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Pristina Sustainable Urban Mobility Plan (SUMP)

30 January 2019

Municipality of Pristina

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Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
-	19/12/18	P Dvorak	M Finer	O Kokes	Draft Document
01	20/12/18	P Dvorak	M Finer	O Kokes	Final Document
02	29/01/19			Municipality of Pristina	Reviewed Document

Information class: Standard

Contents

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Executive Summary

In support of the strategy for new urban mobility in Pristina, a thorough analysis of travel patterns and issues was undertaken. This research identified a number of key urban mobility challenges across the city which are summarised below.

City demographics

- Pristina has a young population which needs to be supported in terms of travel options & choices.
- In recent years, there has been a rapid growth in population in Pristina - there has been a heavy migration from rural areas to the urban city area.

Supporting economic and employment growth

- Pristina has high level of unemployment and lack of job markets.
- Importance of maximising the role of transport and urban mobility in supporting economic development.

High levels of traffic congestion and delays

- There is heavy traffic on main roads linked to the rest of Kosovo.
- Many junctions and sections of road network across Pristina are heavily congested and over capacity.
- There are high levels of long-term parking activity in the city centre.

Urban mobility integration issues

- Bus terminal located in urban area, railway station located in Fushë Kosova, 6 km from Pristina, and airport 16 km away from centre:
  - There is a need for a new integrated bus network that links to growth areas in the city.
  - Improving levels of public transport provision but network improvements required.
  - Improved reliability of services is critical to attract new demand.
- Limited pedestrian and cycle routes across the city:
  - Lack of pedestrian crossing facilities (underpasses and overpasses).
  - Limited levels of cycling in Pristina and improved pedestrian/cycle infrastructure is required.
  - Road safety issues continue to remain a concern and vulnerability for cyclists

Making better use of space in urban areas

- Balancing land use and transport more closely to make the most of the city's assets and green spaces.
- It is important to see improved conditions for people with disabilities to broaden travel options.

New Vision for Sustainable Urban Mobility in Pristina

Based on these urban mobility issues and feedback from a wide range of city stakeholders to understand key urban mobility problems across Pristina a new vision has been established as follows:

"Pristina will be a clean, green and dynamic city with sustainable mobility that is accessible and affordable for all its' inhabitants and visitors.

We want to establish a city which has a system that supports everyday life for neighbourhoods in an intimate way, and which promotes sports, recreation and active lifestyles.

Pristina will be a place of culture, history and innovation."

Supporting this new urban mobility vision for the city a series of high level strategic objectives have been establish:

- **To manage the transport network effectively to provide network efficiency, reduce unnecessary delays and traffic congestion.**
- **To manage parking behaviour more effectively to reduce the level of motorised transport in the city centre promoting sustainable travel including public transport, walking and cycling.**
- **To maintain and improve accessibility to key facilities and services for all – including the city's green spaces and its' cultural assets.**
- **To reduce road accident casualties, particularly for vulnerable road users including improving community safety and security.**
- **To improve environmental conditions for communities in Pristina by reducing the adverse effects of transport on the city's environment.**
- **To promote healthy lifestyles for the people of Pristina, including reducing the adverse impacts of air and noise pollution.**
- **To encourage people of Pristina to feel at home in the city – each with a responsibility to consider all user transport needs.**

A summary of the key strategic proposals for improving urban mobility in Pristina are set out below.

Public Transport Provision and Promotion

The development of an integrated public transport system lies at the heart of the strategy, aimed at improving accessibility across the city, and improving connectivity between other urban settlements in partnership with public transport providers. We will concentrate on improving bus services in Pristina including introducing more measures to improve journey times and reliability, introduction of new park and ride sites (see parking section) and interchange improvements, improving the quality of vehicles, and provide better information and ticketing arrangements.

It is proposed that more bus travel can be achieved through the introduction of a new 'core' bus network that will provide a faster, more frequent service. This will in turn attract greater numbers of customers, accompanied with a new design approach for the main interchange locations ('hubs') to create additional capacity and ease of movement for passengers with minimum delay between services. In addition to new core services that are proposed, another level of service is recommended, termed 'secondary' services which will operate at a lower frequency to care services but will provide important connections to the city's suburbs, residential areas and outlying urban centres and villages.

Summary of Key Issues in Pristina

- **Fragmented Bus Service Network*:*** It is important to ensure that the local bus network continues to cater for local travel demand, reflecting future changes in land use development. There many bus services operating in the city with some services operating on the same routes and other areas where services do not operate. Currently local bus services are not coordinated in terms of fares or timetabling and users requiring onward destinations pay more, incur additional travel time and/or walk for part of their journey. A more cohesive system would bring benefits to both operators if undertaken systematically.
- **Reliability of Bus Services*:*** Increasing levels of traffic congestion, particularly during the morning and evening peak travel periods is creating problems for bus services in terms of the ability to run on time according to the scheduled timetable. This uncertainty makes it difficult for passengers to plan their journeys to school, work or shopping and at times people waiting at bus stops are uncertain when their next bus is due to arrive. During peak travel periods, there is often little space on buses due to school trips.
- **Need for Better Information on Bus Services:** For many local residents, employees and visitors to Pristina it is difficult to understand the current bus network, with many different services and destinations served and the problems of understanding timetables for these. Similarly, people waiting at bus stops are unsure when bus services will arrive on time. Improved information will improve confidence for people when using the services.
- **Requirement to Regulate Taxi Services**: Whilst there a number of good quality taxi firms operating in Pristina, there are also a large number of illegal taxi firms which are causing problems in terms of competition with other local operators as well as bus operators. It is important to regulate, monitor and control taxi services effectively to provide a high quality and safe service to the travelling public.

Our Proposed Strategy

Rapid Transit Development

There are a range of possible options/concepts to transform the quality of public transport provision in Pristina, including rapid transport solutions.

- There is the potential to ***develop a new rapid transit line***, by rehabilitating the existing rail line from Fushë Kosova to Pristina, extending the line to the north of the city close to Lidhja e Lezhës / Vëllezërit Fazilu / Ilir Konushevci or further to the north.
- An option exists for the ***possible future extension of the system to the airport***, to provide a high quality and reliable public transport connection to the city.
- The system would be able to ***integrate fully with the city's bus network,*** as well as pedestrian and cycle networks.

The introduction of new high-quality light rapid transit service in Pristina will integrate with the bus service and reduce congestion to the west of the city (Photo source: Eltis)

New Citywide Bus Network Concept

Our concept for the provision of scheduled bus services is still evolving but is based on simplifying the network whilst at the same time increasing service frequency and connectivity to the city centre. Based on research from public transport surveys the new public transport bus routes have been designed to improve overall accessibility to public transport services across the city. Whilst walking distances to some bus stops might be slightly longer, the wait time is reduced, capacity is increased and there will be more opportunities for people to travel to destinations across the city.

Our proposals include “bus hubs” where suburban lines will terminate and connect to bus services serving the urban core to enable passengers to reach key destinations across the city centre. There is also central circular route around the central urban core that is supported by bus priority infrastructure to improve reliability which will be used by the new lines. The new draft network plan responds to the demand for public transport in Pristina and the surrounding area and will be tested using the new transport modelling tool that has been developed as part of the new Sustainable Urban Mobility Plan. The proposed draft city core and secondary routes are shown in the attached diagram.

Development of a ***new simplified bus network hierarchy:***

- Options exist for establishing a ***core network*** based on improved coverage and frequency of services to provide an attractive alternative to car use for city-centre bound trips. This would require more reliable operating speeds and running times to attract new passengers.
- Supporting the core network would be a ***series of secondary or feeder routes*** that would connect the main urban centre with adjacent suburban areas (residential) as well as further afield. This would ***connect more rural areas and suburban area*** on the periphery of the city with the main urban centre.

New Bus Interchange Hubs

In addition to the establishing of a new Central Bus Station in Pristina, we are looking to develop a series of smaller bus interchange points or ‘hubs’ that would facilitate a smooth and easy transfer between different bus services, as well as with other modes such as cycling and taxis. A number of potential hub locations have been identified across the city, including possible Park & Ride sites which are aimed at intercepting car traffic bound for the city centre.

- Implementation of key interchange hubs/points to create ***improved travel choices for the travelling public,*** aimed at coordinating bus timetables to minimise waiting times between services.
- Providing a ***safe, attractive and convenient environment for passengers*** to use bus services and to transfer to other modes, such as taxis or bikes, as well as onward walking trips.
- Designing the main interchange locations for capacity and ***ease of movement between services for passengers*** and straightforward entry/egress for buses.

As part of the proposed new bus route hierarchy it is proposed that both rural and suburban routes will connect to these hubs and provide good connections to more frequent city centre services that will be provided. This will create a more attractive public transport network that will offer a viable alternative to the use of private motorised transport.

High quality pedestrian and cycle routes will also serve these new hubs to provide multi-modal connections and encourage greater use of these sustainable modes.

Introduction of Bus Priority Measures & Improved Bus Stops

Improving the reliability and regularity of bus services across Pristina is one of the main priorities in the city to tackle problems of traffic congestion and ensure that sustainable travel modes are attractive and reliable for people to use. Introducing priority for buses, cyclists and taxis in the city centre is important to encourage people to consider changing their travel behaviour from using the car to more sustainable modes.

- ***Establishment of bus priority measures*** where it is possible, mainly on the ***main routes approaching the city centre***, including physical separation through using bus lanes on selected sections of highway. At traffic junctions signal timings can be adjusted to benefit bus vehicles and allow them more priority over other road users
- ***Development of bus stops*** including improvement of access to stops for bus vehicles, wide pedestrian footways and new facilities such as shelter, seating, lighting and information.
- ***Improvements of bus service information systems*** on bus shelters and key destinations (e.g. retail areas/major employment centres). The introduction of real-time passenger information and in-vehicle announcements and displays will enhance the journey quality for users.

Dedicated bus lanes to improve reliability

Enhanced bus stop facilities to benefit buses and passengers

Bus Vehicle Enhancements

It is important to enhance the quality of public transport service to the travelling public to provide a convenient, comfortable and attractive service to users. There are a series of measures available to improve the overall level of service provided to the travelling public including:

- Further ***renewal of the bus fleet***, to bring the entire city fleet up to modern standards and features. This builds on the existing work that has started in 2017 with the introduction of new vehicles on several of the main city services.
- Development of ***integrated ticketing to allow for easy transfer between bus services*** and reduce travel costs to users. The option to introduce smartcard ticketing exists to make it easier to user services.
- On-street bus ticket machines are used in many cities in order to speed up boarding times at very busy bus stops. Alternatively, e-tickets could be purchased by means of a Bus App.

Improved Regulation & Monitoring of Taxi Services

Taxi services provide an important means of transport in Pristina, both for local residents, commuters and visitors to the City. The services complement local bus services, providing an alternative means of transport for longer trips than owning a car. There a number of options to improve taxi operation in the city including the following:

- Increase transparency of the taxi business by ***establishing a Taxi User Charter for Pristina which will raise standards and level of service for users.*** It is important to ***regulate, monitor and control the services*** operating in the city, ensuring that only licensed vehicles are operating and eradicating the amount of illegal taxis across the city.
- As part of an integrated public transport system it is important to ***assess the level and capacity of taxi stands at key locations***, including where these integrate with other modes of transport, such as bus or pedestrian facilities.

It is important to regulate and monitor taxi services in Pristina to reduce the level of illegally operated services

Demand Management & Parking Controls

It is important to introduce demand restraint measures and investigate/initiate further options for future development including increasing car park and on street parking charges, development of access restrictions in the city centre and reducing the availability of long stay parking in the city centre. Effective demand management plays a key role in this approach to help manage the continued growth in traffic levels and to encourage people to consider other alternatives and thereby supporting more sustainable travel options, whilst recognising the need for access for some local residents and businesses. There are a range of possible options/concepts for inclusion in the Pristina SUMP strategy including:

- Using pricing controls and new regulations in the urban centres to manage and control demand for both on and off-street parking activity.
- Establishing new residential parking schemes (Blue Zone) to control parking activity in residential and community areas.
- Introducing new parking regulations where necessary and enforcing these regulations effectively. It is essential to enforce parking controls routinely to ensure there is no abuse or illegal parking activity.
- Using planning policies to control the number/type of new off-street car parks across the city for public use.

Summary of Key Issues in Pristina

- **High Demand for Parking in the City Centre**: Research has shown a high demand for car parking in the centre of town and other highly populated residential areas. In particular, parking demand is greater for on-street spaces than for off-street car parks, where no time limits are in place. Research shows that the parking occupancy - ratio of number of bays occupied in a time duration to the total space available reveals that more than half of users stay for long periods of time (i.e. are commuters).
- **Poor utilisation of parking spaces:** Research shows that there are very low levels of rotation in central urban areas, highlighting that parking spaces are not very efficient. In some cases, over a 12hour period one parking place is used only by 2 vehicles.
- **Low cost of parking**: Car parking is relatively low cost in Pristina with many spaces offering free parking. Much of the parking in urban areas is not time restricted and there are long periods when people park their car in the city centre (i.e. commuters.)
- **High level of private off-street car parks:** Within the city centre there are a large number of privately operated car parks which offer low cost parking with no time restrictions. Such facilities increase the level of car movement to/from the city centre.
- **Lack of parking enforcement**: Enforcement is a key requirement of any successful parking strategy and there are limited resources available in Pristina to effectively manage and control parking activity in the city centre.

Our Proposed Strategy

Parking Controls and Pricing

It is important to manage on and off-street parking controls to reduce traffic conflicts, obstructions and delays, ensuring that a suitable enforcement regime is in place to manage the parking supply and regulations effectively.

A number of parking control options are available within Pristina to manage demand for parking in the city more effectively. This includes:

- System of paid parking in the city centre (relatively high prices and limited time periods), including establishment of 'Park & Go' parking facilities.
- Limitation/regulation of the private parking spaces (legislative or if not possible by traffic measures on the road infrastructure).
- Establishment of the residential "blue zones" in the areas surrounding the city centre – to protect local residents and communities from parking activity from other people (commuters/visitors).

Parking Enforcement

Improved enforcement operation, both on-street and through operation of new traffic control centre with CCTV and co-ordinated control with a new enforcement agency is required. It is essential to ensure parking policies are effectively implemented and enforced, with associated benefits in terms of improved traffic and public transport flow, road safety, use of parking spaces and environmental benefits.

It is recognised that enforcement of parking controls and regulations is a key element of any successful parking strategy.

It is important to ensure parking enforcement is continuously monitored and reviewed to ensure that adequate resources are devoted to enforcing parking and traffic management measures.

A range of technological options exists to monitor parking regulations including cameras and mobile units.

Establishment of Park & Ride facilities

There is scope in Pristina to establish a Park & Ride (P&R) concept, whereby remotely located car parks on the approach to the city are linked by an attractive public transport service with the key urban centre. The provision of parking spaces on the outskirts of the city aims to intercept commuter traffic, as well as tourists and local residents and transport them via fast, frequent and high quality public transport connection to the city centre. This will reduce the level of congestion in the city centre and enable space to be reallocated to other purposes.

A number of potential sites for P&R have been identified and will be further assessed as part of the city urban mobility strategy. The location of any P&R side should optimise the potential for intercepting inbound motorists. In addition, the sight must be acceptable in planning, environmental and political terms.

In considering the best location for P&R, a balance has to be struck between specific considerations such as land availability, accessibility, landscaping and security as well as the potential for abstraction from other public transport services. Sites should ideally be:

- well-signed and close to a major radial approach route;
- on the edge of a built-up area, not too far out of the town/city, and not too close to the urban centre (the further sites are located from urban centres, the greater the maximum potential traffic reduction that will result); and
- surrounded by sufficient adjacent land to allow expansion should future levels of demand require this.

Parking for Users with Special Needs

It is important that people with mobility impairment have access to parking facilities to enable them to fulfil daily activities without any obstructions. This can be achieved by establishing a citywide ‘Disabled Badge Scheme’ with parking spaces for disabled people and a permit system to support this. Development of a new disabled parking scheme aimed at providing priority for disabled drivers with dedicated parking spaces across the city.

Encouraging More Walking & Cycling

It is important to support urban mobility infrastructure investment plans through promoting and advertising sustainable travel behaviour more fully. We will support and promote measures to encourage people to make more sustainable and ‘smarter’ transport choices including improving conditions for walking and cycling, with the provision of safe, accessible and convenient routes for these non-motorised modes.

Summary of Key Issues in Pristina

- **Poor quality pedestrian routes & a lack of safe, convenient crossing facilities**: There are a large proportion of trips undertaken in Pristina although the many of the pedestrian routes in the urban centres show signs of poor condition as well as a lack of facilities in terms of footway width to cater for large pedestrian volumes, accessible kerbs, directional signing and crossing points. Cyclists account for less than 1% of transport users in Pristina – much more can be done to increase this figure.
- **Safety issues for pedestrians & cyclists in urban areas:** The success of the centralised pedestrianised zone in the centre of Pristina continues to cater for the majority of pedestrian activity in the town centre providing a safe environment. More can be done to extend the zone to provide wider pedestrian amenity in the city centre.
- **More integration of pedestrian & cycle routes with other modes of transport**: Establishing good links to public transport facilities, car parks, taxis and cycle parking facilities is essential in terms of improving overall accessibility for people and the development of 'seamless travel' between modes. Pedestrian routes to bus stops and taxi ranks need to be identified and developed more fully. In addition, pedestrian access to car parks need to be improved with a view of improving their attractiveness and perception of safety.
- **Lack of integrated pedestrian and cycle route networks**: Reflecting the wide range of trip patterns across the city and trips for leisure, going to school and to work, new pedestrian and cycle route network concepts should be developed to identify key routes to major destinations, aimed at identifying and implementing measures to improve pedestrian amenity, access and safety.

There are a range of proposals to improved conditions for pedestrians and cyclists in Pristina including:

- Development of strategic pedestrian & cycle route network concepts – with adopted design standards and facilities provided for different types of pedestrian and cycle routes across the city. This will include city centre trips as well as those to more peripheral locations such as local residential neighbourhoods and suburban communities.
- Enhanced pedestrianisation scheme in the city centre, extending the zone to include adjacent roads and provide a wider area for pedestrians to enjoy.
- Measures to aid mobility impaired – introduction of other measures to aid blind/partially sighted (e.g. use of tactile paving at pedestrian crossings.)

Our Proposed Strategy

Our approach is to develop local pedestrian and cycle schemes to improve access to key facilities, schools, public transport stops and hubs, areas of high employment density, as well as green and recreational spaces. The aim is to bring about increases in walking and cycling to these facilities and improve awareness of dedicated walking and cycling routes and facilities across the city. A range of measures proposed for Pristina are set out below.

Enhancing the accessibility of the city's transport network is important to create barrier-free conditions for users. This includes the:

- Introduction of new, safe and accessible crossing points throughout the city.
- Improve highway design for pedestrians & cyclists with greater use of speed management to create safe environment.
- A reduction of potential "conflicts" with other road users.
- Improved personal safety and security (day/night) for pedestrians & cyclists.

Improved Design of Walking and Cycle Schemes

Pedestrian & Cycle Network Development

A series of integrated pedestrian & cycle route networks are proposed for the city aimed at providing:

- Good pedestrian/cycle links to public transport, car parks, taxis and cycle parking.
- Walk/cycle/public transport journey – improve total journey experience
- Ensuring that pedestrian facilities take account of mobility issues – use of dropped kerbs and improving pedestrian crossing of roads and links to public transport routes.
- Improve pedestrian & cycle routes between residential areas and jobs/services address issues of social exclusion.
- Minimise obstacles and risks to pedestrian & cycle movement.
- Integrated cycling with public transport by enable cyclists to use buses in areas where there are steep gradients and difficult terrain for cycling.
- Special public transport routes from the city centre uphill to surrounding areas serviced regularly by the “cyclo-buses”.

Development of a Bike Hire Scheme & Improved Cycle Parking

The development of a citywide bike-sharing scheme is proposed for Pristina. This will:

- Offer discounted fares for users who hire bikes for use in the surrounding areas. The operator of the bike-sharing scheme moves the bikes every evening from the city centre to the surrounding areas.
- Make it easier for people to have access to bikes and safe, secure facilities that are provided across the city.
- Link with a possible electric bike sharing system (possibly developed through a PPP initiative).
- Provide readily available, good quality and regularly maintained bikes and cycle parking facilities which can be hired according to user requirements.
- Provide free transport of bikes in new LRT system and selected bus routes.

Marketing & Promotion of Pedestrian & Cycle Routes & Facilities

Complementing the wide range of infrastructure measures proposed in the Plan, Development of campaigns and promotional material to encourage active take up of walking & cycling as healthier transport modes. Provision of good pedestrian and cycle route signing to enable users to locate key destinations on foot and by bike, including travel distance and provision of local facilities (e.g. cycle parking).

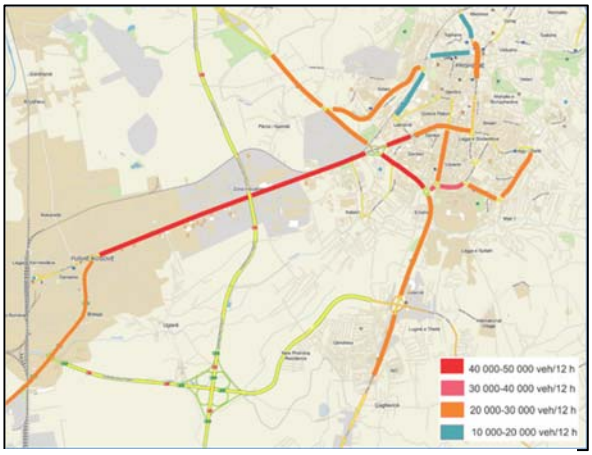
Traffic Management and Road Safety

It is essential to manage the flow of traffic using urban traffic management control to maximise capacity, and effectively manage and maintain the city’s assets. The city’s transport infrastructure should be maintained effectively to ensure value for money and manage necessary maintenance work to minimise disruption to users on the network. It is also important to consider options to accelerate the use of hard measures such as reallocation of road space to more sustainable modes of travel, including bus priority measures, cycle lanes and widened footways. It is important

to enhance road safety in the city centre as well as local neighbourhood, district centres, with high quality cycle and pedestrian routes that have better street lighting and other safety features.

Summary of Key Issues in Pristina

- **Road safety issues across Pristina:** Research reveals that the level of injury accidents is steadily rising, almost 3 times higher in Pristina than the EU average (per 1000 population). It is important to improve safety on the city's road network, particularly for vulnerable road users, such as pedestrians and cyclists.
- **Many junctions experience congestion and safety problems across the city**: Within the city centre, the most overloaded traffic in both directions occurs at "Bulevardi Bill Klinton" 48 000 veh/12h and "Fehmi Lladrovci" 33 000 veh/12h.



Traffic data collected as part of the SUMP has revealed congested routes across the city

Our Proposed Strategy

Making Pristina a safer place to live and work remains one of the priority themes for the Municipality, with an emphasis on speed management to reduce the occurrence and severity of traffic accidents on the citywide road network. There are clear benefits of limiting vehicle speeds to 'appropriate' levels including:

- Reducing 'intimidation' of more vulnerable road users – cyclists, pedestrians and mobility impaired people (including mobility scooters and wheelchair users);
- Reducing the likelihood of accidents with operatives/equipment at temporary roadworks.
- Minimising the impacts of severance and anti-social effects in sensitive areas – such as schools, residential districts and shared public spaces; and

We will look to introducing a selected number of road network improvement, including capacity/safety enhancements at key junctions, as well as road modifications in the proximity of bus routes/stops to prevent obstacles and barriers to bus movement.

Development of Speed Management Plan

Managing traffic speed is important to improve road safety on the city's road network including:

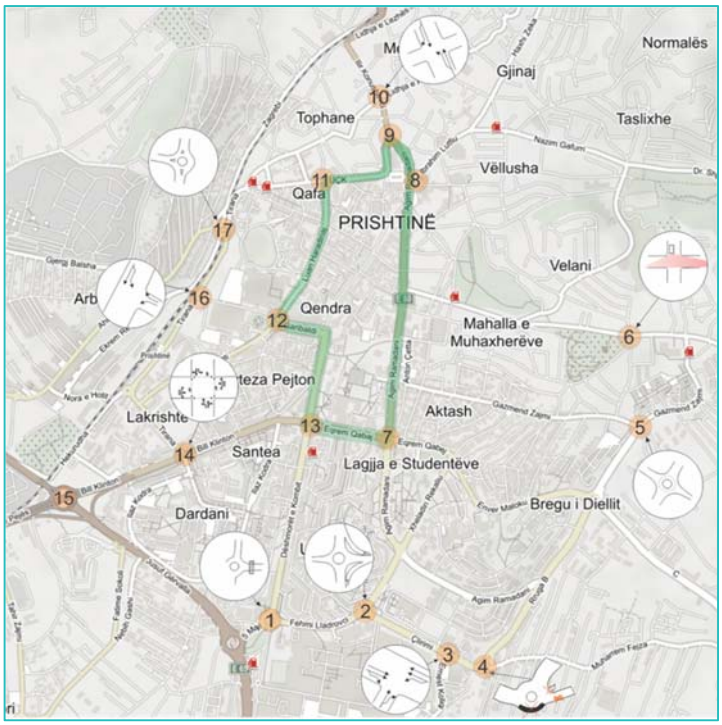
- Implementation of speed cameras and monitoring of speed limits to reduce incidences of speeding.
- Influence travel behaviour and improve safety for vulnerable road users, with improved road safety training.
- Emphasis on road safety engineering, enforcement, education and training initiatives.
- Development of 20kph zones around schools to improve safety and to encourage more children to consider walking or cycling for their school trip.
- The development of School Travel Plans, involving the City's Education Department and local schools will aim to encourage more sustainable forms of transport for journeys to school, reducing traffic congestion during the peak periods.

Improved Junction Capacity & Safety Measures

Results from traffic surveys reveal that many junctions across Pristina suffer from heavy traffic congestion and also pose safety risks to users.

As part of the SUMP strategy a series of traffic management measures is proposed to improve efficiency of the junctions and network as a whole, whilst at the same time improving safety for users, especially pedestrians and cyclists.

The schemes will look to consider a wide range of sustainable transport priority features to be addressed including pedestrian, cycling and bus priority, as well as safe crossings.



Preliminary concept ideas have been developed for a number of junctions across Pristina. These will be further developed and assessed, including liaison with stakeholders as part of the SUMP

City Access Restrictions

Within the city centre is important to manage deliveries within the pedestrianised areas of the city including:

- New controls of the time of operation, vehicle access and vehicle type;
- Enhanced facilities and signing for loading and delivery bays; and
- Stronger enforcement to reduce the level of indiscriminate parking/ loading by commercial vehicles and minimising conflicts with pedestrians and other road users in the city centre.

Sustainable Development and Design

Taking account of the Pristina Development Plan, it is important to ensure future policies and land use decisions minimise the need to travel, encourage the use of non-car modes and are consistent with wider economic, social and environmental objectives.

There should be an emphasis on us on planning and locating new developments in the right places, in particular the city centre and locations where there is good access to the public transport network, ensuring that more major trip attractors are located there.

Summary of Key Issues in Pristina

- **Better integration of land use & transport planning:** Effective land-use planning is important to the delivery of long-term sustainable transport solutions. It is essential that new development makes proper provision for sustainable transport, including walking as well as good access by public transport. Future development in Pristina should be sustainable in terms of sustainable transport modes and access.
- **Promoting sustainable travel as part of transport design:** It is important to ensure that new solutions to promote sustainable transport modes are up-to-date and reflect best practice and design. The establishment of new design guidelines to help guide and inform the development and implementation of local measures is useful to help standardise schemes and ensure they take account of international best practice that can be successfully applied whilst reflect local context.
- **Supporting infrastructure measures with 'softer solutions' such as training & education:** The implementation of engineering solutions to encourage greater use of sustainable travel modes should be supported by marketing, training and education initiatives to encourage people to change their travel behaviour. The development of school and business travel plans will help tackle car trips for journeys to school and work, whilst cycle and road safety training will increase confidence for road users, when cycling or walking.

Integrating land use and transport planning

Some cities have successfully adopted a 'Hierarchy of Transport users' approach within their transport strategies. This is a commitment to a priority listing applicable when making and implementing land use and transport related decisions. Needs of pedestrians, people with mobility problems, cyclists and public transport users are considered as part of all new schemes. Such an approach could help transform transport planning decision making in Pristina.

Development of Initiatives to Reduce Car Ownership

Initiatives such as the development of community city car clubs offer local residents and businesses the opportunity to use a private vehicle without needing to own once. Such schemes help to reduce car ownership in urban centres and as a result contribute towards reducing congestion levels in towns and cities.

Development of Softer Measures Such as Training

Training programmes, such as cycle & pedestrian training, as part of travel plans can be effective to help change travel behaviour by increasing peoples' confidence when walking or cycling and improving road safety in general.

SUMP Implementation Plan

Based on the preferred strategy for urban mobility in Pristina, an action plan of proposed measures that support the citywide vision and objectives has been developed. This provides a programme of different types of measures for covering the short-term (2019-20), medium term (2021-2025) and also longer-term (2026-2030). A summary of the outline expenditure plans for the SUMP are set out below covering these time periods. These figures are indicative at the present time and will be subject to agreement on the availability of Municipality funding on an annual basis. The outline programme of SUMP measures set out in this document will be reviewed and refined on an annual basis to reflect the outcome of further feasibility studies, as well as engagement with stakeholders.

As part of the implementation plan, it is important to ensure that schemes delivered have an impact in terms of reducing congestion, improving road safety or promoting different forms of sustainable travel across the city. Once adopted by the Municipality, the Plan will require regular review and monitoring to ensure that the measures and initiatives continue to deliver and support the SUMP vision and objectives and that targets are being met.

1 Introduction

1.1 Introduction

The Municipality of Pristina is preparing a new Sustainable Urban Mobility Plan to fully understand the current transport network problems and identify possible solutions. The view is to move the city towards more sustainable transport practices that will help deliver sustainable transport and air quality objectives. The Plan is based on the development of a new transport model and evaluation of different options for improving the current traffic, transport and parking situation, with a view to encouraging behavioural change and a shift in modal transport towards more sustainable alternatives. Like many other European cities Pristina suffers from traffic congestion which can have adverse effects on its economy, environment and image. Local air quality is a particular important issue, with the Government actively identifying ways to improve levels so that EU standards are met.

This document sets out the background to the transport problems in Pristina, supported by key data obtained through extensive survey work and reinforced with feedback from a wide variety of stakeholder groups and organisations. It then presents a new transport vision and strategic framework before describing the different elements that underpin the new transport framework. The document concludes with details on the investment and action plans necessary to deliver the city's urban mobility vision and a recommended monitoring framework that will gauge how well the interventions will deliver the new SUMP objectives.

The chapter structure is outlined below.

Table 1: SUMP Document Structure

Chapter		Outline
Chapter 2	Context for Urban Mobility in Pristina	Background on the key policy areas relating to transport and background data on current trends and travel patterns and issues in Pristina
Chapter 3	Developing a New Transport Vision & Strategy for Pristina	Setting a new transport vision that responds to the transport challenges, as well as policy objectives and support elements
Chapter 4	Public Transport	Details of public transport issues and proposals.
Chapter 5	Active Travel Modes	Details of walking and cycling issues and proposals
Chapter 6	Road System & Parking	Details of relevant road projects and parking issues and proposals
Chapter 7	Traffic Management & Road Safety	Details of road safety and traffic management issues and proposals to address these.
Chapter 8	Planning for Sustainable Urban Mobility	Details of forward planning relating to urban mobility (including travel planning), gender issues in transport and environmental issues and proposals
Chapter 9	SUMP Investment and Financing	Details on financing aspects, funding sources and draft action plan (supported by Appendices)
Chapter 10	SUMP Institutional Structure	Setting out issues and recommendations relating to institutional structure to manage the SUMP
Chapter 11	SUMP Monitoring	Setting out issues relating to monitoring and draft performance indicators to help monitor the plan

Source: Mott MacDonald

The SUMP sets out the City's sustainable transport vision, and objectives together with a series of proposals that have been developed to achieve these. The contents of the Plan have been subject to extensive consultation including a wide variety of different stakeholder interests. It is recognised that this Plan is looking at possible transport improvements with a longer-term timeline. Therefore, a wide range of initiatives have been identified for possible implementation within short, medium and longer-term timescales.

2 Context for Urban Mobility in Pristina

2.1 Introduction

In order to make the right (policy) choices for the future in Pristina, it is essential to have a clear understanding of the present situation, in terms of urban transport and mobility statistics, trends and data. It is this information and analysis that provides the necessary baseline against which progress can be measured. Understanding the policies currently in place and the measures already programmed for implementation is a necessary condition for the design of the SUMP and development of measures and proposals required to improve transport and mobility in Pristina. This refers not only to transport policies but also to sectoral agendas and measures that affect future mobility in the urban environment (e.g. land use plans, economic development strategies or tourism concepts).

As part of the work to develop the Pristina SUMP a wide range of data sources were used to assess the current urban mobility characteristics and to identify a range of key issues and problems to be addressed. This included:

- Review of relevant policy documents relating to urban mobility;
- Collecting traffic and transport data through surveys undertaken across the city; and
- Engaging with city stakeholders and the public to understand different perceptions and attitudes towards transport services in Pristina.

Further detail is set out in the report *'Pristina SUMP Interim Analysis Report* and set in summary below.

2.2 Review of Data and Studies (including Legal & Strategies)

2.2.1 Legal framework

The legal frameworks and regulations relevant to sustainable urban mobility, at the central level of Kosovo and the local level of Pristina, are as follows:

- Law no. 2004/1 and Law No. 04/L-179, 16 May 2013, on Road Transport;
- Law no. 2003/11 on Roads;
- Law no. 02/L-70 on Road Traffic Safety;
- Law no. 2012/04-L-174 on Spatial Planning;
- Law no. 03/l-160 on Air Protection from Pollution;
- Law no. 03/l-025 on Environmental Protection;
- Law no. 03/L-040 on Local Self-Government;
- Law no. 04/L-076 on Police;
- Law no. 04/L-010 on Inter-Municipal Cooperation;
- Plan of Measures for the Improvement of Air Quality and the Environment Condition in Kosovo (Ministry of Environment and Spatial Planning – 2016);
- Regulation on Road Transport in the Territory of the Municipality of Pristina (2013);
- Regulation on Organization and Cooperation of the Municipality with Villages, Settlements and Urban Neighborhoods of the Municipality of Pristina (2010);

- Regulation on Determining the Route Lines and Itinerary of Regular Urban Transport of Bus Passengers in the Territory of the Municipality of Pristina (2006); and
- Regulation on Determining the Network of Route Lines and Itinerary of Urban and Urban Peripheral Transport of Bus Passengers in the Territory of the Municipality of Pristina (2010).

2.3 Relevant Strategic Plans, Policies and Strategies

At the national level, there are several important relevant documents including the following:

- Spatial Plan of Kosovo 2010 – 2020+;
- Sectorial Strategy and Multimodal Transport 2015-2025 and the Action Plan for 5 years; and
- Kosovo Road Safety Strategy and Action Plan (2015 – Version 1.6).

At a municipal level, the relevant documents include the following:

- Municipal Development Plan (MDP) 2012-2022;
- Pristina Urban Development Plan (UDP) 2012-2022; and
- Urban Regulatory Plans for Pristina (URP).

2.3.1 Municipal Development Plan (MDP) 2012-2022

This is a multi-sector plan that sets out the long-term goals for the city to achieve economic, social and spatial development, with the plan covering the entire municipality area, including both urban and rural areas. The main elements relating to urban (and rural) mobility are summarized as follows:

- Inter-modality between road and rail transportation – encourage building road and rail terminals close to each other
- Improve public transport networks (on rails, on dedicated bus lanes) to allow people to work in the capital while continuing to live elsewhere; Development of regular and reliable public transport lines and modernizing of the public transport vehicles; Achieving an efficient public transport system, also by increasing urban density
- Increasing the accessibility to the international transport networks (connection with European corridors);
- Making mobility sustainable, inclusive and healthy, a city easy to reach and to travel
- Mobility infrastructure must be developed with a long-term perspective in which future needs and future urban, spatial and technological developments are considered
- Move people and goods in an efficient and sustainable manner
- Creation of a complete and efficient traffic system, for the city and its larger urban zone, to keep transit traffic out of the city; implement the "rings" to organise transport networks
- Creation of an efficient car parking system in town and an interchange peripheral car parking to reduce entry of vehicles in the core of the city (within centre ring, historical centre);
- Continuous maintenance of old roads and construction of new ones for a more efficient transport (especially in to rural areas);
- Retain and potentiate rail links (or tram ways) with different urban polarities (airport, bus terminal, city centre);
- Development of a network of cycling paths and improvement of pedestrian safety & obstacle free routes; A progressive pedestrian policy in the central area to be undertaken in parallel with the provision of new parking facilities and bicycle lanes: a prerequisite for improving urban environment.

- Organization of freight transport within the city (restrict access times, smaller low emission vehicles etc.). A polycentric urban development – a multipolar or polycentric settlements pattern envisaged to ensure a high level of amenities and a diffused presence of activities in the larger urban area, whilst reducing the mobility demand. Three centres:
  - Centre 1 (Old Town Centre), Centre 2 (the new centre of the town in the South) and Centre 3 (Pristina North Centre). Boost and improve the mobility network of Pristina: every polycentric structure needs an efficient mobility system, based not only on roads for private cars, but also on public transport and alternative means of transport.
- An intermodal station with amenities such as: bus station, large transfer parking, direct connection with the metropolitan railway line and connection with the airport (by metropolitan line, by bus).
- The area to the west of the city has a central position with respect to all national and international transportation networks and could become an intermodal hub for managing freight transport in the Balkans. For the distribution of goods inside the city electric vehicles could be used
- The Plan makes reference to the need for a Mobility Plan to be drafted in addition to MDP, developed in reference to the following orientations:
  - reducing noise and air pollution and promoting energy-reducing measures, including actions that reducing levels of pollution from transport, and encouraging the replacement of public and private vehicle fleets;
  - improving road safety, in particular in relation to vulnerable sectors of society (e.g. children, elderly, disabled, pedestrians, cyclists, etc.);
  - improving sustainable accessibility across the city, tackling problems of social exclusion;
  - preserving the historic city, strengthening links with compatible modes of mobility and reducing the impact on the local environment and heritage of the city;
  - ensuring a street network hierarchy, in order to rationalise better use of the network, improving traffic flow and addressing traffic congestion;
  - increasing the modal shift towards more sustainable modes of transport, including public transport, as well as cycling and walking;
  - ensuring the integration between different systems and different transport networks, through a high level of urban design and construction solutions;
  - improving the efficiency of local public transport and its' comfort;
  - developing telematics systems to support urban mobility; and
  - introducing targeted measures of demand management (e.g. parking and mobility management).

2.3.2 Pristina Urban Development Plan (UDP) 2012-2022

This plan is a multisector strategic plan that determines long-term goals for management and development of the urban area. The overall goal is the improvement of conditions within the city through identifying key problems and developing a range of sector action plans to address these. The key elements relating to urban mobility are summarised below:

- Connection of main transport links between Pristina and the rest of the country through road, rail and air links;
- Investment in municipal road networks to improve conditions and connectivity between urban centres and local villages (e.g. local roads);
- Development and enhancement of public transport via a number of initiatives:

  - Improvement of urban and inter urban bus services including bus routes/networks;
  - Establishing long term solutions for an effective mass transit system relating to BRT (Bus Rapid Transit), including consideration of LRT (Light Rapid Transit), tramways and development of NMT (Non-Motorised Transport), with improved conditions for pedestrian and cycle links to urban transport;
  - Establishing a multimodal terminal in the industrial area between Pristina and Fushë Kosova, between the inner ring road and the roads Pristina-Fushë Kosova and Pristina-Mitrovica using the existing railway and then extending through the centre of the city.
- Reducing the number of private motor vehicles circulating in the urban core of the city and addressing congestion issues in the city centre;
- Improving conditions for both pedestrians and cyclists in the city with improved cycle paths and pedestrian footways. Where required this involves the redesign of streets, boulevards, squares to provide better connectivity and accessibility for users. All barriers to pedestrian and cycle movement across the city will be removed and it is intended that consideration is paid to extending existing pedestrianised areas, converting sections of highway into pedestrian priority areas;
- Regular checks will be made of vehicles for emission levels as part of regular vehicle technical checks;
- Development of parking initiatives, covering both public and private areas of the city. Apart from the downtown area of the city, parking facilities will be provided on highways that converge in the central city ring area, to reduce the number of vehicles heading into the city centre.
- Public transport will be provided to these locations to provide easier access to different areas of the city using urban transport routes. Establishing a one-way traffic circulation system in the main urban core will also help improve the commercial operation of bus services in the city; and
- Provision of support and promotion of non-motorised transport modes (walking and cycling) by attracting young people to engage in these modes and also sport and recreation activities thus promoting public health. A variety of initiatives in city streets and squares will be encouraged and promoted for local recreation purposes.

2.3.3 Urban Regulatory Plans (URP) for Pristina

Urban Regulatory Plans (URPs) set out conditions for the regulation of space as well as the rules for location of buildings on specific urban land plots. The Municipal Development Plan is the basis for any URP and within the Municipality of Pristina Regulatory Plans have been drafted for the following areas: Arbëria III, Dardania, Dodona, Kalabria, Lakrishte, Mati I, Mati III, Medrese-Çamëri, Muhaxherët, Pejtoni, Pristina e Re (3 zones: East, Centre, West) Qendra 1, Qendra 2, Ulpiana, Sofalia, Tophane, Zona Ekonomike, Kodra e Trimave 1, Bllocks B17, B18, B19, B20 of Mat 1, “Tërësia urbane B” of Prishtina e Re – East.

2.4 Pristina SUMP Stakeholder Engagement and Public Opinion

Identifying the relevant stakeholders and understanding their potential role and participation in the SUMP are important to achieve the overall goals of the Pristina SUMP. A stakeholder engagement strategy was developed to support the Pristina SUMP aimed at providing a range of opportunities for citywide stakeholders, associations, groups as well as individuals to share their views and ideas on different urban mobility issues and themes in Pristina.

2.4.1 Pristina SUMP Stakeholder Engagement and Opinion

As a part of SUMP process a series of stakeholder workshops were organised aimed at involving a wide range of city organisations in the development of the Plan. The initial stakeholder meeting was held in May 2017 to get stakeholder´s view on the current situation of mobility in Pristina. The stakeholders came from all the different environments including the following:

- Working Group members
- Steering Committee members
- Private public transport operators
- Taxi association
- Road agency
- Police
- Universities
- Organization of persons with special needs
- NGOs
- City district authorities

Key issues raised included problems relating to the public transport network in terms of lack of integration of services and ticketing, as well as poor connections to some parts of the city. The prevalence of illegal taxis was also considered a problem, often competing with registered firms as well as bus operators.

Congestion and lack of parking regulation were cited as key problems to be addressed within the SUMP. In terms of active travel modes, a lack of cycle and pedestrian infrastructure and route networks was considered a barrier to attracting greater levels of use of these modes. Air and noise pollution from high volumes of motorised traffic was considered a problem to be addressed in the city centre by stakeholders.

Figure 1: Stakeholder Discussion group

Source: Mott MacDonald

Figure 2: Pristina SUMP Workshop

Source: Mott MacDonald

Stakeholders considered a range of specific urban mobility themes including public transport, car transport and parking, active modes and public spaces and quality of life. They were asked to consider key issues of problems across these modal themes as well as positive aspects that were also evident in Pristina. A collation of key issues is presented below.

Figure 3: Summary of Feedback on Transport Problems & Issues in Pristina

What does not work well in Pristina?

Public Transport	Car Transport and Parking
Illegal taxi	Congestion
Missing information and information system	Problems with parking including disabled person´s vehicles parking
Poor access for disabled persons	No regulation for heavy vehicles to enter city centre
No ticket integration	Low activity of police
Unreliability	
Missing public transport preferences	
Active Modes and Public Spaces	**Quality of Life**
Vehicles parked on pavements and places for pedestrians	Air and noise pollution
Lack of cycling infrastructure	Safety
Almost no components for disabled persons in the public space	Cultural life and sport
Unsuitable usage of public space of streets	
Unsatisfactory level of safety of pedestrians and cyclists	
Poor number of parks and green areas, relaxing areas	

Source: Mott MacDonald

Whilst a number of key urban mobility issues and challenges were identified, information on the current positive aspects of travel and transport were also obtained, as summarised below.

Figure 4: Summary of Key Feedback on What Works Well in Pristina

What works well in Pristina?

Public Transport	Car Transport and Parking
Introduction of new modern vehicles/fleet	Introduction of traffic calming and bollards to manage traffic & parking
People are starting to use new vehicles more	Traffic Monitoring Centre
Low ticket prices/fares	
Good coverage of taxi services across the city	
Some bus routes are now observed to be improving	
Active Modes and Public Spaces	**Quality of Life**
Good use of natural assets (Gërmia Park)	Improved public street lighting in some neighbourhoods
Green spaces exist across the city (and are expanding)	Air quality monitoring takes place
Provision of lighting across crosswalks	Good cultural facilities exist within the city
Level of street signing is considered quite good	
Good conditions for pedestrians in the city centre	

Source: Mott MacDonald

In relation to public transport (bus services and taxis), the recent introduction of a new vehicle fleet on some routes was considered by stakeholders to be a very encouraging step forward in the move towards trying to establish a more attractive level of service. The gradual introduction of a more modern fleet, together with relatively low fares provides a more attractive alternative

travel option compared to car use for some residents and higher levels of patronage are starting to be seen on services where new vehicles are being used.

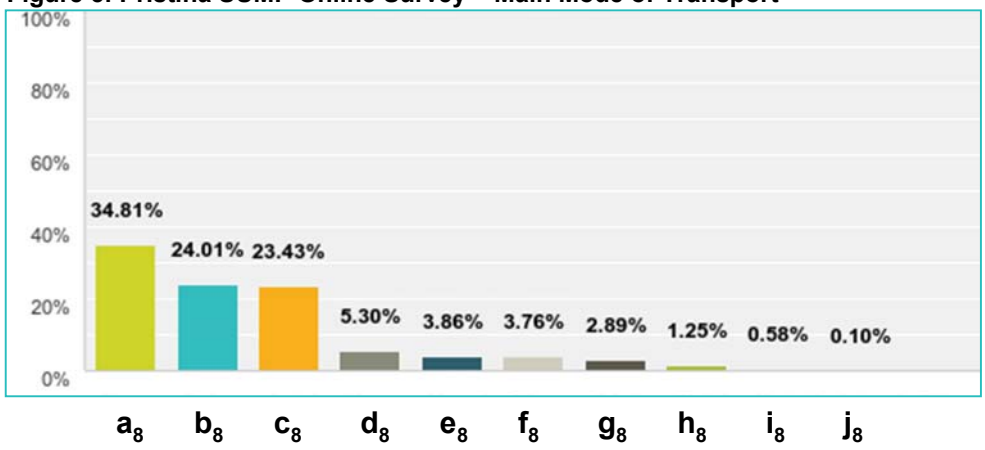
Whilst there are problems relating to the regulation of taxi companies in Pristina, the extent of their coverage in the city, provides a good level of choice for residents and visitors, in terms of meeting local demand. Provision for pedestrian movement in the city centre has improved considerably in the city centre in recent years, with the introduction of the extensive pedestrianised area as well as the local presence and use of green spaces which comprise a key part of the local recreational assets of Pristina.

The new Boulevard Nënë Tereza provides an excellent facility for pedestrians to enjoy the central retail facilities, as well as acting as cultural meeting point, especially during the evenings where large numbers of people are seen congregating in the city centre. Across the city, a new programme of improved street lighting that is being introduced in many local neighbourhoods across the city, was considered as being very positive, in terms of improving safety and security when walking in the city during the evenings.

2.5 Online Travel Survey

In support of the local stakeholder engagement activities for the Pristina SUMP a comprehensive online survey was established to obtain general views from residents, businesses and visitors to Pristina on different aspects relating to traffic and transport. Between May and July 2017 nearly 1600 completed questionnaires were obtained providing a wide range of information on different travel aspects and issues. The majority of responses were obtained from people under the age of 45 (nearly 85% of the total responses. Respondents were predominantly men, accounting for over two-thirds of completed questionnaires.

