

# The role of citizen science approach in creating efficient networks for biodiversity monitoring

## The case of Romania

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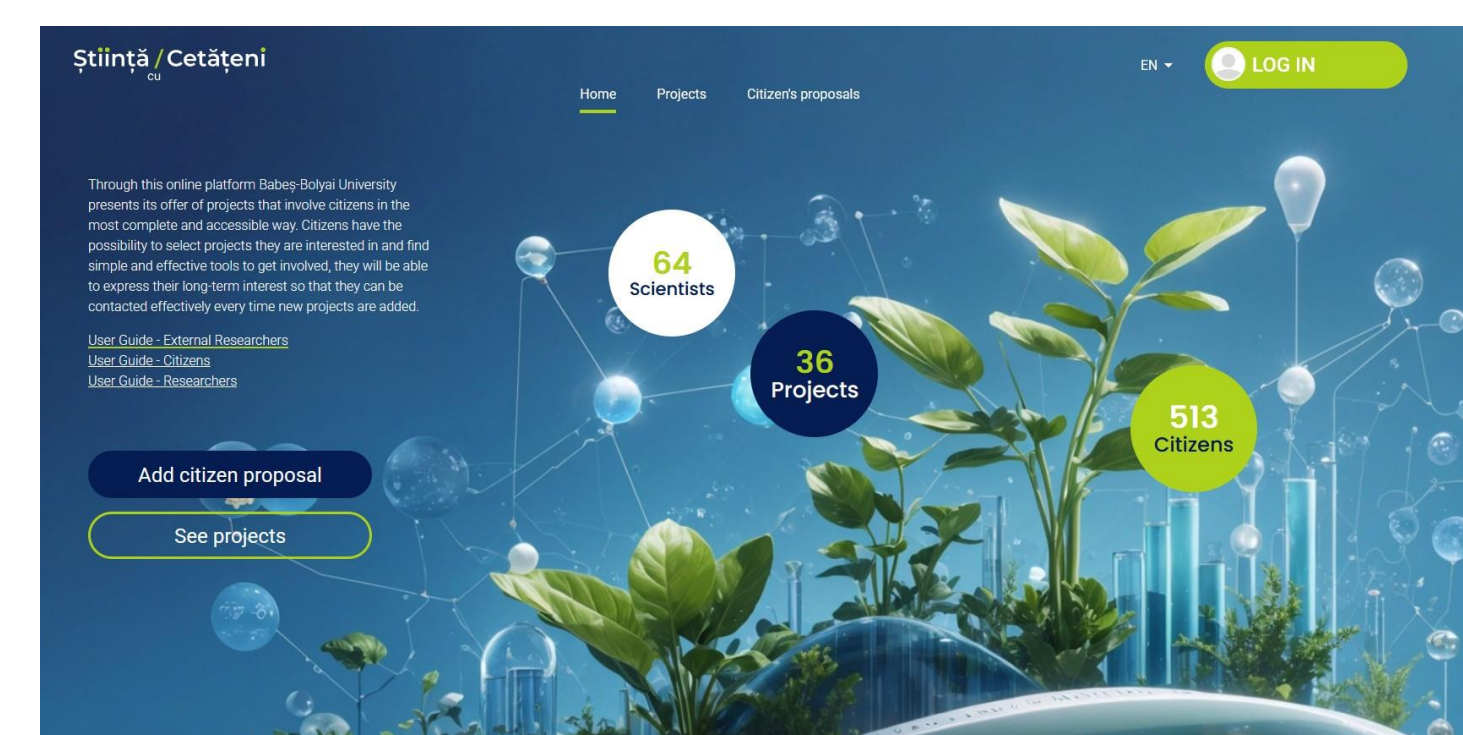
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### Introduction

Technological innovation has transformed the landscape of biodiversity monitoring, enabling scalable, participatory approaches that bridge scientific research and community engagement.

The **first Romanian Citizen Science Platform**, developed by Babeș-Bolyai University, provides an open infrastructure supporting multiple monitoring initiatives across ecosystems, contributing to emerging biodiversity monitoring networks functioning across scales.



### Apps and projects for biodiversity monitoring

#### Remarkable Trees of Romania

The project employs a geospatial mapping interface and mobile-based reporting to inventory heritage trees, contributing to the national register of old-growth specimens and their associated habitats.

The data is geotagged and verified through expert–citizen collaboration and offers valuable inputs for ecosystem services assessment and local conservation policies.

#### Results:

More than 600 citizens involved

More than 5600 trees identified and mapped

One Law on protection of old trees adopted by the Romanian Parliament

### BeeHost – Solitary Bees Monitoring

Low-cost infrastructure (bee hotels) and digital data management tools are used to monitor populations of solitary pollinators in urban and peri-urban areas. The resulting datasets inform both biodiversity indicators and urban planning measures for pollinator-friendly environments.

#### Results:

More than 200 citizens involved

More than 40 species of solitary bees identified

Awareness raising of garden-owners in the city of Cluj-Napoca and its surroundings.



15.07.2024  
Narațiuni fictive despre turbării (NarTur)



Activ  
Chituc Ringing Camp

Constanța Științe biologice inelare migrație



Activ  
Butterfly Monitoring Europe

Toată țara Științe biologice monitorizare, fluturi



15.07.2024  
Monitorizarea furnicilor roșii de păduri

Peatland monitoring

Bird ringing camps

Butterfly monitoring

Forest red ants monitoring

### Conclusions

- ✓ Combining technology with citizen science fills spatial and temporal data gaps in biodiversity observation networks
- ✓ Citizen science builds a culture of shared responsibility for environmental governance
- ✓ Citizen monitoring and engagement leads to legislative changes

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