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Option generation for policy measures and packages: An assessment of the KonSULT knowledgebase

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ABSTRACT

Objective: Option generation is an essential element in the development of Sustainable Urban Mobility Plans (SUMPs), but is also one of the areas of greatest weakness. This paper focuses on the assessment of a measure option generator as a decision-support tool to enhance the development of SUMPs. Its aim is to assess whether this option generation facility can assist cities in developing more effective policy measures and packages and, if so, in which contexts it is most helpful.

Methods: After reviewing the literature the paper proposes nine criteria which such tools should satisfy. It briefly describes the option generator within the Knowledgebase on Sustainable Urban Land use and Transport, KonSULT. It then describes a survey in which KonSULT was tested by nine cities from across Europe. It uses the results to assess the option generator against the nine criteria.

Results: The nine cities all found that KonSULT contributed to their understanding of the option generation process for SUMPs, and to their awareness of the range of policy measures available and their use in packages. Of them, five identified new policy measures, and seven new approaches to packaging such measures. Not surprisingly, a facility such as KonSULT was more valuable for those with less experience of urban transport policy, which suggests that it should be promoted in particular for training programmes, for younger professionals, and to cities embarking on SUMP development for the first time.

Discussion: The research methodology did not allow us to assess KonSULT against the criteria of treatment of transferability and of ability to reflect the aspirations of different types of user. These are areas for further testing. Indeed, there remains a dearth of literature on the specific issue of policy transferability.

1. Introduction

The European Commission now encourages all European cities to develop Sustainable Urban Mobility Plans (SUMPs) and has issued guidance on their development (Rupprecht Consult, 2014). In this paper we focus on one key element of the SUMP process: the identification of the individual policy measures and packages which should be considered. We refer to this element as Option Generation. This is represented by Element 6 of the Commission's SUMP cycle (Fig. 1). However, it will be influenced by the earlier elements of developing a vision and setting priorities, and will directly affect all subsequent elements in the SUMP cycle and the performance of the SUMP as a whole.

What evidence there is suggests that Option Generation is rarely regarded as a key stage in the SUMP process. The UK Eddington Report (Eddington, 2006) outlined the need succinctly: *"Unless a wide range of appropriate options is considered, there is a risk that the best options are overlooked and money could be wasted. A good option generation process is crucial to ensure that the transport interventions that offer the highest returns can be found. The full range of options should look across all modes and include making better use of the existing transport system, including better pricing; investing in assets that increase capacity …; investment in fixed infrastructure; and combinations of these options."*

Fortunately, cities now have access to an increasingly wide range of policy measures. While information on the performance of some of the more recently developed policy measures is limited, some evidence is available from a number of sources, as outlined in the next section. However, very little guidance is available on how to select potentially suitable policy measures in the first instance; a challenge that has become more significant as the number of possible measures has expanded. This is even more the case for the development of packages of policy measures, in which each measure can be expected to support the others by making it more effective or easier to implement. As a result, option generation for SUMPs is often weak.

