CityChangerCargoBike

D.2.2. Local Analysis Report

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Project partners

Organisation	Country	Partner no.
FORSCHUNGSGESELLSCHAFT MOBILITAET – Austrian Mobility Research FGM – AMOR Gemeinnuetzige GMBH	Austria	1
COPENHAGENIZE APS	Denmark	2
European Cyclists' Federation ASBL	Belgium	3
LOGISTICS FEDERATION EUROPEAN CYCLE LOGISTICS	United Kingdom	4
POLITECHNIKA KRAKOWSKA	Poland	5
Cambridgeshire County Council	United Kingdom	6
AYUNTAMIENTO DE DONOSTIA / SAN SEBASTIAN	Spain	7
GEMEENTE UTRECHT	Netherlands	8
OSLO KOMMUNE	Norway	9
STAD MECHELEN	Belgium	10
CAMARA MUNICIPAL DE LISBOA	Portugal	11
EUROMETROPOLE DE STRASBOURG	France	12
CENTRO DE ESTUDIOS AMBIENTALES	Spain	13
MUNICIPALITY OF ALBA IULIA	Romania	14
GRAD DUBROVNIK	Croatia	15
COMUNE DI RIMINI	Italy	16
Miasto Gdynia	Poland	17
OBSHTINA VARNA	Bulgaria	18
DIMOS DRAMA	Greece	19
MESSENGER A.S.	Czech Rep.	20

Document history

Date	Person	Action
19.10.2018	Ioana Cioloca – Comm. Expert &PR	Prepare Template for D2.2; sent to partners
04.12.2018	Susanne Wrighton/ Vitalii Naumov	Feedback/ FGM & PK
07.12.2018	Valentin Voinica – Project Manager	D2.2 – Template and explanations sent to partners
15.01.2019	Valentin Voinica – Project Manager	Remainder
18.02.2019	Ioana Cioloca – Comm. Expert &PR	Last materials and clarifications
24.02.2019	Ioana Cioloca – Comm. Expert &PR	Bulk draft of materials – v0
27.02.2019	Valentin Voinica – Project Manager	Draft v1
28.02.2019	Susanne Wrighton	Feedback/ improvements
27.03.2019	Voinica Valentin	D2.2 – draft v2
26.04.2019	Susanne Wrighton; Vitali Naumov	Feedback on v2
07.05.2019	Voinica Valentin	D2.2 – draft v3
13.05.2019	Susanne Wrighton	D2.2 - approved

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Executive Summary

During the Work Package 2 (Analysis and Concept) of the CCCB project, Task 2.1 provided the deliverable D 2.1 – General analysis, which includes a review of existing EU and national studies dedicated to cargo bikes usage, together with a collection of best practices and available tools for successful cargo bikes projects implementation.

In the next step, during Task 2.2 - Local Analyses, all 15 partner cities and local administrations (Copenhagen, San Sebastian, Utrecht, Oslo, Mechelen, Lisbon, Strasbourg, Vitoria Gasteiz, Alba Iulia, Dubrovnik, Rimini, Gdynia, Varna, Drama and Cambridgeshire County) analyse their local and national framework conditions with regard to the use of cargo bikes. Other partners (FGN – AMOR, European Cycle Logistics Federation, Messenger) provided valuable feedback regarding local or national existing conditions, legislation or policies.

Task Leader A.I.M. (Alba Iulia Municipality, P14), in collaboration with Project Leader (FGM – AMOR, P1), and Evaluation Leader (for WP5, Politechnika Krakowska, PK, P5) developed a template and gathered in deliverable D2.2 – Local Analysis Report, feedback from all partner cities regarding favourable or restricting policy papers, regulations, decision making departments, useful contacts and local stakeholders, together with first information regarding cargo bikes project implementation target area of specific conditions, information which can be considered useful for next CityChargerCargoByke working packages and especially for defining project implementation plans tailored to cities needs.
More than that, D 2.2 is gathering information related to potential project implementation partners, possible clients for cargo bikes companies or users and is defining the baselines for monitoring and evaluation of cargo bikes projects.

Finally, D 2.2 – Local analysis includes some conclusions and is proposing a more detailed analysis regarding strengths, weaknesses, opportunities and potential problems associated with the cargo bikes implementation projects, useful for cities to conduct their preliminary planning towards their implementation trials.

The analysis reveals big differences between cities in terms of local conditions and suggests a wide range of different measures, activities, and co-operation with local organisations needed for successful implementation of cargo bikes projects. Overall, from the local analysis, it is clear that each of the cities according to their existing cycling experience and infrastructure is making good progress towards the next stages of the project, and that the identified implementation measures and activities are a good start for their implementation plans.

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1. Introduction

In order to increase and accelerate the adoption of cargo bikes in European cities, which proved to bring important improvements in local quality of life, CityChangerCargoBike (CCCB) is addressing 5 objectives:

- Raise awareness among relevant stakeholders (public, private, commercial)
- Use innovative tools for take-up, scale-up and transfer between cities
- Establish favourable framework conditions for cargo bike use
- Achieve roll-out and transferability in cities
- Reduce congestions and emissions; improve public space usage and safety

CCCB is continuing the work started within the CycleLogistics and CycleLogistics Ahead projects and is divided into 7 Work Packages, all supporting the primary objective to increase the take-up, transfer and the dissemination of proven innovative solutions and approaches to new locations and new contexts. During Work Package 2 (WP2) – Analysis and Concept, the basis for the work in the project are established together with valuable inputs for WP3 (Awareness Raising & Capacity Building), WP4 (Take-up & Scale-up – Implementation) and WP5 (Evaluation & Recommendation for exhaustive EU-wide roll-out). That's why, WP2 is expected to include a review of the State-of-the-Art, analysis of framework conditions on the national and local level (useful for WP3 &4), improvement and adaptation of already successful measures to achieve a large - scale deployment and development of implementation plans (in conjunction with WP4 & 5).
Continuing the first deliverable of WP2, D2.1 - General Analysis Report which includes a review of main EU and local projects, best practices and implementation tools for cargo bikes and related projects, the next deliverable, D2.2 – Local Analysis, provides a report regarding the national and local framework in partner cities, able to influence cargo bikes implementations.

Context

Mid-sized and large European Cities face mobility problems, particularly with regard to historic city centers and public infrastructure, which is not ready to take on the growing flow of vehicles. Many studies have demonstrated that most trips within the city are done over short distances (typically less than 5 km), on certain routes (from home to work, school, shopping, relaxation or supply of goods), using oversized vehicles (personal cars transporting one person or trucks for relatively small deliveries). The resulting sedentary lifestyle, based on the intensive use of motor vehicles, has given over public space to machines. This leads to congestion and a strain on the environment as well as on social interactions and finally on the quality of life in cities. To regain the city for people and communities, major changes must be made in terms of mobility in cities, by identifying less polluting new means of transport and new ways of providing.
In many of the cities, especially those located in Western Europe, the development of a specific infrastructure (dedicated tracks, parking lots, dedicated signalling, and maintenance centers) led to an increase in the share of bicycle use as a clean, healthy and efficient means of transport.
The high potential for the use of cargo bicycles for the delivery of goods, person transport, logistical services, municipal or commercial services has been identified and proven. This includes major benefits regarding traffic safety, the number of persons and goods transported efficiently especially in central areas of towns, the reduction of traffic problems and environmental pollution, the improvement of citizens health, better usage of public space, the increase in adoption rates and the improvement of the overall image of cycling and involvement in the community. The use of cargo bikes can have an important effect in the people and commercial transport, especially in conjunction with other means of transport, such as walking, public transport, or mobility as a service system.
Since the use of cargo bicycles is far from having reached its full potential, within the CCCB project a wide spectrum of cities having different experiences in the use of bicycles and cargo bikes, will implement

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a variety of measures that already have proven to promote the development of this new mode of transport. It is expected that the CCCB project will influence cargo bikes adoption based on:

- expected advantages, like traffic and travel avoidance linked to a less car-dependent lifestyle;
- new regulations and planning methodologies;
- efficient last mile logistic transport;
- better infrastructure usage;
- support of the modal shift to efficient and healthy modes;
- generation of a new governance model for passenger and freight transport together with activities of awareness raising, education, training, and stakeholders engagement.

Document development

During Task 2.2 – Local Analysis, all 20 partners analyzed their local and national framework conditions with regard to the use of cargo bikes, including: favorable or restricting policy papers; road and traffic regulations; regulations with regard to safety and child transport; regulations with regard to small businesses including food preparation and sale.
The analysis also involved preliminary work towards cargo bikes project implementation plans, including: other local characteristics; establishment of institutions and departments in charge of decision making; useful contacts (including media contacts); composition of local teams; possible project implementation target areas, together with existing infrastructure and traffic conditions. It is expected that the local analysis identifies stakeholders (such as third sector, local SME, logistics sector, family organisations, NGOs), and possible project partners and existing initiatives within the project implementation target area of partner cities. Even partners that are not municipalities provided important additional information: FGM – AMOR (legislation and specific conditions for Austrian cities), European Cycle Logistics Federation (specific usages of electric helping motors for cargo bikes in Europe) and Messenger (information about specific conditions in Prague and their experience with cargo bikes).
The task leader (AIM – Alba Iulia Municipality, P14) provided together with other partners (FGM-AMOR, P1, and Politechnika Kracovska, PK, P6) templates needed by partner's cities for the local analysis and consolidated all local feedback and analysis reports into the present Local Analysis Report, D2.2.
The structure of the template used for receiving the city's feedback is included in Appendix XXI.
In cooperation with the WP5 Leader (Evaluation), the local analysis contributes to the definition of a baseline for projects monitoring and evaluation, together with a short investigation regarding existing traffic monitoring and traffic modeling systems in each partner city.
In the last part, based on main identified local aspects, the document includes a short SWOT analysis and a proposal for project monitoring and evaluation, useful for the next project phase which includes preparation of specific implementation plans for each city.

Document structure

The Local Analysis Report is primarily based on the partners' feedback, in the following structure:

- Section 2 – Local analysis report – includes a summary of the key information and findings based on the local analysis provided by partners (15 cities, 1 research institution, 1 association, 1 company) and brief conclusions including aspects to be considered during local project implementation plans development. Each subsection is using the partner's number and includes a short description of the partner's local analysis.
- Section 3 – includes a general SWOT analysis of the project, based on aspects revealed by the local analysis.
- Section 4 –proposes a summary of the measurement and evaluation methods or associated indicators being used for the project implementations.
- Section 5 – includes a general conclusion on existing local conditions regarding cargo bikes projects implementations.

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- Appendixes I to XX – includes full responses of partners, presenting the national and local framework with regard to cargo bikes (favourable or restricting policy papers; road and traffic regulations; regulations with regard to child transport or small businesses; list of decision making departments and institutions; list of local team members, decision makers and possible partners; possible locations for cargo bikes pilot implementations and existing initiatives in those areas; existing traffic management and simulation tools in partner cities).
- Appendix XXI – includes the template used for receiving partner's feedback.
- Appendix XXII – presents the existing transport modal split in partner cities.

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2. Local Analysis Report

Based on the information provided mainly by partner cities, this section includes short descriptions of partner's local analysis with regard to existing local conditions for cargo bike project implementation, together with brief conclusions to be considered during local implementation plans development. Each subsection is using the partner's input and includes only a short description of the main aspects revealed by the partner's local analysis, complete details being presented in dedicated appendices.
Overall, the Local Analysis Report demonstrates that the partner cities have identified main local conditions, proposed project objectives, implementation areas, and project partners, as a good start for defining the local implementation plan.
However, due to the complexity of the aspects revealed by the local analysis, there is relatively little discussion of the expected financial aspects to be incurred, supporting actions, although the project implementation risks and their mitigation or other project considerations like expected results, all being considered to be addressed during the development of the local implementation plans.

2.1. Local Analysis Summary – Austrian cities - FGM-AMOR / AUSTRIA

Main local aspects:

FGM-AMOR is a private non-profit research, consulting and educational organization based in Graz, Austria. As one of Europe's leading companies in the field of mobility research, FGM-AMOR has more than 20 years of experience in national and European research focused on sustainable transport, offers state of the art know-how and access to the latest European research results as well as the latest examples in the field of mobility management.
FGM-AMOR is the coordinator of CityChangerCargoBike and was leading the pioneering projects CycleLogistics (2011-2014) and CycleLogistics Ahead (2014-2017).

Favourable or restricting policy papers

The **Masterplan Radfahren** (Masterplan Cycling) 2015–2025 includes important investments into the bicycle traffic "pay off" through savings together with favourable conditions for improving the nationwide coordination of bicycle traffic and measures specifically designed for promoting cycling as an economic factor and to boost mental wellbeing. Also, The Climate and Energy strategy for the Austrian Government aims to increase the proportion of bikes from 7% to 13% until 2025. The aim is, therefore, to implement and further develop the Masterplan Radfahren and the development programmes of the cycling infrastructure in cooperation with the local authority levels.

Road and traffic regulations

There are specific laws and regulations to increase the safety of bicycles through modern equipment regulations and to ensure that the design of the traffic area is roadworthy and technically up to date. Also, the guidelines and regulations for the road sector are applied in project planning and road space design.

Safety and child transport

Only persons 16 years and older can transport children of up to 8 years, using a special seat and specific safety measures. If the person is under the age of eight, he or she must have a seat appropriate for the size of the child. If the person carried is older than 8 years, only a bicycle may be used which fulfills the requirements of the product safety regulations for bicycles intended for the transport of several persons. Children under the age of 12 must wear a helmet: when cycling, when transporting in a bicycle trailer and when being carried on a bicycle.
In use of cargo bikes or trailers: The transport of one or more children with bicycles is also permitted in a transport box, provided that according to the manufacturer it is suitable for the transport of children and is equipped with a belt system which cannot be easily opened by children. The transport box may be placed in front of or behind the handlebars.

Regulations for small companies

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If special facilities are operated at the company headquarters, an operating facility permit may be required.
Exactly under Gew O 74 since this amendment: A commercial operating facility is to be understood as any locally bound institution which is not intended to serve the development of a commercial activity merely temporarily.
According to information provided by the Graz Authority for the operational plan, therefore a mobile sales stand is not a commercial operational plant.
An operating facility permit for this operating site is only required if, for example, you carry out food-processing activities or if emissions are produced that could disturb neighbors.
According to the road administration law of the respective federal state, a permit will be required for the special use of roads and the associated facilities.

Decision-making institutions

The decision relating to infrastructure, means of transport, road safety and the interests of cyclists is shared between the prevailing governments, the Ministry of Transport, Innovation, and Technology, the Austrian Cycling Lobby and, the organization Radlobby Osterreich.

Conclusions

FGM-AMOR has a lot of know-how and experience in the topics relevant for CityChangerCargoBike as a focal point of their research and implementation projects. Austrian cities can be used as models for regulation and cargo bikes implementation for less experienced cities.

Full details about local conditions for implementing cargo bikes projects in Austria can be found in Appendix I.

2.2. Local Analysis Summary – Copenhagenize/ Denmark

Main local aspects:

Copenhagenize Design Company is a leading urban design and communications consultancy specializing in all
matters relating to bicycle culture; urban planning and design, communications, and education. The company has also been a partner within the first Cyclelogistics project where it laid the foundation for the immense social media success of the projects. Copenhagenize will represent the City of Copenhagen within CityChangerCargoBike project.

Favorable or restricting policy papers

The most significant document that proves the commitment of the City of Copenhagen in embracing bicycles (including cargo bikes) as principal means of transport in the city is Good, Better, Best – The City of Copenhagen's Bicycle Strategy 2011 – 2025 produced by the City of Copenhagen Technical and Environmental Administration - Traffic Department. Also, the City of Copenhagen's 2011 bicycle strategy details new initiatives and plans, laying down guidelines for the long term and overriding priorities within the bicycle area.

Road and traffic regulations

Focus on Cycling published by the Technical Environmental Administration Traffic Department formulates all the road standards in practice guidelines.

Safety and child transport

The new Danish law allows cyclists with cargo bikes to transport a total of six children if the bicycle is adapted to it. In the past, the legislation permitted only the transport of four children.

Regulations for small companies

It's conceivable to request consent for mobile sales vehicles. For selling in parks owned by the City, it is necessary to pay market rent.

Decision-making institutions

The Technical and Environmental administration is in charge of the decision-making in relation to the transport sector, new infrastructure, green areas, parking and other operation described in Appendix II.

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Conclusions
Copenhagen is one of the most advanced European cities in terms of urban bicycle culture.

Full details about local conditions for implementing cargo bikes projects in Denmark can be found in Appendix II.

