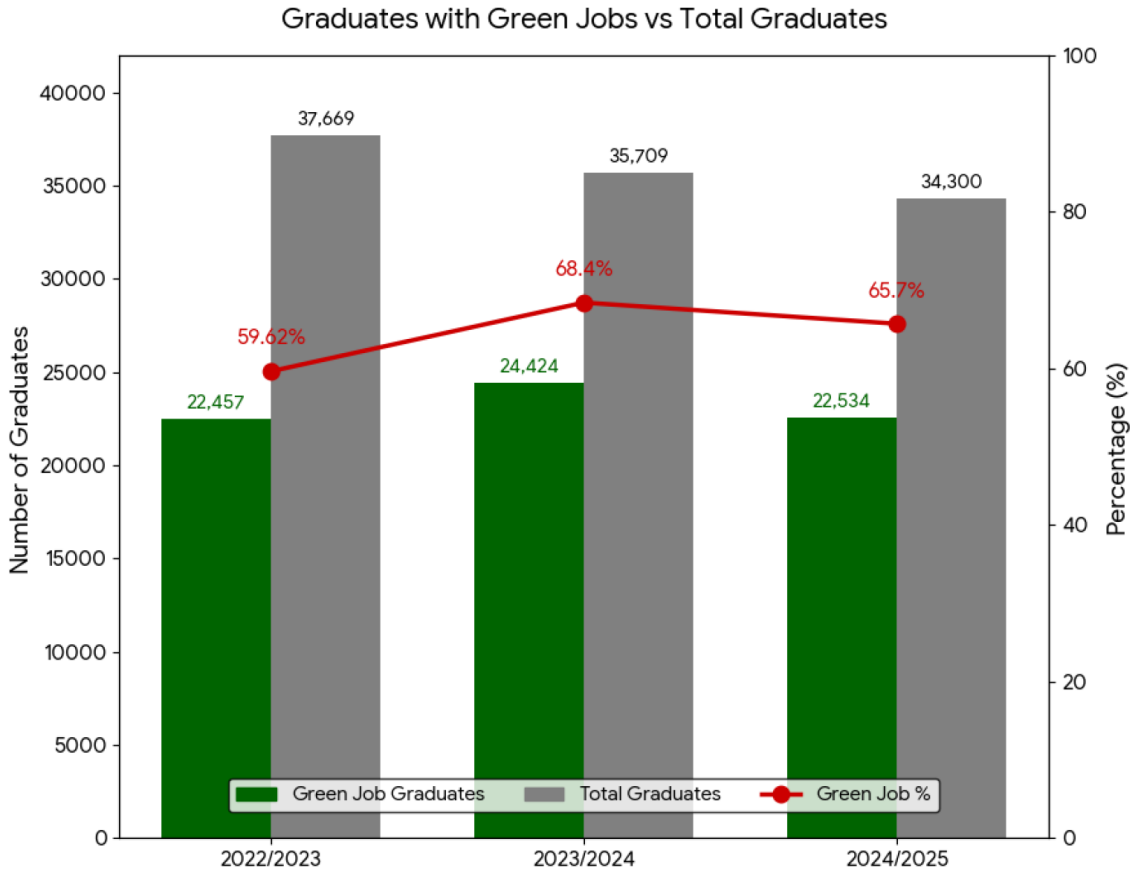
## 7.4.1 Programmes for local community to learn about importance of energy efficiency and clean energy

Alexandria University actively educates the local community about energy efficiency and clean energy through workshops, outreach activities, and sustainability events delivered across its faculties and centers. These programs raise awareness of renewable energy, promote practical skills, and support Egypt Vision 2030 by engaging students, schools, and the public in hands-on learning. Through the Center of Excellence for Water, the Solar Energy Center, and faculty initiatives, the university provides training, innovation spaces, and community services that strengthen the transition to clean energy practices.

