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| *VIajeoPLUS* | # VIAJEO PLUS |
| | ## D2.5 - Recommendations on Policy for future cooperation with Latin America, China and Singapore |

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| **Project** | VIAJEO PLUS – International Coordination for Implementation of Innovative and Efficient Urban Mobility Solutions |
| **Date** | *Contractual:* 30 April 2016 *Actual:* 15 June 2016 |
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| **Keyword list** | H2020, sustainable urban mobility, international cooperation |
| **Nature of deliverable** | Report |
| **Dissemination** | Public[1] |

| **Project financially supported by** | | |
|---|---|---|
| SEVENTH FRAMEWORK PROGRAMME | European flag | **European Commission**<br>**DG Research** |
| **Project number 605580**<br>**FP7- SST.2013.3-2** | | |

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[1] This is either: Public, restricted to other programme participants, restricted to a group specified by the consortium, confidential

## *Document Control Sheet*

### Version history:

| Version number | Date | Main author | Summary of changes |
|---|---|---|---|
| 1.0 | 22/04/2016 | Roberto Palacin | First full draft for comments |
| 2.0 | 24/05/2016 | Roberto Palacin | Template update, editing updates, recommendations numbering update |
| 3.0 | 27/05/2016 | Yanying Li & Roberto Palacin | Introduction update, instruments and target country update for recommendations proposed |
| Final | 14/06/2016 | Yanying Li & Roberto Palacin | Final editing |

### Approval:

| | Name | Date |
|---|---|---|
| Prepared | Roberto Palacin | 22/04/2016 |
| Reviewed | Yanying Li | 27/05/2016 |
| Authorised | Yanying Li | 14/06/2016 |

### Circulation:

| Recipient | Date of submission |
|---|---|
| EC | 15/06/2016 |
| VIAJEO PLUS Consortium | 15/06/2016 |

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## Executive Summary

One of the key tasks of the Viajeo Plus project is to provide recommendations on priorities for future cooperation with Latin America, China and Singapore. The project provides these recommendations (D2.5) on a yearly basis. This third version (2016) of D2.5 presents an updated description of the second version's targeted and specific recommendations in the form of key research topics for future collaboration between Europe, Latin America, China and Singapore. Chapter 1 provides an introduction to both Viajeo Plus and the nature of cooperation between Europe and its international partners. Chapter 2 briefly summarises some of the perceived challenges and enablers to foster such cooperation leading to chapter 3 where a number of specific research topics are outlined and recommended for future collaboration. Specifically, the following topics are being proposed in this 2016 third edition (topics 1-5 included in the 2015 edition):

1. Influence of mobile communications and social media on travel behaviour;

2. Systems approach to urban mobility schemes: key aspects of integrated passenger and freight plans;

3. Integration of active mobility and public transport;

4. Influence of autonomous road vehicles on mobility;

5. International Cooperation on big data in transport: public interests, global privacy policy and relationship among data providers and transport operators;

6. International Cooperation on big data in transport: Design and deployment of effective network instrumentation

7. International Cooperation on designing and implementing cycling-friendly transport networks;

# 1. Introduction

## 1.1. Aim of and structure of Deliverable 2.5

This deliverable aims at recommending key areas of cooperation between Europe and Latin America, China and Singapore and at identifying their particular suitability for such collaboration, as well as the motivations for it as well as the expected activities and impact that there could provide.

Viajeo PLUS is identifying innovative and exciting current practices in urban mobility solutions for showcasing and knowledge sharing across the following five topics:

- Innovative Integrated Network Management (WP3)

- Deployment of Clean Vehicle Solutions (WP4)

- Innovative Public Transport Solutions (WP5)

- Enabling Infrastructure (WP6)

- Sustainable Urban Logistics Solutions (WP7)

This deliverable briefly summarises in chapter 2 some of the perceived challenges and enablers to foster such cooperation leading to chapter 3 where a number of specific research topics are outlined and recommended for future collaboration The proposed recommended topics are mapped out against the areas represented by each of the project's WPs (see table 1).