2.4. Local Analysis Summary – Electric bicycles in EU - ECLF/ UK
Main local aspects:
The European Cycle Logistics Federation (ECLF) was founded in 2012 as a spin-off of the first Cyclelogistics
project. The ECLF has carried out almost 50 cycle logistics start-up and empowerment workshops. In addition, the ECLF was a leading partner in the organization of the four international Cyclelogistics Conferences.
The ECLF has thus been very effective in raising awareness and contributing to the cargo bike boom in some European cities.
Favourable or restricting policy papers
The new Bike Europe White Paper contains all the updated and detailed overview of all rules and regulations governing electric bicycles.
Conclusions
One of the main aims of the ECLF is to empower a solid communication and skill trade among the market players and to achieve a standardization of cargo bikes.
Useful details for implementing electric cargo bikes projects can be found in Appendix IV.

2.6. Local Analysis Summary - Cambridgeshire/ UK
Main local aspects:
Cambridgeshire County Council is a local government organization covering Cambridge City and four other districts. It is governed by 61 locally elected Councillors and has a remit for social care, schools, public health, waste management, libraries, travel, and transport. Cambridgeshire has a population of 650,000 of which 125,000 live in Cambridge. The Council is experienced in mobility management issues and has implemented a number of innovative projects to make transport more sustainable and reduce levels of car use into the city. The Council was a partner in the CycleLogistics Ahead project. In previous years the Council has successfully delivered European projects in the field of urban rapid transit, innovative travel planning model and connectivity innovation in transport.
CCOC is the National Focal Point for the United Kingdom of CityChangerCargoBike.
Favourable or restricting policy papers
Common approaches for bicycles were presented in D2.1. In terms of legislation, there are no particularly restrictive or favourable documents in conducting cargo bike on the roads of the UK.
Road and traffic regulations
The legislation is unhelpful when it comes to riding a cargo bike. There aren't specific regulations for a cargo bike, the Highway Code must be respected. As it stands in this legislation the rider must be aged 14 years or over to ride electric bikes, though no license, mandatory helmet, nor a mandatory tax, applies to bikes with the power necessary for speed below of 15.5mph.
Safety and child transport
Not special legislation regarding safety and child transport with cargo bikes is available, general requirements apply.
Regulations for small companies
The applicable law on obtaining and enforcing licenses for small and medium-sized businesses, with no exceptions for cargo bikes.
Decision-making institutions

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There are public institutions with responsibilities in the field of road transport, motor vehicle registration and drivers, of maintaining and improving highways and public roads, the modernization of transport networks and licensing and obtaining *a* Street Trading& Pedlars. All these institutions are listed in Appendix VI.

Project target area

Cambridge City, UK. Basically, the city center, although Cambridgeshire County Council's responsibilities to cover the whole county so where appropriate the project may cross the city boundaries.

Other existing initiatives

To multiply the use of cargo bikes in the UK among service user, even more so as there is a supplier in this field, Zedify (formally Outspoken). In the present, families are using cargo bikes for the transport of children at school.

Traffic management and modelling

No traffic management exists in the area nor traffic modelling tools to model potential new infrastructure.

Conclusions

Cambridgeshire County Council is experienced in mobility management issues and one of its strategic aims is to reduce the level of car use into the city.

Full details about local conditions for implementing cargo bikes projects in the UK can be found in Appendix VI.

2.7. Local Analysis Summary – Donostia – San Sebastian/ Spain

Main local aspects:

San Sebastian (ADS) is a medium-sized city with more than 186,000 inhabitants. It is a tertiary, tourist city, eminently commercial, with a strong emphasis on services and congresses. In recent years, San Sebastian has moved into the leading position among European cities, largely because of its commitment to science, technology, sustainable development, and culture. Its designation as European Capital of Culture in 2016 confirms this pledge. ADS is the National Focal Point for Spain of CityChangerCargoBike.

Favourable or restricting policy papers

Cargo bikes must meet specific conditions if they are to be allowed in the historic part of San Sebastian, which is dedicated only to pedestrians.

Road and traffic regulations

The listed documents in Appendix VII regulate the laws regarding the usage of public roads and the usage of bikes and cargo bikes.

Safety and child transport

At a national level, the transportation of people with cargo bikes is not viewed so well. However, the San Sebastian municipal traffic regulator states that bicycles may have a trailer or semi-trailer for the transport of all types of packages and children using the appropriate devices and with certain limitations.

Regulations for small companies

There are no limitations for businesses regarding mobility.

Decision-making institutions

The above institutions are involved in the approval of cargo bikes usage. Projects planned related to mobility in the city have the mobility department as the main responsible, although other municipal departments may take part in the execution of specific projects

Project target area

Because San Sebastian is surrounded by several hilly areas (Urgull, Mount Ulia, Adarra, Igeldo) representing almost 50% of total city area, initial project implementation will focus on quite flat areas and gradually expand to the hilly areas.

The potential customers are courier services, schools & kindergartens, laundry services, shop & supermarket delivery services, urban cleaning services, private citizenship.

Other existing initiatives

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Many of the initiatives that have been carried out in the city have been initiated by the Txita company. Although it is a merchandise delivery company, its business has been extended services related to cargo bikes.

Traffic management and modelling

San Sebastian has a traffic management system including traffic dispatch. For traffic simulations, Aimsun is used.

Conclusions

San Sebastian is a forerunner city within the CityChangerCargoBike project with a lot of experience regarding bicycle-friendly infrastructure as well as city hubs for consolidation, which is an important prerequisite for the use of last mile delivery by cargo bike. The city will continue to implement measures that foster the use of cargo bikes by families.

Full details about local conditions for implementing cargo bikes projects in Donostia – San Sebastian/ Spain can be found in Appendix VII.

2.8. Local Analysis Summary – Utrecht/ Netherlands

Main local aspects:

Utrecht is the fourth largest city in the Netherlands covering an area of 99.3 km² and with a growing population of 300,000. The **City of Utrecht** has been involved in the first Cyclelogstics project and has already implemented its first public cargo bike sharing system years ago. Moreover, they are a leader with regard to cycle-friendly (and thus cargo bike-friendly) infrastructure and have just opened the world's largest bicycle parking garage under the cities rail station that can house up to 12.500 bicycles with plans to extend it to 33.000. The bicycle culture there is highly developed with almost 65% of trips done by bike just as their history to transport children on (cargo) bikes.

Municipality UTRECHT is the National Focal Point for the Netherlands of CityChangerCargoBike.

Favorable or restricting policy papers

The municipality of Utrecht stated in the policy document named „The traffic and transport policy" that private companies are responsible for increasing the use of cargo bikes in city logistics, that's one of the reasons why the municipality has no active promotion policy for cargo bikes.

Road and traffic regulations

The bicycle culture there is highly developed. At the municipal level, the cargo bike is considered to be a bicycle. About traffic restrictions, a 2 and 3 wheel cargo bike has to use the bicycle path if there is one, if not it can use the road.

Safety and child transport

There are no particular and specific regulations for the safety of child cargo bike passengers, but rules for carrying a child on a normal bicycle apply.

Regulations for small companies

There are no official rules for hawking goods on the streets. The vendors don't need a street trading license or the permit from local authorities.

Project target area

The main target area is the historical inner city area.

Other existing initiatives

DHL, IKEA, Cool Blue, and several small businesses deliver goods by cargo bike.

Traffic management and modeling

Utrecht has a car traffic incidents management platform, but no operating system for the circulation of cargo bikes.

Conclusions

The municipality of Utrecht is trying to stimulate the use of cargo bikes instead of vans for last-mile deliveries in a safe and attractive way.

Other details about local conditions for implementing cargo bikes projects in the Utrecht can be found in Appendix VIII.

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2.9. Local Analysis Summary - Oslo Norway

Main local aspects:

The City of Oslo's Agency for City Environment (ACF) has responsibility for managing and developing public spaces. This includes streets, parks, forests, and urban mobility. An important goal for the agency is to make Oslo a safe and green city. In 2015 the City of Oslo approved an ambitious strategy to increase the modal share of bicycles from 8 to 25 percent until 2025. Responsibility for carrying out and following-up the strategy lies with ACF's Department for walking and biking. The department consists of people with a variety of competencies including city planning, infrastructure, and communication. To increase the use of cargo bikes is part of the department's work. OSLO KOMMUNE is the National Focal Point for Norway of CityChangerCargoBike.

Favourable or restricting policy papers

20% of the traffic in the big cities should be made by bicycle (and cargo bike). In this sense, the Municipality of Oslo has given 2 important documents to highlight the importance of cycling - the idea being that Oslo becomes bicycle friendly. The goal is to increase bicycle travel from 8 percent in 2015 to 16 percent in 2020 and 25 percent in 2025.

In the Bicycle Infrastructure Plan, the municipality of Oslo is committed to extending the bicycle road network from 200 km in 2018 to 280 km in 2025 and to reach 540 km before 2040, together with major improvements in bicycle parking lots.

Road and traffic regulations

The laws regarding the usage of bikes on public roads are in standard with the rest of Europe with the exception that in Norway it is legal to bike on pavements. Also, the parking lots are adapted for the cargo bikes.

Safety and child transport

There are no specific regulations with regard to child transport on a cargo bike.

Regulations for small companies

Certain documents are required for those who are using the bike for food services. These are listed in Appendix IX.

Decision-making institutions

The institutions listed below are in charge of decision making regarding the bicycle infrastructure:

- City Department of Environment and Urban Planning (Byrådsavdelingen for miljø og samferdsel)
- Urban Environment Agency (Bymiljøetaen)
- Climate Agency (Klimateten)
- Planning and Building Agency (Planning- og bygningsetaten)

Project target area

The project target area concerns 2-3 spaces in Oslo (Sagene, Hellerud and/or Holmlia) because these ones already have good bicycle infrastructure and bike lanes that are separated from the main road.

Other existing initiatives

The Oslo municipality is committed to allocating different grants for businesses and individuals in order for them to purchase cargo bikes.

Traffic management and modeling

Oslo Municipality has developed an Aimsun traffic model for the city. Bike infrastructure and bike distribution are not included in the existing Aimsun model. The municipality simulates bike traffic in area-specific models clipped out of the city-wide model when needed.

Conclusions

There is a need for bike traffic simulation in conjunction with the rest of the city traffic to better predict the load on the city overall.

Full details about local conditions for implementing cargo bikes projects in Oslo can be found in Appendix IX

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2.10. Local Analysis Summary – STAD MECHELEN / Belgium

Main local aspects:

The City of Mechelen has been investing in European cooperation since 2007, including several projects focusing on accessibility and smart mobility and logistics. Participation in CityChangerCargoBike was a logical choice as a follow-up to the Cyclelogistics Ahead project, where they experienced the potential of the use of cargo bikes and started supporting many initiatives. As a medium-sized town right in the heart of Belgium, it is a real attraction for tourists and other regional visitors with a historical core, consisting of many churches, historical buildings, and works of art. Growth is staggering as it is expected to have grown to 100.000 inhabitants by the year 2030. The city is, therefore, going through a huge phase of development, with several ambitious urban projects being carried out or on the way and car-free zones getting expanded. The new city council is committed to continuing along this path by implementing new mobility plans focused on pedestrians and cyclists. STAD MECHELEN is the National Focal Point for the Belgium of CityChangerCargoBike.

Favorable or restricting policy papers

In 2017 the Flemish government introduced a policy paper to facilitate and stimulate the use of the cargo bikes by making them accessible, due to low-emission zones, virtually everywhere without any time and/or direction restraints.

Road and traffic regulations

The Belgian law admits the above type of bikes explained in the table of Appendix 10. This usage of these bikes is sanctioned by the in-effect laws. The cargo bikes are to be used according to the present laws, for example when using some speed lanes, they must not endanger other traffic participants.

Safety and child transport

Children are regarded as regular passengers of the modes presented. There is no distinction on an age-basis.

Regulations for small companies

According to the present laws, for food businesses that just sell food on the go to costumers no license is required on a local level. For a restaurant, a hotel or bar a number of licenses are necessary, such as a hygiene certificate, correct land-use, and proper insurance.

Decision-making institutions

The institutions listed in Appendix X are in charge of decision making in regards to mobility and transport.

Project target area

The roads that have speed limitations (30 km/h or less) are subjected to implementation in regards to the cargo bikes, especially in delivering goods to the inhabitants. The area is monitored by cameras and every trespassing is recorded and fined. There is also an idea of a car-free taxi.

Other existing initiatives

In 2015 the city of Mechelen helped to start-up a bike courier service called Eckokoeriers. It was a 6-month pilot with the goal of setting a viable business model of delivering using cargo bikes. The Broodbroeders are delivering fresh bread to businesses and collection points within and outside the city center for over 2 years using the cargo bike. They have on average 100 deliveries/month. Similarly, the Soeper-company makes 170 deliveries/month using the cargo bike.

Traffic management and modeling

In the city of Mechelen, there is no traffic management, however, it is included in the bigger traffic model of Antwerp. Parking lots are available with dynamic road signs to serve as guides.

Conclusions

STAD MECHELEN is committed to facilitate and stimulate the use of cargo bikes both on the level of commercial and private use.

Full details about local conditions for implementing cargo bikes projects in Belgium can be found in Appendix X.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

2.11. Local Analysis Summary – Lisbon/ Portugal

Lisbon City Council (CML) is legally the local government of Lisbon, the capital city of Portugal. CML manages a territory of 10.005 ha, with 505.000 inhabitants (2017). Lisbon attracts daily an additional 430.000-630.000 persons that come to work or study in the city. This means that, during the day, Lisbon has more than 900.000 people, almost 700.000 of which are workers or students. Nearly 370.000 private vehicles enter daily into the city, coming from the neighboring territories of the metropolitan area. Regarding cycling, Lisbon's overall cycling mode share was 0.2% in 2011, and nowadays is estimated to be at 1.25%, and planned to surpass 4% by 2020 under the current scenario. Lisbon City is part of the Lisbon Metropolitan Area that accounts for 2,8 million people, 330.000 companies (100.000 in Lisbon City), 140.000 students and 61,2 GP MM€.
CML is the National Focal Point for the Portugal of CityChangerCargoBike.

Main local aspects:

Favorable or restricting policy papers

MOVE was designed for improving the capital city of Lisbon's mobility and is pending approval in 2019.

Road and traffic regulations

The rules in conducting bicycles on the roads of Lisbon are transposed from the European Union's 2002/24/CE directive and are related to lane usage, speed limit and also equipment and lights. Also, cargo transport is allowed using a trailer or a cargo box.

Safety and child transport

In regards to transporting passengers only the bikes that are built for that are allowed for such use.

Regulations for small companies

Until the approval of the MOVE plan for Lisbon this year, the bicycles are allowed to be used in small businesses but there are no strict regulations except for a certain tax. There is no discrimination for or against cargo-bikes on the existing regulations even in the existing municipal cargo dispatch regulation or the parking regulation.

Decision-making institutions

The decision relating to the mobility infrastructure is shared between Lisbon Municipality (CML), Institute of Mobility and Transports (IMT, I.P.), Road Safety National Authority (ANSR), Polícia de Segurança Pública (PSP) and Guarda Nacional Republicana (GNR).

Project target area

The pilot area is set on the northeastern parish of Lisbon – Parque das Nações, in a flat 5km^2 area with 10kms of bicycle lanes.

Other existing initiatives

Chronopost - the pilot project involves the use of electric bikes, free of emissions harmful to the environment, as a means of transportation and will enable the development of a new approach in the way the orders are delivered.

Traffic management and modeling

The traffic in Lisbon is relatively calm. The central area has a big pedestrian area with lots of entertainment and leisure facilities. It's also a premium area for businesses, mainly restaurants.

Conclusions

The City of Lisbon is trying to escape its car-centered lifestyle and since about ten years is setting active measures to promote cycling and has revised the city's Master Plan around initiating a „green revolution".

Full details about local conditions for implementing cargo bikes projects in Lisbon can be found in Appendix XI.

