

Economic impacts

Key data from monitoring

Some of the key economic impacts observed through monitoring data is presented in the below table, including scale of investment, direct employment created by the investments, and stormwater passively treated in the NBS sites and therefore diverted from sewer networks.

Impact	City	Amount
Scale of investment (EUR)	Wroclaw	€ 1,594,654.71
	Manchester	€ 1,543,184.18
	Valencia	€ 625,979.38
Employment created (average FTE/year)	Wroclaw	62.8
	Manchester	13.1
	Valencia	22.0
Stormwater avoided (m3)	Wroclaw	84,502.50
	Manchester	19,995.00

In addition to this economic Key Performance Indicator (KPI) data from monitoring activities, a number of other economic impacts were produced from the investments, including health benefits from visitation and property price impacts, although insufficient data was collected to accurately estimate changes to property prices.

Reflections on health benefits of physical activity

- Manchester data on park visitation coupled with the use of the World Health Organisation HEAT tool was used to estimate physical benefits in terms of added years of lives, which for Manchester amount to EUR 140,000 per year.
- The same visitation data coupled with UK Gov value on effects of physical activity on reduced healthcare costs showed that the Manchester investment could lead to savings of EUR 125,000 per year.
- This case study highlights the significant physical health benefits of green urban areas.
- The benefits would be even higher if mental health benefits were included (unfeasible to include in the present study), as green spaces have been proven to improve mental health issues such as depression, anxiety and stress.

Reflections on property price impacts

- Impacts on property prices can only be well understood with datasets spanning several years and by undertaking an analysis using a control area and correcting for other potentially influencing factors.
- Using a conservative value stemming from a study on the effects of park renovation on property prices and applying it to the case of Manchester, we estimated that the park enhanced the value of nearby properties by EUR 1.86 million overall.
- Increase in property prices primarily derive from increased aesthetic value and increased recreational opportunities.
- Literature across different contexts has shown that parks can increase value of nearby properties (although being too close to a park has in some instances been found to slightly reduce value because of noise).

The costs and benefits of the Manchester investment were estimated over a 25 year period, drawing on monitoring data and published literature, and suggest the project investment of around **EUR 2 million produces net benefits of EUR 3.3 million and a benefit-cost ratio of 2.5.** This suggests the project is an efficient investment from a 'whole of society' perspective.



Figure: Overview of the present value costs and benefits of the Grow Green park restoration project in Manchester.

Lessons learned

- Some key impacts require several more years to provide a data set to analyse (e.g. impacts on property prices)
- Where quantified costs and benefits can be developed drawing on monitoring data and literature, benefits significantly exceed costs
- Many of the quantifiable economic benefits of the demonstration projects are challenging to use to drive private investment business models, as they are public goods (e.g. health benefits from physical activity)

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