



Tackling Root causes Upstream of  
Unhealthy Urban Development



# Introduction to the HAUS model (Health appraisal of urban systems)

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# About HAUS: Health appraisal of urban systems model




**Health evidence**

- 200 environment-health impact pathways
- 30 features of the urban environment from air pollution to walkability
- Includes adults and children
- Derived from a series of systematic reviews of published medical evidence



**Quantification**

- Comparative risk assessment model using impact-pathway approach
- HAUS helps quantify, value and compare the health impacts of existing and future site characteristics
- Users can test several scenarios for options appraisal

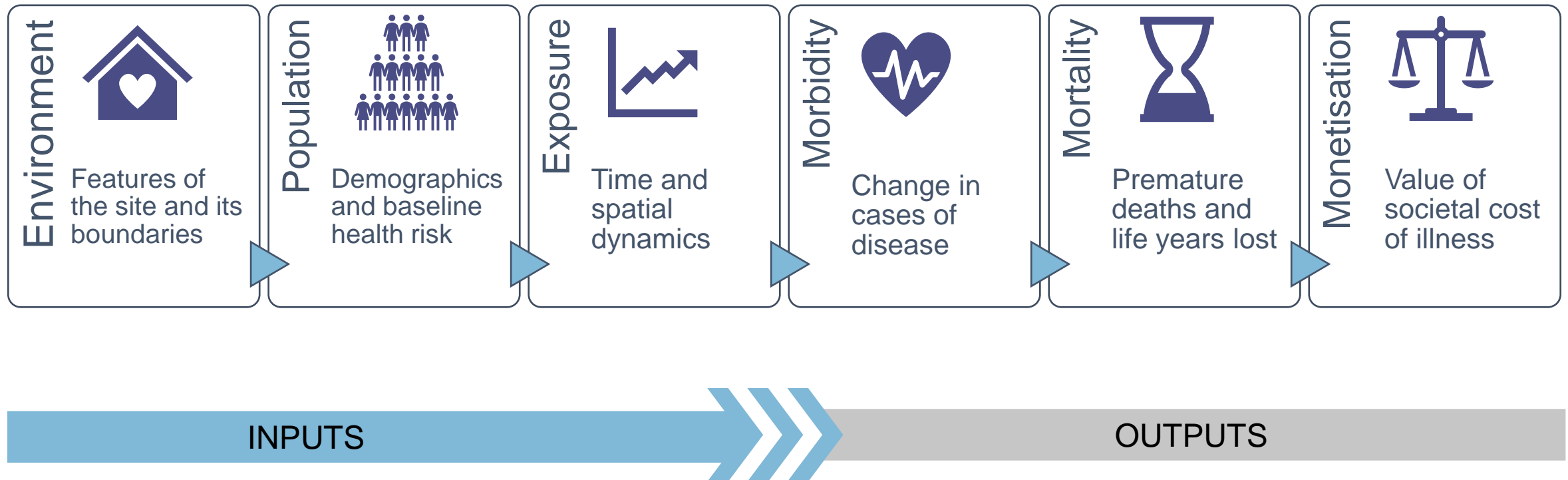


**Valuation tool**

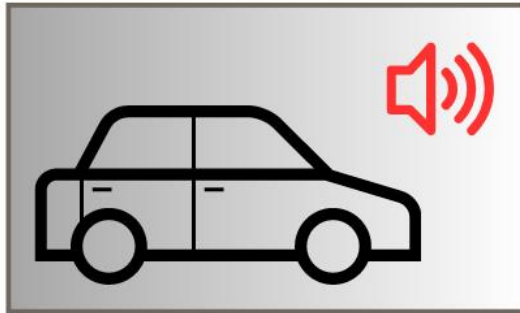
- Database of economic valuations for over 70 health outcomes
- Societal unit costs include direct, indirect and disutility
- Derived using systematic review of published evidence and primary research

