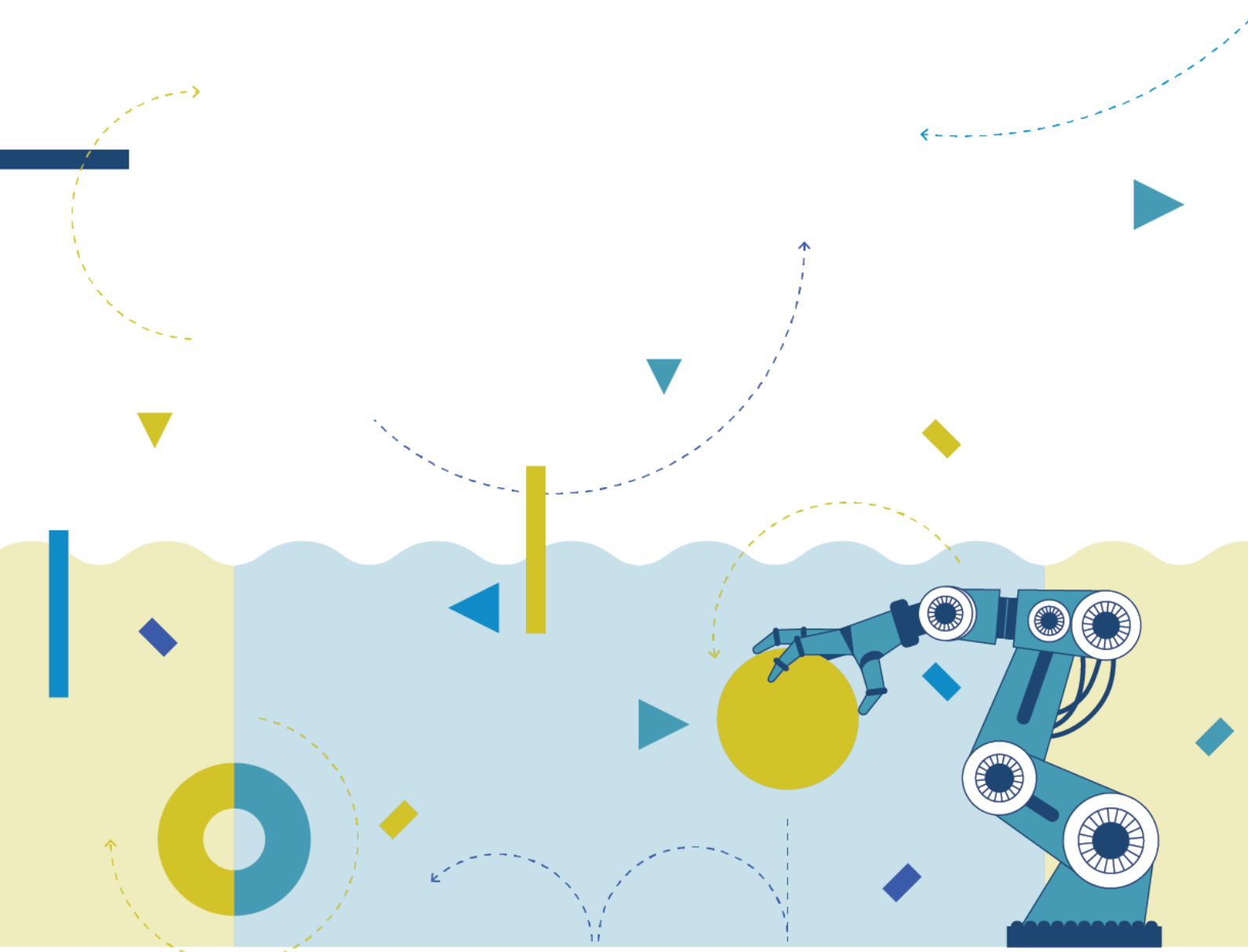




# Press Release 1



## Addressing STE(A)M and climate challenges through Education

The challenges posed by the climate crisis and gaps in STE(A)M education are pressing issues across Europe. Data from the PISA 2018 survey reveal that a significant percentage of 15-year-olds in the EU lack proficiency in mathematics and science, with underachievement rates exceeding 15% in all participating countries. For example, Italy reported 23.8% and 25.9%, Greece 35.8% and 31.7%, Croatia 31.2% and 25.4%, and Ireland 15.7% and 17%, respectively. These figures highlight the need for innovative educational approaches that engage students while equipping them with critical skills.

Simultaneously, rising greenhouse gas emissions continue to drive environmental degradation. Partner countries, including **Italy (7.3 tonnes per capita)**, **Greece (9 tonnes)**, **Cyprus (11.3 tonnes)**, **Croatia (6 tonnes)**, and **Ireland (13.2 tonnes)** (Eurostat, 2021), are contributing to the changes in climate, impacting marine ecosystems and biodiversity. As emphasized by the **EU Biodiversity Strategy for 2030**, urgent action is needed to restore marine ecosystems, promote sustainable blue economies, and raise environmental awareness among citizens.

Research shows that technology-based STEM education fosters student engagement and supports key skills development (Lee, 2012; Arnold & Reeves, 2014). However, traditional STE(A)M courses often fail to attract diverse learners.

To address the challenge, a team of universities and organisations came together to offer an innovative solution to these challenges by combining **STE(A)M learning**, **Educational Robotics**, and **Marine Environmental Education** to create engaging, interdisciplinary curricula. This initiative brings together six partners from five EU countries (**Italy, Greece, Cyprus, Croatia, and Ireland**) to address gaps in STE(A)M competencies, promote sustainability, and prepare students for a digital future.

The **RoboAquia Project** equips teachers and students with tools such as a **Marine Robotics Curriculum**, **E-Learning Toolkit**, and **Open Educational Resources (OERs)**. It also provides opportunities for educators to integrate robotics and environmental education into their classrooms. By introducing innovative methods, the project encourages interest in blue careers and aligns with the EU's climate and education goals.

For more information on the RoboAquia Project, visit [www.roboaquaria-project.eu](http://www.roboaquaria-project.eu) or social media at [www.facebook.com/roboaquaria/](https://www.facebook.com/roboaquaria/) and [www.linkedin.com/in/roboaquaria-project-16208626b/?originalSubdomain=cy](https://www.linkedin.com/in/roboaquaria-project-16208626b/?originalSubdomain=cy)