Implementing Sustainable Transport Strategies in Ireland

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ABSTRACT: Sustainable Urban Mobility Plans (SUMPs) provide a concept and process for the planning, development and implementation of urban transport strategies. EU SUMP guidelines have not been utilised in Ireland. The research question asks if there is any benefit in developing Irish urban transport strategies as SUMPs. The literature review examines the historical development of EU and Irish transport policy and reviews academic reports and journal articles on SUMPs. The EU SUMP process is reviewed in detail before reviewing recently published Irish urban transport strategies and a European SUMP case study. The research methodology involved collecting qualitative data from primary sources, semi-structured interviews with professionals working in the Irish sustainable transport planning sector, and from secondary sources, the published Irish transport strategies. Thematic analysis of the collected data was undertaken to establish common themes. The results found that Irish urban transport strategies are partially compatible with the SUMP process but thematic analysis identified gaps. The conclusion expresses benefit in developing Irish urban transport strategies as SUMPs to address gaps identified, such as stakeholder engagement, baseline analysis, strategic indicators and evaluation, implementation and funding, national support and lack of integration. The recommendations are that Irish urban transport strategies should be developed as SUMPs and further research should examine upcoming Irish transport strategies.

KEY WORDS: Sustainable Urban Mobility Plans; Transport strategies; Stakeholder engagement.

1. INTRODUCTION

1.1 Background

Sustainable transport planning plays a key role in sustainable development through encouraging a modal shift to sustainable transport forms. Sustainable Urban Mobility Plans (SUMPs) provide a concept and process for transport agencies to plan, develop and implement strategies to bring about this modal shift. The EU Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan (SUMP) – 2nd Edition describe a SUMP as 'a strategic plan designed to satisfy the mobility needs of people and businesses in cities and their surroundings for a better quality of life. It builds on existing planning practices and takes due consideration of integration, participation and evaluation principles' [1]. Unlike other EU countries, the EU SUMP guidelines have not been utilised in strategic urban transport planning in Ireland.

1.2 Aims and Objectives

The research question asks if there is any benefit in developing Irish urban transport strategies as SUMPs. The aims and objectives of this paper are to present the SUMP process set out in the EU guidelines and to rigorously compare this with the planning and development of Irish transport strategies in Cork and Galway. The findings of this comparison exercise are supplemented by the results of data collected from interviews with professionals involved in the field of sustainable transport planning in Ireland. The qualitative data collected is evaluated using thematic analysis to produce comparative findings and inform study conclusions. A literature review provides background by way of an account of the historical and current status of the development of EU and Irish sustainable transport legislation and policies. It also provides valuable secondary data from published journal articles and conference proceedings.

1.3 Layout

The literature review examines the development of EU policy and legislation on the transport sector by focussing on urban mobility, which led to the publication of the EU SUMP guidelines. The development of Irish spatial planning and urban mobility policy is discussed, including a brief introduction to the National Transport Authority (NTA). The literature review includes an overview of academic reports and journal articles focussing on SUMP developments.

The research methodology outlines how data was collected from both secondary and primary sources. The SUMP guidelines are outlined in technical detail and a Spanish case study is described. Primary data was collected by semi-structured interviews with professionals working in the field of sustainable transport planning in Ireland. Secondary data was collected from published transport strategies in Cork and Galway. Thematic analysis of the reported and researched case studies along with

the interview findings was performed to establish common themes.
The results and findings are identified. Secondary data was analysed by comparing the development of the published transport strategies in Cork and Galway with each planning and development step of the SUMP guidelines. The collected data was analysed and common overarching themes identified for further discussion. The discussion of the overarching themes identifies their relevance to the research question and informs the conclusions and recommendations.

2. LITERATURE REVIEW

2.1 European Policy and Legislation

In 2001, the European Union published legislation on sustainable urban mobility with the Commission's white paper on European transport policy to 2010 [2]. In 2007, the European Commission published a green paper focused solely on urban mobility called 'Towards a New Culture for Urban Mobility' [3]. In 2009, the European Commission published the 'Action Plan on Urban Mobility', which built on consultation and debate following the publication of the 2007 Green Paper [4]. It sought to develop a coherent EU level framework for urban mobility initiatives while respecting the principle of subsidiarity, in respect of local authority work on urban mobility. In 2014, the European Commission published guidelines for developing and implementing Sustainable Urban Mobility Plans (SUMPs) [5], which were updated in October 2019 [1].

