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SUSTAINABLE URBAN MOBILITY PLANS FOR SMALLER COMMUNITIES

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Abstract

Sustainable urban mobility plans are widely considered to be one of the most important and effective tools for transforming urban infrastructure from car-oriented to more inclusive, non-motorised modes and public transportation. As the name suggests, it was developed primarily for urban areas (larger cities), but the methodology itself can be useful for smaller communities and settlements as well. Southeastern Europe is typically a less densely populated area with few large cities compared to other parts of Europe. In the last 5 years, about 100 municipalities in Slovenia have developed and adopted their own SUMPs, many of them with a population of less than 10, 000 or even 5, 000 inhabitants. Experience shows that a transport strategy for smaller municipalities brings many benefits, but the measures need to be adapted to their size. The focus is on demand responsive transport instead of public transport, sharrow space instead of pedestrian zones, safe access to school instead of cycle paths, synergy of commuter and tourist traffic... Updated methodology for smaller cities, settlements was also reflected in the updated national guideline that include cost-efficient and budget-friendly analysis tools (manual counts, online survey, smaller stakeholder groups etc.). The article describes the adapted methodology, practical examples of goals and measures and conclusion with suggestions for further work.

Keywords: SUMP, sustainable, urban, mobility, plan, municipality

1 Introduction

Slovenia has made significant progress in strategic transport planning in recent years. In Slovenia sustainable urban mobility plans are known as comprehensive transport strategies (in Slovenian Celostna prometna strategija CPS). Most (67) sustainable urban mobility plans (SUMPs) were adopted in 2017. Most of them, 62, were prepared with the support of a call for proposals from the Ministry of Infrastructure, while 8 were co-financed under a call for proposals from the Ministry of Environment and Spatial Planning. The preparation of the SUMPs was supported by the Ministry of infrastructure with European co-funding and by the Ministry of Environment and Spatial Planning with national funding (Climate Change Fund Funding). Other strategies were prepared by municipalities with their own funds or within the framework of various European and national projects. The working process for all SUMPs prepared under the ministry's funded tenders was well defined and monitored.
By the end of 2021, 87 (41 %) of the 212 Slovenian municipalities had prepared and adopted a SUMP. The Slovenian municipality has an average population of 9, 939. 109 (51 %) municipalities have less than 5, 000 inhabitants, of which only 13 (15 %) have a SUMP. 36 municipalities (41 %) with a SUMP have less than 10, 000 inhabitants, while the rest, 51 municipalities (59 %) are larger.

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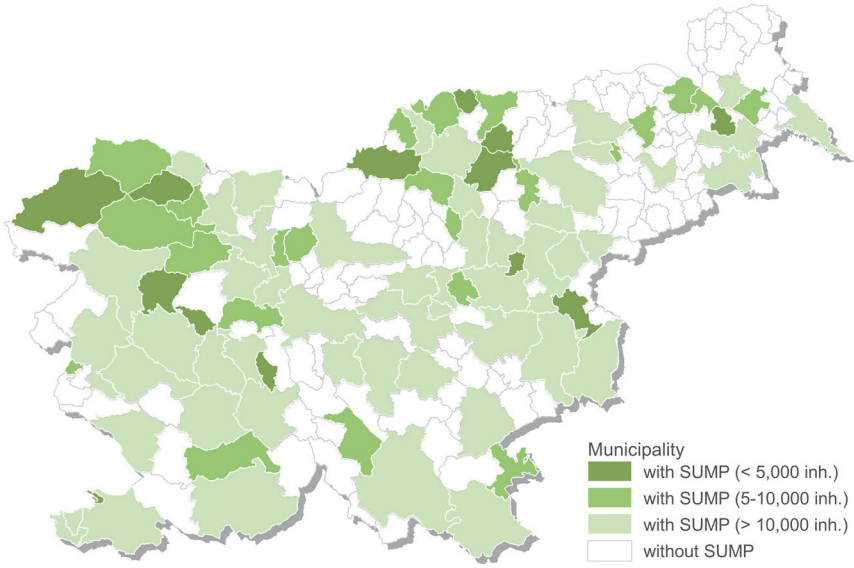