- Alexandria University has consistently published its sustainability report on its official website for four consecutive years, covering the 2022, 2023, 2024, and 2025 reporting periods. Each report provides a comprehensive overview of the university's sustainability achievements, including environmental performance, green campus infrastructure, academic and research initiatives aligned with sustainable development goals, and community engagement activities that support Egypt Vision 2030. The reports also highlight formal institutional policies and governance frameworks for integrating sustainability across education, research, operations, and outreach. These policies remain publicly accessible and systematically embedded within strategic planning and operational practices. Continuous annual publication reflects strong commitment to transparency, accountability, and sustainable development.
- Alexandria University has established a comprehensive portfolio of 26 innovative programs and projects that promote renewable energy, energy efficiency, climate change mitigation, and sustainable resource management. These initiatives integrate education, research, infrastructure, and community engagement through renewable energy centers, solar and wind power systems, green building technologies, biofuel research, circular economy projects, and international academic partnerships. The University operates renewable energy centers at the Faculty of Agriculture, Faculty of Science, and Faculty of Engineering, where hybrid solar–wind systems, photovoltaic installations, and Building-Integrated Photovoltaic (BIPV) technologies support both campus operations and applied research. In addition, Alexandria University offers specialized postgraduate programs in climate change, sustainable fisheries, natural resource sustainability, and the blue economy through Erasmus+ and other international collaborations. Campus sustainability projects, including the Green Cycle initiative, greywater recycling, energy-efficient buildings, solar power stations, and plastic recycling laboratories, further demonstrate the University's commitment to reducing carbon emissions, improving resource efficiency, and preparing graduates to address global environmental challenges.
- The University has achieved 55.6% implementation of smart building technologies through the progressive integration of digital infrastructure and intelligent management systems across campus facilities. Key applications include QR code-based smart attendance systems, automated monitoring and reporting platforms, fire alarm and smoke detection systems, video surveillance, and digital access and safety controls. Training programs have also been conducted to support effective system adoption and operation. These initiatives contribute to improved operational efficiency, enhanced safety and security, reduced manual processes, and the advancement of a connected, data-driven campus environment.

- Alexandria University actively empowers students to lead sustainability initiatives that foster environmental awareness, innovation, community engagement, and social responsibility. During the reporting period, more than 30 sustainability activities were organized by student groups across the university, demonstrating active participation in advancing sustainable development goals. These activities included international conferences, scientific symposia, green chemistry campaigns, climate awareness events, water entrepreneurship bootcamps, research conferences, engineering competitions, workshops, exhibitions, and community outreach programs.
- **Green Employment Outcomes of Alexandria University Graduates**
  Alexandria University continues to prepare graduates for careers that contribute to sustainable development and the green economy. As shown in the figure, the number of graduates employed in green jobs remained consistently high over the three academic years. In 2022/2023, 22,457 out of 37,669 graduates secured green jobs, representing 59.62% of total graduates. This proportion increased significantly to 65.7% in 2023/2024, with 22,534 graduates entering green employment out of 34,300 total graduates, and was maintained at 65.7% in 2024/2025. The sustained increase in the percentage of graduates employed in green sectors reflects the university's commitment to integrating sustainability into education, equipping students with knowledge and skills required for emerging green careers, and supporting the transition to a sustainable, low-carbon economy.



- Alexandria University has established an integrated governance and sustainability framework that embeds sustainable development into institutional leadership, operations, education, research, and community engagement. Sustainability initiatives are supervised centrally through executive leadership and implemented across faculties through administrative deans and faculty sustainability committees.
- Alexandria University has dedicated 137 staff members to sustainability governance, including university leadership, sustainability office members, vice deans, and faculty committees. Their activities include sustainability reporting, policy development, workshops, research collaboration, stakeholder engagement, and living-lab projects focused on energy, water, waste, and circular economy themes.
- The university also promotes sustainability through educational and public engagement initiatives such as food security programs, sustainable agriculture models, youth activities, seminars on biomimicry, and workshops on sustainable biofilms, biofuel, and circular economy approaches for water treatment.
- A seminar organized by the Faculty of Engineering in cooperation with Russian delegation from Rosatom, titled “The Role of Engineering in the Peaceful Use of Nuclear Energy.” Held as part of the 2025 Science and Innovation Celebration, the seminar addressed the role of artificial intelligence engineering in advancing the nuclear industry, the integrative relationship between different engineering disciplines and the nuclear sector, and presented insights into the future of nuclear energy worldwide, with a focus on the promising career paths available in this field.




- A workshop organized by Alexandria University in cooperation with the Academy of Scientific Research and Technology and the Horizon Egypt Program on "European Union Funding and Support for Scientific Research and Innovation." The workshop aimed to introduce European Union-funded projects and how researchers at Alexandria University can benefit from them, as well as how to apply for these projects, in addition to introducing grants provided by the European Union. Alexandria University has a role in the "European Horizons" program as a partner country in this agreement, which was initialed in April 2025. He emphasized that this program is an exceptional opportunity for researchers at Egyptian universities and research centers to obtain funding for their innovative research ideas. He also discussed the Prima initiative, which provides the necessary funding for competitive projects in the fields of water,

food, agriculture, and energy, with joint funding from European Union countries and countries of the Southern Mediterranean.




