



Powerful evidence for nature-based solutions: identifying opportunities for NBS impact assessment

Dr Adina Dumitru & Dr David Tomé Lourido **University of A Coruña**

Bringing cities to life,
Bringing life into cities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



Where are the impact assessment gaps in cities?

What business opportunities can they generate?



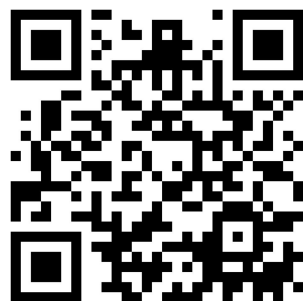
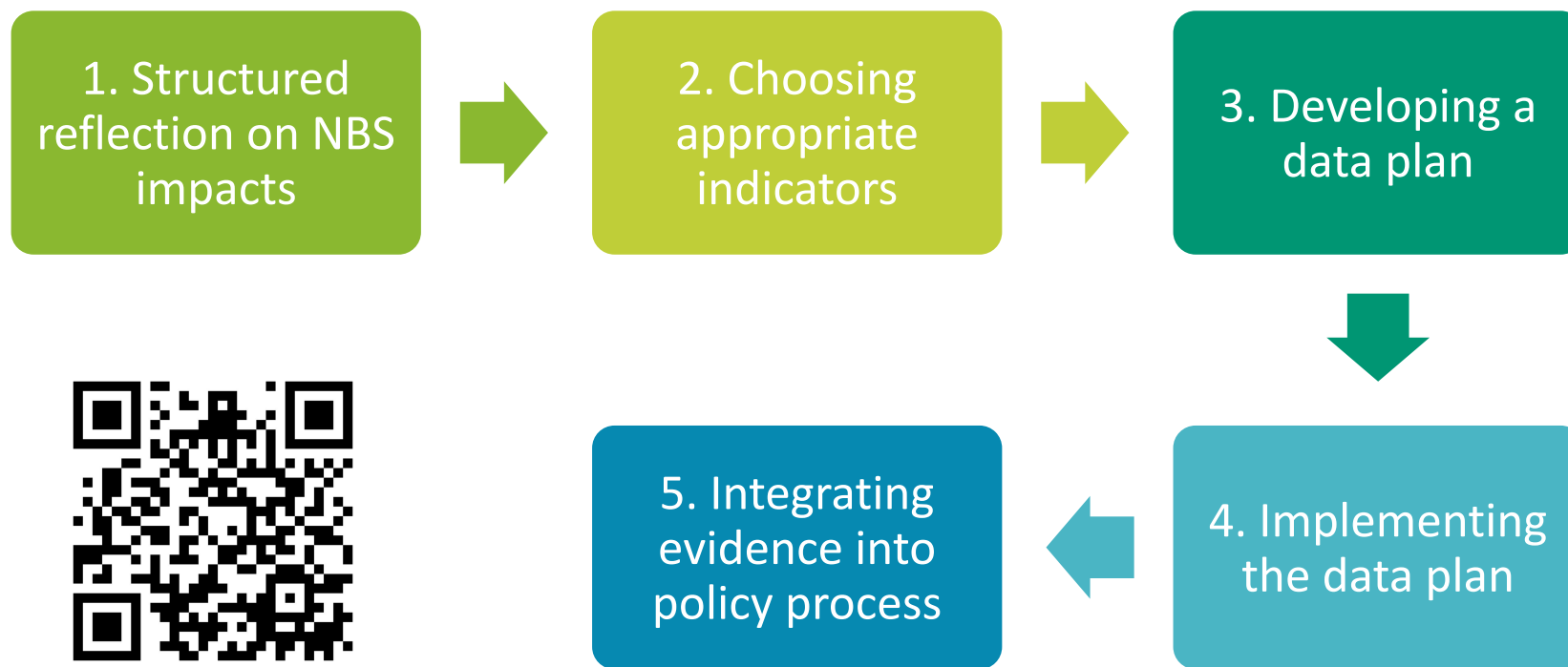
Bringing
cities to life,
Bringing life
into cities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



Our cities have built their evaluation and monitoring plans through the Connecting Nature Impact Assessment Framework



Bringing cities to life,
Bringing life into cities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222

As a final result from a co-creation process with cities, 108 indicators were grouped into 5 impact categories