# How HAUS works

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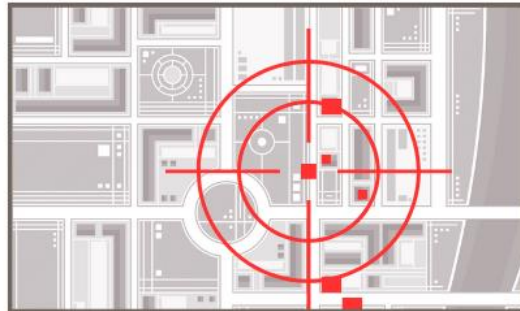


## Mechanism



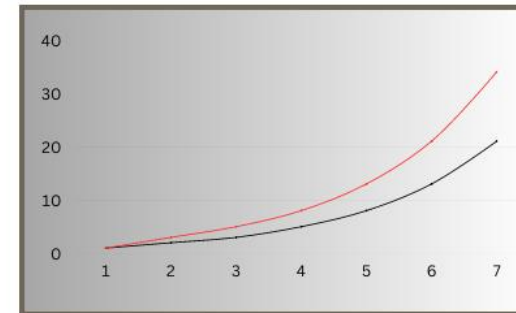
Characteristic of the environment,  
e.g. levels of traffic noise

## Exposure



Population exposed to feature,  
e.g. people aged over 65 years living  
in an area with high levels of noise

## Impact



Exposure - Response  
e.g. Attributable change to incident  
cases of cardiovascular disease

## Valuation



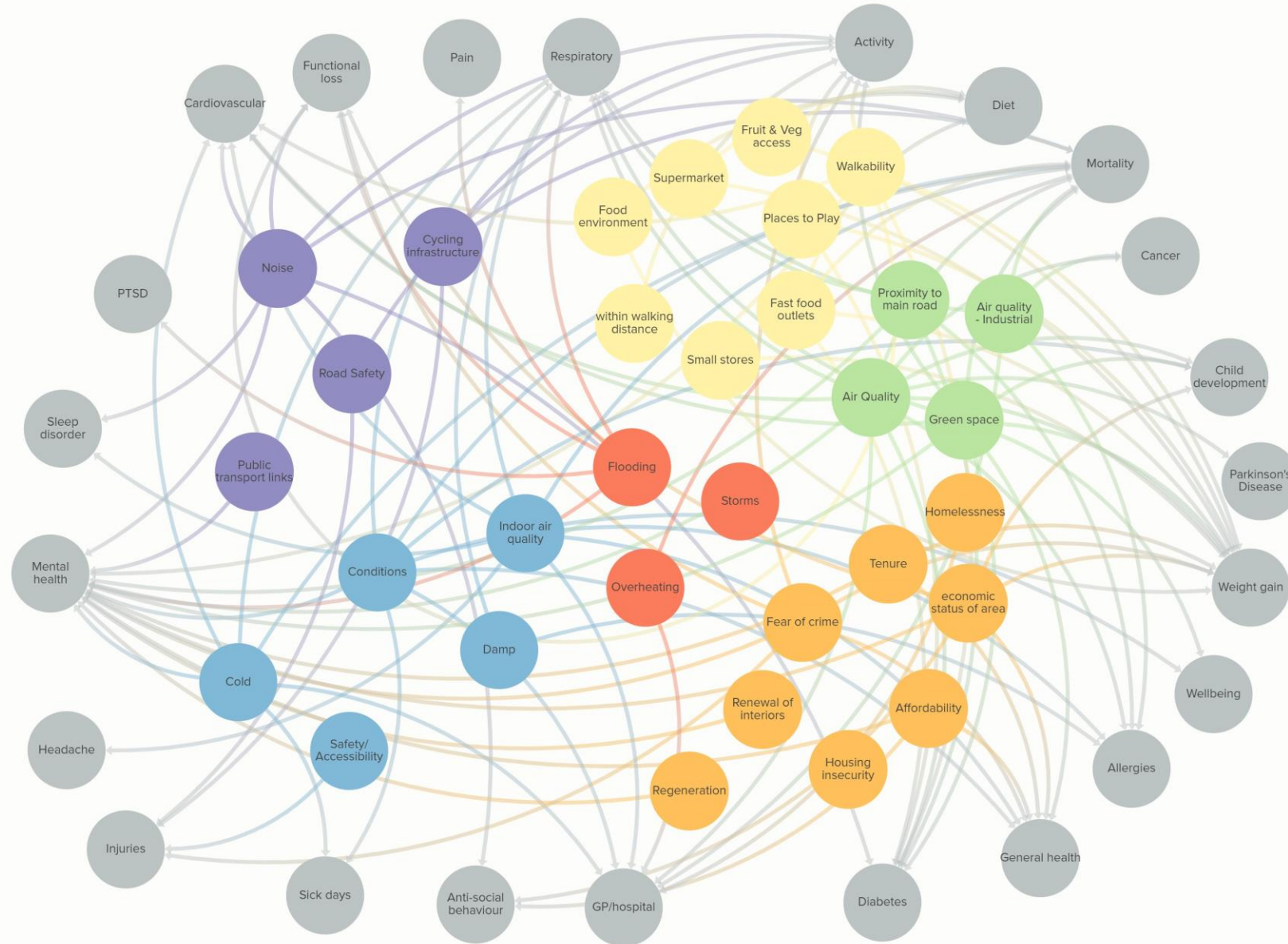
Societal cost of illness  
e.g. cost of cardiovascular disease  
per case per year over 25 years