Figure 1 Slovenian municipalities with the adopted SUMP [1]

Although some SUMPs have already been developed (Ljutomer in 2012, Nova Gorica in 2014 and Maribor in 2015) and a number of best practices have been implemented, lack of funding has been a major barrier to SUMP development and implementation. Municipalities have mainly relied on national or EU funds. In this context, the development of SUMPs was often motivated by the possibility of accessing funding rather than by the desire to introduce more sustainable mobility and improved transport planning.

2 Slovenian SUMP guidelines

In 2012, the Guidelines for the Preparation of an Integrated Transport Strategy [2] were published for the first time in Slovenia and significantly accelerated the introduction of modern approaches to transport planning in Slovenia. The revised 2021 Guidelines [3] take into account the updates that related European documents have undergone, the analyses and experiences of Slovenian municipalities and companies in preparing the strategies, and the experiences of European cities where the use of sustainable modes of transport has now increased significantly.

The guidelines for strategy elaboration are addressed to transport planners in Slovenian municipalities and consulting companies, as well as to other stakeholders involved in the process. They do not provide detailed technical guidance, but present the process of preparation and the main points of implementation of the strategy. The guidelines are most appropriate for municipalities with more than 10, 000 inhabitants, but can also be used for smaller municipalities where some activities can be simplified:

- In a smaller community, a smaller working group may have fewer members.
- The community can rely more on outside experts for support.
- The list of key stakeholders involved in the preparation process can be shorter.
- Intensive collaboration with neighbouring communities is recommended throughout the process.

- The list of indicators can be shorter and the analysis of the situation is less comprehensive.
- The list of issues addressed is usually shorter, as some issues, such as public transport, are outside the scope of the municipality.
- The range of measures should be tailored to the limited implementation options and include a number of less demanding measures that can be implemented quickly.

The content of all SUMPs is in accordance with national guidelines for the preparation of an integrated transport strategy and approved by municipal councils. This fulfils a condition that allows the municipality to receive funding for the implementation of sustainable mobility measures.

3 Public involvement

Throughout the development of the strategy, input is received from the smaller and broader working groups and the interested public. The smaller working group includes the contractor's experts as well as representatives of the municipality. The broader working group, representing stakeholders at the national, regional and municipal levels, includes, in addition to the developer's expert project team, representatives of various municipal committees, the City Council and local communities, representatives of tourism, the police and intermunicipal services, educational (elementary schools, kindergartens) and health care institutions, public transport (bus companies, sometimes Slovenian Railways), tourism and sports associations, retirees' associations, associations for the disabled, and representatives of local businesses.
In order to involve the public, a communication plan is developed with tools and a schedule of relevant activities. For smaller communities, care is taken to time events appropriately, as too many events in a short period of time can lead to saturation or even resistance. Meetings and workshops are held with the smaller and larger working groups, as well as interviews with key stakeholders. The general public can participate in the public debate and also be involved through surveys. It is important to be proactive in reaching out to the public rather than waiting for them to respond to activities or to perceived problems. The public is therefore kept informed of the progress of SUMP, including through promotional materials and invitations via the Internet, the media and in print media.