Figure 5: Pristina SUMP Online Survey – Main Mode of Transport



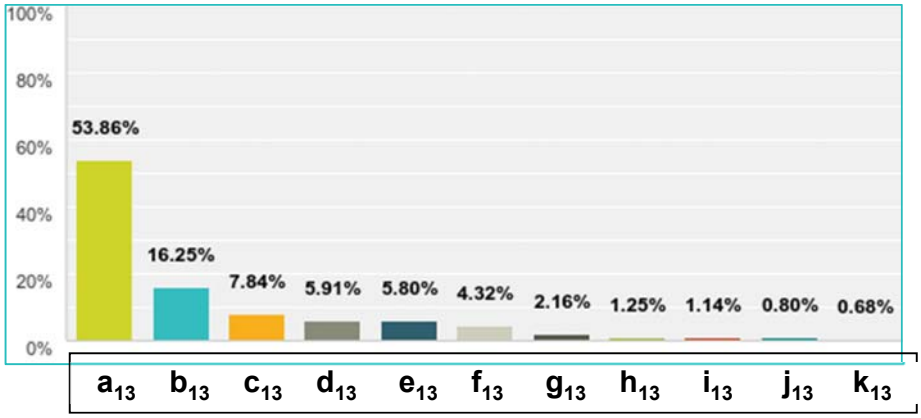
a_8 – Ngas veturë (vetëm) [Car Driver (on your own)]
b_8 – Ecje (Walk)
c_8 – Autobus apo tren (Bus or coach)
d_8 – Ngas veturë (me udhëtarë) [Car Driver (with passenger/s)]
e_8 – Veturë (si udhëtar) (Car (as passenger))
f_8 – Të tjera (ju lutemi shpjegoni) [Other (please specify)]
g_8 – Taksi (Taxi)
h_8 – Biçikletë (Cycle)
i_8 – Motoçikletë apo biçikletë e motorizuar (Motorbike or moped)
j_8 – Automjet transportuess i lehtë apo i rëndë [Light or Heavy Goods Vehicle (LGV or HGV)]

In terms of the main mode of transport used by respondents for their trips, the most popular response was the car which accounted for nearly 35% of all replies. Bus travel and walking trips accounted for 24% and 23.5% of trips respectively, which is positive in terms of overall demand for sustainable travel in the city. Respondents were asked to provide their reason for their choice

of transport mode, with the main reason given as speed of trip/journey (just over 33% of respondents). A third of respondents also commented that they had no alternative mode and so there is little choice for them to change their trip patterns.

More than 50% of respondents commented that the introduction of improved cycle facilities and infrastructure (including cycle lanes etc.) would encourage them to consider this mode more fully. Only 16% of respondents felt that nothing would encourage them to use this mode of transport. Therefore, there are some encouraging signs that the provision of new measures on-street to improve conditions and safety for cyclists would encourage them to consider this mode.

Figure 6: Measures to Encourage People to Consider Cycling



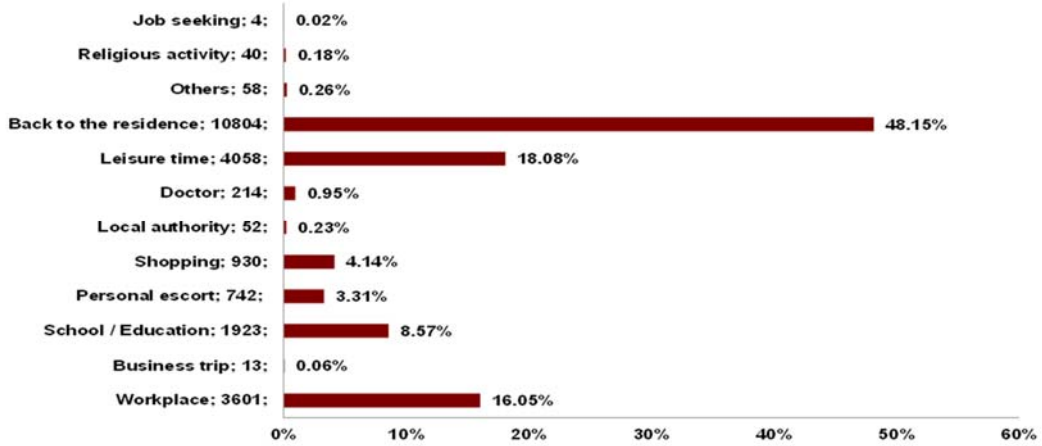
a_{13} – Rritja e mundësive për udhëtim me biçikleta (p.sh. Shirita biçiklete) [Increase in cycle facilities on journey (i.e. cycle lanes)]
b_{13} –Asgjë nuk do të më shtynte të ngas biçikletë (Nothing would encourage me to cycle)
c_{13} – Të tjera (ju lutem shpejgoni) [Other (please specify)]
d_{13} – Vendparkim i sigurt për biçikleta në vendin e arritjes (Secure cycle parking facilities available on site)
e_{13} – Informata për rrjetin e çiklizmit, bashkë me hartën e shiritave dhe vendparkimeve të biçikletave (Information on cycle facilities including location of cycle lanes and cycle parking)
f_{13} – Vendosja e skemës së huazimit të biçikletave në Prishtinë (Introduction of bike hire scheme in Prishtina)
g_{13} – Promovimi i dobisë shëndetësore të çiklizmit (Promotion of health benefits of cycling)
h_{13} – Mundësi dushi e dollapësh për të lënë gjërat personale me të arritur në destinacion (Shower and locker facilities available on site)
i_{13} – Zbritja ose huaja që ofrohet për blerje të biçikletave (Discounts or loan provided to help purchase a bike)
j_{13} – Inicimi i ngjarjeve dhe fushatave për përdorimin e biçikletave për vajtje-ardhje nga puna (Launch of workplace cycling events and campaigns)
k_{13} – Mundësi trajnimi për përdorim të biçikletave për të rritur vetëbesimin (Availability of cycle training to increase confidence)

2.6 Household Travel Survey

In order to get the most detailed picture of transport in Pristina a comprehensive household survey was undertaken to identify current trip patterns and characteristics across the city. The format of the household survey used was based on a structure of questionnaire regularly used in other EU countries, particularly Germany and also the Czech Republic. The content of the questionnaire that was developed sought to capture information about commuting patterns, as well as specific preferences of respondents relating to different transport modes. Between 26th May and 27th July a total of 3064 interviews of residents were undertaken, surveyed across a total of 124

enumeration areas within Pristina and the surrounding area. This equates to a total of 1274 households where interviews were undertaken. Within each enumeration area, a random sampling survey approach was taken for individual household selection, with face-to-face interviews undertaken with family members over the age of 15.

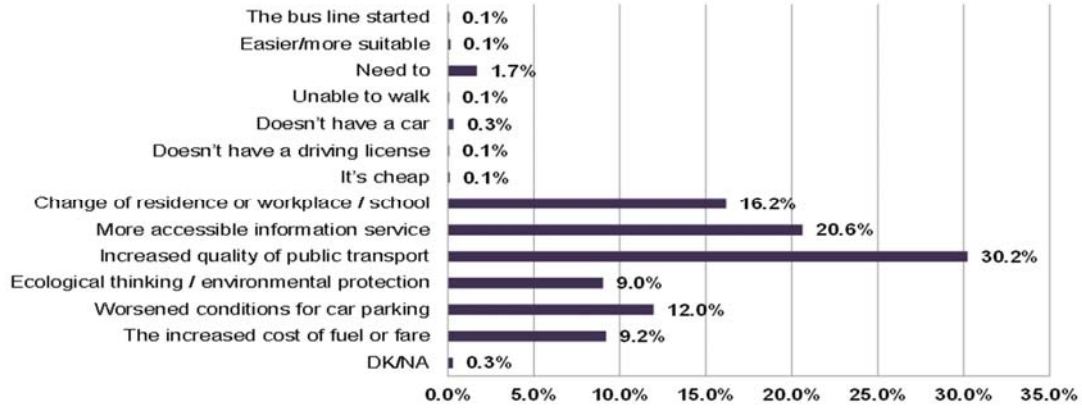
Figure 7: Household Travel Surveys – Trip Purpose



Source: Dotsresearch

Responses revealed that 62% of users now travel by bus more than they did 5 years ago, indicating the increasing popularity of this mode of transport within Pristina. For those people that do use public transport in the city, the most popular reason for doing so is due to the increased quality of public transport services that are available (accounting for over 30% of responses). This is clear indication of support for initiatives such as the introduction of new vehicle fleets which are transforming the overall quality of the public transport 'offer' in Pristina. Other positive reasons for using the bus include the provision of more information on services (timetables and information on services), as well as proximity of local workplaces/schools which are close to public transport services. Problems with available parking, (or poorer conditions) account for 12% of responses as to why people like to use public transport.

Figure 8: Household Travel Surveys – Reasons for Using Public Transport In Pristina



Source: Dotsresearch

2.7 Traffic Surveys

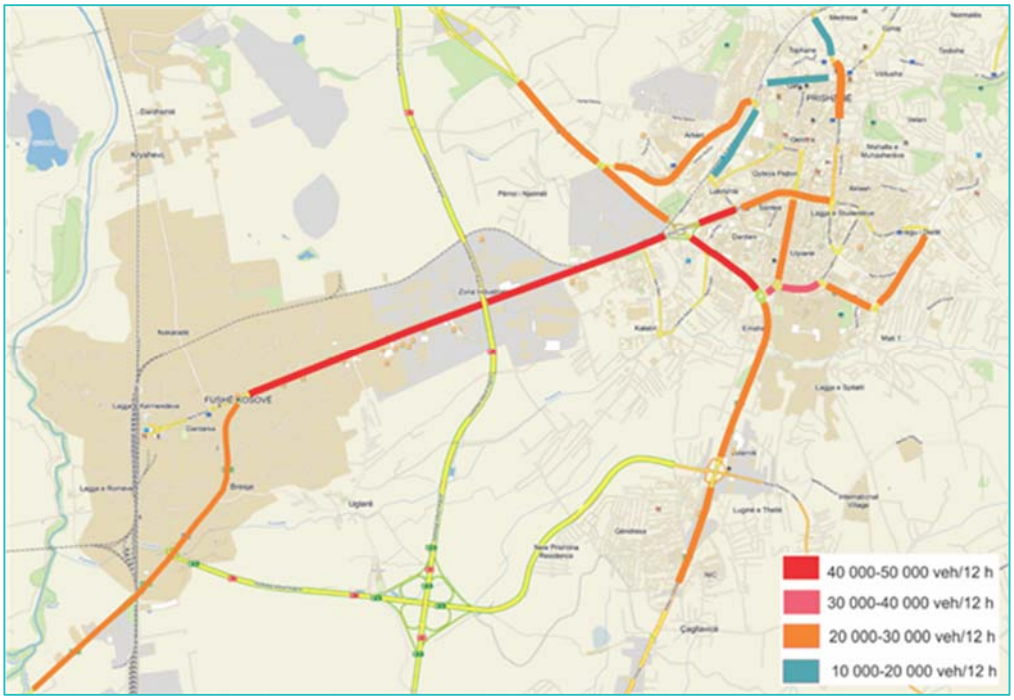
Traffic surveys were carried out in spring 2017. Within the survey area, except the city of Pristina, were also included the municipalities of Fushë Kosova, Gracanica and Kastriot. Traffic counts were obtained over a 12-hour period between 06:00am and 6:00pm as well as some surveys that took place over a 24-hour period.

After analysis of the survey data, it was noted that the most overloaded traffic occurs on the following roads:

- National Roads M9 (which connect the city of Pristina with Fushë Kosova)
- M2 (which connects the city of Pristina with Mitrovica and Ferizaj in the direction of Skopje).

On these roads within 12 hours (from 06:00-18:00) circulate around 25000-45000 veh/12h in both directions. In the centre of the city the most overloaded traffic in both directions occurs in the roads: “Bill Klinton” in which circulate around 48 000 veh/12h and “Fehmi Lladrovci” in which circulate around 33 000 veh/12h.The traffic load situation of the road network in the city of Pristina, is shown on the following figures.

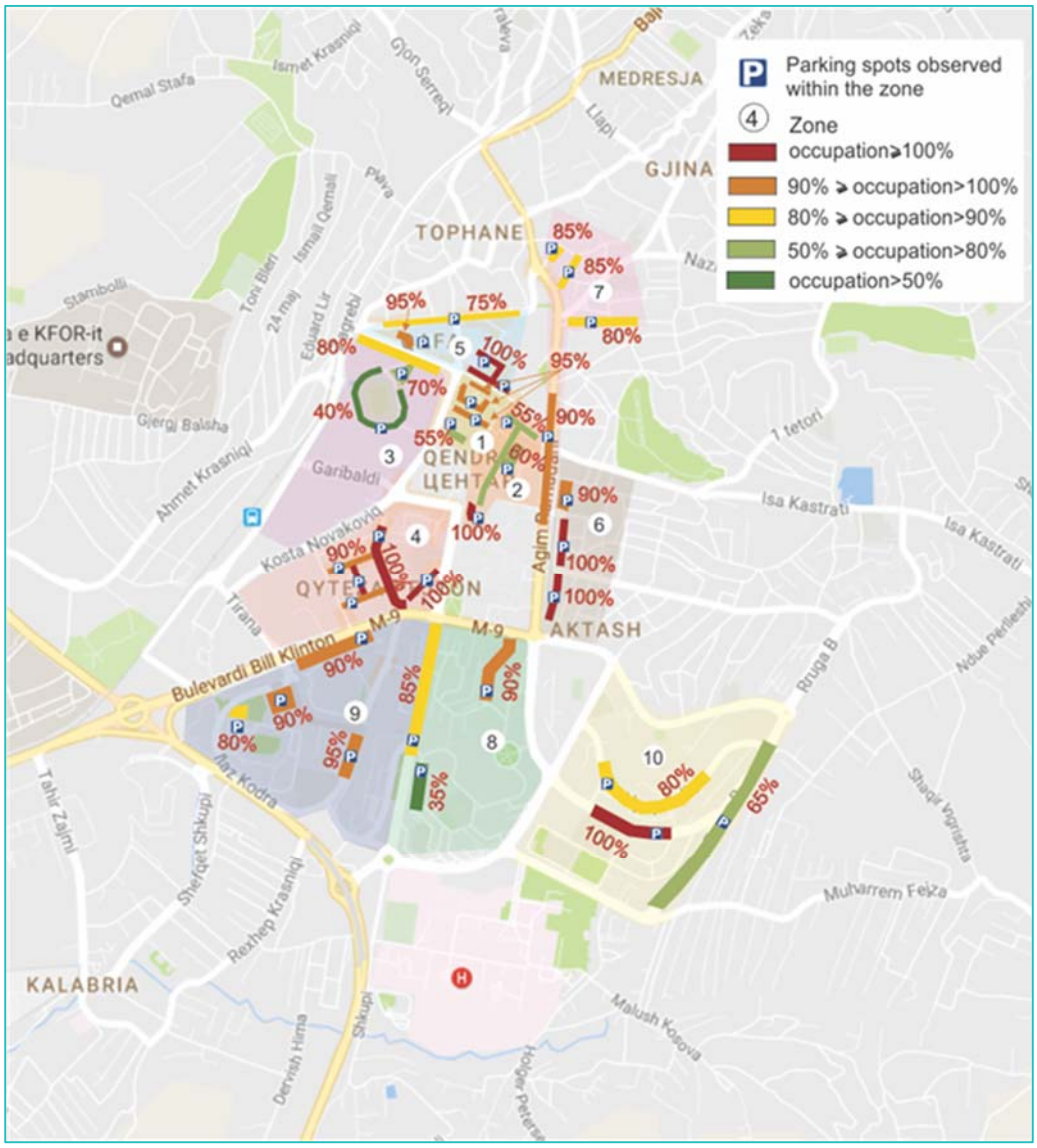
Figure 9: Traffic Load Situation (All Vehicles)



Source: MM CZ, Google maps

Parking surveys were undertaken in 10 zones and ran from 06:00am until 6:00pm, with different types of data collecting covering both off-street and on-street parking spaces. After data analysis, it was concluded that about half of users are long term users.

Figure 10: Parking Zone Occupancy



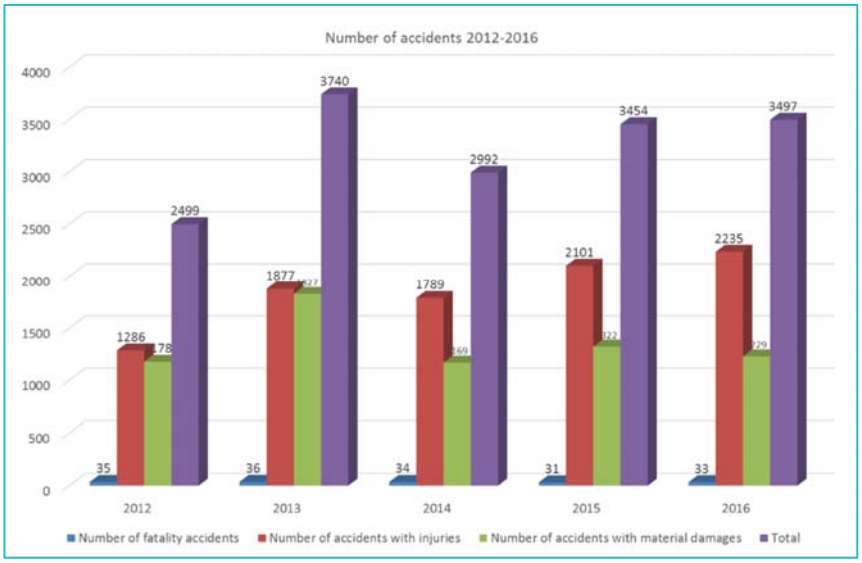
Source: MM CZ, Google maps

2.8 Traffic Accidents in Pristina

Within urban areas, a critical challenge is to tackle traffic congestion, reduce environmental impacts, improve quality of life for local residents, as well as plan well-functioning transport and to reduce the risk of road accidents. As part of the analysis work, statistics on local traffic accidents in the region of Pristina has been assessed, including the main causes and consequences. Traffic accident analysis for Pristina is presented below for the period between 2012 and 2016, based on the available data from police records. Comparison has also been made with statistics for accident levels in other EU countries. It is evident that over this period there has been an overall increase in the level of accidents across the city. Data provided by the Kosovo Police has revealed that the main cause of accidents over this period was due to human factors, with the majority of

incidents taking place as a result of drivers who did not adapt their vehicle speed to local road conditions.

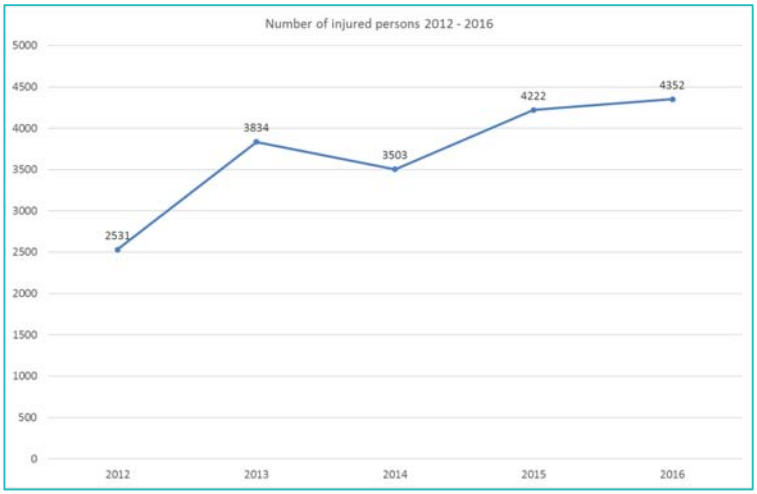
Figure 11: Number of traffic accidents 2012 - 2016



Source: Mott MacDonald CZ

It is evident that over the period 2012 – 2016 there is an average annual increase in accidents of 9%. In terms of those traffic accidents in Pristina which include injuries and also material damage (to vehicles), average annual increases of 13% (accidents with injuries) and 5% (accidents with material damage) were seen respectively. The only decrease that was recorded was with those accidents with fatalities which saw a 1% reduction, which is positive. The chart below highlights the number of injured persons due to traffic accidents between 2012 – 2016, which also reveals an increasing trend over this period. The average number of injured persons per 100,000 inhabitants in EU is 283, which is almost 3 times higher in Pristina compared to the average number in the EU.

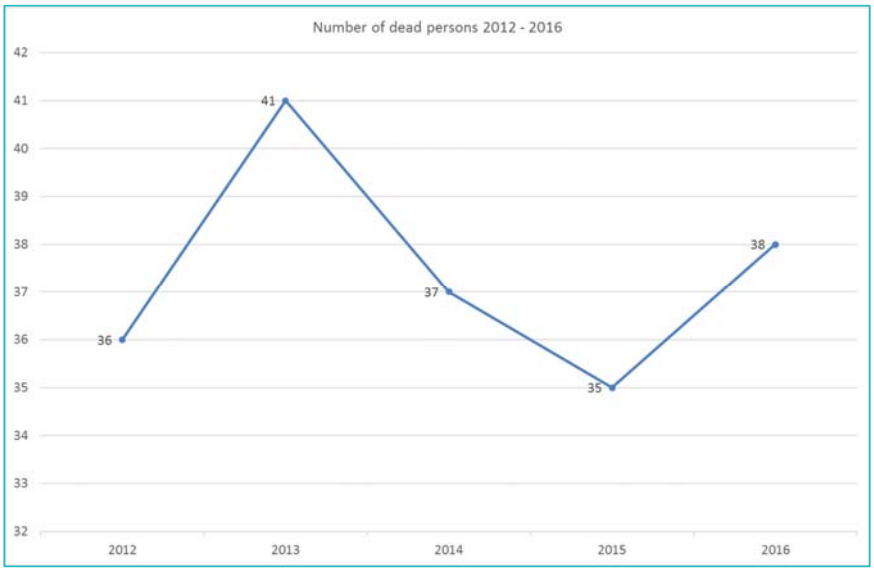
Figure 12: Number of Injured Persons in Traffic Accidents 2012 – 2016



Source: Mott MacDonald

The following chart shows the number of people killed in traffic accidents in Pristina. The average number of deaths per 1,000,000 inhabitants for the city is approximately one-third greater than the average for other EU countries.

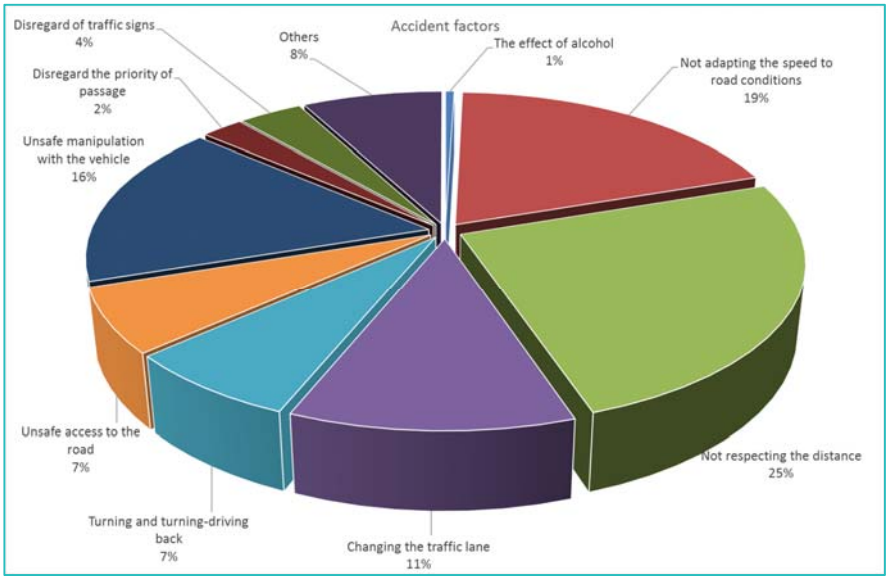
Figure 13: Number of dead persons in traffic accidents 2012 – 2016



Source: Mott MacDonald

If the cause of traffic accidents in Pristina is examined more closely, accidents largely occurred as a result of human factors, with most drivers not adapting their vehicle speed to local road conditions.

Figure 14: Accident factors

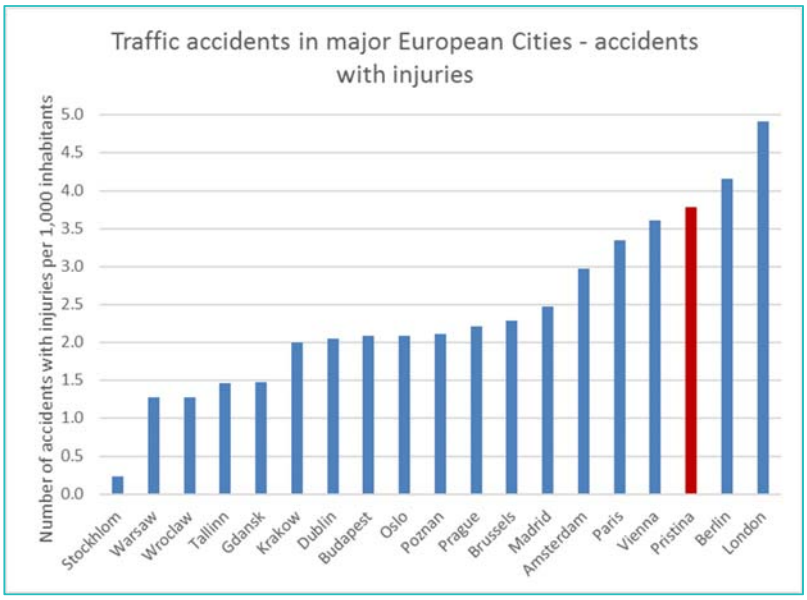


Source: Mott MacDonald CZ

If we compare the number of accidents with injuries in selected European cities, Pristina ranks quite low down compared to other EU countries, with an average of 3.79 traffic accidents with

injuries per 1,000 inhabitants. This ranks Pristina in 17th of the selected major European cities, as summarised below.

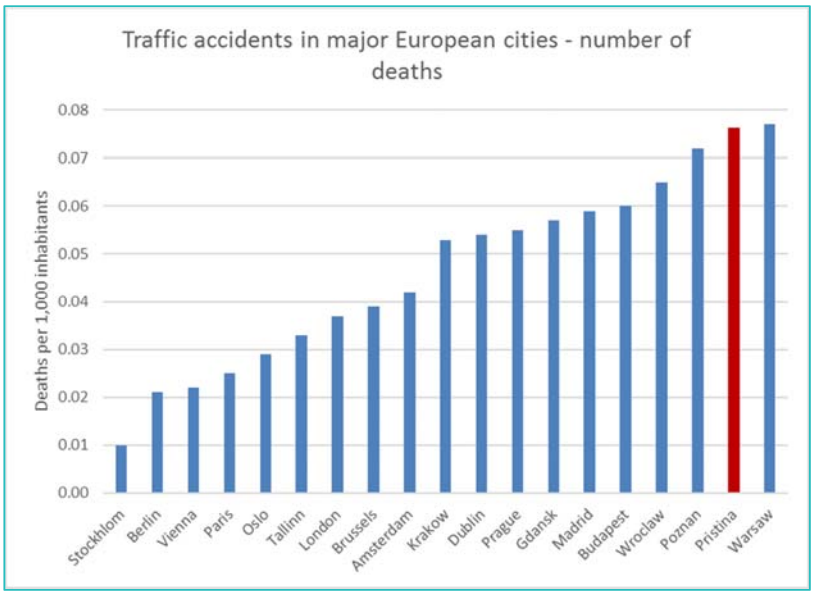
Figure 15: Traffic Accidents in Major European cities – Accidents with Injuries



Source: Mott MacDonald CZ

Other statistics exist in terms of the number of deaths due to traffic accidents per 1,000 inhabitants. When comparing the number of deaths in other European cities, Pristina (0.076 dead per 1,000 inhabitants) again ranks in a low position compared to other EU cities.

Figure 16: Traffic Accidents in Major European Cities – Number of Deaths



Source: Mott MacDonald CZ

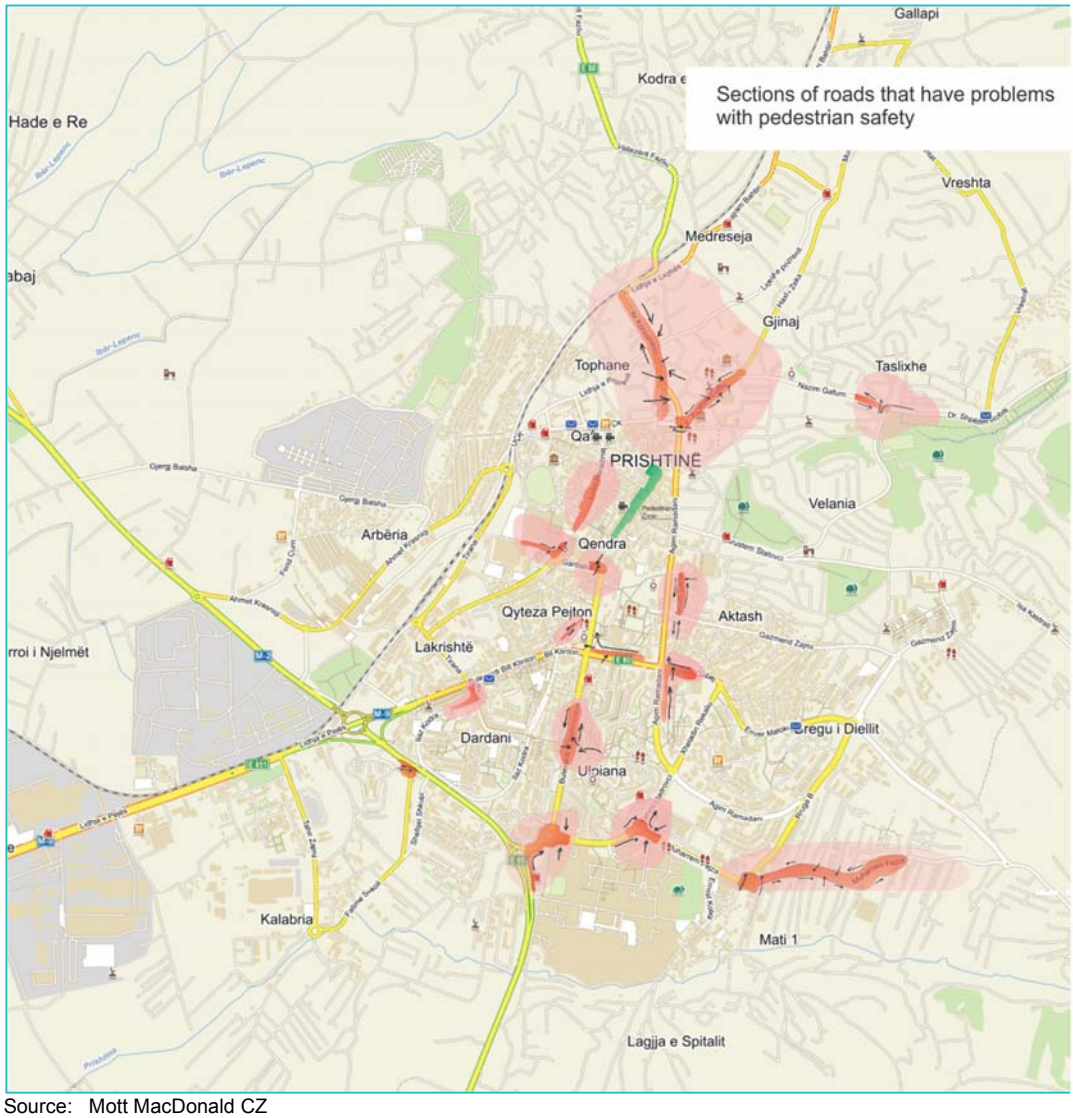
Based on the analysis of traffic accidents in the region of Pristina, overall there is an increasing trend based on statistics obtained for the past five years. There is also an increase of traffic

accidents occurring with resulting injuries. Only a slight reduction in the average annual increase in accidents with fatalities can be seen as a positive development in terms of road safety in Pristina. Therefore, it is important to consider options on how to improve road safety more across Pristina and the surrounding area, in terms of speed management and reduction and reducing exposure to accident risk for pedestrians in the city centre, where heavy traffic congestion is currently experienced.

2.8.1 Pedestrian Safety in Pristina

Recognising the high level of traffic flow throughout the city centre, an overall assessment of the areas where there are potential safety risks and problems has been undertaken. The following chart shows these areas that demonstrate pedestrian safety issues in the city. These locations will be examined more closely in terms of identifying options to improve road safety as part of the work to develop a new urban mobility strategy for the city.

Figure 17: Areas with Existing Pedestrian Safety Problems in Pristina



Source: Mott MacDonald CZ

2.9 Summary

Urban mobility analysis, including the outcome of transport surveys, as well as stakeholder feedback show a number of challenges that have been addressed and reflected in the development of the new urban mobility framework for Pristina. In terms of city demographics, we have a young population to be supported through travel options & choices, a range of issues for women related to access to regular private transport and the propensity to use public transport as well as the rapid growth in population with a heavy migration from rural to the urban areas.

Given the high level of unemployment and lack of job markets, it is important to maximise the role of transport and urban mobility in supporting future economic development and growth aspirations. Meanwhile, more integration is needed of major interchange points across the city and a new integrated bus network to widen travel opportunities across Pristina and meet future demand, as well as improve regularity and reliability.

In terms of active modes of transport, there is a lack of safe pedestrian crossing while improved pedestrian/cycle infrastructure is required to attract more walking/cycling activity. High levels of traffic congestion and delays are experienced due to heavy traffic on main roads, heavily congested and over capacity junctions and sections of road network and long-term parking activity in the city centre, with many spaces unregulated or not managed effectively across Pristina.

Furthermore, there is a need for greater awareness on how transport links can make the most of the city's cultural heritage, assets (including access to green parks/spaces as well as heritage sites), as well as an improved balance of land use planning and transport planning to improve accessibility to such sites, including improved conditions for people with disabilities to broaden travel options in the city.

3 Development of a New Urban Mobility Strategy for Pristina

3.1 Introduction

Based on the analysis of urban mobility in Pristina, the outcome of surveys undertaken to determine urban mobility patterns and characteristics, including the feedback from stakeholders, a summary of the key challenges for the city is set out below:

- Important city demographics in relation to travel characteristics and behaviour:
  - Pristina has a young population which needs to be supported in terms of travel options & choices;
  - There are a range of issues for women when travelling in Pristina in terms of access to regular private transport and also propensity to use public transport;
  - In recent years, there has been a rapid growth in population in Pristina, with a heavy migration from rural areas to the urban city area.
- Transport's role in supporting economic and employment growth:
  - Pristina has high level of unemployment and lack of job markets and it is important to maximise the role of transport and urban mobility in supporting future economic development and growth aspirations.
- Pristina has strong cultural and heritage facilities that need to be considered more fully;
  - There should be a greater awareness on how transport links can make the most of the city's cultural heritage, assets (including access to green parks/spaces as well as heritage sites) and reducing the environmental impacts on the city as a whole.
- There are high levels of traffic congestion and delays experienced in the city:
  - Heavy traffic on main roads linked to the rest of Kosovo, as well as the city centre (often extending outside the normal peak travel periods);
  - There are a number of junctions and sections of road network heavily congested and over capacity across Pristina; and
  - There are high levels of long-term parking activity in the city centre, with many spaces unregulated or managed effectively (enforcement issues).
- There are a range of existing urban mobility integration issues that need to be addressed:
  - The bus terminal is located in the urban area, the railway station located in Fushë Kosova, 6 km from Pristina, and airport 16 km away from centre. More integration is needed of major interchange points across the city.
  - There is a need for a new integrated bus network that links services to potential growth areas across the city.
  - Whilst there are improvements being introduced in terms of new vehicle fleets, a new network approach is required to integrate services more closely to widen travel

opportunities across Pristina and to meet future demand, as well as improve regularity and reliability;

  - Improved reliability of bus services is critical to attract new demand and encourage modal shift away from car use.

- There are limited pedestrian and cycle routes that currently exist across the city:
  - There is a lack of pedestrian crossing facilities (underpasses and overpasses) that create safe crossing facilities for both pedestrians and cyclists;
  - Feedback from stakeholders has revealed that improved pedestrian/cycle infrastructure is required to attract more walking/cycling activity.
- In terms of cycling, this mode of transport is very poorly used on a regular basis in Pristina:
  - Road safety issues continue to remain a concern and vulnerability for cyclists with limited on-road cycle lanes and infrastructure to encourage people to take up cycling.
- There is a need to make better use of space in urban areas to encourage more use of the city's cultural facilities and support city centre economic growth:
  - This requires an improved balance of land use planning and transport planning more closely to make the most of the city's assets and green spaces with improved accessibility to such sites;
  - There is a desire to see improved conditions for people with disabilities to broaden travel options in the city, as part of an approach to improve accessibility for all transport users in the city.

3.2 Development of a New Urban Mobility Vision for Pristina

Based on these key findings and research on travel and urban mobility a new Pristina Mobility Vision was formulated. The main goal was to address these findings and come up with an appropriate response.

The new Pristina Mobility Vision is defined as follows:

"Pristina will be a clean, green and dynamic city with sustainable mobility that is accessible and affordable for all its' inhabitants and visitors.

We want to establish a city which has a system that supports everyday life for neighbourhoods in an intimate way, and which promotes sports, recreation and active lifestyles.

Pristina will be a place of culture, history and innovation."

Supporting this new vision are a series of high level strategic objectives:

- **To manage the transport network effectively to provide network efficiency, reduce unnecessary delays and traffic congestion.**
- **To manage parking behaviour more effectively to reduce the level of motorised transport in the city centre promoting sustainable travel including public transport, walking and cycling.**
- **To maintain and improve accessibility to key facilities and services for all – including the city's green spaces and its' cultural assets.**
- **To reduce road accident casualties, particularly for vulnerable road users including improving community safety and security.**
- **To improve environmental conditions for communities in Pristina by reducing the adverse effects of transport on the city's environment.**
- **To promote healthy lifestyles for the people of Pristina, including reducing the adverse impacts of air and noise pollution.**
- **To encourage people of Pristina to feel at home in the city – each with a responsibility to consider all user transport needs.**

3.3 Development of a New Pristina Urban Mobility Strategy

In consultation with the city stakeholders a number of different scenarios was developed and assessed to inform the development of a preferred urban mobility strategy for the Pristina. Each of these scenarios were designed to achieve the vision and objectives in different ways. The scenarios developed were as follows:

Scenario	Goal	General Tools
Proactive Scenario	Proactive scenario emphasises collaboration of individual transport modes in order to choose for each transport demand case the most effective transport mode. This is done through active transport system organization and influencing people´s transport mode choice. This way overall transport work is controlled. The goal of the scenario is to reach higher life quality in the city.	**1.** Road network with graded transport comfort – **low comfort in the city centre and high on inner ring-road** 2. New parking policy and parking system with **price regulation in the city centre**, enforcement 3. **Public transport development and preferences** using all available ways 4. **Enhancing qualitative conditions for pedestrian and cycling** transport including public space quality enhancement 5. **Information technologies** for easy choice of transport modes or combination of transport modes
Liberal Scenario	Liberal scenario let the user decide fully which transport mode to use in the city and does not have any ambitions to influence this decision. This scenario does not prefer any transport mode more than the others. The goal is to provide as good infrastructure to the transport needs as possible.	1. Development of **new roads for individual transport** including capacity radials to the city centre 2. **No significant regulation of parking** and parking houses development in the city centre, enforcement **3.** Public transport development **if it does not**

Scenario	Goal	General Tools
		negatively influence car transport 4. Walking and cycling infrastructure improvement **if it does not negatively influence car transport** 5. Support of **individual electromobility** to improve the air quality
Maintenance Scenario	Maintenance scenario mostly does not build new infrastructure. It takes the state of infrastructure as it is now to minimize risk that new infrastructure will attract more cars. This scenario is rather focused on improving of the existing infrastructure and on better ways of traffic control.	1. **Existing infrastructure improving** and getting into a perfect shape 2. New parking policy and parking system **with price regulation in the city centre**, enforcement 3. Public transport development and **preferences to the extent which the network allows** **4.** Existing **walking and cycling infrastructure reconstruction** 5. Information technologies used for **transport system capacity increase**

These scenarios were designed to reflect the outcomes of the analytical work to identify key issues and problems for urban mobility in Pristina and the development of a new strategic framework to address these. Each Scenario was designed to fulfil the Pristina SUMP Vision and objectives. They included a wide range of different urban mobility solutions and measures that were used to establish a number of different strategic options as set out below.

A stakeholder workshop was held to discuss the different scenarios and assess which one should be used to inform the SUMP strategy. All stakeholders felt that the proactive scenario best fit the situation for Pristina. Further work was undertaken to define the range of measures and strategic focus of the three different possible SUMP scenarios in order to undertake a comprehensive assessment and comparison of these, using a combination of transport modelling, cost-benefit analysis and multi-criteria analysis (MCA). The outcome of this assessment work is the selection of a preferred strategy scenario that would be transformed into a new Sustainable Urban Mobility Plan for Pristina.

The three scenarios discussed previously with stakeholders were subsequently developed into a number of ‘Do Something ‘scenarios as follows:

3.3.1 Do Something 1 – Proactive Scenario

This scenario adopts key emphasis on citywide public transport development with a new network hierarchy (core/secondary routes), paying particular attention to key corridors into Pristina and enhancing accessibility to the urban centre.

New Park & Ride facilities are proposed on each radial route into the city together with a new cross city Light Rapid Transit (LRT) scheme. Priority measures will be introduced on the key corridors to support improved reliability and level of service. Improved integrated ticketing will enhance the attractiveness of public transport.

To reinforce this public transport focus, strong demand management measures are required, with improved enforcement and parking controls on key corridors, the introduction of parking controls in the urban centre, as well as introduction of parking charges.

There is also a heavy emphasis on new sustainable transport networks with new/extended pedestrian and cycle route networks which integrate with city-wide public transport routes and new development that is planned in the city.

Improved urban traffic control system technology will be used to control and improve movement across Pristina, including managing access to car parks and use of public transport facilities (including Park & Ride)

This strategic option includes a combination of sustainable travel modes and strong regulation of car movement to encourage modal shift towards sustainable modes of transport.

Key features:

- Reconfiguration of city-wide public transport network (core & secondary routes), with new and better maintained bus stop infrastructure;
- Emphasis on key corridors into Pristina – LRT & development of Park & Ride and fast public transport links to/across city centre;
- Public transport priority – introduction of bus lanes on key corridors and inner-city loop;
- Improved integrated ticketing will enhance the attractiveness of public transport;
- Access restrictions to urban centre to encourage mode shift and promote more walking/cycling;
- Introduction of parking charges, city centre controlled parking zone & greater parking enforcement;
- Selective junction/network capacity improvements & speed management measures;
- Development of supporting pedestrian & cycle networks linking suburbs to city centre; and
- Urban planning controls to minimise car use in new developments including car club scheme.

3.3.2 Do Something 2 – Liberal Scenario

This scenario adopts a more balanced approach to delivering sustainable transport improvements in Pristina. There is still a focus on citywide public transport development with a new network hierarchy (core/secondary routes), and enhancing public transport accessibility to the city centre. However, motorists' needs are reflected alongside the needs of public transport users. The aim is better movement for all road users under this strategic option.

A limited level of bus priority measures on the approaches to the city centre and on the city centre loop will enhance the overall level of public transport service across the city. Some level of parking enforcement of traffic regulations in the city centre and targeted access restrictions will encourage mode shift to more sustainable modes of transport, whilst not inconveniencing other motorists.

A selection of target highway network enhancements will be introduced aimed at reducing congestion (tackling congestion hotspots) and improving the flow for all vehicles. Speed management measures will be introduced to improve road safety and promote non-motorised modes more fully.

There is an emphasis on new sustainable transport networks, where these can be easily accommodated, with these integrating well with city-wide public transport routes and new development that is planned in the city.

This strategic option reflects a more balanced approach to sustainable transport solutions to tackle transport problems in the city (i.e. with less emphasis on strong demand management and targeted investment in new infrastructure at key strategic locations.)

Key features of this scenario include the following:

- Establishment of new city-wide public transport network (introduction of core & secondary routes);
- Limited public transport priority measures where this can be easily accommodated in the city;
- Selective traffic management on approaches to the city centres encourage different modes of transport for city-centre bound movement;
- Parking enforcement to manage traffic in residential areas and the city centre – but no introduction of parking control zone or charges;
- Development of new highway links and connections across the city to improve radial movement into/out of Pristina. Also includes some selective junction/network capacity improvements where these can be accommodated;
- Speed management measures and school safety zones;
- Development of supporting pedestrian & cycle networks linking suburbs to city centre; and
- Introduction of car club scheme across the city to provide additional travel option for local communities and businesses.

3.3.3 Do Something 3 – Maintenance Scenario

This scenario aims to improve the overall performance of the city's highway network, adopting an approach which enhances the city's existing transport infrastructure and services as a means to tackle existing transport problems. There is a limit on providing new transport and highway infrastructure to reduce the risk of attracting higher levels of car use in the future.

A core element of the strategy is to improve the flow of traffic (for all road users) by improved junction performance and managing traffic on key routes into/out of the city more effectively. Improved traffic and public transport controls will help achieve this.

Small scale priority measures and improved junction improvements will improve the flow of traffic and tackle congestion across the city. Improved enforcement of existing infrastructure will reinforce these infrastructure measures and improved pedestrian and cycle infrastructure and services will attract new users of these modes. This option is more heavily focused on infrastructure investment to respond to transport problems across the city, improving traffic flow and connectivity to new development sites.

Speed management measures will be introduced to improve road safety and promote non-motorised modes more fully. The introduction of new planning controls will manage demand for travel and aim to encourage improved and more efficient access to new development sites across Pristina. Enhanced walking and cycling routes will help connect key destinations for local communities.

This strategic option is more aligned with the Maintenance option previously discussed with stakeholders which reflects the need to improve the effectiveness and efficiency of the city's existing infrastructure with selected enhancements required to improve movement across the City, tackle congestion and facilitating better access to sustainable travel modes such as public transport, walking & cycling.

Key features of this scenario include the following:

- Small-scale bus network enhancements, building largely on the existing citywide network;
- Improved bus stop access on existing bus routes with selected priority to improve performance, with the introduction of bus lanes on key approaches to the city centre;
- The introduction of a new enhanced parking policy, supported by more targeted parking enforcement to manage traffic in city centre & residential areas;
- Targeted junction/network capacity improvements to improve traffic flow & tackle congestion problems;
- Citywide speed management measures to improve safety;
- Development of enhanced and improved pedestrian & cycle routes linking suburbs to city centre; and
- Greater use of intelligent traffic control systems and information technology to support improved movement and mobility around the city.

3.4 A Strategic Transport Model for Pristina

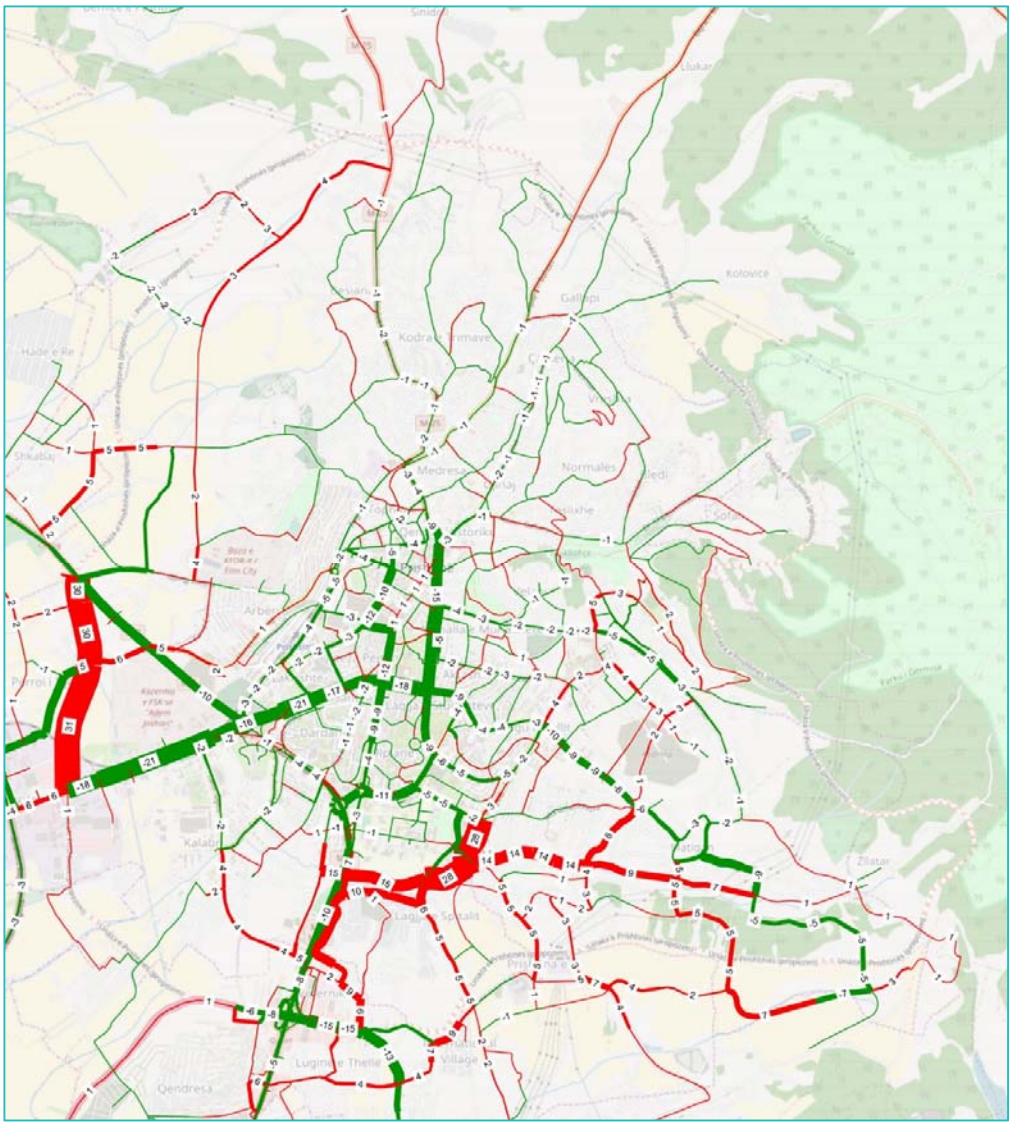
Using the city's new transport modelling tool, each of the scenarios were tested to understand the impact of future travel demand on the city-wide network. Separate transport models were produced for a 24-hour period between 24:00-00:00, and also an AM average hour between 07:00-10:00. This is to ensure the traffic characteristics for peak periods are modelled accurately. These two period models have been created for the four forecasting years, 2020, 2025, 2030 and 2055. The development of the matrices has been based on full production-attraction format.