# The impact pathway approach



# Scope of HAUS model

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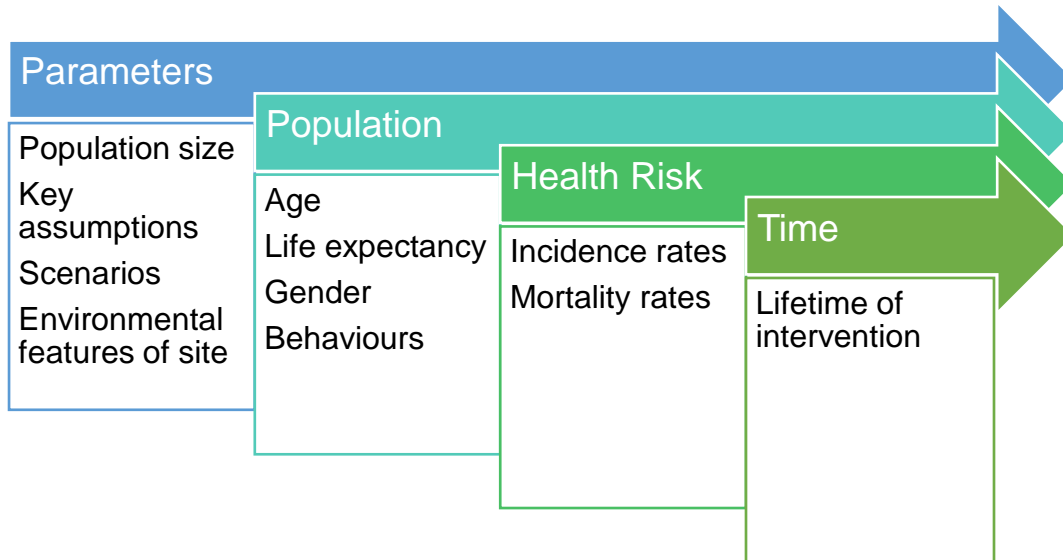


