



Webinar Series: Session 5

Measuring NBS performance and impact for adaptive management

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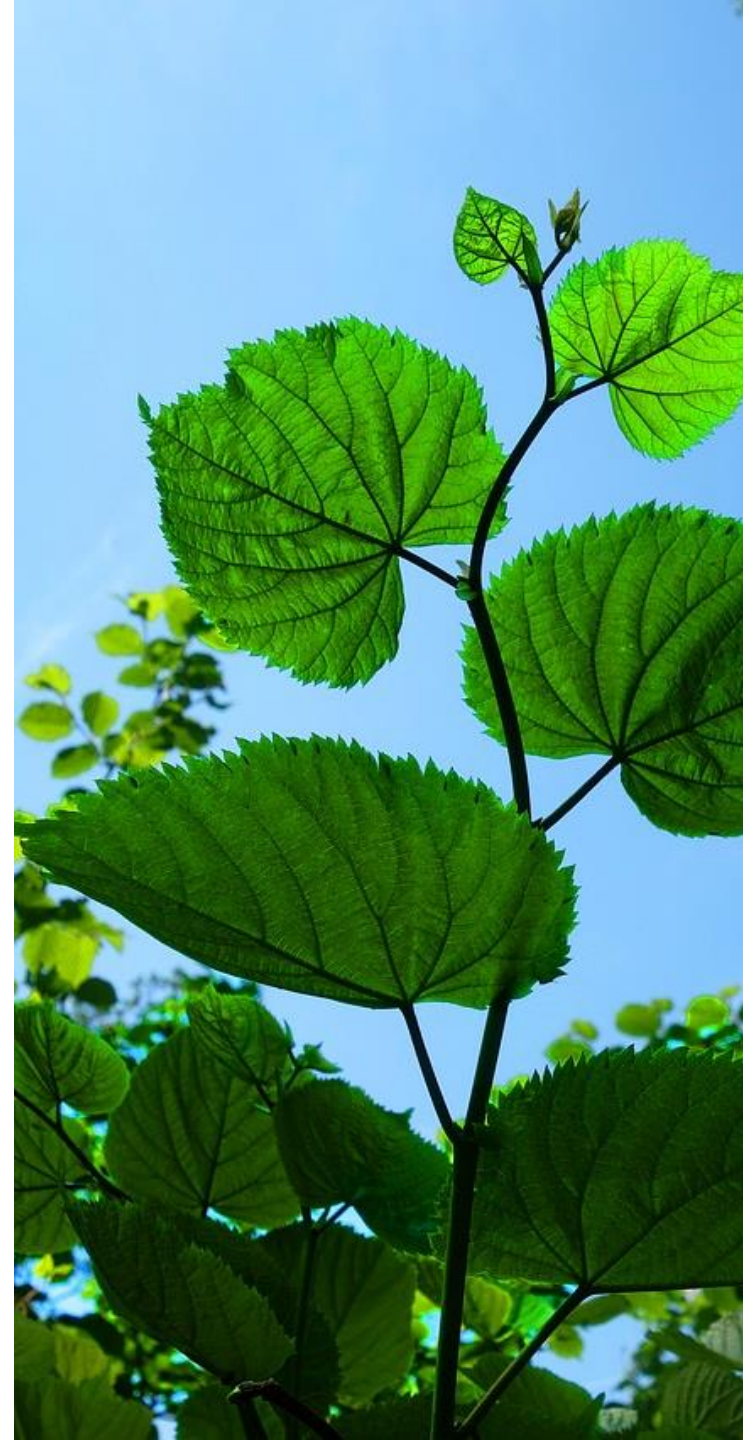
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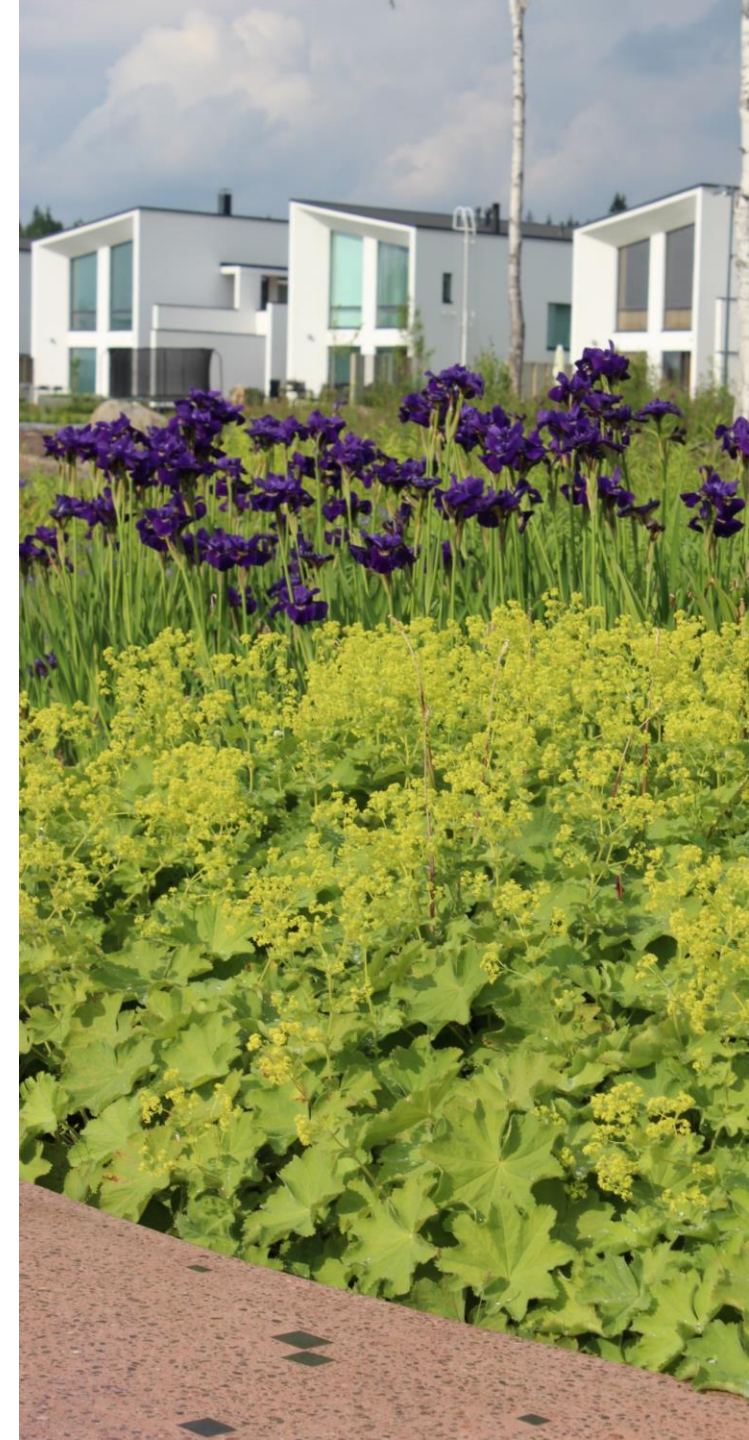