2.2 Irish Sustainable Mobility Policy and Legislation

In 2002, the National Spatial Strategy 2002-2020 was published and stated that land-use decisions must take into account existing public transport networks or support the development of new or upgraded networks [6]. The National Transport Authority (NTA) was established in 2009 to operate as a statutory non-commercial body under the aegis of the Department of Transport, Tourism and Sport. The NTA was charged with making a strategic transport plan, to provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in Dublin. Aspects of its remit extended to the regional cities. The statutory remit to undertake strategic transport planning applies only to the Greater Dublin Area although the NTA has developed transport strategies for Galway and Cork. In 2009, the document Smarter Travel – A Sustainable Transport Future – was published as national policy on sustainable transport development and it informed Irish metropolitan transport strategies [7]. In 2018, the Irish government published the National Planning Framework (NPF) 2040 in order to guide the high level strategic planning and development of Ireland up to 2040. It is the national planning context in which current Irish urban mobility policies and strategies sit [8]. The regional planning policy encompassing the Cork region is the Regional Spatial and Economic Strategy for the Southern Region [9].

2.3 Published Literature on Sustainable Urban Mobility

Mozos-Blanco et al. (2018) reported on a comparative analysis of sustainable mobility plans in thirty-eight Spanish cities [10]. Bakogiannis E. et al. (2016) recommended stakeholder engagement methods used in Greece [11]. Lindenau and Böhler-Baedeker (2014) commented that SUMPs encourage public participation from the beginning and not when plans are largely complete with only minor amendments possible. Public participation can prevent failure of a plan by bringing all stakeholders together, which means delays and costs are reduced during both planning and implementation phases [12]. SUMPs involve developing a vision and strategy for the city's sustainable mobility future and Bos and Temme (2014) noted that Breda, in the Netherlands, has a vision to be a carbon neutral city by 2044 [13]. Kukely et al. (2017) recommended that sustainable mobility objectives should be developed from, and integrated with, general urban planning objectives and sustainable city objectives [14]. Arsenio et al. (2016) noted that use of unclear targets increased uncertainty and made it difficult to address strategic goals [15]. Kiba-Janiak and Witkowski (2019) noted that cities with a comprehensive transport plan and that consistently collaborate with stakeholders, have implemented the greatest number of measures in the field of sustainable mobility [16].

3. RESEARCH METHODOLOGY DATA COLLECTION AND CASE STUDIES

3.1 Methodology Design

This was an interpretivist study and qualitative research data was collected from two sources – secondary and primary. The secondary data source was published Irish transport studies, namely Cork and Galway transport strategies, neither of which was formally planned or developed as a SUMP. A step-by-step analysis was undertaken of these case studies comparing their planning and development processes to the EU SUMP Guidelines and case studies.

3.2 EU SUMP Guidelines

The SUMP process consists of four phases made up of twelve steps and these were used in the comparative analysis of case studies with the SUMP process.

Phase 1 - Preparation and Analysis

Step 1 – Set up working structures and plan citizen & stakeholder involvement
Step 2 – Determine national, regional, metro and local planning framework
Step 3 – Analyse current mobility situation

Phase 2 – Strategy Development

Step 4 – Build & jointly assess future scenarios - involve citizens & stakeholders
Step 5 – Develop vision and agree objectives with stakeholders
Step 6 – Identify indicators for all objectives & agree measurable targets

Phase 3 – Measure Planning

Step 7 – Select measure packages with stakeholders
Step 8 – Agree actions and responsibilities including funding sources
Step 9 – Develop financial plan and adopt final SUMP document

Phase 4 – Implementation and Monitoring

Step 10 – Manage implementation and procure goods and services
Step 11 – Monitor progress, adapt and inform & engage citizens & stakeholders
Step 12 – Review, share lessons learned.