2.12. Local Analysis Summary - Strasbourg/ France

Located in the Bas-Rhindepartment, in theGrand Estregion of northeasternFrance, Strasbourg (279.284 inhabitants) and its metropolitan area, are forming the Eurométropole de Strasbourg(which includes 33 communes and totalizes 491.409 inhabitants on an area of 339 km^2).
Strasbourg is recognized as the first bicycle city among the larger cities in France and the 4th in international bicycle friendly index of Copenhagenize. With bikes being 8% of the modal share of

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transport in Eurométropole and 16% in the city center, Strasbourg wants to go further and aims to reach 16% in 2030 in all the Eurométropole. To reach this goal, the Eurométropole will study all the possibilities and will use a lot of legal and innovative tools (for example the interdiction of car transit in the city center, bike laboratory for the DSCR - road safety and traffic delegation, in order to change the law, etc.).
Strasbourg has for years a local infrastructure development policy promoting bicycle usage for many years (including “bicycle superhighways”, a focus on pedestrian and cycling infrastructure including parking for bikes, etc.). The city has a successful bicycle renting system (Velhop) and beginning in 2017, studied the best solutions in order to develop the use of cargo bikes for professionals and families. The city has bought (for the start) 8 cargo bikes before the end of 2018 and offers them for rent from 1 hour to 15 days. The study also showed some obstacles that can be solved with further actions, including those prepared for the CCCB project, in order to establish the bicycle as a form of transport that is equal to other forms of transport like a car or a truck.
The Local Urbanism Plan (PLUi) includes plans for bicycle highways (VeloStras) and requirements for parking spaces for bicycles. The Mobility Action Plan sets high targets for some modes of transportation, like walking (expected to reach 36%) and cycling (expected to reach 16% in 2030), based on the involvement of people who don’t practice this transport mode yet. In terms of cargo bikes usage, even if important steps would be made, including thousands of cargo bikes used by delivery and logistics companies, there are still many regulatory aspects to be clarified. The local survey revealed that major improvements are needed in presenting the concept and usage of cargo bikes. These include solving issues related to security, usage, infrastructure, and parking and transport of heavy goods. On the other hand, there is an existing genuine interest for trying such bikes also with regard to child transport. Most of these ideas are included in Strasbourg’s Bicycle Master Plan.

Main local aspects:

Favorable or restricting policy papers

The French law makes no difference between a normal bike and a cargo bike.

Road and traffic regulations

Most of the decisions regarding city public roads within the city are organized by decisions signed by the city mayor.
Vehicles registration is mandatory only for cars.

Usage of cargo bikes

There are no special conditions for cargo bike usage, like age limitations, special bicycle lanes, dimensions/ weight or owning a driving license.

Limitations for helping engines

These limitations are the same as for bikes, limiting the speed at 25km/h.

Security measures

Includes lights and special equipment during the night, mandatory usage of helmets for children up to 12 years, special equipment for children up to 5 years, usage of a bicycle path for everyone over 8 years of age.

Small businesses approval

Approvals are required for using public space in commercial activities.

Project implementation area

The project will be developed gradually in the entire territory, according to actual existing bicycle lanes (700km) and the development of bicycle highways. Actual traffic is managed with numerous traffic lights and proper signaling. It is expected that small companies, delivery companies and families with children are interested in using cargo bikes.

Other initiatives in the same area

Developed beginning with 2010, the bike sharing system in Strasbourg already successfully provides 10 cargo bikes for booking in the absence of a subsidy system, and main target clients have already been identified (families, small companies/artisans, kindergartens, companies specialized in delivery, etc.)

Traffic management and modeling

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Eurometropolis of Strasbourg is using a traffic monitoring and dispatch system (SIRAC) and a transport modeling dedicated software PTV Visum, in which in the next phase will integrate bicycle traffic.

Conclusions

Eurometropolis of Strasbourg has a highly developed infrastructure and bicycle usage culture, which together with already identified areas of improvement in cargo bikes usage and strategical measures revealed by Bicycle Master Plan are ingredients for a highly successful CCCB implementation. Considering the limited duration of the CCCB project, attention should probably be paid to defining the implementation area which initially covers the entire city and to addressing various and different target groups.

Further details, including the local dedicated team, decision bodies or relevant possible partners can be found in Appendix XII.

2.13. Local Analysis Summary - CEA - Vitoria Gasteiz/ Spain

Vitoria - Gasteiz, the capital city of theBasque Autonomous Communityand of theprovinceofAraba (Álava)in northernSpain, has a total area of 276 km^2 and a population of 242,082 people (including 63 villages).

The Environmental Studies Centre (CEA) is a municipal autonomous entity whose mission is to look out for the sustainability in Vitoria-Gasteiz, fostering the municipality's sustainable development as an integrated part of the Alava region.

CEA is involved in the formulation of efficient urban and territorial policies, planning municipality operation systems (environmental, social and economic), planning and proposing sustainable solutions and promote education, information and citizen’s participation on the subject of urban and territorial sustainability.

There are numerous initiatives related to bicycles and cargo bikes usage in Spanish cities, but many of them are carried out locally by the private sector and performance assessment is sometimes difficult.

CEA is the local leader of the Bicycle Mobility Master Plan of Vitoria-Gasteiz and also co-ordinates other municipal departments for the development of the Sustainable Urban Mobility Plan. Among the actions proposed in those and other plans, there are several related to cargo bikes, like promoting a favorable local regulation for cargo operations in the central pedestrian downtown or creation of collective secure bike parking lots, with dedicated racks for cargo bikes.

Main local aspects:

Favorable or restricting policy papers

According to the Municipal Ordinance, there are some limitations in pedestrian areas of some vehicles, but bicycles and tricycles may be accepted. In central areas, usage of vehicles with low environmental impact is encouraged. Vehicles with higher volumes vehicles require approval and registration as economic activity. Beginning with 2018, a local ordinance stipulates special parking places for special bikes.

Road and traffic regulations

Include national legislation regarding vehicles and circulation and local municipal ordinances.

Safety and child transport

Cargo and people can be transported by drivers of legal age, but for minors up to seven years, a standard additional seat is needed. Special attention is accorded to vehicle stability, possible falls, optical signaling devices, through a Mayor’s Decree.

Regulations for small companies

Small businesses using cargo bikes, must have Civil Liability Insurance, canon deposit, registration for taxes on economic activities, approval, and food hygiene measures for food sale.

Decision-making institutions

Include national, regional and local institutions.

Project target area

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Is located in the urban area of Vitoria Gasteiz (covering 35 km2), including 145 Km of bicycle lanes, streets with speed limit or calmed traffic and numerous small companies, possible clients being delivery companies, small retailers, food sale or public services.

Other existing initiatives

In the project area, there are several small companies providing retailer product distribution, parcel delivery or coffee sellers.

Traffic management and modeling

Vitoria Gasteiz has an operational traffic management system and is analyzing the implementation of a transport modeling platform (Visum or Transcad).

Conclusions

There are multiple favorable conditions for project implementations in Vitoria Gasteiz, considering local decision regarding cargo bikes access in pedestrian or limited traffic areas, existing infrastructure and experience with other related projects. Special attention must be paid to implementation area (entire city area is a challenging task) and best ways to address multiple target groups (delivery, small companies/ retailers, food sale or municipal services must have different implementation plans).

Further details are provided in Appendix XIII.

2.14. Local Analysis Summary - Alba Iulia/ Romania

The former capital of Roman province of Dacia (Apulum), of the medieval Principality of Transylvania and actual seat of Alba County, Alba Iulia is a historical mid-size city (63536/ 74.000 people, 103km^2) placed in a central – western part of Romania. Build around its citadel, Alba Iulia is the symbolic capital of unification of all Romanian provinces. In the last years, Alba Iulia municipality is following its strategic directions toward a smart and green city, in order to ensure a competitive, inclusive and sustainable future. Rehabilitation of its Vauban citadel and major investments transformed Alba Iulia in an Excellence Award touristic destination, an innovative city able to attract European and regional funds and to be involved in numerous European projects. According to its SUMP, Alba Iulia is going to improve its public transport, transport infrastructure including bicycle tracks, park & ride, parking areas or electrical charging stations, in an integrated approach, in order to improve mobility and targeting environment resilience. In order to raise administrative efficiency and improve people's lives, Alba Iulia is a well-known destination for testing smart city solutions covering all strategic verticals. During its participation in European projects (like Enclose – City Logistics, CycleLogistics, Conurbant, Urbact – CityLogo, Totur, Social Green, Interactive Cities, PlastiCircle, etc.) Alba Iulia Municipality implemented projects in a strong partnership with numerous municipalities or institutions.

During the CCCB project, Alba Iulia is going to investigate various target groups interested in using cargo bikes, try-out schemes, partner with local stakeholders, provide feedback for improving infrastructure and regulation, raise awareness, find local heroes and organize demonstrations and workshops in order to promote cargo bikes as an important ecological, alternative mean of transport.

Main local aspects:

Favorable or restricting policy papers

Government Ordinance regarding Traffic on Public Roads with amendments, states main aspects regarding vehicles, pedestrian or other participants to traffic on public roads rights, obligations and responsibilities, together with institutions and public administration attributes on applying them (like Ministry of Administration and Internal Affairs, Romanian Police or Romanian Vehicle Registry). Other Public road Traffic regulations shall be issued, as appropriate, by the central or local public authorities in this field, only with the opinion of the General Inspectorate of the Romanian police and in compliance with the agreements and conventions to which Romania is a party. On the other hand, the Ministry of Regional Development and Public Works is preparing a regulation regarding infrastructure needed for bikes and cargo bikes. We found no clear evidence referring to cargo bikes, so main provisions for

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bicycles apply. Alba Iulia's SUMP is proposing important measures regarding infrastructure and bicycle usage.

Road and traffic regulations
Government Ordinance regarding Traffic on Public Roads was implemented based on a Road Code which includes provisions for bicycles usage. Locally, the Local Council of Alba Iulia adopted a Regulation for the administration of public roads in the municipality.

Safety and child transport
A government Ordinance (63/2006) stipulates access on public roads of bicycles for over 14 years of age and respecting main traffic rules and limits child transport to adults using bicycles equipped with a special seat. Other safety measures are recommended.

Regulations for small companies
Small companies using cargo bikes must be authorized by the municipality and pay taxes for public space usage.
In the case of food and drinks, public health insurance measures must be respected.

Decision-making institutions
There are institutions which can ease national cargo bikes usage (like Ministry of Internal Affairs, National Police, Romanian Vehicle Registry, Ministry of Regional Development and Public Works) and local institutions (Local Council, Local Traffic Police, Local Municipal Police) that must be involved in cargo bikes projects.

Project target area
Cargo bikes projects can be implemented in central areas of the citadel, areas with bike lanes, pedestrian or low traffic areas.

Other existing initiatives
At this moment there are just 4 cargo bikes used in the city: 2 for recycling activities, one for tourist info and one for coffee delivery.

Traffic management and modeling
Actually, the municipality is testing smart systems for traffic and pollution measurement in a few intersections, and dispatch is functional only for public transport. An important mobility project under analysis includes a traffic management system and a municipal dispatch. Dedicated software for traffic modeling is not available yet, but it can be considered for next SUMP.

Conclusions
In order to prepare cargo bikes projects, the municipality must collaborate with numerous institutions able to clarify legal aspect regarding cargo bikes legislation and needed infrastructure. A local analysis revealing low traffic areas can be helpful for detailing implementation areas. Considering a large partnership for promoting bicycle projects and preventing reticence, the municipality can identify new areas of cargo bikes usage.

Other details about local conditions for implementing cargo bikes projects in Alba Iulia can be found in Appendix XIV.

2.15. Local Analysis Summary - Dubrovnik/ Croatia
Covering 28.4 km^2 and with a population of 42,615 inhabitants, Dubrovnik (Ragusa) is a historical city and the center of the Dubrovnik – Neretva County, placed on the Adriatic Sea, southern Croatia. Mentioned in the 7-th century and developed especially during the 15-th and 16-th centuries as a prosperous maritime trade city, Dubrovnik is renowned for his medieval old city and as a prominent tourist destination in the Mediterranean Sea, holding a UNESCO recognition in the list of World Heritage sites.
Dubrovnik has established the Development Agency DURA, as its relevant institution for the submission and implementation of development projects for the City beginning with 2007, including city development strategy, SMART CITY strategy, preparation and implementation of project proposals for EU funds,

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coordination and assistance in projects applying for EU funds, encouraging development of entrepreneurship and tourism industry. DURA has successfully implemented more than 20 EU projects, including HORIZON 2020 Prosperity project (dealing with SUMP's), currently in progress.
Dubrovnik is making efforts regarding people and goods mobility during the tourist season (March – November) in the central historical area, including testing of innovative green solutions, able to influence energy consumption, environmental quality, economics, citizens' health and liveability of the city center. Dubrovnik has a mix of critical issues (like the physical urban environment and road system combined with the concentration of activities in the Old town area) that requires alternative models of traffic and city freight transportation. The city Sustainable Urban Mobility Plan complements the City's efforts in making the center more attractive for both residents and tourists and to attract private sector investment and management, but more importantly, to make its Old town core more efficient, sustainable and motor-vehicle free zone.
During the CCCB project, Dubrovnik will analyze freight demands, prepare transportation scenarios and strategies for improving accessibility and environment, develop pilot activities for cargo bikes solutions, support and promote a shift from actual standard freight transport to alternative solutions for people and goods.

Main local aspects:

Favorable or restricting policy papers

Transport development strategy of the Republic of Croatia, includes favorable conditions for improving the modal transport split allocated to public transport, pedestrians, and bicycles, together with necessary improvements specified by the National Programme dedicated to necessary infrastructure and safety measures. The South Dalmatia region is proposing in its Master Plan important improvements in local infrastructure in its Master Plan and Dubrovnik City Council has already made decisions regarding limited access for goods transport in the historical area.

Road and traffic regulations

If SUMP 1 of Dubrovnik included specific measures for promoting bicycles usage and needed infrastructure and safety of users, the actual draft of SUMP 2, includes measures regarding a public bicycles system and usage of cargo bikes in specific areas, including the historical one. Due to terrain configuration, usage of electric bikes and electric vehicles is considered.

Safety and child transport

Only over 18 years persons can transport children of up to 8 years, using a special seat and specific safety measures.

Regulations for small companies

A local decision must be made for allowing commercial activities using cargo bikes because the actual one is covering just stands in specific areas.

Decision-making institutions

The decision is shared between the Internal Affairs Ministry, Traffic Police, Local Council, and the Municipal Services Department.

Project target area

Proposed implementation area for cargo bikes projects is limited to the Old City of Dubrovnik, where there are no bicycles lanes and a special permit is needed, with the main clients, being delivery companies for shops, restaurants, hotels, etc.

Other existing initiatives

At this moment, there are no other initiatives regarding cargo bikes usage in the same area.

Traffic management and modeling

The Old City of Dubrovnik has a video surveillance system and the city used the PTV system for modeling traffic in its traffic study, but upgrades are needed.

Conclusions

Due to the very specific conditions (very crowded pedestrian area, narrow medieval streets, lack of bicycle lanes), implementation project for cargo bikes in the Old City of Dubrovnik requires attentive

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planning, including clarifications regarding legislation and permits, access and local businesses involvement.

Full details about local conditions for implementing cargo bikes projects in Dubrovnik can be found in Appendix XV.

2.16. Local Analysis Summary - Rimini/ Italy

Located on the Adriatic sea, the ancient city of Rimini is now one of the most famous resorts in Europe, thanks to its ancient Roman and Renaissance monuments, its 15km long sandy beach and its excellent tourist infrastructure. Placed in Northern Italy in the Emilia-Romagna region and bordering with provinces of Marche, Tuscany and the Republic of San Marino, the city is the capital of the Province of Rimini (approx. 325,000 inhabitants), has 150.590 inhabitants and covers 134km^2. Hosting over 15 mil. visitors per year, Rimini has a Strategic Masterplan for sustainable urban regeneration, economic performance and social cohesion, which includes a new mobility system. During the last years, Rimini successfully implemented several projects dedicated to sustainable mobility of pedestrian and cycling, including rehabilitation or new cycle and pedestrian paths, parking, signing or safety measures.

Main local aspects:

Favorable or restricting policy papers

There are several documents favorable to alternative means of transport, including bikes and cargo bikes, like Rimini's SUMP, new local circulating rules limiting access to cars and motorcycles in the historical center and extending pedestrian areas.

Road and traffic regulations

National traffic legislation is combined with local access and restrictions, or special measures for improving safety (speed limitations, pedestrian areas, bicycle lanes, voluntary driven license for bikers).

Safety and child transport

National traffic laws include special safety measures for bicycles usage and child transport.

Regulations for small companies

Local authorizations and taxes are combined with special provisions in case of food preparation and sale.

Decision-making institutions

The Ministry of Transport and local institutions are involved in decisions regarding cargo bikes projects.

Project target area

The actual project target area is defined by existing bicycles lanes (98 km, and other 120km under construction), on a radius of approximately 8 km. Cargo bikes can be used for goods delivery to small companies and shops.

Other existing initiatives

Two projects will be tested in 2019, one trying to replace delivery vans with cargo bikes, and the other one promoting cargo bike usage for the last mile to work.

Traffic management and modeling

The existing traffic management system will be extended with a special dispatch and logistic center, in order to use cargo bikes for last mile delivery of goods.

Conclusions

Rimini has the infrastructure and knowledge for successful new logistics implementations using cargo bikes. Limiting the pilot test area and actively involving logistic companies and customer companies in the project will ease the process of implementation.