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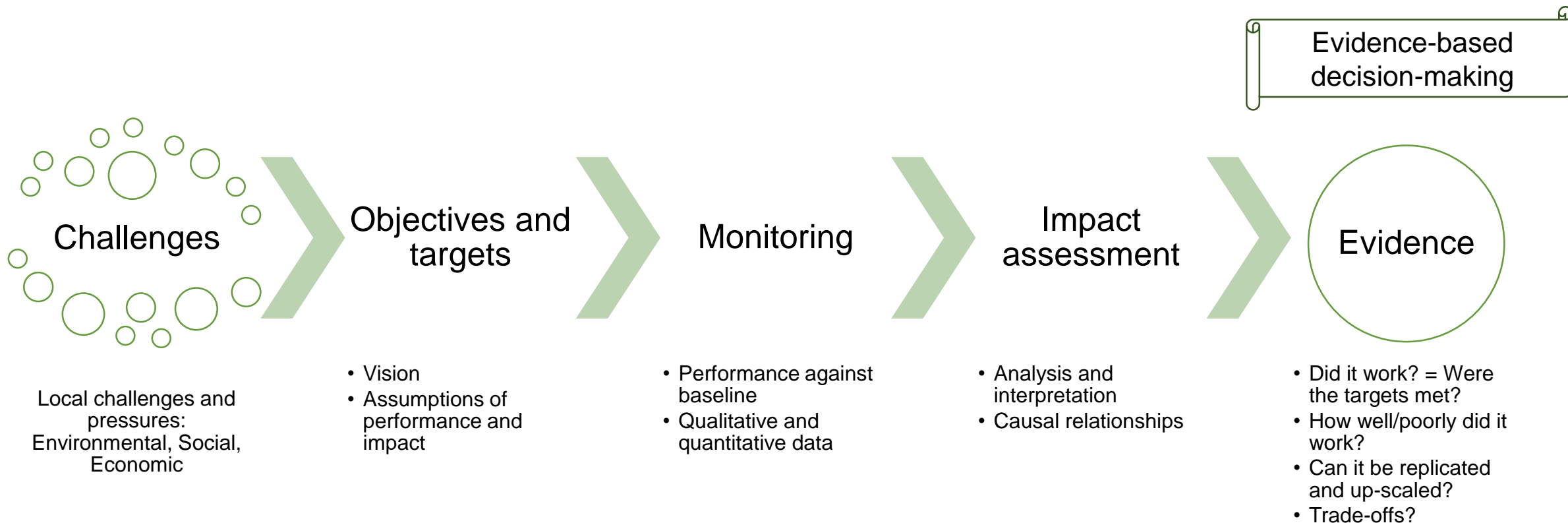
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 730052 | **Topic: SCC-2-2016-2017: Smart Cities and Communities Nature based solutions**