3.3 Vitoria-Gasteiz SUMP

Data was collected from an EU SUMP case study for comparative analysis with Irish transport strategies. Vitoria-Gasteiz is a mid-size inland compact city of 250,000 in Spain. In 2006, the creation of a SUMP was instigated. At the very start of the development process a participatory process was initiated comprising a group of social actors, politicians and technical staff and they worked on defining a consensual scenario regarding sustainable mobility. In 2007 the forum signed a pact that reflected this consensual scenario and provided a route map for the strategy to plan the city's mobility system. The superblock concept is the mainstay of the PMSEP and is integrated into the city's master urban plan. It is a reprioritisation of roads and urban spaces in a group of city blocks so that roads are classified into two groups – basic roads, which serve passing traffic and allow it to pass through the area, and interior streets, which prioritise walking and cycling and public spaces are oriented more towards social interaction than mobility [17].

3.4 Cork Metropolitan Area Transport Strategy (CMATS)

The Cork Metropolitan Area Transport Strategy (CMATS) was selected as a current Irish case study for a comparative analysis with the EU SUMP model and other case studies. It derives from the National Planning Framework (NPF) 2040, which envisages that Cork will be the fastest growing city region in Ireland up to 2040. There is limited capacity for additional private motor traffic so land-use and transport planning need to be aligned to support a sustainable and integrated transport system. CMATS states its vision is to 'deliver an integrated transport network that addresses the needs of all modes of transport, offering better transport choices, resulting in better overall network performance and providing capacity to meet travel demand support economic growth' [18].

Three scenarios were developed and appraised using the Common Appraisal Framework (CAF) of the Department of Transport and the transport network options modelled using the NTA's South West Regional Model (SWRM) to ascertain impacts on travel conditions, mode share and delay.

CMATS proposes a number of indicators and targets related to mode share and a reduction in vehicular emissions. In respect of funding, CMATs estimates an overall cost for the proposed strategy, at €3.55 billion, but gives no indication as to the funding source. The implementation plan outlines short-, medium- and long-term timescales.

CMATS contains a volume that summarises the public consultation process. Non-statutory public consultation ran for a six week period from mid-May to the end of June 2019, during which five public information events were held in Cork. Stakeholders were invited to make submissions in response to the draft strategy publication [19].

3.5 Galway Transport Strategy (GTS)

The Galway Transport Strategy (GTS) was selected as a current Irish case study for a comparative analysis with the EU SUMP model and other case studies. The strategy provides a framework for the area for the twenty years after its adoption in 2017 and will be used to secure funding to deliver projects in phases [20]. The strategy lays out a series of proposed measures covering infrastructural, operational and transport policy with the aim of making best use of limited road space and providing new infrastructure in appropriate locations for appropriate modes. The GTS states that its overall vision is 'to create a connected city region driven by smarter mobility'.

The GTS undertook a comprehensive baseline review of the transport supply and demand in the study area. Measures were developed from scenario assessment and included:

- An upgraded and integrated public transport network
- City centre public transport prioritisation
- Improvements to walking and cycling infrastructure
- Integrated Park and Ride facilities
- Demand management measures

- Full orbital bypass of Galway.

The implementation of the GTS is subject to a number of influencing factors. Primarily, it depends on funding availability so implementation is to be through a series of multi-annual 'Implementation Plans' to be agreed by the authorities. The implementation plans are designed to set out short term delivery programmes for the strategy's proposals.

Public consultation consisted of two events – one held in May 2015 at the beginning of the development of the GTS and public feedback on transport issues was received. The second event was held on publication of the draft GTS in June 2016 and consultation material was made available online and at City Hall.

3.6 Primary data

Primary data was collected by means of semi-structured interviews with professionals working in the sustainable transport planning sector in Ireland.

