

Urban Nature Exchange #4

The **fourth Urban Nature Exchange** explored **how cities can use citizen science to monitor biodiversity and engage the public**. Researchers from UFZ and iDiv presented successful approaches, including Leipzig's **butterfly-monitoring** project, which Mannheim has begun adopting. Cities shared that some already run diverse citizen science programmes, while others are just starting but see strong potential. Key **barriers include sustaining citizen engagement, limited awareness of citizen science, lack of experience, and technical challenges**. Success depends on clear communication, ongoing support, expert guidance, and sharing results back with participants.

Key Take-Aways

1

CS projects are **invaluable** for both **monitoring biodiversity and promoting public engagement** in environmental conservation. By involving citizens in data collection, cities can significantly expand their biodiversity monitoring capacity and empower individuals to actively contribute to local environmental protection. Successful CS projects, such as those focused on butterfly biodiversity, provide accessible ways for citizens to engage with nature while helping to track critical ecological changes.

2

The main **barriers** to successful CS initiatives include **maintaining long-term engagement, raising awareness** of the value of CS, and **overcoming technical difficulties**. Cities **often struggle to keep participants motivated** due to **short-term funding, lack of feedback** and **insufficient interaction** with the community. In addition, a lack of familiarity with CS among both citizens and staff can hinder project success. Overcoming these challenges requires targeted communication, clear protocols and ongoing engagement strategies to ensure sustainable participation.

3

Ongoing **communication** and **feedback** is **essential** to keep citizen scientists engaged. Cities should provide **regular updates through newsletters, social media, workshops** and community **events** to increase the impact of participants' actions. **Collaboration with experts** and research institutions **enhances the credibility and accuracy** of CS projects, while offering incentives and providing necessary materials motivates citizens to remain involved and committed to the project over time.

4

To **overcome the barriers of inexperience** with CS, cities need to invest in training and capacity building initiatives for both citizens and staff. **Offering workshops, online courses and on-site training sessions** (e.g. 'train the trainer') can improve knowledge and skills and enable more effective project implementation. In addition, **working with research institutions and NGOs can help provide the expertise** needed to guide and support the community in its efforts.

5

A key challenge for cities is **how to reach and engage marginalised or unconventional groups** in citizen science. This **requires targeted outreach, accessible resources**, and strategies that address the needs and interests of diverse populations. Further **research** into how best to engage these groups **will be crucial** to **ensure that CS projects are inclusive and representative**, and that all communities have a stake in biodiversity conservation and urban greening efforts.