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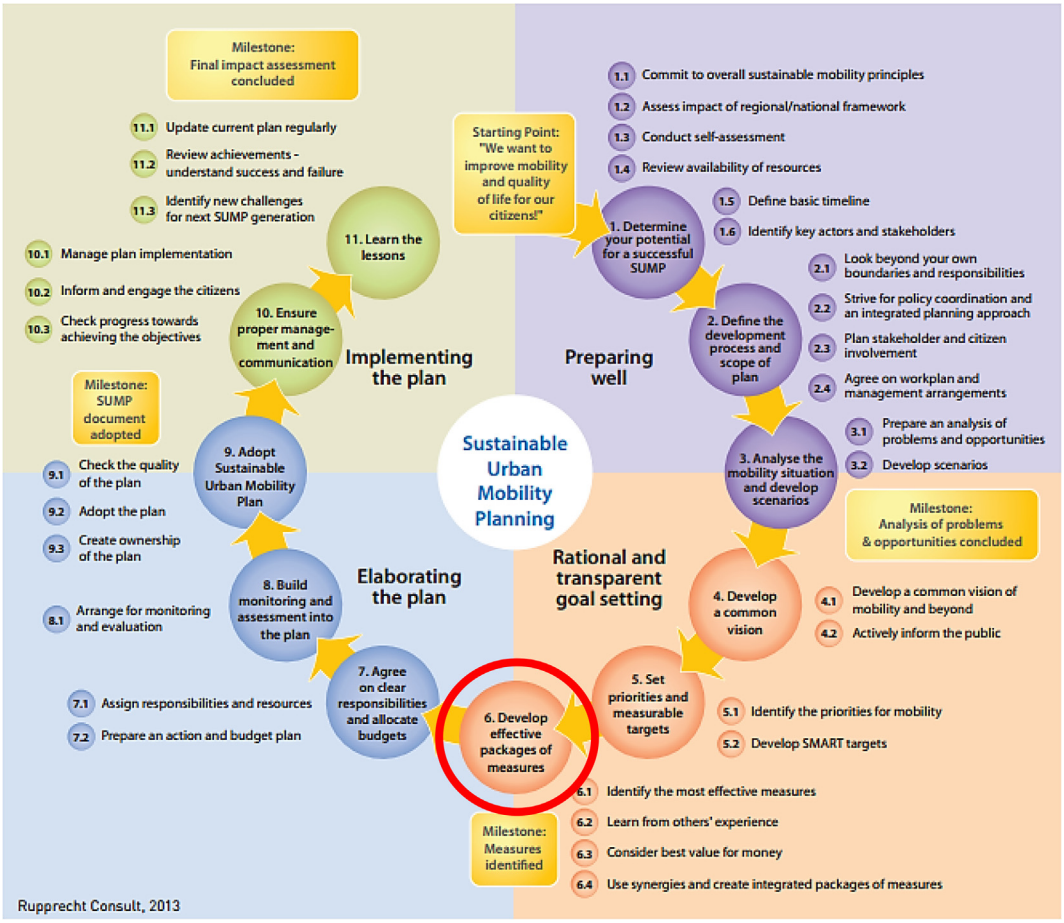

Fig. 1. The SUMP cycle (Rupprecht Consult, 2014).

Over the past fifteen years we have developed a knowledgebase, KonSULT (www.konsult.leeds.ac.uk) to provide consistent information on the urban transport policy measures available, and an option generation facility to help users identify the most suitable policy measures and packages in their contexts. The most recent developments, financed under a European Commission project, CH4LLENGE, are described in a companion paper (May et al., 2018). In parallel we have provided more detailed guidance to cities on measure selection (May, 2016).

Working with the nine partner cities of the CH4LLENGE project, we were able to conduct a detailed assessment of the effectiveness of KonSULT as a means of assisting cities in the process of option generation, and it is the results of this assessment which are reported here. Our research question in the assessment was: "does the enhanced option generation facility now offered in KonSULT assist cities in developing more effective policy measures and packages and, if so, in which contexts is it most helpful". Given the focus and design of the project, there were inevitably some limitations in answering this question, but we hope that the results presented here will be of benefit to those involved in enhancing the problematic process of option generation.

In Section 2 of this paper we review the literature on option generation and identify a set of criteria for assessing option generation tools. In Section 3 we summarise KonSULT and its enhanced option generation facility. In Section 4 we define our research method in the light of the criteria from Section 2, the characteristics of the enhanced facility in KonSULT, and the availability of cities able to contribute to our research. In Section 5 we present the results of the assessments of KonSULT by each of the cities and compare these by type of city. Finally we draw conclusions and discuss the potential future development and testing of option generation tools.

2. A review of the literature

2.1. Why is option generation needed?

Option generation is an important step in the human decision making process: "if you do not see that a certain … possibility is an option, you will never be able to act on this possibility" (Kalis et al., 2013). In transport decision making, the Eddington report cited above justifies option generation as "ensuring that the measures selected offer the best value for money, and that more cost-effective measures are not overlooked" (Eddington, 2006). The UK guidance on the third round of Local Transport Plans (LTPs) reiterates this point: "Having developed a broad set of goals … the next step is to generate options for meeting those challenges. An LTP should consider a wide range of options [and packages], funded through either capital or revenue expenditure. … Local authorities should not assume that schemes which have been under consideration for a long period … are still the most appropriate solution to identified challenges" (Department for Transport, 2009).

The SUMP guidelines reinforce this: "The development of effective packages of measures is at the core of sustainable urban mobility planning. Only well-selected measures will ensure that the defined objectives and targets are met. […] A set of options needs to be identified that realistically fits with the available resources" (Rupprecht Consult, 2014). As the guidance on measure selection (May, 2016) notes: "By definition a policy measure which more effectively meets a city's objectives will be able to generate greater benefits. One that is more acceptable will stand a greater chance of being implemented and thus actually producing benefits. One which offers greater value for money will be able to realise those benefits while making less demand on limited budgets."