Previously on NBS implementation...



From challenges to evidence



Defining NBS objectives



Objectives

For addressing the local challenges

Divided into

Primary objectives

That reflect the main challenge(s) NBS addresses

Co-benefits

Additional benefits generated

Which are

Relevant

For stakeholders

Specific

To be translated into indicators

Translating targets into measurable indicators



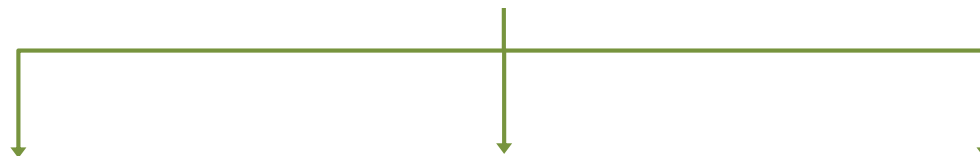
Targets and objectives

Require



Systematic evaluation

Which builds upon the required:



Methodology

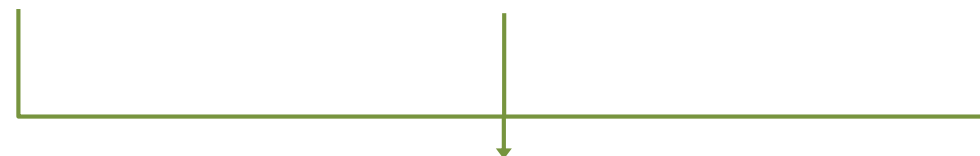
Including context, advantages and drawbacks

Scope

Time horizon

Boundaries

Time, space, resources, labour



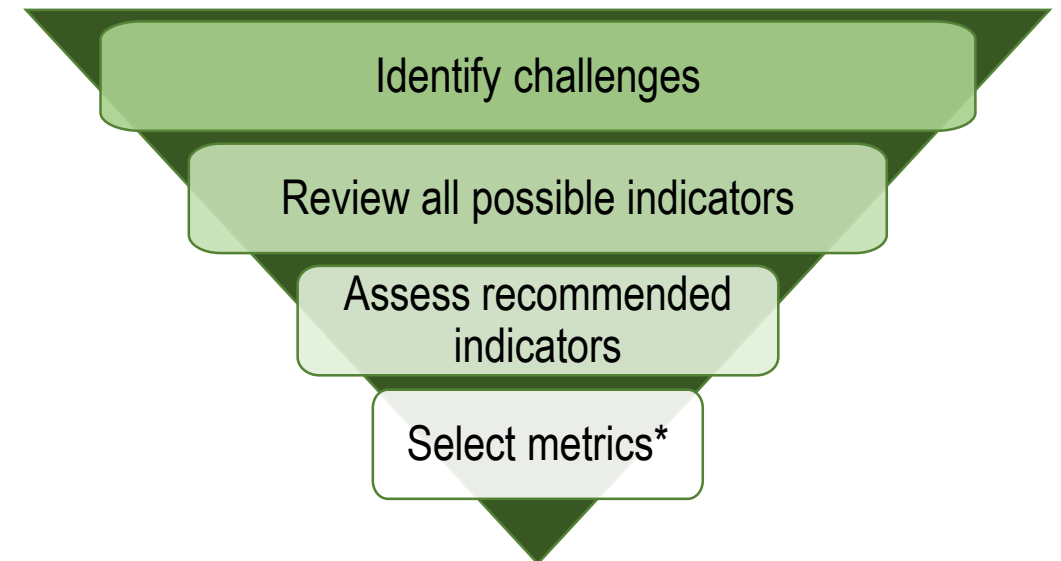
That guide the selection of the

Indicators of performance and impact

Ways to select appropriate indicators (1/2)