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Other details about the local framework for implementing cargo bikes projects in Rimini can be found in Appendix XVI.

2.17. Local Analysis Summary - Gdynia/ Poland

With a population of 246,232 inhabitants and covering 135km^2, Gdynia is a city in northern Poland, in the Pomeranian Voivodeship, a seaport of Gdansk Bay on the south part of the Baltic Sea and part of a major metropolitan area, including Sopot and Gdansk, with a population of over a million people.
Gdynia is known not only for his seaport and shipyard but also for its dynamic economy and as a national standard for safety, infrastructure, education, quality of life and tourist attractions.
Confronted with challenges like a high motorization rate, or low rates of use of public transport, walking, and cycling, Gdynia is searching for sustainable transport solutions. A municipal institution (Gdynia Roads and Green Areas Management) is responsible for surveillance and maintenance of urban infrastructure, including the public road network and planning urban mobility through its dedicated units for Cycling, Accessibility, European Projects and Mobility Management (responsible for city SUMP). The actual city's SUMP includes smart mobility solutions, together with walking and cycling in order to achieve a sustainable mobility system, able to ensure a high quality of life, safe, clean and user-friendly environment and to contribute to the social, spatial and economic development of the city. Gdynia has experience in European mobility projects (like Segment, Civitas Dyn@mo, Flow, EnterHUB) and various campaigns (Bike to Work, Cycle to School, European Cycling Challange) and based on Freight TAILS project results regarding goods delivery in city center is expected that during City Changer Cargo Bike project will implement innovative action plans using cargo bikes for making deliveries, with direct impact on health and economic benefits.

Main local aspects:

Favorable or restricting policy papers

Together with Gdansk and Sopot, Gdynia has a technical standard for cycling infrastructure, it holds a certificate that encourages bikes for all, has a SUMP that prepare goods delivery with cargo bikes within the city center, has a rental system for cargo bikes and a bike sharing system (MEVO, just regular bikes at this moment).

Road and traffic regulations

In Poland, the rules for cargo bikes are the same rules as for all bikes, including no driving license needs, access on public roads for adults, need for the same type of equipment, usage of limited electric drive (250W/ 25km/h), but usual cargo bikes with a width over 0.9 m (bicycle trolley) must use public roads and have no dedicated special parking spaces.

Safety and child transport

A child under 7 years of age can be transported on bicycles using special seats and belts and when bicycle lanes are not available, cargo bikes must use pedestrian area. Safety equipment like helmets and vests are recommended, but not mandatory.

Regulations for small companies

Small companies using cargo bikes must pay taxes and carry health test just as other companies. For using specific city areas, special authorization from city hall is needed.

Decision-making institutions

Include the Ministry of Infrastructure, National Police, Local City Council and Metropolitan Association.

Project target area

No specific area for CCCB is foreseen, implementation will take place within the entire city. Gdynia has a good cycling infrastructure including a coherent cycling paths network which is based on cycle lanes, advisory cycle lanes, tracks, contraflow cycling, cycle parking, etc. with a total length of cycling roads of 60 km. Within CCCB there will be a cargo bike rental scheme for inhabitants, using an online registration platform. Also, users of cargo bikes will be approached through companies where they work (Bike to Work concept). The promotion will be ensured with specific activities, including a Cargo Bike Festival with a parade on the city's streets, able to raise awareness on cargo bikes and the CCCB project.

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Other existing initiatives
In November 2018 within the EU project CoBiUM, Gdynia introduced a service for city's entrepreneurs, public institutions and NGOs, using a fleet of 10 cargo bikes.

Traffic management and modeling
Gdynia has a metropolitan integrated traffic management system and is using PTV software for traffic modeling.

Conclusions
Gdynia has many prerequisites conditions for a successful implementation of the CCCB project. Special attention must be paid to clarification regarding legislation/ cargo bikes usage and access on bicycle lanes; project area (full city area seems too large); target groups with different implementation plans (delivery of goods to the city center; bike to work; cargo bike borrowing/ sharing; entrepreneurs – public institutions – NGO's).

Details about local conditions for implementing cargo bikes projects in Gdynia can be found in Appendix XVII.

2.18. Local Analysis Summary - Varna/ Bulgaria
A major seaport and seaside resort on the Bulgarian Black Sea coast, the City of Varna has a multi-millennial history and is a major economic, social and cultural center. Famous touristic destination and logistics center, Varna has a population of 343,544 people on an area of 238km^2 and is the administrative center of the northeast region of Bulgaria, the Varna Province. In the last years, Varna adopted smart city solutions in order to improve its tourism infrastructure and foster its economic and social development. Partner in several European programs (like "Regions in growth", "Urban environment", "Integrated urban transport"), Varna adopted several strategic development plans (Varna Municipal Development Plan, Varna Integrated Plan for Urban Reconstruction and Development, Varna Master Plan) including measures for sustainable mobility and is going to develop and implement its SUMP. This document is based on a reduction of car usage, modal shift to alternative types of transport with a diminution of emissions and has a cycling strategy for Varna, including four components: new cycling paths (20km), parking facilities (up to 50), cycling campaign and rental schemes.
This strategy is well aligned with measures and implementation plans developed during the CCCB project.

Main local aspects:
Favorable or restricting policy papers/ Road and traffic regulations
Development plans must respect national legislation regarding spatial development, road traffic, the transport system in urban territories and traffic implementation rules.

Safety and child transport
General rules for bicycles apply; no special safety measures were identified.

Regulations for small companies
Normal legislation for small companies applies with special provisions for food sale.

Decision-making institutions
National (Ministry of Interior, Ministry of Development) and local (Local Council) are involved.

Project target area
Is estimated that Varna will have soon a modern bicycle infrastructure (20km, parking), which can be used by cargo bikes also. The initial focus group will be on delivery companies (goods, postal and food delivery).

Other existing initiatives
The project target area is the same as the Integrated Urban Transport and Mobisec projects.

Traffic management and modeling
Varna already has a competitive traffic management system and is analyzing the possibility of using dedicated software for traffic modeling.

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Conclusions

Implementation of the CCCB project in Varna is a normal continuation of existing projects. In the planning phase, special attention must be paid to clarifications regarding cargo bikes usage legislation, taxation, authorization, especially to food products delivery. As the infrastructure is now under development, the project area (including paths, parking) must be carefully tested for various types of cargo bikes. Also, considering cargo bikes as a new transport type, promotion/ subsidies or rental schemes for small companies can be considered.

Other details about local conditions for implementing cargo bikes projects in Varna can be found in Appendix XVIII.

2.19. Local Analysis Summary - Dimos Drama/ Greece

With a population of 58.944 people and covering an area of 70km^2, the municipality of Drama is the capital of the Drama region, located in the north-eastern part of Greece (East Macedonia and Thrace province), close to the border with Bulgaria. Ancient Greek settlement and former Byzantine fortified city, the municipality of Drama traditionally developed its economy based on the paper industry, agriculture, forestry, and marble mining, but saw an evolution in recent years to ecotourism and cultural activities. As a green city valuing its rich natural environment, Drama saw an increase in traffic congestion due to excessive use of private cars and adopted its development strategy towards environmental and energy sustainability solutions, together with waste management actions. Evolutions in transport include a new bicycle path, a public bicycle rental scheme, public bike parking but also evolutions to a Sustainable Mobility Unit, mobility research with University of Athens and local ambassador for European Mobility Week. During the CCCB project, the municipality of Drama will implement new mobility projects, promoting usage of cargo bikes, especially for municipal services.

Main local aspects:

Favorable or restricting policy papers/ Road and traffic regulations/ Safety and child transport

No national or local laws, regulations or policy papers that are in favor or restricting the use of cargo bikes, vehicles registration or specific aspects related to safety and child transport could be found.

Regulations for small companies

In the absence of specific provisions for companies using cargo bikes, we assume that legislation regarding local taxes on public space or health insurance may apply.

Decision-making institutions

In the absence of specific cargo bikes legislation in Greece, Drama municipality must collaborate with scientific advisors involved in the SUMP development, national (Ministry of Interior, Ministry of Transport) and local (Local Council) decision institutions.

Project target area

The CCCB project will use existing bicycle lanes (2km) and specific streets in the entire city area, according to results obtained during SUMP development. Municipal services (pleasure rides for elder people and street cleaning) are considered as the main target group.

Other existing initiatives

Several activities (new bicycle lanes, bike sharing system and European mobility week) were developed in the same city area.

Traffic management and modeling

At this moment, there is no traffic management system or an operational dispatch in Drama, but the municipality is interested to implement a transport model system, based on dedicated software and to develop according to SUMP a new traffic management system based on ICT technologies according to SUMP.

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Conclusions

Drama municipality is assuming a role model for cargo bikes usage in Greece. In this respect, significant efforts must be made in clarifying national and local legislation, specific needed infrastructure and safety measures, combined with initial support and permissive authorization. Involvement of other institutions and partners in the process is critical, and these aspects should be considered in the future implementation plan.
Other details about local conditions for implementing cargo bikes projects in Dimos Drama can be found in Appendix XIX.

2.20. Local Analysis Summary - Messenger – Prague/ Czech Republic

The historical capital of Bohemia and actual capital of the Czech Republic, Prague is one of the most important cities of Europe in terms of the economy, culture or tourism. Home for 1.3 million people (2.6 million people in the metropolitan area) and covering 298km^2, Prague received over 8.5 million tourists last year and it must consider adapting local services, including mobility ones in a sustainable way.
Messenger is a private courier company based in Prague, using bicycles, cars, vans and one electric van for delivery within the city of Prague. Messenger is aiming to establish a more effectively and efficiently organized delivery system in the city and to optimize operational processes by using more bicycles instead of cars for inner-city delivery of goods. After their involvement in Cyclelogistics Ahead, Messenger started collaborations with the municipality and with a partner for micro-hubs for last mile delivery by cargo bike, including fast food delivery.
As a partner in the CCCB project, Messenger provided interesting details on local conditions for implementing cargo bikes projects in Prague.

Main local aspects:

Favorable or restricting policy papers

There are no special rules for cargo bikes in the Czech Republic. Users must respect normal bicycle and traffic legislation when using public roads. Till recently, as a busy capital, Prague had some restrictions on bike usage in the central area.

Road and traffic regulations

Bicycle users must use dedicated lanes, or the right side of pedestrian lanes and the right side of public roads, respecting traffic legislation and signs.

Safety and child transport

Helmet usage is mandatory and children up to 7 years must be carried on a special seat.

Regulations for small companies

Normal regulations regarding companies and health insurance rules for food delivery applies.

Decision-making institutions

At the national level, the Ministry of Transportation and Police must be involved. Locally, City Council and local associations must be consulted.

Project target area

The main focus will be the old city area, even if there are some problems regarding terrain (hills) and infrastructure (narrow, tiled roads) because there are numerous company needing delivery services in that area.

Other existing initiatives

The Institute for Planning and Development of the City of Prague is responsible for urban development. Messenger is the first company promoting and using cargo bikes in Prague.

Traffic management and modeling

There is no available information about a city traffic management system yet, but recently a local map for bicycles lanes was published.

Conclusions

Further information regarding the recommended implementation area and further usage of cargo bikes for delivering goods to small companies must be investigated, together with the identification of

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interested companies and estimated volumes. Probably, considering the terrain, cargo bikes with electric support must be tested too.

Other details about local conditions for implementing cargo bikes projects in Prague can be found in Appendix XX.

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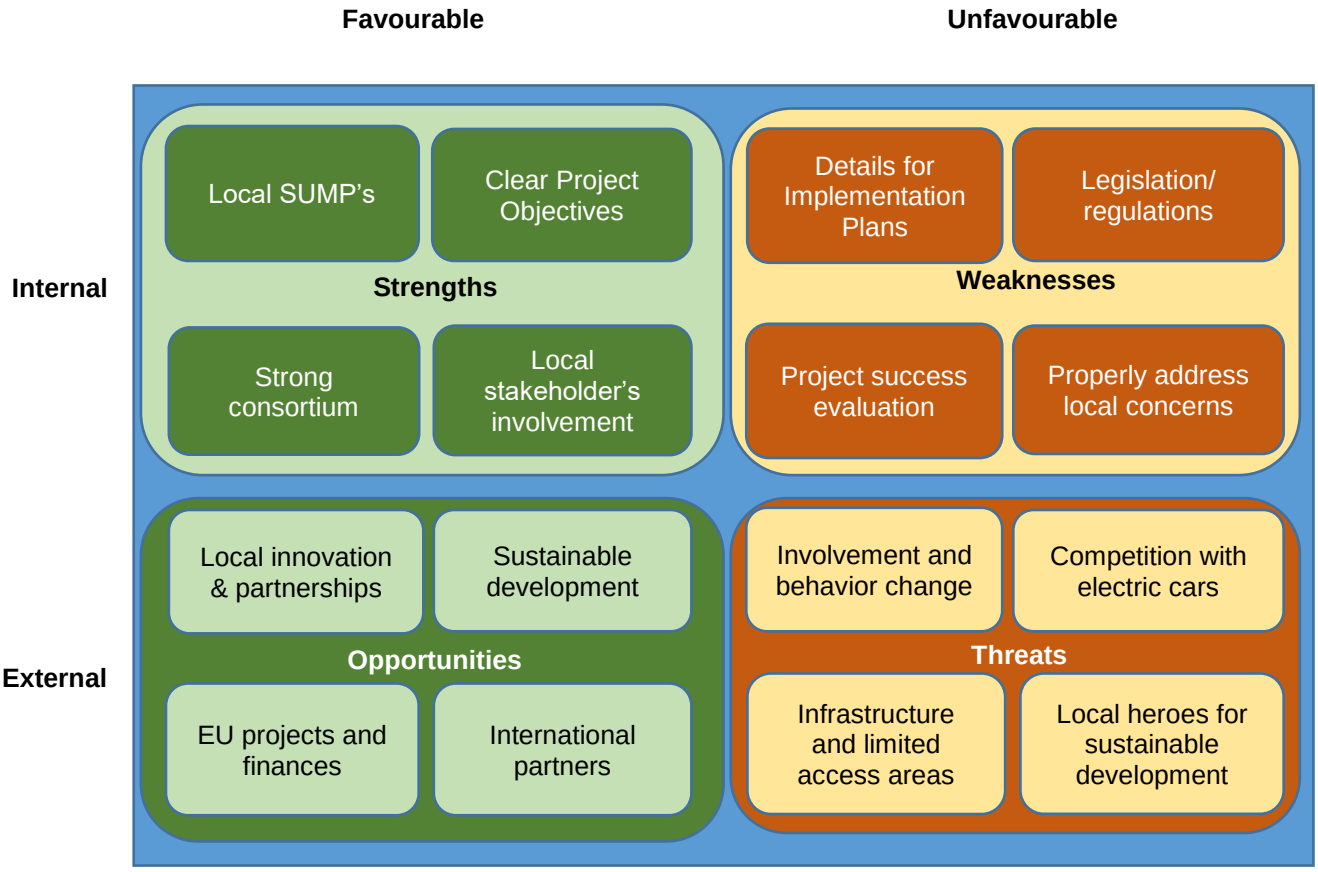
3. SWOT Analysis

Based on cities' Local Analysis Reports (Appendixes I – XX), we have developed an initial high-level SWOT analysis, shown and described below.



Strengths

- All cities have ambitious plans in their strategic Sustainable Urban Mobility Plans, including the development of needed infrastructure and activities for using bicycles and cargo bikes as important means of transport, able to help them in achieving their objectives in terms of limiting pollution, improving health and social interaction in their communities.
- The Local Analysis Reports shown a good understanding of the project's overall aims and objectives and identified possible cargo bikes clients and users.
- The project consortium includes experienced steward cities and EU bike associations, able to assume a role model together with providing strong interdisciplinary support for cities less experienced in bicycles and cargo bikes usage.
- Reports revealed a good involvement of local officials, institutions and organizations represented by their stakeholders in the project.

Weaknesses

- The Local Analysis must be complemented by supplementary work during the development of Implementation Plans, related to significant details like infrastructure availability, best practices applied, subventions and financial costs, cargo bikes types or project monitoring.

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- The need for clear legislation and new regulations regarding cargo bikes usage in some cities, requiring special efforts together with the involvement of national and local decision makers.
- Challenging evaluation of project success, due to the usage of public space and possible private initiatives, together with difficult to achieve or expensive indicators based on counting and surveys techniques.
- The need to properly address main concerns regarding cargo bikes usage (like dedicated infrastructure, usage in bad weather conditions, training and trials addressing difficulties in riding cargo bikes especially in hilly terrain or tiled surface areas, safety, anti vandalism and security measures or business plans).