4 Use of the data

Taking into account the results of studies, field research, surveys, interviews, workshops and public debates, the main challenges in each municipality are also identified through the analysis of primary and secondary statistical sources.
Publicly available data from the Statistical Office of the Republic of Slovenia (SURS) show demographic trends such as population growth and ageing, which are usually associated with suburbanization trends. We also learn about labour migration rates, which affect traffic flows, the age of the vehicle fleet and associated environmental impacts, etc.
Data on the number, type and location of traffic accidents is obtained from the Slovenian Road Safety Agency (AVP). We are particularly interested in the number of serious accidents and the proportion of cyclists and pedestrians involved, as they are significantly more vulnerable than car occupants. The trend in the number of accidents shows whether road safety in the region is deteriorating or improving.
Ideally, data should be obtained from the public transport operator on the number of passengers carried on each route or the number of boardings per stop. Unfortunately, this is not always possible. Slovenia still does not have a fully integrated ticketing system between the

different operators, as the unified ticketing system currently applies only to intercity bus and rail transport, but not to urban lines. Therefore, there is no common database for the different operators and administrators.
The existing system of data collection through simple, repeatable, and low-cost methods such as traffic counts and surveys, as well as analysis of publicly available statistics (e.g., SURS and AVP), are also important for monitoring the mobility behaviour of pedestrians, bicyclists, public transit users, and drivers, as well as the impact of investments.

5 Traffic model

The guidelines do not mandate the use of a traffic model, which is understandable given that in smaller communities, transport and other municipal infrastructure typically only meets the basic needs of residents and visitors. Transport infrastructure defines traffic conditions and enables or impedes certain transport modes. If there are no adequate conditions for bicycling, people will not ride their bikes. The same is true for the use of other modes, walking, and public transport. Our experience confirms that it is important for smaller communities to create and maintain the suitable infrastructure (sidewalks, bike lanes, public transit stops, etc.) in the first place. When budgets are small or resources are limited, as is usually the case in smaller communities, the process of infrastructure improvement is time consuming.
Larger communities also sometimes commission a traffic study or traffic model, often for other projects. Usually, a model of the road network is used for calculations or comparisons of accessibility by different modes of transportation, as shown below for car, bicycle, and walking.

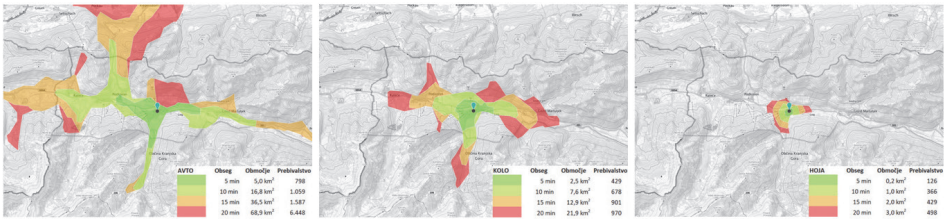

Figure 2 Display of accessibility of the location by car, bicycle and on foot

6 Typical problems

Common problems for most smaller communities in terms of transport, public open space, and accessibility are non-existent, deficient, and poorly maintained infrastructure, including sidewalks, bike paths, and roads, as well as a lack of transport policies that address various modes of transport and stationary traffic. This situation encourages the already established dominance of automobile traffic, undermines the safety of bicyclists, pedestrians, and other road users, and causes problems with unregulated parking. Parking spaces are often in short supply, although there could be enough or even too many of them if they were better managed. In most cases, there are not even enough bicycle parking spaces, let alone bicycle parking and service stations. The same goes for facilities that would make walking easier.
Due to the inaccessibility of areas, poor infrastructure, and inadequate services, public transportation often does not meet the needs of residents and visitors. They are also often not well informed about the possibilities of using it, or they are simply used to driving and have no interest in this transport option. In some areas, traditional public transit cannot function effectively due to geography, population, or demographics, but alternatives such as on-demand services can be an option - even if they are still unknown or in their early stages of development in many places.

Figure 3 is a typical example of a deficient and poorly maintained transport infrastructure that excludes all modes except motorized vehicles. In practise, with a 50 km/h speed limit for motor vehicles, there are still cyclists and pedestrians, even children, as this is a school route. Sometimes (free) car parking spaces have priority over spaces for other road users. This means that bicyclists, wheelchair users, and pedestrians are on the street even if it is not intended for them. In the example in Figure 4, parking spaces could one day be converted into areas primarily for people, and the street into a safe traffic area for all. We often come across well-intentioned but useless bicycle parking where the investor's good will, effort, and money are wasted, as in Figure 5.