- Student organizations such as student chapters, engineering groups, and pharmaceutical associations played a leading role in delivering these initiatives. Their activities promoted green chemistry, circular economy principles, climate action, sustainable materials, water innovation, biodiversity conservation, scientific communication, entrepreneurship, and environmental education through hands-on workshops, public awareness campaigns, interactive exhibitions, field training, and international collaborations across campus facilities and academic faculties.




**1- 2nd International Conference on the Role of Organic, Medicinal, and Pharmaceutical Chemistry.**

**In collaboration with ACS Egypt, our chapter actively supported the organization and smooth running of this international summit (July 14–15, 2025), serving 230 total attendees. Our members managed the event flow, gatekeeping, information desk, and poster hall coordination. The experience allowed members to experience professional conference management while networking directly with international speakers from Georgia State University.**




- The Center of Excellence for Water at Alexandria University is pleased to announce the opening of applications for the fourth workshop entitled (The Relationship between Water - Energy - Food), which will be held at the American University in Cairo during the period from August 3-26, 2024. Applications are open until May 14, 2024.

USAID FROM THE AMERICAN PEOPLE

ALEXANDRIA UNIVERSITY

The American University in Cairo

*Center of Excellence for Water*

# CALL FOR APPLICATION

## FOURTH WATER-ENERGY-FOOD NEXUS SCHOOL 2024

## DATE 3 – 26 AUGUST 2024

Call Launch Date: 24 April 2024

Submission Deadline: 14 May 2024 - 11:55 pm (Cairo Local Time)

*Exchange, Training, and Scholarships Pillar activities are implemented in cooperation with:*

TEMPLE UNIVERSITY

ASWAN UNIVERSITY

*This document is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of The Center of Excellence for Water and do not necessarily reflect the views of USAID or the United States Government.*

- Centre of Excellence for Water at Alexandria University Organizes Workshop on Relationship between Water, Energy and Food in Cooperation with the Arab Water Council in 15 august 2024. The workshop aimed to deepen the comprehensive understanding of the interrelationship between these three resources (water, energy and food), highlight the challenges they face, and propose sustainable solutions, and the latest developments in this field, exchanging creative ideas, and enhancing cooperation between industry and academic institutions.



- The Faculty of Pharmacy won third place in the Alexandria Governorate for the 2024 National Initiative for Green Smart Projects with its 'Green Cycle' project, competing in the non-profit

community initiatives category. This marks the project's second consecutive year of recognition, having previously secured first place last year.




**The services provided by the Solar Energy Center at the Faculty of Agriculture (Alexandria University):**

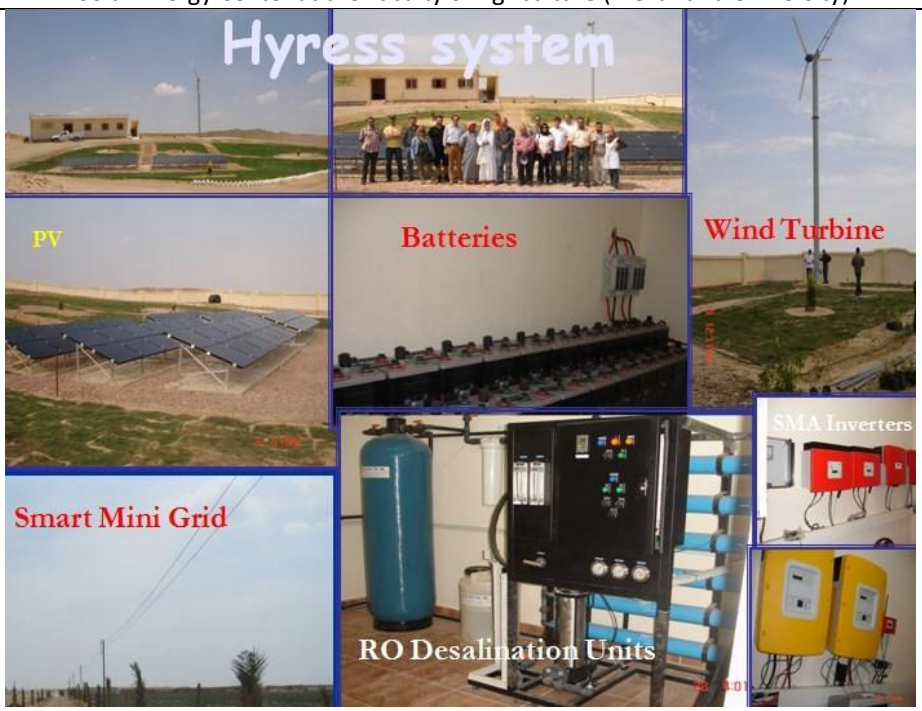
1) **Research and development**: Encouraging applied research on renewable energy at AU and through collaborations with other national and international universities. Development of hybrid systems in renewable energy and its uses in water pumping and water desalination and development of remote and desert areas. Development of research in energy from biomass and waste. Development of thermal uses of solar energy.
2) **Consultations:** Various consultations in renewable energy systems, especially hybrid systems, drying and solar heating.
3) **Education and Training:** Supporting the renewable energy education at AU. Developing and delivering courses, e-learning, workshops, training courses, and conferences on various renewable energy systems.
4) Serving the Egyptian community by providing all renewable energy information to the public.

