

Innovations in Sustainable Urban Mobility Plans for Low-carbon urban transport January 2017 – June 2021



InnovaSUMP project facilitates to take-up of Sustainable Urban Mobility Plans with innovations on travel behaviour, pricing and financing, planning for tourism and sustainable energy, towards low-carbon transport solutions

#innovasump2021

Devon County Council hosted the InnovaSUMP Devon Study tour on 12th – 13th September 2018 in Exeter. The purpose of this workshop was to showcase transport planning methodologies, share learnings from recently delivered transport planning projects and share innovations that will help improve best practice for future SUMPS

Dave Black, Head of Planning, Transportation & Environment at Devon County Council, opened the Study Tour. Dave gave an overview of the County's current transport policy instruments and Exeter's transport context



Exeter, with a population of 130,000, is Devon's County Town and the gateway for strategic rail and road connections into the South West Peninsula. The city has a comprehensive network of bus routes, a growing cycle network and a confluence of rail branch lines, including 9 stations.

Exeter has a significant economic draw and one of the largest travels to work areas in the Country. As a result, it experiences a significant level of car dominant inward commuting. With travel into the city expected to continue to grow, promoting sustainable modes to accommodate this growth is a key focus of the emerging Greater Exeter Strategic Plan and Mobility Plan

InnovaSUMP Study Tour

Devon County Councils Transport Responsibilities

Managing Passenger Transport (Damien Jones, DCC)

Devon County Council works to provide an integrated transport co-ordination service that serves the county. This includes providing community transport, for residents who may otherwise struggle with mobility, liaising with commercial operators to deliver service enhancements and leading the operation of three Park & Ride sites.



DCC works closely with external partners to deliver school transport, socialcare, non-emergency patient transport and local bus services

Highways Operation Control Centre (Hugh Griffiths, DCC)

The Highways Operation Control Centre (HOCC) operates 24/7 to monitor and help manage Devon's 12,000 kilometre road network.



By monitoring road and weather conditions the HOCC plays a central role in managing the network in extreme weather conditions, abnormal traffic events and coordinating winter maintenance

East of Exeter

AM Site Visits – Exeter (Jamie Hulland, DCC)

Jamie Hulland, Transportation Strategy & Road Safety Manager at DCC, led coach tour of recently delivered schemes and major transport interchanges on key on the eastern edge of the city:



- Bridge Road widening
- Newcourt Rail station
- Honiton Road Park and Ride
- Clyst Honiton Bypass
- Cranbrook Railway Station

East of Exeter Growth Point (Andy Wood, Exeter and East Devon Growth Point)

The Exeter and East Devon Growth point seeks to deliver a major growth programme to the region, through public and private sector partnership. Andy Wood, the project's director, gave a presentation on the planning processes behind delivering the East of Exeter Growth Point

Phased Access Strategy (Will Pratt, DCC)

Supporting the delivery of the growth point is a 3 phased transport strategy that identified the transport infrastructure required to enable different levels of development.

The benefits of linking land use and transport planning, having a flexible plan that can be adapted and having an agreed traffic model to evidence decisions and develop business cases were highlighted.

PM Site Visits – East of Exeter (Jamie Hulland and Will Pratt)

Starting from Exeter Science Park, the afternoon site visits were undertaken on foot. An overview of the schemes was provided by Jamie Hulland and Will Pratt from the Devon County Council Transport Planning Team. The tour was also joined by the project engineers from the County's Engineering Design Group.

- Blackhorse Link Road including new pedestrian/cycle bridge and Tithebarn Link Road: The need for the link roads originated from a need to mitigate the impact of new



development on the adjacent M5 motorway junctions. The road also provides the main road through the new village of Mosshayne/Redhayes and therefore a less vehicle dominant design was pursued, with traffic calming, tree planting, pedestrian side road priority and dedicated cycle ways.

- E4 Cycle Route (Chris Bonnett, Jacobs):

The E4 strategic cycle route provides dedicated urban cycle route. The first 1km section opened in July 2018 and includes the 2 way cycle route that is segregated from both pedestrians and vehicles



- Redhayes Bridge (Jamie Hulland, DCC): The 82 metre span twin arch bowstring bridge is a central part of the transport strategy to provide an attractive pedestrian/cycle link to connect major development to the east of Exeter to the city.