# HAUS Valuation Model: Example

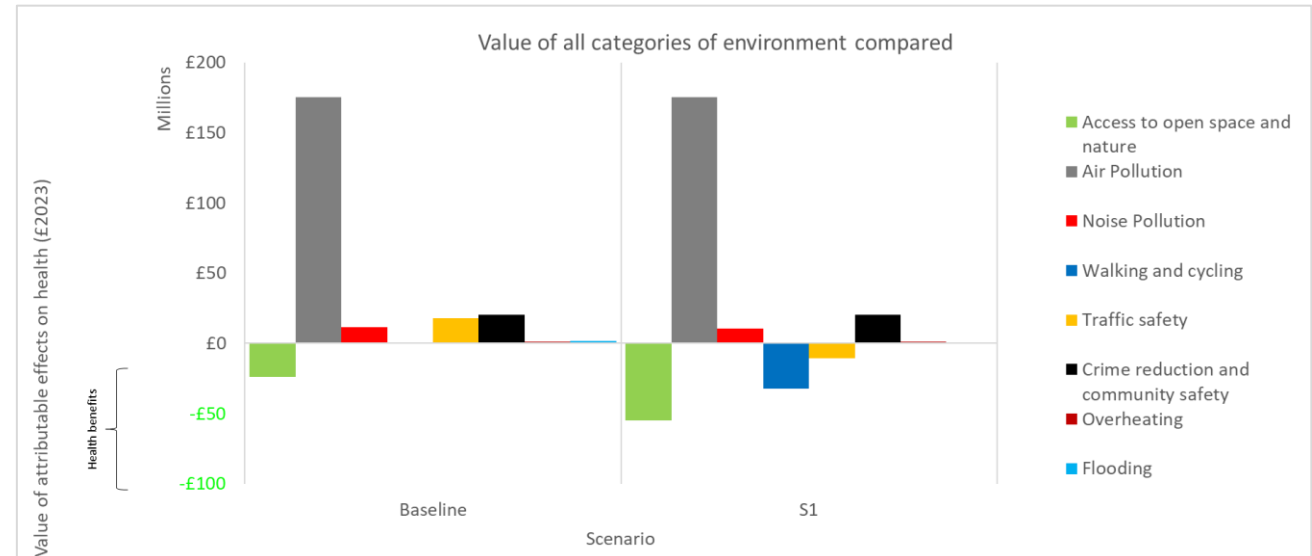
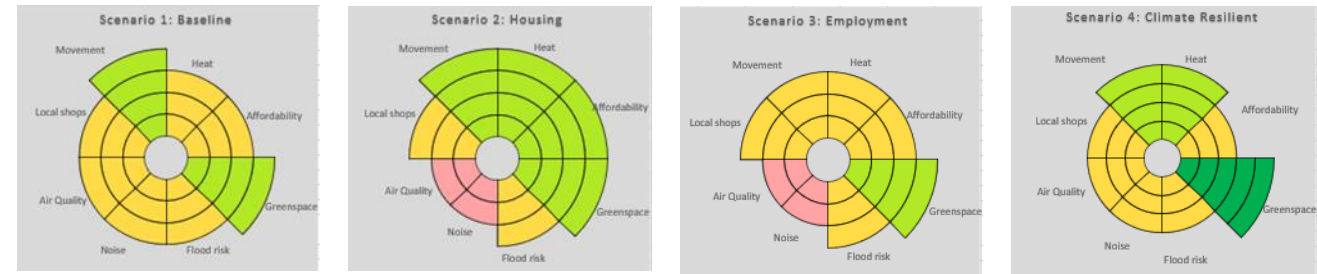