**The Center Goals are to:**

- Remove the knowledge barriers against the installation of RE systems in Egypt.
- Enhance the utilization of renewable energy.
- Develop educational and e-learning program about renewable energy.
- Educate students, graduates, public and key stakeholders in Egypt and the Arab world on the various sources of renewable energy and its successful applications.
- Build the infrastructure necessary to develop, install and maintain renewable energy applications.
- Present a show case or a model for the successful utilization of renewable energy in Egypt.
- Continue excellence in all of our educational programs.




Solar Energy Center at the Faculty of Agriculture (Alexandria University)




Solar Energy Center at the Faculty of Agriculture (Alexandria University)

**Fab Lab Project in the Faculty of Engineering - Alexandria University**

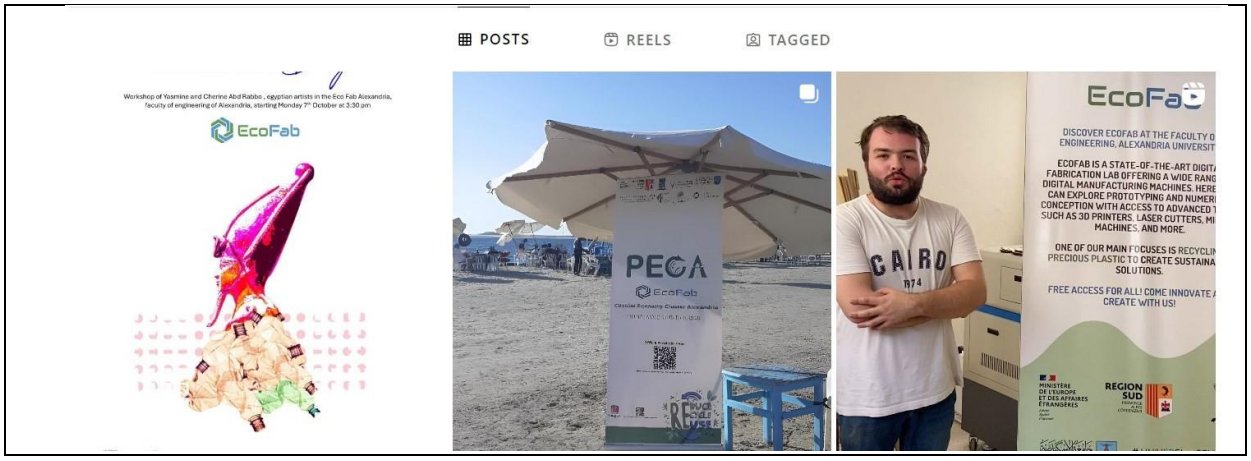
The overall goal of the project is to develop the circular and creative economy model by creating an innovation place equipped with machines Low Tech in Alexandria is hosted by Alexandria University. This place will play a role in creating local dynamism Transversal to become a crossroads between different audiences and actors from different backgrounds. To connect waste collection Plastic and its evaluation. Horizons Solidarités and the University of Corsica, in partnership with their peers in Alexandria, based on their experience in Fab Lab Corte, conduct experiments on recreating value for plastic in Alexandria. The goal is to connect all actors from assembly through training to development and dissemination.