Site Visits

Central Station Forecourt & Co-bikes Demo (Mark Hodgson, Co-cars)

Mark Hodgson, Managing Director of Co-cars, gave a comprehensive demo of the Co-bike's features and operation. Delegates were also given the opportunity to ask questions and trial the bikes.



The docking station is situated in the Exeter Central station forecourt, which was redeveloped from an area of short stay parking to an urban space that provides an attractive gateway at one of the city's main public transport interchanges.

Exeter City Futures (Liz O'Driscoll, ECF)

Liz O'Driscoll, the Exeter City Futures (ECF) programme director, gave an overview of the Exeter City Futures initiative. The initiative seeks to bring together the public sector, private sector and Exeter's local communities, in an effort to solve the city's transport challenges.

Exeter SUMP

Emerging Transport Strategy (Will Pratt, DCC)

The key themes in the emerging Exeter Sustainable Urban Mobility Plan that is being developed alongside the emerging Greater Exeter Joint Strategic Plan were presented to the group.



Alongside more traditional transport connectivity the strategy proposes a strong emphasis on people and technology. The 3 Key strands to the emerging strategy include:

- **Greater Connectivity**
- **Greater Paces for People**
- **Greater Innovation**

Closing the road and City Centre Traffic reduction (Will Pratt, DCC)

A run through of the timeline of removing traffic from a busy cross city route that bisects the High Street to provide an improved environment for people to live, work and shop in the city centre.

The reduction in traffic has been iterative with changes every 5 years. At each stage, a different mechanism has been used to build the case for reducing traffic, including:

- Making a temporary closure/diversion required for construction permanent
- Analysis of trip characteristics from road side interview data to build an evidence base for forecasting the

impact of closure and convince decision makers the changes could be accommodated only with minor changes to existing network

- Pedestrianisation using the Town and Country Planning Act 1990

Approaches to Travel Planning in Exeter (Marjolein Rijken, JACOBS)

Devon County Council actively engages with employers, residents and schools to encourage sustainable behavior change. Marjolein Rijken works with businesses across the city to assist with travel planning and to support and encourage their employees to make sustainable travel choices.

A Travel Planning best practice note, signposting existing businesses and future developments to best practice examples and Travel Planning tools is also currently in development.

Lessons Learnt from Co-bikes (Alex Thomas, DCC)

Co-bikes were the first on-street solely electric bikes hire scheme in the United Kingdom. Docking stations have been delivered within close proximity to transport interchanges and business hubs within the city.



Evidence has shown

- E-bikes can be an attractive alternative to the private car, with higher car abstraction rates than bus and traditional bike share schemes.
- Usage of the electric bikes was split broadly evenly between males and females, a significant difference from the imbalance of 3 males to 1 female recorded for general cycling trips in the UK
- Although the use for commuting was relatively low, the bikes were well used for business trips through the

The draft Mobility Plan was presented to the Leader of County Council and the leaders and chief executives of the four district councils of Exeter, East Devon, Teignbridge and Mid Devon that are working on the Greater Exeter Joint Local Plan. The strategy was warmly received with the significant shift towards a people based approach to mobility, and strong reference to the role of innovation acknowledged and supported as the correct direction of travel for the city and surrounding area.



The strategy has subsequently been presented to the Exeter Highways and Traffic Orders Committee, and again warmly received being described as ambitious but realistic.

With high level political support for the key themes, approval to consult is being sought in December 2018 with a view to public consultation on January 2019

Sustainable Mobility Plan in Prague

Since 2015 Prague has created the first Sustainable Mobility Plan for Prague and its suburbs (Prague Mobility Plan, or P+). P+ Analysis and P+ Transport policy are approved for a long time, but the final phase – P+ Proposal (measures proposals) which has begun in June 2017 was approved as a concept by the City Assembly on the 6th September 2018. And why only as a concept? The SEA process is still pending, because, the main document of SEA had to be extended for Czech Ministry of Environment request. Today, the main SEA document with annexes count about 600 pages. On the 12th December 2018 SEA process public hearing is taking place in Prague Center for Architecture and Metropolitan Planning and



hopefully the whole mobility plan will be approved in January or February 2019.