## 1.2. Introduction on Horizon 2020 international cooperation policy

*International Cooperation Strategy of H2020*

Research and innovation are increasingly interlinked internationally. Alongside industrialised countries, emerging economies have been strengthening their research and innovation systems. The International Cooperation Strategy of Horizon 2020 focuses on research and innovation, in areas of mutual interest and common benefits. The strategy is based in the following 3 objectives:

- Extend the frontiers of scientific knowledge

- Tackle global challenges such as climate change

- Invest in competitive industries

Horizon 2020 is open to participation from across the world. European researchers can include partners from any other countries when preparing H2020 proposals. This means that any non-EU organisations can team up with European partners to develop proposals for Horizon 2020 call. However, not all international partners are automatically eligible for funding by Horizon 2020. While the Horizon 2020 can find the participation of partners from developing countries, it does not automatically fund the partners from industrialised countries and some emergency market countries such as Brazil and China.

*Cooperation With China*

China has become one the EU's key partners in research and innovation through the FP7 in which Chinese partners were entitled to receive funding directly from the EU to participate in projects as European partners. Although Chinese partners' participation is strongly encouraged and will add value to the proposals as in FP7, Chinese partners are now under the same conditions and financial rules for participations as their counterparts from industrialised countries. This means that Chinese participants will need to cover their costs in H2020 projects with their own funds[2]. There are also few specific calls in which Chinese partners are entitled to receive funds directly from H2020 as project beneficiaries, for example ENG-GLOBALLY-08-2016-2017 "EU-China cooperation on sustainable urbanisation".

*Cooperation With Brazil*

Similar to Chinese participants, Brazilian participants need to cover their funding either from their own institutions or from funds Brazilian ministries, foundations and other research organisations in Brazil such as the State Foundation for Research Support (FAPS), National Research Council (CNPq), Ministry of Science Technology and Innovation (MCTI). Different funding schemes for allowing Brazilian researchers to take part into Horizon 2020 are being set up in different Brazilian states through the existing Research Foundations in each Brazilian State. Current priorities for EU-Brazil cooperation related to transport are: biofuel technologies; decarbonising the transport sector, ICT and transport research cooperation.

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[2] Horizon 2020 - what's in it for China? Available at https://ec.europa.eu/programmes/horizon2020/en/horizon-2020-whats-it-china

### 1.3. Other aspects related to cooperation between Europe and Latin America, China and Singapore

The forecasted increases in population and the levels of urbanisation within Latin American and Eastern Asian countries present significant challenges to their ability to develop a sustainable urban transport system. For example, the urban population in Latin America in the last four decades has grown from 56.4% to 79.5% of the total population, and is expected to reach 84.3% by 2035 [3]. Problematically, in most cities of Latin American and Eastern Asian countries, the infrastructure, vehicles and planning concepts relating to private and public transport is of a lower quality than their European counterparts. In addition, there is often a lack of awareness and/or knowledge regarding sustainable transport solutions. Recognising this situation, in 2012 the world's biggest multilateral development banks (MDBs) pledged $175 billion over 10 years to help fund sustainable transportation systems. However, it is also acknowledged that mayors and decision-makers in these countries are unaware often of best practices, and also how to finance them. Therefore, it is essential that methods to instigate knowledge transfer and technology implementation between European and Latin American and Eastern Asian countries are investigated. Meanwhile, there are many good practices developed and implemented in Latin American and Eastern Asian countries. A notable solution is Bus Rapid Transit (BRT) in Brazil. China and Singapore are very active in the development and demonstration of electric vehicles, fully automated vehicles and other transport solutions. Therefore, there is also much to learn from Latin American countries, China and Singapore. Cooperation has been moved from the traditional one way (i.e. Europe to help development in Latin American/China) to the two-way cooperation in order to gather the best human resources to develop and implement more sustainable transport solutions.

