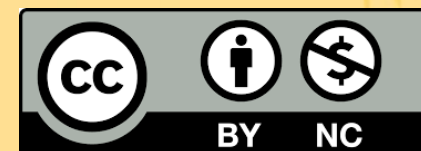


# Implementing Nature-Based Solutions (NBS)

## Lecture (online)

Trinity College Dublin

*Content created in 2024*



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the European Union**

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# Nature Based Entrepreneurship

- **Opportunities for Businesses to Implement NBS**
- **Eco-Entrepreneurship:** New business models in **green construction, urban farming, and green infrastructure** solutions.
- **Corporate Responsibility:** Companies investing in NBS projects to reduce their **environmental footprint** and contribute to **SDGs**.
- **Example: Private developers** partnering with local authorities to implement **green infrastructure** in new housing projects.
- For a list of Nature Based Enterprises check out the **‘Connecting Nature Enterprise Platform’**

**NBS are “Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience.”**

Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.

**NBS Definition – EU**

Reference: [European Commission](#)

# Connecting Nature

- **Connecting Nature: Pioneering NBS in Cities**
- **Overview:** The **Connecting Nature** project works with cities around the world to **scale up NBS** and transform urban landscapes into more **resilient, sustainable spaces**.
- **Key Focus Areas:**
  - **Community involvement** in planning and management.
  - **Collaborative governance** for **co-designed** solutions.
  - **Economic models** and **stakeholder engagement**.



# Connecting Nature

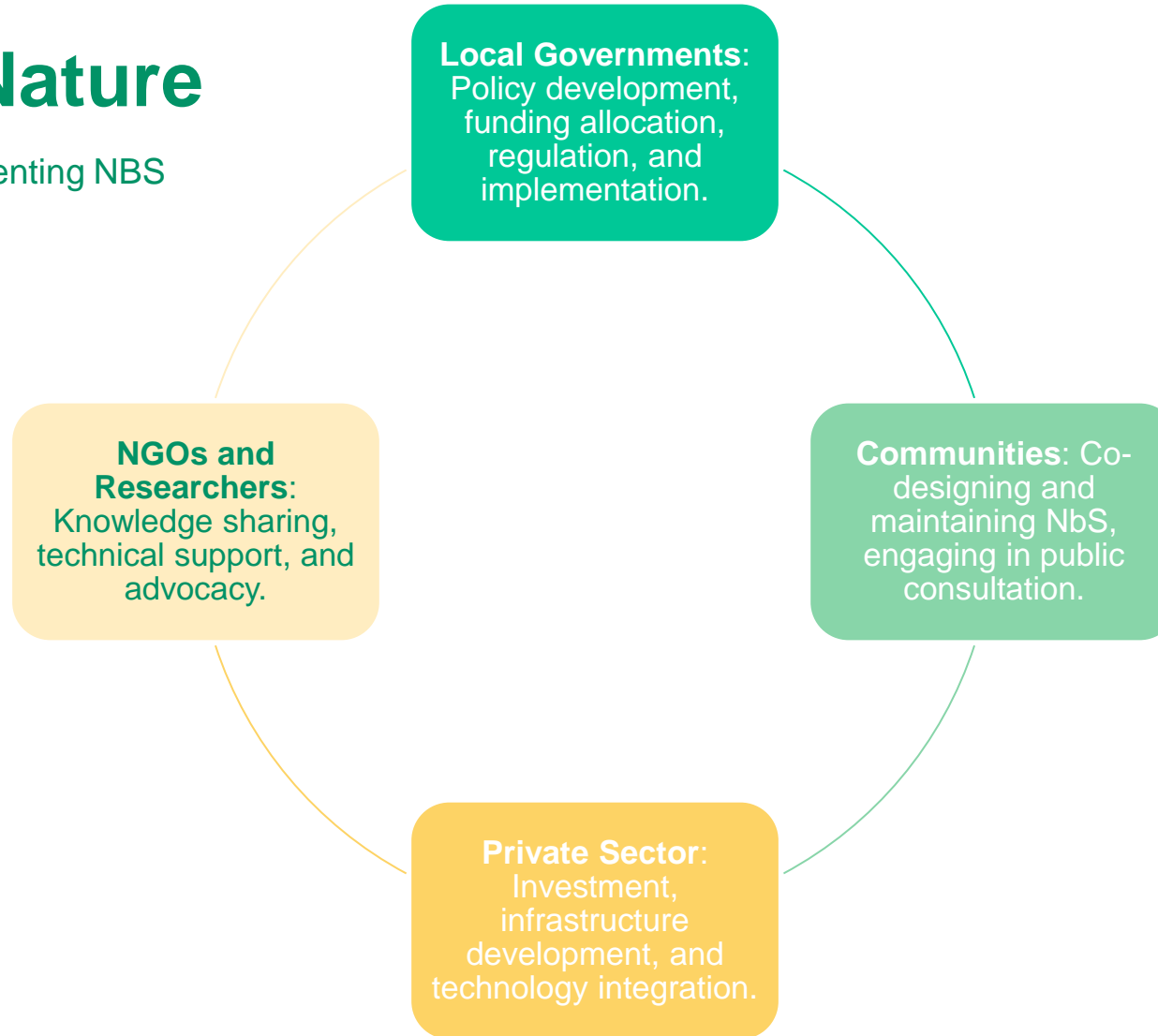
Urban Challenges addressed by the project:

