



Launch of the GoNature Game

A Virtual Reality Experience to Inspire the Next Generation of Environmental Stewards



February 17th, 2025 – VARCITIES is proud to announce the launch of GoNature, an innovative virtual reality (VR) game designed to educate and inspire young players about environmental challenges and sustainability. Developed by DARTTEK, this groundbreaking game blends exploration, gamification, and real-world ecological data to offer an immersive learning experience for children and adults aged 8 to 99.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 869505.

A New Way to Learn Through Play

GoNature invites players to navigate digital twins of seven real-world pilot sites within VARCITIES. In these stylized yet accurate 3D environments, players can tackle pollution, collaborate in multiplayer challenges, and discover interactive lessons on sustainability. By integrating IoT sensors deployed at VARCITIES sites, the game reflects real-time environmental changes, making the experience dynamic and educational.

“GoNature is a gamified dissemination tool that transforms complex scientific data into interactive and engaging narratives for younger audiences,” said Neil Baldacchino from DARTTEK, the game’s lead developer. ***“Instead of presenting graphs to scientists, we’re using tools like digital twins and real-time data to connect with kids organically.”***



Fighting pollution in Dundalk

Key Features of GoNature

- **Digital Twins of Real Locations** – Explore interactive 3D replicas of VARCITIES pilot sites.
- **Multiplayer and Solo Modes** – Work together or compete to tackle pollution challenges and complete engaging mini games.
- **IoT Integration** – Experience real-time environmental data that directly influences the game world.
- **Inclusion and Accessibility** – Multilingual support and customizable avatars create a diverse and welcoming experience.
- **VR Compatibility** – Playable on smartphones, Google Cardboard, HoloLens, and other VR headsets.



Bridging Technology and Environmental Awareness

Inspired by the success of games like Pokémon Go, GoNature aims to make scientific research more engaging and accessible to children. **“By teaching kids about environmental issues early, we hope to shape their future contributions to society,”** said Baldacchino. **“The game aims to spark curiosity and perhaps even influence their academic and career paths.”**

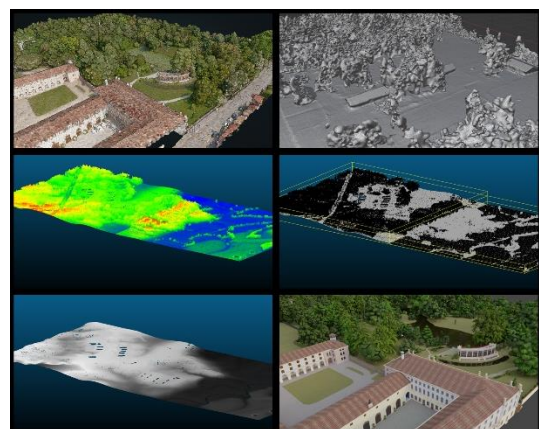


Interacting with the world

Beyond education, GoNature fosters collaboration. Its multiplayer functionality underscores the importance of collective action in addressing pollution. **“The more players work together, the more effectively they can combat pollution in the game,”** Baldacchino added. **“It’s a direct reflection of real-world challenges, where individual efforts alone can’t solve global problems.”**

A Development Journey Overcoming Challenges

The development of GoNature began at the inception of VARCITIES and involved cutting-edge techniques, including photogrammetry and GIS data analysis, to create high-quality digital twins. The COVID-19 pandemic presented challenges in data collection, requiring the team to rely on alternative sources such as satellite imagery and local expertise, instead of direct visits on site.



Modelling process in Castelfranco Veneto

Nevertheless, DARTTEK managed to recreate the environments of our seven pilots with high fidelity.



Castelfranco Veneto (Italy)



Chania (Greece)



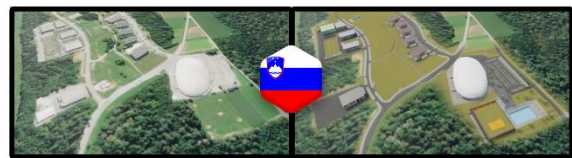
Dundalk (Ireland)



Gzira (Malta)



Leuven (Belgium)



Novo Mesto (Slovenia)



Skellefteå (Sweden)

Another key innovation was the integration of IoT devices to reflect real-time environmental conditions. **“Linking real-time environmental data to the game required building sophisticated subsystems,”** Baldacchino explained. GoNature integrate the live measurements from the different sensors deployed across the real-world pilot sites. In total, the game integrates 12 distinct subsystems, from multiplayer functionality to real-time pollution simulations.

Free and Accessible for All

In line with VARCITIES’ mission to make environmental education accessible to everyone, GoNature was designed with accessibility and inclusivity at its core. The game is free to download and play and can be accessed via smartphones, VR headsets, and at pilot locations equipped with HoloLens setups



GoNature ensures a diverse and inclusive gaming experience. Players can choose from a range of skin tones and different gender options (Male, Female, and Other/Non-Binary). To further promote inclusivity, the in-game dialogue is written in gender-neutral language, ensuring that all players feel represented while engaging with the game’s factual and immersive narrative.



Character creation menu

“Children are naturally curious, while adults often feel a strong sense of familiarity with these recreated spaces,” Baldacchino noted. ***“The game’s digital twins evoke nostalgia for older players while encouraging younger audiences to explore and connect with their environment.”***

Experience GoNature Today!

GoNature is now available for download. Special events at VARCITIES pilot areas will offer participants the opportunity to experience the game’s augmented reality features firsthand using HoloLens technology.

Link to VARCITIES GoNature Game:

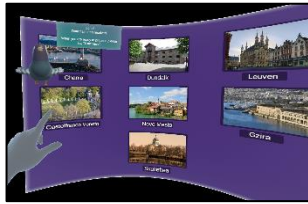
<https://varcities.eu/resources/varcities-gonature-game/>

Stay tuned for the next updates on the project!

<https://www.varcities.eu/>



More information



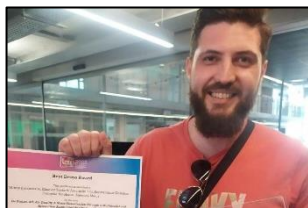
Development Update (April 2024) – Insights and user experiences from the game's development

Link: <https://varcities.eu/development-update-of-the-gonature-game/>



Research Paper on GoNature AR – Exploring air quality and noise visualization through augmented reality

Link: <https://varcities.eu/demo-paper-gonature-ar-air-quality-noise-visualization-through-a-multimodal-and-interactive-augmented-reality-experience/>



Best Demo Paper Award – Technical University of Crete recognized at ACM IMX

Link: <https://varcities.eu/technical-university-of-crete-best-demo-paper-award-at-acm-imx/#>

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For any inquiries contact@varcities.eu

About VARCITIES

Officially started in September 2020, the EU-funded project VARCITIES aims to implement real, visionary ideas and to add value by establishing sustainable models for increasing the health and well-being of citizens who are exposed to diverse climatic conditions and challenges in and around Europe.

Article 29.5 Disclaimer

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