This document proposes a series of recommendations for future research to continue cooperation with Latin American and Eastern Asian countries in order to achieve more sustainable mobility in the future globally.

## 2. Challenges and enablers to fostering cooperation

Due to difference in culture, social demography, political structure and economy in countries of the European Union, different countries may have different roadmaps

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[3] United Nations (2012) Statistical Yearbook for Latin America and the Caribbean.

and priorities to achieve more sustainable urban mobility. It has been acknowledged[4] that one of main obstacles for international cooperation is lack of knowledge on priorities in different countries. Therefore, identifying mutual interests of EU and partner countries in urban mobility have been carried out by bringing together experts from European and international organisations to exchange knowledge and to understand needs in different cities and countries. Different social, political and economic situation may hinder the implementation despite mutual interest in a particular field. Thus, it is important to assess the potential to transfer an idea or concept from one city to another. Implementation of an idea also will depend on the current network of stakeholders. Building a network with right stakeholders is a foundation for any cooperation projects. It is inefficient to find needed stakeholders after a project starts since making contacts and building trust for working together often takes years. It is essential to understand what kind of stakeholders are needed to implement an idea or solutions and to verify if right stakeholders are in contact and if they express their interests in supporting a cooperation project. The methodology to make recommendations for future cooperation therefore can be summarised in three steps as shown in Figure 1.

Topic idea proposed by EU and partner countries

Are there any major obstacles for implementation?

Yes

No

No

Are the right stakeholders involved?

Yes

Identified priority for future collaboration

Figure 1. Simplified methodology for identification of suitable cooperation priorities

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[4] SIMBA (FP6) and SIMBA II (FP7) projects

## 3. Recommendations for future collaboration topics

An amalgamation of the findings from both Viajeo-Plus and SOLUTIONS thus far led to a first edition of this document in September 2014 with a series of recommendations. A second edition (2015) identified areas that can potentially deliver high impact solutions to the current urban mobility and economic challenges faced, especially those in Latin American and Eastern Asian countries. This third and final edition (2016) builds on the 2015 version given the relevance on the proposed topics, adding emerging subjects i.e. cycling networks and instrumentation of cities for data collection.

The following table (table 1) maps out this edition's proposed topics against the core focus areas of Viajeo Plus:

| Proposed topic | Viajeo Plus focus area | | | | | |
|---|---|---|---|---|---|---|
| | Network & mobility management | Clean vehicles | Infrastructure | Logistics | Public transport | Integrated planning |
| **2016.01** Influence of mobile communications and social media on travel behaviour | x | | | | x | x |
| **2016.02** Systems approach to urban mobility schemes: key aspects of integrated passenger and freight plans | x | | x | x | x | x |
| **2016.03** Integration of active mobility and public transport | x | | x | | x | x |
| **2016.04** Influence of autonomous road vehicles on mobility | x | x | x | x | x | x |
| **2016.05** International Cooperation on big data in transport: public interests, global privacy policy and relationship among data providers and transport operators | x | | | x | x | |
| **2016.06** International Cooperation on big data in transport: Design and deployment of effective network instrumentation | x | | x | x | x | x |
| **2016.07** International Cooperation on designing and implementing cycling-friendly transport networks | x | | x | | | x |

Table 1. Proposed topics against focus areas for Viajeo Plus

These topics use standard mechanisms included in H2020[5]:

- Research and Innovation Actions (RIA). This instrument seeks research and development activities to establish new knowledge or explore the feasibility of a new technology, product, process, service or solution. These include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment;

- Innovation Actions (IA). Activities specifically focused on producing plans and arrangements or designs for new, altered or improved products, processes or services. These include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication;

- Coordination and Support Actions (CSA). This type of project involves activities consisting primarily of accompanying measures such as standardisation, dissemination, awareness-raising and communication, networking, coordination or support services, policy dialogues and mutual learning exercises and studies, including design studies for new infrastructure and may also include complementary activities of strategic planning, networking and coordination between programs in different countries.