Promotion of Alternative fuels in Prague

One new P+ Transport policy goal is to support alternative fuels and propulsions to reduce air pollution in Prague. Sustainable Mobility Plan for Prague and its suburbs is too general for this specific task as the alternative fuels and propulsions are. So, Prague made a decision to elaborate specific Strategy for support of alternative fuels and propulsions. This strategy is supported by the InnovaSUMP project as a strategy for better EU funding in this field. Whole strategy is going to elaborate until end of 2019, now the analytical document is preparing and workshop with stakeholders took place on 23 October 2018 in Prague and was attended by 32 experts. And what were results of the workshop as an input to the Strategy? In the field of alternative fuels, they are primarily positive for user costs, although it is a question how long it will be, as the advantage comes mainly from a lower tax rate. From a technical point of view we are already on the edge of the physical possibilities of engines. However, alternative fuels, in particular CNG, are becoming more meaningful in non-food bioenergy (bio CNG) production. In terms of urban traffic, users are technically and economically more advantageous with CNG than diesel. It is also essential to establish a clear concept of what goes further with the CNG based on current EC directives on the production of exhaust emissions.

Electromobility is a very interesting alternative to today's combustion engines, although it is necessary to approach electric vehicles in a slightly different way than those with a combustion engine. However, it is essential to continue to work on renewable and cleaner sources of electricity, including domestic (photovoltaics, cogeneration), and to try to reduce geopolitical dependence on rare metals.

European Mobility Week 2018

Most partners of Innovasump participated actively in European Mobility Week 2018 organizing events and informing the citizens about the concept of this European Initiative.

Municipality of Ravenna

During the European Mobility Week, inside one of the most iconic places in the city center and contemporary to an exhibition about sustainable mobility and cruise tourism, the Municipality organized two events, one finalized to improve the exchange of ideas and needs with the citizens – the “Mobility wall” - and the other one to “test”, thanks to a survey, the knowledge of Ravenna mobility and SUMP.

Municipality of Kordelio - Evosmos

Some of the activities organized during the week by Municipality of Kordelio – Evosmos with the participation of citizens and stakeholders are the following:

- Social Biking Challenge "Thessaloniki West": the aim was the reduction of use of cars for daily trips in the city and also the promotion of bicycles and therefore a healthier lifestyle.
- Pilot application of the free use of public bicycles for municipal employees during their shift for in service journeys in the city
- The bicycles of the public bicycles sharing system were given to the citizens for free, in order to promote the main advantages of bicycles compared to the car in everyday life city



City of Prague



The whole event ran from Florence to Karlin Square. The entire street was lined with stands that promote sustainable modes of transport: Bikesharing, the Czech Association carsharing, Rail and Road Administration, Czech Railways, Prague Transport Company. Those interested could try the latest trends in urban cycling, from Ekolo electric bikes to modern urban bikes the Tokiobike brand offered at the Urbane booth and the Bajkazyl bike trucks. Attention was also paid to transport safety. Interesting information for visitors was prepared by the stands “I Drive Like a Person”, Project EDWARD and mainly Secure or project Change It.



Visitors could also try what it is like to move the city on a wheelchair and what obstacles handicapped have to overcome, they tried walking at shards in the so-called barefoot boots and jumped in the historic bus Karosa ŠD

11. Prague Transport Company brought a completely new SOR NS 12 Electric which was available throughout the day including an expert kennel with a tour.

Municipality of Viseu

The Municipality of Viseu was included in the list of Portuguese municipalities adhering to this initiative. During this week, numerous activities were organized dedicated to sustainable urban mobility in order to involve the citizens in this theme.

Activities included in the program of EMW:

- Thematic Days
 - Bike Day: organization of a cycling mega-lesson
 - Day to discover the city: bicycle peddy-paper through the city
 - The city at night: night bike ride and city walk
- Actions to raise awareness among children
- Exhibition and testing of electric vehicles
- Presentation of the MUV (Urban Mobility of Viseu)
- Discussion sessions
- European day without cars



Municipality of Nicosia



Nicosia organized a lot of awareness raising activities such as press release, newsletters, social media use and various informative events. Also, a bicycle tour was organized on 15/9. Young children but also grown-ups enjoyed the ride

on their bicycles, the guided tours in the traffic park and they were informed about road safety but also enjoyed listening to music and eating ice cream.