Figure 3 An example of deficient and poorly maintained transport infrastructure

Figure 4 Due to cars parked along the road, road is the only choice for everyone

Figure 5 Inadequate bike racks

Figure 6 Poorly equipped bus stop

Bus stops like the one in Figure 6, in addition to poorly planned routes, insufficient frequencies, and/or uncomfortable buses, certainly do not contribute to more frequent use of public transit. Perhaps one day this stop, too, will be lighted, equipped with a shelter, a bench, a trash can, and a clear schedule, with a digital display of arriving buses and bicycle racks. Perhaps the timetable will be available to passengers online or via an app, and paying for rides will be easy and affordable.

7 Measures

The measures or solutions we propose to municipalities address the problems that most concern their residents and visitors in terms of traffic and living conditions, taking into account our own observations about what could be improved. Finally, all proposals are signed off by community representatives and interested members of the public before they are published. Most of the proposed measures are soft, organisational measures, while some require structural and other physical interventions. Here are some examples:

- Closing village centres to car traffic, restricting car traffic in settlements and at various natural or cultural landmarks,
- Limiting stationary traffic, implementing parking policies, including parking facilities (including handicapped parking) and parking fees,
- Installation of charging stations for electric vehicles,
- Encouraging carpooling, car sharing, and on-demand transport systems,
- Creation and improvement of mixed traffic areas and well-equipped bicycle and pedestrian zones,
- Introducing traffic signals, wayfinding signs, and warning signs to make biking and walking safer,
- Pedestrian and bicycle crosswalks (installation of ramps, tactile signs, and other aids for the disabled)
- Providing bicycle parking facilities (including covered bicycle parking) at public buildings, bus stops, etc., and service points and rest areas along bicycle routes,
- Actively promote more sustainable modes of transport, recreation, and healthier lifestyles,
- Information on the use of public transport, on-call services, etc,
- Creating new public transport lines (train, bus, minibus to attractions, increasing frequencies, introducing more environmentally friendly vehicles),
- Replacing larger buses with smaller ones where appropriate, allowing wheelchairs and bicycles to be transported.

8 Visualization

As part of the vision, we want to present possible changes or improvements to the space in a more user-friendly way. Visualisations are typically presented on posters, in the newspaper, on websites, and in the final publication. Visualizations need to be approached in a balanced way, which means that all modes of transport are treated equally in several different locations. The visualisations are informative and represent fragments of a long-term vision for transportation management – indicative suggestions for possible arrangements rather than concrete design solutions.

Figure 7 Vision for a bus stop with parking for buses and cars, pedestrian and bicycle areas, and other associated infrastructure. [4]

9 Conclusion

Experience from Slovenia shows that transport strategies bring many benefits even for smaller municipalities, which are addressed in the updated version of the national guidelines, that have also been adapted for municipalities with up to 5, 000 inhabitants. Despite the growing number of best practises, benefits and experiences, there is still room for improvement, including greater involvement of spatial planning in the production of SUMP. Motorization of the population is increasing and budgets are often not spent on optimal solutions, although elements of the transportation system other than motorised transportation are addressed and increasingly emphasised in national and local strategy documents, such as walking, bicycling, parking, and public transit.

To date, lack of resources has been the biggest obstacle to the development and implementation of the SUMP. Communities have relied mainly on national or European funding. For many communities, developing a SUMP is still just another way to access funding.

While the decision-making process is generally more transparent than in the past, there is still a lack of qualified staff in some areas, which often does not lead to the best solutions even with the best intentions. In addition, consultants sometimes feel that once a document is adopted, the municipality forgets about the final phase, the implementation of the strategy, because it is not required to report to anyone on the actions taken.

References

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