As a prelude, interviewees were sent a questionnaire, developed from the detailed review of the EU SUMP Guidelines which comprised eleven questions, reproduced as follows:

1. *Are you familiar with the European Union Guidelines for Developing and Implementing a Sustainable Urban Mobility Plan and its underlying principles?*
2. *Have you ever applied the SUMP process to planning and development of a transport strategy or plan in which you have had an involvement?*

Choosing one of the transport strategies or plans in which you have had a role, please consider the following questions,

3. *At what stage of strategy planning or development was the engagement of stakeholders started?*
4. *Was there stakeholder engagement in the development of the strategy's vision and objectives?*
5. *Was the strategy or plan integrated with other planning processes, such as land-use planning?*
6. *What strategic indicators were identified to achieve the objectives of the strategy's vision and what measurable targets were set for these indicators?*
7. *What was the level of stakeholder engagement in creating and assessing measures and in defining integrated measure packages?*
8. *How much involvement did stakeholders have in the implementation of the strategy or plan?*
9. *Has there been monitoring of the implementation of the strategy or plan?*
10. *Has the implementation been evaluated and have you shared lessons learned?*
11. *With your knowledge of the SUMP process, how could transport strategies or plans, in which you have had a role, be made more SUMP compatible?*

Fifteen transport professionals were approached based their expertise, contribution to the development of Irish transport plans or wider knowledge of transport planning in Ireland. The interviews were designed to solicit the views and experiences of the professionals relating to principles and practice of the sustainable urban mobility planning (SUMP) and Irish transport planning process. It proved difficult to obtain agreement for interview from some of those approached and some did not reply. A second round of emails was issued to those who did not reply and this resulted in additional interviews. The interviews were held between February and April 2020. Immediately following the interviews, the records were transcribed in order to ensure all responses were captured.

Collecting qualitative data was considered appropriate for this study as the purpose of the research was to analyse and draw conclusions from the professionals' understanding, opinions, memory of events and their perception of learning experiences [21].

3.7 Data Analysis

Thematic analysis of the collected primary data was undertaken to establish the common themes that arose and the respondents' views on the level and extent of stakeholder engagement, approaches and methodologies used to create sustainable urban transport plans, sources of funding, and implementation of Irish transport plans and strategies and comparison with SUMP processes and themes.

4. RESULTS AND FINDINGS

4.1 Secondary Data

The key secondary data sources were the current Cork Metropolitan Area and Galway Transport Strategies. The method for collecting this data was a detailed review of the planning and development processes set out in these strategies by comparing them directly to the phases, steps and activities in the EU SUMP Guidelines. This showed the similarities between the strategies and the SUMP process and also the divergences. The similarities occurred, to varying degrees, for SUMP Steps 1 to 7 whereas Steps 8 to 12 did not feature comprehensively in the Irish strategies. Additionally, secondary data from the literature review of current policies, legislation

and publications relating to sustainable transport planning was also used. The initial themes, which informed the SUMP questionnaire used in the semi-structured interviews, arose from the collection of this data.

4.2 Expert Interview Findings and Thematic Analysis

The raw data from the six interviewees was compiled into transcripts and, following thorough familiarisation with their content, the data was disassembled into codes. The codes refer to ideas and issues that arose across the interviews. Initial codes developed from the literature, technical review and secondary data sources while further codes developed following analysis of the interview transcriptions. It was expected that the initial codes were likely to occur during interviews and that this approach would develop other codes [22]. The codes identified are presented in Table 4-1 below with information showing the number of interview sources that mentioned issues and topics relating to each code and the number of times the code was referenced throughout all interviews.

Table 4-1: Coding Table for Thematic Analysis

Data Grouping	Code	Sources	References
Stakeholder Engagement	SE	5	11
Strategic Indicators & Targets	SIT	3	9
SUMP Comparison	SCO	3	5
Implementation	IMP	3	4
Baseline Analysis	BAS	2	4
Funding Mechanisms	FM	2	4
Monitoring & Evaluation	M&E	2	3
Vision	VIS	2	2
Planning Framework	PF	1	1
Scenarios	SCE	1	1
National Support	NS	1	1
Lack of Integration	LoI	1	1

The next step in the thematic analysis methodology was to identify patterns in the codes and reassemble into themes to show the bigger picture. Four key themes emerged from the interview transcripts grouped as follows:

- Stakeholder Engagement
- Baseline Analysis, Strategic Indicators & Targets and Monitoring & Evaluation
- Implementation and Funding
- SUMP Comparison – This theme includes sub- themes of national support and lack of integration and arose from direct comparisons made by some of the interviewees between Irish transport strategies and the EU SUMP process.