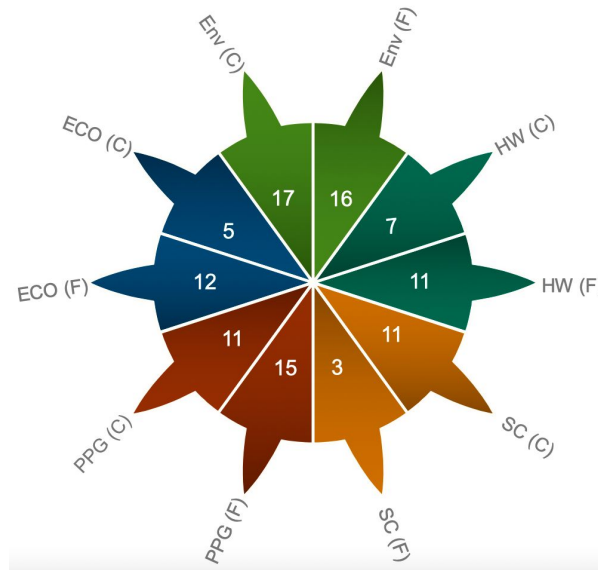
Environmental (Env)

Social cohesion (SC)

Participatory Planning and
Governance (PPG)

Health and Wellbeing (HW)

Economic (ECO)



Number of core (C) and feature (F)
indicators per impact category



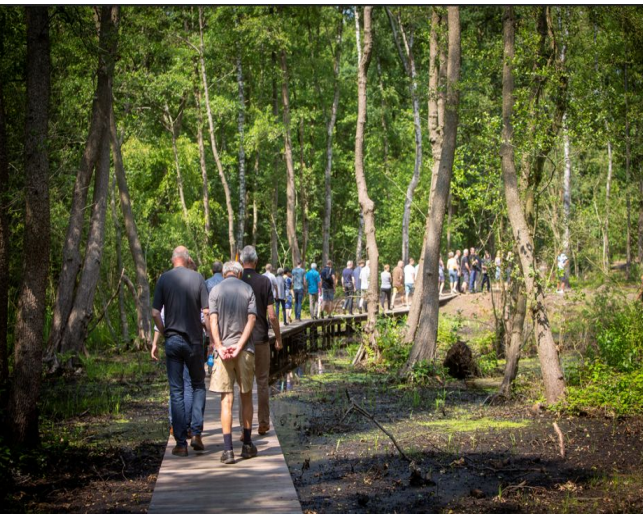
Bringing
cities to life,
Bringing life
into cities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



Most promising indicators: Health and social categories



Bringing
cities to life,
Bringing life
into cities.

PRIMARY	
Code	Indicator
PI1	Type of interaction with NBS
PI2	Frequency of interaction with NBS
PI3	Duration of interaction with NBS
PI4	Perceived quality of space

HEALTH AND WELLBEING	
Code	Indicator
HW3	General wellbeing and happiness
HW11	Mental health and wellbeing
HW12	Enhanced physical activity
HW16	Perceived restorativeness of public green space
HW14	Improvement of behavioural development and symptoms of attention-deficit/hyperactivity disorder (ADHD)

SOCIAL COHESION	
Code	Indicator
SC1	Bonding social capital
SC2	Bridging social capital
SC4.1	Trust in community
SC5.1	Perceived safety
SC6	Place attachment
SC9	Empowerment
SC12	Pro-environmental behaviour



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



Bringing
cities to life,
Bringing life
into cities.

Environmental, economic and participatory categories

ENVIRONMENTAL	
Code	Indicator
ENV3	Air temperature change
ENV23	Public green space distribution
ENV24	Recreational value of blue-green spaces
ENV29	Supporting/increasing biodiversity conservation
ENV35	Species diversity
ENV42	Land use change and greenspace configuration
ENV81	Soil sealing

PARTICIPATORY, PLANNING AND GOVERNANCE	
Code	Indicator
PPG1	Diversity of stakeholders involved
PPG4	Policies adopted to promote NBS
PPG5	Activation of public-private collaboration
PPG6	Trust in decision-making and decision-makers
PPG9	Innovative climate
PPG10	Open communication

ECONOMIC	
Code	Indicator
ECO1	New Businesses 'attracted' or started and additional rates received
ECO3	Net additional jobs created/enabled by NBS
ECO7	Increase in tourism
ECO13	Net impact on public expenditure from NBS implementation



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



Where are the impact assessment gaps in cities?

Lack of theory of change: assess indicators possibly related to the NBS without previously reflecting on the expected impact

No selection of indicators for the city due to an initial assessment of resources

Suitability of some indicators to measure the NBS impacts depending on the scale and the existing methodology

Lack of available data to establish a baseline

Contact with public administrations or people who have data of interest

Internal capacity in cities to collect and analyse data or represent the results in a spatial dashboard

Bringing
cities to life,
Bringing life
into cities.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222



European Handbook of Indicators

The objective of this handbook is to support the adoption of common indicators and methods for assessing the performance and impact of diverse types of NBS

The handbook is designed to be relevant for NBS implemented across a wide geographic area and at a multitude of scales

NBS are capable of addressing challenges across multiple environmental, social, cultural and economic dimensions. In this handbook, 12 key societal challenge areas are considered



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730222