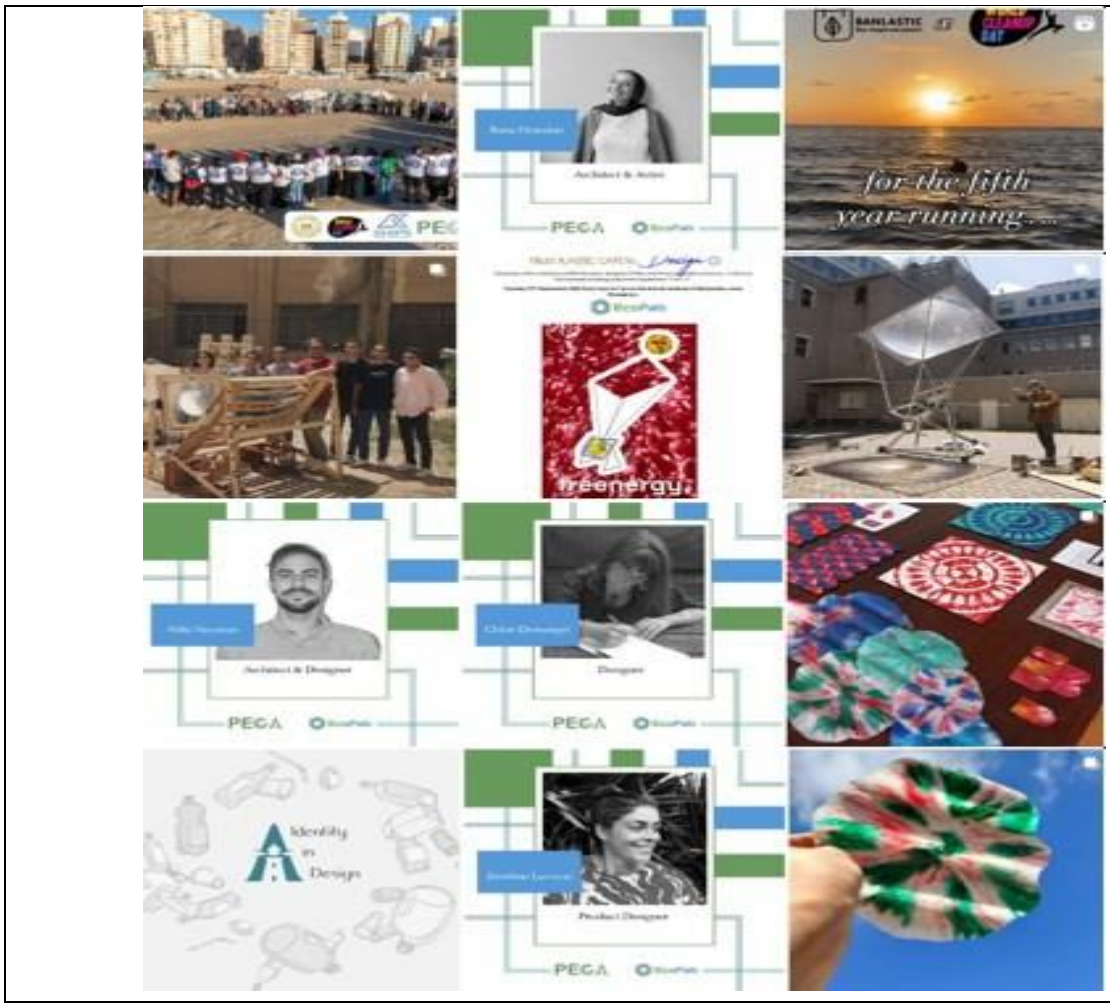
The scope of work in the project

**1-** Environment, climate, and energy

**2-** Education, social aspect, and research

These goals will be implemented through the establishment of a FabLab within Alexandria University, which is a space for innovation. Derives place this innovation is energized by a generation that has innovative ideas in the fields of environment, citizenship, and culture. This revival is embodied in women and the men who are partners in the project. The high skills of Alexandria University and Senghor University, Francophone operator in Alexandria, ensures the long-term commitment of their students and the sustainability of the local dynamism. Implementation benefits from facilities Headquarters provided by Alexandria University Project Engine. VSI contributes to the unification of links between regions. Project depends on the Alexandria Business Association (ABA), a trade organization that invests in creating startups in the circular economy and selling finished products. A multi-representative consortium from both sides of the Mediterranean could be formed from these dynamics that will support the project over time.




for the fifth
year running....
freenergy.
Identity
in
Design




Eco Fab Alexandria
The Eco Fab is a fab lab dedicated to plastic recycling in Alexandria, Egypt and part of PECA project (Circular economy hub in alexandria).