The traffic forecasts were developed taking into account future proposals for residential and employment developments in the local area as well as corresponding transport network changes. The forecast scenarios comprised the following:

- A set of transport network changes;
- A specific set of development assumptions that have been derived from masterplans and online research, as well as land use shapefiles of individual developments;
- Application of elasticity growth factors that have been calculated using historic and forecast GDP data as well as estimation trends in registered car ownership as a constraint on vehicle growth for private vehicle use; and
- Application of growth of freight traffic from GDP growth.

Further background and detail on the modelling approach, assumptions and results are set out in the reports *'Pristina SUMP Interim Report 2a – Traffic Model'* and *'Pristina SUMP Interim Report 2b – Traffic Plan Alternatives*.' A series of model network plots were provided to help understand the impact of each strategy option that was tested, as shown below.

Figure 18: Comparison of private transport flow between Proactive scenario and Do Nothing scenario at level of 2030 year



Source: Mott MacDonald

- Increase of traffic flow
- Decrease of traffic flow

3.5 Assessment of the Different Strategic Options

Key performance information was obtained from each of the model tests to enable a comparison to be made. In addition, cost benefit analysis was undertaken used to assess the proposed scenarios to compare investment and operational costs of measures and overall benefits. As stakeholders had previously revealed a preference for the preferred Proactive Scenario, this was

analysed more closely in terms of overall effectivity and comparison with the Liberal and Maintenance scenarios.

As part of the overall assessment of the different SUMP strategy scenarios, Appraisal Summary Tables (ASTs) have been produced for each of the three alternative SUMP strategies that have been considered for the Pristina SUMP. These take account of a combination of both qualitative and quantitative aspects to take a holistic view of their overall impact on the city's transport system.

A summary of the quantitative aspects of each of the SUMP scenarios tested is presented below.

Pristina SUMP Results			Base Case	Do Nothing Scenario	Proactive Scenario	Maintenance Scenario	Liberal Scenario
Transport Model Results (2030 model)	Modal split	Public Transport	18.40%	18.40%	23.10%	21.20%	17.60%
		Cars	50.90%	50.90%	45.20%	46.60%	53.30%
		Cyclists	0.70%	0.70%	0.80%	0.80%	0.70%
	Average Speed [km/h]	Public Transport	22.1	21.7	29.2	28.8	24.4
		Cars	50.8	43.4	50.9	50.8	51.6
	Average Trip Distance [km]	Public Transport	6.73	6.73	6.64	6.66	6.92
		Cars	7.20	7.20	7.34	7.42	7.31
	Total Passenger Hours [h]	Public Transport	78194	92214	108373	99054	86976
	Total Vehicle kilometres [km]	Cars	3046095.45	3683578	3415775	3512817	3910904
Cost Benefit Analysis Results		Net Present Value (EUR)	-	-	232,448,192	180,943,749	129,830,199
		Internal Rate of Return (%)	-	-	12.64%	12.64%	9.19%
		Benefits Discounted (EUR)	-	-	401,545,919	314,252,282	322,281,923
		Gross B/C Ratio	-	-	2.846	2.651	2.015
		Investment Cost Discounted (EUR)	-	-	168,261,264	131,051,663	195,123,500
Multi-Criteria Analysis Results		Number of Implemented Measures within TOP 10 according to MCA Results	-	-	10	7	7

These tables collectively conclude that the Proactive Scenario is the best option to proceed with in terms of overall benefits and impacts for Pristina. Therefore, the strategy and key proposals to support this have been develop in line with this scenario as detailed in the following chapters.

3.6 Appraisal and Prioritisation of SUMP Measures

A key element of SUMP development is to undertake an evaluation of selected measures using Multi-Criteria Analysis (MCA). Specifically, it is important to appraise proposed measures that will help inform the development of the final action plan for the SUMP, testing their contribution against sustainable transport objectives, their overall value for money, as well as feasibility of implementation and risk. Scheme proposals should be assessed in relation to a range of criteria including the outputs and outcomes they aim to achieve and their contribution to the achievement of each of strategic goals identified through stakeholder engagement for the SUMP strategy.

For the evaluation of each of the measures, an appraisal tool was developed which included transparent evaluation criteria, clearly showing the connection between strategic aims, objectives and interventions proposed that will deliver the required outcomes, which are used as standard for multi-criteria analysis. The final evaluation of individual measures was carried out by the consultant's team of experts (independently of each other) to provide a more objective assessment of the measures being considered.

Altogether, 111 measures and interventions were evaluated in terms of four evaluation areas (Desired Outcomes assessment, Spatial Themes assessment, Network Principles assessment and Deliverability assessment). Each measure was evaluated by a total of 39 criteria across these four assessment areas. This was a complex assessment of the individual measures, which resulted in determining the overall value of specific measures and prioritisation of these in terms of inclusion and subsequent implementation as part of the overall SUMP. This assessment process has informed the development of short, medium and long-term programmes of investment as part of the overall implementation plan, as presented in Appendices C to E.

Further details on the appraisal process used is set out in the report *'Pristina SUMP Interim Report 2b – Traffic Plan Alternatives.'*

The following chapter discuss each of the transport modes in more detail in terms of key issues and proposed solutions and measures to address these.

4 Public Transport in Pristina

4.1 Introduction

The development of an integrated public transport system lies at the heart of the strategy, aimed at improving accessibility across the city, and improving connectivity between other urban settlements in partnership with public transport providers. We will concentrate on improving bus services in Pristina including introducing more measures to improve journey times and reliability, introduction of new park and ride sites (see parking section) and interchange improvements, improving the quality of vehicles, and provide better information and ticketing arrangements.

It is proposed that more bus travel can be achieved through the introduction of a new 'core' bus network that will provide a faster, more frequent service. This will in turn attract greater numbers of customers, accompanied with a new design approach for the main interchange locations ('hubs') to create additional capacity and ease of movement for passengers with minimum delay between services. In addition to new core services that are proposed, another level of service is recommended, termed 'secondary' services which will operate at a lower frequency to care services but will provide important connections to the city's suburbs, residential areas and outlying urban centres and villages.

- **Fragmented Bus Service Network*:*** It is important to ensure that the local bus network continues to cater for local travel demand, reflecting future changes in land use development. There many bus services operating in the city with some services operating on the same routes and other areas where services do not operate. Currently local bus services are not coordinated in terms of fares or timetabling and users requiring onward destinations pay more, incur additional travel time and/or walk for part of their journey. A more cohesive system would bring benefits to both operators if undertaken systematically.
- **Reliability of Bus Services*:*** Increasing levels of traffic congestion, particularly during the morning and evening peak travel periods is creating problems for bus services in terms of the ability to run on time according to the scheduled timetable. This uncertainty makes it difficult for passengers to plan their journeys to school, work or shopping and at times people waiting at bus stops are uncertain when their next bus is due to arrive. During peak travel periods, there is often little space on buses due to school trips.
- **Need for Better Information on Bus Services:** For many local residents, employees and visitors to Pristina it is difficult to understand the current bus network, with many different services and destinations served and the problems of understanding timetables for these. Similarly, people waiting at bus stops are unsure when bus services will arrive on time. Improved information will improve confidence for people when using the services.
- **Requirement to Regulate Taxi Services**: Whilst there a number of good quality taxi firms operating in Pristina, there are also a large number of illegal taxi firms which are causing problems in terms of competition with other local operators as well as bus operators. It is important to regulate, monitor and control taxi services effectively to provide a high quality and safe service to the travelling public.

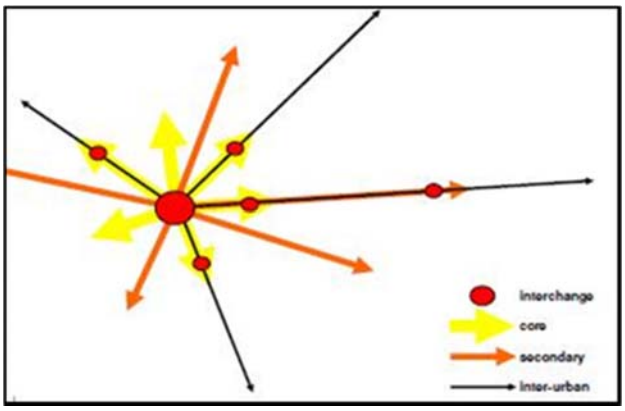
4.2 Summary of Key Issues in Pristina

Based on research undertaken to develop the SUMP a number of important issues and problems have been identified regarding public transport in the city including the following:

- Many buses are old and no longer comply with the required technical requirements and standards for modern passenger transport in terms of accessibility and emission levels (engine standards);
- There are areas of the city that currently do not have access to a regular bus service (or with limited level of service), with some streets currently too narrow to accommodate standard bus vehicles;
- Uncoordinated timetables and integration of bus services and routes across the city, which reduce the viability of passengers having connecting services;
- There is an unattractive and poorly integrated ticketing system, with each route/service requiring a separate ticket;
- Missing data and information on bus service/stop details including designation, signs and information (mainly timetables) on bus stops;
- A lack of dedicated bus priority measures including bus lanes and bus 'boarders' at stops. Many bus stops experience problems of parked vehicles which restrict access to the kerbside;
- Many public transport documents and data, reveal different and often contradictory information. There is no comprehensive overview of the bus routes and operators, the number of bus lines, bus line routes, with often incomplete public transport data available;
- There is also a lack of public transport operator data in terms of understanding occupancy of vehicles/services as well as facilities at stops etc.; and
- Many services operate on similar routes and there is evidence of duplication of service which requires attention as part of an overall review and re-structuring of the city-wide network.

4.3 Proposed Strategy - New Citywide Bus Network

Based on traffic surveys undertaken to support the development of the SUMP, new public transport bus routes have been designed to improve overall accessibility / availability to services across the city. This includes the establishment of new bus 'hubs (see section 4.5 below for further details) where suburban lines terminate and where passengers can transfer between bus services to reach their destination. There is also a proposed new central circulatory infrastructure system aimed at improving the reliability and regularity of vehicles operating on these new routes. The new network approach has been designed in a way to responds to the changing demands for public transport in the city, providing good coverage whilst at the same time reducing the overlap and duplication of some current routes. The new route configuration reflects current and future land use patterns, as well as passenger data obtained from public transport surveys to help determine service frequencies and route coverage.



A new network aimed at covering all parts of Pristina and surrounding areas will provide regular, high frequency services, supported by other services connecting to outlying areas

The proposed concept for the provision of scheduled bus services is based on simplifying the network whilst at the same time increasing service frequency and connectivity to the city centre. Based on research from public transport surveys the new public transport bus routes have been designed to improve overall accessibility to public transport services across the city.

Whilst walking distances to some bus stops might be slightly longer, the overall waiting time for services is reduced, whilst overall vehicle capacity is increased. As a result, there will be more opportunities for people to travel to destinations across the city.

The new bus network scheme has been structured as follows:

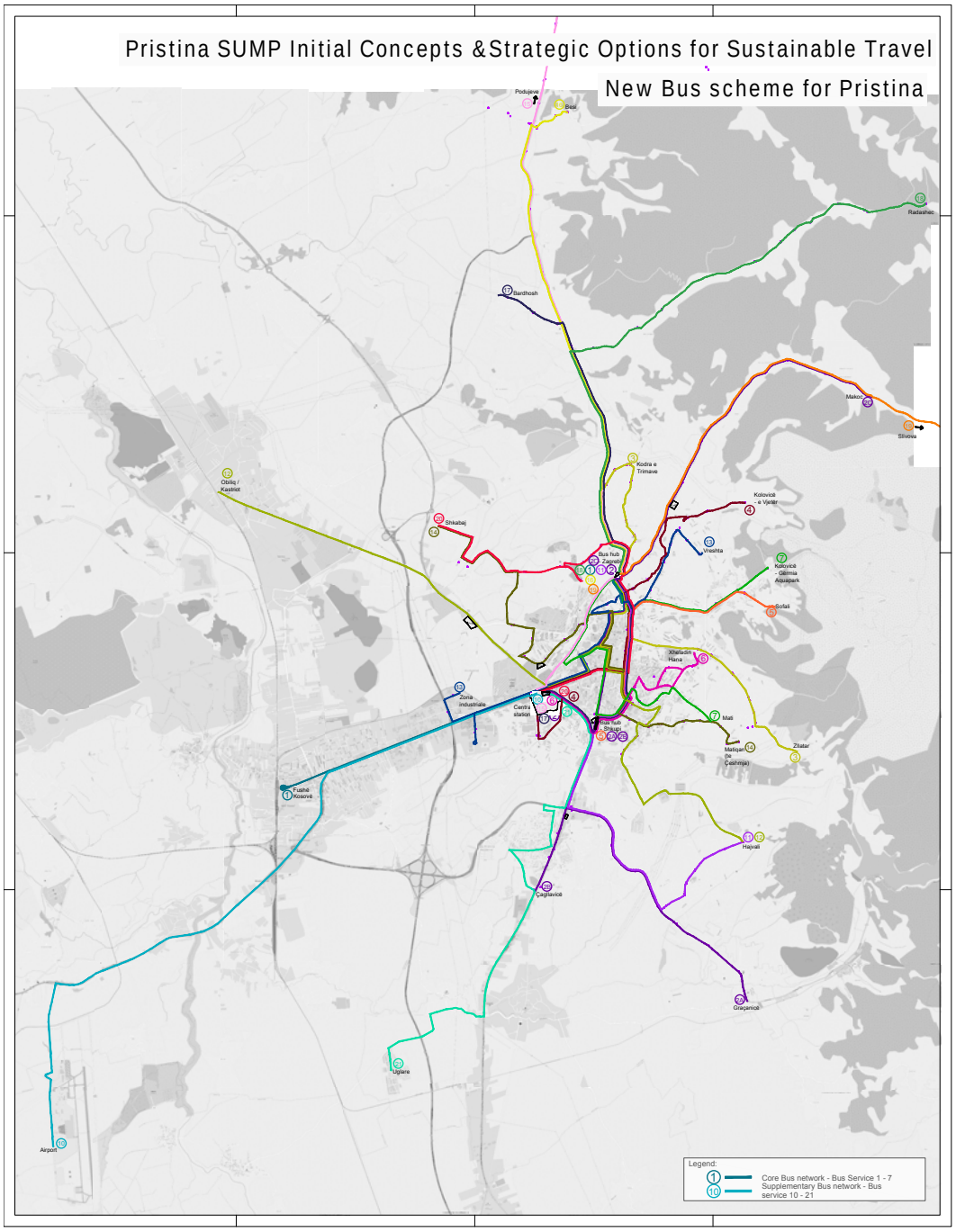
- **Core Network:** this is based on a desire to establish improved coverage and frequency of services to provide an attractive alternative to car use for city-centre bound trips. A key objective of these services is to ensure more reliable operating speeds and running times to help attract new passengers. The core network includes current bus service routes 1 – 7.
- **Supplementary network:** In support of the core network a series of secondary or feeder routes has been designed that would connect the main urban centre with adjacent suburban areas (residential) as well as further afield. These secondary services would also connect more rural areas and suburban areas on the periphery of the city with the main urban centre. The supplementary network includes bus services number 10 – 21 and 2A, 2B and 2C.

The network also provides new connections to Podujevë, Kalabri, Shkabaj, with bus service frequencies based on the land use patterns and level of use. Overall, the new network will provide an improved level of service (or at least the same in some areas) across the city compared to existing conditions.

Overall, the new network proposal includes a total of 22 bus services with the routes providing good coverage across the city centre and suburbs. No bus services or routes are the same as existing ones and the new network concept aims to improve the overall accessibility and availability to public transport services. The network also incorporates a new approach for improved interchange between modes (for example, establishing new hubs), where sections of the new routes match current route alignments.

The proposed new network layout is shown below.

Figure 19: Proposed New Urban Transport Services for Pristina



Source: Mott MacDonald

The following table provides an overview of new bus lines / bus service, their final stops and frequency in the peak period.

Table 2: Proposed New Bus Services for Pristina

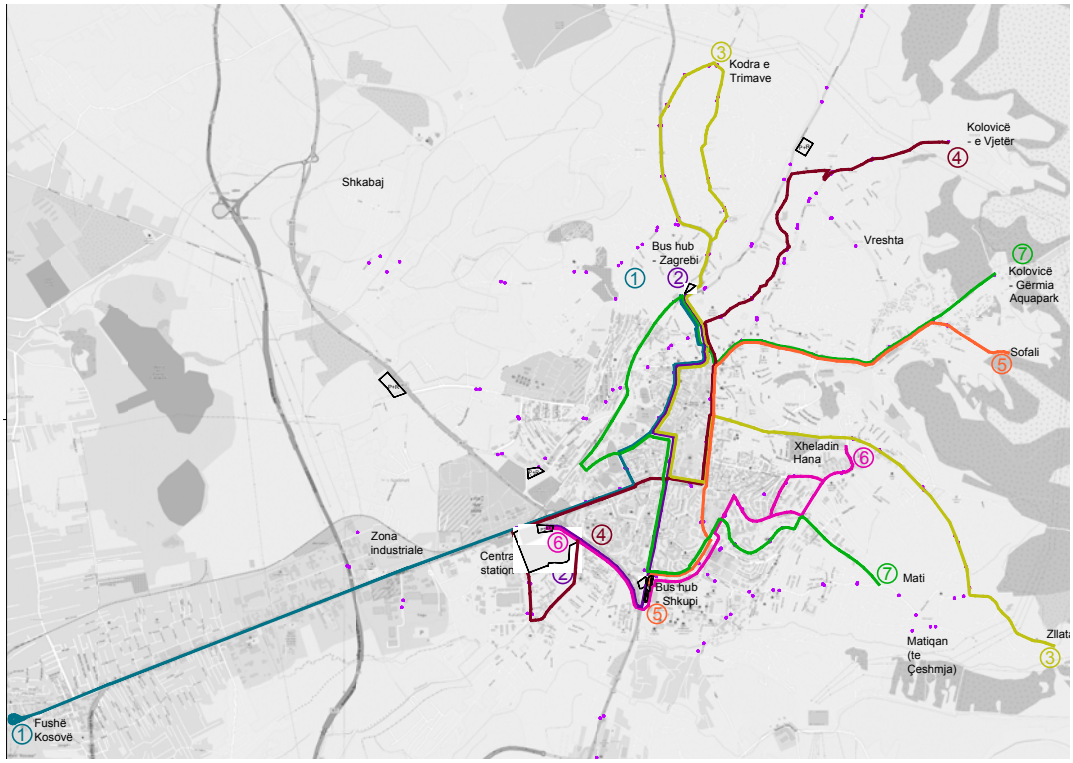
	Line		Final stops	Peak frequency (mins)
Core network	1	Fushë Kosovë	Bus hub - Zagrebi	10
	2	Central station	Bus hub - Zagrebi	10
	3	Zllatar	Kodra e Trimave - Bardhosh	5
	4	Kolovicë - e Vjetër	Central station	5
	5	Sofali	Bus hub - Shkupi	10
	6	Xheladin Hana	Central station	10
	7	Kolovicë - Gërmia Park	Roundabout at Mati	15
Supplementary network	2A	Graçanicë	Bus hub - Shkupi	30
	2B	Çagllavicë	Bus hub - Shkupi	30
	2C	Makoc	Bus hub - Zagrebi	30
	10	Airport	Central station	20
	11	Hajvali	Bus hub - Zagrebi	30
	12	Hajvali	Obiliq / Kastriot	15
	13	Zona industriale	Vreshta	15
	14	Shkabaj	Matiçan (te Çeshmja)	20
	15	Podujeve	Central station	30
	16	Besi	Bus hub - Zagrebi	60
	17	Bardhosh	Central station	30
	18	Radashec	Bus hub - Zagrebi	60
	19	Slivova	Bus hub - Zagrebi	60
	20	Shkabaj	Central station	30
	21	Central station	Uglare	30

Source: Mott MacDonald

Our proposals include “bus hubs” where suburban lines will terminate and connect to bus services serving the urban core to enable passengers to reach key destinations across the city centre. There is also central circular route around the central urban core that is supported by bus priority infrastructure to improve reliability which will be used by the new lines. The new network plan responds to the demand for public transport in Pristina and the surrounding area and will be tested using the new transport modelling tool that has been developed as part of the new

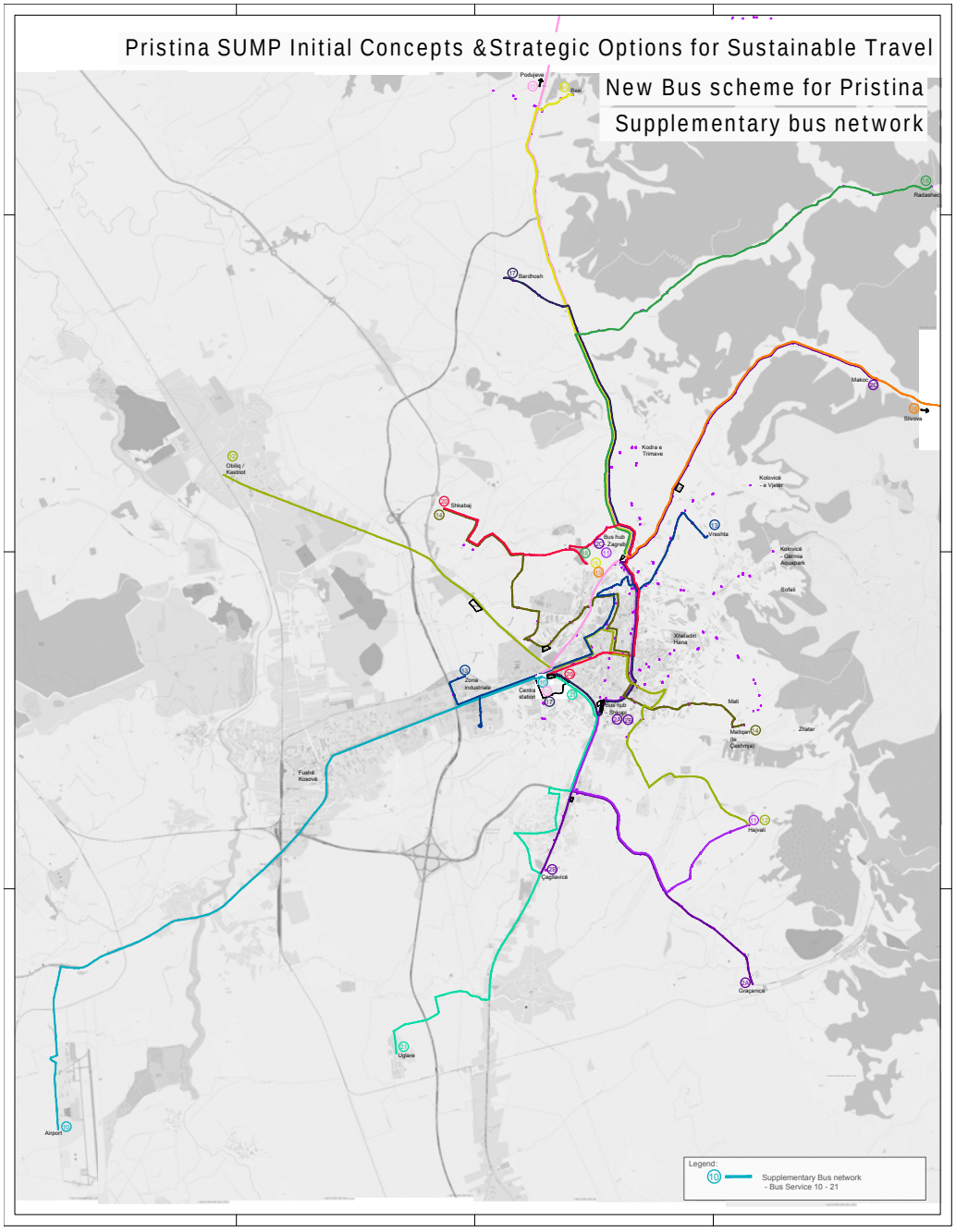
Sustainable Urban Mobility Plan. The proposed city core and secondary routes are shown in the figures below.

Figure 20: Proposed Pristina Core Bus Network



Source: Mott MacDonald

Figure 21: Proposed Pristina Supplementary Bus Network



Source: Mott MacDonald

4.4 Introduction of Bus Priority Measures & Improved Bus Stops

Improving the reliability and regularity of bus services across Pristina is one of the main priorities in the city to tackle problems of traffic congestion and ensure that sustainable travel modes are

attractive and reliable for people to use. Introducing priority for buses, cyclists and taxis in the city centre is important to encourage people to consider changing their travel behaviour from using the car to more sustainable modes.

Figure 22: Bus Priority Lanes

Source: Mott MacDonald

Figure 23: Rapid Transit Priority

Source: Swansea City Transport Info

A series of bus priority proposals is planned within the city centre, aimed at improving the reliability of bus services. These priority measures where it is possible, will be introduced primarily on the main routes approaching the city centre, including physical separation through using bus lanes on selected sections of highway. Priority measures for public transport, such as green light priority or the conversion of road space to dedicated public transport lanes, can contribute to reducing the travel time differences between private cars and public transport and make public transport more attractive and more energy efficient due to a better flow of traffic. Examples of the types of measures that are appropriate for Pristina include:

- Introduction of dedicated bus lanes on main radial routes or sections of the highway network where congestion is experienced;
- Better parking regulation and rationalisation/control (enforcement);
- At-stop improvements including better bus stop arrangements (bus bay design); and
- Traffic signal improvements to allow more green time for bus vehicles through use of ITS.

At traffic junctions signal timings can also be adjusted to benefit bus vehicles and allow them more priority over other road users. In some locations, more simple measures will be explored such as bus stop boarders to improve access for vehicles at stops.

In addition to improving the quality of bus vehicles throughout Pristina and re-designing the citywide bus network, enhancing local bus stops and interchange points is also important to create a better environment for passengers. As part of the development of the new bus network the accessibility and quality of bus stops will be reviewed and upgraded as necessary, including wider pedestrian footways, introduction of shelters and improved passenger information on local bus services. It is proposed that these new services are supported by further quality improvements, which in addition to new bus vehicles (that are modern, comfortable and fully accessible), will enhance the experience of users. It is recommended that these improvements will include:

- Introduction of higher bus stop capacity to accommodate more bus vehicles and passengers particularly at interchange hubs and key stops on the new routes. It is important to improve passenger and vehicle access to stops, with wider pedestrian footways and new facilities such as shelter, seating, lighting and information;

- Modifications to all bus stops in general will be delivered to improve kerbside accessibility to bus vehicles for passengers where required and also to create platform extensions to bus stops to facilitate better for disabled passengers and people with mobility difficulties;
- The introduction of real-time passenger information at different locations such as on-board bus vehicles, at bus shelters, as well as key trip destinations such as retail areas and major employment centres. This will help speed up boarding and slighting times. Improved access to travel information will enhance the overall journey quality for passengers.
- The possible introduction of smartcard ticketing to improve bus boarding times and in turn contribute towards improving the regularity and reliability of services compared to the scheduled running times; and
- Introduction of new shelters and enhanced interchange facilities particularly at those interchange points on the bus network where passengers wish to change services for onward journeys.

4.5 Interchange 'Hubs'

There are proposals to establish a new multi-modal terminal in the current bus station in Pristina, using the existing railway and passing through the centre of Pristina. This will help provide better access for different modes of transport for both passenger and freight mobility, as well as connect the urban core of the city to surrounding municipalities, regional centres and capital cities of neighbouring countries and beyond.

In addition to proposals to establish a new Central Bus Station in Pristina, it is proposed to develop a series of smaller bus interchange points or 'hubs' that would facilitate a smooth and easy transfer between different bus services, as well as with other modes such as cycling and taxis.

Every journey that is made, whether it is for commuting, business or social, passes through a transport hub of some kind. Hubs provide entry and exit points to the various transport networks within an area, and also provide points of interchange between different travel modes. At the simplest level, such hubs can be locations where a walking trip becomes a journey by a different mode such as a bus stop. At the other end of the spectrum, major hubs can accommodate large numbers of passengers interfacing with many different modes such as major airports.

'Hubs' do not necessarily have to contain large scale infrastructure, with most generally small in scale, providing a simple transfer between modes where users can access a different mode of transport for their onward journey. One of the best understood types of hub is a bus stop at which multiple services call and at which cycle parking or car parking, may be provided. Transport hubs should be multi-modal, even if this is simply between walking and bus. Enhancing the multi-modal offer at hubs extends the range of accessible destinations and increases the use and importance of the hub. Each hub facility should be characterised by a range of facilities that are aimed at facilitating multi-modal travel and raising the quality of the journey experience. The proposed layout of each bus hub must be designed according to particular design standards, with respect to space for bus vehicle access, passenger waiting and board/alighting and associated street furniture. Further feasibility work will identify specific designs of each hub. Typically, this will include a range of features that are found at interchange points including the following:

- A branded flag and pole;
- A quality bus shelter with lighting and seating facilities;
- Bus boarder kerbs to aid improved accessibility to bus vehicles;
- Up-to-date timetable information as well as Real-Time Passenger Information (RTPI) screens;

- Network bus maps as well as local area maps;
- Cycle parking / cycle hire point;
- Kiosk or news-stand or refreshment stand; and
- Interactive information point.

Figure 24: Bus Hub Arrangements

Source: Mott MacDonald

Figure 25: Enhanced Facilities at Bus Stops

Source: Mott MacDonald

A number of potential hub locations have been identified across the city, including possible Park & Ride sites which are aimed at intercepting car traffic bound for the city centre. As part of the proposed new bus route hierarchy rural/suburban routes will connect to these hubs and provide good connections to more frequent city centre services. High quality pedestrian and cycle routes will also serve these new hubs to provide multi-modal connections.

The implementation of key interchange hubs/points will create improved travel choices for the travelling public, aimed at coordinating bus timetables to minimise waiting times between services. They will also provide a safe, attractive and convenient environment for passengers to use bus services and to transfer to other modes, such as taxis or bikes, as well as onward walking trips. The aim is to design new interchange locations for improved capacity and ease of movement between services for passengers and straight-forward entry/egress for buses.

4.5.1 Pristina Rapid Transit Services

In the longer term, it is proposed to establish a new rapid transit connection extending between to the southern part of Pristina and the city centre, providing a new high capacity public transport link to the urban centre. This is included in the city's UDP and URPs for Pristina covering the west, central and eastern part of the city. The route alignment would extend for nearly 8km providing a connection via a segregated corridor extending from the Central Station to a point connecting with the Inner Ring Road. The provision of a new rapid transit connection in the south-eastern part of the city will provide a new high capacity public transport link in the city that will improve the attractiveness of public transport and help address problems of traffic congestion currently experienced in this part of the city.

A tram-train system is proposed for this connection. Tram-train is a light-rapid public transport system which enables trams to run through from an urban tramway network onto main-line railway. Vehicles can be operated in two transport modes, as a street tram serving urban city centres, as well as a commuter train making use of the existing rail network. This dual operation provides greater flexibility, additional services and routes, and better connections for passengers. The provision of tram-train stops enables the provision of a local stopping service more easily,

rather than having to build a whole new dedicated tram track. Tram-Train vehicles are designed to work with both types of infrastructure.

Figure 26: Manchester Metrolink

Source: Transport for Greater Manchester

Figure 27: Tram-Train in Heilbronn, Germany

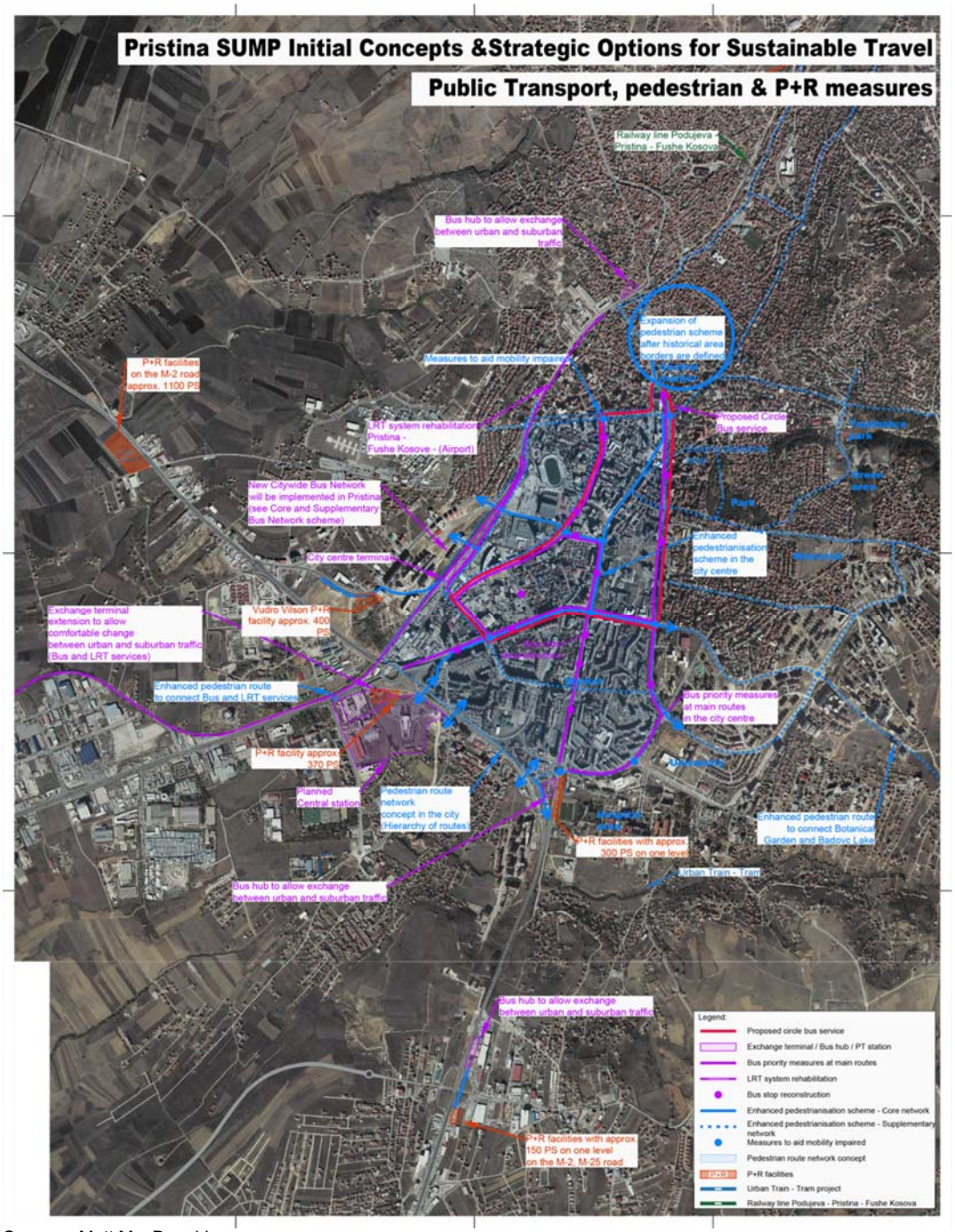
Source: CC BY-SA 3.0

The tram-train concept was initially developed in Karlsruhe in Germany, where the city has introduced a street tram network linked with local passenger lines. In the UK, there are two examples of tram-train concept, the Tyne and Wear Metro in the north-east of the UK which was originally segregated but now runs a local service to Sunderland in mixed traffic on tracks shared with Network Rail. In addition, Manchester Metrolink operates on grooved track in the city centre and then links to heavy rail lines adopted from previous railway lines.

Another longer term rapid transit connection is proposed, with the establishment of a regular light rapid transit (LRT) service extending between Fushë Kosova - Pristina - Podujeva. The scheme would create a new high capacity service for the city and surrounding areas with improved comfort and reliability via a segregated public transport service. The scheme will require some reconstruction of rail tracks throughout the city to facilitate introduction of LRT services, but offers the possibility in the longer term to connect to the airport and provide a direct airport link and reduce the level of car-borne trips to/from the airport. A multi-modal station / city centre terminal at the existing train stop (former rail station) in Arbëria neighbourhood would connect ‘Adem Jashari’ Pristina International Airport with the city centre and provide onward travel alternatives for users.

The scheme below provides an overview of proposed public transport, pedestrian and P+R measures (described above) that together form an integrated package of measures.

Figure 28: Public Transport, Pedestrian & P+R measures



Source: Mott MacDonald

4.6 Summary of Public Transport Measures

The table below shows the public transport measures proposed for Pristina for implementation in short, medium and long-term plan periods.

Table 3: Summary of Public Transport Measure Implementation

Short Term (2019-2020)	Medium Term (2021-2025)	Long Term (2026-2030)
P.1.a Bus Hubs - Central station	P.1.a Bus Hubs - Central station	P.1.c Bus Hubs - Zagrebi and Veternik
P.10 Public transport preferences at key junctions	P.1.b Bus Hubs - City centre terminal and Shkupi	P.11 Urban Train Tram
P.2 Bus priority measures at main routes	P.1.c Bus Hubs - Zagrebi and Veternik	P.3a LRT system rehabilitation - regular services (Fushë Kosova - Pristina - Podujeva)
P.4 Bus stop reconstruction	P.10 Public transport preferences at key junctions	P.3b LRT system rehabilitation - extension through Pristina
P.5 New Citywide Bus Network Concept	P.2 Bus priority measures at main routes	P.3c LRT system rehabilitation - extension to the Airport
P.6 Bus Vehicle Enhancement		P.4 Bus stop reconstruction
P.7 Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility	P.4 Bus stop reconstruction	P.6 Bus Vehicle Enhancement
	P.6 Bus Vehicle Enhancement	P.7 Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility
P.8 Integrated ticketing system	P.7 Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility	-
P.9 New public transport information system	P.9 New public transport information system	-

Source: Mott MacDonald

Further details are provided on these measures in the proposal plans presented in Appendix B, as well as the project implementation lists shown in Appendices C, D and E.

5 Active Travel Networks and Facilities

5.1 Introduction

It is important to support urban mobility infrastructure investment plans through promoting and advertising sustainable travel behaviour towards encouraging the use of more active modes of travel such as walking and cycling. This includes improving conditions for walking and cycling, with the provision of safe, accessible and convenient routes for these non-motorised modes. There are a range of possible options/concepts for inclusion in the Pristina SUMP strategy including:

- Development of strategic pedestrian & cycle route network concepts – with adopted design standards and facilities provided for different types of pedestrian and cycle routes across the city. This will include city centre trips as well as those to more peripheral locations such as local residential neighbourhoods and suburban communities;
- Enhanced pedestrianisation scheme in the city centre, extending the zone to include adjacent roads and provide a wider area for pedestrians to enjoy; and
- Measures to aid mobility impaired – introduction of other measures to aid blind/partially sighted (e.g. use of tactile paving at pedestrian crossings).

- **Poor quality pedestrian routes & a lack of safe, convenient crossing facilities**: There are a large proportion of trips undertaken in Pristina although the many of the pedestrian routes in the urban centres show signs of poor condition as well as a lack of facilities in terms of footway width to cater for large pedestrian volumes, accessible kerbs, directional signing and crossing points. Cyclists account for less than 1% of transport users in Pristina – much more can be done to increase this figure.
- **Safety issues for pedestrians & cyclists in urban areas:** The success of the centralised pedestrianised zone in the centre of Pristina continues to cater for the majority of pedestrian activity in the town centre providing a safe environment. More can be done to extend the zone to provide wider pedestrian amenity in the city centre.
- **More integration of pedestrian & cycle routes with other modes of transport**: Establishing good links to public transport facilities, car parks, taxis and cycle parking facilities is essential in terms of improving overall accessibility for people and the development of 'seamless travel' between modes. Pedestrian routes to bus stops and taxi ranks need to be identified and developed more fully. In addition, pedestrian access to car parks need to be improved with a view of improving their attractiveness and perception of safety.
- **Lack of integrated pedestrian and cycle route networks**: Reflecting the wide range of trip patterns across the city and trips for leisure, going to school and to work, new pedestrian and cycle route network concepts should be developed to identify key routes to major destinations, aimed at identifying and implementing measures to improve pedestrian amenity, access and safety.

5.2 Summary of Key Issues in Pristina

In Pristina, there are pedestrian pavements on most of the city streets in the city centre. Large numbers of pedestrians are often seen within the central area throughout the day, not just during morning and evening peak travel periods. This is a function of the city centre, providing employment opportunities, as well as catering for retail and leisure trips. However, there are often numerous barriers on the footways which frequently make trips unpleasant and unsafe, especially when pedestrians are forced to use the highway to continue their journey. Barriers to pedestrian movement include parked cars on the pavements which is unfortunately very common, advertisement placements in the pedestrian areas or other street furniture and obstacles.

On the minor roads within the city centre there is often one shared space for cars and pedestrians and little or no pavement provided which creates safety hazards and risks for pedestrians and exacerbates the potential for conflicts with motorised transport. This is largely as a result of the narrow street-scape which in many cases doesn't allow for footways to be provided, as well as the large demand for on-street parking. The end result is the provision of a heavily congested (especially at peak travel times), unsafe environment for pedestrians with poor accessibility and permeability of the city centre street network due to many barriers and obstructions. In some cases, traffic flow is very slow in the city centre, with heavy congestion and this can provide opportunities for pedestrians to move more freely through the traffic.

Some areas in the city centre offer a poor-quality environment and deter people from using them as social meeting points where they can relax and spend their time. A good example is the paved area close to the old municipality building which showed a poor quality public space environment. However, the Municipality of Pristina has recently redesigned and reconstructed this area.

Figure 29: Poor Condition of Public Space and Pedestrian Routes in the city centre

Source: Mott MacDonald

Figure 30: Condition of Public Space and Pedestrian Routes in the city centre after redesign and reconstruction

Source: www.arbresh.info

5.3 Proposed Strategy – Walking & Cycling

Our approach is to develop local pedestrian and cycle schemes to improve access to key facilities, schools, public transport stops and hubs, areas of high employment density, as well as green and recreational spaces. The aim is to bring about increases in walking and cycling to these facilities and improve awareness of dedicated walking and cycling routes and facilities across the city.

- Introduction of new, safe and accessible crossing points throughout the city;
- Improve highway design for pedestrians & cyclists with greater use of speed management to create safe environment;
- A reduction of potential “conflicts” with other road users; and
- Improved personal safety and security (day/night) for pedestrians & cyclists.

The development of integrated pedestrian & cycle route networks should seek to achieve the following key principles:

- Good pedestrian/cycle links to public transport, car parks, taxis and cycle parking;
- Focus on the entire walk/cycle/public transport journey – improving the total journey experience;
- Ensuring that pedestrian facilities take account of mobility issues – use of dropped kerbs and improving pedestrian crossing of roads and links to public transport routes;
- Improving pedestrian & cycle routes between residential areas and jobs/services address issues of social exclusion;
- Minimising obstacles and risks to pedestrian & cycle movement; and
- Integrating cycling with public transport by enable cyclists to use buses in areas where there are steep and difficult terrains for cycling.

Further details on the key elements and actions required to enhance walking and cycling conditions are set out below.

5.4 Walking and Cycle Policy Framework for Pristina

In order to maximise the attractiveness of walking and cycling to users it is important to improve the overall quality of routes and at key destinations, identifying key destinations such as the city

centre, employment areas, key transport nodes and district centres. More specifically, when considering the quality of pedestrian and cycle environments it is important that routes are:

- **Connected:** in relation to routes being well-connected, integrated, ideally without 'gaps' in the network;
- **Comfortable:** with routes being pleasant to use, with sufficient space and capacity, and addressing negative impacts of traffic pollutions and noise;
- **Convenient:** with pedestrian routes providing links where people want to travel, following appropriate 'desire lines';
- **Convivial:** pedestrian routes should help encourage social interactions as far as possible; and
- **Conspicuous:** pedestrian routes should be safe to use and also easy to use with few barriers to mobility.

5.4.1 Development of Walking and Cycle Route Networks in Pristina

It is important to develop quality walking and cycling routes between major attractors, residential areas across the city and other places of interest which will provide a high-quality environment for pedestrians and cyclists and one that is safe, convenient and pleasant to use. This requires undertaking **r**oute audits of the key routes in the urban areas to ensure that design standards are met. A number of key actions are required to achieve this:

- Develop a 'network' of high quality routes (as part of an overall network), which would offer high quality facilities for users, including routes to schools, colleges and places of employees, district centres, other shopping centres, council offices etc. and public transport facilities;
- Develop and adopt the design guide principles for walking and cycling which contain a set of minimum standards (covering signing, width and surfacing, safety and security);
- Carry out pedestrian and cycle route audits on key routes and district centres to identify programmes of improvement;
- Identify the quality of the walking and cycle environment by using the 5Cs criteria – Connected, Comfortable, Convenient, Convivial, and Conspicuous – which will allow priorities for intervention to be determined; and
- Take into account the needs of different groups of users: commuters, shoppers, leisure users, disabled people and children – different locations will be designed according to user need.

Figure 31: Cycling in Tirana (Albania)

Source: Eltis.org

Figure 32: Cycling in Tirana (Albania)

Source: The Guardian (UK)

In terms of other cities that are tackling the challenge of encouraging more cycling, in Tirana, Albania where the city is looking to improve the infrastructure for use of bicycles and to increase the number of bicycle users in the city, through Ecovolis initiative to introduce cycling in Tirana

through bike sharing. Interventions have been made on twelve main streets of the city, with 20km of lanes dedicated to bicycle users.

Figure 33: Cycle Routes in York (UK)

Source: City of York Council (UK)

Figure 34: Cycle Development in Cambridge

Source: Cambridge Independent (UK)

The lanes in Tirana are marked with all necessary signs for ensuring the safety of cyclists. A series of bicycle overpasses and intersections and work is ongoing to institutionalise cycling in public and private organisation as part of their strategy.

Elsewhere in Europe, other cities are successfully tackling the challenge of encouraging cycling through the creation of cycle route networks. In the UK, there are a number of cities that have successfully adopted cycle route networks to encourage greater numbers of cyclists. In Cambridge one-third of the city's residents cycle at least three times a week with almost half the adults riding at least once a week. The city has over 80 miles of dedicated cycle lanes and routes, supported by a pro-cycling culture, with road priority given to cyclists in key busy spots and business incentives to establish bike hire and parking facilities in the city. York has a high proportion of people who cycle (12%) and walk (15%) to work when compared to the rest of the country. For people who live and work in York the walking and cycling proportions are even higher at 15% and 18%.

5.5 Hierarchy of Pedestrian Routes

Building on the network approach it is recommended that this concept be further developed into a hierarchy of route types that is based on functionality and scale of use. The network is one where routes are most used by pedestrians, and because of this are targeted for quality improvements. In identifying particular routes and standards for the different route types, the following issues would need to be taken into consideration: pedestrian volume, current usage and proposed usage, accident and other risk assessment, age and type of footway (e.g. old flagged footways may require more frequent inspection than newly laid) and character and traffic use of adjoining carriageway.

Options for a draft Pedestrian Route Network Classification are set out below. An important principle of developing the Route Network concept would be improving links with existing municipality initiatives already in place including local road safety work to ensure consistency of approach across the city. The Pedestrian Network concept is formed of pedestrian routes which act as links joining people with key destinations. This network will feature quality elements such as dropped kerbs, priority crossings, lack of street clutter and good signage.

Table 4: Suggestions for a Draft Pedestrian Route Network Classification

	Category Name	Description
1	Prestige Walking Zones	City centre high quality pedestrian routes with high footfall and serving prime employment, shopping and public transport centres.
2	Primary Walking Routes	Pedestrian routes with high footfall and serving primary employment, schools, shopping, public transport hubs.
3	Secondary Walking Routes	Medium usage routes through local areas feeding into Primary Routes, Neighbourhood Centres etc.
4	Link Footways	Linking higher category footways through urban areas and busy rural footways.
5	Local Access Footways	Footways associated with low usage, short estate roads to the main routes and cul-de-sacs.