Viseu introduces electric vehicles in the municipal fleet



Thematic Workshop on Sustainable Mobility

Manchester, 21 November

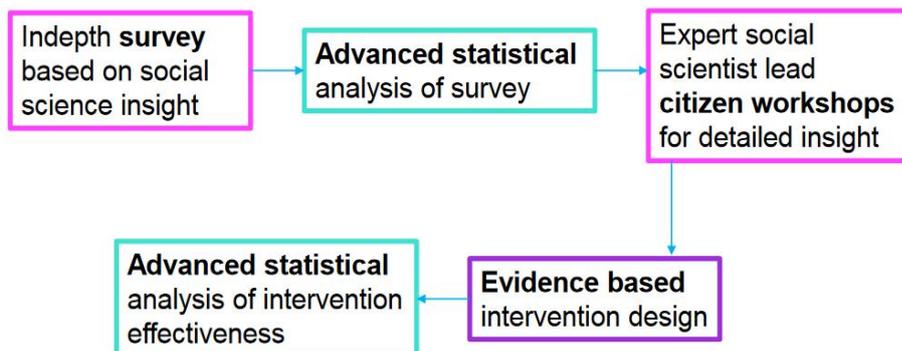
The Interreg Europe Policy Learning Platform organised a thematic workshop on the topic of sustainable mobility, which was held in Manchester on 21 November 2018. It brought together 38 individuals from the Interreg Europe community, including representatives of sixteen low-carbon economy (TO4) mobility projects, as well as one project each from the environment and resource efficiency (TO6) and research and innovation (TO1) sectors.

- o *Participation of Devon County Council and Nicosia Municipality*

Exeter, Jamie Hulland

The Engaged Smart Transport Project

Aim: to reduce congestion through encouraging behavioural change towards more sustainable modes of transport



Thematic Workshop on Sustainable Mobility

Manchester, 21 November

Nicosia, Nasos Kolyvas

Determining and changing user behavior

A keynote speech was given by Athanasios Kolyvas from Nicosia Municipality (InnovaSUMP), on determining and changing travel behaviour. He emphasised that there are many factors that determine passenger behaviour including time, infrastructure, safety, price and convenience. Understanding these factors, and what drives regional transport users to make specific choices, can help to define interventions to change behaviour, requiring consultation, surveys and statistical evaluation.



Travel behaviour determination

- Consultation processes
 - Travellers express their problems, needs, ideas on certain issues regarding mobility
- Public Surveys
 - Determination of travel habits (customer satisfaction, stated preference surveys, origin-destination surveys)→ Preference on trip modes and routes, number of daily trips, Kms travelled etc.)
- IT applications
 - Travel Patterns
 - Service demand
 - Traffic characteristics-parameters (traffic delay, queue length, etc.)

Nicosia –Key Questions

Identification and prioritisation

•On which corridors should we focus?

Transport mode choice

•Under which conditions do peoples switch mode of travel?

Potential bus priority measures

•What measures will improve the bus journey times?

Factors Affecting Choice of Mode –Public transport versus Car

- Public transport and car journey time
- Access to public transport stop
- Frequency of service
- Type of service and comfort
- Public transport fares
- Parking charges
- Parking space availability

SP studies are concerned with measuring and understanding the preferences underlying individuals' choices based on how they respond to hypothetical situations in which realistic alternatives are introduced for a defined trip.

SP surveys are beneficial in collecting responses for policies which are new, for example, introducing a new mode of transport or road pricing.

Stared preference
questionnaire design

InnovaSUMP Factsheets

Integration of SEAP/SECAP & SUMP processes

Synopsis of results

Integration of SEAP/SECAP & SUMP

- Energy production and consumption, transport and mobility are vital elements, affecting all aspects of socio-economic development in Europe
- Strategic plans such as SEAP and SUMP are considered crucial for achieving sustainable development goals
- Development of such plans in urban areas will enhance both the urban development and planning of the transport system
- The process of integrating these plans should be based on the identification and promotion of their common elements while minimising the existing differences when possible