The recommendations included in this document propose the use of RIA and CSA as preferred instruments. The suitability of these two types of instruments matches the nature of the collaborative areas proposed e.g. awareness-raising events and demonstration/pilot activities.

In addition, there might be merit in exploring complementary actions to enhance their effectiveness. For instance CSAs commissioning pilot studies/research acting as seed funding for future collaboration between participants from Europe and partner countries.

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[5] information provided is quoted from www.ec.europa.eu/research

## 4. Third edition recommendations

| Recommendation 2016.01 |
| --- |
| **Influence of mobile communications and social media on travel behaviour** |
| Motivation |
| The use of smart communication devices is commonplace in the urban landscape. In a data-rich environment, the use of personalised routing is a key enabler for promoting modal shift to sustainable transport alternatives that enhance cities' quality of life. While there are already options to deliver this e.g. *google maps* there is a need to obtain a deeper understanding of the true potential of using such technologies and the opportunities being opened by movements such as the rise of social media. This is particularly evident and strong not only in Europe but in other parts of the world, particularly Asia (e.g. China, Singapore). A number of initiatives have been piloted. For instance, the open source platform *Ushahidi* together with the Beijing Transport Research Centre (BTRC) and the World Bank launched a project to explore the potential to improve Beijing's public transport using crowd-sourced mapping generated from passenger's mobile devices.<br><br>The common global nature of the urban mobility challenges and the advances being made on mobile communications coupled with the rise of social media requires collaboration beyond physical boundaries. This area is perfectly suited for cooperation between Europe and its internationally partners, particularly China and Singapore. |
| Expected activities |
| • Investigate the key factors that favour intermodal behaviour: identify intermodal users, trip purposes and means of transport which are predominantly combined, and explain which circumstances facilitate or hamper intermodal mobility behaviour, and how users perceive and deal with changing between different means of transport;<br>• Understand how distance, time and spatial structure influence the decision for intermodal mobility behaviour. Understand the influence of mobile communications on intermodal behaviour;<br>• A quantified assessment of the scale and magnitude of potential benefits;<br>• A global strategic implementation plan suitable for future cities of varied sizes and topologies;<br>• Development and deployment of test pilots in representative cities |
| Expected impacts |
| • Increased modal shift rate; |

| |
|---|
| • Improved air quality and reduced congestion; |

| Target countries/regions |
|---|
| China and Singapore |

| Type of project |
|---|
| RIA, CSA |

| Recommendation 2016.02 |
|---|
| **Systems approach to urban mobility schemes: key aspects of integrated passenger and freight plans** |
| Motivation |

Freight and passenger mobility schemes tend to be planned and implemented independently as silos. However, both goods movements and people travelling share the same urban space, influencing each other's performance levels. There is an urgent need to acknowledge the systems nature of this issue and consequently apply a whole-systems approach to optimise their implementation maximising the chances of success against the global challenges faced by cities e.g. congestion.

Systems of systems methods as well as ICT-based technology can play a critical role. At a basic level, systems of systems (SoS) can be intuitively understood as a series of complete systems that are linked to each other to perform or be part of a function that is not possible by the system alone. Passenger transport in a city is delivered by a number of systems such as public bus systems, public metro and trams, and road infrastructure and traffic control systems that facilitate private and public transport. Similarly, goods are being delivered using complex urban logistics systems that require the sharing the very same road infrastructure and traffic control systems facilitating passenger mobility. Optimising each of these systems independently leads to sub-optimum solutions at supra-level system i.e. urban mobility.

ICT-based strategies provide a unique opportunity to enhance the links between different systems/sub-systems to facilitate the much needed transparency and coordination of actions between all actors in the urban mobility landscape. A potential application of this coordinated and systems-approach is the infrastructure requirements for wide-spread deployment of e-mobility solutions e.g. shared charging infrastructure for commercial and private vehicles particularly in urban centres.