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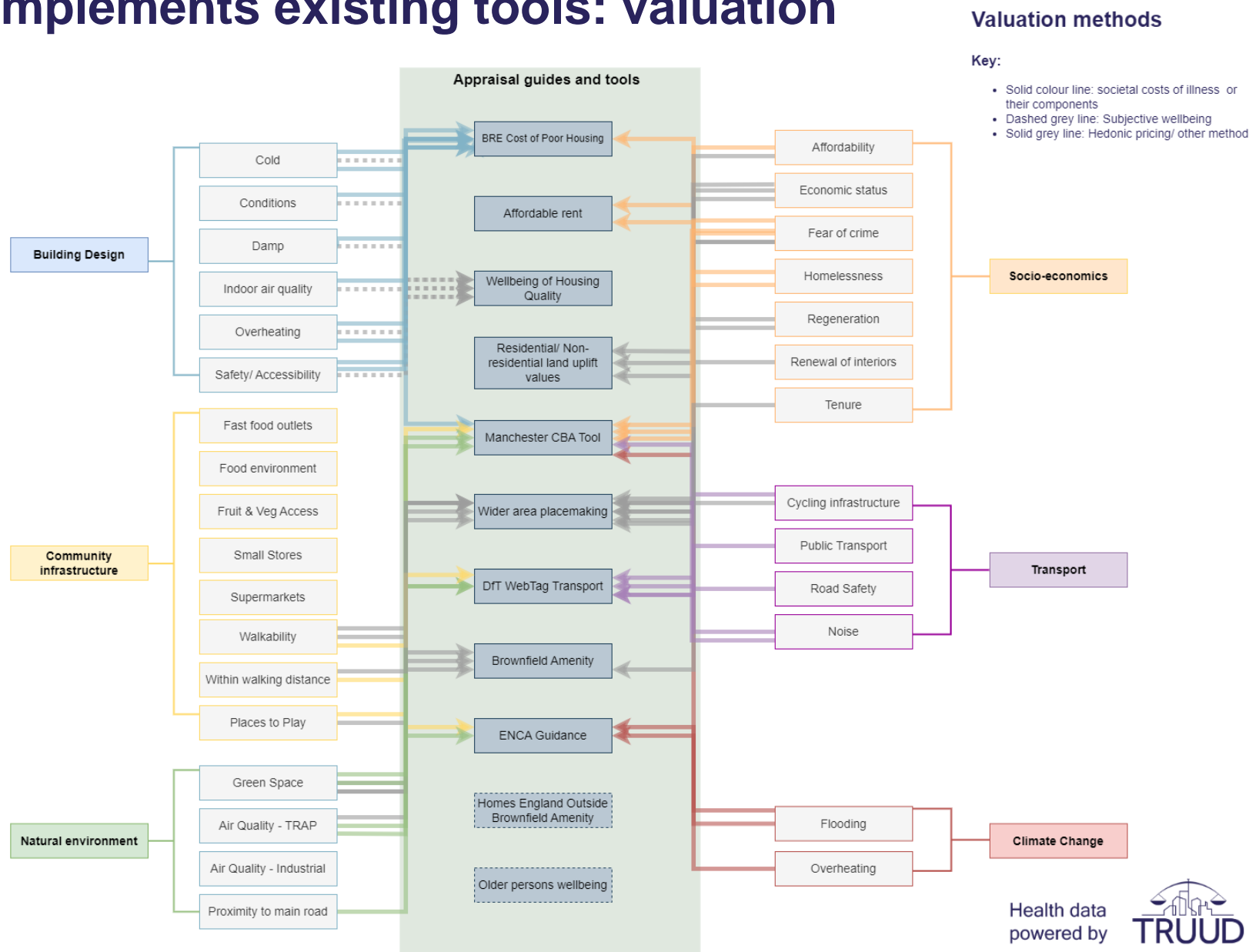
## User inputs