Source: Mott MacDonald

5.5.1 Safety and Security

A core objective of any walking and cycling network is to create a safe environment in which people fee able to walk/cycle and make trips without fear of being involved in a road accident or subject to any form of crime. People are more inclined to choose to walk/cycle if that feel areas/routes are safe and that they are not intimidating, whilst poorly maintained facilities often deter potential pedestrians and cyclists. It is important to provide a safe walking/cycling environment, thereby reducing the number of pedestrian casualties and to reduce the fear of crime for users. There are a number of key actions which will improve safety and security when walking and cycling including the following:

- Reduce the number of pedestrian/cycle casualties – by analysing accident data to provide a safe and barrier free environment for users and by continuing to achieve reductions of pedestrian casualties, especially those for children;
- Increase the number of students making trips on foot and by bike by promoting the development of Sustainable School Travel Plans;
- Improve the highway design for pedestrians and cyclists by reducing the need for guardrails to improve crossing of streets, and develop traffic calming measures and safety measures within local community areas to reduce vehicle speeds; and
- Reduce crime and lessen the fear of crime – increasing the number of people walking and those using public transport, ensuring that streets have good visibility and sight lines, dealing with excessive vegetation and parking, the use of high quality lighting including on the street, at public transport interchanges and where people congregate.

5.5.2 Improving Accessibility

Improving transport will enable people to make a choice about the way they travel and more people to choose a sustainable option. Walking and cycling trips can provide an attractive method of transport for shorter journeys up to 2 miles (3.22 km), such as to journeys to school. It is also important that facilities for pedestrians and cyclists allow all users, including disabled people, to access work and leisure opportunities. It is important to develop high quality accessible pedestrian and cycle links between residential areas and the city centre as well as to education, employment, healthcare, retail and leisure facilities for both utility and leisure trips. All of the city's transport policies should take account of the needs of different types of pedestrians and cyclists so that routes are accessible to all user groups. There are a number of key actions which will improve accessibility including the following:

- Encourage walking and cycling and a shift to more sustainable transport modes;

- Ensure good design of schemes and improve the pedestrian and cycle environment;
- Ensure that the needs of pedestrians and cyclists are considered as part of large transport schemes and provide priority for these modes in the city centre/suburban areas;
- Improve pedestrian and cycle crossings of roads and links to public transport routes;
- Promote the health and transport benefits of walking and cycling, through development of Travel Plans and campaigns;
- Promote walking/cycling to school through Sustainable School Travel Plans; and
- Minimise the obstacle and risks to pedestrian and cyclist movement along priority routes by undertaking access audits and further implementation of other rights of way across the city/urban areas.

5.5.3 Integration with Other Modes

Walking and cycling is a key component of an integrated transport system in relation to the way in which walking and other modes interact. Establishing good links to public transport facilities, car parks, taxis and cycle parking facilities are essential in terms of improving overall accessibility for people and the development of 'seamless travel' between modes. It is important to ensure that pedestrian and cycle routes and facilities across the city/urban areas are developed and implemented so that they are integrated with other modes such as public transport and cycling and with facilities such as car parks.

- Work closely with Pristina public transport operators to develop a range of improvements to improve access to the public transport network;
- Seek to improve the quality of bus stop facilities as well as routes to rail stations and public transport interchange points;
- Develop a wide range of initiatives to encourage walking and cycling – for example using journey planning initiatives and promotion of dedicated pedestrian and cycle routes;
- Pedestrian and cycle routes to public transport stops and taxi ranks are identified and developed; and
- Explore access by foot and on bike to car parks with a view to improving their attractiveness and safety.

Figure 35: Bus Stop / Passenger Interface in Ostrava (Czechia)

Source: Mott MacDonald

Figure 36: Bus Stop / Pedestrian Access in Prague (Czechia)

Source: Mott MacDonald

5.6 Development of a City Bike Hire Scheme & Improved Cycle Parking

Providing more facilities and options for people to take up cycling across the city will help encourage more people to cycle on a regular basis. We are proposing the development of a new citywide bike hire scheme which would include the following key features:

- Development of a citywide bike-sharing scheme, offering discounted fares for users who hire bikes for use in the surrounding areas. The operator of the bike-sharing scheme moves the bikes every evening from the city centre to the surrounding area;
- Making it easier for people to have access to bikes and safe, secure facilities that are provided across the city.
- Possible electric bike sharing system;
- Readily available, good quality and regularly maintained bikes and cycle parking facilities which can be hired according to user requirements.
- Free transport of bikes in new LRT system and selected bus routes.

Bike-share is now a commonly used tool across the world to promote and encourage greater uptake of cycling. The provision of high quality bikes for hire on an hourly or daily basis, supported by dedicated cycle docking/parking stations across Pristina will help encourage a greater uptake of this mode of travel in the city. The principle of the scheme is relatively straight-forward – anyone can pick up a bike in one place and return it to another, making point-to-point trips by bike. The following are typical characteristics of a successful bike-share scheme:

- Minimum System Coverage Area: 10 km^2
- Station Density: 10–16 stations per km^2
- Bikes/Resident: 10–30 bikes for every 1,000 residents (within coverage area)
- Docks per Bike Ratio: 2–2.5 docking spaces for every bike

Typically, it is beneficial to establish a dense network of stations across the coverage area, with an average spacing of 300 metres between stations. There are a number of stages that will be required to develop and successfully implement a new bike-share system in Pristina:

- Conducting a feasibility study: A high level analysis of the possibility of bike-share scheme, defining key parameters for planning and developing an initial institutional and financial analysis, the foundation needed to take the next steps.
- Detailed planning and design: This defines the exact locations of the stations, the size of the stations, and the type of hardware and software needed to support the scheme.
- Creating business and financial plans: This stage defines the institutional and revenue models, including contracting of a scheme.

Barcelona's *Bicing* system has been running for over seven years and has proved very popular with the city's inhabitants. London's scheme is also considered a success with users satisfied and as well as attracting cycle use compared to the private car, the system also helps alleviate congestion on the city's public transport network.

Figure 37: Bike Hire Scheme in London (UK)

Source: London Bike Hire Scheme

Figure 38: Bicing Scheme, Barcelona (Spain)

Source: Bicing, Spain

5.6.1 Bike Parking Facilities for Cyclists

It is recommended that the priority locations for the introduction of bike parking facilities are concentrated close to the public buildings in the city centre where there is likely to most demand. In parallel, there should be engagement with major employers across the city to provide cycling facility for the employees and customers. There are many different types of cycle parking design available, ranging from standard cycle stands that are frequently used in retail areas where there is heavy demand to more bespoke, covered and secured cycle parking, as shown in the figures below.

Figure 39: Bike Parking Facility in Berlin

Source: Mott MacDonald

Figure 40: Cycle Parking in Cambridge, UK

Source: Cityclock.org

5.6.2 Special Public Transport Routes and Cycling

Due to the location of Pristina, it is advisable to consider the introduction of cyclo-buses that will ensure the transport of passengers together with their bicycles into the hills of Pristina. The development of cycling, supported by the development of the public transport system along with the cyclo-buses, contributes to fulfilling the visions of sustainable mobility. Introducing equipment on buses to enable passengers to transport bikes helps integrate cycling and bus travel more fully – especially in areas of the city where there are steep hills.

In Prague, the city has introduced a series of cyclo-buses from Prague which enable cyclists to avoid steep gradients in areas around the city and to travel further distances to then continue their journey by bike. In Lisbon, city planners are tackling air pollution and congestions challenges such as decreasing air pollution and traffic congestion. A new public bike service that offers 100 hire

bicycles, two thirds of which are electric, is designed to encourage users to adopt an alternative, and clean form of transport to get around the city which has a hilly terrain. As part of a longer plan the scheme is planned to include 1,410 bikes (940 electric) linked by a 100-mile (160.934 km) network of cycle routes.

Figure 41: Cyclo-bus in Prague

Source: Mott MacDonald

Figure 42: E-Bike System in Lisbon

Source: Mott MacDonald

It is proposed to include some special public transport routes from the city centre uphill to surrounding areas serviced regularly by the “cyclo-buses”. These routes are highlighted in the scheme below (green lines) together with the cycling routes (blue lines) and other cycle measures. The system will offer the public a fast and easy mode of transport in the city centre and adjacent areas and will motivate people to use alternatives to car transport.

5.6.3 Land Use Planning and New Development

Effective land-use planning is important to the delivery of long-term sustainable transport solutions. It is essential that new development makes proper provision for sustainable transport, including walking and cycling, as well as good access by public transport. Focus should be paid to reducing the need to travel through effective land use planning, ensuring that new developments are accessible by foot/bike or can be served by public transport and the provision of direct, safe and convenient route links. There are a number of key actions which will improve land use planning issues more fully including the following:

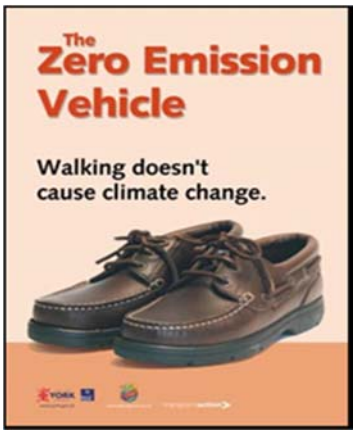
- Ensure that pedestrian and cycle needs included in new planned developments, using techniques such as Pedestrian and Cycle Audits, linking all new developments to strategic routes;
- Design pedestrian and cycle links within and across proposed development sites that are accessible, convenience and safe; and
- Secure funding contributions from developers to encourage more walking and cycling through a range of design measures.

5.6.4 Promoting the Health Benefits of Walking & Cycling

Promoting the health benefits of walking and cycling is an important message to encourage not only more use of these modes of transport across Pristina but also more 'healthy lifestyles' too. Extensive research has shown that regular walking and cycling can help play a major role in benefiting peoples' health, by helping to prevent obesity and heart disease, particularly for those who otherwise would undertake little physical activity. More walking and cycling activity also contributes towards helping to reduce the impacts of traffic congestion and associated air and noise pollution. It is important to promote the benefits of walking and cycling, in relation to health, social inclusion and environment, in partnership with other agencies across the city. There are a number of key actions in relation to marketing and promotion including the following:

- Promote the health benefits of walking and cycling;
- Encourage healthier lifestyles by implementing safety initiatives to encourage activity – such as Sustainable School Travel Plans.
- Development of campaigns and promotional material to encourage active take up of walking & cycling as healthier transport modes.
- Provision of good pedestrian and cycle route signing to enable users to locate key destinations on foot and by bike, including travel distance and provision of local facilities (e.g. cycle parking).

Figure 43: Promoting Walking in York (UK)



Source: City of York Council (York Transport Campaign)

Figure 44: Marketing in Sheffield (UK)

Source: Sheffield City Council, UK

It is important to work with local stakeholders and community groups in the development of initiatives aimed at improving pedestrian and cycle friendly environments, particularly when identifying and implementing local improvements to key destinations. Local residents and community groups should be consulted and involved in decisions to change or improve local walking & cycle routes, footways or other pedestrian/cycle facilities.

- Promotion and implementation of walking & cycling initiatives is delivered jointly in partnership with other agencies responsible for transport infrastructure and services (e.g. public transport operators);
- Consult with key stakeholders and partners – this will involve working with local community groups, internal government departments and other amenity groups in the city; and
- Promote initiatives by using a wide number of stakeholders, including dissemination of information at tourism offices, good signage for pedestrians and cyclists, as well as information available on the web and in print.

5.6.5 Route Maintenance

The maintenance of footways, crossing points, other pedestrian facilities as well as the removal of obstructions are key elements required to remove barriers to walking and to encourage people to walk more often. People are more likely to longer trips on foot (and more frequently) when the local pedestrian environment is of a high quality, well-designed as well as well-maintained Pedestrian and cycle routes should be well-maintained, with good access provided during any road works or maintenance activities. There are a number of key actions in relation to maintenance of pedestrian and cycle routes including the following:

- Obstructions are removed from footways if they become hazardous to pedestrians/cyclists;
- Pedestrian and cycle rights of way across the city/urban areas are maintained to a 'fit standard': safe to use and free from obstruction;
- Maintaining highways, including pedestrian and cycle routes, with the condition of the footway regularly monitored and work combined wherever possible with other improvement works;
- Improve and maintain street lighting with the aim of reducing the number of accidents and to create a safer environment;
- Make improvements to the local street environment; and
- Ensure that obstructions are removed from footways if they are considered to be a hazard to pedestrians and cyclists – this involves working with the police to reduce illegal parking and the creating of additional safe means to cross roads.

5.7 Development of Proposed Pedestrian & Cycle Schemes in Pristina

5.7.1 Enhanced Pedestrianisation Scheme

Recent years has seen the development of a large pedestrianised area in the city centre with Nënë Tereza Boulevard connecting with Xhorxh Bush street and Agim Ramadani street. The zone provides a very safe and comfortable environment not just for pedestrians but also for people who sit in the cafes along the street and therefore is very frequented by both the inhabitants and the visitors alike. The current state of the pedestrian zone is shown in the figures below. Opportunities exist to capitalise on this successful central pedestrianised zone and extend the area of coverage to include additional city centre streets

Figure 45: Pedestrian zone in the city centre

Source: Mott MacDonald

Figure 46: Pedestrian zone in the city centre

Source: Mott MacDonald

Further feasibility work is recommended to assess how the area of the pedestrianised zone can be extended to cover a wider area around the current scheme operating along Nënë Tereza

Boulevard. In support of this, a number of measures are proposed to modify and enhance pedestrian routes in the city centre. These include modifications of Xhorxh Bush, Eqrem Çabej, Bill Klinton, Garibaldi, Dritan Hoxha streets and routes connecting the proposed new bus hubs. Streets modification should start focus in the area of the existing and planned new pedestrian zone and the connection of the proposed new bus terminals. Other streets will be addressed as part of a phased approach to pedestrian improvements across the city.

Figure 47: Pedestrian Zone with Public Transport Services in Lovaň (Belgium)

Source: Mott MacDonald

Figure 48: Pedestrian Zone with Public Transport Services in Pardubice (Czechia)

Source: Mott MacDonald

The main public spaces in Pristina include Nënë Tereza Boulevard, Zahir Pajaziti square, Independence square, Adem Jashari (Vllaznim-Bashkimi) square, the plateau in front of the Youth Centre and the area at the University Campus, around the National Library. These are further accompanied by Gërmia Park, Taukbahqe Park, City Park and Arbëria Park. Additional green areas are located within residential neighbourhoods such as Ulpiana, Dardania and Bregu i Diellit, while the Municipality of Pristina in the recent years has redesigned several areas throughout the city, turning them into parks with greenery and recreational amenities. Such examples include the park at 1 Tetori Sports Hall, the park at Bregu i Diellit (adjacent to Bahri Fazliu Street), the plateau at 'Lulevera' kindergarten in Dardania etc.

In terms of connectivity there are a number of recommended actions to improve connectivity set out in the City's Development Plan as summarised in below. These should form part of the overall approach to establishing a strategic pedestrian route network that serves key destinations that people wish to visit.

Table 5: Aspirations for Urban Mobility Connectivity in the City

Element	Description
Connection of City's Urban roads:	• Steps must be considered to revitalize the urban traffic, where major streets in the downtown area will connect with each other with some urban intervention. • Garibaldi Street will be linked to Agim Ramadani Street, with some intervention at the Faculty of Economics, where the nodes would be relieved of congested traffic at Student Canteen and make it easier to reached to the centre, or connect to roundabout at Arbëria area.
Connection of sidewalks in the City:	• Streets, boulevards, squares should be redesigned to connect the City through pedestrian pavements; • All barriers that split the City or make it impossible for the City to be accessible for the pedestrians should be removed; and • Removal of fence around buildings, to achieve the objectives to connect the City of Pristina.

Element	Description
Connection of sidewalks in the City Centre:	• Connect several squares such as: o Nënë Tereza Boulevard; o The Youth Square, New Born; o Zahir Pajaziti Square; o University Square (Campus); o Through Grand Hotel (once accessible and passable for pedestrians); o Connection of Nënë Tereza Boulevard with Trepça Street through the street between Kosovo Parliament and Kosovo Government buildings (once accessible and passable for pedestrians); and o From the Center through New Born square and then through Grand Hotel Square to Nënë Tereza Boulevard, to continue to University Square (Campus) and get to the City Park.

Source: Pristina Urban Development Plan 2012 - 2022

5.7.2 Measures to Aid Mobility Impaired

Pristina is characterised with heavy traffic, particularly in the urban centre, and due to a lack of on-street parking spaces, many vehicles park and occupy the pavements in the city centre, restricting pedestrians' free movement. During the last years, the Municipality has initiated a programme of measures to remove barriers and obstructions on the pavements from parked vehicles by installing anti-parking bollards and planting trees. In parallel a programme of pavement works has been initiated to help make footways more accessible for people with disabilities and introduced a programme of street lighting that has been rolled out across local communities across the city to improve safety and security.

The use of tactile surfacing or 'border lines' are recommended at junctions and at the entrance to key destinations to help facilitate movement of blind or partially sighted pedestrians on roads. Tactile paving is used to provide information to visually impaired people, and acts as a guide to specific features or to warn them of potential hazards. The border line needs to be tactile and have a visual contrast from surrounding materials to be visible to partially blind pedestrians. The use of tactile paving using a variety of surface textures help visually impaired pedestrians to differentiate between the facilities or obstacles.

Figure 49: Natural Border Line (building), Signal and Warning Strap at a Crossing (Czechia)

Source: Mott MacDonald

Figure 50: Dropped Kerbs on the Pavement and Contrasting Material (Czechia)

Source: Mott MacDonald

5.7.3 Pedestrian Route Network Concept

In developing a new pedestrian route network for Pristina attention has been focused on improving the quality and removal of barriers on the sidewalks as well as on the barrier-free accessibility of public and state administration buildings, health and social services, schools, shops and cultural facilities and other buildings, in this part of the SUMP. The aim of the project is to create and maintain conditions for the barrier-less movement of residents and visitors with limited mobility and orientation around the city.

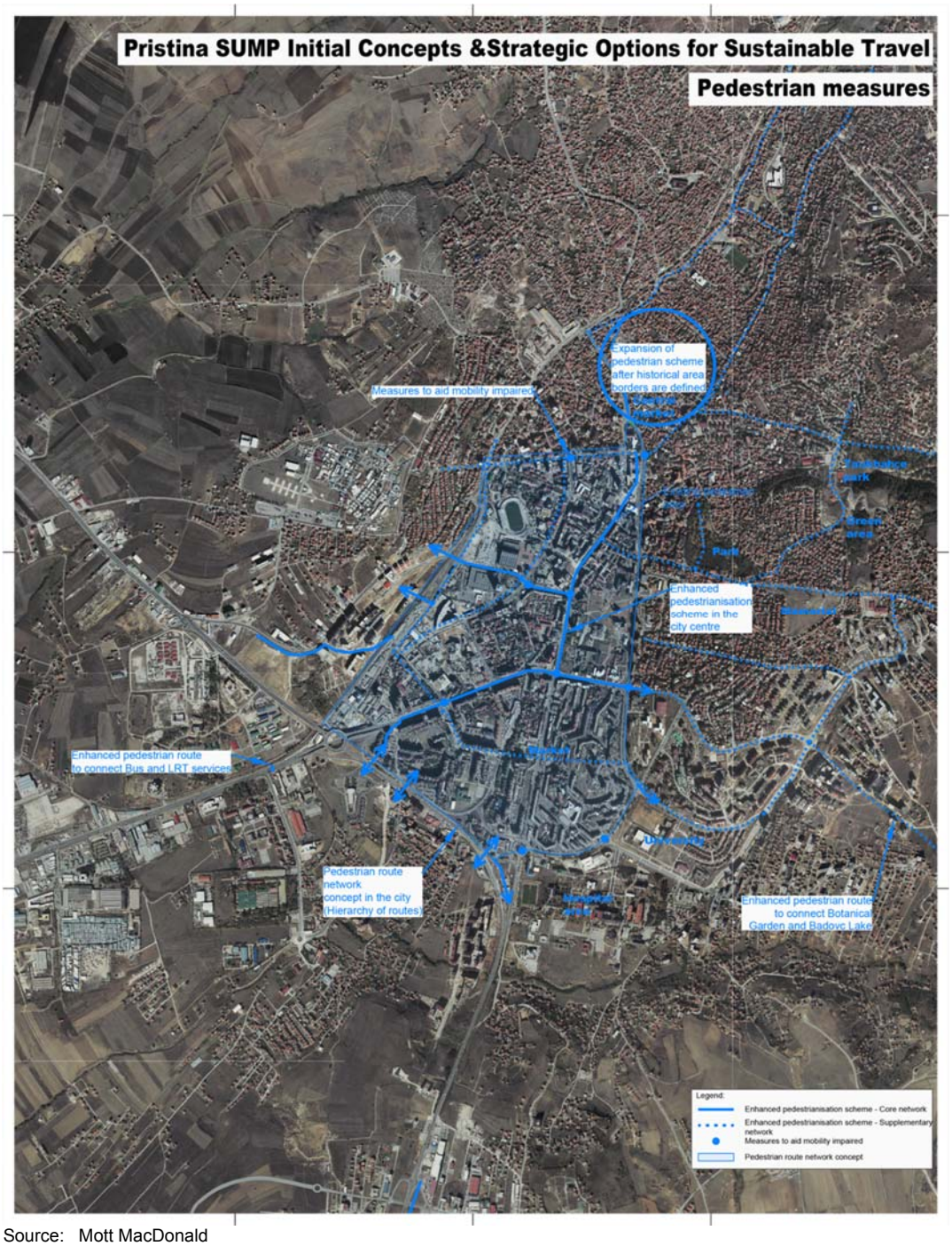
It is necessary to create a concept of comprehensive, barrier-free routes that allow all groups of the population free and safe movement along the pedestrian routes as well into the all means of transport. Furthermore, barrier-free access to services. The pedestrian route network concept should form a functional network of barrier-free routes. An overview of the proposed pedestrian measures is presented overleaf.

The blue area of this network will actually contain the tree main squares of Nënë Tereza boulevard, Zahir Pajaziti square and Independence square, the smaller squares in front of public buildings such as Adem Jashari (Vllaznim – Bashkimi) square and Youth Centre plateau as well as the entire neighbourhoods of Qendra (Center), Dardania, Ulpiana and Lakrishte. Furthermore, through the enhanced pedestrianisation scheme the network will outreach via barrier-free routes towards City Park, Taukbahqe and Gërmia Park and other neighbourhoods of the city with the aim of further enhancing and promoting this concept.

The pedestrian route network concept should be utilized for the historical centre of Pristina as well. The SUMP current pedestrian blue zone has extended to this area of the city, but given that Pristina still does not have an officially updated set area and boundaries for the historical zone, further pedestrian extension towards this area remains open.

The municipality is currently working on setting the updated official area and boundaries for the historical zone and once it is defined, the pedestrian network concept can be applied.

Figure 51: Proposed Pedestrian Measures for Pristina



Source: Mott MacDonald

5.7.4 New City Cycle Paths

The new cycling measures for Pristina include a network of new cycle paths as shown graphically on map at the end of this chapter.

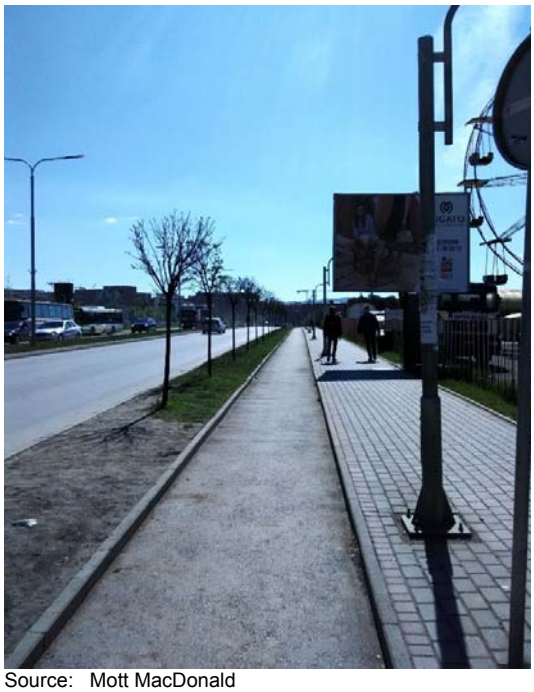
The proposed cycling scheme includes the neighbourhoods of Qendra, Tophane – extending towards Kodra e Trimave, Medrese, Pejton, Lakrishte, Arbëria, Kalabria, Dardania, Ulpiana, Bregu i Diellit, Aktashi, Muhaxheret, Velania (Parku) and Zona QKUK. A new cycling path is foreseen from the centre of the city extending towards Gërmia Park via Haxhi Zeka, Nazim Gafurri and Shpëtim Robaj streets. The network also expands to areas of Prishtina e Re and Hajvali, through paths that enter these areas and lead up to Zllatar settlement and Badovc Lake.

The proposed cycling scheme will be assessed more fully through further feasibility work prior to any implementation work.

5.7.5 Existing Cycle Path Improvements

Some cycle paths in Pristina need to be adapted to fulfil their purpose of sustainable mobility while being safe for the users because of their construction, which reduces the safety of cyclists and pedestrians. These paths are the ones on Arbënor dhe Astrit Dehari Street (formerly known as Çlirimi Street), Bahri Fazliu Street (Road B) and Road C.

Figure 52: Defects (level differences) on the cycle path in Pristina



Source: Mott MacDonald

Figure 53: Good practice example from Prague

Source: Mott MacDonald

Figure 54: Proposed Cycling Measures for Pristina

Source: Mott MacDonald

5.8 Summary of Measures

The table below shows active mode & public space measures proposed for Pristina for implementation in short, medium and long-term plan periods.

Table 6: Summary of Active Mode & Public Space Measures

Short Term (2019-2020)	Medium Term (2021-2025)	Long Term (2026-2030)
A.1 Enhanced pedestrianisation scheme	A.1 Enhanced pedestrianisation scheme	A.1 Enhanced pedestrianisation scheme
A.2 Measures to aid mobility impaired	A.2 Measures to aid mobility impaired	A.2 Measures to aid mobility impaired
A.3 New cycle paths	A.3 New cycle paths	A.3 New cycle paths
A.4 Existing cycle path improvements	A.4 Existing cycle path improvements	A.6 Bike and electric bike sharing system
A.5 Bike parking facility and cycling facility for cyclists, incl. Intermodal station for bicycle	A.6 Bike and electric bike sharing system	A.7 Pedestrian network development
A.6 Bike and electric bike sharing system	A.7 Pedestrian network development	A.8 Marketing and promotion of Pedestrian and Cycle Transport
A.7 Pedestrian network development	A.8 Marketing and promotion of Pedestrian and Cycle Transport	A.9 Public space revitalisation on streets currently used by car transport
A.8 Marketing and promotion of Pedestrian and Cycle Transport	A.9 Public space revitalisation on streets currently used by car transport	-

Source: Mott MacDonald

Further details are provided on these measures in the proposal plans presented in Appendix B, as well as the project implementation lists shown in Appendices C, D and E.

6 Road System and Parking

6.1 Road System

Due to the current travel behaviour and patterns of Pristina residents, in terms of private car transport being more popular than other more sustainable transport modes, the capacity of the city centre road network reaches its maximum and congestion occurs. A range of road network improvement measures have been identified that will aim to improve flow and address congestion across the city:

- **2a Inner Ring –** Foreseen by UDP and MDP. According to plans: a high-capacity wide city boulevard; discharges the inner city from traffic. The part called “The Hilly Road” is smaller in width and conveys the contours of the Gërmia forest.
  - from the roundabout at ETC (F.Kosova) [42°38'51.1"N 21°07'41.5"E], until M-2 (road to Mitrovica)
- **2b Inner Ring –** The Ring Road extends to the suburban areas of the city, with a potential for the development of the city, also taking into account the draft and implementation of regulatory plans.
  - - from the roundabout at ETC (F.Kosova) [42°38'51.1"N 21°07'41.5"E], through the Green Market, through the Collector over Prishtina River (connection to be constructed over the collector) [42°38'14.6"N 21°07'50.1"E] until the connection with Ibrahim Rugova Highway and M-2/M-25, to continue to the Justice Palace [42°38'03.5"N 21°10'24.0"E], through Nekibe Kelmendi St until Zllatar.
- **2c Inner Ring –** The Ring Road extends to the suburban areas of the city, with a potential for the development of the city, also taking into account the draft and implementation of regulatory plans.
  - from M-2 (road to Mitrovica) until M-25 (Vëllezërit Fazliu St) up to Zllatar.
- **3 Road A + Segment 3 –** Part of URP Prishtina e Re West, Center, East. According to this plan, road profile A-A has the width 40.5m + Part of URP Kalabria and UDP (the segment from URP Calabria to Outer Ring). According to this plan, the road profile Z-Z has the width 31.2m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **4 Primary Road –** Part of URP Mati 1. A Segment of Street B (Bahri Fazliu Street): from the roundabout where Çlirimi and Muharem Fejza streets connect, to the connection with Road A. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **5 Primary Road – Part of City Ring** Part of URP Lakrishte. According to this plan, profile of road A-A has the width 33.0m.
- **5a Primary Road – Western Part of City Ring -** Part of URP Lakrishte. According to this plan, profile of road A-A has the width 33.0m.
- **9 Secondary Road** - Part of URP Prishtina e Re East. According to this plan, the road profile B-B has the width 22.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **10 Secondary Road** - Part of URP Prishtina e Re East. According to this plan, the road profile C-C has the width 21.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

- **10a Secondary Road** - Part of URP Mati 2 road. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **11 Secondary Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **11a Secondary Road** - Part of URP Prishtina e Re East. According to this plan, the road profile B-B has the width 22.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **12 Secondary Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **13 Secondary Road** - Part of URP Mat 2. The same street profile with 13a (Prishtina e Re Center): profile B-B, width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **13a Secondary Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **15 Secondary Road** - Part of URP Mati 1. Planned Road F that connects Road B (Bahri Fazliu Street) with planned Road D. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **17 Secondary Road** - Part of URP Sofalia. According to this plan, it is a road in Category II (flowing road); road profile 3-3 has the width 12.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **18a Secondary Road** - Part of URP Mati 1. Planned Road E, from the roundabout of Roads C & D to Road A. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **18b Secondary Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **19 Secondary Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **20 Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road 5-5 has the width 25.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **21 Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **21a Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 5c-5c has the width 20.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **21b Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. Roads which are dependent on the planned

development of the area. The construction of these roads/links is conditional on the development of the area.

- **21c Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 8-8 has the width 13.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **22 Secondary Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 5a-5a has the width 24.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **24 Secondary Road** - Part of URP Kalabria. According to this plan, the road profile A-A has the width 22.2m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **24a Secondary Road** - Part of URP Kalabria. According to this plan, the road profile B-B has the width 18.2m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **25 Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **25a Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 3-3 has the width 14.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **25b Secondary Road** -Part of URP Zona Ekonomike. According to this plan, the road profile 3-3 has the width 14.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **26 Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **26a Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 1-1 has the width 24.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **27 Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **27a Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 1-1 has the width 24.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **27b Secondary Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **28 Tertial Road** - Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 6-6 has the width 11.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **29 Tertial Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile D-D has the width 18.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **30 Tertial Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile D-D has the width 18.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

- **30a Tertial Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile E-E has the width 14.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **31 Tertial Road** - Part of URP Prishtina e Re Center. According to this plan, the road profile C-C has the width 22.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **32 Tertial Road** - Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **33 Tertial Road** - Part of URP Prishtina e Re East. According to this plan, the road profile D-D has the width 11.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **34 Tertial Road** - Part of the URP Mati 1. Planned Road G that connects road C with Isa Kastrati Street. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **35 Tertial Road** - Part of the URP Mati 1. Planned Road H that connects road C with road F. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **36 Tertial Road** - Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **37 Road** - Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 4-4 has the width 12.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **38 Road** - Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 4-4 has the width 12.0m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **39 Road** - Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 5-5 has the width 11.5m. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **40 Roundabout** - Part of URP Sofalia. The only roundabout on this plan, at Mbretëresha Teutë Street / Lec Gradica Street. Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
- **City Ring** – (Except measure 5 and 5a) This measure was also considered and it's located on the existing road network – Jusuf Gërvalla/ Hekurudha, Tirana, Zagrebi, Ilir Konushevci, Agim Ramadani and Fehmi Lladrovci street. There are planned mainly construction modifications of these roads and partial modifications consisting of traffic management and road safety measures in the western part. In the eastern and southern parts, there are more adjustments to traffic management and road safety measures.

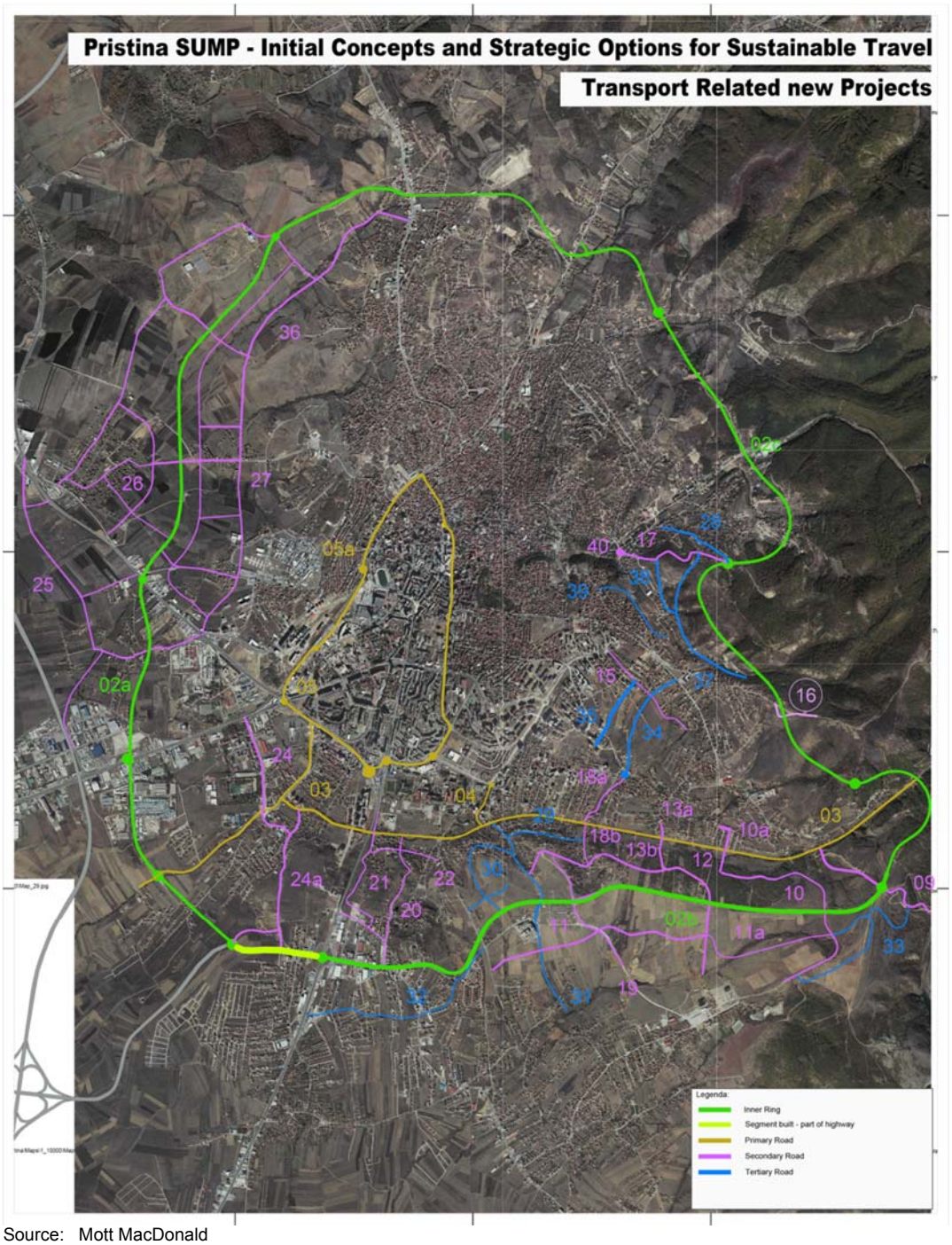
Note: All planned ring road projects (including Outer Ring Road) were considered as part of the SUMP study. Based on our assessment work we have concluded that it is practical to don't progress with the construction of Outer Ring due to following:

- Lack of population: the ring road is planned through an area which demonstrates a low level of population density;

- Lack of demand: this aspect is closely related to population density in terms of generating a level of demand that would help justify construction. This lack of demand is also affected by a parallel Inner Ring road that will also attract trips.
- Investment cost: due to the scope of this project and the surrounding terrain the overall construction cost will be very high, and with a potential low level of demand, the overall value for money appears relatively low.

The measures described above are shown in the following scheme.

Figure 55: Related New Road / Transport Projects in Pristina



Source: Mott MacDonald

6.2 Parking

It is important to introduce demand restraint measures and investigate/initiate further options for future development including increasing car park and on street parking charges, development of access restrictions in the city centre and reducing the availability of long stay parking in the city centre. Effective demand management plays a key role in this approach to help manage the continued growth in traffic levels and to encourage people to consider other alternatives and thereby supporting more sustainable travel options, whilst recognising the need for access for some local residents and businesses. There are a range of possible options/concepts for inclusion in the Pristina SUMP strategy including:

- Using pricing controls and new regulations in the urban centres to manage and control demand for both on and off-street parking activity;
- Establishing new residential parking schemes to control parking activity in residential and community areas;
- Introducing new parking regulations where necessary and enforcing these regulations effectively. It is essential to enforce parking controls routinely to ensure there is no abuse or illegal parking activity; and
- Using planning policies to control the number/type of new off-street car parks across the city for public use.

6.3 Summary of Key Issues in Pristina

- **High Demand for Parking in the City Centre**: Research has shown a high demand for car parking in the centre of town and other highly populated residential areas. In particular, parking demand is greater for on-street spaces than for off-street car parks, where no time limits are in place. Research shows that the parking occupancy - ratio of number of bays occupied in a time duration to the total space available reveals that more than half of users stay for long periods of time (ie. are commuters).
- **Poor utilisation of parking spaces:** Research shows that there are very low levels of rotation in central urban areas, highlighting that parking spaces are not very efficient. In some cases, over a 12hour period one parking place is used only by 2 vehicles.
- **Low cost of parking**: Car parking is relatively low cost in Pristina with many spaces offering free parking. Much of the parking in urban areas is not time restricted and there are long periods when people park their car in the city centre (i.e. commuters.)
- **High level of private off-street car parks:** Within the city centre there are a large number of privately operated car parks which offer low cost parking with no time restrictions. Such facilities increase the level of car movement to/from the city centre.
- **Lack of parking enforcement**: Enforcement is a key requirement of any successful parking strategy and there are limited resources available in Pristina to effectively manage and control parking activity in the city centre.

In recent years Pristina has experienced considerable growth in the use of the private motor car and data suggests this growth is continuing today. It is recognised that high levels of car use will often create significant problems such as traffic congestion, which is often exacerbated at peak periods of concentrated demand. On-street parking is already in high demand in the city, by businesses, residents and visitors to the commercial, retail and leisure areas. For most of the day the available parking spaces in Pristina cannot satisfy demand and so it is recognised that there is a growing need to improve the management of the limited parking space available.

Research has revealed that the city centre and peripheral residential areas experience parking problems often resulting in congested locations and associated road safety issues. With an increasing level of car use in urban areas, including Pristina, it is important to manage demand for travel and control parking areas more effectively as part of a new transport strategy. The way forward is to introduce an improved management of parking activity, including on-street and off-street facilities, as part of a holistic strategy for the city, aimed at balancing transport needs and other modes of transport such as public transport and active modes (walking and cycling).

Pristina does not have a valid decree regulating parking. As a whole, and especially in the city centre car parks are available at very low parking rates. There is little or no supervision or enforcement of compliance by the police, with supervision only performed by the state police. The prevalence of low parking costs, together with minimal regulation and enforcement only serves to exacerbate the level of parking activity in the city centre as revealed by parking surveys undertaken as part of the city-wide transport survey programme.

Figure 56: Illegal Parking Activity

Source: Mott MacDonald

Figure 57: Parking Area in the City Centre

Source: Mott MacDonald

On the other hand, Pristina faces a lack of parking space in the fringe areas of the city, especially in newly built residential areas, and a Park & Ride parking is missing in the suburbs of the city, where public transport services could be integrated more effectively to provide regular and fast connections to the city centre and reduce pressure on city centre parking facilities.

Unchecked, the demand for free parking has outstripped the available capacity that exists in Pristina and with a continuing growth in car ownership and the resulting rise in car borne trips additional pressure is expected on an already over capacity parking stock, which will impede the lives of residents and the businesses that operate in these affected areas.

Opportunities for increasing parking capacity in Pristina have previously been considered, which has included the development of off-street car parking garages. With limited scope for increasing parking capacity, particularly in the city centre due to the current land use demands, coupled with the growing demand for parking, the need to manage car-born trips into the city centre has never been more relevant.

One important tool for effectively addressing rising pressures from car use in urban centres is to improve the management and control of on-street parking capacity and demand. It is recognised that there is an urgent and real need to achieve this in Pristina and so the Municipality of Pristina has concluded that a parking management policy for the city should be developed.

The proposed parking management policy contained set out as part of the SUMP provides a structured and coordinated approach to address the concerns and issues regarding unrestricted parking activity and contribute to alleviating traffic congestion.

6.3.1 Developing a Parking Policy for Pristina

Everyone who uses Pristina's streets is affected by parking issues even if they do not use or own a car. Parking policy is not just about allocating and managing on-street and off-street space, it is also about enabling the safe and efficient movement of traffic, particularly public transport, and providing an attractive street environment for everyone.

In central Pristina, there are extremely limited public off-street parking garages and very few private parking areas and so this leads to a high intensity of parking demand on-street for all city centre roads. With only minimal management of this parking demand it is clear that there are a number of concerns relating to the uncontrolled nature of parking in the city and the consequences that result from this unmanaged activity. This was confirmed during discussions with The Municipality.

It was also noted that future parking regulation (management and control) will be closely linked with other improvements in the city's transport management including public transport, further supporting the need to develop a coherent parking policy. The key concerns that were identified were as follows:

- Parking 'anywhere' resulting in chaotic parking activity;
- Failure to comply with road regulations particularly at junctions;
- Concerns regarding road safety for all road users;
- Destruction of greenery and footways; and
- Unattractive pedestrian environments.

Parking policies use a range of tools to achieve desired parking objectives, which are as follows:

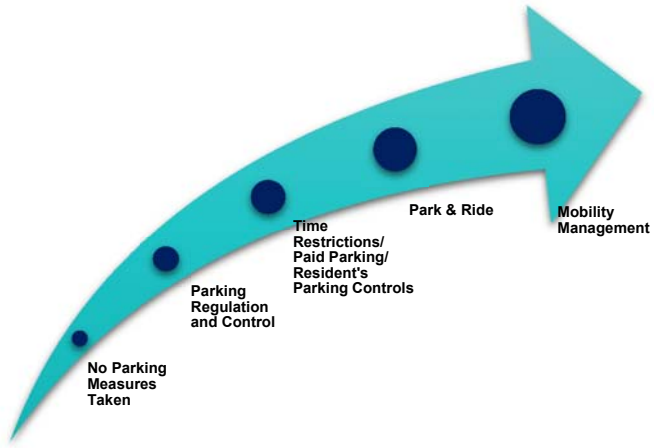
- Allocation of on-street spaces for the appropriate local demand
- Providing some parking areas that are protected for specific demand, such as for residents
- Setting fees and charges for managing on-street parking
- Effectively enforcing parking regulations to ensure compliance

Therefore, the five main principles for the future management of parking in Pristina are considered to be as follows:

- **Prioritisation**: the most desirable spaces should be managed to favour higher-priority uses.
- **Efficient utilisation**: parking facilities should be shared, serving multiple users and destinations and appropriately managed, so valuable city centre parking spaces are frequently occupied and not abused.
- **Pricing:** as much as possible, users should pay directly for the parking facilities they use.
- **Consumer choice:** residents, visitors and commuters should be provided with viable parking and travel options.
- **User information**: motorists should have appropriate information available for their parking and travel options.

Pristina is a key destination centre of major retail, residential, cultural and entertainment activities and so the management of parking in the city is essential if efficient and sustainable accessibility to these activities is to be realised. The figure below illustrates the typical sequence of events that are followed in the development of parking management policies.

Figure 58: The Evolution of Parking Management Policy



Source: Mott MacDonald

The development of parking action relating to demand follows a number of key stages as summarised below.

STAGE	DESCRIPTION
No formal action required:	Available parking space is used until the level of parked cars has a negative impact on the attraction and quality of the area.
Parking regulation and control will be the first step taken:	In certain streets parking will become prohibited and in other locations the parking places will be more clearly marked, creating a more efficient use of available space.
With continuing lack of available space, time restricted parking will be introduced:	In this way available space is used more efficiently by increasing the turnover of cars. This measure encourages long-term parkers (mostly commuters) to look for other spaces that were often further from the town centre or another mode of transport and visitors and shoppers to park time-efficiently. This is often supported by parking charges to underwrite implementation and enforcement costs. As parking control becomes tighter resulting in an overflow of parkers to neighbouring areas - often residential areas - residents parking schemes, involving the resident satisfying a set of criteria and paying a permit fee, will often be introduced to alleviate the situation.
Given the ongoing growth in car ownership and use the concept of the provision of parking places at greater distances will become apparent:	For example, Park and Ride introduced as a means of attracting motorists (initially commuters, eventually also visitors) to park on the outskirts of an urban area. In the United Kingdom Park and Ride sites are usually serviced by a dedicated fleet of high specification buses that operate a fast and frequent service between the Park and Ride site and the town/city centre. This concept is a particularly attractive concept for historic towns where the provision of extra parking spaces could detract from the architectural heritage of the area. This type of service is attractive for commuters and also works for visitors and shoppers.
More recently the concept of 'mobility management' has been introduced in some countries:	This concept involves, as related to parking, the combination of private and public transport in order to provide an acceptable mobility-chain for travellers. This is aimed at maintaining and enhancing the accessibility of towns and cities for visitors and not necessarily only for car-traffic. Within this concept, parking is an important element. If car-users are to use public transport for part of their trip it must be possible for them to park their car easily somewhere on their journey in order to travel onward by public transport, trying to achieve the so-called 'seamless journey'.

6.3.1.1 Parking Vision and Themes

The vision for parking in Pristina is to promote the development of a sustainable accessible city. This would be achieved through the efficient and effective provision and management of parking in the city, particularly on strategic radial corridors, public transport corridors and in locations of high demand.

Three policy themes support this vision, namely the community, economy and environment. A number of objectives relate to these themes as part a wider parking strategy as follows:

Type	Objectives
Community / Neighbourhood:	• Develop an efficient approach to parking supply and management which meets the needs of the community; • Provide, operate and manage parking in a safe manner; and • Ensure parking is convenient for the desired end user.
Economic:	• Parking supply and management will complement and enhance the economic growth of Pristina; and • The operation, management and delivery of parking will be efficient and effective.
Environmental:	• Parking management contributes to achieving the Municipality's objectives for a sustainable future; and • Parking will not reduce the residential and environmental amenity of Pristina.

The key themes that support the broader vision and objectives of the parking policy include the following:

- Establishing car parking spaces to meet the desired level of demand that can be accommodated with due regard to network capacity;
- Reducing congestion by reducing illegal on-street parking on key radial corridors, particularly on those that are of strategic importance and carry public transport;
- Managing the availability and use of parking spaces on-street in areas of high demand to ensure supply meets demand to avoid the sterilisation of parking stock;
- Prioritising the supply of kerb side parking space for desired specific use;
- Encouraging the appropriate use of parking spaces in areas of high demand through the introduction of paid for parking control;
- Considering areas of longer-term car parking at certain times of the day and in areas away from the public transport corridors, roads of strategic importance and in off-street parking facilities;
- Discouraging the attraction of short trips by car around the city centre; and
- Parking operations should be self-financing and any surpluses should be used to improve transport facilities within the Municipality.

6.3.1.2 Benefits of Parking Policy Measures

A number of key benefits will be realised from the introduction of the parking policy measures that include:

- Revenue generation: It is anticipated that the parking policy measures for Pristina will generate revenues that will support fund the improvement of parking facilities across the city, other transportation improvements for all modes including those for pedestrians and cyclists and other important transport initiatives for the city of Pristina;
- Supports mobility management: Will form an important component of efforts to encourage more efficient transportation patterns, which will help reduce problems such as traffic congestion, pollution emissions, energy consumption and improve road safety for all road users;
- Supports equity objectives: Will improve travel options for non-drivers and lower-income households; and
- More liveable communities: Will help create more attractive and efficient urban environments by reducing total paved areas, allowing more flexible building design, increasing walkability and improving parking facility design.

