



# SMART – Smart Model Assessment Resilient Tool

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S.M.A.R.T. is the outcome of PhD research on Smart Cities. The tool was developed to assess a city's smartness in a holistic way. Currently, 'smart' is perceived as a service provision strategy, focussing on digital technologies. However, this can increase the digital and social division in cities. For this reason, the research uses theoretical and empirical research (i.e. interviews) to collect datasets on initiatives that cities have adopted to become smart. The thematic categorization of these datasets helps develop a set of metadata for smartness. The dataset can be updated as new smart city initiatives occur. In combination with stakeholder engagement, smart performance is evaluated against the existing criteria of the dataset. As such smart strategies are more thoroughly considered leading to smarter decision-making.

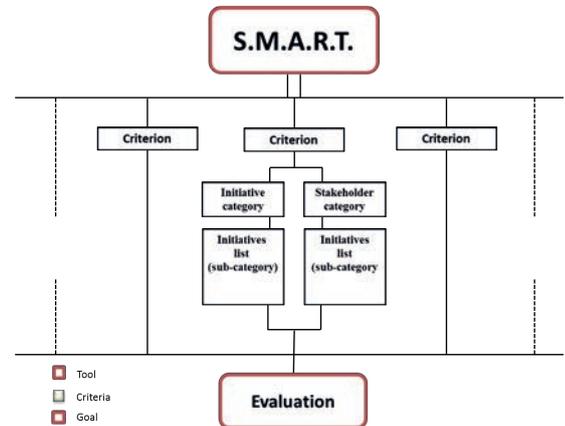
## Tool Contents

S.M.A.R.T. is a process by which to assess the smartness of a city. It uses a dataset of initiatives, stored within Microsoft Access document(s). Therein it is possible to evaluate city smartness according to the contextual references of cities (e.g. location, size). Through evaluation of smart initiatives and stakeholder engagement, city comparisons can be made and a hierarchy of initiatives created which support improved decision-making for 'Smart City' urban development.

## How has it been delivered?

The S.M.A.R.T. process helps a city develop a means of smart city evaluation (see figure). This manual reporting process is conducted by an expert in the field who is familiar with the smart efforts of the city in question. The expert (and the city stakeholders interviewed) should be familiar with smart initiatives in order that they be categorized, hierarchies created and then comparisons made

with other Smart Cities. The reports produced at the end of the process compare smart city initiatives according to the contextual information provided for each smart city.



Cavada M PhD Thesis: S.M.A.R.T: A Framework Assessing Smart Cities (forthcoming)

## Where has it been published?

Cavada M PhD Thesis: S.M.A.R.T: A Framework Assessing Smart Cities (forthcoming)

Presented at the International Symposium on Next Generation Infrastructure ISNGI 2017, London:

Cavada M, Hunt DVL & Rogers CDF (2017) The Role of Infrastructure in Smart Cities Proc. of ISNGI 2017, UCL, London, UK.

Cavada M, Hunt DVL & Rogers CDF: The Little Book of Smart Cities (in print)

## Who participated?

S.M.A.R.T. was created and developed as part of PhD student research by Marianna Cavada, under the supervision of Professor Chris Rogers and Dr Dexter Hunt D. The doctoral research created the framework to support the tool development.

## Levels of Usability/Testability

S.M.A.R.T. has been used to assess two case studies: Birmingham and London (UK). The smart initiatives adopted by both cities were evaluated against the existing criteria within S.M.A.R.T. The results of the assessment showed that both cities focussed primarily on business initiatives in the smart realm. London, however, has a more holistic approach to smartness when compared to Birmingham due to a more equal distribution among all thematic smart criteria of the metadata.