Opportunities

- Foster innovation and local partnerships together with opportunities for new local plans and administrative processes improvements.
- Project plan and activities can be extended for several years, bringing a significant contribution to achieving cities sustainable development objectives.
- The work started within the project can be continued and extended using other EU projects and financing opportunities related to mobility, energy and environment, together with regional/ local financing, public-private partnerships, new services and business models.
- Long term relationships and knowledge sharing with international partners.

Threats

- Insufficient local engagement and difficult behavior change, based on national mentalities and bicycle culture.
- Competition with strong activities and subsidies regarding electric cars and vans.
- Difficulties in acceptance of infrastructure modifications or limiting car access areas.
- Difficulties in finding for “local heroes” able to promote cargo bikes usage and sustainable business models.

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4. Project Indicators Measurement and Evaluation

In order to develop project measurement indicators and success evaluation factors, we must consider:

a) CCCB objectives

All partner cities are addressing the main 5 objectives of the CCCB project:

- Raise awareness among relevant stakeholders (public, private, commercial)
- Use innovative tools for take-up, scale-up and transfer between cities
- Establish favourable framework conditions for cargo bike use
- Achieve roll-out and transferability in cities
- Reduce congestions and emissions, improve public space usage and safety

That means that first, we must consider indicators able to measure those objectives.

b) CCCB impact indicators

During the development of the project proposal, the CCCB partners already identified impact measures that can be implemented and measured during the project implementation, like:

- Creating synergies between passenger and freight transport, by multiple uses of concepts for cargo bikes and by new integrated hubs
- Successful coordination and cooperation within the city
- Cooperation and successful transfer of successful examples from forerunner cities
- Replacing motorized trips with a zero emission alternative by:
  - Transfer of successful cargo bike solutions
  - New insights related to transferability
  - Faster and cost-effective large scale deployment
- Environmental impact – reducing emissions and noise
- Public Health & Safety – an increase of active mobility (bike, walk, cargo bike), reduce sedentary lifestyle and reduce accidents (caused by lorries and vans).
- Economic efficiency outweigh costs caused by additional transshipments and increased number of riders
  - Cargo bikes have lower costs
  - Use less space
  - Are faster and more reliable
  - Have access to the city center
  - Drivers are healthier
- Awareness raising and know-how on the benefits of cargo bikes:
  - The transport and logistics sector will see the large potential, e.g. new logistic chains, economic advantages, e-technology designs with transport capacities up to 400kg.
  - City planning will learn the why and how of taking into account cargo bikes potential at the planning stage of new housing developments or new residential districts.
  - Job creation: Cargo bike operation is more labour intensive and offers new, more and more flexible job opportunities, especially for younger people – also by creating or expanding a new cargo bike manufacture and maintenance industry.

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- Educational: Children often take on the habits of their parents and continue these habits in later life. Growing up using a cargo bike rather than a car as a means of transport, therefore, has an effect on travel habits later on.

c) Local conditions

CCCB project includes a broad range of activities in order to improve the usage of cargo bikes in partner cities, but according to the Local Analysis Reports it is obvious that project implementations in each city are relatively unique to the local framework and individual circumstances. That's why in this chapter, we will suggest measure – specific indicators, which may be considered and used by cities as potential baselines (before – during – after the project) for project success evaluation. Because the Local Analysis Report is already a complex document, it is difficult to include all local aspects, during the project implementation planning phase, each city must consider supplementary and specific indicators and evaluation methods.

d) Usage of MaxSumo Model

One important deliverable of the project "Successful Travel Awareness Campaigns and Mobility Management Strategies" (2009) is the MaxSumo tool (http://www.epomm.eu/index.php?id=2602), which includes a method for systematic planning, monitoring, and evaluation of mobility projects.

Based on a theoretical framework of how people change their travel behavior, MaxSumo is a systematic standardized evaluation methodology for mobility projects, which ensures step by step guidance in planning, monitoring and evaluating mobility projects.
MaxSumo is using targets, indicators and results specified at four different levels (presented in the table below) which follow on from one other in a logical way and at each level you need to decide what you want to measure, what indicators to use and how to measure these.

Intervention framework conditions (specific to location and target group)	External factors (local and common to all groups)	
	Person-related factors (objective or subjective)	
Assessment of services provided (different activities and outputs)	A	Projects activities and outputs (effort invested)
	B	Awareness of the project or the mobility services provided
	C	Usage of mobility services provided (among interested people)
	D	Satisfaction with mobility services provided
Assessment of mobility options offered (related to travel behavior the project is trying to change)	E	Acceptance of mobility option offered (intent to change)
	F	Take up of mobility option offered (test/ use option)
	G	Satisfaction with the mobility option offered
Overall effects (main outcomes of the project with regard to new attitudes and behavior adopted)	H	Long-term attitudes and behavior (adopted new method)
	I	System impacts (modal split, pollution, energy consumption)

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Table 4.1. MaxSumo assessment levels

An important distinction must be made between monitoring (measures what has happened based on the systematic collection, storage, and compilation of data) and evaluation (why changes have occurred, based on analysis of impact) of mobility projects.

The MaxSumo process involves 7 steps:

Step 1: Define the scope of projects and set overall goals

Targets must be defined using SMART model (Specific; Measurable; Ambitious & Accepted; Realistic; Time limited);

Step 2: Define the target groups

The target group is critical considering allocating resources onto groups that are likely to produce the greatest effects; target group depends on project objectives and is selected based on multiple criteria (area; trip purpose; transport mode; socio-demographic; etc.)

Step 3: Define the services that will be provided by the project and the mobility option(s) offered

This includes a specific range of measures taken in order to change mobility behavior, like: information measures, promotional measures, organizational and coordination measures, education and training measures, site-based measures and infrastructure, telecommunication and flexible time organisation, supporting and integrating measures.

Step 4: Review all assessment levels, chose what levels to monitor and define targets and indicators for the chosen assessment levels

Because usually measuring overall project goals is difficult, we must define detailed and realistic measurement indicators for each target and different assessment level.

Step 5: Define suitable methods for collecting data for the chosen assessment levels

Based on defined targets and indicators to monitor, in the next step is necessary to decide on the most suitable method of collecting data (count, measure, documentation, investigations on site, surveys, etc.), considering quantitative and qualitative information and usage of different tools.

Step 6: Monitor the chosen assessment levels

Project data collection is critical for monitoring and evaluation of the project. That's why, is recommended to have a monitoring and evaluation plan, and including what indicators are measured, necessary methods and when to measure each indicator. The usual service acceptance criteria must be monitored during the entire project, including travel behavior before, during and after the project, together with costs associated with each measure and service, in order to have a cost efficiency of each measure and a project overall cost-effectiveness at a later stage.

Step 7: Evaluate the project and explain observed changes

Monitoring activities ensure in a systematic way, the collection, storage and compilation of data project, answering to the question about what happened during the project and what impact occurred.

Evaluation makes a step further, analyzing why an impact occurred, relation cause-effect and project conclusions.

Is important that during the project to maintain the characteristics of the target group, options offered and monitoring activities and indicators for not affecting project results.

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Practically, for steps 4 to 7, it is recommended to have a Monitoring and Evaluation Plan for the mobility project in order to know how to proceed with the project and how to perform the activities, including monitoring and evaluation of the project. This plan offers constant feedback on project effects and possible changes in order to improve project impact.

Overall goals						
Target groups						
Services provided						
Mobility options offered						
Level			**Target**	**Indicators**	**Methods**	**When**
Framework local conditions	External factors (political, legislation, infrastructure, location, parking, other projects in the same area)					
	Personal factors – objective (age, gender, living conditions) and subjective (values, attitudes)					
Services provided	A	Project activities and outputs				
	B	Awareness of mobility services provided				
	C	Usage of mobility services provided				
	D	Satisfaction with the mobility services provided				
Option offered	E	Acceptance of mobility option offered				
	F	Take up of mobility option offered				
	G	Satisfaction with the mobility option offered				
Overall effects	H	Long-term attitudes and behavior				
	I	System Impacts				

Fig. 4.2. MaxSumo template for Monitoring and Evaluation Plan

In analyzing local framework conditions, MaxSumo is combining external factors (political factors/ legislation, price of fuel and public transport, infrastructure and parking availability or other existing mobility projects) with objective and subjective personal factors, which are very important and must be measured (usually using questionnaires, interviews and surveys) before and after implementation of mobility projects. In order to accurately measure the effectiveness of implemented mobility measures, it is important to eliminate or control the external factors which can affect project results, together with a careful design of the target group.

In terms of data collection, special attention must be paid to the selection of the type of data, necessary for project monitoring and evaluation as indicators and to appropriate collection methods

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(documentation, site survey, interviews, surveys, counts), considering a mix of quantitative and qualitative methods.

e) Recommendations for Measurement and Evaluation in CCCB project

The CCCB project includes common activities and objectives regarding improvements in cargo bikes usage in all partner cities, but the Local Analysis Report suggests that the local framework is relatively unique for each partner city and requires a specific project implementation plan, including different measurement indicators and evaluation methodology. Using received Local Analysis Reports and conclusions, AIM, together with Evaluation Leader (for WP5, Politechnika Krakowska, PK, P5), developed baselines (before – during – after project implementation) for measure indicators which can be developed and used by cities for their project success evaluation.

Recommendations about how to prepare a set of measurement indicators and which evaluation methods to use are specified in the General Monitoring and Evaluation Plan (GMEP, D5.2).

The foundations of the GMEP are the indicators characterizing the measures being implemented within the CCCB project and the corresponding key outputs. All the project key outputs and impacts are listed in the Grant Agreement (Annex 1 – Description of the action, p 17).
The project partners identify the individual outputs which contribute to the project outputs. For those outputs which are complex to implement or require detailed planning, the corresponding implementation plans have to be developed by the partners. The partners' implementation plans usually comprise more than one key output. In their implementation plans, the partners should refer to the project key outputs and impacts are specified by the Grant Agreement.
The GMEP uses these evaluation sections of the partners' implementation plans to ensure that all the required measures, being implemented by the partners, are represented and considered in this plan. The GMEP investigates each key performance indicator and the associated key output to ensure a comprehensive, efficient and precise evaluation of the project results.

Following the procedures described in the Data Management Plan (D5.5), each partner transmits the results of the project to the Cracow University of Technology, which is responsible for cross-checking the results and carrying out the quality check as well as the cross-comparative analysis. The main results of those findings will be presented in the final report.

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5. Conclusions

The Local Analysis Report revealed major differences regarding the local framework for CCCB project implementation, which can be summarized as follows:

a) Differences between local Legislation and Regulation regarding cargo bikes

Even if all cities are from EU countries, there are significant differences regarding national legislation and local regulations regarding the usage of bicycles and cargo bikes. These differences occur in limitations regarding access on public roads, bikes equipment, safety and child transport and so on. Another aspect to be considered is that there are differences in technical recommendations regarding bicycle infrastructure. Finally, in some countries, the local council has a significant regulation decision power, while in other approvals from other institutions (like Ministry of Regional Development and Public Works for infrastructure, or Ministry of Interior and National Police for traffic regulation) is needed and must be considered for the early stages of the projects.

b) Differences regarding local terrain and infrastructure

Identification of proper project area must consider the terrain (plain or hilly), surface (asphalt or tiles), existing bicycle tracks (which varies from zero to hundreds of km), signaling or safety insurance, which varies significantly between cities, including all those presented aspects.

c) Local bicycle culture

We can assume that cities with a developed infrastructure and high adoption of the bicycle as an important mean of transport, have a much greater experience in similar projects and CCCB project implementation will be much easier, being influenced by favorable local culture.
Based on existing research, presented in Appendix XXII, we can consider that partner cities (we used similar cities with available data for some partners) fall into the following categories:

- Very low bicycle usage (<2%): Krakow, Dubrovnik (Zagreb), Lisbon, Varna, Alba Iulia (Sibiu), Gdynia, Prague (Brno)
- Low bicycle usage (up to 5%): San Sebastian, Oslo
- Average bicycle usage (up to 10%): Wien, Strasbourg, Drama (Thessaloniki)
- High bicycle usage (up to 20%): Cambridge, Vitoria – Gasteiz, Rimini (Ravenna)
- Very high bicycle usage (>20%): Utrecht, Mechelen (Antwerp)
- TOP bicycle usage: Copenhagen (>30%)

Based on those data, the implementation plan can be changed accordingly to local objectives, which must be ambitious especially for experienced cities.

d) Infrastructure and cargo bikes types

As previously presented, there are big differences in terms of existing bicycle infrastructure in pilot cities. One aspect to be considered is that the majority of existing bicycle lanes are not prepared for cargo bikes usage (many times being oversized compared with normal bikes) or regulation stipulates to use roads for cargo bikes. Also, depending on the project target group, existing infrastructure or local regulation, some specific cargo bike types are recommended and must be considered.

e) Expectations for pilot projects

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If CCCB project will test new equipment and services, or city in quite new in this area, it is recommended to be realistic about considering too many target groups (requiring different implementation plans) or a wider area (like the entire city).

f) Local involvement

Majority of cities already identified a list of potential partners, able to be involved in the CCCB project. Special attention must be considered for cities with low usage of bicycles, in order to promote cargo bikes usage, to involve as much as possible different organisations, citizens and manage a change in their behavior.

Even realized at a high level, the SWOT analysis revealed important project strengths, like supportive and ambitious SUMP's, a good understanding of project objectives, a strong consortium partnership including very experienced role model cities, a very good involvement of local stakeholders and opportunities for innovation, to achieve sustainable development goals, EU support for mobility, environment and energy projects and strong, long term relationships and knowledge sharing with international partners.
Special attention must be paid to some weaknesses, like need for supplementary work and details for the local implementation plan, special efforts for legal and regulations clarifications, quite difficult project evaluation or addressing local concerns and to some threats, like difficult behaviour change, competition with subsidized electric vehicles, difficult infrastructure development in some areas, or efforts in involving local community, local heroes and developing viable business models.

In terms of local project evaluation, we must consider specific evaluation indicators, together with a common set of indicators able to ease the assessment of the success of the entire project.

As a conclusion for the Local Analysis Report, we can consider that all partner cities are making good progress in successfully defining their project implementation plans, as a major step in achieving project objectives.

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Appendix I – Local Analysis Report – Austrian cities - FGM – AMOR/ Austria (P1)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – FGM-AMOR/ Austria

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Klima- und Energiestrategie der Österreichischen Bundesregierung: One of the goals of the Climate and Energy strategy for the Austrian Government is increasing the proportion of bikes from 7% to 13% until 2025. The aim is, therefore, to implement and further develop the Masterplan Radfahren and the development programmes of the cycling infrastructure in cooperation with the local authority levels.

The main goals of the **Masterplan Radfahren** (Masterplan Cycling) 2015–2025, are:

- Investments into the bicycle traffic "pay off" through savings
- Nationwide coordination of bicycle traffic
- Cyclist-friendly framework conditions: e.g. expansion
- Cycling as an economic factor:
- Cycling a health promotion:

https://mission2030.info/wp-content/uploads/2018/04/mission2030_Klima-und-Energiestrategie.pdf
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=2ahUKEwja-LKm9MTeAhVNVsAKHd2jBfkQFjABegQIBxAC&url=https%3A%2F%2Fwww.bmnt.gv.at%2Fdam%2Fjcr%3A9829acb0-0928-401a-ae82-3a67aff817fd%2F43_MP_Radfahren_de.pdf&usg=AOvVaw0TA9GpeeT-GIO6j94dzppV

From this, many federal states developed their own bicycle strategy, and subsequently also in municipalities and cities.