The increasing complexity of urban systems and the threat of diminishing air quality and other key aspects affect cities everywhere. Sharing practice and ideas

as well as developing joint strategies and innovations between Europe and other parts of the world is a necessary step to truly address urban challenges that are common globally.

## Expected activities

- A quantified assessment of the scale and magnitude of potential benefits using approaches such as systems of systems methodologies;

- Development of models for integrated schemes in representative cities;

- Rationalise key aspects for future implementation

## Expected impacts

- Enhanced service quality;

- Improved air quality and reduced congestion;

- Integration of passenger and freight mobility management

- Integrated charging infrastructure suitable for commercial and private vehicles

## Target countries/regions

Latin America, China and Singapore

## Type of project

RIA, CSA

## Recommendation 2016.03

### Integration of active mobility and public transport

### Motivation

Active mobility i.e. walking and cycling is increasingly popular in urban areas bringing added benefits not just to the individuals who practice it (e.g. heath) but also to the urban environment (e.g. less pollution). The ratio of active mobility against motorised transport varies across different cities accordingly to a number of factors such as climate, cultural aspects, size, urban shape. There is a need to better understand the motivations for active mobility and how it can be encouraged and integrated into public transport plans for increased uptake.

Active mobility has been recognised as a viable pursue contributing to more liable cities across the globe. For instance the World Cities Summit of 2014, which took place in Singapore, discussed a report on active mobility strategies. Cities such as Adelaide in Australia championed active mobility in this leading forum. Active mobility strategies were also highlighted in the concluding statement of the forum. Such approach to mobility requires the collaboration of cities from Europe, Asia, the Americas and other parts of the world.

### Expected activities

- Quantifying the current scale of active mobility in different parts of the world by type of city;
- Identify key enablers and barriers;
- Design, develop and trial interventions for data gathering to support the activities;
- Rationalise key aspects for future implementation

### Expected impacts

- Enhanced service quality;
- Improved citizens heath;
- Improved air quality and reduced congestion;

### Target countries/regions

Latin America, China and Singapore

### Type of project

RIA, CSA

## Recommendation 2016.04

### Influence of autonomous road vehicles on mobility

#### Motivation

Driverless technologies and operational patterns are currently being developed and trialled, signalling a more than likely role in the future of mobility particularly in the urban context. Even though legal and organisational framework conditions are not fully ready for autonomous driving, the impact of this technology must be evaluated.

The conditions and steps for their integration into existing transport systems as well as the impact on mobility behaviour are not adequately understood. The availability of autonomous driving vehicles will influence the mobility behaviour remarkably in many fields, as for example car usage, car ownership, or co-modality. User groups not able to afford or drive their own cars will get access to personal transport facilities. On one hand this is a main step to a fair society, but on the other hand this can lead to more undesired individual traffic, if there is no reasonable concept and implementation of integrating individual transportation with public transport services. If properly integrated into the context of intermodal transportation the usage of automation and autonomous driving is a promising way to more efficient use of energy as well as to the goal of city centres and environments worth living in.

The race for making autonomous vehicles a reality is taking place globally. There is already a significant degree of autonomous provision in state-of-the-art vehicles and related innovations. For instance, the deployment of cooperative systems can provide a framework within which automated road vehicles can operate. There is a high level of interest and investment in this area in Europe and other parts of the world such China. In order to develop technologies and strategies that are truly global and that open the door for new market opportunities, cooperation between Europe and its international partners is the logical approach to this particular topic. Technology trends, connectivity between autonomous vehicles and e-mobility are key areas for collaboration.