- Rapid climate and environmental change e.g. heat island effect,
- Complex water and waste management issues (e.g. flooding)
- Adverse health and well-being challenges,
- Changes in social cohesion and migration patterns,
- Governance challenges in tackling complex urban challenges e.g. “silo thinking”, deficit of knowledge around nature-based solutions



# Connecting Nature

Key Stakeholders for implementing NBS



## In-Class Exercise 1:

**Objective:** Map out key stakeholders involved in a local NBS project.

- **Instructions:**

- Choose an urban challenge (e.g., **flooding, urban heat islands, or biodiversity loss**).
- Identify and map out the **roles of key stakeholders** (government, community groups, private sector, etc.).
- Discuss **collaboration** strategies and how stakeholders can work together.



# TAKE

# FIVE

# Support for Implementation

## Opportunities for Success

- **Community Engagement:** Increased **public participation** and support for green solutions.
- **Co-Funding Models:** EU funding mechanisms (e.g., **Horizon Europe, LIFE Program**) to support NBS projects.
- **Health and Well-being:** Social and health benefits that NBbS bring to urban populations.
- **Innovation:** New business models and technologies that enable scalable solutions



# Support for Implementation

## How Communities Can Lead NBS Implementation

- **Example: Connecting Nature** emphasizes the importance of **community stewardship**.
- **Benefits:**
  - Increased **ownership** and **maintenance** of NBS.
  - Local knowledge used to design **context-specific solutions**.
- **Example:** In **Dublin**, local communities played a key role in establishing **urban green corridors** as part of **NBS** implementation.

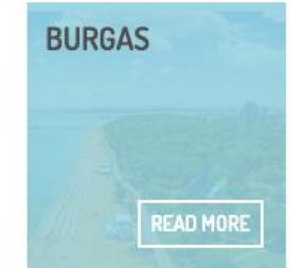


## BRINGING CITIES TO LIFE, BRINGING LIFE INTO CITIES

One of the exemplar videos highlighting how cities can implement NBS:



[https://www.youtube.com/watch?v=xXrNyvQ\\_5E4&t=5s](https://www.youtube.com/watch?v=xXrNyvQ_5E4&t=5s)



## Steps to Set Up an NBS Project

### Key Stakeholders for implementing NBS

1

• **Identify Local Needs:** Assess the urban challenges to address (e.g., flooding, heat islands, water quality).

2

• **Community Consultation:** Involve stakeholders early in the process.

3

• **Design Solutions:** Create context-specific NBS tailored to local conditions.

4

• **Secure Funding:** Explore EU grants and local investment.

5

• **Implementation:** Roll out NBS with collaboration across stakeholders.

6

• **Ongoing Monitoring and Maintenance:** Ensure long-term success through continuous management.



## In-Class Exercise 2:

**Objective:** Design a nature-based solution to address a specific urban challenge.

• **Instructions:**

- Identify a **local challenge** (e.g., **flooding, heat islands, lack of green spaces**).
- Design a **nature-based solution** (e.g., **green roofs, rain gardens, urban forests**).
- Develop a **plan for community engagement, funding, and long-term management**.



## Connecting Nature NBS Framework



## Financial Models for NBS



- **Securing Funding for NBS Projects**
  - **EU Funding:** Explore options such as **Horizon Europe**, **LIFE Programme**, and **Interreg**.
  - **Private Sector:** Corporate investments, green bonds, and public-private partnerships.
  - **Social Impact Bonds:** Financing mechanisms that focus on social outcomes (e.g., health benefits, resilience).
  - **Crowdfunding:** Engaging local communities to fund small-scale projects.

## Managing NBS

- **Effective Management and Monitoring**
  - **Management Structures:** Public-private partnerships, NGOs, and community groups working together to manage NBS.
  - **Monitoring Tools:** Use of **smart sensors, IoT devices,** and **community feedback** to track performance.
  - **Long-Term Maintenance:** Importance of **regular upkeep** and **community involvement** for sustained success.



## Stewardship for NBS



- **Ensuring the Longevity of NBS Projects**
  - **Local Stewardship:** Encouraging communities to take **ownership** of green spaces.
  - **Sustainability:** Ensuring that NBS are economically viable and adaptable to future challenges.
  - **Engagement:** Continuous community engagement in the upkeep and evolution of NBS projects.



# Conclusion

## Moving Forward with NBS: Challenges and Opportunities

- **NBS** are essential for creating **sustainable, resilient cities**.
- **Collaboration** among **local governments, businesses, communities, and NGOs** is key to scaling up NBS.
- The **future of NBS** lies in **innovative financing models, community-led stewardship, and strong policy frameworks**.



## Discussion and Questions

- Discuss potential barriers and solutions in implementing NBS
- How can **you** can actively contribute to **local NBS projects?**



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# Thank you!

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