Table 1: Cycling strategies in Austrain cities (2018)

City/Municipality	Federal States	Covered period
Styria	Radverkehrsstrategie Steiermark 2025 (Bicycle strategy of Styria for 2025) – the proportion of bicycle should be an increase from 6% to 20%/25% till 2025 http://www.verkehr.steiermark.at/cms/dokumente/10553958_11163140/f18b52a6/Radverkehrsstrategie-2025.pdf	Until 2025
Other federal states with bicycle stragedys	Tyrol https://www.tirol.gv.at/fileadmin/themen/verkehr/verkehrsdatenerfassung/downloads/RadkonzeptTirol_Bericht_20141119.pdf Carinthia http://www.intesi2017.at/intesi_db/documents/AT08_AT21_Mobiltiy%20master%20plan%20Carinthia_2016.pdf Radkonzept Vorarlberg https://www.velokonferenz.ch/download/pictures/7e/4jovo7puwe491co0171ip1t1r03ei7/radverkehrsstrategie_vorarlberg.pdf Burgenland https://www.b-mobil.info/fileadmin/user_upload/RAD_Masterplan_BGLD_2018.pdf Salzburg https://www.salzburg.gv.at/verkehr_/Documents/fahr-rad_leitbild-salzburg_lang.pdf	Until 2050 Until 2035 Until 2025
	Municipalities	
City of Salzburg	Radverkehrsstrategie Stadt Salzburg 2025+ https://www.stadt-salzburg.at/pdf/radverkehrsstrategie_2025__fuer_die_stadt_salzburg.pdf	Until 2025

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Klagenfurt	Mobilitäts- Masterplan Klagenfurt 2035 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwi59oWDyM7eAhXGK8AKHUBaCWkQFjAAegQICRAC&url=https%3A%2F%2Fwww.ktn.gv.at%2F345895_DE-Dokumente-Masterplan_Radfahren_Klagenfurt.pdf&usg=AOvVaw0KfcN0fTnDHxjtlwRzPmig	Until 2035
Graz	Mobility strategy of Graz – bicycle traffic is just included https://www.graz.at/cms/dokumente/10026642_7712701/9906a1e4/Verkehrsplanungsrichtlinie.pdf	Until 2020
Bregenz	Radverkehrskonzept Bregenz 2006: 2005 a concrete concept was published. Since then the proportion of cycling traffic increased from 15% to 19%. https://www.bregenz.gv.at/fileadmin/user_upload/document/buergerservice/mobilitaet/Radverkehrskonzept_Bregenz1.pdf 2014 a general traffic concept was published https://www.bregenz.gv.at/fileadmin/user_upload/document/buergerservice/mobilitaet/GVK_Bregenz_ENDBERICHT_Maerz_2014.pdf	Run out Until ~2030

Based on the cycle traffic concepts of the federal states, municipalities can build on this. If certain conditions are complied with, federal states can provide financial support, e.g. in Wildon (Styria).
In Vorarlberg, they support the municipalities throughout financing schemes, planning tools and offering to consult. For regional and local main bike routes can be covered up to 70% of all costs.
https://vorarlberg.at/web/land-vorarlberg/contentdetailseite/-/asset_publisher/qA6AJ38txu0k/content/radverkehr-in-gemeinden-foerderung?article_id=80565

Others

In Vienna, the **Mobilitätsagentur** (mobility agency) was founded in 2012 as an information - and service point for cyclists. Later it was extended to include pedestrian traffic. Their task lies in target-oriented public relations work and awareness raising to change the transport medium from motorized private transport to bicycles and to make cycling and pedestrian traffic more attractive.
In 2018 a private initiative with different mobility organizations like the Radlobby ARGUS Steiermark and Fahrgast brought up a mobility strategy for Graz with 18 Innovations for the transport system in the greater area of Graz.
https://www.graz-verkehr.at/Mobilitaetskonzept_Graz_2018.pdf

1.2. Road and traffic regulations – FGM-AMOR/ Austria

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

StVO - Road Traffic Regulation and Bicycle Regulation

The **Straßenverkehrsordnung** 1960 (StVO - road traffic regulation) is a federal law which applies to roads with public transport or on private streets if the road owner does not provide any regulations.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011336
Beyond this, the **Fahrradverordnung** (Bicycle Regulation) is valid. In principle, the aim of the Bicycle Regulation is to increase the safety of bicycles through modern equipment regulations. The Product Safety Act therefore also obliges " distributors " (i.e. manufacturers, importers, and retailers) to "place bicycles on the market" (i.e. sell them) only with the appropriate safety equipment. This is to prevent new bicycles are sold to consumers who do not fulfill the safety regulations. Consumers, on the other hand, must maintain the bicycle in such a way that the safety equipment remains complete and functional. The conditions of use - e.g. when to ride with lights on - are in principle derived from the road traffic regulations. The Bicycle Regulation, however, sets out a few exceptions.
https://www.bmvit.gv.at/verkehr/strasse/recht/stvo/fahradvo.html
In the following are the most important examples of the StVO and the Bicycle Regulation are described.

Terms: **Cycle infrastructure according to the official rode code** can be a cycle lane, multi-purpose lane, cycle path, footpath, cycle path or bicycle crossing; (**Radfahranlage**: ein Radfahrstreifen, ein Mehrzweckstreifen, ein Radweg, Geh- und Radweg oder eine Radfahrerüberfahrt)

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Bicycles equipment:
- Front (white) and back (red) retro-reflectors: these may also be integrated into the headlamp or the rear lamp;
- Side reflectors (yellow) or reflecting tires (white or yellow);
- Reflectors on the pedals (yellow) or approximately on the pedal cranks;
- Bell, horn or similar.

https://www.bmvit.gv.at/verkehr/strasse/recht/stvo/fahradvo.html

In general restrictive regulations to the bicycle traffic

§ 7 One-way streets may only be used in the direction indicated by the information sign. Except bikes exempted from this decree and in residential roads.

§ 19 Cyclists leaving a cycle infrastructure have to precedence other vehicles in flowing traffic.

§ 68 Cyclists are not allowed to use sidewalks.

Cyclists may only ride next to each other on cycle paths, cycle streets, residential streets, meeting zones. On other roads with public transport, it's allowed only during training rides with racing bicycles.

It is forbidden to carry other vehicles or small vehicles when cycling – there is no exception for cargo bikes.

§ 68 Cargo bikes or trailers that are exclusively for the carriage of passengers may use the **cycle infrastructure** (rode code). https://www.radlobby.at/benuetzungspflicht-von-radfahranlagen

Obs. In April 2019 the third StVO- Novella will enter into force. Single-track cargo bikes with a wheelbase of more than 1.7 meters (e.g. Bullit, Long John, MCS Truck) will no longer have to use the cycling infrastructure. Multi-track cargo bikes and trailers will be allowed to use cycle lanes if they are less than 1 meter wide (e.g. Christiania, Nihola).

§ 38 Cyclists are not allowed to turn off at red traffic lights.

Electrical support

§ 1 Pedelecs and e-bikes with a top speed of over 25 km/h or an electric capacity of 600 watts. Otherwise, they are classified as conventional mopeds and require type approval.

https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011384

(**Bundesrecht konsolidiert: Gesamte Rechtsvorschrift für Kraftfahrgesetz 1967, Fassung vom 17.12.2018)**

Cargo bikes

Multitrack bikes may carry a maximum **load** of 250 kg. The own weight of the cargo bike is not limited, but the **braking effect** must be given (average braking deceleration of 4 m/s2 at an initial speed of 20 km/h, see bicycle regulation § 1 (1), 1.). In the case of multitrack bikes, the brakes must act simultaneously and uniformly on all bikes and within one axle.

There is no restriction in the Austrian StVO on the **size** of cargo bikes. However, it will not harm to obey the limits of the German StVO: 2m width, 2.5 m height and 4 m length.

Not to forget, of course, all the features that every bicycle must have, see above.

Guidelines and regulations for the road sector (RVS)

To ensure that the design of the respective traffic area is roadworthy and technically up to date, the guidelines and regulations for the road sector (RVS) are applied in project planning and road space design. These guidelines are drawn up and recommended for application by the experts of the regional authorities concerned (federal government, federal states, and municipalities), taking into account international experience and the involvement of national experts.

Measurement parameters for bicycle traffic infrastructures are standard dimensions of bicycles: The length with 1.8 m, the width of a single-track bicycle with 0.7 m and that of a tricycle or trailer with a width of 0.9 m. For multi-track bikes, a traffic area of 1.3 m is recommended. The **width** of curves is calculated as a function of speed and radius (Figure 1).

Velocity [km/h]	Radius [m]	Extension [m]
10	2,5	0,5
15	4,5	0,5
20	8,0	0,5

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25	14,0	0,4
30	22,0	0,3
	30,0	-

Figure 1: Minimum radii (inner radii) and widening depending on velocity (RVS, 2014)

For **uphill slopes,** it is recommended not to exceed more than 3% slope by new routes. Otherwise, the values in Figure 2 should be obeyed. This could be already too much for cargo bikes with a heavy load and without electric assistance.

Difference of the height [m]	Max. incline [%]	Max. length of the incline [m]
1	12	8
2	10	20
4	6	65
6	5	120
10	4	250
>10	3	arbitrary

Figure 2: Recommended maximum incline depending on the height difference to be overcome (RVS, 2014)

Cycle paths with a width of 1.6-2.00 m, which are structurally separated from footpaths and roadways, are recommended. A minimum of 2.00 m is required for overtaking between two 0.8 m wide cargo bikes.
A**bolition of the duty to use the cycle path** enhances the ease and fluidity of cycling. As the number of cargo bikes increases, this would generally be recommended on roads with lower traffic volumes and low speeds.
In Austria, cycling against **one-way street**s is often permitted. The recommended width (when cars are allowed to park) of the cycle lane is indicated from 1.5m to 1,75m. Without parking space between the width of 1,25-1,5m are recommended. But in fact, this is usually much less, when you take the clearance width (Lichtraum) into account. Cargo bikes with a width more than 0,8 m are not allowed to use one-way streets.
Mixed footpaths and cycle paths, in general, can become a problem, for cargo bikes even more. The recommended width is generally 2.5 m, 3 m are recommended for new designs. In Graz, it's used for a main cycle traffic route in two directions combined with highly frequented pedestrian traffic.
Bicycle parking facilities are designed according to the size of single-track bicycles. The recommended distance is between 0.8 m and 1.2 m. Cargo bikes with a width of 0.9 m have no or only difficult space here.

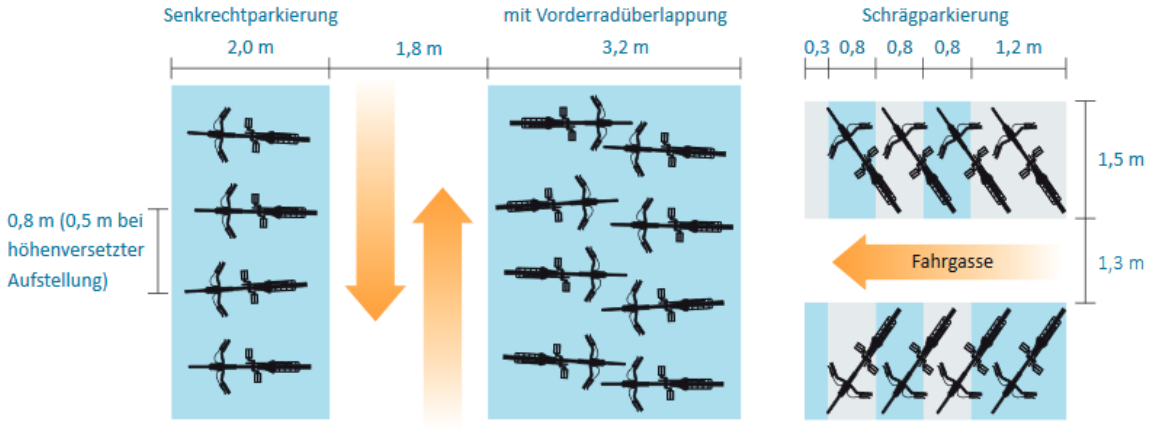

Figure 3: Need of Space for parked Cycles. Graphic: FGM, Bau auf's Rad, BMVIT (2012)

FSV RVS 03.02.13 Radverkehr February 2014.

Others

A **bicycle registration** policy does not exist, neither laws regarding usage of bikes/ cargo-bikes.

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Building Codes regarding cargo bikes

Because the building industry is subject to state legislation, each federal state has its own regulations. Municipalities mostly are entitled to set the minimum number of parking spaces to be created higher or lower by ordinance, according to local conditions and interests.
https://www.help.gv.at/Portal.Node/hlpd/public/content/226/Seite.2260200.html

Tirol §11, §12 and §44: The **municipality may determine** that parking spaces for bicycles in sufficient numbers or size must be created outside public transport areas. Municipalities can also decide which size is needed for a bike or the number of parking places.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrT&Gesetzesnummer=20000711
Styria §4 und §92: When buildings are erected, enough suitable parking facilities for bicycles must be provided (depending on the intended use). They must be **barrier-free**.
A sufficient number depends on the type of construction. E.g. in the case of residential buildings, one parking space must be available for every 50 m² of usable living space or, in the case of educational institutions, one for each of five pupils or students. Municipalities can, however, determine the number.
Unless contrary to the protection of the townscape, the parking facilities shall be covered as soon as more than ten parking spaces are required.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrStmk&Gesetzesnummer=20000070
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrVbg&Gesetzesnummer=20000734

Salzburg §35, §37-40: Buildings with more than five apartments must be provided for **two bicycles per apartment** unless suitable covered outdoor bicycle parking spaces are created. The **distance** must be under 100 meters.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrSbg&Gesetzesnummer=20001000

Lower Austria §4, §15, §41 und §65: Even in the case of **an extension or a change of use**, bicycle parking facilities in buildings must be installed. If no parking spaces can be built, **compensatory payments** must be paid.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrNO&Gesetzesnummer=20001079

In Carinthia, Burgenland and Upper Austria are no laws for building codes.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrOO&Gesetzesnummer=10000411
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrK&Gesetzesnummer=10000201
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=LrBgld&Gesetzesnummer=10000504

1.3. Safety and child transport legislation - FGM-AMOR/ Austria

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Regulations regarding children

§ 65 Children under the age of twelve may only drive a bicycle under the supervision of a person who has reached the age of 16 or with an official permit.
When the child has reached the age of 10, a bicycle ticket can be purchased. Required physical and mental aptitude, as well as knowledge of the road police regulations, are required.
Cyclists carrying persons on the bicycle must be at least 16 years old. If the person is under the age of eight, he or she must have a seat appropriate for the size of the child. If the person carried is older than 8 years, only a bicycle may be used which fulfills the requirements of the product safety regulations for bicycles intended for the transport of several persons.
Children under the age of 12 must wear a helmet: when cycling, when transporting in a bicycle trailer and when being carried on a bicycle.
https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011336
Regulations regarding child transport in trailers and cargo bikes

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§ 68 In principle, only the transport of one child per bicycle and only at the back is permitted. In addition, the seat must be equipped with belts, vertically adjustable leg protection, fixing belts for the feet and a high backrest to support the head.
In use of cargo bikes or trailers: The transport of one or more children with bicycles is also permitted in a transport box, provided that according to the manufacturer it is suitable for the transport of children and is equipped with a belt system which cannot be easily opened by children. The transport box may be placed in front of or behind the handlebars.
https://www.bmvit.gv.at/verkehr/strasse/recht/stvo/fahradvo.html

1.4. Regulations for small businesses - FGM-AMOR/ Austria

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Registered office:
Regardless of whether the business is free or regulated, a company address is required. This can also be a private address if it is also the place of business. If special facilities are operated at the company headquarters, an operating facility permit may be required.

Operating facility approval (Betriebsanlagengenehmigung**)**:
Since the amendment to the Trade Law, mobile street sales have become easier with regard to operating facility approval. Exactly under GewO §74 (1) since this amendment: "A commercial operating facility is to be understood as any locally bound institution which is not intended to serve the development of a commercial activity merely temporarily. According to information provided by the Graz Authority for the operational plan, therefore a mobile sales stand does not belong to a commercial operational plant. On the one hand, a burden wheel is NOT locally bound, on the other hand, the activity is only temporary. If one sells longer than 3 days continuously at a place, then operating plant permission could be necessary for this activity.

Industrial premises:
The registered office is also the location of the industrial premises. An operating facility permit for this operating site is only required if, for example, you carry out food-processing activities or if emissions are produced that could disturb neighbors.

Hygiene:
If food is prepared, wipeable and disinfectable surfaces are important, e.g. acrylic glass or stainless steel. Wood is not allowed to be used as a surface for serving. Contrary to the opinion of some employees of the food authorities, NO washbasin must be installed on the cargo bike. It is sufficient if washbasins are " available " nearby. For example, you can use the washbasin of an adjacent restaurant or a public toilet nearby. This was decided by the Administrative Court of Berlin on the basis of the European Regulation (EC) No. 852/2004 (in Chapter III, Paragraph 2.a).

StVO:
Actually, subject to approval for non-traffic activities on roads. However, § 82 StVO (3c) explicitly excludes "commercial activities on sidewalks or sidewalks without fixed locations" - i.e. no permit is required. In most cases, however, the intended sales location will also be on state territory, which is why the LStVG also applies. Traffic areas where only the StVO applies are federal roads and motorways, i.e. rather unattractive places for mobile street sales.

LStVG:
According to the road administration law of the respective federal state, a permit will be required for the "special use of roads and the associated facilities". Thus the permit for this is dependent on the local politics, as e.g. in § 54 (1) of the Steiermärkischen LStVG. In Graz, no permits are generally given for mobile sales stands of any kind. In smaller municipalities, it is often easier to talk to the mayor and obtain a permit.