- Based on local challenges and objectives
- Essential for generating knowledge on what works and what does not
- Can be built upon existing frameworks (EKLIPSE, NBS Taskforce)

Specific,
Measurable,
Achievable,
Realistic, and
Time-bound



*In case an indicator has multiple assessment methods

Ways to select appropriate indicators (2/2)

12 Societal Challenge Areas

Climate Resilience

Water Management

Natural and Climate Hazards

Green Space Management

Biodiversity Enhancement

Air Quality

Place Regeneration

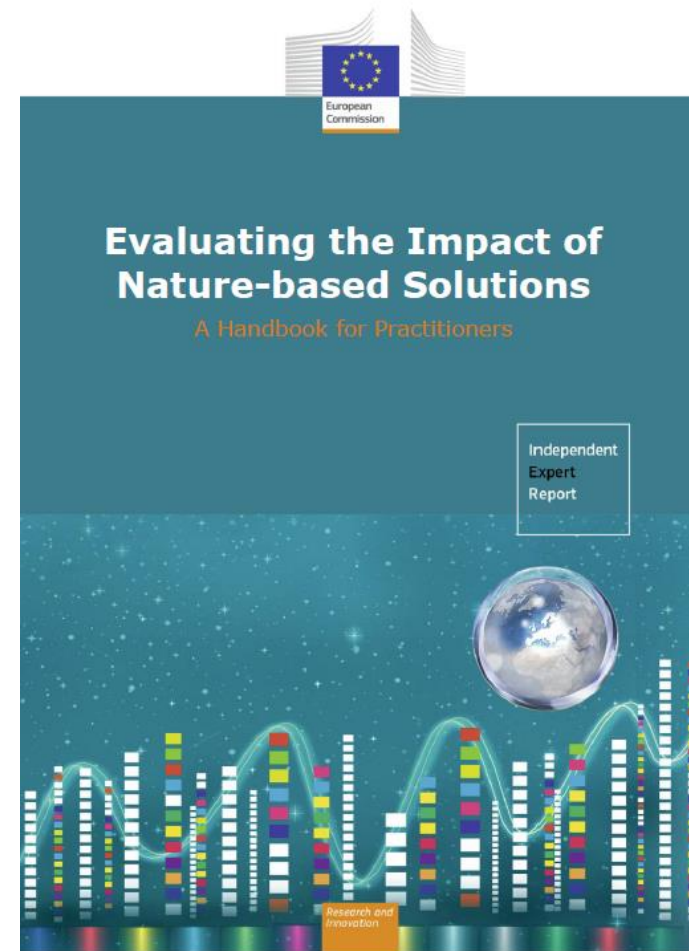
Knowledge and Social Capacity Building
for Sustainable Urban Transformation

Participatory Planning and Governance

Social Justice and Social Cohesion

Health and Wellbeing

New Economic Opportunities and Green
Jobs



Dumitru and Wendling (Eds.), *in preparation*

Monitoring and impact assessment considerations



Key performance indicators

- Realistic and credible
- Serve the purpose
- Not arbitrary
- Comparable

Baseline or no-NBS assessment

- Enables comparison of before and after NBS construction

Scale of NBS impact

- At which the impact will be visible
- Must correlate with NBS size
- Directly affects data acquisition modes