6.3.1.3 Key Issues for a Successful Parking Policy in Pristina

The aim of the parking policy measures that have been developed include increasing economic vitality, creating a better environment and improving accessibility to Pristina's city centre. This requires development of a strategy that manages the existing parking supply in an efficient manner and serves the needs of the central area. One of the mechanisms to achieve, particularly in retail areas, is to restrict time limits to eliminate long stay parking, thereby increasing turnover of existing parking supply. More specifically, the purpose of restricting time limits is to:

- preserve the convenience of on-street parking for short term users whilst maintaining adequate paring for residents;
- increase turnover of parking spaces in commercial and retail areas, thereby supporting retailers;
- increase the availability of parking spaces by rationalising their use to encourage short term parking activity by removing competition from all day parkers;
- improve customer/public access; and
- improve safety and traffic efficiency.

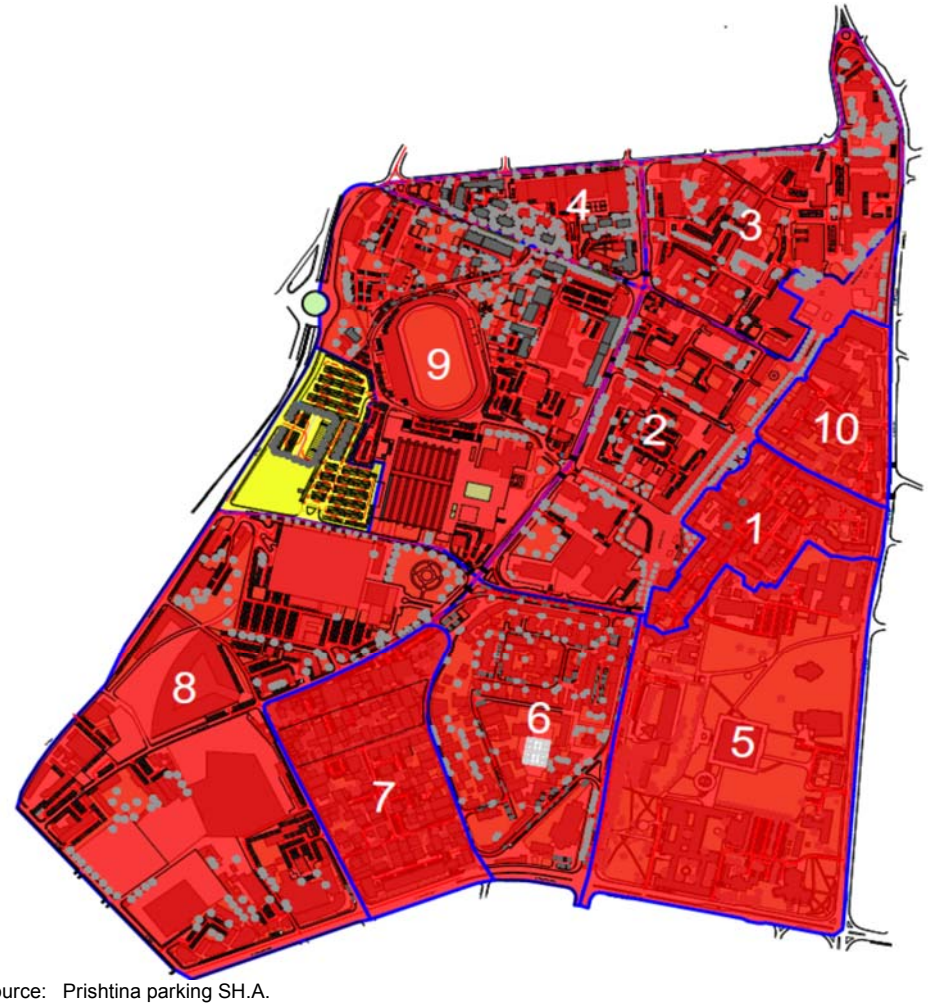
6.3.2 Paid Parking Zone - Pristina

Daily and constant need for parking, which is often greater than the capacity in the central part of the city of Pristina, requires measures to meet distinct needs and demand for parking given the different types of user (residents/commuters/tourists). The Municipality has decided to adopt the organisation and computerisation of parking as part of a project focusing on the "Organisation of payment and parking control in the city of Pristina". The decision referred to the basis for the design and development of the payment system and parking control, using measures which do not require high investment scale, namely, the implementation of the computer system for payment and parking control.

6.3.2.1 Determining the Parking Zones

When determining the extent of the paid parking area, the city of Pristina is divided into several zones. As part of the zoning exercise, issues such as the price of parking and duration of stay were assessed for different parts of the city. The city's central area is classified as the most expensive area with the shortest permitted duration of parking, whilst the peripheral parts of the city have the longest periods of time allowed and also the lowest price.

Figure 59: Parking Zones in the City Centre According to the Parking Study – Zone I and III



Source: Prishtina parking SH.A.

In area I (city centre), a total of 4,138 parking spaces provided, while within the peripheral parts, there are two areas. Area III with a total of 885 parking spaces, where parking can be longer than in area I. A total number of parking spaces in these two areas is 5023 PS. These parking spaces do not include places for taxi cars, places for people with reduced mobility and parking spaces for police cars, fire brigade and ambulance. The total parking spaces in zone I and III (incl. described PS) is 5309 PS. Area II is projected to be regulated after the zones I and III will be operated and includes the neighbourhoods (urban) area surrounding I zone.

6.3.3 Paid parking zone / "Blue zone" in the Residential Area

After commissioning the introduction of paid parking zone in the city centre, further phases of paid parking should be introduced in adjacent residential areas, to protect these areas from increased parking activity from non-residents. The conception of paid parking zones offers three basic parking modes:

- **Residents** – Suitable for customers living in Pristina (Blue zone);
- **Mixed** – Ready for visitors and residents as well (Purple zone); and

- **Visitors** – when passing through Pristina it is best to use this parking zone (Orange zone).

The blue zone, marked with a blue line (vertical and horizontal signs) is designated for residents. Only residents with a valid parking permit and subscribers may park on the blue zone. Others may use the blue zone for parking only after paying via the virtual parking clock web app, as there are no parking ticket machines installed in the blue zone. This way of use of the blue zone allows for maximum time of 3 hours.

The purple zone, marked with a discontinuous white line and a traffic sign with a purple stripe is meant for so called mixed parking. Owners of a valid parking permit may use the purple zone without limitations. Others may use it for a maximum of 24 hours and only after paying via a virtual parking clock web app or using the parking ticket machine.

The orange zone, marked with a discontinuous white line and a traffic sign with an orange stripe is designated for so called short time parking. All users may park on the orange zone for a maximum of 3 hours and only after paying via the virtual parking clock web app or using the parking ticket machine.

Conceptual/ strategic principles of parking zones are elaborated in this document. The exact identification of above described zones needs to be developed in follow-up studies on this matter.

Parking tickets can be paid for using either the parking ticket machine (payment by card or cash: EUR) or by using the virtual parking clock web app. Customers will be identified using the license plate number of their vehicle. Inspection of parking permits will be conducted automatically using a monitoring system. That way there is no need to display the parking ticket or the permit behind the windshield of the vehicle.

An overview of the proposed area proposed for the introduction of paid parking zones / "Blue zones" is presented in the figure at the end of this chapter.

6.4 Parking Operation and Enforcement

It is important to establish an organisation which aims to develop and modernise the payment of parking in the city and which also manages parking control. Such a parking operator may be owned by the municipality or operated via a private concessionaire.

It is recognised that enforcement of parking controls and regulations is a key element of the parking strategy. It is proposed that the current approach to enforcement is reviewed and altered to strengthen the resources devoted to enforcing parking and traffic management measures proposed as part of the Plan. The success of controlling and managing parking activity in across the city, especially the city centre, will be highly dependent on having a successful enforcement body in place. The benefits of introducing a new parking organisation in Pristina responsible for parking operational management and control include the following:

- ensuring that parking policies are effectively implemented and enforced, with associated benefits in terms of improved traffic and public transport flow, road safety, use of parking places and environmental benefits; and
- integration of all enforcement and parking policy provides opportunities for better monitoring and use of enforcement, enabling it to become more responsive to public needs; and
- Longer-term options exist for upgrading the system to accommodate more automated systems including space allocation and payment mechanisms.

6.5 Disabled Blue Badge Scheme

It is recommended that a review of the city's process for managing disabled parking is undertaken as part of the overall parking strategy. As part of this process, a survey of demand should be undertaken in residential areas and in the city centre to assess the current level of provision. It is important to understand the demand for disabled parking spaces within the residential and main areas of the city where trips take place in order to determine an appropriate level of provision. A range of issues will need to be considered more fully including reviewing the current system for the allocation of permits, including eligibility criteria, as well as identifying locations where new disabled parking spaces should be provided. This will improve provision for disabled users and increasing their mobility/accessibility across the city.

6.6 Establishment of Park & Ride Services and Facilities

There is scope in Pristina to establish a Park & Ride (P&R) concept, whereby remotely located car parks on the approach to the city are linked by an attractive public transport service with the key urban centre. The provision of parking spaces on the outskirts of the city aims to intercept commuter traffic, as well as tourists and local residents and transport them via fast, frequent and high quality public transport connection to the city centre. This will reduce the level of congestion in the city centre and enable space to be reallocated to other purposes.

Figure 60: Successful P&R in York (UK)

Source: City of York Council

Figure 61: Successful P&R in York (UK)

Source: City of York Council

Park & Ride is one of a range of transport planning tools that can be used to encourage car users to switch to public transport. In conjunction with other traffic management measures, such as a reduction in central area parking and the adoption of bus priority techniques, a well-designed and well-located facility can assist in reducing traffic levels in the city centre. This provides more sustainable access, improves attractiveness, and can enhance the economic viability of the city centre. In order to be successful Park & Ride should be more attractive than if the trip were to be made entirely by private car so that motorists choose to use the facility. Therefore, it is important that any scheme seeks to achieve the following outcomes:

- Central parking availability should be restricted – this is actively being pursued by the Municipality as part of a new parking strategy with the development of a city centre 'Blue Zone' scheme;
- The Park & Ride site must be well located, easily accessed, and readily visible or well signed from the main approach roads;
- The cost of using the service should be substantially less than parking in long-stay central area car parks;
- The transit service should be fast, frequent, reliable and comfortable and importantly the public transport trip should take less time than the car – the implementation of any new rapid transit

service will help support the scheme and will contribute significantly to this objective for a bus-based scheme where heavy congestion levels are experienced on the radial corridors into Pristina; and

- The site should offer good facilities such as shelter and telephones, and good security, lighting and visibility.
- In considering the merits of Park & Ride there are a number of specific issues that need to be addressed in the assessment and development of scheme for Pristina including:
  - The acceptability of different sites in policy terms;
  - The location and design of the facilities;
  - Patronage, mode switch and the potential business case;
  - Links to the availability and cost of central area parking; and
  - Links to other proposals within Pristina including development of core and secondary bus route options for the city.

6.6.1 Park & Ride Site Selection and Location

In order for Park & Ride to work in Pristina, the service from the car park must be fast, frequent and achieve good penetration into the city centre. This is further helped by the potential for introducing priority measures such as bus lanes that are being proposed on the main corridors in the city centre. In addition, the policy on central car parking, its provision and its pricing will help to determine the economics of any Park & Ride link. The important screening criteria for the assessment of Park & Ride sites in Pristina include:

- Fit with land use/urban planning policy;
- The likely availability of sufficient land;
- Travel times to the city centre;
- The acceptability of the site in terms of highway access, visibility, car flows past the site and other usage factors; and
- The ability of the site to offer quick access by bus from the site directly into the centre.

The appropriate size for a Park & Ride site will depend partly on demand forecasts and also partly on land availability (and any other constraints). Consideration should always be given to the scope for future expansion of the site early on in the planning stages. Sites with a capacity of at least 500-600 spaces allow for a cost effective, efficient and viable dedicated bus operation. However, smaller sites of around 250 spaces can be successful where there is limited central parking, existing local bus services can serve the site and where the public are prepared to wait a few minutes longer for the ride into the centre.

6.6.2 Charging for Park & Ride

The charge made for a Park & Ride service and how this compares to the cost of central area parking is a major factor when assessing potential usage by those travellers who would otherwise drive into the city centre and pay for parking. Therefore, in considering the merits of a Park & Ride strategy for the city it is essential to acknowledge the relationship between any scheme and city centre car parking charges and proposed arrangements for the City Blue Zone scheme currently being developed. Most schemes aim to price long-stay travellers out of a central urban area whilst at the same time retaining a good supply of moderately priced parking for short term travel needs (tourists/shoppers etc.). Feasible Park & Ride charging structures include a set tariff throughout the day, or a tariff that varies by time of the day, which can be employed to positively encourage commuters to use the facility.

6.6.3 Potential Private Sector Support – Links with Retail Sector

There is potential for Park & Ride schemes to be provided in association with commercial developments (typically on the edge of urban centres), often linked to conditions of planning consent to minimise the impact of traffic on the local network. The location of Park & Ride sites adjacent to a superstore also offers mutual benefits, with the store's customers potentially trying out a new facility and vice versa the Park & Ride scheme providing a useful source of extra customers for the store. (Surveys undertaken in York, UK (1997) revealed that with the introduction of Park & Ride at two sites, 30% of motorists leaving the car parks had either visited the nearby superstores or intended to do so. There are a range of other mutual benefits from such an arrangement including:

- The private sector making land available for a Park & Ride site as a (part) contribution associated with their own development;
- New stores providing a Park & Ride service for an agreed period in order to advertise their presence; and
- Peak period use of spare car park spaces at the store by Park & Ride passengers (and vice versa).

6.6.4 Park & Ride Site Layout

To establish a successful Park & Ride scheme, it is essential to create a safe environment for pedestrians and motorists and to establish a sense of security and confidence in the system from the outset. The site layout should be designed with the safety and security of users and their vehicles in mind. It is important to pay attention to all aspects of the service, beginning some distance from the site itself. Signing should be of a good quality, clear and easy to follow, once vehicles enter the site, the circulation routes should be clear, as drivers must immediately know where to park and arrangements for payment etc.

The design layout for each facility should incorporate good access to the site from the main roads and generally this should be of a higher design standard than central area car parks because Park & Ride sites are more likely to intercept fast moving traffic. The site should include well-sited pick-up and set-down points to minimise walking distances between where cars and cycles are parked and where buses/rapid transit vehicles stop, as well as convenient links to any local footpaths or cycle routes.

6.6.5 Potential Pristina Park & Ride Sites

A number of potential Park & Ride sites have been identified across Pristina including the following locations:

- On the north part of Pristina, on Basri Canolli Street (M9), respectively behind the social housing in Kolovica, with approximately 700 parking spaces;
- On the M-2 road, on the border of city of Pristina, near the junction of Lekë Matranga and Mitrovica streets, is located P+R facility with approximately 1100 parking spaces;
- Between Vudro Vilson, Ahmet Krasniqi, 4 Korriku and Radovan Zogoviq streets, is proposed P+R facility with approximately 400 parking spaces;
- Near to new exchange terminal on the M-9 road (Lidhja e Pejës Street) is located P+R facility with approximately 370 parking spaces;
- On the Shkupi Street, near to proposed bus hub terminal is located another P+R facility with approximately 300 parking spaces;

- On the E 65 road in Veternik, Rrafshi i Kosovës Street (near to grade separated junction M-2 and M-25.2 roads) is proposed P+R facility with approximately 150 parking spaces.

Other alternative locations for P+R locations were identified on the main roads linked to Pristina and all P+R sites are shown in the following scheme.

These locations might change depending on the analysis during the drafting of land use documents in the future.

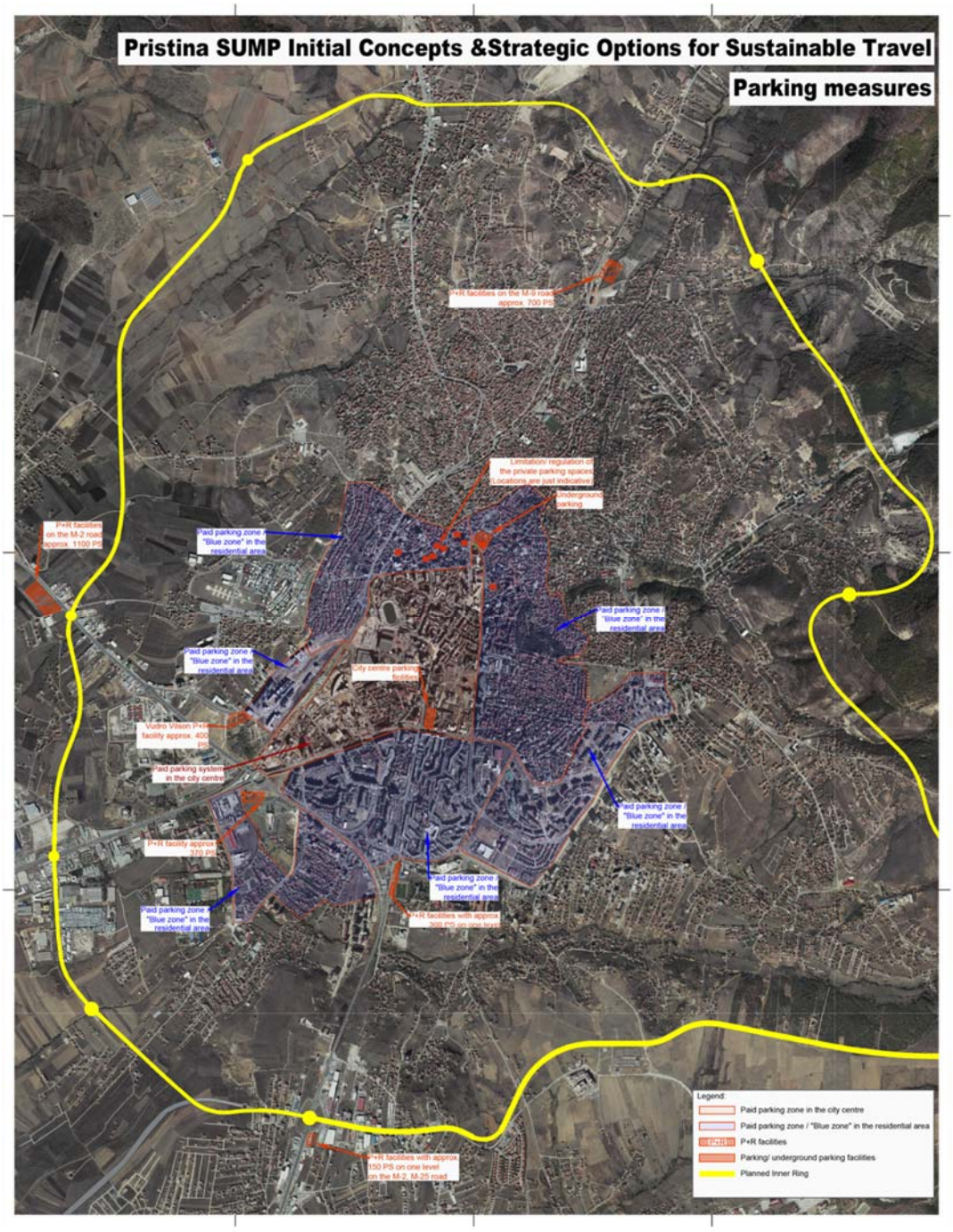
6.6.6 Underground Parking & Parking House

A few of potential underground parking and parking house have been identified across Pristina including the following locations:

- **Underground parking** - Construction of underground parking and shifting parking spaces from street to the parking house. New parking spaces will not be created.
  - One underground parking area between Xhemail Prishtina, Vasil Andoni and Ibrahim Lutfiu streets.
- **Parking house** - Construction of parking house and shifting parking spaces from street to the parking house. New parking spaces will not be created.
  - Parking house near to Nënë Tereza Cathedral.

The above measures related to parking are presented in the following figure.

Figure 62: Proposed Parking Measures Within Pristina



Source: Mott MacDonald

6.7 Summary of Measures

The table below shows the main road system and parking measures proposed for Pristina for implementation in short, medium and long-term plan periods. This list of projects does not include those road projects which are linked with new development sites.

Table 7: Summary of Road System & Parking Measures

Short Term (2019-2020)	Medium Term (2021-2025)	Long Term (2026-2030)
C.11.2a Inner Ring – First part	C.11.2a Inner Ring – First part	C.10 Parking house
C.11.4 Primary Road	C.11.3 Road A	C.11.2b Inner Ring – Second part
C.11.5 Primary Road - Part of City Ring	C.12 Parking Enforcement	C.11.2c Inner Ring – Third part
C.12 Parking Enforcement	C.13 Parking for Disabled Users	C.12 Parking Enforcement
C.6 Paid parking zone	C.7 Blue zone in the residential area	C.13 Parking for Disabled Users
C.8 P+R facilities	C.8 P+R facilities	C.7 Blue zone in the residential area
	C.11.5a Primary Road - Western Part of City Ring	C.9 Underground parking
		C.11.5a Primary Road - Western Part of City Ring

Source: Mott MacDonald

Further details are provided on these measures in the proposal plans presented in Appendix B, as well as the project implementation lists shown in Appendices C, D and E.

7 Traffic Management & Road safety

7.1 Introduction

It is essential to manage the flow of traffic using urban traffic management control to maximise capacity, and effectively manage and maintain the city's assets. The city's transport infrastructure should be maintained effectively to ensure value for money and manage necessary maintenance work to minimise disruption to users on the network. It is also important to consider options to accelerate the use of hard measures such as reallocation of road space to more sustainable modes of travel, including bus priority measures, cycle lanes and widened footways. It is important to enhance road safety in the city centre as well as local neighbourhood, district centres, with high quality cycle and pedestrian routes that have better street lighting and other safety features.

7.2 Summary of Key Issues in Pristina

- **Road safety issues across Pristina:** Research reveals that the level of injury accidents is steadily rising, almost 3 times higher in Pristina than the EU average (per 1000 population). It is important to improve safety on the city's road network, particularly for vulnerable road users, such as pedestrians and cyclists.
- **Many junctions experience congestion and safety problems across the city**: Within the city centre, the most overloaded traffic in both directions occurs at "Bill Klinton" 48 000 veh/12h and "Fehmi Lladrovci" 33 000 veh/12h.

7.3 Proposed Strategy

Making Pristina a safer place to live and work remains one of the priority themes for the Municipality, with an emphasis on speed management to reduce the occurrence and severity of traffic accidents on the citywide road network. There are clear benefits of limiting vehicle speeds to 'appropriate' levels including:

- Reducing 'intimidation' of more vulnerable road users – cyclists, pedestrians and mobility impaired people (including mobility scooters and wheelchair users);
- Reducing the likelihood of accidents with operatives/equipment at temporary roadworks;
- Minimising the impacts of severance and anti-social effects in sensitive areas – such as schools, residential districts and shared public space.

We will look to introducing a selected number of road network improvement, including capacity/safety enhancements at key junctions, as well as road modifications in the proximity of bus routes/stops to prevent obstacles and barriers to bus movement.

7.3.1 Development of Speed Management Plan

Managing traffic speed is important to improve road safety on the city's road network including:

- Implementation of speed cameras and monitoring of speed limits, including also red-light speed cameras at the signalised junctions to reduce incidences of speeding, lower number of accidents and make more stable traffic flow;
- Influence travel behaviour and improve safety for vulnerable road users, with improved road safety training;
- Emphasis on road safety engineering, enforcement, education and training initiatives;
- Development of 20kph zones around schools to improve safety and to encourage more children to consider walking or cycling for their school trip; and
- The development of School Travel Plans, involving the City's Education Department and local schools will aim to encourage more sustainable forms of transport for journeys to school, reducing traffic congestion during the peak periods.

The development of 20 kph zones around schools in local neighbourhoods improves safety for local residents and encourages more walking and cycling activity.

Figure 63: Speed Management in Urban Areas

Source: Mott MacDonald

Figure 64: Speed Management in Urban Areas

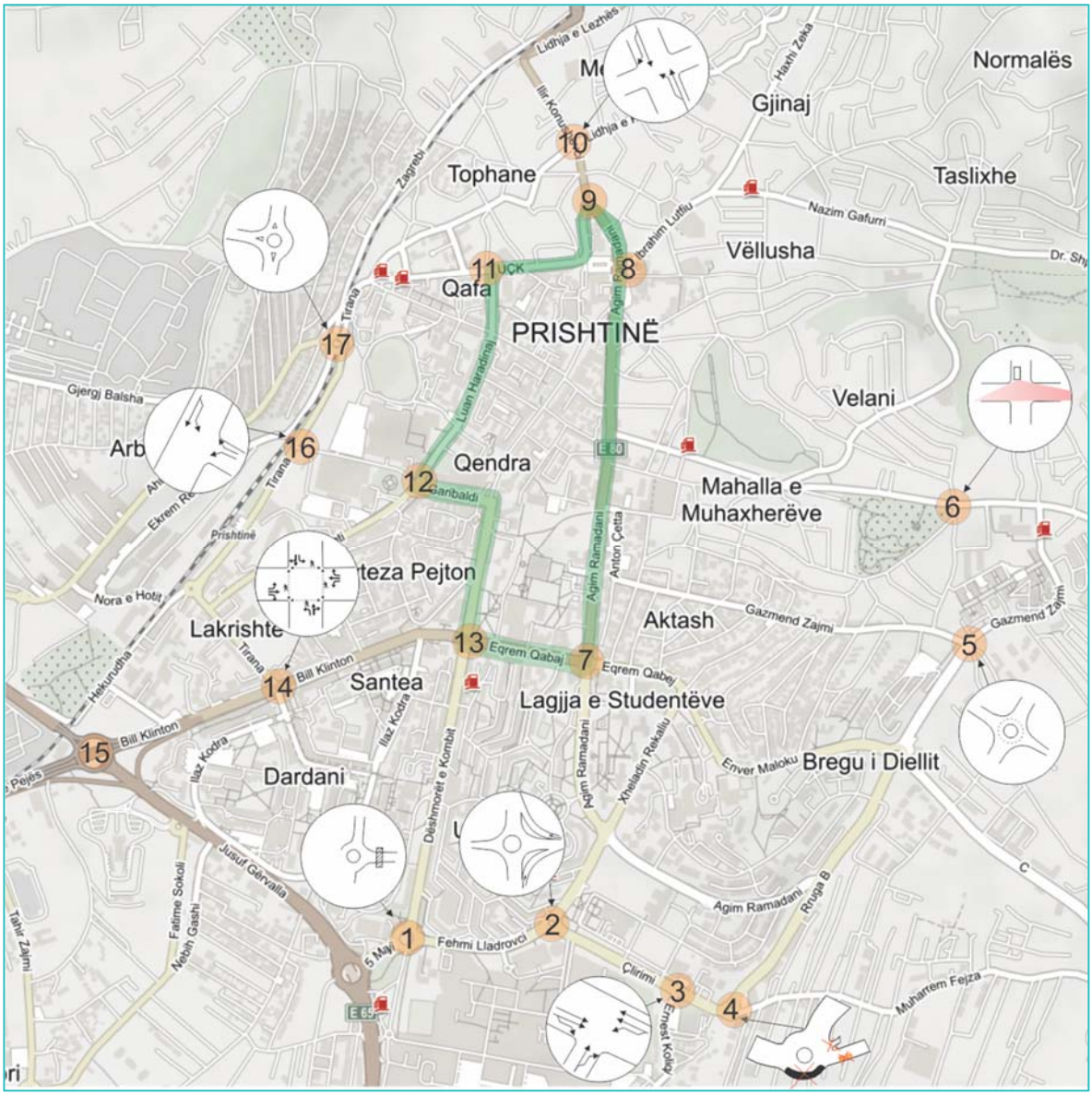
Source: Mott MacDonald

7.3.2 Improved Junction Capacity & Safety Measures

Results from traffic surveys undertaken across the city reveal that many junctions suffer from heavy traffic congestion and also pose safety risks to road users. As part of the SUMP strategy a series of traffic management measures are proposed to improve efficiency of the junctions and network, whilst at the same time improving safety for users, especially pedestrians and cyclists.

The schemes will look to consider a wide range of sustainable transport priority features to be addressed including pedestrian, cycling and bus priority, as well as safe crossings. Preliminary concept ideas have been developed for a number of junctions across Pristina. These will be further developed and assessed, including liaison with stakeholders as part of the SUMP implementation plan.

Figure 65: Key Junctions in Pristina With Capacity Problems



Source: Mott MacDonald

A summary of the proposed measures at each junction is presented below.

Table 8: Proposed Junction Improvement Measures in Pristina

Junction	Description of Measures
Roundabout No.1	• Underpass for pedestrians, in the "Fehmi Lladrovci" street, near the secondary school (the large number of pedestrians directly affects in the capacity reduction).

Roundabout No.2	• To increase capacity, it is necessary to add the by-pass lanes, especially on the main roads.
Traffic intersection No.3	• Option I: – new road lane layout, – addition of special lanes for left and right turning. • Option II: the left turn should be stopped for both directions.
Roundabout No.4	• parking should be stopped at the roundabout (for the moment outer lane is used for parking); • to close entrance / exit to and from the business object (for the business object to find another solution, because many entry/exits are made directly into the roundabout); and • relocate the existing bus stop on the road “Muharrem Fejza” (the bus stop can be moved in front of the roundabout).
Roundabout No.5	• to design a new roundabout with two traffic lanes (the existing roundabout has only one traffic lane).
Traffic intersection No.6	• the visibility at the junction should be improved.
Traffic intersection No.10	• new road lane layout; and • addition of special lanes for left turn.
Traffic intersections No. 7,8,9,11,12 and 13	• opportunities for intervention are small, therefore improving the capacity at these crossroads should be analyzed with the possibility of the traffic rearrangement (e.g. the possibility of one-way streets).
Traffic intersection No.14	• coordination of traffic lights (better cycle length determination).
Traffic intersection No.15	• new intersection layout.
Traffic intersection No.16	• new road lane layout; and • addition of special lanes for left turn.
Roundabout No.17	• placement of splitter islands.

Source: Mott MacDonald

A summary of all measures related to the traffic management and road safety include the following:

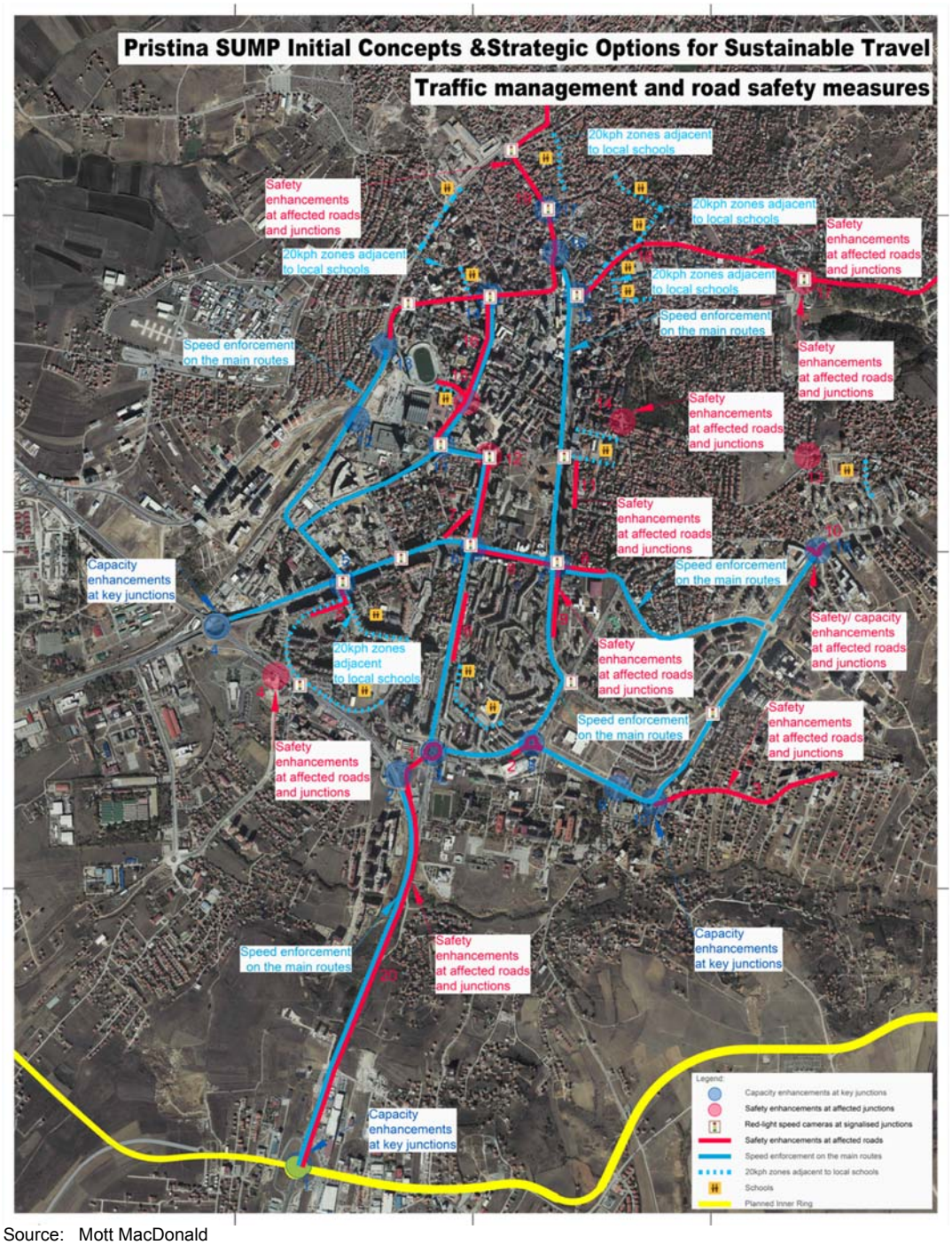
- **Capacity enhancements at 18 key junctions:** Adding new traffic lanes / better traffic control / coordination of traffic control / junction modification. This measure will help reduce delays and improve the flow of traffic as well as address safety issues at junctions.
- **Safety enhancements at 6 affected junctions:** Traffic lane improvements (such as lane modification, traffic signs etc.). The impact of this measure will be a lower number of accidents and more stable traffic flow.

- **Safety enhancements at affected roads**: Traffic lane improvements (such as lane modification, traffic signs etc.). The impact of this measure will be a lower number of accidents and more stable traffic flow.
- **Speed enforcement on the main routes**: Traffic lane improvements (lane modification, traffic signs, humps etc.), Speed control (radars, red-light speed cameras at the signalised junctions – cameras are capable of detecting vehicles exceeding the speed limit at all times, whether the traffic light is red, amber or green, etc.). This measure will help lower the number of accidents as well as establish more stable traffic flow across the city.
- **20kph zones adjacent to local schools**: Transport area modification (road and footpath, speed humps, traffic signs and other raised pavement areas.). This measure will create a safer traffic environment around schools with a lower number of traffic accidents, as well as creating a safer local environment for pupils and students.

Conceptual/ strategic principles of junction improvements are elaborated in this document. The exact identification of above described needs at affected junctions needs to be developed in follow-up studies on this matter.

These types of measures are included in the following scheme.

Figure 66: Traffic Management and Road Safety Measures



Source: Mott MacDonald

7.3.3 City Access Restrictions

Restricting vehicular access to city centres and urban areas can play a major role in creating more 'liveable' areas and reducing the impact of road transport, managing air quality, promoting better integrated transport, and supporting urban renaissance and regeneration policy objectives. Within the city centre is important to manage deliveries within the pedestrianised areas of the city including:

- New controls of the time of operation, vehicle access and vehicle type;
- Enhanced facilities and signing for loading and delivery bays; and
- Stronger enforcement to reduce the level of indiscriminate parking/ loading by commercial vehicles and minimising conflicts with pedestrians and other road users in the city centre.

In the longer-term, an option exists to establish an urban clear zone to reduce congestion, air and noise pollution and improve the urban realm within the city. This will involve using innovative technologies and sustainable transport measures to achieve this aim. For such a scheme to proceed a number of key elements will need to be considered more fully including:

- Legal Process Requirements*:* reviewing the limitations of existing regulations as the legal basis for access control and potential legislative changes to improve their effectiveness;
- Assessing Environmental, Economic and Social Impact Appraisal*:* assessing the wider environmental, social-economic impacts of such schemes and their public acceptance;
- Phasing, Implementation and Maintenance*:* reviewing the availability and use of appropriate technology for effective vehicular traffic management in relation to the signing, design and layout of access control points to support compliance with a scheme; and
- Reviewing the Enforcement Mechanisms*:* reviewing operational processes in terms of options for enforcement and the lead time for setting up any associated infrastructure.

7.3.1 Taxi Pit Stops

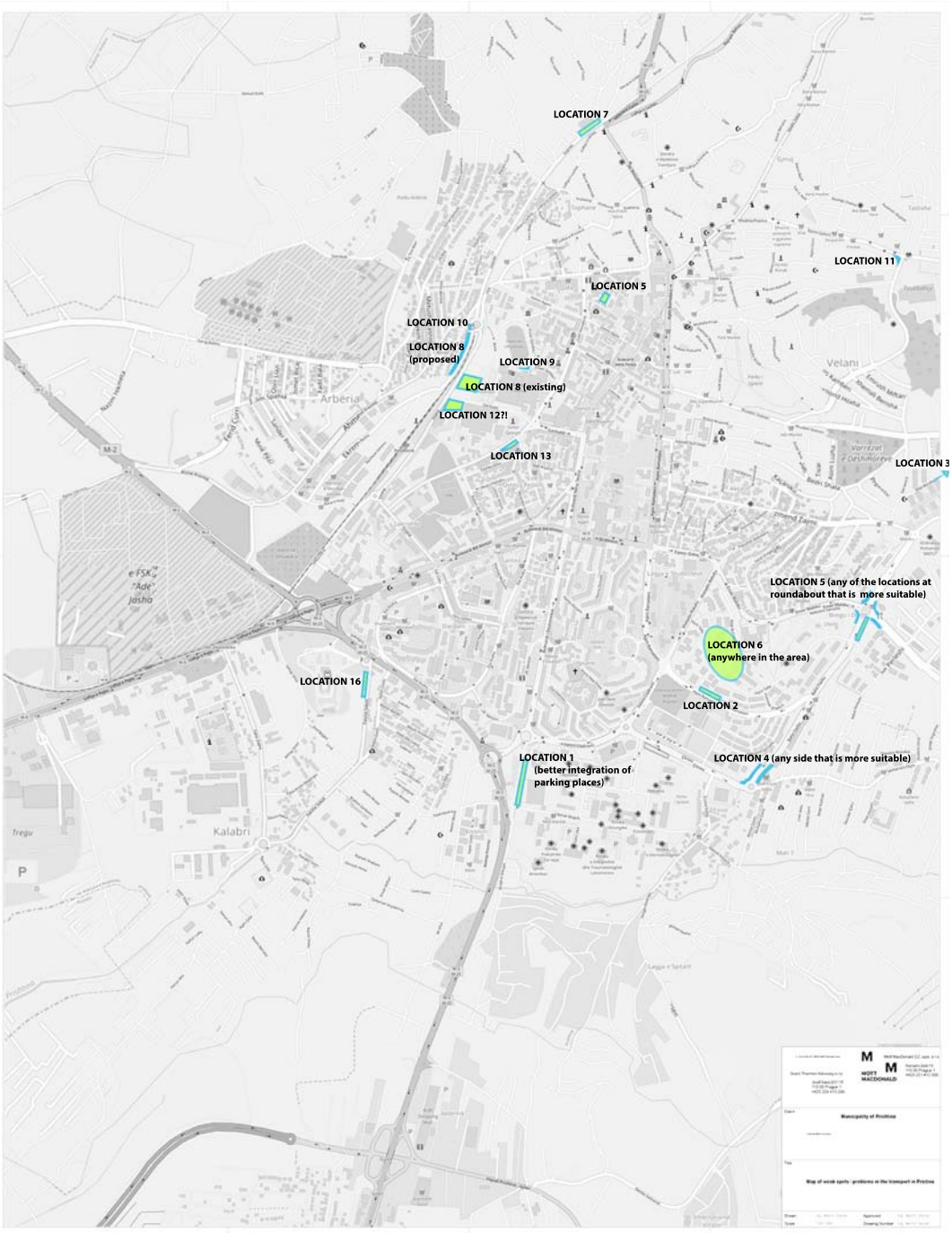
In response to the problems faced by taxis in the city, it is proposed to establish a series of taxi 'pit stops' in the city centre in accessible locations where they do not impede other road users. These 'pit stops' will provide joint stopping places (available to different users). i.e.: Zone 1 – pit stops where taxis can stay for a maximum period of 5-10 minutes. It is proposed that the municipal bodies will determine the locations for the 'pit stops', while the Taxi Association would regulate it through a traffic regulation order which would allow all licensed taxi companies to use these facilities.

There is the possibility of incorporating 'pit-stops' as part of the 'Pristina Parking' project, in particular targeting streets Agim Ramadani and Luan Haradinaj among others. A programme of taxis stops is proposed to be established in different parts of the city where taxis could stop more often but for shorter periods of time. As part of this scheme, it is proposed to include the development of an application related to taxi services as well as better signage to clearly highlight and promote the designated sites more clearly. The city's Taxi Association is able to participate in contributing towards funding signs and branding related to taxis in support of such a scheme.

In addition to the introduction of taxi pit stops, further measures are required to organise the operation of taxis to reduce the level of illegal activity that currently takes place in Pristina. Of critical importance is to establish equal operating conditions for all official taxi drivers through establishing a stronger taxi charter and operating protocols. In support of environmental objectives further consideration will be made to encourage greater use of electric vehicles by taxi operators which will help address air quality problems in the city centre.

A series of potential taxi ‘pit stop’ locations have been identified as shown in the figure below.

Figure 67: Available Locations to Create Taxi ‘Pit Stops’



Source: Mott MacDonald

7.3.2 City Logistics Improvements

Improving arrangements for goods and freight is important in terms of supporting and facilitating the city's economic aspirations and future growth. Measures include streamlining freight movement in Pristina by establishing appropriate time-slots for freight access, reduction of vehicle weights and emission types for freight vehicles on the city's road network. Such measures will see better control of freight transport across the city, unlocking road capacity for other modes of transport and reducing vehicle emissions.

As part of the overall review and enhancement of the city centre pedestrian priority zone it is important to consider reviewing/updating access arrangements for commercial and service vehicles. Within the proposed city centre controlled parking zone additional loading and delivery bays can be provided, supported by enforcement to minimise abuse and facilitate turnover of delivery vehicles to support the city's commercial economy. Options exist for the development of a freight consolidation centre which will help manage sustainable deliveries within pedestrianised zone. Specific issues will need to be considered more fully including time of operation, vehicle access and vehicle type for such a scheme.

7.4 Road Traffic and Public Safety

7.4.1 Vision and Objectives

All vision and objectives include all appropriate measures to improve the safety of traffic in line with the EU Road Safety Directive, ISO standard 39001: 2012. Road safety management systems and other recognized international standards and practices.

All vision and objectives were also assessed by the Road Safety Auditor and, if they did not meet road safety requirements, then these visions and objectives were proposed / designed by the Road Safety Auditor to increase traffic safety for all traffic participants / users.

Vision and objectives, which we have proposed for SUMP Pristina project, were reviewed by the certified road safety auditor (member of the road safety auditor chamber in the Czech Republic).

7.4.2 Components of the Plan in Line with the EU Road Safety Directive

There have been national road safety programmes elaborated in Kosovo and a road safety strategy has been produced in line with recommendations of the EC Road Safety Audit 2008/96/EC aimed at improving road safety. Further to the Road strategy objectives, Kosovo has undertaken in its road law and in its road traffic law certain regulations that shall ensure particular road safety measures order initially to reduce number of accidents which is amongst highest in Europe. In this report, it has been emphasized the importance of road safety audit during the design stage as a tool for reducing the accidents caused by improper road design from safety point of view.

7.4.3 General safety aspects, principles and measures

Planning and designing safe transport infrastructure includes the following key areas:

- Engineering – Defining the Built Environment including the road design and vehicle design;
- Enforcement – Strict application of law;
- Education – Teaching good road behaviour through awareness campaigns;
- Encouragement – Rewarding people for good road behaviour; and
- Emergency Care – Road side medical care and access to para-medics in the "Golden Hour", or the hour immediately following a road accident during which the provision of first aid can greatly enhance the prospects of the accident victim's survival.

At each stage of the process of preparing, constructing and maintaining of the transport infrastructure, it is possible to make arrangements to ensure that roads will be as safe as possible:

- Planning Stage**:** through land use control policies; providing by-passes for congested towns and linking them by spurs; and creating Self Contained zones to avoid nonessential traffic in the neighbourhood.
- Design Stage: designing “Self Explaining Roads” and “Forgiving Road Side” by selecting the most desirable design standards (and NOT the minimum standards) involving:
  - Design speed
  - Horizontal and vertical geometry
  - Cross-sectional elements
  - Design of at-grade and grade separated junctions
  - Provision of service roads for segregation of slow and fast traffic
  - Designing effective road furniture, vis-à-vis guard rails, traffic signage, roadside illumination provisions, etc.
- Construction Stage: Proper separation of the construction zone through effective barricading; construction of proper traffic diversions; provision of road signage; environmental controls for reducing noise, dust, etc.
- Maintenance and Operation Stage: Providing an Automated Traffic Management System (ATMS) for safe operation of Traffic and Incident Management. This includes providing Mobile Communication Systems, Variable Message Signs, Weigh-in-Motion System, and Central Control Room.

The key to Safe Road Infrastructure Design is consistency of standards so that road users do not encounter unexpected situations. While road crashes are overwhelmingly caused by human failings, the greatest untapped potential to prevent death and injury is through the roads themselves. There has to be a clear distinction between inter-urban roads for high speeds and urban roads for lower vehicle speeds and priority for vulnerable road users, for example.

By making roads more predictable, consistent and forgiving, we can produce a long-term solution that helps save lives and reduce injuries.

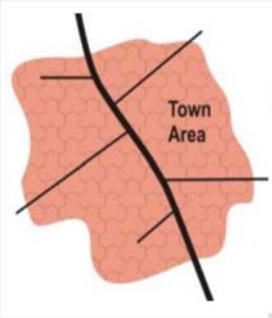
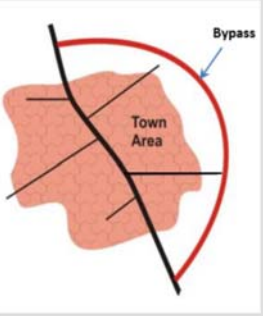
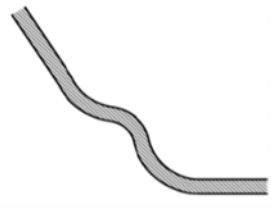
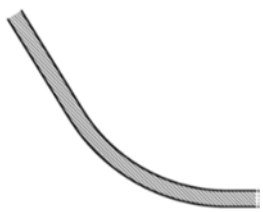
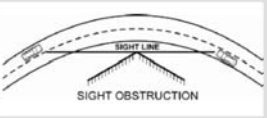
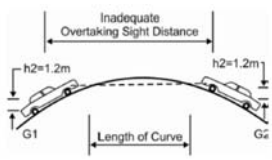
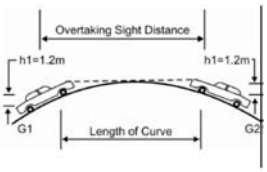
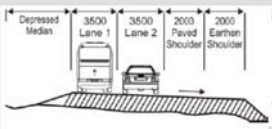
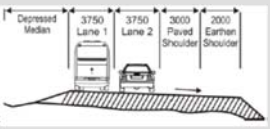
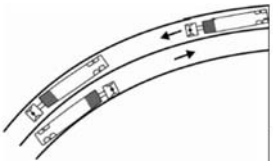
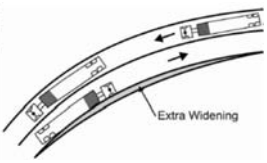
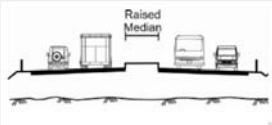
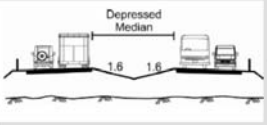
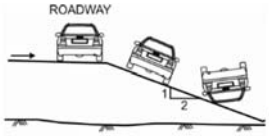
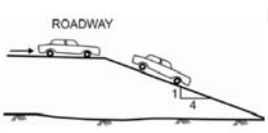
7.4.4 Key Elements of Safe Road Infrastructure Design

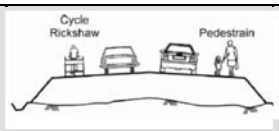
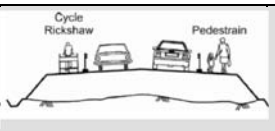
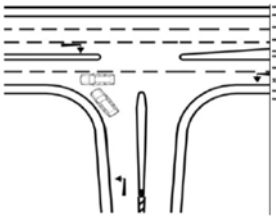
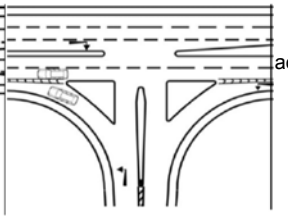
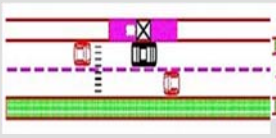
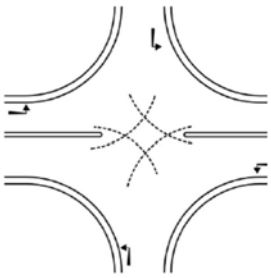
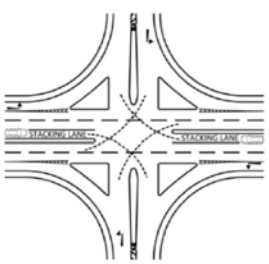
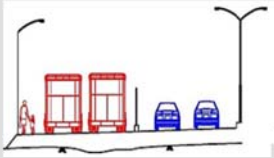
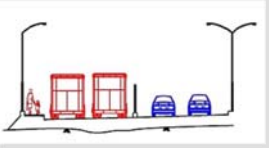
Some of the key elements of Safe Road Infrastructure Design are set out below and are further illustrated via a series of diagrams (also below):

- Major arterials and expressways should bypass major towns which should be connected by spurs. There should be clear zones identified for linear land use control;
- Consistency of horizontal geometry avoiding monotonous straight lines or abrupt change of speed;
- Adequate off-set distance from natural road side features;
- Undivided carriageways designed for Overtaking Sight Distance;
- Wider lane widths and shoulders for High Speed Roads;
- Inside widening for sharp curves;
- Recoverable slopes for out-of-control vehicles;
- Segregation of the slow moving non-motorised traffic from fast moving traffic;
- Provision of raised footpath for pedestrians in Urban Areas;
- Barriers should be designed to deflect the vehicle and not crash it;

- Road Signs should be standardized throughout the country;
- Properly designed traffic calming measures like the speed humps, rumble strips, small roundabouts; and;
- Entry / Exit only through Slip Lanes with proper Acceleration and Deceleration Lanes.