5. DISCUSSION OF RESULTS AND FINDINGS

Stakeholder engagement was considered by the interviewees to have a high degree of variance in an Irish context from the SUMP process which calls for stakeholder engagement, public consultation and citizen involvement to be as wide as possible and undertaken from the very start of the process. To date Irish transport strategies have involved narrow stakeholder groups and citizen involvement and public consultation has largely happened after publication of the draft strategy. This was confirmed by secondary data sourced from both Cork and Galway transport strategies. It was suggested that there are proposed moves in Ireland to widen stakeholder engagement and introduce it earlier in the strategy development process. One of the interviewees commented on the upcoming Limerick-Shannon Transport Strategy and said that stakeholders have been identified by the local authorities and were involved in advanced consultation at earlier stages.

Baselines, indicators and evaluations refer to steps in the SUMP process, all of which occur during different phases. Some of these specific steps are missing from similar stages in Irish transport strategies, such as the absence of indicators and targets from the Galway Transport Strategy (GTS). Baseline analysis is common to all transport strategies reviewed. Monitoring and evaluation are integral steps in the final implementation phase of the SUMP process but remain largely unmentioned in Irish transport strategies.

The SUMP process recommends that sources of funding are in place prior to adoption of the SUMP. The Cork and Galway transport strategies reference funding in vague terms. Implementation is another area of divergence. The SUMP process recommends that actions to achieve proposed measures are devised before adoption. The Cork and Galway strategies do formulate actions but have implementation timelines for the broad measures.

The theme of SUMP comparison was made by interviewees who made comparisons between the SUMP process and Irish transport strategies. The literature review and primary data sources note that successful SUMPs require national and regional government support with a strong political or public servant champion. This has not been the case in Ireland and is one of the reasons that the country is considered an outlier in terms of SUMP adoption.

Other issues dealt with under this theme include lack of integration between local and national transport agencies.

6. CONCLUSION AND RECOMMENDATIONS

The research question asks if there is any benefit in developing Irish urban transport strategies as SUMPs. To conform to the SUMP process, Irish urban transport strategies would need to undertake wider and earlier public participatory processes. This would benefit these strategies as this level of engagement with stakeholders and citizens would create a sense of ownership that could lead to behaviour change and wide community acceptance.
In addition to that, Irish urban transport strategies need to enhance their baseline data collection, to set quantitative and relevant strategic indicators and targets and timelines with consequent monitoring and evaluation. These steps would lead to better understanding of the strategies and allow for the objective assessment of those strategies in a way that is quantifiable and visible to all. The SUMP process would also benefit urban transport strategies with the issue of lack of integration between national and local transport agencies. This is because one of its guiding principles is closer co-operation across institutional boundaries. It is unclear from this study if the inclusion of actions, or projects, and funding mechanisms in the transport strategy is beneficial. While recognising the benefits to Irish urban transport strategies of the SUMP process, the issue of national support needs to be addressed as this is the key to wider acceptance of SUMPs. A major part of this is tying the successful implementation of SUMPs to funding from national sponsoring agencies.
It is recommended the following steps should be taken within the SUMP process:

- Wide and comprehensive stakeholder engagement should be undertaken from the very beginning.
- The setting of comprehensive indicators with associated quantitative targets and timelines should be an integral part of future Irish transport strategies. Data for assessing the current mobility situation should be formulated into indicators and targets, which in turn should support subsequent monitoring and evaluation.
- There should be a national champion supporting SUMPs. The strategic indicators and targets should be used as measurable milestones to release funding.
- Better integration between local and national transport agencies should be undertaken in conformance with SUMP guiding principles.

For further research on this topic, it is recommended that review, analysis and SUMP comparison is undertaken on current developing Irish urban transport strategies. Two currently underway that could be used are the Limerick-Shannon transport strategy and the Dublin BusConnects strategy.

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