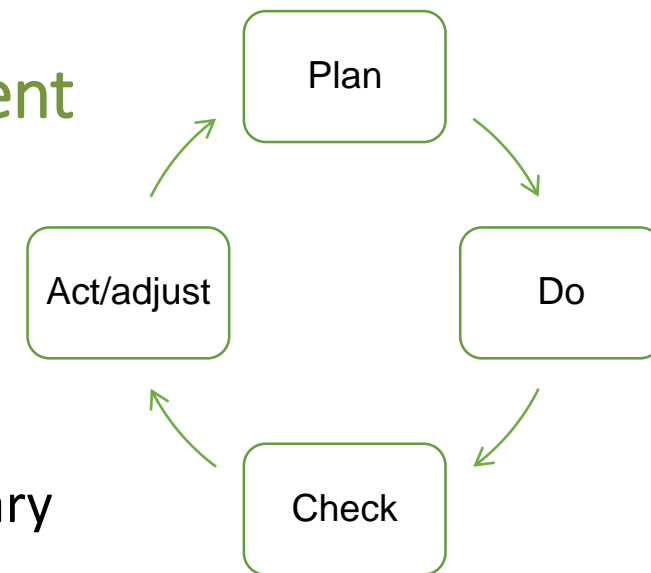
Data acquisition

- The ways monitoring data is collected and processed
- In situ, citizen science, surveys, EO/remote sensing
- Long- and short-term effects
- Resources and labour
- Frequency of data collection
- Responsibilities and ownership of data
- Open source data

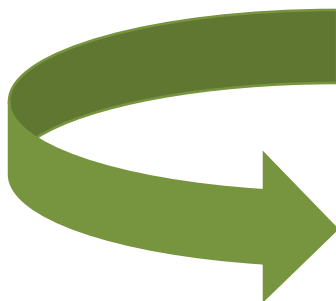
Evaluation framework

- National and/or international policies and frameworks
- Enables comparability and benchmarking

NBS monitoring enables adaptive management



- Revise the goals and adjust the monitoring actions, if necessary
- Use knowledge for replication
- Employ ICT tools as possible to simplify data collection & management



Reduce uncertainty over time via monitoring of the NBS interventions



UNaLab example: City of Tampere (FI)