Table 9: Key Elements of Safe Road Infrastructure Design

Design / Planning Elements	Undesirable	Desirable	Principle applied
Alignment Selection and Land Use			Major arterials and expressways should bypass major towns which should be connected by spurs. There should be clear zones identified for linear land use control
Horizontal Geometry			Consistency of horizontal geometry avoiding monotonous straight lines or abrupt change of speed
Horizontal Geometry			Adequate offset distance from natural road side features
Vertical Geometry			Undivided Carriageways designed for desirable Overtaking Sight Distance
Cross-sectional Elements			Wider lane widths and shoulders for high speed roads
Cross-sectional Elements			Inside widening for sharp curves
Cross-sectional Elements			Wider depressed median for high speed roads to prevent glare and jumping of vehicles
Cross-sectional Elements			Recoverable slopes for out of control vehicles

Design / Planning Elements	Undesirable	Desirable	Principle applied
Cross-sectional Elements			Separate slow moving non – motorized traffic (cycles, rickshaws, etc.) from fast moving traffic
Entry/ Exit			Entry Exit only through slip lanes with proper acceleration and deceleration lanes
Passenger Transit			Separate Lay bye for buses and taxis to facilitate segregation and improve visibility
Junction Design			Channelization, provision of stacking lanes, adequate turning radii
Pedestrian Facilities in Urban Areas			Provision of raised footpath for pedestrians in Urban Areas
Facilities for differently abled			Footpath merging in a slope with a cross street, bus bays flushed with foot boards etc.
Barriers			Barriers should be designed to deflect the vehicle and not crash it
Road Signs			The road signs should be standardized throughout the country

Design / Planning Elements	Undesirable	Desirable	Principle applied
Traffic Calming			Properly designed traffic calming devices like speed humps, rumble strips, small roundabouts

Source: Road Safety Audits

7.4.5 Safety Aspects During Construction

Minimising road safety issues during construction should be taken into account at the planning stage. Therefore, all proposed measures should be checked through the safety audit process by a certified road safety auditor. Safety during construction must be governed by applicable local health and safety regulations and it is essential to prevent accidents and improve safety during construction through adopting the following measures:

- Management safety, including integrating safety as a ‘part of the job’;
- Create accountability at all levels;
- Take safety into account during the project planning process;
- Making sure that contractors are pre-qualified for safety and that workers are properly trained in appropriate areas;
- Have a fall protection system;
- Prevent and address substance abuse to employees;
- Make safety a part of everyday conversation; and
- Review accidents and near misses, as well as regular inspections.

7.4.6 Road Traffic and Public Safety requirements

The following areas need to be addressed and evaluated in the context of safety enhancement in the city:

- Improving education and training of road users;
- Increasing enforcement of road rules;
- Providing safer road infrastructure, as well as safer vehicles;
- Promoting the use of modern technology to increase road safety (ITS);
- Improving emergency and post-injuries services; and
- Protecting vulnerable road users.

7.4.7 Targets for an action Plan in the field of safety

The measures cover the full area of road safety, such as human behaviour, enforcement, infrastructure- and vehicle- safety and post-accident care. All measures should take into account the specific situation in Pristina and consider best practices from other countries.

The priority areas in the field of safety are the following:

- Traffic education and campaigns
- Driver education, training and licensing
- Enforcement

- Children and young road user
- Elderly road user
- Pedestrians
- Bicycle, Mopeds and Motorbikes
- Lorries and busses
- Railway level crossings
- Post-accident care
- Infrastructure
- Vehicle safety

7.4.8 Institutional Prerequisites for Road Safety

The safety sector should also be institutionally defended. Safety should fall under the following institutions in Pristina:

(i) Public Sector

According to the Road Safety Strategy and Action Plan in Kosovo, the leading institution for implementing and managing the road safety programme is the Secretariat of the Road Transport Safety Council (SRTSC) in the Ministry of Infrastructure. The strategy lists the following functions of the Secretariat:

- Administration of the allocated budget (Road Safety Fund) and procurement of all contracts for road safety activities;
- Responsible to maintain contact with the political level and to ensure best possible political commitment and support;
- Providing a platform to monitor strategy and action plan;
- Liaison with other Ministries, Regional Administration, Municipalities and other public and private organisations;
- Liaison with international experts and taking an active part in international road safety activities;
- Responsibility for the monitoring process and organises road safety evaluation, including Coordination of data and information are available before evaluation commences;
- Providing sufficient financial and qualified human resources; and
- Providing effective public relation work in close cooperation with public authorities in dealing with transport safety.

(ii) Private Sector

Road safety is not currently well-represented in the private sector in Kosovo. It is to be expected that not sufficient or not sufficiently qualified persons will be available for doing the road safety work that needs to be outsourced by the public sector. It is recommended to establish a Road Safety Institute that provides a strong focal point for existing road safety expertise, which provides junior experts with opportunities for further education and training to enhance skills and experience. This should take the form of a non-profit organisation which receives funding by some beneficiaries (e.g. starting with the insurance industry) and which is able to undertake projects for the public sector (e.g. investigations, studies, surveys, etc.). It could also provide road safety education and training, including road safety auditors and inspectors.

Such an institute could be established to work in close cooperation with the Technical University where some expertise already exists. In addition to establishing a Road Safety Institute it is also recommended to support and strengthen other NGOs in the transport field. This includes establishing an Automobile Club, which currently exists in many European Countries (AAA, ADAC, OEAMTC, ACI etc.) Such a club would help represent road user issues and concerns, as well as provide information, services, education and training. Similar to other countries, a special service could be provided, such as dealing with and responding to vehicle break-downs through an annual membership fee by motorists.

7.4.9 Infrastructure Safety Management

The European Commission's directive on improving the safety of the European road network was to be implemented by EU Member States by the end of 2010, representing a first step towards common quality management in infrastructure safety across Europe. The directive currently only applies to the Trans-European road network (TEN) and thus only to the highest-ranking roads, mostly motorways and expressways which already have a relatively high level of road safety. The European Commission currently encourages all Member States to apply the directive correspondingly to all other roads under their own jurisdiction. In this way the Directive should also be implemented into the road safety standards of Pristina as it is one of the best options for initiating capacity building programmes and measures in the field of road safety.

7.5 Next Steps in the Field of Safety

As a recommendation to the Pristina regarding the traffic and public safety is implementation of the following priorities such as:

- Implement the approved law of National Strategy and a National Road Safety Authority;
- Ensure sustainable funds for road safety;
- Improvement of road infrastructure – Safe roads;
- Implementation of the Directive 2008/96/EC on the whole road network;
- Effective regulation of Road Safety Audit for all new road designs / and RS Inspection for major lines;
- Road safety education and /periodical training for all ages, reorganisation of the training- and licensing system);
- Effective enforcement of traffic rules;
- Provision of safe transport vehicles;
- Raising road safety awareness through information campaigns and encouraging safe behaviour;
- Focus on priority problematic areas in terms of safety improvements such as the following:
  - Children;
  - Pedestrians;
  - Cyclists;
  - Motorcyclists;
  - Young and novice drivers;
  - Aging population;
  - Alcohol and other addictive substances impaired driving;
  - Inappropriate speeding; and
  - Aggressive driving;

7.6 Summary of Traffic Management and Road Safety Measures

The table below shows the main traffic management and road safety measures proposed for Pristina for implementation in short, medium and long-term plan periods. This list of projects does not include those road projects which are linked with new development sites.

Table 10: Summary of Traffic Management & Road Safety Measures

Short Term (2019-2020)	Medium Term (2021-2025)	Long Term (2026-2030)
C.1 Capacity enhancements at 18 key junctions	C.1 Capacity enhancements at 18 key junctions	C.1 Capacity enhancements at 18 key junctions
C.14 Development of Speed Management Plan		C.4 Speed enforcement on the main routes
C.15 City Access Restrictions	C.15 City Access Restrictions	C.5 20kph zones adjacent to local schools
C.16 City Logistic measures	C.16 City Logistic measures	
C.2 Safety enhancements at 6 affected junctions	C.17 New Pit stops for Taxis	
C.3 Safety enhancements at affected roads	C.2 Safety enhancements at 6 affected junctions	
C.4 Speed enforcement on the main routes	C.3 Safety enhancements at affected roads	
C.5 20kph zones adjacent to local schools	C.4 Speed enforcement on the main routes	
	C.5 20kph zones adjacent to local schools	

Source: Mott MacDonald

Further details are provided on these measures in the proposal plans presented in Appendix B, as well as the project implementation lists shown in Appendices C, D and E.

8 Improved Sustainable Urban Mobility Planning

8.1 Introduction

Taking account of the Pristina Development Plan, it is important to ensure future policies and land use decisions minimise the need to travel, encourage the use of non-car modes and are consistent with wider economic, social and environmental objectives. There should be an emphasis on planning and locating new developments in the right places, in particular the city centre and locations where there is good access to the public transport network, ensuring that more major trip attractors are located there. There is also a need to ensure that transport investment supports wider policy objectives including addressing social inclusion and gender issues, as well as meeting environmental goals.

Summary of Key Issues in Pristina

- **Better integration of land use & transport planning:** Effective land-use planning is important to the delivery of long-term sustainable transport solutions. It is essential that new development makes proper provision for sustainable transport, including walking as well as good access by public transport. Future development in Pristina should be sustainable in terms of sustainable transport modes and access.
- **Promoting sustainable travel as part of transport design:** It is important to ensure that new solutions to promote sustainable transport modes are up-to-date and reflect best practice and design. The establishment of new design guidelines to help guide and inform the development and implementation of local measures is useful to help standardise schemes and ensure they take account of international best practice that can be successfully applied whilst reflect local context.
- **Addressing issues relating to social inclusion, including tackling gender issues in transport:** It is important to ensure that there are no barriers to using the city's transport system, with all users having a choice of travel modes for their daily needs, including creating a safe, convenient system that offers a full range of travel options for women to use.
- **Lack of provision for sustainable transport modes in new development**: Reducing vehicle dominance and improving the environment for walking and cycling in residential areas and local communities. Improving the environment for walking and cycling on the key approaches to the city centre is essential to support the local economy. It is important that new land use planning developments are fully accessible and that they incorporate sustainable design principles when considering transport access and urban mobility.
- **Addressing issues relating to air quality and environmental impacts**: Delivering a transport system that promotes and encourages non-polluting modes of transport to help tackle air quality problems in the city.
- **Supporting infrastructure measures with 'softer solutions' such as training & education:** The implementation of engineering solutions to encourage greater use of sustainable travel modes should be supported by marketing, training and education initiatives to encourage people to change their travel behaviour. The development of school and business travel plans will help tackle car trips for journeys to school and work, whilst cycle and road safety training will increase confidence for road users, when cycling or walking.

8.2 Forward Planning and Sustainable Urban Design

Innovative design and integration of urban mobility solutions as part of all major city development proposals will help ensure that the most sustainable and efficient modes of transport are delivered to help influence future travel behaviour. Effective land-use planning is important to the delivery of long-term sustainable transport solutions. It is essential that new development makes proper provision for sustainable transport, including walking as well as good access by public transport.

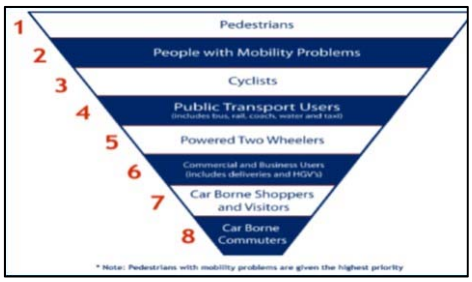
Securing development-linked improvements to the bus network with improved access to bus services in areas where there is a large amount of new development will help to encourage a shift in travel behaviour towards sustainable options and establish good connections for new residents, employees at such sites. It is also important that pedestrian and cycle needs are included in new planned developments across Pristina, linking all new developments to the network of routes identified. The design of new pedestrian and cycle links within and across proposed development sites should be accessible, convenient and safe, wherever possible securing funding contributions from developers to encourage walking and cycling through a range of infrastructure improvement measures.

Managing and delivering the growth and development of sustainable communities will go some way to discouraging use of cars where alternative modes of transport exist and encouraging use of sustainable means of transport such as walking, cycling and public transport. Influencing planning decisions to co-locate housing with jobs and services to reduce the need to travel will help reduce the number of car-based trips on the network. The design of new developments can also be influenced through the development of sustainable urban design guidelines for the city, based on best practice principles which will help to promote road safety and encourage travel by the most sustainable transport modes.

The behavioural change and capacity enhancements proposed within Pristina's SUMP will help facilitate the growth in employment and housing identified within the City's Development Plan and help minimise the impact of the projected increase in trips. To achieve the proposed level of growth without overwhelming the transport network, it is important for all new developments to be designed to maximise sustainable transport options for residents, employees and users. Many developments will provide good opportunities to enhance and introduce new and better walking and cycling routes.

Some cities, such as York in the UK, have successfully adopted a 'Hierarchy of Transport users' approach within their transport strategies. This is a commitment to a priority listing applicable when making and implementing land use and transport related decisions.

Such a 'Hierarchy' ensures that the needs of pedestrians, people with mobility problems, cyclists and public transport users are considered as part of all new schemes. Such an approach could help transform transport planning decision making in Pristina.



Adopting a 'Hierarchy of transport users' helps consider the needs of sustainable transport modes over car users (City of York Council)

An important action within the SUMP is to improve the integration of land use planning and transport decisions through strengthened/new planning processes within the Municipality. Sustainable transport infrastructure should become an essential condition as part of the city's development control policies for all new land-use development. It is therefore recommended that sustainable transport design forms an integral part of all land use planning decisions in the city.

8.3 Promoting Sustainable Travel

Mobility Management aims to increase sustainable travel by influencing individual travel behaviour and making alternatives to car use more attractive. Initiatives include those that encourage people to reduce their travel where possible and to use more sustainable modes of travel, thereby helping to ease congestion and the harmful impacts this has on the environment. Measures can also help to improve people's health by encouraging more active travel and enhance social inclusion such as through car sharing networks.

There are a variety of different 'Mobility Management' measures including sustainable travel information, promotional campaigns, development of car clubs and car sharing initiatives, as well as travel planning. Travel plans are a particularly useful tool for setting out options for changing travel behaviour by exploring ways to minimise travel and become less dependent on car use, particularly in relation to businesses and schools.

Evidence from other mobility management projects successfully implemented in the UK has revealed that schemes can help improve travel conditions and deliver sustainability benefits including:

- Reducing the number of car driver trips per person;
- Increasing the proportion of bus trips; and
- Increasing the proportion of walking and cycling trips.

In order for these types of measures to have the greatest impact, it is important that the benefits are 'locked in' with other sustainable transport initiatives, such as improved pedestrian routes, cycling facilities, bus priority measures and parking controls.

An important part of the Pristina SUMP is to increase the use of cycling, walking, smarter travel and public transport use as an alternative to single occupancy car use. It is recommended that promotional/marketing activities are strengthened as part of the SUMP programme so that people's opportunities are genuinely realised in terms of understanding and awareness of available sustainable travel options.

Central to this is encouraging active travel and developing high-quality cycling and walking networks, as well as providing information and travel advice for users of all modes of transport so that they can make informed travel choices. Such Mobility Management programmes contribute to reducing congestion and improving reliability on the network (in that walking and cycling times can often be more predictable than car journey times during peak travel periods) and to reducing carbon emissions and improved air quality.

It is recommended that the following measures be developed more fully as part of the Plan:

- Consideration of a marketing programme aimed at improving the provision of travel planning and travel information across Pristina;
- Development of a Travel Behaviour Change Campaign working with other agencies, including businesses and schools, to influence people's daily travel patterns towards more sustainable options. Examples of typical measures include:
  - Encouraging the city's business sector to adopt facilities for homeworking, teleworking and teleconferencing to minimise unnecessary commuting by car;
  - Encouraging more companies to introduce flexible working hours to enable employees to 'adapt' to quieter periods on the road network; and

– Facilitating and encouraging more people to car share and to join car clubs to reduce the number of single occupant car journeys.

8.3.1 Electromobility Support for Public Transport and Taxi Vehicles

Facilitating a greater use of electric vehicles will help contribute towards a cleaner city centre in terms of air quality and environmental conditions. The city should help provide financial, organisational or tax support to transport companies that will adopt the use of electric vehicles. This includes considering further upgrades to the city's public transport fleet in favour of electric vehicles as well as working with the taxi association and firms to encourage more electric taxi vehicles in Pristina.

8.3.2 Development of Initiatives to Reduce Car Ownership

City Car Clubs have been successfully introduced and provide local communities with access to a private vehicle without the need to own one. Initiatives such as the development of community city car clubs offer local residents and businesses the opportunity to use a private vehicle without needing to own one. Such schemes help to reduce car ownership in urban centres and as a result contribute towards reducing congestion levels in towns and cities.

Figure 68: City Car Club Schemes

Source: City Car Club

Figure 69: City Car Club Schemes

Source: Transport for London

There are many examples of successful schemes that have been introduced in cities including London. Such schemes operate through vehicles being booked by members for a period of time, with the with the flexibility to increase this from an hour up to a whole weekend or longer. Bookings There are numerous benefits of such an arrangement including having the convenience of access to car without any issues of owning one (e.g. servicing, insurance, parking, MOT, repairs). As a result, this can bring financial savings as well as contributing towards a cleaner environment, through use of energy efficient vehicles and also reducing the need to own a car and discouraging unnecessary car travel.

8.3.3 Development of Softer Measures Such as Travel Planning and Training

Training programmes, such as cycle & pedestrian training, as part of travel plans can be effective to help change travel behaviour by increasing peoples' confidence when walking or cycling and improving road safety in general. Success in changing travel behaviour can only be achieved through integration of initiatives with transport infrastructure improvements, as well as integration with different stakeholders to enhance information and best practice sharing. This includes local businesses and companies, schools and local communities in general.

Figure 70: Cycle Training for Adults

Source: City of York Council

Figure 71: Cycle Training for Children

Source: City of York Council

It is recommended that a range of initiatives aimed at improving safety of both young people and adults are developed and delivered over the lifespan of the Plan including the following:

- Facilitating the delivery of both child and adult pedestrian and cycling training programmes to encourage and promote safe use of these modes;
- Engaging with the Municipality's Education Department and local schools/colleges in the development of school travel plans, as well as progressing other measures such as encouraging walking buses and cycling to/from school;
- Effective speed management particularly in residential areas, particularly in the vicinity of schools; and
- Targeting safety education programmes aimed at young drivers and riders.

The emphasis of these initiatives is primarily educational, encouraging a greater awareness of safety issues when travelling on the transport network.

8.3.4 School Travel Plans

The journey to school affects the whole school community including families, local residents and school staff. The development of a school travel plan is an opportunity to identify and promote practical travel alternatives that meet the different travel needs of the local community. As a result, the commitment to developing a school travel plan involves the following:

- involving the whole school community to encourage more sustainable travel to and from school and actively contributing to the health of staff and pupils; and
- improving the local environment and showing local residents that local travel needs are being considered as part of an overall 'package' of measures.

A typical action plan may include a range of initiatives including one or more of the following:

- walking & cycling initiatives;
- incorporating sustainable travel into the curriculum;
- safety measures and speed reduction schemes outside and on the approaches to/from school;
- a target to reduce car use to school;
- actions to encourage reduced car use by staff such as car share and cycling; and
- better management of 'school run' vehicles.

Given the sensitivity of school travel initiatives it is often important to initiate a community-led approach to the development of school travel plans, liaising closely with the local school and local

residents and other partners to create high quality urban environments that promote sustainable travel and are safe and pleasant to live in and visit.

8.4 Gender Issues in Transport

Transport impacts on all aspects of people's daily life and it is important for any urban transport system to respond to the needs and requirements of both women and men. The ability of travelling to different destinations for work, school or leisure purposes relates to the options available and the design of the transport system has a significant impact on the choices people make. As a result, it is essential to integrate gender issues within the overall process of planning and delivering transport services help establish a fully inclusive travel environment.

Key issues to be tackled include further support of women's participation in decision-making, the improvement in accessibility, safety and comfort of transport modes and the planning of transport services in response to gender needs. According to research and studies, gender differences in travel patterns relate primarily to roles women play in society and family life, which has an impact on employment conditions, income levels and also mobility needs. Research has revealed that women's travel patterns differ from men's in many ways. In summary, women are more likely to:

- Travel shorter distances than men;
- Use public transport as their primary mode of transport; and
- Engage in more non-work travel outside peak travel periods, making more multi-stop trips (e.g. undertaking household work, together with making other accompanied trips (with children or dependent elderly people).

In transport planning and policies, the gender dimension of mobility patterns and sustainability has so far received relatively little attention. The scant attention to gender issues is due in part to the lack of gender-differentiated statistics, which makes it hard to understand gender differences in mobility patterns.

Gender mobility is part of the "Strategy for equality between women and men 2010-2015". At EU level, a number of actions have been established to move towards social equality between genders, with the aim to address some of the still remaining gender gaps. The actions proposed follow a dual approach: gender mainstreaming and specific measures. Gender mainstreaming is the integration of the gender perspective into every stage of policy process (design, implementation, monitoring and evaluation) and into all policies of the Union, with a view to promoting equality between women and men. The added value of gender mainstreaming in planning includes the following:

- Quality assurance in planning processes: gender sensitive planning considers the needs of persons who are often overlooked;
- Exchange and communication of knowledge: a gender sensitive perspective supports a planning culture informed by everyday needs and nurtures greater awareness of the different needs of women and men in relation to life phases, life realities, cultural and social backgrounds.

A gender perspective in transport policies is important not only to reduce inequality of gender mobility, but also to support a more environmentally-friendly development, as women adopt more environmentally-friendly mobility patterns. Gender-specific measures in transport planning are becoming more frequent all around European cities. There are good examples of approaches in Europe, such Vienna and Berlin, where there is a greater focus on gender issues in urban and transport planning. Equal mobility opportunities are achieved by improving pedestrian and cycle

routes, by providing convenient access to surrounding areas and access the public transportation network, as well as creating a safe environment for users.

Examining data from the transport surveys undertaken in Pristina, results reveal that analysis of gender in public transport shows that a significant proportion of users are female, with a high proportion of trips that are not-work related. Respondents to the city's household survey commented that overall the pedestrian paths in urban core of the city are generally in good condition there are problems with footways being regularly used as parking places. There was a desire expressed to see an expansion of pedestrian routes in the city.

As part of the stakeholder meetings, discussions took place undertaken with the Pristina Women's Network and Association and a number of key concerns in the city in terms of mobility problems were identified:

- A need for better organisation/management of transport within the city centre;
- Poor signing on the approaches to the city centre (traffic management & direction)
- Road safety is a particular issue – for pedestrians (poor facilities/arrangements (confusing signal arrangements) at crossing points) – and improving personal security when travelling for all users;
- Lack of provision for cycling in the city – especially the provision of dedicated cycle routes/paths and a fear due to the volume and threat posed by motorised vehicles;
- Pedestrian routes/facilities are routinely obstructed by parked vehicles – creating hazards for pedestrian movement; and
- Schemes introduced in the city are generally not designed with mobility impaired / women with pushchairs in mind. It is important to have sufficient space (footways) and barrier-free access (dropped kerbs) along primary pedestrian routes throughout the city.

Emerging from these issues was a desire to establish step-free access (pedestrian/cycle routes) and also examine ways to improve access to public transport. The wide range of measures proposed as part of the SUMP addresses these concerns in terms of improving accessibility as well as safety of movement for all users.

8.5 Supporting Environmental Goals

In 2015, the Municipality's Directorate for Urbanism, Construction and Environment Protection established six air quality monitoring stations across the city and each year annual reports are produced to summarise air quality data that is collected daily and interpreted by sensors. This is undertaken by an online system (http://air.fara.io), where a daily average is calculated including morning, midday and evening measurements.

A range of environmental parameters are collected at each station, which can be compared to EU air quality standard values. The 10 parameters include: Temperature (°C), Carbon monoxide (mg/m3), Ammonium (mg/m3), Hydrogen sulphide (µg / m3), Sulfur dioxide (ug/m3), Nitrogen dioxide (µg/m3), Carbon dioxide (ppm), Radiation (uSv/h), Particulate matter 2.5M/Year (µg/m3) and Noise (db).

Figure 72: Pollutants' averages and their locations – April 2016

Parametrat Matës	Njësia Matëse	Bregu I Diellit	Dodona	Dardania	Ulpiane	Qender (sheshi)	Kodra e Trimave	Niveli I lejuar sipas BE
Temperatura	(°C)	18.22	18.22	18.22	18.22	18.22	18.22	
Monoksidi I Karbonit	(mg/m3)	0.13	1.58	7.01	1.59	2.36	1.19	10
Amoniumi	(mg/m3)	0.08	0.49	0.65	0.49	0.07	0.27	14
Sulfuri I Hidrogjenit	(ug/m3)	13.92	144.59	176.61	105.84	144.12	152.63	150
Dioksidi I Sulfurit	(ug/m3)	5.34	158.13	289.19	212.54	62.12	83.17	350
Dioksidi I Azotit	(ug/m3)	9.16	54.8	164.87	103.82	62.42	72.87	200
Dioksidi I Karbonit	(ppm)	402.13	401.16	402.36	400.13	403.12	401.17	500
Radiacioni	(uSv/h)	0.06	0.20	0.10	0.21	0.18	0.07	10
Pluhuri 2.5M/Vit	(ug/m3)	13.15	10.13	11.69	12.1	10.7	11.3	25
Zhurma	(db)	57.9	61.5	59.45	60.13	59.7	58.19	85

[1]BE (Bashkimi Evropian)

Source: Municipality of Pristina

The criteria for the selection of the locations were: monitoring of air quality on congested streets, monitoring of air quality inside neighborhoods and the movement of the pollution from the source to other areas. As a result, four monitoring stations have been placed inside neighborhoods and two others on congested streets. The monitoring stations have been therefore placed in the following 6 neighborhoods/streets:

- Bregu i Diellit - Enver Maloku St.
- Ulpiana – Mujë Krasniqi St.
- Kodra e Trimave – Vëllezërit Fazliu St.
- Dodona – Afrim Loxha St.
- Dardania – Ilaz Kodra St.
- Qendra – Zahir Pajaziti Square.

Reporting undertaken for 2016 revealed that Dardania is the most polluted neighborhood while Bregu i Diellit is the cleanest area, while the differences in air pollution between the rest of the neighborhoods are considered minor.

Figure 73: Pristina Air Quality Monitoring Stations

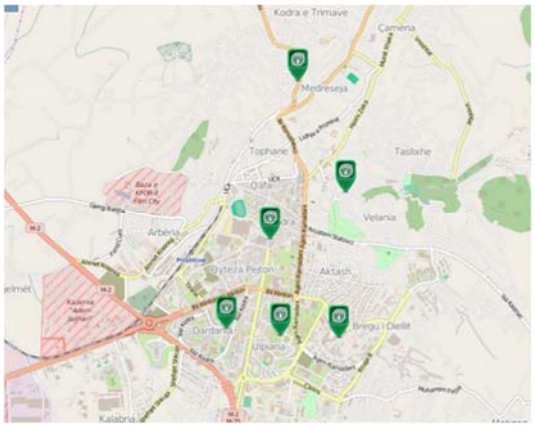


Figure 74: HMIK and NPHIK AQ monitoring Stations

Source: Municipality of Pristina Source: www.infokomuna.com

The air pollution is caused by the congested traffic within the city, use of low quality fuels/combustibles and use of old vehicles. The pollution increases in the months during winter due to gas and particles emissions from households that use low quality coal for heating, as well as the increase in car use due to low tempteratures.

In order to improve air quality in the Municipality of Pristina, a number of actions relating to the transport sector are recommended:

- Reduction of the number of vehicles through the promotion of public transport versus private transport and improved road network management;
- Improving public transport and promoting clean vehicle technologies;
- Encouraging cycling and expanding green areas; and
- Environment activists together with NGOs and public institutions to continuously be active in increasing public awareness that: normal and healthy living will be possible only through a clean environment.

The institution in charge of air quality monitoring in Kosovo is the Ministry of Environment and Spatial Planning (MESP) through the Hydro-Meteorological Institute of Kosovo (HMIK). According to the Law on Environmental Protection, No. 03 / L-025, the Law on Air Protection from Pollution, No. 03 / L-160 and the Law on Hydro-meteorological Activity, No. 02 / L-79, the HMIK is obliged to carry out air quality monitoring throughout the territory of Kosovo. By the end of 2009, the first automatic air quality monitoring station located in Pristina – HMIK started functioning.

In 2008, the National Public Health Institute of Kosovo (NPHIK) had set up two air quality monitoring stations in Pristina, one in the NPHIK building park and one in the vicinity of the intersection between Bill Kllinton St and Dëshmorët e Kombit Boulevard (Fig. 3). During 2010, the MESP Environmental Protection Department and HMIK, based on the criteria of Directive 2008/50 / EC conducted a preliminary study on the definition of monitoring points in Pristina as the agglomeration of Kosovo.

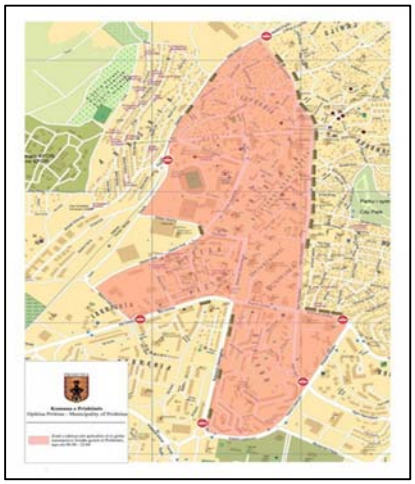
A decision was taken to install two monitoring stations in the city, with these managed by the Kosovo Environmental Protection Agency (KEPA) / HMIK. These stations are representative for air quality monitoring in the suburban area (the station at the HMIK) and in the urban area (the station at the former ‘Rilindja’ building).

8.5.1 Establishing Traffic Free Days in Pristina

On January 31st, 2018, the Municipality in cooperation with the Ministry of Environment and Spatial Planning and the Kosovo Police, decided to restrict vehicles from 06:00am to 10:00pm in the streets of the city centre. Municipal officials undertook these emergency measures in order to reduce air pollution in the city centre. Only vehicles of public transport, emergency, Kosovo Police, KSF, KFOR, EULEX, Inspectorate Directorate, licensed taxis and vehicles for the transfer of persons with special needs carrying identification marks were allowed to circulate in the marked area. Parking spaces were provided at entrances to the city until the end of this emergency intervention. The restriction on vehicles lasted two days and resulted in lower levels of air pollution, having the AQI (Air Quality Index) drop to 61.

The restricted traffic area included: Bill Klinton Street, from Idriz Gjilani and Bekim Fehmiut streets crossroad, Dëshmorët e Kombit Boulevard from the Flag Roundabout, Agim Ramadani Street and the crossroad at the dormitories, Edmond Hoxha Street at October 1st sports hall, Ilir Konushevci Street at the entrance from Podujevë direction and the entrance to the city centre from the roundabout at Arbëria neighbourhood on UÇK and Fehmi Agani streets.

Figure 75: Restricted Area for Vehicles



Source: Municipality of Pristina

Figure 76: Restricted Area for Vehicles

Source: www.infokomuna.com

8.5.2 Measures to Improve Environmental Quality in Pristina

Reflecting the ongoing challenge of air quality identified above a variety of different initiatives are included within the SUMP which contribute towards reducing the impacts of air and noise pollution. Many of these initiatives seek to establish a shift in travel mode towards greener, more sustainable travel options. More specifically, the following measures are included in the Plan which will help enhance environmental conditions:

- Working in partnership with the city's bus operators to bring about a 'step change' in the quality of services including introduction of a new integrated public transport network, with modern, low emission vehicles and an improved level of service and coverage to attract more passengers;
- Measures to improve air quality in the city centre through the introduction of on-street parking controls with priority for electronic / low emission vehicles;
- Development of non-motorised travel such as walking and cycling including investment in new networks with the introduction of priority pedestrian and cycle routes linking residential districts and facilities with the city centre to reduce the level of unnecessary car use. Proposals include greater priority for pedestrians and cyclists on key approaches to the city centre, with an expanded pedestrianisation scheme and better facilities for cyclists on the approach to the city core, together with restrictions on through-traffic to create a safer, more attractive environment for walking and cycling;
- Introduction of new traffic management measures to improve the flow of traffic and reduce the level of congestion 'hotspots', including expanding the capacity of the network where possible. This includes improving the flow of traffic at known congestion.
- Developing sustainable travel plans with local businesses, schools and communities to enable people to understand how their own travel patterns can contribute towards achieving a more sustainable, cleaner and attractive environment through promoting sustainable travel options more fully such as car clubs and car sharing (as part of an overall Mobility Management strategy);

- Development of a sustainable freight options which seek to reduce the impact of commercial and delivery vehicles on the town centre, through establishing freight consolidation centre on the outskirts of the town centre and use of low emission vehicles to deliver goods/services to the commercial/retail centre;
- Improving public spaces through better maintenance of physical and tourism assets, such as footpaths, cycle routes, and public transport infrastructure;
- Reducing the impact of new developments on the existing transport infrastructure, by improving transport links and public transport around areas with significant amounts of new development; and
- Reducing the adverse impacts of transport schemes, such as noise levels, through considerate planning and design.

8.5.3 Sustainable Transport Campaign and Co-ordinator

To promote the concept of sustainable travel more fully, it is recommended that a city-wide campaign is established to support and promote active transport modes and public transport across the city, targeting residents, businesses and tourists. This will help to promote and encourage the uptake of sustainable travel modes and encourage more responsible use of the private car in terms of a travel behaviour programme. To facilitate and co-ordinate these activities, as part of the Plan a new Sustainable Mobility Co-ordinator should be appointed to drive forward the new urban mobility agenda in the city in support of the SUMP goals and vision.

8.6 Summary of Sustainable Mobility Planning Measures

The table below shows the main sustainable mobility planning measures proposed for Pristina for implementation in short, medium and long-term plan periods.

Table 11: Summary of Measure Implementation

Short Term (2019-2020)	Medium Term (2021-2025)	Long Term (2026-2030)
Q.1 Integration of land use and transport planning	Q.1 Integration of land use and transport planning	Q.4 Electromobility support for public transport and taxi vehicles
Q.2 Development of Initiatives to Reduce Car Ownership	Q.2 Development of Initiatives to Reduce Car Ownership	Q.6 Sustainable Mobility Coordinator
Q.3 Police activity improvement	Q.3 Police activity improvement	
Q.5 Sustainable transport campaign	Q.5 Sustainable transport campaign	
Q.6 Sustainable Mobility Coordinator	Q.6 Sustainable Mobility Coordinator	

Source: Mott MacDonald

Further details are provided on these measures in the proposal plans presented in Appendix B, as well as the project implementation lists shown in Appendices C, D and E.

9 SUMP Investment & Financing

9.1 Overview of Investment Planning

The investment plan follows the structure of the SUMP in terms of short-term, mid-term and long-term periods. When assessing the investment plan for the SUMP several aspects have been considered including the timely need of the strategic measures, logical ordering in accordance with complementary measures and the municipal budget capability, as forecast based on the available financial data. The projection of the municipal budget has been set out as follows:

9.1.1 Municipality Own Revenues

Based on available historic data different aspects of individual sources have been considered within the Municipality's own revenues to the municipal budget and this has been projected in terms of growth as a result of a combination of relevant factors. Among the common factors within the model – the growth of local population (given by the growth of population of Kosovo obtained from Agjencia e Statistikave të Kosovës as well as considering urbanisation index of Albania as a cultural benchmark for the capital city) has been used, commonly accompanied by consumer price index (CPI) as predicted by the EBRD. In some of the budgetary revenues GDP outlook has been used as a proxy mainly for own revenues from business licensing.

9.1.1 Government Grants

Within the scope of the general grant, predictions were made as a combination of the bottom-up and top-down approaches by defining the drivers within the power of the municipality (such as aforementioned own revenues) following the use of relevant legislature on the national level to end up with the final levels of endowment. The specific components of the Government grant (Specific grant for Health and Education) have been estimated with respect to the existing and available legislature as well as combination of macroeconomic and demographic factors predicted by the aforementioned institutions.

9.1.2 Budgetary Spending

The prediction of the budgetary spending has been based (similarly to the funding) on the past data and application of the growth factors on the highest available level of detail presented among the official documents regarding the budget. (e.g. If the breakdown was available on the level of type of expenditure (wages, goods etc.) relevant growth factors were applied to the components of the major purpose of the outflow).

On this basis, an assessment has been made to determine the indicative SUMP budget that will be available during the Plan period between 2019 and 2030. The plan acknowledges existence of number of privately financed projects during this period, where the cost will be met by a third party. Indicative timescales for this expenditure have been included in the investment programme, although the investment plan is not absolute due to possible adjustments over the 11-year period as development proposals and implementation schedules are discussed and agreed by the Municipal Assembly.

The following tables provide a high-level outlook of the SUMP's impact on the budgetary spending in the three outlined periods according to the different types of measures proposed:

SUMP Investments	Short - Term	
EUR	2019	2020
SUMP spendings	9 185 675	10 198 622
Active modes & Public space (A)	532 766	607 273
Car Transport & Parking '(C)	7 242 552	3 327 521
Public Transport (P)	1 363 190	6 126 662
City Quality of Life (Q)	47 167	137 167

SUMP Investments	Mid- Term				
EUR	2021	2022	2023	2024	2025
SUMP spendings	8 225 107	9 436 873	8 417 712	9 375 074	8 687 321
Active modes & Public space (A)	1 137 086	1 137 086	1 158 859	1 426 717	1 426 717
Car Transport & Parking '(C)	3 635 065	4 149 378	4 648 884	4 920 953	5 972 822
Public Transport (P)	3 285 789	4 019 908	2 516 968	2 972 404	1 232 782
City Quality of Life (Q)	167 167	130 500	93 000	55 000	55 000

SUMP Investments	Long-Term				
EUR	2026	2027	2028	2029	2030
SUMP spendings	5 788 032	5 878 961	5 028 346	4 530 767	4 687 897
Active modes & Public space (A)	1 426 717	1 426 717	1 416 994	1 416 994	1 416 994
Car Transport & Parking '(C)	3 073 533	4 286 386	3 503 685	3 006 106	2 911 762
Public Transport (P)	1 232 782	94 191	11 000	11 000	304 140
City Quality of Life (Q)	55 000	71 667	96 667	96 667	55 000

9.2 Overview of SUMP Scheme Investment

The proposed SUMP strategy has a key emphasis on citywide public transport development with a new network hierarchy (core/secondary routes), paying particular attention to key corridors into Pristina and enhancing accessibility to the urban center.

New Park & Ride facilities are proposed on each radial route into the city together with a new cross city Light Rapid Transit (LRT) scheme. Priority measures will be introduced on the key corridors to support improved reliability and level of service. Improved integrated ticketing will enhance the attractiveness of public transport.

To reinforce this public transport focus, strong demand management measures are required, with improved enforcement and parking controls on key corridors, the introduction of parking controls in the urban center, as well as introduction of parking charges. There is also a heavy emphasis on new sustainable transport networks with new/extended pedestrian and cycle route networks which integrate with city-wide public transport routes and new development that is planned in the city. Improved urban traffic control system technology will be used to control and improve movement across Pristina, including managing access to car parks and use of public transport facilities (including Park & Ride). Key features of the overall implementation proposals include the following:

- Reconfiguration of city-wide public transport network (core & secondary routes), with new and better maintained bus stop infrastructure;
- Emphasis on key corridors into Pristina – LRT & development of Park & Ride and fast public transport links to/across city center;

- Public transport priority – introduction of bus lanes on key corridors and inner-city loop;
- Improved integrated ticketing will enhance the attractiveness of public transport;
- Access restrictions to urban center to encourage mode shift and promote more walking/cycling;
- Introduction of parking charges, city center controlled parking zone & greater parking enforcement;
- Selective junction/network capacity improvements & speed management measures;
- Development of supporting pedestrian & cycle networks linking suburbs to city center; and
- Urban planning controls to minimize car use in new developments including car club scheme.

The full list of measures has been split into an indicative set of short, medium and longer-term investments, with each measure having its own implementation schedule and 'owner' responsible for managing delivery. These are presented in Appendices B - D.

In many cases the phasing and timing of implementation reflects synergies and links between different types of measures, such as public transport enhancements scheduled alongside the development of Park & Ride and bus priority measures. The emphasis is on securing added value from combinations of complementary schemes and projects which offer significant benefits when developed and introduced as part of an integrated investment 'package'. Further detail on implementation aspects will be addressed in the final SUMP implementation plan for the city.

9.3 SUMP Project & Programme Management

It is recommended that progress on the overall delivery of the SUMP action plan is managed carefully over the Plan period. Each scheme should be assigned a lead contact/organisation who is responsible for the coordination and delivery of the measure/initiative with the individual responsible to identify any risks associated with the scheme in advance of implementation. It is also recommended that all schemes have a named project manager who will be responsible for progressing and coordinating the scheme, for reporting progress, for keeping forecasts up to date over the lifetime of the scheme and for arranging for the scheme to be evaluated.

It is important that an efficient programme management system is put in place that enables effective and consistent monitoring and reporting to be undertaken for all schemes contained within the SUMP implementation programme. Schemes should be regularly reviewed to assess overall performance against relevant milestones and budget allocations. It is recommended that monitoring reports are prepared including summary of expenditure, scheme implementation and outputs achieved. This will allow any problems and delays to be identified at an early stage and facilitate remedial action to help modify the programme so that it is back on track.

9.4 Roles for the Public and Private Sector in Service Provision

9.4.1 Transportation Public-Private Partnerships

As experience from other countries shows urban transportation is one of the most suitable fields, in which the cooperation between the public and private sector can be seen in multiple levels of involvement. PPP is a multi-level governance of a project/operation, which involves complex relationships of government and/ or agencies, departments and sections together with various firms of the private sector. The private firms can serve as construction contractors, project advisors, operators or maintenance contractors, financing parties etc.

PPPs support innovative projects and are argued to bring better value for money through more efficient allocation of resources, distribution of project risk, and management of finance. They encourage closer productive working relationships through aligning the interests of multiple

parties. The PPPs have been widely understood to develop socially inclusive communities on top of cost-efficiency. Altogether, PPP assumes synergic, mutually beneficial relationship between partners based on trust and common interest.

The Republic of Kosovo has former experience with projects operating on some of the PPP models among which is the Pristina International Airport “Adem Jashari” and Urban bus transportation services in Peja.

9.5 Possible PPP Settings

The forms of PPPs vary from basic form of contracting out specific construction work /operation / task to the private partner, who is in this case accountable for the success of the project, to the most complex form of PPP, where the private partner takes on responsibility for maintaining and operating the project, hence takes on *de facto* the ownership of the project upon its building or even including the construction works. The public partner provides necessary legal authority and guarantee to help private partner meet contractual obligations.

There are multiple alternative schemes of financing PPP projects. Selection of the most suitable scheme is dependent on preference of the public partner with regards to a trade-off between financial and administrative burden. A number of core PPP models involving construction and operation of infrastructure are available as follows:

9.5.1 Design-Build (DB)

In this setting, the public partner is responsible for financing, and procures the project construction through a private partner, commonly through use of fixed-fee contract. Liability for the operation and maintenance of the project including financing remains within the public sector. The private partner bears the responsibility and risks related to timely delivery, and within the budget of the fixed fee.

The difference compared to a traditional construction tender model lies in combining common setup of two individual contracts for engineering and construction services into a single contract. This on one hand leads to a higher lump-sum cost, but on the other hand large scope of works is covered, and more risks are transferred to the private partner compared to the traditional construction tender.

The challenge for the public sector lies in the preparation phase of the project and in formulation of contractual terms and conditions. Status quo and the desired outcome shall be described in a large level of detail in the tender documentation provided to the bidders in order to obtain desirable proposals. Contracts are typically extensive and covering large number of questions related to allocation of rights and liabilities, hence require longer thoughtful drafting. Standardized FIDIC documentation could be used as a basis for optimal setting.

The main advantages of design-build model are the complex solution provided by one party, the use of private expertise, opportunities for cost savings, introduction of important level of price and quality control and at least marginal sharing of financial risk with the private partner. Within the SUMP the DB is generally suitable for most of the individual construction projects with low maintenance, where there is not significant need for individual management upon the delivery of the construction project. Concerning the proposed interventions, we perceive DB PPP particularly suitable for:

- Enhancement of pedestrian areas and development of pedestrian networks (A1, A7);
- Adjustment of locations for improved mobility (A2);

- New cycle paths, improvement of the existing ones, and construction of cycling utilities (A3-A5);
- Revitalisation of public space (A19);
- Junction capacity enhancements (C1);
- Development of secondary and tertial roads, and inner ring (under C11); and
- Rail track reconstruction (P3b and c).

The advantage within SUMP lies in unification of planning/design and the building phase, which motivates the party which designs the project assess the feasibility and capital cost burden, since it dispones with (usually) fixed budget for the future construction contracted with the public party.

The selection of the proper private party shall be assessed through public and transparent tenders, specifying the characteristics of the project and consider both qualitative (e.g. private partner's experience, proposed use of materials) but mainly quantitative (the proposed price) parameters.

9.5.2 Design-Build-Finance (DBF)

In simple terms, DBF is a variation of DB PPP model, which adds full or partial responsibility over financing the project to the private partner. It is especially, useful for public entities that are financially constrained and/or are not able to use debt instruments (in the case of Pristina).

The main advantage is obviously opening ways to the new sources of financing, which are generally reserved to private sector such as corporate credit lines, private equity funds and deferred payments. Deferred payments are especially appealing from the accounting standpoint, since they are not perceived as a debt. Furthermore, the use of deferred payments can serve as a mechanism to assure the private party to deliver the contract in the expected quality and timeliness.

It is worth noting that the level of deferred payments will always reflect the demand on return on money invested by the private partner. The time mismatch in realization of works and payment for the works will be projected into the final price accordingly. Provision of guarantee of the municipality towards financing partner could yield. DBF could be applied to either of the DB suitable investments based on budgetary needs of the municipality.

9.5.3 Operation and Maintenance Outsourcing

This model refers mainly to outsourcing of activities for which the infrastructure already exists, i.e. there has been previous stream of capital expense born by the public partner. The advantage of this model for the public partner, is decreasing the administrative burden as well as reducing need for personnel in the specific areas for which the private sector dispones with higher expertise and/or capacity, hence represents a more efficient solution.

Within the SUMP operation and maintenance could be contracted with private sector on activities where the city of Pristina should keep its strategic position or ability to step in if needed or are an individual part of broader activity of the city.

Common denominator of these project is the lowered or no ability of the operation to generate profits itself and its continuity is contributing to the public wellbeing. If applied, the contract should be achieved through transparent tendering, preferably with reoccurrence of the competition to achieve due level of fairness.

The reimbursement of the private partner should be based on the rules built on the performance delivered (e.g. sustainability of the lighting system as a base and failing to deliver as a decreasing

factor or based a fixed fee and a variable bonus derived from a certain unit capacity used (e.g. in case of parking facilities number of cars entering the lot or based on collected parking fee)) for projects where the aim is to increase utilization of the site, and the property manager could participate on the marketing if financially motivated.

Within SUMP operation and maintenance PPPs are suitable for operation and maintenance of street lighting, traffic management, or parking facilities (measures C.6 – C.10).