Common fields of measures for SEAP/SECAP and SUMP

- All actions related to low carbon mobility contribute to the achievement of the goals of both plans
- ✓ low carbon vehicles (and electricity generation)
- ✓ regeneration of urban spaces fostering pedestrian and cycling mobility, parking policies, traffic reduction, improved public transport, accessibility and increased usability of public open spaces
- ✓ development of urban networks fostering the sharing of infrastructure, logistics, projects, services and functional integrations between implemented measures of both plans
- The need for coordinated actions is crucial
- Measures need to contribute to achieving the vision, objectives and targets

Common SUMP and SEAP/SECAP objectives

- Reduce greenhouse gas emissions, increase the use of renewable energy sources and energy efficiency while protecting natural habitats
- Improve relations between urban and rural spaces, removing barriers to enhance social cohesion
- Balanced development of all transport modes, tackling public and private, motorized and non-motorized transport, intermodality, urban logistics, and mobility management
- Optimizing the use of urban areas leading to a cleaner urban environment and consequently more attractive cities and better quality of life for all citizens
- Improve attractiveness, safety and security of the urban environment

GOOD PRACTICES:

Use of Travel Behaviour Surveys for the Prague Transport Model

The paper presents the transport model of the City of Prague used by Technical Administration of Road of the City of Prague (TSK) and travel behaviour and traffic surveys that are purchased for the transport model. The surveys are carried out repeatedly in different time cycle. The main travel behaviour surveys are carried out every five years. The outputs enter into the transport model made in the software PTV Visum. The model is used for many tasks in the transport planning in the City of Prague and in adjacent areas of the Central Bohemian Region. TSK in cooperation with Prague Institute of Planning and Development performs, inter alia, transport forecasts for almost all infrastructure projects in public and road transport.

<https://www.interregeurope.eu/policylearning/good-practices/item/1780/use-of-travel-behaviour-surveys-for-the-prague-transport-model/>

Next Steps

Joint Meeting on the Development of Action Plans – January 17th - 18th 2019

All partners and their external experts will participate in the meeting that will be organized in Thessaloniki on 17th – 18th January 2019. Aristotle University of Thessaloniki as advisory partner will host this meeting and will provide guidance to the partners who will present the current status of their Action Plans. At the end of the second day, partners will visit one of the metro stations in Thessaloniki which is under construction at the moment.



ARISTOTLE
UNIVERSITY
OF THESSALONIKI

Exchange of experience

Some staff exchanges have already been implemented by some partners but it is expected more exchanges to be organized in the next semester. Partners have come in contact with each other in order to organize the content and the time of this activity. Each partner will be involved in the staff exchange programme with at least one staff member (either donor or beneficiary of specific topic, best practice and / or policy). In total at least 9 staff exchange visits are envisaged.

Workshop D «Integrating pricing & financing measures», Vilnius, Spring 2019

All partners and some of their stakeholders will participate in the last workshop of the project, which will take place in Spring 2019 in Vilnius. Partners will have the chance to present the practices in their cities and also learn from other partners new measures on this matter. The participation of stakeholder is very important as they usually are more familiar with the techniques implemented and the problems that may arise from them.



InnovaSUMP partners

The InnovaSUMP project consists of nine partners from eight EU countries. Leading partner is the Municipality of Nicosia and Aristotle University is the advisory partner.



Δήμος Λευκωσίας
Nicosia Municipality

<http://www.nicosia.org.cy>



<http://www.praha.eu>



<https://new.devon.gov.uk>



Comune di
Ravenna

<http://www.comune.ra.it>



ΔΗΜΟΣ
ΚΟΡΔΕΛΙΟΥ
ΕΥΟΣΜΟΥ

<http://www.kordelio-evosmos.gr>



MUNICIPIO DE
VISEU

<http://www.cm-viseu.pt>



<http://www.vilniustransport.lt>



<http://www.primaria-iasi.ro>



ARISTOTLE
UNIVERSITY OF
THESSALONIKI

<http://tel.web.auth.gr>

Management and technical coordination



26th Oktovriou 43, Thessaloniki
54627, Greece
Tel: +302310552 113



Κουμουνδουρου 61, Volos
38221, Greece
Tel: +30242107627

Contact Details



European Union
European Regional
Development Fund

Project website: <https://www.interregeurope.eu/innovasump>



www.facebook.com/innovasump2021/



twitter.com/innovasump



www.linkedin.com/in/innovasump-project-359939142