Urban challenges to objectives: a few examples

A few urban challenges in Tampere



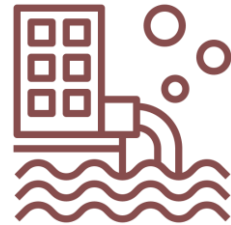
Biodiversity loss



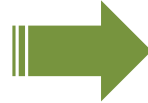
Densification



Flooding



Water pollution



Objectives

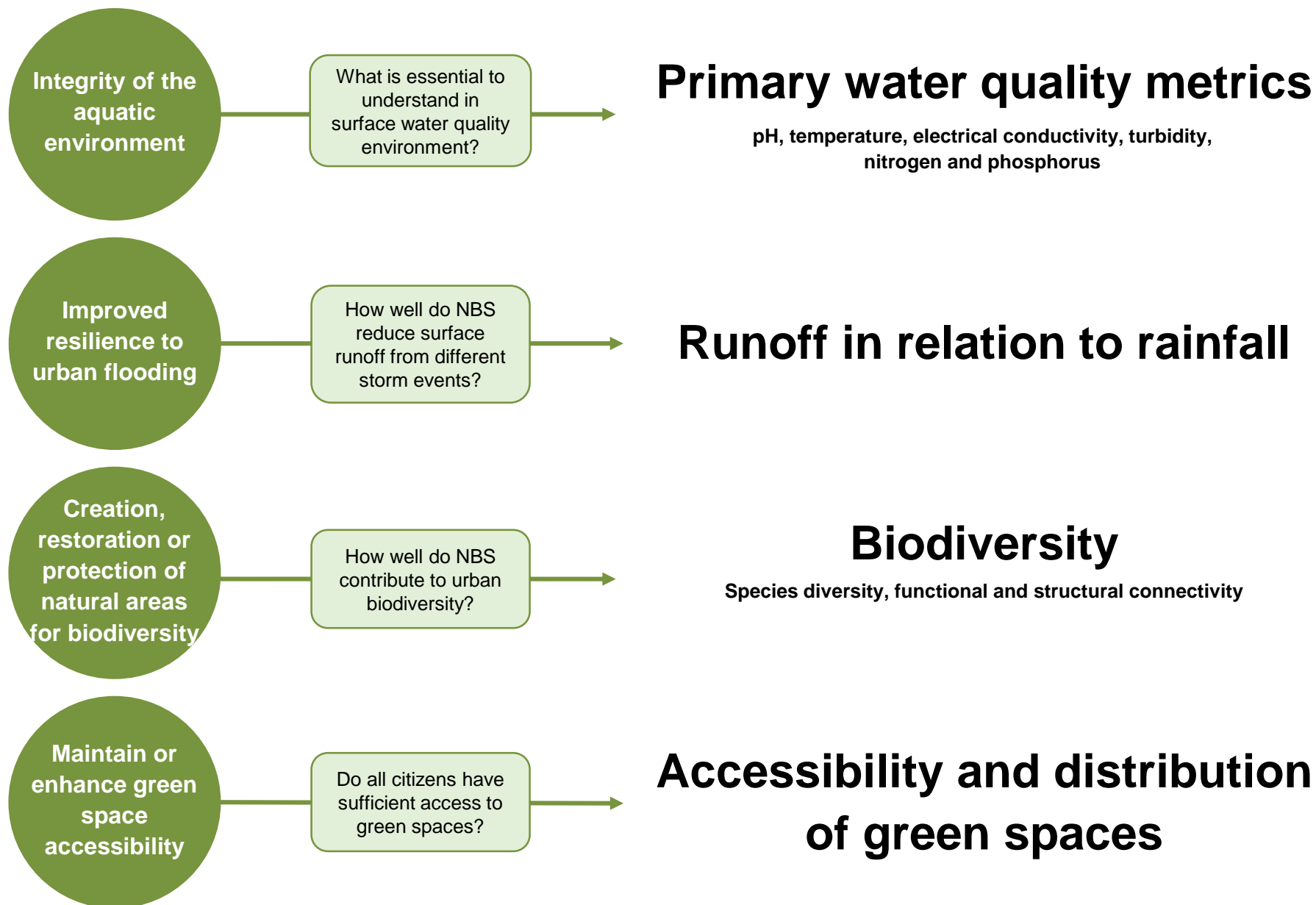
Integrity of the
aquatic
environment

Creation,
restoration or
protection of
natural areas
for biodiversity

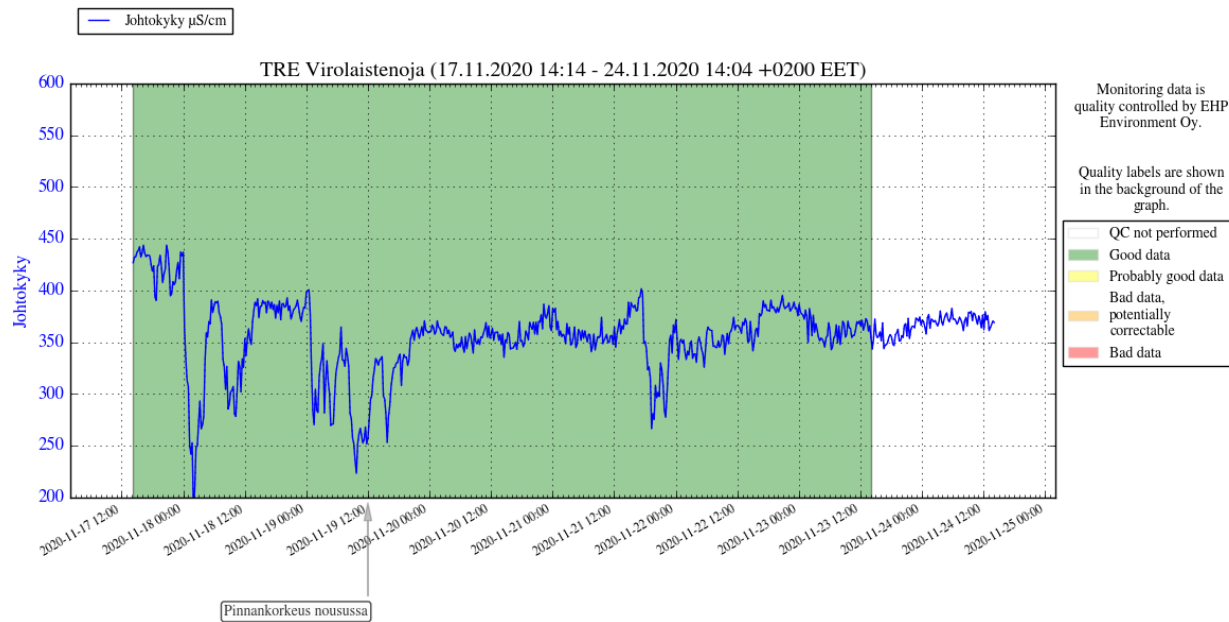
Improved
resilience to
urban flooding

Maintain or
enhance green
space
accessibility

Translating objectives to indicators: a few examples



Once the monitoring is running...



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Project Partners



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