## Outputs

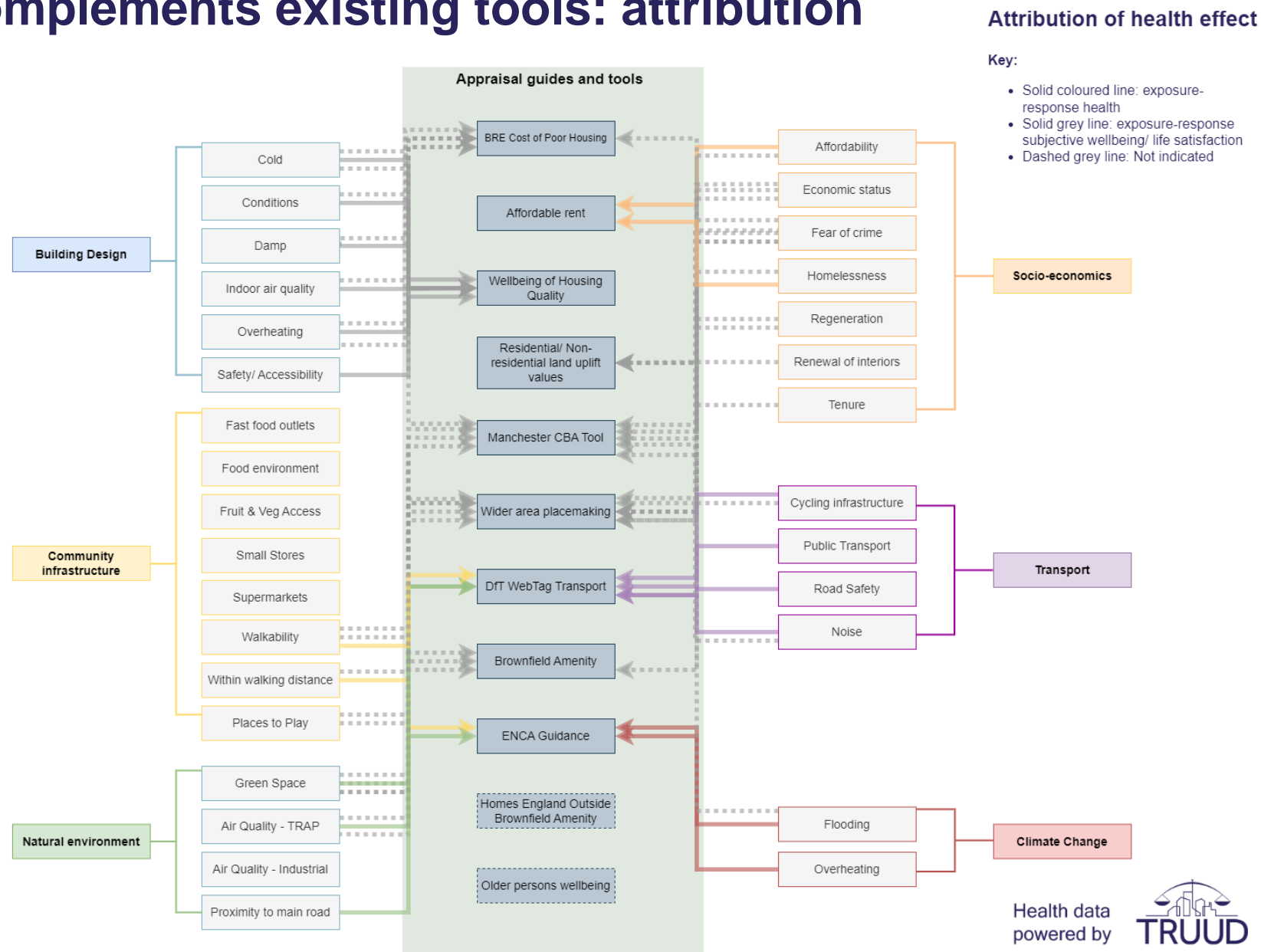


# Where HAUS complements existing tools: valuation



Overlaps in DLUHC appraisal guide and related documents **in terms of the valuation methods applied**, including unit costs of illness, hedonic pricing and subjective wellbeing

# Where HAUS complements existing tools: attribution



How changes to health are attributed in the same documents in terms of the relationship between the environment and health



# Where are we testing HAUS?

## Local/ Regional Applications

Bristol Regeneration Framework

Manchester Streets for All Design Check

## National Policy appraisal

Informing business cases for large funding programmes

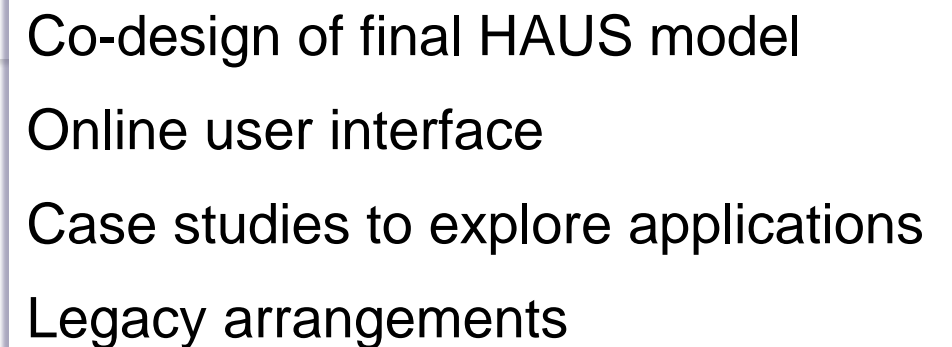
Legislation impact appraisal

Specific regeneration schemes

## Real estate investment

Brownfield redevelopment

Non-residential urban placemaking



# What's next?

# Contact

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#### University Consortium



#### City/Combined Authority Partners



#### Professional Membership Partners



#### Research Funders



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Weblink: <https://ukprp.org/>