#### Expected activities

Activities should build on existing knowledge of socio-economic, behavioural and transport policy related research as well as on the evaluation of new technology and shall address some of the following domains:

- Identification and evaluation of autonomous driving scenarios in different European and International Countries based on the available transportation system and infrastructure in these countries, including an analysis of the expected user behaviour for different user groups and the impact on economy;

- Analysis of the user acceptance for driverless transport not restricted to separated lanes, risk analysis, assisting technical devices and supporting training measures;

- Development of concepts for sustainable integration of driverless vehicles into an effective public transport system, including the identification and specification of relevant services and ICT support for urban and/or rural areas;

- Estimation of the impact of autonomous driving vehicles on a transport system working in a mixed operation mode including vehicles in different stages of automation as well as non-motorised transport users;

- Evaluation of the relation between eMobility and automation of vehicles and the cross- fertilisation of these technological concepts.

## Expected impacts

- Integration by design of autonomous and non-autonomous transport into mobility plans;

- Enhanced choice for passengers;

- Improved acceptance of autonomous road vehicles;

- Contribution to road safety e.g. "vision zero"

## Target countries/regions

China and Singapore

## Type of project

IA, CSA

## Recommendation 2016.05

### International Cooperation on big data in transport: public interests, global privacy policy and relationship among data providers and transport operators

## Motivation

Data is essential to the planning and operation of infrastructure and transport services. Traditionally, collecting such data used for transport planning and operation has fallen under the responsibility of local and national authorities or transport operators. Since 1990s navigation and communication technologies brought new data sources that dynamically vehicles. Applications of floating vehicle data have been rapidly expended worldwide. In emerging market countries, due to lack of infrastructure (e.g. embedded sensors), such new data sources are often played more vital role in planning and transport operation than in many developed countries. Therefore, emerging market countries are often more open to using new data.

Meanwhile, significant new streams of data are becoming available that can provide different information which in the past either were not available or did not exit. Such data can result in better transport planning and traffic operation, and more important innovative services. Moreover, such data are increasingly collected by the private sectors and are the heart of many commercial business models. Such data are often not available to the transport authorities, even though such data may provide vital information for better planning and operation of transport.

Another notable difference of the new data is that such data is not collected at a local level. For example, all social network owners are collecting users' data worldwide. Since different countries have different privacy legislations it is difficult for both authorities and data owners to use such data in transport planning and operation.

Such challenges have been addressed by the international community, e.g. ITF/OECD's project "Big Data and Transport: Understanding and assessing options". There would be a great need for international cooperation on best practices of using big data in transport planning and mobility services and exchange best practices on legislation, privacy protection and roles and responsibilities of public authorities and commercial actors.

## Expected activities

Currently there is an open data policy worldwide to encourage public sectors to publish their data. However, there is no guideline on using of privately collected

data by the public sectors. Different countries have adopted different policies for the private sectors The following aspects should be addressed:

- Study of the current practices in Europe, China, Singapore, Latin American and other countries on supplier-client relationship governing public authorities to access most privately collected data;

- Research into the current scopes of using such privately collected data in transport planning, transport operation and mobility services by the public authorities in different countries;

- Public interests on use of their personal data by the public actors;

- Facilitating a common framework for guideline of using privately collect data by the public authorities and providing guidelines to private data providers and general public

## Expected impacts

- Ensure lessons learnt and good practice sharing cross regions and cross sectors;

- Maximise potential benefits from the current trend of big data to provide more efficient and greener transport solutions to citizens;

- Promote wide update of "privacy by design" by different service providers in different regions

## Target countries/regions

China and Singapore

## Type of project

CSA

## Recommendation 2016.06

**International Cooperation on big data in transport: Design and deployment of effective network instrumentation.**

### Motivation

Data assessment is a key step in the planning and operation of infrastructure and transport services. Transport models are used to inform effective policy design as well as the planning and management of urban traffic. Indeed funding for infrastructure projects often requires to be supported by accepted transport modelling methodologies[6]. In order to produce reliable results, these models need transport data that many cities lack. Examples of such cities are not only seen in near neighbourhood countries (i.e. MPCs and Eastern Europe) but also the medium and large sized cities of developing/emerging regions such as China and Latin America.

Smart phone data can provide valuable insights to urban mobility patterns, but captures only a fraction of total urban traffic, and is susceptible to bias in terms of the income and age of users who share geolocation information.