Event law (Veranstaltungsgesetz - VAG) of the respective country: The easiest way to sell your goods on the street is to serve them at events. The organizer usually takes care of the permits.

Market regulations:

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This may be possible at markets in a city, depending on the respective market regulations. The best way to find out is to contact the responsible Marktamt. In Graz, for example, an allocation of a site on a market area is rejected because there is not (anymore) enough space available on the markets (due to existing market stands).

Nature conservation:

In order to stand in parks, for example, nature conservation laws and possible green space regulations must be observed. If the landowner (as in the normal case) is the respective municipality, the approval of the City Senate is necessary anyway.

1.5. Decision-making institutions - FGM-AMOR/ Austria

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

Legislative process

Strategies are made by the prevailing governments. Road traffic regulations on the federal level and the building codes on the national level.

The Ministry of Transport, Innovation and Technology table draft laws into the Parliament, prepared by the specialist department. The Transport Committee deals with all draft laws and proposals relating to infrastructure, means of transport and road safety. This includes topics such as the construction and maintenance of roads and local and regional public transport. If the Transport Committee accepts the draft, there will be an amendment to the law. The situation is similar at the national level with the construction code.

https://www.parlament.gv.at/PAKT/VHG/XXVI/A-VE/A-VE_00001_00855/index.shtml

Associations

The **Radlobby Österreich** advocates bicycle-friendly conditions and the acceptance of the bicycle as a fully-fledged means of transport. The Austrian Cycling Lobby was founded in 2013 as a federal association of existing Austrian everyday cycling organizations, each of which operates at the federal state level. As an umbrella organization, Radlobby Österreich represents the interests of cyclists at the national level and as a member of the European Cyclists Federation at the international level. https://www.radlobby.at/impressum

VCÖ - Mobilität mit Zukunft

The VCÖ is a non-profit organization specialized in mobility and transport. The aim of the VCÖ is an eco-friendly, economically efficient and socially sustainable transport system.

The VCÖ was founded in 1988 and works on a European level together with the umbrella organization T&E (Transport & Environment) for a climate-friendly transport system. The VCÖ is largely financed by donations. VCÖ projects are also supported by federal ministries, federal states, cities, and municipalities as well as by companies. https://www.vcoe.at/

Klimabündnis

Is the biggest Climate protection network in Austria; https://www.klimabuendnis.at/impressum

KFV - Kuratorium für Verkehrssicherheit; https://static.kfv.at/

Lobby for MIV; **ÖAMTC**; https://www.oeamtc.at/mitgliedschaft/impressum-offenlegung-und-ecg-information-16182254

ARBÖ

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Appendix II – Local Analysis Report - Copenhagenize/ Denmark (P2)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Copenhagenize/ Denmark

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Denmark has a long tradition of cycling and is one of the most advanced European countries in terms of cycling modal share (1the 6% at national level and 33% in Copenhagen in 2011-2013). Nevertheless, even more, Danes used to cycle on a regular basis in the past. The Danish Ministry of Transport published in July 2014 a new cycling strategy for Denmark: **"Denmark on your bike!"** The document aims to promote cycling as a daily mode of transport as well as cycling tourism. Education and safety are also key parts of the strategy. Furthermore, cycle highways are considered as an important mean to develop cycling in Denmark. In 2013, the government allocated the equivalent of €25.5 million to the construction of cycle highways in and around major Danish cities.

While, the most considerable document that prove the commitment of the City of Copenhagen in embracing bicycles (including cargo bikes) as principal means of transport in the city is **Good, Better, Best – The City of Copenhagen's Bicycle Strategy 2011 – 2025** produced by The City of Copenhagen Technical and Environmental Administration - Traffic Department. The City of Copenhagen's 2011 bicycle strategy details new initiatives and plans, laying down guidelines for the long term and overriding priorities within the bicycle area. These initiatives and plans are intended to help the City reach the goal to become the world's best bicycle city before the end of 2015. The strategy was approved by the City Council on the 1st of December 2011 replacing Copenhagen's former bicycle strategy "Cycle Policy 2002-2012". The Strategy points out that Copenhageners choose the bicycle because it's the fastest and easiest way to get around. If the numbers of cycling citizens are to increase it is all about making the bicycle the fastest and easiest way to get around for even more citizens than today. The Strategy recognizes that is not possible to obtain these kinds of results without a strong prioritizing of bicycle-friendly infrastructure and a will to think out of the box. These are therefore the two central principles in the bicycle traffic area: prioritizing and innovation.

GOALS 2025

MODAL SPLIT FOR BICYCLES:

- The share of all trips by bicycle to work and school in Copenhagen (2010: 35%) - 50%

QUALITY:

- The share of the network that has three lanes (2010: 25%) - 80%
- Relative to 2010, cyclists' travel time is reduced by 15%
- Percentage of Copenhageners that feel safe cycling in traffic (2010: 67%) - 90%
- Relative to 2005, the number of seriously injured cyclists will fall by 70%
- Percentage of Copenhagen cyclists who find the cycle tracks well maintained (2010: 50%) - 80%
- The share of citizens who think that bicycle culture positively affects the city's atmosphere (2010: 67%) - 80%

TRAVEL TIME

- Implementing **c**ycle Highways (a network of routes in the capital region).
- Implementing small short cuts (200-400 in all, including contraflow on one-way streets, shunts, etc.).
- Implementing large short cuts (5-8 bridges/underpasses).
- Implementing ITS on, for example, routes with synchronized green traffic signals for cyclists.
- Promoting E-bikes for longer commuting trips

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- Information about the best routes (wayfinding signage, GPS solutions).
- Implementing lower speed limits for cars where necessary, for example around schools.
- Implementing a better combination of metro/train/bus and bicycles, including a bike share program and better parking facilities at stations.
- Increased population density.
- Behavioral campaigns focusing on signaling and overtaking with care.
- Cooperation with the police regarding changing traffic laws, including creating contraflow on one-way streets, as well as solutions that make it possible to turn right at red lights.

SENSE OF SECURITY

- **"**Green" off-street bicycle routes.
- Intersection redesign (including cycle tracks running right up to the intersection as standard and pulled backstop lines for cars).
- Wider cycle tracks where there are bottlenecks.
- New cycle tracks and lanes (30-40 km).
- Wider cycle tracks in general (10-30 km).
- Painting lanes on wide and busy cycle tracks.
- Bicycle and bus streets.
- Campaigns related to consideration and behavior.
- Safer routes to schools.
- Traffic policy at various schools in Copenhagen.

COMFORT

- Smoother asphalt on the cycle tracks.
- Improved snow clearance and sweeping.
- Effective bicycle parking also for cargo bikes (infrastructure, partnerships, and collecting abandoned bicycles).
- Services (air pumps, fountains, 'bicycle buddy' apps, weather reports, etc.).
- Partnerships with workplaces and educational institutions regarding bicycle facilities and information.
- Better conditions for city employees (parking, changing rooms, bike repair, etc.).
- Development of new products (valet parking for cyclists, surface treatment for cobblestones, etc.).

1.2. Road and traffic regulations – Copenhagenize/ Denmark

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

Focus on Cycling published by the Technical and Environmental Administration Traffic Department is addressed to bicycle consultants in the City of Copenhagen translating the City of Copenhagen's traffic policies into practical guidelines on the project level. The document helps to achieve the City's priorities for safe, encouraging, and comfortable infrastructure.

The traditional and time-tested solutions of the Danish Road Standards for city areas are the fundamental code of practice in Copenhagen. Almost all the Road Standards are formulated as guidelines thereby providing ample opportunity to develop workable solutions. Copenhagen and other cities are currently implementing innovative solutions – pilot projects that sometimes require dispensation from the Road Standards that will gradually become mainstream and be incorporated into the Road Standards. Copenhagen has a special focus on designing intersections that are safe, easily passable for cyclists, and where they feel secure so as several facilities that go from cargo bike parking to supports for cyclists in the proximity of traffic lights.

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Cycle Track Widths: recommended width of one-way bicycle track in an urban area: 2.25 m (1.8 m minimum). If next to the parking lane: add 0.1 m extra.

Signalized junctions recommended measures:
A separate right turn lane for cars
Advanced stop lines
Blue bicycle crossings
Designated traffic signals
Truncated bicycle track
Several registration taxes are increasingly reducing the purchase of cars. Registration tax, weight tax, green vehicle tax are just a few of them. Since 2016 also the exemption for electric motors is no longer available and except from hydrogen-powered cars all the motorized vehicles registered in Denmark have to pay taxes that easily overcome the 120% of the value of the vehicle.

For what regards the usage of electrically assisted bikes the Danish Parliament has decided to approve the speed pedelec – a type of super electric bike that can reach speeds of up to 45 km/hour – for riding on cycle paths. The Parliament has decided that those operating the superbikes only need to have turned 15 and wear a helmet, while the license and number-plate demands will no longer be in play.

1.3. Safety and child transport legislation - Copenhagenize/ Denmark

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

According to Article 70, 85 and 118 of the Road Traffic Act, cf. Legislative Decree No. 1386 of 11 December 2013, as amended by Act No. 373 of 14 April 2014 and Act No. 384 of 27 April 2016 **it is now legal to drive up to six children by cargo bicycle** if the bicycle is adapted to it.

Denmark has introduced new legislation that allows cyclists with cargo bikes to transport a total of six children. Previously, Danish law allowed only four children in a cargo bike. But now the Danish Road Safety Agency has declared that six can travel as long as the bicycle is adapted to their height and weight and that there is enough seating and facilities to securely fasten them in the trailer.

1.4. Regulations for small businesses - Copenhagenize/ Denmark

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

It has always existed a strong correlation between cargo bikes and street vending in Denmark. This tool has always satisfied multiple types of service demand from the national post service to the ice-cream man. Applying for permission for mobile street vending in Copenhagen it's quite simple. It's possible to demand permission for mobile street vending from e.g. Christiania bikes, coffee scooters, and food trucks, while for selling in parks owned by the City of Copenhagen you have to pay market rent.

Examples of small approved mobile vending carts are: Christiania bikes and carrier bikes, Coffee scooters/Ape Cars, Hand carts (max-width 120 cm and max-length 150 cm) and registered motor vehicles such as small electric cars. It's also possible to use homemade vending carts just attaching a picture/sketch of what the cart will look like. With a permit for a small mobile sales cart of under 2.5 m2, it's possible to carry out mobile street vending activities in most parts of the City of Copenhagen. Among other things, this includes public spaces, squares, pavements wider than 2 meters, pedestrian street areas and square-like street areas. The retailer must pack up the mobile vending cart every night and move it. It's possible to put it up again at the same place the next day, but it must be removed during the night. Is not possible to leave the sales vehicle unattended.

1.5. Decision-making institutions - Copenhagenize/ Denmark

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

The Technical and Environmental administration is responsible for the City of Copenhagen's environmental and climate activities, development of the traffic area, development of new urban areas and for a number of authoritative functions. In addition, the Technical and Environmental administration is in charge of the City's green

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areas. The activities portfolio covers operation and construction activities in relation to roads and parks, parking facilities, the operation of cemeteries and cleaning services. Also, the administration is in charge of the implementation of strategic plans, such as the CPH 2025 Climate Plan and policies for vulnerable urban areas.

2. Local Involvement

2.1. Local CCCB project team - Copenhagenize/ Denmark

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	James Thoem	Project manager	james@copenhagenize.eu	+45 93 87 12
2	Lorenz Siegel	Design associate	lorenz@copenhagenize.eu	

2.2. The Decision on implementing CCCB project - Copenhagenize/ Denmark

List of departments/ persons involved in decision making regarding **the** implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	City of Copenhagen	Marie Kåstrup	Program Manager	Environment and Traffic

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Appendix IV – Electric bikes in EU - ECLF/ UK (P4)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – ECLF/ UK

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Cargo bikes adoption can be influenced by rules and regulations on electric cycles in the EU

All electric bikes, except those with assistance up to 25 km/h and a maximum continuous rated power of 250W, must comply with the European harmonized technical rules laid down in type-approval legislation. 2016 was a transition year during which manufacturers could choose between type-approval according to Directive 2002/24 or according to Regulation 168/2013. Since January 2017, all new electric bikes subject to type-approval must comply with the rules laid down in Regulation 168/2013 and its delegated and implementing acts before they can be distributed on the European Union.

Type approval

For clarity, in the following text pedelec means a bicycle with a motor that only functions on condition the cyclist pedals, whilst e-bike means a bicycle that can be propelled by the motor itself irrespective of the cyclist pedaling. In principle, all electric cycles with two, three or four wheels come under the type-approval as set out in Regulation 168/2013, the three supplementing, Technical Regulations and the implementing, administrative Regulation. Electric bikes used for competition, electric mountain bikes, pedelecs 25 km/h – 250 W and electric recumbent cycles with a seat height below the specified limits are not in the type-approval. An EU standard is under development (CEN/TC 354 “Light electric vehicles and self-balancing vehicles”), including the following types:

L- Category	Technical specifications	Number of wheels
L1e-A – “powered cycles”	Max. power: > 250 W – < 1 kW Max. speed: 25 km/h Pedal assistance + Motor only	2, 3 and 4 wheels
L1e-B – “mopeds”	Max. power: < 4kW Max. speed: 45 km/h Pedal assistance + Motor only	2 wheels
L2e – “three-wheel moped”	Max. power: < 4kW Max. speed: 45 km/h Pedal assistance + Motor only Max. mass: <270 kg Max. 2 seats	3 wheels
L6e – “light quadricycle”	Max. speed: 45 km/h Pedal assistance + Motor only Max. mass: <450 kg Max. 2 seats	4 wheels

Table 1. Types of light electric vehicles

Type approval tests for electric bikes includes equipment like audible warning device, braking, electrical safety, endurance testing, driver controls, lighting and signaling, rearward visibility, seating position, tires, steerability, speed, structure integrity, anti-tampering measures, masses and dimensions, propulsion performance, etc.

The type-approval legislation is made up of the framework Regulation 168/2013, which lays down the basis of the type-approval. The competence for this law was with the European Parliament and Council. All technical and administrative details, however, were in the hands of the European Commission, who laid these down in 4 Regulations (https://ec.europa.eu/growth/sectors/automotive/legislation/motorbikestrikes-quads_en):

- Delegated Regulation on functional safety (Regulation 3/2014)
- Delegated Regulation on vehicle construction (Regulation 44/2014)
- Delegated Regulation on environmental and propulsion unit performance (Regulation) 134/2014)
- Implementing Regulation on administrative provisions (Regulation 901/2014)
- Amendments: Regulation 2016/1825 for the administrative requirements and Regulation 2016/1824 for the technical requirements.

Standards

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EN 15194 (EPAC – Electrically Power Assisted Cycles), General Product Safety Directive (GPSD), 2001/95/EC; EN 14764 / ISO 4210 - Bicycle parts; DIN 79010 for electric cargo bikes; EN 50604/ 2016 Lithium-ion batteries.

Other Legislation applicable

General Product Safety Directive (GPSD) 2001/95/EC
Directive 2006/42/EC - Machinery
Directive 2014/30 - Electromagnetic compatibility.
Directive 2011/65/EC - Restriction of hazardous substances in electrical and electronic equipment
Directive 2006/66/EC - Batteries
Directive 2012/19/EU on the waste of electrical and electronic equipment (WEEE)

TERMS OF USE FOR ELECTRIC CYCLES

Most of the rules governing the use of electric cycles, however, have not been harmonized. In the main, they still, **belong to the competence of the member states** and that creates problems. This concerns the rules governing: helmet obligations; number plate; insurance; traffic code; age limits; driving licenses; fiscal/ financial incentives.

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Appendix VI – Local Analysis Report - Cambridgeshire/ UK (P6)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers - Cambridge/ UK

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Not found specifically favorable or restricting policy papers for cargo bikes. General policies for bikes already presented in D2.1. are covering this area.

1.2. Road and traffic regulations - Cambridge/ UK

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

No road or traffic regulations found specifically for cargo bikes. No license needed; cargo bikes can use footpaths, shared use paths, cycle lanes or roads in the same way that normal pedal bikes can. Cyclists must obey the same Highway Code like all other road users. Electric assist motors are limited to 15.5mph (both cargo bikes and normal electric bikes) but pedaling is allowed above 15.5mph. Riders of electric bikes must be age 14 or over. Cargo bikes do not need to be taxed, registered or insured.

1.3. Safety and child transport legislation - Cambridge/ UK

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Not found special legislation regarding safety and child transport with cargo bikes, general requirements apply.

1.4. Regulations for small businesses - Cambridge/ UK

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Laws in place and licenses required by small businesses (trading standards, food safety certificates, hawker's license, street trading license, pedlar's license, business rates etc.) apply.

