Application for the Development of a Green and Smart City
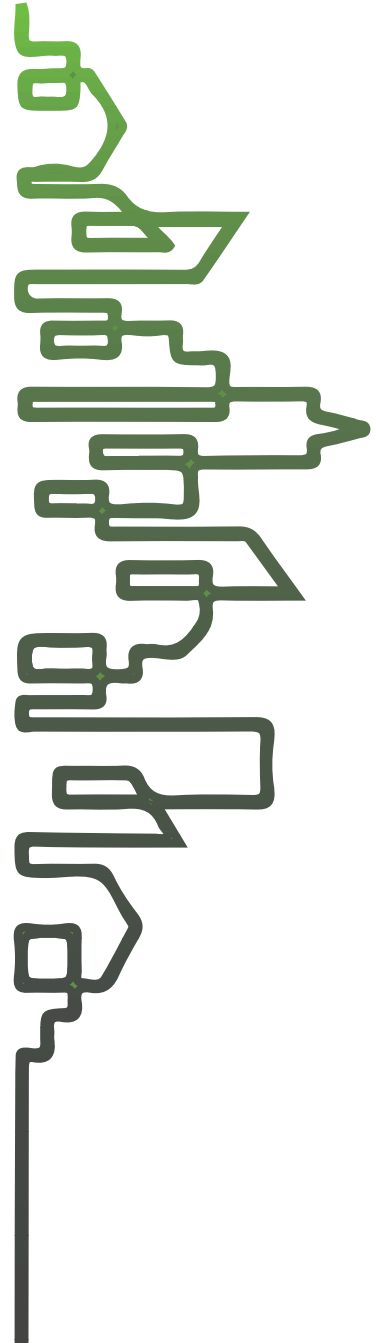
Newsletter 3 [May 2023]

PROJECT HIGHLIGHTS

- Finalization of Game design of the Cities Going Green App
- Transnational project meeting in Greece organized by OMEGATECH on the 15th and 16th of May 2023

Cities Going Green – At a glance…

Environmental sustainability is constantly under threat. One of the most effective ways to address this threat, is to teach the importance of an active stance toward environmental protection to children at a young age.

The aim of the Cities Going Green project is to raise awareness on environmental protection to pupils at the ages of 10-12, through environmental education, STEM education and gamification. Education is a fundamental tool when it comes to the fight against climate change. Knowledge regarding climate change helps young people understand and tackle the consequences of global warming and encourages behavioral change. Through the project, pupils will learn more about circular economy, as well as practices and tools that can promote the protection of natural resources and ecosystems. Cities Going Green aims to bring together environmental education on the importance of being green, and demonstrating sincere interest in the environment. In addition, the value of gamification and STEM education as educational tools is signified. The project aims at the development of a gaming app, available for PC/laptops and mobile devices, where pupils will have the opportunity to build their own "Green Cities".

The main project objectives are:

1. To cultivate environmental consciousness to pupils, along with other transversal skills and competences.
2. To develop a theoretical framework upon which the cultivation of environmental consciousness to primary school pupils of age 10-12 will be based.
3. To engage pupils with STEM education and to develop key skills of pupils through STEM.
4. To design a state-of-the-art game that will combine Environmental Education, Gamification and STEM Education.

Main Results

1. Aggregate Report on Desk Research and Field Research (Focus Groups) on Green Practices
2. Theoretical Framework of the "Cities Going Green" App
3. Learning Outcomes for each Level of the "Cities Going Green" App
4. Game Design: Composition of Building Blocks, Topics, Decision Points, Rules and Points System
5. "Cities Going Green" App

3rd Transnational Meeting in Athens, Greece

Activities in progress

The Cities Going Green partnership has proceeded to the implementation of new activities for the **development of the Cities Going Green App!** The previous activities led to the development of the game rules, decisions, and gamification elements as well as the building blocks and game design.
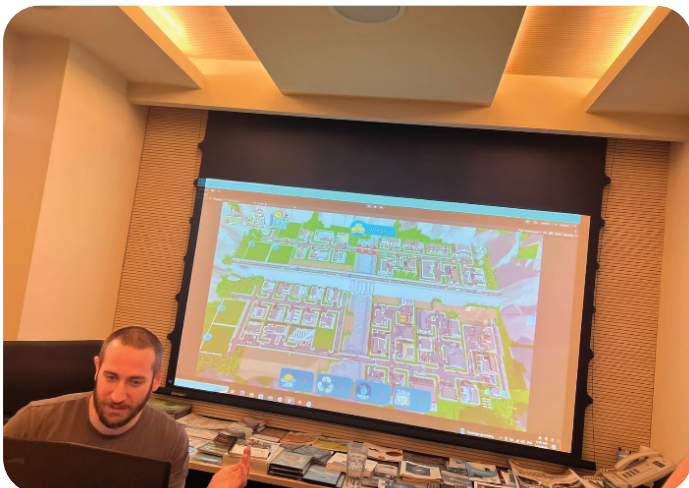
The next step is the finalization of the application and **the integration of IoT (Internet of Things) devices.**

The technical partners OMEGATECH (Greece) and ECECT (Cyprus), will connect an IoT device to the game API (Application Programming Interface) to allow students to interact with the game elements using a physical device.

After some research of the technical partners and the discussion with the rest of the consortium, they came to the decision to use: *ESP32 Basic Core IoT Development Kit V2.7*, which is a cost-effective and user-friendly IoT controller.

The 3rd Transnational Meeting of Cities Going Green in Athens was a great opportunity for the partners of the project to meet in person once again, and finalize pending tasks and activities regarding the Game Design. In addition, the meeting included interesting workshops and a visit to Ellinogalliki Scholi and also a tour of Peirea.

The meeting was facilitated by our partner, OMEGATECH, on the 15th and 16th of May.

Next steps...

The following activity is the **Development of the Application** (Project Result 3) which includes the development of the beta version, internal testing by the partners, and piloting by students.

The results will be presented and discussed during the **4th Transnational Project Meeting** which will be held in Nicosia, Cyprus in mid-November 2023.

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