Regarding the newly proposed interventions, most of them include construction works, thus a need for construction tender too. Bundling or separation of construction tender and the pursuant operation services shall be determined based on knowledge of competence of property management providers and their capability to sustain construction as well. Best practice in the street lighting operation and maintenance is utilizing knowledge and expertise of companies present in energy markets, distribution of energy etc., to which the operation is passed.

The case of traffic management, is a subject to possible outsourcing. However, there should be stress on the continuous involvement of the city with regards to the strategic goals. Fragmentation between more private parties should be avoided in order to utilize economies of scale and maximize unification of operating systems in the city (smart city approach), e.g. one private party shall be selected to maintain all parking facilities and there should be a unified operational system connecting all parking facilities, or even overlapping with the integrated ticketing system (P.8 – P.9).

For any new software solution implemented by a private partner, transfer of the rights towards such software shall be guaranteed to the city upon termination of the maintenance contract period in order to ensure continuity. Collection of fees for utilization of parking facilities shall be done on the account of the city.

The traffic management unit would ideally combine the power of the municipality over its affairs, the private sector's expertise and agility. The recommended solution would be partial involvement of academia, such as relevant universities in Kosovo to provide a level of academic insight.

9.5.4 Design-Build-Operate-Maintain (DBOM)

DBOM is a significantly more complex model compared to DB or separate DB and OM. The financial aspect in this case still lies in the hands of the Public sector, typically with financial burden (inclusive revenues) as well as the potential surplus. However, the design, construction, operation, and maintenance are to be procured through single contract.

An alternative of DBOM is the Design-Build-Maintain model (DBM), where the operation of the project is left to the public partner. This is suitable for cases where no convenient private partner exists due to lack of expertise. Commonly such model would be used in cases of social infrastructure or security (not much the case of most of the measures within SUMP Pristina).

Altogether, DBOM carries the advantages of DB partnership model and adds some crucial advantages on top. The main additional advantage arises already in the design phase, where the private partner is motivated to design the project in the notion of carrying the maintenance and operational costs, which in general might be more significant than the construction costs themselves. This motivation brings opportunity to efficient solution to be conveyed while maintaining contracted level of quality Furthermore, a cap on financial compensation provided from the private partner could be set up in order to increase motivation to efficiency and enable budgetary planning.

A possible disadvantage is the loss of direct control over the project from the public stakeholders to the private partner. This is offset by the shift of the risk of the project to the private partner and could be balanced by requiring certain level of involvement / controlling function of the city.

DBOM is a suitable approach to the integrated ticketing system (automated fare collection – measure P.8), New information system for public transport vehicles (P.9), or Bike and electric bike sharing system (A.6). Similarly, to the aforementioned types of contracts appointing the private party should be result of a transparent and public tender.

The appointed private party would be thus responsible for the design of the system, bringing the system into practice and maintaining its functionality including the following:

- Assessing software and hardware capability;
- Defining the process of reimbursement from the tickets sold, to the relevant public transport providers;
- Implementation of the system as such;
- Physical maintenance of the hardware and intangible maintenance of the software's functionality; and
- Operation of the system including the service of financial intermediary between passengers and various providers of the public transportation.

Financial reimbursement of above mentioned private party, shall be ideally correlated with the ticketing revenues and/or the volume sold to motivate the private partner to maintain the system efficiently. The potential obstacle with application of DBOM model on the Integrated ticketing system, could appear in the compound responsibility of the private partner, and excessive difficulties in finding partner with relevant expertise in so many different fields.

In case of such problem, there is a possibility of creating composite partner, from entities and individuals disponing with relevant knowledge and expertise to create special purpose entity dedicated to the project.

9.5.5 Design-Build-Finance-Operate-Maintain (DBFOM)

DBFOM is by far the most complex form of PPP that is a union of all of the formerly described models. The financing, design, construction, operation and maintenance are consolidated into a single contract with the private partner.

The private partner can take either full or partial responsibility of the financing. However, in this case (i.e. in combination with operation and maintenance) the private partner takes responsibility for the financing as whole.

As in the DBOM model the operating and maintenance do not necessarily have to go hand-in-hand in cases where the private party doesn´t possess expertise commonly held by the Public sector (social infrastructure, security etc.)

Commonly the DBFOM ends up with the private party owning the project through long term lease contracts, the initial investment is offset by the revenues from the operation of the project, in this case the private partner is granted the right to collect payments from the users. Other case is that the private partner receives payments for operation and maintenance for which it delivers the bundle of services Within the SUMP some measures could be directed to this structure, and virtually become responsibility of private sector.

Generally suitable measures/projects for the DBFOM are those that allow the private partner to generate profit directly from the operation, with or preferably without the public sectors subsidies.

Commercialization of the bus terminal (main bus station) is a suitable measure for applying this model.

The private partner would benefit from the concentration of people, hence there is a motivation for financing further reconstruction of the object into commercial zone upon premise the functionality for buses would be kept to full extent. Such a case is a typical example of synergy arising from the cooperation of public and the private sector, where the excess in revenues of the private party arising from public sector is offset by provision of a public good by the private party.

10 SUMP Institutional Structure

10.1 Introduction

It is important that there is a clear institutional structure established to develop and deliver the SUMP, with the rationale being well co-ordinated and focused delivery of sustainable mobility outcomes at both a strategic, as well as an operational level. It is also essential to provide the necessary structure(s) that will provide land use and transport planners, as well as engineers with the necessary empowerment to deliver initiatives effectively. It is also essential that sufficient information flows between the different groups established concerning scheme development and delivery, delivery risks, progress towards targets, outcomes and expenditure, enabling decisions on the emphasis and direction of the expenditure programme to be made in response.

The following section sets out options for a new institutional arrangement to manage, develop and oversee the successful creation of such a new SUMP process in Pristina.

10.1.1 SUMP Executive Board (Steering Committee)

Such a group would provide an overall Strategic Direction and ownership of the SUMP in Pristina as it is closely linked into the political and scrutiny process. More specifically, the Executive Board / Steering Committee would provide the political steer for the transport planning process in Pristina with 'ownership' and governance of the process. With membership at the highest decision-making level the Board should comprise both executive and non-executive directors. In terms of the potential role and responsibilities of this Group these should include:

- Co-ordinating strategic transport issues affecting Pristina and the wider (travel to work) area, in the preparation of, monitoring, implementation and review of the spatial strategy for the sub region, as well as the region as a whole;
- Holding overall ownership of the development and delivery of the SUMP to ensure the continual improvement in the development and co-ordination of the sustainable mobility strategy with a particular focus on improving delivery of the agreed objectives and targets (and the investment programmes that support these); and
- Acting as a forum to seek to resolve any conflicts of interest which might arise on matters relating to the development and delivery of the SUMP.

10.1.2 Strategic Leadership & Investment Group

This group should hold responsibility for approving the overall investment programmes and monitoring overall progress of SUMP delivery in terms of financial and performance monitoring. The group should co-ordinate and direct key investment decisions in order to maximise the impact in both spatial and transport projects and measures in support of the SUMP objectives. In terms of the potential role and responsibilities of this group these could potentially include:

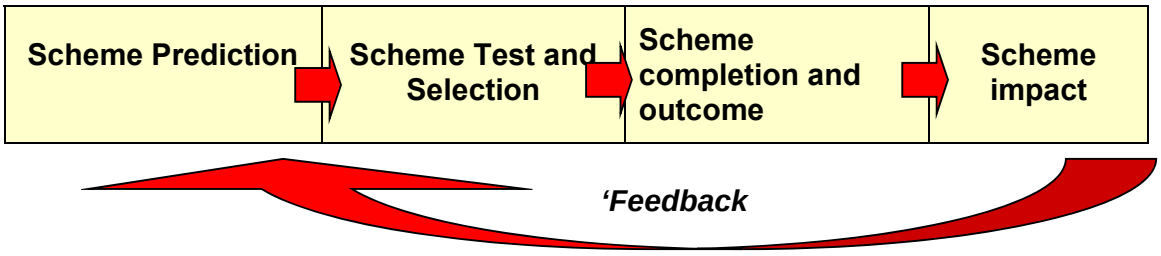
- Hold overall responsibility for meeting SUMP targets, receiving regular updates from the SUMP development team on progress across all target areas and supporting investment programmes;
- Review and modify SUMP implementation programmes to meet SUMP objectives;
- Hold responsibility for 'strategic scheme' approval;
- Review overall performance for SUMP implementation ('delivery on the ground');
- Make key decisions in relation to SUMP funding and investment of SUMP programme measures;

- Agree contingency interventions if targets are not being met;
- Provide the mechanisms that empower staff/technical officers to achieve delivery; and
- Co-ordinate SUMP activity with the broader transport agenda.

There are some key tasks that will need to be undertaken, including modelling and monitoring activities to assess the impact of specific measures and to review the outcome of scheme implementation on achieving SUMP objectives and outcomes. Future decisions on programme delivery should be fully informed by up-to-date information on financial and performance management in terms of progress towards achieving SUMP objectives that are set.

As part of revised monitoring framework (as set out in Chapter 11), further consideration will be given to the production of Scheme 'Impact reports' to demonstrate the effectiveness of a particular measure or group of measures in contributing to overall SUMP objectives. Such reports will help focus on delivering value for money solutions as part of overall integrated transport programmes. This process of detailed examination also enables the effectiveness of the measures to be clearly demonstrated and will help to improve the performance of future interventions.

Figure 77: SUMP Scheme Monitoring Process



Source: Mott MacDonald

In terms of the reporting process for SUMP performance indicators, one option for consideration is the adoption of a traffic light index system to gauge overall performance (green highlighting that progress is on track to meet targets, red to show that progress is not on track and amber highlighting no clear evidence).

10.1.3 SUMP Financial Monitoring

A financial review process should be established to report on the preparation, development and implementation of annual SUMP capital programmes. It is important to monitor expenditure and progress being made 'on the ground' as an integral part of the SUMP delivery process.

10.1.4 SUMP Group Business Plans

In order to maintain a clear delivery focus with each group clearly understanding the targets they are both working towards and expected to achieve it is recommended that each of the new groups produce a business plan, which sets out proposed activities to meet its targets in the year ahead. These business plans should be approved by the SUMP State and Local Government (SLG) each year, ahead of the start of the new financial year. A typical business plan, designed to set and agree working targets whilst not being too arduous to produce should include information setting out the overall aims and objectives of each Delivery Group (and more specific objectives for work areas which comprise the work programme), as well as information on the key outputs and targets to which each work area contributes and proposed monitoring arrangements.

In preparing these business plans there will be a need to take account of the level of financial resources available from each of the partners involved and other sources, enabling views to be made on the likely attainment of targets which will form a key element of the SUMP annual business planning process. The information should also include details on the level of available resources from other external organisations (where known), in order to present a fully costed programme for each work area as possible.

Aligned with the review of resources, it is also important to have a better understanding of the main risks which might impede successful delivery of the SUMP outcomes and targets. Each business plan should include information on potential risks and challenges associated with delivering the key elements and activities in support of the targets. This information will also include what is proposed to manage and mitigate these risks or explain how particular levels of risk are being managed for particular elements of the SUMP programme.

10.2 Summary of Recommendations

As part of the institutional process to establish a robust SUMP process in Pristina it is recommended that further discussion and development of possible new governance structures for establishing and implementation of a SUMP for Pristina is undertaken based on:

- a streamlined structure with clear lines of responsibility, terms of reference and the establishment of business plans to monitor and review progress against agreed tasks; and
- establishing key responsibilities for managing implementation of SUMP measures and reviewing progress with achieving adopted SUMP objectives. The management and review of SUMP measures will require overseeing the commissioning and subsequent implementation of schemes on the ground, supported financial and performance management reviews over the Plan period.

Central to this new institutional structure is the need for a greater focus on achieving SUMP outcomes and ensuring that effective forward planning takes place to identify forward investment programmes that not only offer value for money but will bring about a wide range of benefits across Pristina.

11 SUMP Monitoring & Evaluation

11.1 The Importance of Monitoring

Regular monitoring of transport and urban mobility conditions will help assess whether problems in Pristina are being overcome or whether new problems are being seen to emerge. Monitoring should be based on an agreed set of performance indicators and consequently it is important that these can be readily measured and easily interpreted. It is recommended that the municipality carry out annual monitoring of the core indicators to review progress against objectives and targets. Monitoring has several basic purposes:

- To support planning, the process of figuring out where we want to go and how we can get there;
- To improve decision-making by giving us a clearer understanding of current conditions and trends;
- To enable benchmarking of conditions and performances; and
- To ensure accountability for actions and results.

11.2 Challenges of Effective SUMP Monitoring

There are a number of major challenges facing monitoring efforts in support of sustainable urban transportation goals:

- **Complexity of urban transportation systems**. Urban transport systems are complicated by a great number of influences, including unpredictable nature of human behaviour. It is often difficult to say with confidence where transportation patterns are heading, what the driving factors are, and what the implications might be;
- **Financial and staff resource limitations**: Collecting, analysing and reporting on monitoring data frequently require more time than authorities can often provide. Even before monitoring activity begins, the identification of relevant baseline conditions forms an essential step which in itself can be a resource-intensive task; and
- **Inconsistent data collection procedures, data formats and reporting practices**: Monitoring can help benchmark results, question differences and draw conclusions but this requires a means for meaningful comparison. In the absence of any national monitoring guidelines or frameworks to follow, such comparisons can often be difficult. There is a need for capacity-building to raise the awareness and skill of staff related to sustainable transportation monitoring, and to improve the comparability of monitoring frameworks.

11.3 Establishing a SUMP Monitoring Strategy for Pristina

Monitoring and evaluation are core elements of a SUMP, providing an essential management tool to keep track of the planning process and measure progress. It is important to identify barriers and drivers for SUMP measure design and implementation. It is also beneficial to learn from planning experience in terms of what works well and what does not work so well. Based on this learning experience it is possible to “repackage” measures in order to achieve targets more efficiently. The development of a strong monitoring and evaluation framework as part of a SUMP will help provide proof of the effectiveness of the SUMP and its’ measures.

There are typically 3 different phases involved in the development of a monitoring and evaluation framework as follows:

(i) Planning phase:

- This involves setting suitable objectives and targets that are supported by appropriate performance indicators – these will be used to measure the success of the SUMP at milestones over the lifespan of the Plan; and
- Relating to the establishment of objectives/targets it is also important at this stage to consider responsibilities, resources, time scales in terms of the different performance indicators and how these will be monitored.

(ii) Monitoring and Evaluation Plan:

- This involves establishing an implementation and monitoring phase, including measuring the before conditions, as well as during/after conditions to gauge the level of change in travel impact. The results of this evaluation are reported at this stage.

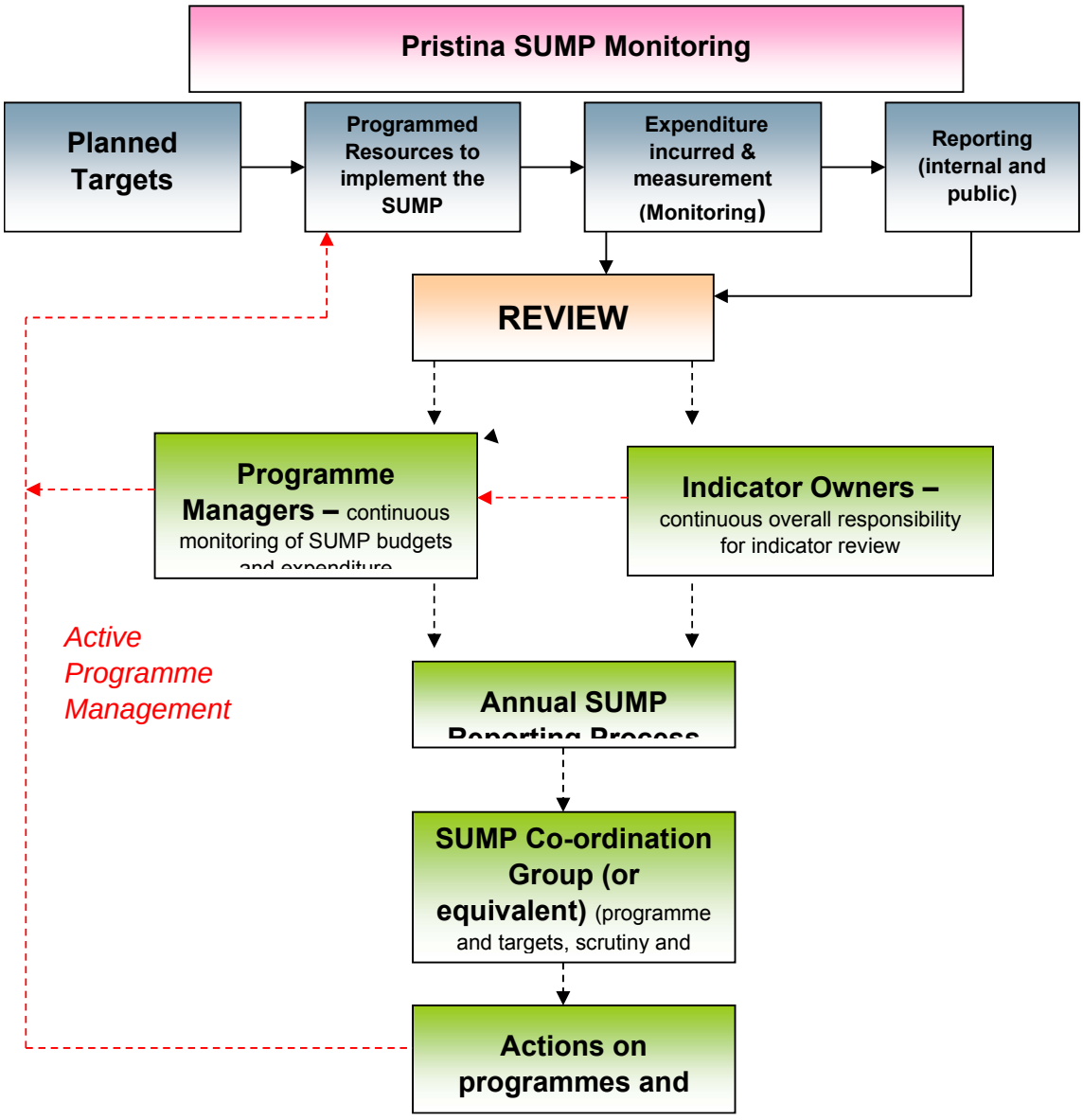
(iii) Evaluation phase:

- Determining a 'without' base against which to assess the proposal; and
- Analysis, interpretation and, if appropriate, assessing value for money.

Effective and efficient monitoring programmes must reflect a simple process of aggregating readily available data sets. In the development of the plan and its targets, a crucial balance is necessary between the level of ambition in the targets being set and the necessary investment in these areas reflected in the financial programme. This balance must be correctly set and maintained, if the plan is to deliver the desired outcomes. The refinement of this balance between programmes and targets was subject to substantial iteration in the development of the final plan and will be a crucial point for review in future progress reviews.

One option for the ongoing monitoring process is highlighted in the figure below which sets out a draft framework for review, with the process examining the evidence (programme spend, performance indicator outturn) as well as the performance against each indicator. This scrutiny and review process helps with corrective actions being used to amend programmes, or if appropriate adjustments to SUMP targets. The approach requires close involvement of indicator owners and programme managers who in the first instance need to work together to make any day to day adjustments to the programme that are necessary.

Figure 78: Draft SUMP Monitoring Framework for Pristina



Source: Mott MacDonald

11.4 Selecting Appropriate SUMP Indicators

In developing the list/selection of indicators for the Pristina SUMP there are number of key principles to consider:

- **Acceptability:** Reflecting the need for acceptance by those who will apply them;
- **Availability:** The need to easily obtain the data is important;
- **Clarity:** Indicators should be simple and unambiguous;
- **Limit in number:** Greater focus on indicators linked to a few headline measures; and

- **Comparability:** Important to adopt definitions/methods which are sound, practically feasible and consistent across measures.

Table 12: List of Draft SUMP Performance Indicators – Pristina SUMP

Element	Ref. No.	Indicator Name	Contribution Towards SUMP Objectives				
			Network Efficiency	Accessibility	Safety	Environment	Quality of Life
Transport System	1	Road Traffic Kilometres	✓			✓	
	2	Road Traffic Flows into the CDB/City Centre and Level of Transit Traffic	✓		✓	✓	
	3	Proportion of journeys to work by public transport		✓			
	4	Increase in Total Number of Public Transport Trips		✓			
Travel Times	5	Average journey time per kilometre in the morning peak	✓			✓	
	6	Public transport services running on time and public transport services suffering from congestion	✓			✓	✓
Road Safety	7	Road Traffic Casualties (Fatalities and Injuries) and Fatalities per capita (100,000 population)			✓		✓
	8	Road Traffic Accidents involving Pedestrians and Cyclists			✓		✓
	9	Speed Monitoring Relative to Legal Limit			✓		✓
Accessibility & mobility	10	Cycling Monitoring: Modal split (proportion of trips by bicycle) and local cycling levels		✓		✓	✓
	11	Pedestrian Monitoring: Modal split (proportion of trips by foot) and local walking levels		✓		✓	✓
Parking	12	Parking Space Occupancy Rate	✓	✓			
	13	Parking Behaviour (According to Regulations)	✓		✓		
	14	Parking Behaviour (According to Regulations)	✓			✓	
	15	Number of people using park & ride (if park & ride forms part of the demand management approach)	✓	✓			
Environment	16	Air Quality Monitoring: Concentration of Nitrogen Dioxide (NO2) and PM10				✓	✓
	17	Outdoor traffic related daytime noise levels				✓	✓
Social	18	Level of Public Satisfaction with Public Transport Services					✓
	19	Car ownership		✓			✓
	20	Satisfaction with the Quality of Pedestrian and Cycle Environment		✓		✓	✓

Source: Mott MacDonald

11.5 Focus on SUMP Outcomes

In relation to the monitoring and evaluation framework it is important to focus on SUMP ***outcomes*** not ***outputs***. There is a distinct difference between the two terms as follows:

- An output is referred to as an action taken, such as the implementation of newly constructed infrastructure, or 10 km of new bicycle lanes or introduction of 5 new bus services in operation; and

- An outcome is referred to as the impact of action, such as real and measurable improvements in quality of life / transport services or for example a change in the level of congestion (vehicle delay) or the number of new cycling trips.

11.6 Setting SUMP Targets

Setting targets is important for the Pristina SUMP to demonstrate a clear desire to achieve a degree of change in transport patterns or behaviours within a given timeframe. More specifically setting and monitoring targets will help:

- Assess whether an adopted measure achieves desired outcomes;
- Inform the monitoring and evaluation activities in terms of gauging the level of success that objectives are being met: and
- Provide transparency and clarity on what SUMP aims to achieve in terms of future city transport and mobility.

It is important to define and adopt targets that allow monitoring of progress towards achievement of the objectives. This establishes a key reference point for assessing efficiency and effectiveness of the measures. Other key issues relating to target setting include:

- Involving key stakeholders in developing quantitative and qualitative targets – have they been involved?
- It is also important to assess whether localised urban targets included in the SUMP which reflect different transport patterns /opportunities (a part of the city etc.); and
- Trajectories or milestones to monitor progress helps understand over the plan what is expected to happen.

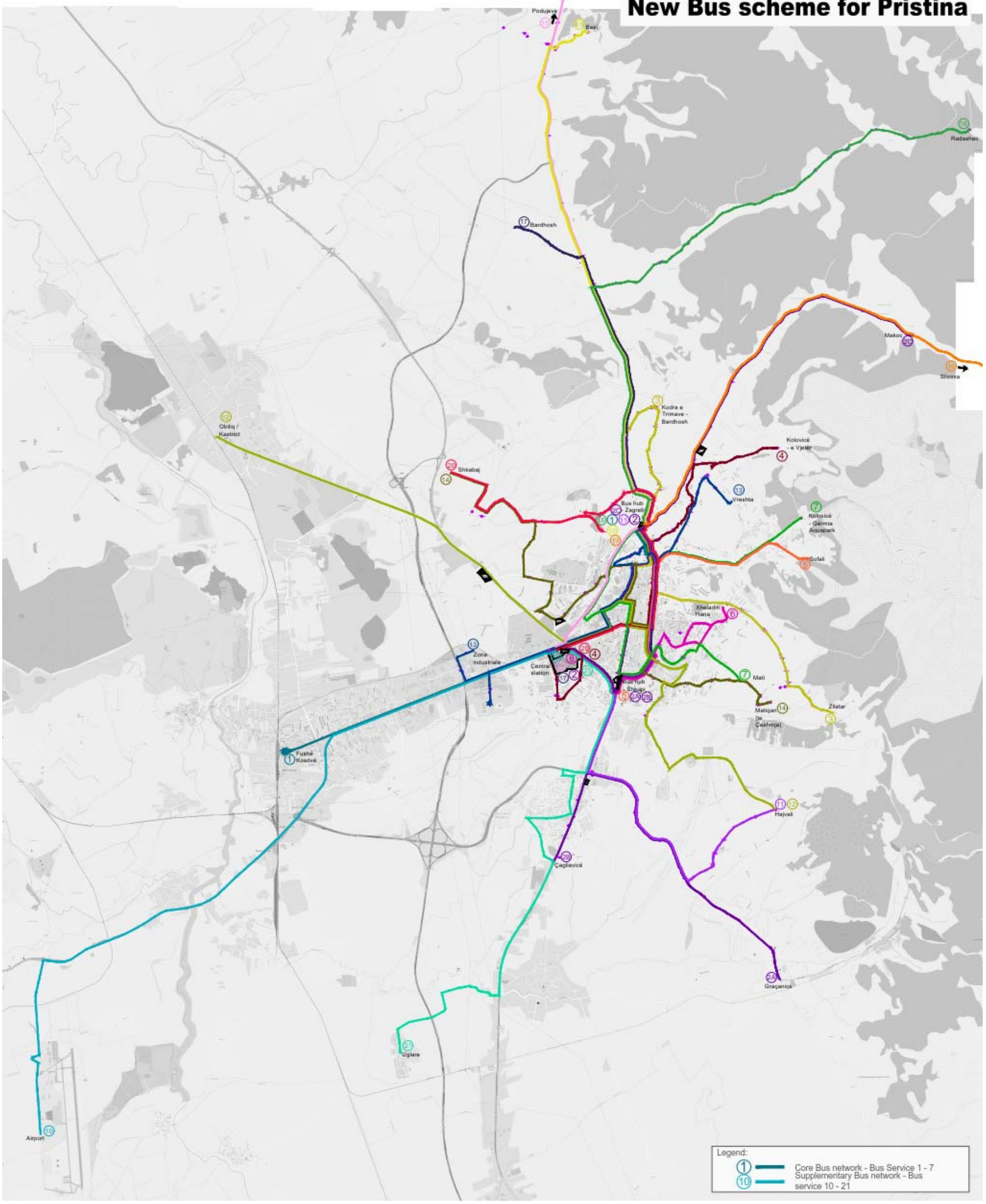
Specific targets for different mobility aspects will be set once the investment plan for the SUMP is finalised and implementation of the measures commences.

Appendices

A. New Bus Network Scheme for Pristina

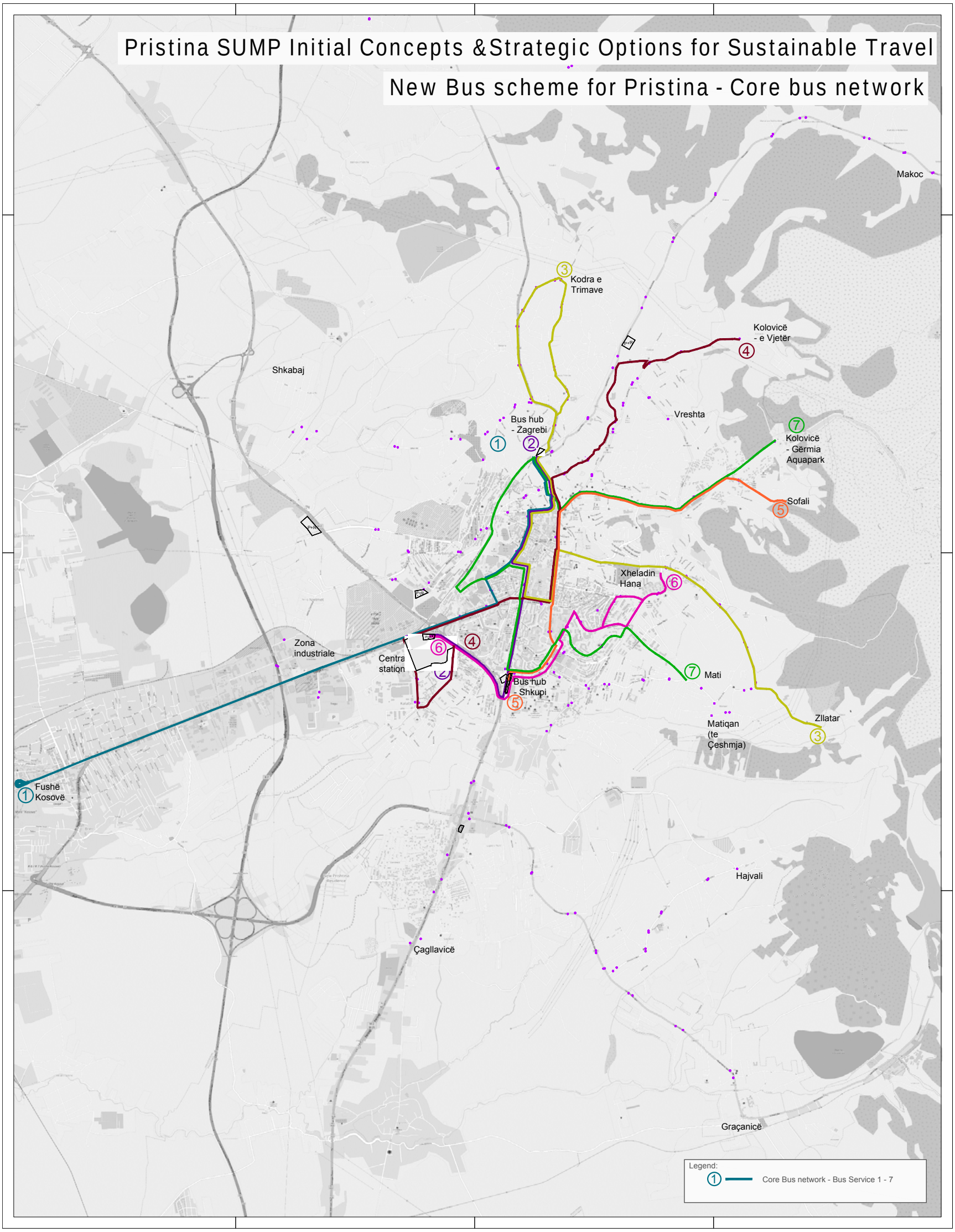
Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel

New Bus scheme for Pristina



Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel

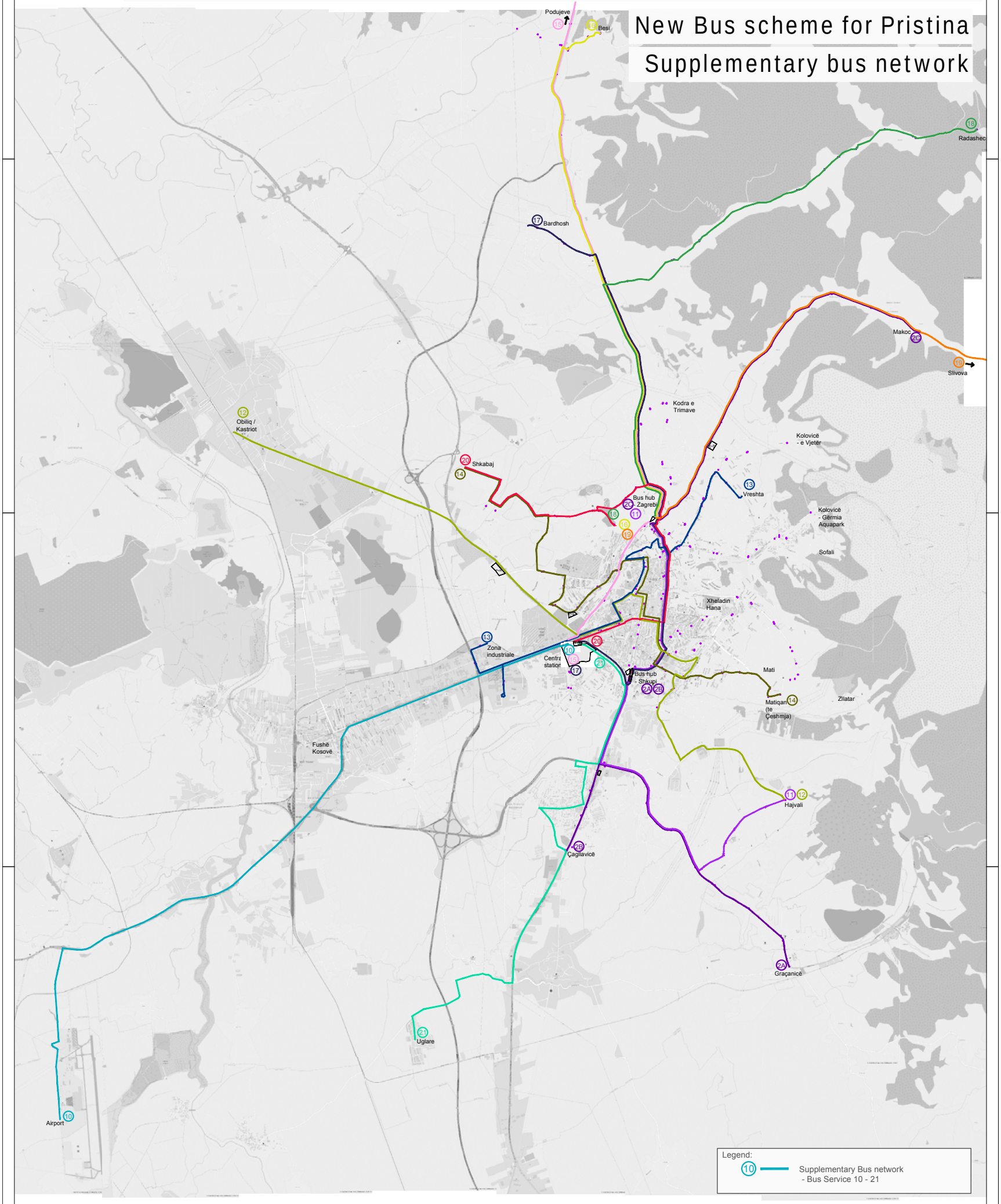
New Bus scheme for Pristina - Core bus network



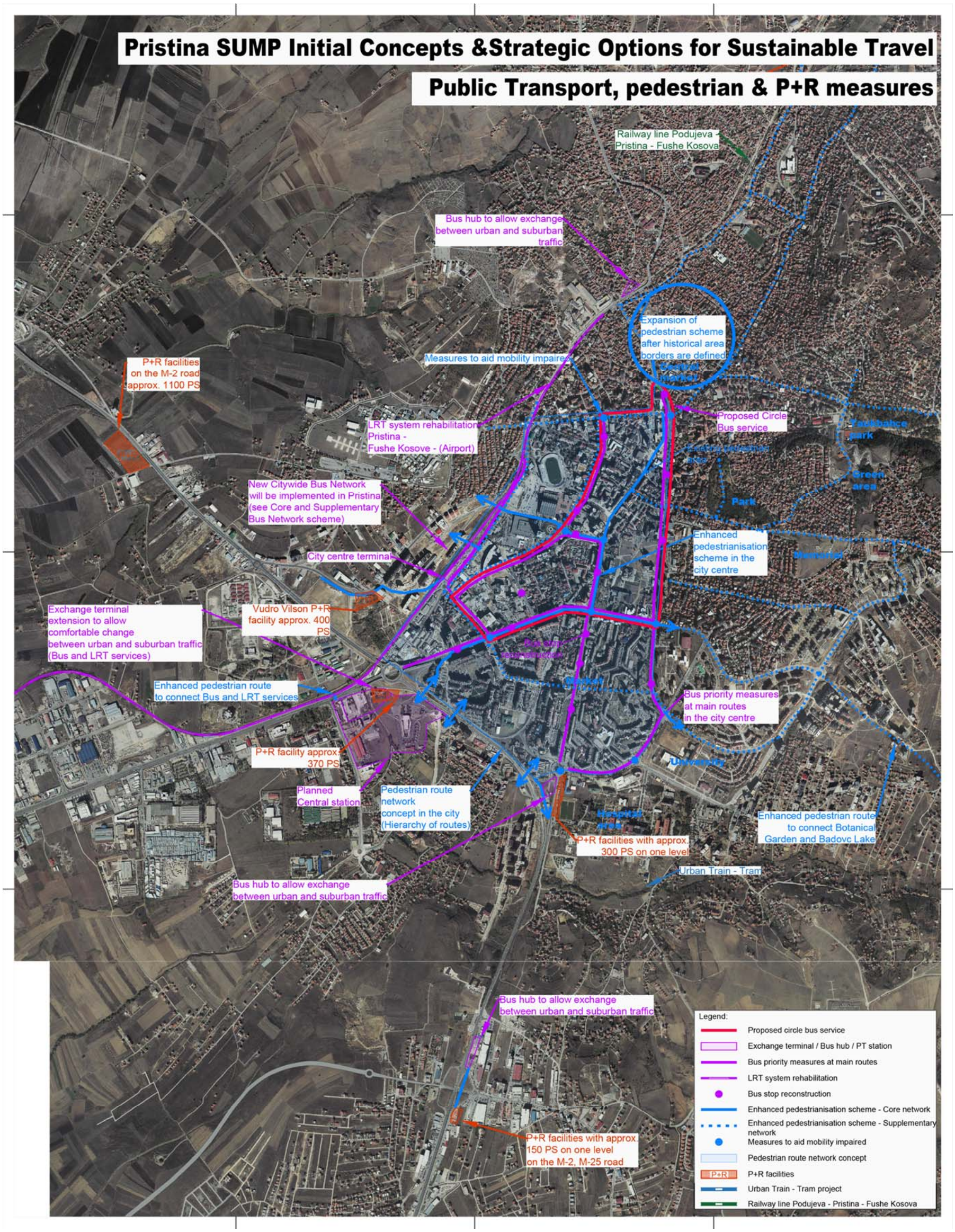
Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel

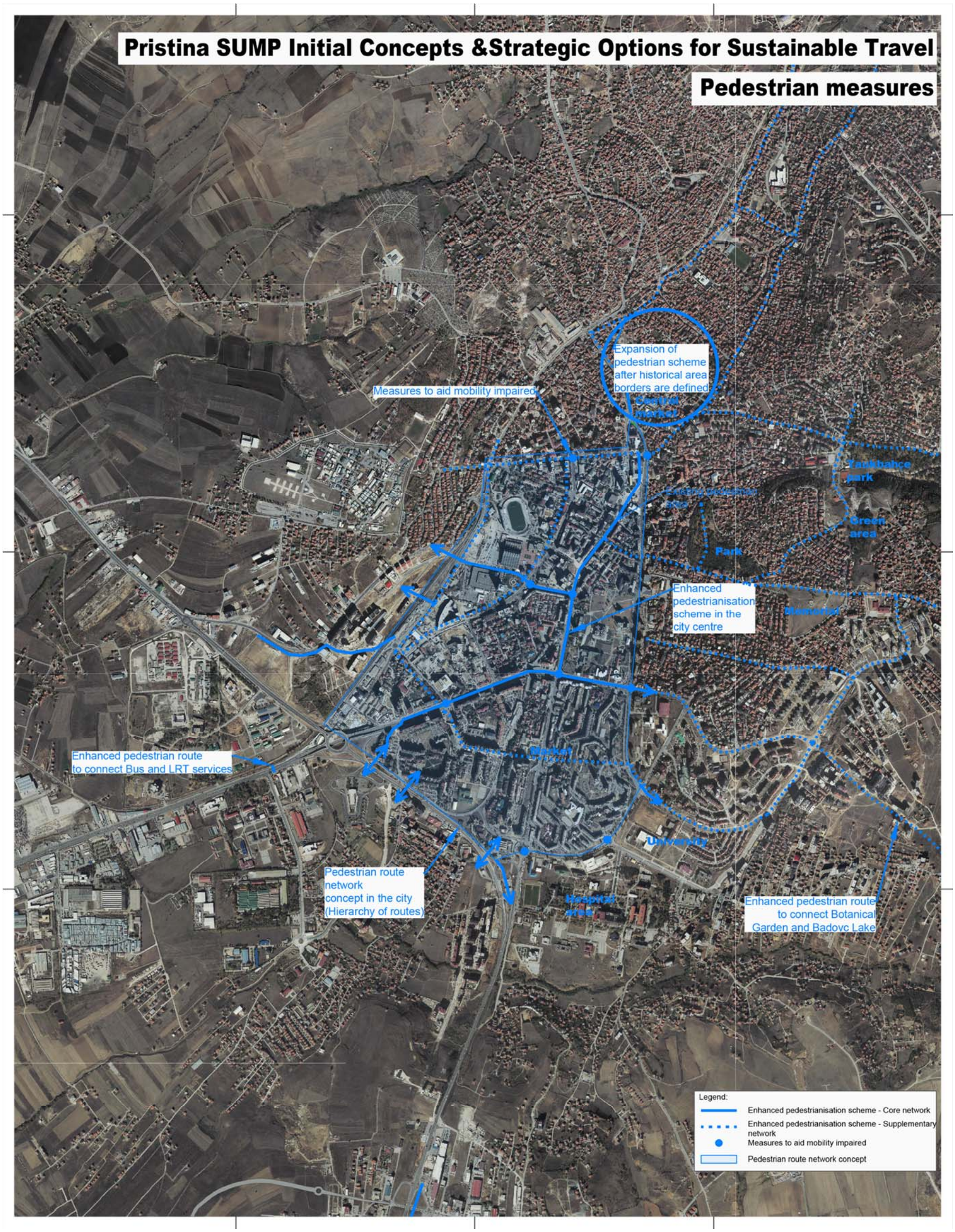
New Bus scheme for Pristina

Supplementary bus network

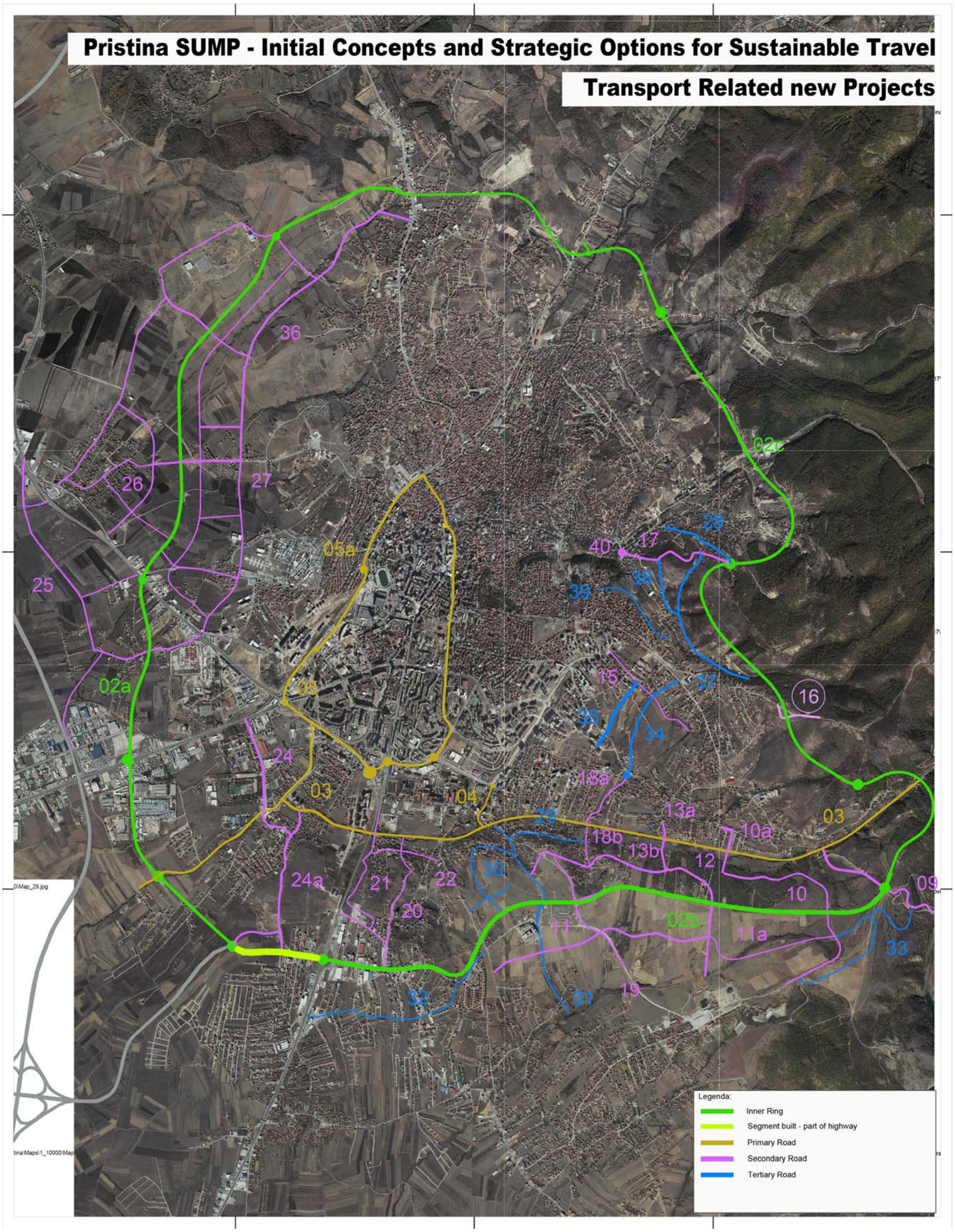


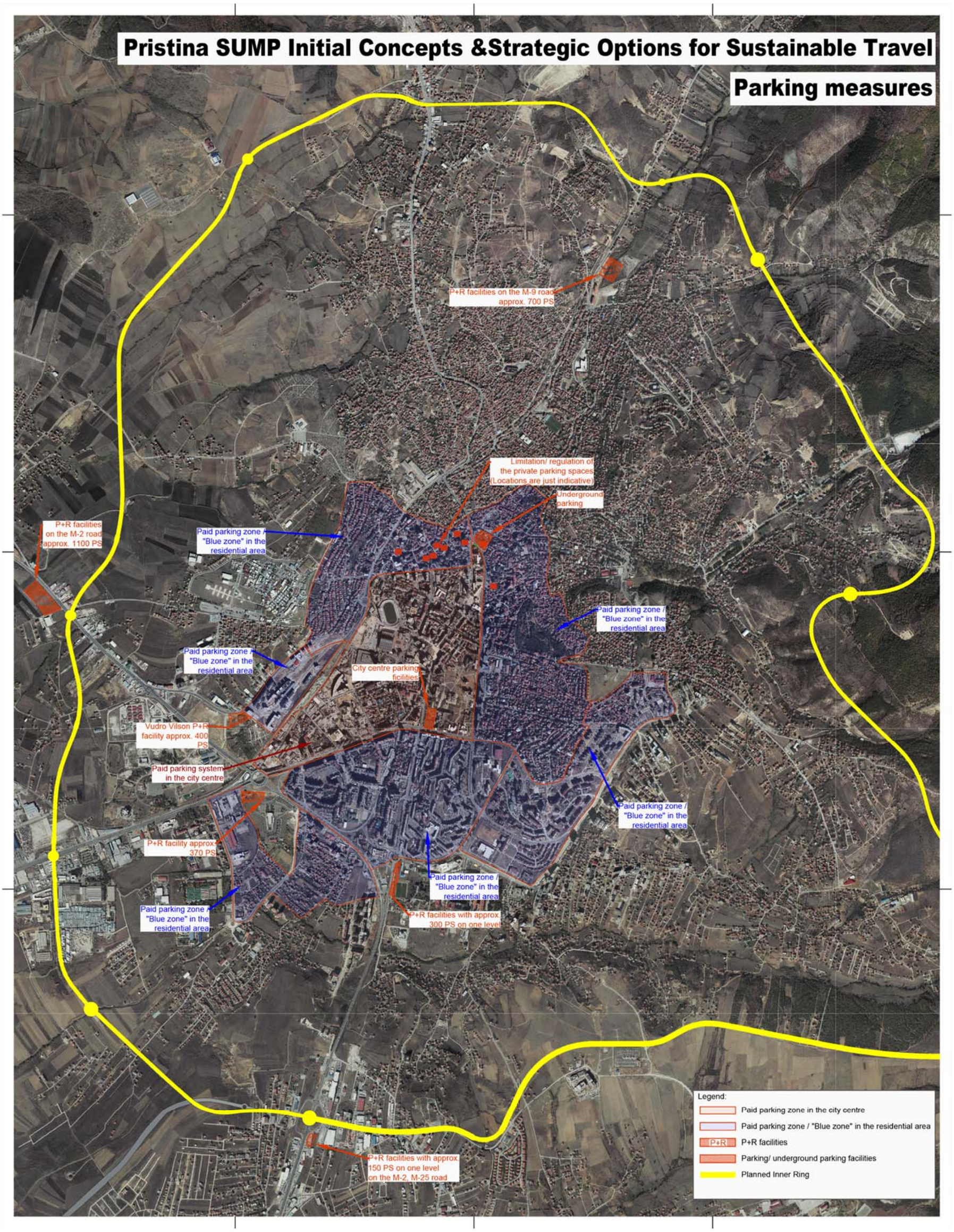
B. SUMP Proposal Plans for Pristina


Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel
Public Transport, pedestrian & P+R measures
Railway line Podujeva - Pristina - Fushe Kosova
Bus hub to allow exchange between urban and suburban traffic
Expansion of pedestrian scheme after historical area borders are defined
Measures to aid mobility impaired
P+R facilities on the M-2 road approx. 1100 PS
LRT system rehabilitation Pristina - Fushe Kosove - (Airport)
Proposed Circle Bus service
Taukbahce park
Green area
Park
New Citywide Bus Network will be implemented in Pristina (see Core and Supplementary Bus Network scheme)
City centre terminal
Enhanced pedestrianisation scheme in the city centre
Memorial
Exchange terminal extension to allow comfortable change between urban and suburban traffic (Bus and LRT services)
Vudro Vilson P+R facility approx. 400 PS
Bus stop reconstruction
Market
Enhanced pedestrian route to connect Bus and LRT services
Bus priority measures at main routes in the city centre
P+R facility approx. 370 PS
University
Planned Central station
Pedestrian route network concept in the city (Hierarchy of routes)
Hospital area
Enhanced pedestrian route to connect Botanical Garden and Badovc Lake
P+R facilities with approx. 300 PS on one level
Urban Train - Tram
Bus hub to allow exchange between urban and suburban traffic
Bus hub to allow exchange between urban and suburban traffic
P+R facilities with approx. 150 PS on one level on the M-2, M-25 road
Legend:
Proposed circle bus service
Exchange terminal / Bus hub / PT station
Bus priority measures at main routes
LRT system rehabilitation
Bus stop reconstruction
Enhanced pedestrianisation scheme - Core network
Enhanced pedestrianisation scheme - Supplementary network
Measures to aid mobility impaired
Pedestrian route network concept
P+R facilities
Urban Train - Tram project
Railway line Podujeva - Pristina - Fushe Kosova


Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel
Pedestrian measures
Measures to aid mobility impaired
Expansion of pedestrian scheme after historical area borders are defined
Central market
Taukbahce park
Existing pedestrian area
Green area
Park
Enhanced pedestrianisation scheme in the city centre
Memorial
Enhanced pedestrian route to connect Bus and LRT services
Market
University
Pedestrian route network concept in the city (Hierarchy of routes)
Hospital area
Enhanced pedestrian route to connect Botanical Garden and Badovc Lake
Legend:
Enhanced pedestrianisation scheme - Core network
Enhanced pedestrianisation scheme - Supplementary network
Measures to aid mobility impaired
Pedestrian route network concept


Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel
Cycling measures
Bike and electric bike sharing system
New cycle path scheme (off road routes/ on road routes/ lanes) up to Kodra e Trimave
New cycle path scheme (off road routes/ on road routes/ lanes) up to Medrese & Çamëri
Bike parking facility and cycling facility for cyclists
New cycle path scheme (off road routes/ on road routes/ lanes)
Special PT routes from the city centre uphill to surrounding areas
Special PT routes from the city centre uphill to surrounding areas
Bike parking facility and cycling facility for cyclists
New cycle path scheme (off road routes/ on road routes/ lanes)
New cycle path scheme (off road routes/ on road routes/ lanes)
Bike and electric bike sharing system
Bike and electric bike sharing system
Bike and electric bike sharing system
Bike parking facility and cycling facility for cyclists
Bike parking facility and cycling facility for cyclists
Special PT routes from the city centre uphill to surrounding areas
Bike parking facility and cycling facility for cyclists
Existing cycle path improvements
Bike and electric bike sharing system
New cycle path scheme (off road routes/ on road routes/ lanes)
New cycle path to connect Botanical Garden and Badovc Lake via Zllatar
Bike parking facility and cycling facility for cyclists
Legend:
New cycle path scheme
Existing cycle path improvements
Bike parking facility and cycling facility for cyclists
Bike and electric bike sharing system
Special PT routes/ services


Pristina SUMP - Initial Concepts and Strategic Options for Sustainable Travel
Transport Related new Projects
36
26
27
25
05a
02a
05
24
03
04
24a
21
22
20
30
29
18a
18b
13a
13b
10a
12
10
09
02b
11
11a
33
32
31
19
40
17
28
38
39
15
37
35
34
16
02c
Legenda:
Inner Ring
Segment built - part of highway
Primary Road
Secondary Road
Tertiary Road


Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel
Parking measures
P+R facilities on the M-9 road approx. 700 PS
Limitation/ regulation of the private parking spaces (Locations are just indicative)
Underground parking
P+R facilities on the M-2 road approx. 1100 PS
Paid parking zone / "Blue zone" in the residential area
Paid parking zone / "Blue zone" in the residential area
Paid parking zone / "Blue zone" in the residential area
City centre parking facilities
Vudro Vilson P+R facility approx. 400 PS
Paid parking system in the city centre
Paid parking zone / "Blue zone" in the residential area
P+R facility approx. 370 PS
Paid parking zone / "Blue zone" in the residential area
Paid parking zone / "Blue zone" in the residential area
P+R facilities with approx. 300 PS on one level
P+R facilities with approx. 150 PS on one level on the M-2, M-25 road
Legend:
Paid parking zone in the city centre
Paid parking zone / "Blue zone" in the residential area
P+R
P+R facilities
Parking/ underground parking facilities
Planned Inner Ring


Pristina SUMP Initial Concepts &Strategic Options for Sustainable Travel
Traffic management and road safety measures
20kph zones adjacent to local schools
Safety enhancements at affected roads and junctions
20kph zones adjacent to local schools
20kph zones adjacent to local schools
Safety enhancements at affected roads and junctions
20kph zones adjacent to local schools
Speed enforcement on the main routes
Speed enforcement on the main routes
Safety enhancements at affected roads and junctions
Safety enhancements at affected roads and junctions
Safety enhancements at affected roads and junctions
Speed enforcement on the main routes
Capacity enhancements at key junctions
Safety enhancements at affected roads and junctions
Speed enforcement on the main routes
Safety/ capacity enhancements at affected roads and junctions
20kph zones adjacent to local schools
Safety enhancements at affected roads and junctions
Speed enforcement on the main routes
Safety enhancements at affected roads and junctions
Capacity enhancements at key junctions
Speed enforcement on the main routes
Safety enhancements at affected roads and junctions
Capacity enhancements at key junctions
Legend:
Capacity enhancements at key junctions
Safety enhancements at affected junctions
Red-light speed cameras at signalised junctions
Safety enhancements at affected roads
Speed enforcement on the main routes
20kph zones adjacent to local schools
Schools
Planned Inner Ring

C. Draft SUMP Action Plan – Short Term

PROPOSED SUMP MEASURES FOR THE SHORT-TERM PERIOD – 2019 – 2020

No.	Intervention name	Investment description	MoP Investment Cost (EUR) for the period	Start year of the period	Duration of Funding in the period (Years)	Responsibility (Management responsibility)	Related measures/ Dependencies	Refinement
A.1	**Enhanced pedestrianisation scheme**	Footpath area modification (incl. construction works and new urban street furniture), plus the construction of pedestrian priority areas/zones. This measure will create a safe environment for pedestrians and will motivate people to use other transport modes than the private car.	445 000	2019	2	MoP	A.2	Measures to modify/ enhance pedestrian routes in the city centre. These include modifications of Xhorxh Bush, Eqrem Çabej, Bill Klinton, Garibaldi, Dritan Hoxha streets and routes connecting the proposed new bus hubs. Streets modification should start focus in the area of the existing and planned new pedestrian zone and the connection of the proposed new bus terminals. Other streets will be addressed as part of a phased approach to pedestrian improvements across the city.
A.2	**Measures to aid mobility impaired**	Footpath improvements to aid mobility. Measure will result in a safe, accessible environment for pedestrians and will motivate people to use other transport modes than cars.	121 190	2019	2	MoP	A.1	This measure should first address problems of poor accessibility and mobility on routes to/from the city centre, as well as improvements to connect to new bus hubs and bus stops to improve connectivity/accessibility to public transport services.
A.3	**New cycle paths**	Construction of a new cycle paths. The measure will offer new and safe infrastructure for the public to use and will motivate people to use environmentally friendly active modes instead of private cars.	199 126	2019	2	MoP	A.5, A.6	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations for implementation of specific measures.
A.4	**Existing cycle path improvements**	Modification of existing cycle paths across the city. Existing cycle paths will be improved to provide safe and comfortable cycling routes & infrastructure to attract more people to try cycling.	79 446	2019	2	MoP	A.5, A.6	Measures addressing the modification of the existing network of cycling routes especially in the south-eastern part of the city.
A.5	**Bike parking facility and cycling facility for cyclists, incl. Intermodal station for bicycle**	Bicycle stands and other facilities in the vicinity of bus and railway stations, public squares and various other public buildings. The measure will motivate people to use cycling as their mean of transport.	75 000	2019	2	MoP	A.3, A.4	The measure should be linked (time and place) to the network of cycling routes.

A.6	**Bike and electric bike sharing system**	Construction and operation of this system for Pristina. The system will offer the public a fast and easy mode of transport in the city centre and adjacent areas and will motivate people to use alternatives to car transport.	PPP project	2019	2	MoP (Financial responsibility - Private operator)	A.3, A.4	Measures appropriate to a PPP project. Firstly, a system can be built to cover only the city center with gradual expansion and covering larger areas of the city.
A.7	**Pedestrian network development**	Construction of new and reconstruction of existing pavements and pedestrian areas as part of an integrated network approach across the city. Pedestrian areas and pavements will be higher quality and more accessible without parked cars which will motivate people to walk in the city and improve pedestrian safety as well as amenity.	208 334	2019	2	MoP	C.12	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations for implementation of specific measures.
A.8	**Marketing and promotion of Pedestrian and Cycle Transport**	Promoting walking and use of cycle transport. The measure will help to promote active travel modes of transport and will result in higher usage of these sustainable modes of travel.	11 944	2019	2	MoP		
C.1	**Capacity enhancements at 18 key junctions**	Adding new traffic lanes / better traffic control / coordination of traffic control / junction modification. This measure will help reduce delays, and improve the flow of traffic as well as address safety issues at junctions.	77 143	2019	2	MoP	P.2	This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented.
C.11.24	**Secondary Road**	Part of URP Kalabria. According to this plan, the road profile A-A has the width 22.2m. New connection / new road brings new capacity and safer link for the drivers.	PPP project	2019	1	MoP		The roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.24a	**Secondary Road**	Part of URP Kalabria. According to this plan, the road profile B-B has the width 18.2m. New connection / new road brings new capacity and safer link for the drivers.	PPP project	2019	1	MoP		The roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

C.11.2 a	**Inner Ring**	Foreseen by the Strategic Plan (SP) 2004-2020, UDP and MDP. According to plans: a high-capacity wide city boulevard; discharges the inner city from traffic. The part called “The Hilly Road” is smaller in width and conveys the contours of the Gërmia forest. – from the roundabout at ETC (F.Kosova) [42°38'51.1"N 21°07'41.5"E], untill M-2 (road to Mitrovica). New connection / new road bring new capacity and safer link for the drivers.	97 306	2020	1	MoI / MoP		
C.11.4	**Primary Road**	Part of URP Mati 1. A Segment of Street B (Bahri Fazliu Street): from the roundabout on Muharem Fejza Street to the connection with Road A. New connection / new road bring new capacity and safer link for the drivers.	341 111	2020	1	MoI / MoP		
C.11.5	**Primary Road - Part of City Ring**	Part of URP Lakrishte. According to this plan, profile of road A-A has the width 33.0m. New connection / new road brings new capacity and safer link for the drivers.	432 489	2019	2	MoP		
C.12	**Parking Enforcement**	A new parking enforcement team will be established to enforce parking regulations and facilities across the city more effectively. Pedestrian areas and public spaces will be cleared from illegally parked vehicles. On-street parking will be permitted at only regular parking spaces. The measure will improve pedestrian safety and the quality of public space. Number of vehicles in the city centre and traffic volumes will be reduced and car users will be encouraged to transfer to high quality public transport.	390 909	2019	2	MoP	C.6, C.7, C.9, C.10, C.13, A.8, Q.3	

		Development of a new plan heading to the improvement of road safety and speed management on the city's road network including: • Implementation of speed cameras and monitoring of speed limits to reduce incidences of speeding. • Influencing travel behaviour and improved safety for vulnerable road users, with improved road safety training; • Emphasis on road safety engineering, enforcement, education and training initiatives;						
C.14	**Development of Speed Management Plan**	• Development of 20kph zones around schools to improve safety and to encourage more children to consider walking or cycling for their school trip (separate measures identified for this). • The development of School Travel Plans, involving the City's Education Department and local schools will aim to encourage more sustainable forms of transport for journeys to school, reducing traffic congestion during the peak periods. The measure will increase road traffic safety on Pristina's roads.	200 000	2019	1	MoP		
C.15	**City Access Restrictions**	Management of city access restrictions within the pedestrianized areas of the city including: • New controls of vehicle operation, vehicle access and vehicle type; • Enhanced facilities and signing for loading and delivery bays; and • Stronger enforcement to reduce the level of non-discriminatory parking and minimizing conflicts with pedestrians and other road users	49 500	2020	1	MoP		

		in the city centre. This measure will help reduce vehicle emissions, increasing traffic safety, enhancing road capacity and reliability of the transport system as well as protect the pedestrianised priority zones.						
C.16	**City Logistic measures**	Measures leading to the streamlining of freight movement in Pristina through the creation of time slots for freight access, reduction of vehicle weights and emission types for freight vehicles on the city's road network. This measure will see better control of freight transport in Pristina, unlocking road capacity for other modes of transport and reducing vehicle emissions in the city.	116 667	2019	2	MoP		
C.2	**Safety enhancements at 6 affected junctions**	Traffic lane improvements (such as lane modification, traffic signs etc.). The impact of this measure will be a lower number of accidents and more stable traffic flow.	230 384	2019	2	MoP		This measure includes a number of Pristina's junctions. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations for this measure.
C.3	**Safety enhancements at affected roads**	Traffic lane improvements (such as lane modification, traffic signs etc.). The impact of this measure will be a lower number of accidents and more stable traffic flow.	243 044	2019	2	MoP		This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations for this measure.
C.4	**Speed enforcement on the main routes**	Traffic lane improvements (lane modification, traffic signs, humps etc.), Speed control (radars, red-light speed cameras at the signalised junctions - The cameras are capable of detecting vehicles exceeding the speed limit at all times, whether the traffic light is red, amber or green, etc.). This measure will help lower the number of accidents as well as establish more	38 623	2020	1	MoP		This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented.

		stable traffic flow across the city.						
C.5	**20kph zones adjacent to local schools**	Transport area modification (road + footpath, speed humps, traffic signs and other raised pavement areas.). This measure will create a safer traffic environment around schools with a lower number of traffic accidents, safer local environment for pupils and students.	67 415	2020	1	MoP		This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented.
C.6	**Paid parking zone**	Construction of a new controlled parking zone (construction works) and system for the city. The measures will improve traffic demand control and help manage the level of parking activity in the city centre.	6 210 925	2019	1	MoP	C.12	
C.8	**P+R facilities**	Construction of Park & Ride (P&R) facilities. P&R will offer parking capacity at public transport terminals on the main radial routes into the city and will motivate drivers to transfer to fast, frequent public transport services into the city centre. It will bring lower traffic volumes on radial roads and help reduce the level of traffic congestion in the city centre.	2 074 557	2019	2	MoP	P.1	This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented. Measures should be linked in particular to the construction of bus hubs.
P.1.a	**Bus Hubs - Central station**	Development and construction of the bus hub, with new bus stop shelter, passenger waiting and information facilities. The measure will make public transport faster and more effective with the introduction of new, modern facilities. Changing buses will be easy and quick at bus hubs.	3 279 142	2019	2	MoP / PPP	C.8, P.5	Construction of a bus hub (planned central station) near Lidhja e Pejës and Jusuf Gërvalla streets. Combined financial responsibility with private operator.

P.10	**Public transport preferences at key junctions**	Technology measures to give priority to public transport at key city junctions. The buses will have priority on the key junctions to make public transport faster, reliable and more attractive comparing to cars.	37 500	2020	1	MoP	P.2, P.5	This measure includes a number of Pristina's locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations for this measure. Measures must be linked to the bus priority measures on the main routes to/from the city centre.
P.2	**Bus priority measures at main routes**	Bus priority lanes and associated measures at bus stops and junctions to improve the regularity and reliability of bus services operating across the city. The measure will make public transport quicker and more reliable. Buses will have an advantage of priority space on main corridors and routes to avoid congested parts of the highway network. It will make public transport more attractive and help attract more passengers.	41 092	2020	1	MoP	P.10, P.5	This measure includes a number of Pristina's locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations for this measure. Measures must be linked in particular to the Public transport preferences at key junctions measure.
P.4	**Bus stop reconstruction**	Bus stop and shelter enhancements (including provision of new shelters, bus stop reconstruction (reconstruction of road, kerbside footpath etc.). The measure will increase the quality of public transport system, including better accessibility at stops which will attract more passengers.	18 785	2020	1	MoP	P.5	This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented. Measures should be linked in particular to the public transport preferences at key junctions and bus priority measures on the main routes in the city centre.
P.5	**New Citywide Bus Network Concept**	Overall design and introduction of new bus routes across the city to provide attractive network of convenient, fast and reliable public transport services. The city will be covered by public transport routes that responds to passenger demand, which will attract people to use the services instead of cars.	2 000 000	2019	2	MoP	P.1, P.2, P.8, P.9	
P.6	**Bus Vehicle Enhancement**	Focused on new bus fleet purchasing, preferably low-emission buses or electrobuses. The buses will offer to passengers comfortable and reliable public transport easy to	1 663 714	2019	2	MoP		

		use and suitable also for disabled people.						
P.7	**Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility**	Organisational measure to tackle the ongoing problem of illegal taxis operating across the city Illegal taxis will be eliminated and the official taxi drivers will all have equal operating conditions. Taxi vehicles operating electric vehicles will be favoured in order to improve the city's environment.	5 000	2020	1	MoP		
P.8	**Integrated ticketing system**	The introduction of a new integrated public transport ticketing system will enable users to travel easily across different services and bus operators improving convenience and the travel experience for users. This measure will enhance the user comfort of public transport services and will attract new bring passengers (which in turn will generate more revenue.) The public transport system will operate more efficiently, with enhanced service reliability to increase the attractiveness compared to private car use.	2 000 000	2019	2	MoP	P.9	The costing depends on the relative contribution of the private operators towards the total cost of the scheme to provide a fully integrated and comprehensive ticketing system for the city.
P.9	**New public transport information system**	A new public transport information system including on vehicles, at the bus stops and also online. This measure will enhance the user comfort of public transport services and will attract new bring passengers (which in turn will generate more revenue.) Enhancing information and awareness of public transport services routes and timetables will help attract more users to the system.	108 333	2019	2	MoP	P.8	

Q.1	**Integration of land use and transport planning**	Enhanced integration of land use planning and transport decisions through strengthened/new planning processes within the MoP. Proper transport infrastructure will become an essential condition as part of the city's development control policies for all new land-use development. Sustainable transport design will be integral as part of all land use planning decisions.	43 333	2019	2	MoP		
Q.2	**Development of Initiatives to Reduce Car Ownership**	Campaign aimed at changing the minds of Pristina's inhabitants in terms of travel behaviour and attracting greater use of sustainable travel modes. In cooperation with the sustainable transport campaign the public will use more sustainable transport modes and less car use.	23 000	2019	2	MoP	Q.5	
Q.3	**Police activity improvement**	The city will establish municipal enforcement team to enforce parking and traffic regulations. Illegal parking will be eliminated, traffic safety in the city will be improved and there will a lower number of illegal taxis operating in the city.	45 000	2019	2	MoP	C.12	
Q.5	**Sustainable transport campaign**	Development of a campaign to support and promote active transport modes and public transport across the city, targeting residents, businesses and tourists. The measure will help to promote and encourage the uptake of sustainable travel modes and encourage more responsible use of the private car in terms of a travel behaviour programme.	23 000	2019	2	MoP	Q.2	
Q.6	**Sustainable Mobility Coordinator**	Co-ordination and management of the implementation of the "Sustainable Mobility Plan in the City of Pristina". To achieve the	50 000	2019	2	MoP		

		goals and vision of the SUMP strategy, especially improving the traffic situation in Pristina, including the environment and making the city more attractive.						

Note: Red text - Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

D. Draft SUMP Action Plan – Medium Term

PROPOSED MEASURES FOR THE MEDIUM TERM PERIOD - 2021 – 2025

No.	Intervention name	Investment description	MoP Investment Cost (EUR) for the period	Start year of the period	Duration of Funding in the period (Years)	Responsibility (Management responsibility)	Related measures/ Dependencies	Refinement
A.1	**Enhanced pedestrianisation scheme**	Footpath area modification (incl. construction works and new urban street furniture), plus the construction of pedestrian priority areas/zones. This measure will create a safe environment for pedestrians and will motivate people to use other transport modes than the private car.	2 447 500	2021	5	MoP	A.2	Measures to modify/ enhance pedestrian routes in the city centre. These include modifications of Xhorxh Bush, Eqrem Çabaj, Bill Klinton, Garibaldi, Dritan Hoxha streets and routes connecting the proposed new bus hubs. Streets modification should start focus in the area of the existing and planned new pedestrian zone and the connection of the proposed new bus terminals. Other streets will be addressed as part of a phased approach to pedestrian improvements across the city.
A.2	**Measures to aid mobility impaired**	Footpath improvements to aid mobility. Measure will result in a safe, accessible environment for pedestrians and will motivate people to use other transport modes than cars.	666 540	2021	5	MoP	A.1	This measure should first address problems of poor accessibility and mobility on routes to/from the city centre, as well as improvements to connect to new bus hubs and bus stops to improve connectivity/accessibility to public transport services.
A.3	**New cycle paths**	Construction of a new cycle paths. The measure will offer new and safe infrastructure for the public to use and will motivate people to use environmentally friendly active modes instead of private cars.	1 095 190	2021	5	MoP	A.5, A.6	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations for implementation of specific measures.
A.4	**Existing cycle path improvements**	Modification of existing cycle paths across the city. Existing cycle paths will be improved to provide safe and comfortable cycling routes and infrastructure to attract greater numbers of cyclists.	112 704	2021	2	MoP	A.5, A.6	Measures addressing the modification/enhancement of the existing network of cycling routes especially in the south-eastern part of the city.
A.6	**Bike and electric bike sharing system**	Construction and operation of this system for Pristina. The system will offer the public a fast and easy mode of transport in the city centre and adjacent areas and will motivate people to use alternatives to car transport.	PPP project	2021	5	MoP	A.3, A.4	Measures appropriate to a PPP project. Firstly, a system can be built to cover only the city centre with gradual expansion and covering larger areas of the city.
A.7	**Pedestrian network development**	Construction of new and reconstruction of existing pavements and pedestrian areas as part of an integrated network approach across the city. Pedestrian areas and pavements will be higher quality and more accessible without parked cars which will motivate people to walk in the city and improve	1 145 833	2021	5	MoP	C.12	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations for implementation of specific measures.

		pedestrian safety as well as amenity.						
A.8	**Marketing and promotion of Pedestrian and Cycle Transport**	Promoting walking and use of cycle transport. The measure will help to promote active travel modes of transport and will result in higher usage of these sustainable modes of travel.	48 611	2021	5	MoP		
A.9	**Public space revitalisation on streets currently used by car transport**	Traffic calming on arterial roads with associated revitalisation of public space. Public space will be revitalized to provide people with a safe, clean and comfortable environment to encourage them to spend time in public areas and help improve the attractiveness of the city.	770 089	2023	3	MoP		
C.1	**Capacity enhancements at 18 key junctions**	Adding new traffic lanes / better traffic control / coordination of traffic control / junction modification. This measure will help reduce delays, and improve the flow of traffic as well as address safety issues at junctions.	424 284	2021	5	MoP	P.2	This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented.
C.11.10	**Secondary Road**	Part of URP Prishtina e Re East. According to this plan, the road profile C-C has the width 21.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2024	2	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.10a	**Secondary Road**	Part of URP Mati 2 road. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.11	**Secondary Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.11a	**Secondary Road**	Part of URP Prishtina e Re East. According to this plan, the road profile B-B has the width 22.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

C.11.12	**Secondary Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2024	2	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.13a	**Secondary Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.15	**Secondary Road**	Part of URP Mati 1. Planned Road F that connects Road B (Bahri Fazliu Street) with planned Road D. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.17	**Secondary Road**	Part of URP Sofalia. According to this plan, it is a road in Category II (flowing road); road profile 3-3 has the width 12.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.18a	**Secondary Road**	Part of URP Mati 1. Planned Road E, from the roundabout of Roads C & D to Road A. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.18b	**Secondary Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.19	**Secondary Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile B-B has the width 31.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.20	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road 5-5 has the width 25.5m. The new connection / new road will establish new	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

		highway capacity and provide a safer link for motorists.						
C.11.21	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area which are not funded by the Municipality. The construction of these roads/links is conditional on the development of the area.
C.11.21a	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 5c-5c has the width 20.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.21b	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.21c	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 8-8 has the width 13.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.22	**Secondary Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 5a-5a has the width 24.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.25	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.25a	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 3-3 has the width 14.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

C.11.25b	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 3-3 has the width 14.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.26	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.26a	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 1-1 has the width 24.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.27	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2024	2	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.27a	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 1-1 has the width 24.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.27b	**Secondary Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.28	**Tertial Road**	Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 6-6 has the width 11.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2024	2	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

C.11.29	**Tertial Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile D-D has the width 18.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.2a	**Inner Ring**	Foreseen by UDP and MDP. According to plans: a high-capacity wide city boulevard; discharges the inner city from traffic. The part called “The Hilly Road” is smaller in width and conveys the contours of the Gërmia forest. – from the roundabout at ETC (F.Kosova) [42°38'51.1"N 21°07'41.5"E], untill M-2 (road to Mitrovica). The new connection / new road will establish new highway capacity and provide a safer link for motorists.	1 848 823	2021	4	MoI / MoP		
C.11.3	**Road A + Segment 3**	Part of URP Prishtina e Re West, Center, East. According to this plan, road profile A-A has the width 40.5m. Segment 3 is part of URP Kalabria and UDP (the segment from URP Calabria to Outer Ring). According to this plan, the road profile Z-Z has the width 31.2m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	4 552 878	2024	2	MoI / MoP		
C.11.30	**Tertial Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile E-E has the width 14.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.30a	**Tertial Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile E-E has the width 14.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.31	**Tertial Road**	Part of URP Prishtina e Re Center. According to this plan, the road profile C-C has the width 22.0m. The new connection / new road will establish new highway capacity and	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

		provide a safer link for motorists.						
C.11.32	**Tertial Road**	Part of URP Prishtina e Re West. According to this plan, the road profile 7-7 has the width 13.0m-17.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.33	**Tertial Road**	Part of URP Prishtina e Re East. According to this plan, the road profile D-D has the width 11.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.34	**Tertial Road**	Part of the URP Mati 1. Planned Road G that connects road C with Isa Kastrati Street. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.35	**Tertial Road**	Part of the URP Mati 1. Planned Road H that connects road C with road F. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.36	**Tertial Road**	Part of URP Zona Ekonomike. According to this plan, the road profile 2-2 has the width 15.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.37	**Road**	Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 4-4 has the width 12.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.38	**Road**	Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 4-4 has the width 12.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

C.11.39	**Road**	Part of URP Sofalia. According to this plan, it is a road in Category III (collecting road); road profile 5-5 has the width 11.5m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.40	**Roundabout**	Part of URP Sofalia. The only roundabout on this plan, at Mbretëresha Teutë Street / Lec Gradica Street. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.9	**Secondary Road**	Part of URP Prishtina e Re East. According to this plan, the road profile B-B has the width 22.0m. The new connection / new road will establish new highway capacity and provide a safer link for motorists.	PPP project	2025	1	MoP		Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.12	**Parking Enforcement**	A new parking enforcement team will be established to enforce parking regulations and facilities across the city more effectively. Pedestrian areas and public spaces will be cleared from illegally parked vehicles. On-street parking will be permitted at only regular parking spaces. The measure will improve pedestrian safety and the quality of public space. Number of vehicles in the city centre and traffic volumes will be reduced and car users will be encouraged to transfer to high quality public transport.	2 171 717	2021	5	MoP	C.6, C.7, C.9, C.10, C.13, A.8, Q.3	
C.13	**Parking for Users with Special Needs**	The provision of dedicated parking spaces for users with special needs. The measure will provide parking dedicated parking spaces for users with special needs and increasing their mobility/accessibility across the city.	262 500	2023	3	MoP	C.12	This measure includes a number of Pristina's roads/locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.

C.15	**City Access Restrictions**	Management of the city access restriction within the pedestrianized areas of the city including: • New controls of vehicle operation, vehicle access and vehicle type. • Enhanced facilities and signing for loading and delivery bays. • Stronger enforcement to reduce the level of non-discriminatory parking and minimizing conflicts with pedestrians and other road users in the city centre. Reducing emissions, increasing traffic safety, enhancing road capacity and reliability of the transport system.	130 500	2021	1	MoP		
C.16	**City Logistic measures**	Measures leading to the streamlining of freight movement in Pristina through the creation of time slots for freight access, reduction of vehicle weights and emission types for freight vehicles on the city's road network. This measure will see better streamlining and control of freight transport in Pristina, unlocking road capacity for other modes of transport and reducing vehicle emissions in the city.	83 333	2021	1	MoP		
C.17	**New Pit stops for Taxis**	Creation of 'Pit-Stops' in city locations where they do not disturb other modes of transport. Joint stopping places (available to different users). i.e.: Zone 1 – pit stops where taxis can stay 5-10 minutes max. The municipality would determine the locations, while the Taxi Association then would manage these spaces through a regulation to allow all taxi companies to use those pit-stops. There is the possibility of incorporating such pit-stops in the 'Prishtina Parking' project (particularly streets Agim Ramadani and Luan Haradinaj, but other streets as well). To have taxis stops distributed in different parts of the city where these is demand and where taxis could stop more often but for shorter periods of time. Measure will also include the development of a new application related to taxi services and better signage (better	350 000	2022	3	MoP		Prioritisation of the locations for the pit stops needs to be determined by a feasibility study which should be undertaken.

		designed, more visual, more attractive) – Taxi Association is ready to participate in funding signs and branding related to taxis. (A good example already exists in Tirana, Albania) Improving conditions and transport infrastructure for alternative transport to public transport in Pristina.						
C.2	**Safety enhancements at 6 affected junctions**	Lane improvements (lane modification, traffic signs etc.). Lower number of accidents, more stable traffic flow.	756 977	2021	4	MoP		This measure includes a number of Pristina's junctions. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations for this measure.
C.3	**Safety enhancements at affected roads**	Lane improvements (lane modification, traffic signs etc.). Lower number of accidents, more stable traffic flow.	798 572	2021	4	MoP		This measure includes a number of Pristina's roads/locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations for this measure.
C.4	**Speed enforcement on the main routes**	Traffic lane improvements (lane modification, traffic signs, humps etc.), Speed control (radars, red-light speed cameras at the signalised junctions - The cameras are capable of detecting vehicles exceeding the speed limit at all times, whether the traffic light is red, amber or green, etc.). This measure will help lower the number of accidents as well as establish more stable traffic flow across the city.	381 941	2021	5	MoP		This measure includes a number of Pristina's roads/locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.
C.5	**20kph zones adjacent to local schools**	Transport area modification (road + footpath, speed humps, traffic signs and other raised pavement areas.). This measure will create a safer traffic environment around schools with a lower number of traffic accidents, safer local environment for pupils and students.	1 492 755	2021	5	MoP		This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.

C.7	**Blue zone in the residential area**	Construction of a new parking zone (construction works) and system for Pristina. The measure will provide parking spaces dedicated to residents and will significantly reduce other road users parking in local residential areas.	3 328 219	2022	4	MoP	C.12	
C.8	**P+R facilities**	Construction of Park & Ride (P&R) facilities. P&R will offer parking capacity at public transport terminals on the main radial routes into the city and will motivate drivers to transfer to fast, frequent public transport services into the city centre. It will bring lower traffic volumes on radial roads and help reduce the level of traffic congestion in the city centre.	5 141 294	2021	3	MoP	P.1	This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented. Measures should be linked in particular to the construction of bus hubs.
P.1.a	**Bus Hubs - Central station**	Development and construction of the bus hub, with new bus stop shelter, passenger waiting and information facilities. The measure will make public transport faster and more effective with the introduction of new, modern facilities. Changing buses will be easy and quick at bus hubs.	5 465 237	2021	2	MoP	C.8, P.5	Construction of a bus hub (planned central station) near Lidhja e Pejës and Jusuf Gërvalla streets.
P.1.b	**Bus Hubs - City centre terminal and Shkupi**	Development and construction of the bus hub, with new bus stop shelter, passenger waiting and information facilities. The measure will make public transport faster and more effective with the introduction of new, modern facilities. Changing buses will be easy and quick at bus hubs.	4 918 713	2022	3	MoP	C.8, P.5	Construction of a bus hubs "City centre terminal" near Tirana street and bus hub "Shkupi" near to Shkupi, Fehmi Lladrovci and 5 Maji streets.
P.1.c	**Bus Hubs - Zagrebi and Veternik**	Development and construction of the bus hub, with new bus stop shelter, passenger waiting and information facilities. The measure will make public transport faster and more effective with the introduction of new, modern facilities. Changing buses will be easy and quick at bus hubs.	1 594 027	2024	2	MoP	C.8, P.5	Construction of a bus hubs "Zagrebi" near Zagrebi street and bus hub "Veternik" near to M-2 and M-25.2 roads.

P.2	**Bus priority measures at main routes**	Bus priority lanes and associated measures at bus stops and junctions to improve the regularity and reliability of bus services operating across the city. The measure will make public transport quicker and more reliable. Buses will have an advantage of priority space on main corridors and routes to avoid congested parts of the highway network. It will make public transport more attractive and help attract more passengers.	780 751	2021	4	MoP	P.10, P.5	This measure includes a number of Pristina's locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations for this measure. Measures must be linked in particular to the Public transport preferences at key junctions measure.
P.4	**Bus stop reconstruction**	Bus stop and shelter enhancements (including provision of new shelters, bus stop reconstruction (reconstruction of road, kerbside footpath etc.). The measure will increase the quality of public transport system, including better accessibility at stops which will attract more passengers.	415 957	2021	5	MoP		This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented. Measures should be linked in particular to the public transport preferences at key junctions and bus priority measures on the main routes in the city centre.
P.6	**Bus Vehicle Enhancement**	Focused on new bus fleet purchasing, preferably low-emission buses or electrobuses. The buses will offer to passengers comfortable and reliable public transport easy to use and suitable also for disabled people.	9 242 854	2021	5	MoP		
P.7	**Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility**	Organisational measure to tackle the ongoing problem of illegal taxis operating across the city Illegal taxis will be eliminated and the official taxi drivers will all have equal operating conditions. Taxi vehicles operating electric vehicles will be favoured in order to improve the city's environment.	49 000	2021	5	MoP		
P.9	**New public transport information system**	A new public transport information system including on vehicles, at the bus stops and also online. This measure will enhance the user comfort of public transport services and will attract new bring passengers (which in turn will generate more revenue.) Enhancing information and awareness of public transport services routes and timetables will help attract more users to the system.	36 667	2021	1	MoP	P.8	

P.10	**Public transport preferences at key junctions**	Technology measures to give priority to public transport at key city junctions. The buses will have priority on the key junctions to make public transport faster, reliable and more attractive comparing to cars.	712 500	2021	4	MoP	P.2, P.5	This measure includes a number of Pristina's locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations for this measure. Measures must be linked to the bus priority measures on the main routes to/from the city centre.
Q.1	**Integration of land use and transport planning**	Enhanced integration of land use planning and transport decisions through strengthened/new planning processes within the MoP. Proper transport infrastructure will become an essential condition as part of the city's development control policies for all new land-use development. Sustainable transport design will be integral as part of all land use planning decisions.	36 667	2021	1	MoP		
Q.2	**Development of Initiatives to Reduce Car Ownership**	Campaign aimed at changing the minds of Pristina's inhabitants in terms of travel behaviour and attracting greater use of sustainable travel modes. In cooperation with the sustainable transport campaign the public will use more sustainable transport modes and less car use.	57 000	2021	3	MoP	Q.5	
Q.3	**Police activity improvement**	The city will establish municipal enforcement team to enforce parking and traffic regulations. Illegal parking will be eliminated, traffic safety in the city will be improved and there will a lower number of illegal taxis operating in the city.	75 000	2021	2	MoP	C.12	
Q.5	**Sustainable transport campaign**	Development of a campaign to support and promote active transport modes and public transport across the city, targeting residents, businesses and tourists. The measure will help to promote and encourage the uptake of sustainable travel modes and encourage more responsible use of the private car in terms of a travel behaviour programme.	57 000	2021	3	MoP	Q.2	
Q.6	**Sustainable Mobility Coordinator**	Co-ordination and management of the implementation of the "Sustainable Mobility Plan in the City of Pristina". To achieve the goals and vision of the SUMP strategy, especially improving the traffic situation in Pristina, including the	275 000	2021	5	MoP		

		environment and making the city more attractive.						
C.11.5a	**Primary Road - Western Part of City Ring**	Part of URP Lakrishte. According to this plan, the profile of road A-A has the width 33.0m. A new connection / new road will bring new highway capacity and provide a safer link for motorists.	1 603 310	2022	4	MoP		

Note: Red text - Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.

E. Draft SUMP Action Plan – Longer Term

PROPOSED MEASURES FOR THE LONG TERM PERIOD 2026 – 2030

No.	Intervention name	Investment description	MoP Investment Cost (EUR) for the period	Start year of the period	Duration of Funding in the period (Years)	Responsibility (Management responsibility)	Related measures/ Dependencies	Refinement
A.1	**Enhanced pedestrianisation scheme**	Footpath area modification (incl. construction works and new urban street furniture), plus the construction of pedestrian priority areas/zones. This measure will create a safe environment for pedestrians and will motivate people to use other transport modes than the private car.	2 447 500	2026	5	MoP	A.2	Measures to modify/ enhance pedestrian routes in the city centre. These include modifications of Xhorxh Bush, Eqrem Çabej, Bill Klinton, Garibaldi, Dritan Hoxha streets and routes connecting the proposed new bus hubs. Streets modification should start focus in the area of the existing and planned new pedestrian zone and the connection of the proposed new bus terminals. Other streets will be addressed as part of a phased approach to pedestrian improvements across the city.
A.2	**Measures to aid mobility impaired**	Footpath improvements to aid mobility. Measure will result in a safe, accessible environment for pedestrians and will motivate people to use other transport modes than cars.	666 540	2026	5	MoP	A.1	This measure should first address problems of poor accessibility and mobility on routes to/from the city centre, as well as improvements to connect to new bus hubs and bus stops to improve connectivity/accessibility to public transport services.
A.3	**New cycle paths**	Construction of a new cycle paths. The measure will offer new and safe infrastructure for the public to use and will motivate people to use environmentally friendly active modes instead of private cars.	1 095 190	2026	5	MoP	A.5, A.6	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations for implementation of specific measures.
A.6	**Bike and electric bike sharing system**	Construction and operation of this system for Pristina. The system will offer the public a fast and easy mode of transport in the city centre and adjacent areas and will motivate people to use alternatives to car transport.	PPP project	2026	5	MoP	A.3, A.4	Measures appropriate to a PPP project. Firstly, a system can be built to cover only the city centre with gradual expansion and covering larger areas of the city.
A.7	**Pedestrian network development**	Construction of new and reconstruction of existing pavements and pedestrian areas as part of an integrated network approach across the city. Pedestrian areas and pavements will be higher quality and more accessible without parked cars which will motivate people to walk in the city and improve pedestrian safety as well as amenity.	1 145 833	2026	5	MoP	C.12	This measure includes a large part of Pristina's territory. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/locations for implementation of specific measures.
A.8	**Marketing and promotion of Pedestrian and Cycle Transport**	Promoting walking and use of cycle transport. The measure will help to promote active travel modes of transport and will result in higher usage	19 444	2026	2	MoP		

		of these sustainable modes of travel.						
A.9	**Public space revitalisation on streets currently used by car transport**	Traffic calming on arterial roads with associated revitalisation of public space. Public space will be revitalized to provide people with a safe, clean and comfortable environment to encourage them to spend time in public areas and help improve the attractiveness of the city.	1 729 911	2026	5	MoP		
C.1	**Capacity enhancements at 18 key junctions**	Adding new traffic lanes / better traffic control / coordination of traffic control / junction modification. This measure will help reduce delays, and improve the flow of traffic as well as address safety issues at junctions.	424 284	2026	5	MoP	P.2	This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.
C.10	**Parking house**	Construction of a new parking house and transfer of on-street parking spaces to this facility. (no new parking spaces will be created- this is a shift in parking supply from on-street to off-street). Streets and public spaces will improve in terms of reducing the volume of on-street parking (especially tackling the level of illegally parked vehicles).	504 000	2026	2	MoP	C.11	Provision of a parking house near to Bill Klinton and Xhorxh Bush street.
C.11.13	**Secondary Road**	Part of URP Mat 2. The same street profile with 13b (Prishtina e Re Center): profile B-B, width 31.0m. New connection / new road brings new capacity and safer link for motorists.	PPP project	2030	1	MoP		The roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.
C.11.2b	**Inner Ring**	The Ring Road extends to the suburban areas of the city, with a potential for the development of the city, also taking into account the draft and implementation of regulatory plans. - this would extend from the roundabout at ETC (F. Kosova) until Zllatar. New connection / new road will bring new highway capacity and provide a safer link for motorists.	5 258 949	2026	5	MoI / MoP		

C.11.2c	**Inner Ring**	The Ring Road extends to the suburban areas of the city, with a potential for the development of the city, also taking into account the draft and implementation of regulatory plans. - from Zllatar until M-2 road. New connection / new road will bring new highway capacity and safer link for motorists.	2 444 192	2030	1	MoI / MoP		
C.12	**Parking Enforcement**	A new parking enforcement team will be established to enforce parking regulations and facilities across the city more effectively. Pedestrian areas and public spaces will be cleared from illegally parked vehicles. On-street parking will be permitted at only regular parking spaces. The measure will improve pedestrian safety and the quality of public space. Number of vehicles in the city centre and traffic volumes will be reduced and car users will be encouraged to transfer to high quality public transport.	1 737 374	2026	4	MoP	C.6, C.7, C.9, C.10, C.13, A.8, Q.3	
C.13	**Parking for Disabled Users**	The provision of dedicated parking spaces for disabled users. The measure will provide parking dedicated parking spaces for disabled users and increasing their mobility/accessibility across the city.	237 500	2026	2	MoP	C.12	This measure includes a number of Pristina's roads/locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.
C.4	**Speed enforcement on the main routes**	Traffic lane improvements (lane modification, traffic signs, humps etc.), Speed control (radars, red-light speed cameras at the signalised junctions - The cameras are capable of detecting vehicles exceeding the speed limit at all times, whether the traffic light is red, amber or green, etc.). This measure will help lower the number of accidents as well as establish more stable traffic flow across the city.	429 147	2026	5	MoP		This measure includes a number of Pristina's roads/ locations. Therefore, at the outset of this measure, a feasibility study needs to be developed to define the priority areas/locations where measures will be implemented.

C.5	**20kph zones adjacent to local schools**	Transport area modification (road + footpath, speed humps, traffic signs and other raised pavement areas.). This measure will create a safer traffic environment around schools with a lower number of traffic accidents, safer local environment for pupils and students.	298 551	2026	1	MoP		This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented.
C.7	**Blue zone in the residential area**	Construction of a new parking zone (construction works) and system for Pristina. The measure will provide parking spaces dedicated to residents and will significantly reduce other road users parking in local residential areas.	5 760 380	2026	5	MoP	C.12	
C.9	**Underground parking**	Construction of an underground parking facility and shifting parking spaces from on-street to the parking house. The level of new parking will not be increased - merely transferring from on-street to off-street). Streets and public spaces will be improved by removing the level of on-street parking including illegally parked vehicles.	340 000	2030	1	MoP	C.11	It should be noted that this measure is not in line with the sustainable scenario for the SUMP - in this case the preferred proactive scenario. This measure refers to three locations of underground parking facilities in the city centre near to Xhorxh Bush, Eqrem ÇabEj and Agim Ramadani streets.
P.1.c	**Bus Hubs - Zagrebi and Veternik**	Development and construction of the bus hub, with new bus stop shelter, passenger waiting and information facilities. The measure will make public transport faster and more effective with the introduction of new, modern facilities. Changing buses will be easy and quick at bus hubs.	1 138 591	2026	1	MoP	C.8, P.5	Construction of a bus hubs "Zagrebi" near Zagrebi street and bus hub "Veternik" near to M-2 and M-25.2 roads.
P.11	**Urban Train Tram**	Provision of a new tram connection on the southern part of Pristina, providing a new high capacity public transport link in the city. Part of UDP and URPs Prishtina e Re West, Center and East. Length 7.7km from the Central Station to the point where Prishtina e Re East border meets with the Inner Ring; Width 7m (3.5m one direction and 3.5m other direction); 3m sidewalks (1.5m + 1.5m). According to URP Prishtina e Re West, the train extends through a special/separate corridor separated from the roadway. Crossroads are planned at the same	293 140	2030	1	MoP		

		level with traffic lights. The provision of a new tram connection on the southern part of Pristina will provide a new high capacity public transport link in the city which will improve the attractiveness of public transport and help address problems of traffic congestion in the city.						
P.3a	**LRT system rehabilitation - regular services (Fushë Kosova - Pristina - Podujeva)**	Establishing a regular LRT service between Fushë Kosova - Pristina - Podujeva. The measure will create new high capacity service in Pristina and surrounding areas with improved comfort and reliability with a segregated public transport service.	Project funded by another authority	2030	1	Infrakos		
P.3b	**LRT system rehabilitation - extension through Pristina**	Rail track reconstruction throughout the city to facilitate introduction of LRT services. The measure will create new high capacity service in Pristina and surrounding areas with improved comfort and reliability with a segregated public transport service.	Project funded by another authority	2030	1	Infrakos		
P.3c	**LRT system rehabilitation - extension to the Airport**	Rail track reconstruction and extension from Fushë Kosova to the Pristina Airport. The measure will create a new high capacity link in Pristina with improve comfort and greater reliability of service with a segregated public transport link.	Project funded by another authority	2030	1	Infrakos		
P.4	**Bus stop reconstruction**	Bus stop shelter (including provision of new shelters, bus stop reconstruction (reconstruction of road, kerbside footpath etc.). The measure will increase the quality of public transport system, including better accessibility at stops which will attract more passengers.	166 383	2026	2	MoP		This measure includes a number locations across Pristina. Therefore, at the outset, a feasibility study needs to be developed to define the priority areas/ locations where measures will be implemented. Measures should be linked in particular to the public transport preferences at key junctions and bus priority measures on the main routes in the city centre.
P.6	**Bus Vehicle Enhancement**	Focused on new bus fleet purchasing, preferably low-emission buses or electrobuses. The buses will offer to passengers comfortable and reliable public	7 394 283	2026	4	MoP		

		transport easy to use and suitable also for disabled people.						
P.7	**Improved Regulation and Monitoring of Taxi Services with preference for taxi vehicles powered by electromobility**	Organisational measure to tackle the ongoing problem of illegal taxis operating across the city Illegal taxis will be eliminated and the official taxi drivers will all have equal operating conditions. Taxi vehicles operating electric vehicles will be favoured in order to improve the city's environment.	55 000	2026	5	MoP		
Q.4	**Electromobility support for public transport and taxi vehicles**	The city will provide financial, organisational or tax support to transport companies that will adopt the use of electric vehicles. The measure will help to improve the environment of the city, especially air quality in the city by reducing vehicle emissions.	100 000	2027	3	MoP		
Q.6	**Sustainable Mobility Coordinator**	Co-ordination and management of the implementation of the "Sustainable Mobility Plan in the City of Pristina". To achieve the goals and vision of the SUMP strategy, especially improving the traffic situation in Pristina, including the environment and making the city more attractive.	275 000	2026	5	MoP		
C.11.5a	**Primary Road - Western Part of City Ring**	Part of URP Lakrishte. According to this plan, profile of road A-A has the width 33.0m. A new connection / new road will bring new highway capacity and provide a safer link for motorists.	1 492 737	2026	3	MoP		

Note: Red text - Roads which are dependent on the planned development of the area. The construction of these roads/links is conditional on the development of the area.