How to effectively and cost-efficiently instrument the urban network is specific to each city as it depends on its geography, land use, network topology and accounting for any existing data collection facilities. This is particularly true with regards to road traffic data for both passenger and freight vehicles. New low-cost, mobile technologies allow cities to rapidly implement effective network instrumentation and data collection. City planners need a protocol that helps to select from various implementation plans at their preferred price-point.

### Expected activities

- Increase knowledge and exchange of experience in network instrumentation between cities, and amongst technical partners and public bodies;

- Carry out feasibility studies of current traffic sensor hardware technologies and propose suites of devices (by typology) for capturing network data necessary for urban traffic modelling;

- Propose principles of design for data collection sites, including extensibility over time. In particular establish minimum-cost instrumentation plans for

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[6] e.g. see project evaluation guidance http://goo.gl/ekqudX for JASPERS (the technical assistance partnership between the European Commission, the European Investment Bank, and the European Bank for Reconstruction and Development).

medium size cities that allow effective management and planning;

- Undertake a proof of concept to validate and improve design principles to example city networks and develop a framework (e.g. strategies and roadmaps) to help plan and coordinate technological developments of innovative and sustainable network instrumentation;

- Identify a business exploitation plan for large-scale deployment including pre-conditions, standards, enablers, barriers, short-term and long-term policy trends, and technical challenges.

## Expected impacts

- An economically viable pathway to traffic management for large and medium sized cities in MPCs, Latin America, China and Eastern Europe;

- Provide the fundamentals for evidence-based design of policy and future projects, aiding access to strategic local, EU and other international funding;

- Encourage collaboration with European experts and development of local expertise

## Target countries/regions

China and Latin America

## Type of project

RIA, CSA

## Recommendation 2016.07

**International Cooperation on designing and implementing cycling-friendly transport networks.**

### Motivation

Cycling is the most efficient urban transport modes with a great potential to reduce energy consumption, harmful emissions and to enhance the liveability. However, the challenges for the design and implementation of cycling routes and networks in well-built environments, which have evolved to suit motorised traffic are formidable, disruptive and costly. In addition many of these locations are not safe for neither cyclists nor other road users. One of the lessons learned from best European practices in promoting cycling and walking is to incorporate cycling into urban road infrastructure projects whenever and wherever appropriate so that two networks are balanced, integrated and optimised in terms of safety, security and healthy lifestyle. The motivation for this topic is to encourage cities in Europe and partner countries to collaborate in defining the process of planning a cycling network effectively.

Online mapping tools can be used to identify the existing elements of the urban network that could be considered cycling-friendly, though this will often be a highly fragmented collection of links. Current cycling-friendly networks can be analysed in terms of coverage, connectivity and accessibility and this will enable critical links to be identified where addition of cycling-friendly facilities would most improve the network (in a cost effective way).

The emerging cycling network would ideally be easily accessible by a large fraction of the urban population, and would provide cycle-friendly routes to and from key city destination where car trips could reasonably be replaced by bicycle trips. Interactive planning tools built using online mapping resources can help to design useable cycling infrastructure. The developed network could be used to roll out city cycling schemes, where there is an interest from local stakeholders.

### Expected activities

- Development of online tools for planners to examine the cycle-friendly network within the (digital) map of a city and propose the most attractive road links for cycling;

- Include possibility to use data on land use, cycle parking and Origin-Destination (OD) information if available;

- Development of online navigation and accessibility tools for cyclists and

potential cyclists to promote use of the cycle-friendly network.

| Expected impacts |
|---|
| <ul><li>Maximise the benefit from investment into cycling infrastructure;</li><li>Allowing for planned incremental investment and growth of the network</li><li>Promote cycling and healthy living;</li><li>Capture data from web queries that will indicate desired cycle-trips to help future planning</li></ul> |
| Target countries/regions |
| China, Singapore and Latin America |
| Type of project |
| IA |