However, there are no exceptions for cargo bikes and no differences between trading from cargo bikes and other venues.

1.5. Decision-making institutions - Cambridge/ UK

This sub-section lists possible institutions involvthe ed in approval of cargo bikes usage and CCCB implementation approval.

- Driver and Vehicle Licensing Agency (DVLA): responsible for holding records of all UK drivers and vehicles.
- Highways England: Operates, maintains and improves England's motorways and major A roads.
- Cambridgeshire County Council: The local highway authority responsible for all local roads.
- Department for Transport: Supports the transport network and invests in transport infrastructure for all modes of Transport.
- Cambridge City Council: Provides street licenses and sets business rates).
- Cambridgeshire Police: issues Pedlar's licenses.

2. Local Involvement

2.1. Local CCCB project team - Cambridge/ UK

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Susan Rooke, Senior Project Officer	Lead on CCCB project	susan.rooke@cambridgeshire.gov.uk	+44 1223 715951

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2	Simon Manville, Project Manager	Working on the CCCB project	simon.manville @cambridgeshire.gov.uk	+44 1223 728411
3	Mike Davies, Team Leader	Team leader, resource if required	mike.davies @cambridgeshire.gov.uk	+44 1223 699913

2.2. The Decision on implementing CCCB project - Cambridge/ UK

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Cambridgeshire County Council		Decisional	Growth and Economy
2	Cambridge City Council		Decisional	

2.3. Local CCCB potential partners - Cambridge/ UK

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	Outspoken Cycles/Zedify	Company	Rob King	Director
2	CamCycle	Cycling campaign group	Anna Williams	Coordinator
3	Sustrans	Walking and cycling charity		
4	You Can Bike Too	All ability cycling project		
5	Cargo bike retailers	Local cycle shops		

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Cambridge/ UK

a) Target area

Cambridge City, UK. Mainly the city center, although Cambridgeshire County Council's responsibilities to cover the whole county so where appropriate the project may cross the city boundaries.

Fig.1. Project target area (central Cambridge)

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b) Traffic conditions

Cycle lanes exist in some places, although most cycling is still done on quiet roads. We are gradually retrofitting cycle lanes to roads when funding becomes available.
Other features across the city include extensive cycle parking, advance cycle stop boxes, advance green cycle traffic lights, cycle zebras and cycle lane bus bypasses.
Approx 85% (132 miles) of the total road network in Cambridge City is covered by a 20mph limit.
The Bike Life Project run by SusTrans is currently collecting a lot more data which should be available by the end of 2019. This will include information on:

- The total length of cycle routes of various types
- Percentage of the length of all streets covered by the 20mph limit
- Number of spaces for public bike parking
- Average number of train passengers per bike parking space per day
- Reported cycle thefts
- Bike share schemes
- School trips data
- Workplace trips data
- Estimate of average speed in the city

c) Potential clients/ users

Cargo bikes are already extensively used by families for the school run and Zedify (formally Outspoken) have an established cargo bike delivery business in the city. However, very few cargo bikes are used by businesses or services, which we believe is our biggest opportunity for increasing users.

3.2. Actual existing initiatives in the same target area – Cambridge/ UK

Cargo bikes are already extensively used by families for the school run and Zedify (formally Outspoken) have an established cargo bike delivery business in the city. However, very few cargo bikes are used by businesses or services, which we believe is our biggest opportunity for increasing users.

4. Existing local traffic management and simulation tools – Cambridge/ UK

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.
It doesn't exist traffic management in the area as well as traffic modeling tools to model potential new infrastructure (Paramics).

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Appendix VII – Local Analysis Report - Donostia – San Sebastian/ Spain (P7)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Donostia – San Sebastian/ Spain

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Cargo bikes at municipal ordinance level in San Sebastian, are considered as a cycle as long as they do not exceed 250w of power in the case that they have electrical assistance, otherwise being not considered cycles.

The municipal ordinance of circulation of San Sebastian in its title IV establishes the conditions of use of bicycles in the municipal scope.

More specifically, the Txita cargo-bike merchandise delivery company was granted a specific authorization to circulate under certain specific conditions in the historic part of the city that is reserved only for pedestrians.

1.2. Road and traffic regulations – Donostia – San Sebastian/ Spain

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

- Royal Decree 1428/2003, General Circulation Regulation. National Level
- Royal Decree 6/2015, Traffic Law, Circulation of Motorized Vehicles and Road Safety. National Level.
- Royal Decree 2822/1998, General Vehicle Regulation. National Level
- Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles.
- Municipal Ordinance of Circulation of Pedestrians and Vehicles 2006. Local Level.

1.3. Safety and child transport legislation – Donostia – San Sebastian/ Spain

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

The only reference regarding the general regulation of circulation approved by royal decree on the transport of passengers by cycles and bicycles establishes that these vehicles will be able to take a tow of certain characteristics, as long as they do not transport passengers. Therefore, at the national level, the transport of passengers by cargo-bikes is not contemplated.

However, the San Sebastian municipal traffic ordinance states in its article 50, that bicycles may tow a trailer or semi-trailer for the transport of all types of packages and children, in duly certified or approved devices, with the limitations of weight that those devices stipulate.

In addition, it is authorized to transport when the driver is of legal age, a child up to seven years old in chairs attached to bicycles, with the weight limitations that those devices stipulate.

This article is considered an advance to what is stipulated in the general circulation regulation.

1.4. Regulations for small businesses – Donostia – San Sebastian/ Spain

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Businesses related to street food sales do not have a specific regulation regarding mobility, beyond the requirements they may already have based on their economic activity and related to health.

1.5. Decision-making institutions – Donostia – San Sebastian/ Spain

This sub-section lists possible institutions involved in approval of cargo bikes usage and CCCB implementation approval.

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The hierarchy of institutions in decision-making is ordered according to territorial scope. In this way, we start from a national scope, passing through the regional, provincial and finally local:

- National level: General Direction of Traffic
- Regional Level: Traffic Direction of the Basque Government
- Provincial Level: Mobility department and road infrastructures of the Provincial Council of Gipuzkoa
- Local Level: Donostia / San Sebastian Municipality.

2. Local Involvement

2.1. Local CCCB project team – Donostia – San Sebastian/ Spain

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Leire Agirre	Project Manager	Leire_aguirre@donostia.eus	+34 943481371
2	Tamara Gomez	Technical Expert	Tamara_gomez@donostia.eus	+34 943481372
3	Iñaki Baro	Technical Expert	Inaki_baro@donostia.eus	+34 943481591
4	Fermin Echarte	Technical Expert	Fermin_echarte@donostia.eus	+34 943 481449

2.2. The Decision on implementing CCCB project – Donostia – San Sebastian/ Spain

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Donostia / San Sebastian	Jone Argoitia	Director	Mobility
2	Municipality of Donostia / San Sebastian	Josu Benaito	Director	Environment

2.3. Local CCCB potential partners – Donostia – San Sebastian/ Spain

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	Observatorio de la Bicicleta	Observatory		
2	Kalapie	Cyclist association		
3	Txita	UFD Cargo Bike company	Dani Ruiz	CEO
4	MLC Cluster de Logística y Movilidad	Logistic and Mobility association	Fernando Zubillaga	Managing Director
5	Donostia Shop	Urban Commerce Platform		
6	Intelligent Parking	Mobility-oriented access control services		
7	Heladeria Arnoldo	Ice cream shop		
8	UPS, DHL, Seur	Courier services		
9	Panadería Basterra	Bakery		
10	Feel Free	Laundry services		
11	People Rental	Laundry services		
12	Schools & Kindergartens (including parents associations or similar)			

3. Project implementation area

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Donostia – San Sebastian/ Spain

a) Target area

The initial target area is the flat areas of the city, which represent approximately 50% of the city and that is where the area of greatest daily activity is located.

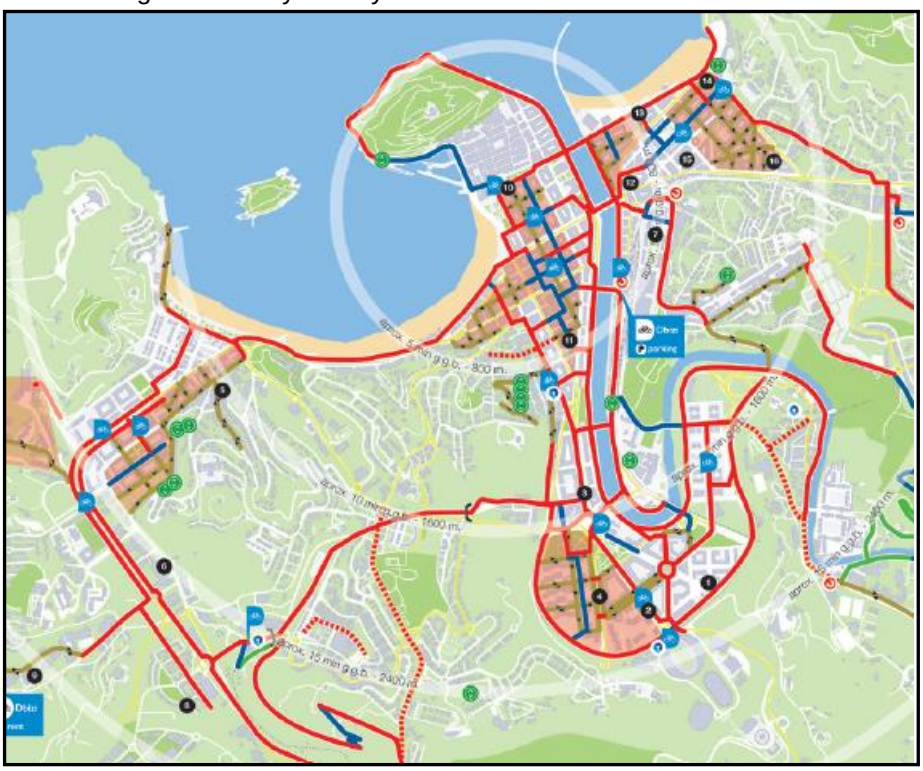

Fig.1.Main bicycle lanes in central San Sebastian (project area)

b) Traffic conditions

Initially, flat terrain and normal infrastructure and traffic are considered. Once that area is consolidated, it would be valued to extend the target area to hilly areas.

c) Potential clients/ users

Courier services, schools & kindergartens, laundry services, shop & supermarket delivery services, urban cleaning services, private citizenship.

3.2. Actual existing initiatives in the same target area – Donostia – San Sebastian/ Spain

Many of the initiatives that have been carried out in the city have been initiated by the Txita company. Although the company was created with the purpose of being a merchandise delivery company, its business has been extended to other services related to cargo bikes.

Among these new businesses, during the summer they offered bike-taxi services, and more recently they launched the "cycling without age" initiative. Apart from that, they are distributors of cargo bicycles, offering sale, rental and maintenance services.

On the other hand, companies have been set up in the city to offer laundry services to tourist flats in the city, which have acquired or rented cargo bikes to carry out their work.

Individually or spontaneously, there are stores that have purchased the cargo bicycle as a promotional element of their business, linking the cargo bicycle to their activity, as is the case of an ice cream shop or bakery.

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Finally, the municipal cleaning services have been using cargo bikes for a few years to carry out cleaning works in the city.

Fig.2. Examples of cargo bikes usage in San Sebastian

4. Existing local traffic management and simulation tools – Donostia – San Sebastian/ Spain

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

At this moment, San Sebastian has a traffic management system, including an operational traffic dispatch. For traffic simulations, A special software is used (Aimsun) for traffic simulations, but not for modeling the transport system.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix VIII – Local Analysis Report - Utrecht/ Netherlands (P8)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Utrecht/ Netherlands

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

The city of Utrecht has a policy document named „The traffic and transport policy". It's also about logistics, and only specify that „the cargo bike is important but the private companies are responsible for the use and growth of this means of transport". The city of Utrecht has no active promotion policy for cargo bikes.

1.2. Road and traffic regulations – Utrecht/ Netherlands

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

In the Netherlands, there are no local traffic laws and rules. There is only one national traffic law. In the national traffic law, it's regulated that a cargo bike is a bicycle. The maximum width of a 2-weel bike is 0,75 m and the maximum width of a 3 or 4 weel bike is 1,50 m. A trailer (bicycle trailers are more popular in the Netherlands than cargo bikes) can be 1,00 m wide. A 2-wheel cargo bike has to use the bicycle path. When there is no bicycle path, it can use the road. A 3 or 4-wheel cargo bike can use the bicycle path or the road by choice.

1.3. Safety and child transport legislation – Utrecht/ Netherlands

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

There are no specific rules for safety and child transport using cargo bikes, but rules for carrying a child on a normal bicycle apply. Children under the age of 8 have to sit on a safety seat. For a child that has reached the age of 8 years, there are no special rules. Up to six children can be carried on a cargo bike, under some conditions.

1.4. Regulations for small businesses – Utrecht/ Netherlands

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

There are no special rules. For selling goods on the streets (e.g. food stalls) you need a permit from the local authorities.

1.5. Decision-making institutions – Utrecht/ Netherlands

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

-

2. Local Involvement

2.1. Local CCCB project team – Utrecht/ Netherlands

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Jan Bloemheuvel	Project manager	j.bloemheuvel@utrecht.nl	
2	Ruud Ditewig	Bicycle programms	r.ditewig@utrecht.nl	
3	Mark Degenkamp	City Logistics Officer		
4	Alex Tsakmakis	Policymaker for the inner city		

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2.2. The Decision on implementing CCCB project – Utrecht/ Netherlands

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Utrecht	Mobility department - Logistics		
2	Municipality of Utrecht	Alex Tsakmakis	Manager	Inner City policy

2.3. Local CCCB potential partners – Utrecht/ Netherlands

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

At this moment, the municipality hasn't defined a list of partners yet.

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Utrecht/ Netherlands

a) Target area

The main target area is the historical inner city of Utrecht.

Fig.1. Central Utrecht project implementation area and existing bicycle lanes

b) Traffic conditions

To promote indoor bicycle parking in the Utrecht shopping and business district, the city of Utrecht has developed the so-called 'service bicycle parking' concept for the new Zadel-straat bicycle parking in 2014. This means a step-free bicycle parking with a host instead of a guard, buggy's, lockers, coffee and information point, e-bike charging, WiFi, do-it-yourself repair and shared cargo bikes. Due to the medieval structure of this district, car parking and public space is limited. An ideal environment for cargo bikes. The pilot 'shared cargo bikes' is a collaboration between the municipality of Utrecht and IBC.

c) Potential clients/ users

Logistics, transport, delivery and some food and drink selling companies may be interested in using cargo bikes.

3.2. Actual existing initiatives in the same target area – Utrecht/ Netherlands

DHL, IKEA, Cool Blue, and several small businesses deliver goods by cargo bike.

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4. Existing local traffic management and simulation tools – Utrecht/ Netherlands

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

Car traffic condition in Utrecht is displayed in real time on internet platforms like https://wego.here.com/traffic/netherlands/utrecht?map=52.07046,5.08947,13,traffic. Like other cities in the Netherlands, Utrecht has a traffic incidents management platform.

Utrecht experienced a spectacular growth of the use of the cargo bike for city logistics by transport companies, but there are no data on this growth. The only cargo bike project in which municipality was involved, was a pilot of rental cargo bikes (3 bikes) in one of bicycle parking, between 2014 and 2018. This pilot project ended last year and it not was continued because of the costs.

An older project used Flowmap for modeling traffic in the central area of Utrecht (below is a model of expected traffic).

Fig.2. Traffic map in central Utrecht

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Appendix IX – Local Analysis Report - Oslo/ Norway (P9)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Oslo/ Norway

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

In both the Environmental strategy as well as the National transport strategy 2018-2029 (*Stortingets klimaforlik* and *Nasjonal Transport plan 2018–2029)* the Norwegian government has declared that any further growth in passenger transport is to be taken by walking, cycling and public transport. To be able to achieve this, about 20 percent of all journeys within the larger cities of Norway must be undertaken by bicycle.

At a local level, the Municipality of Oslo has decided on several strategical documents stressing the importance of investing in bicycle infrastructure and other initiatives that will decrease the number of cars and lower the car usage in Oslo. Both the municipal development plan (*Oslo mot 2030 – Smart – Grønn – Trygg), as well as the Climate and Energy Strategy for Oslo (Klima og energistrategi for Oslo),* emphasize the importance for Oslo to become more bicycle friendly, in order to decrease car usage. The Climate and Energy Strategy for Oslo has also established a goal for what percentage of all the journeys that should be carried out by bicycle in 2020 and 2025. The goal is to increase to 8 percent in 2015 to 16 percent in 2020 and 25 percent in 2025.

The main document on how Oslo shall become a more bicycle-friendly city is the bicycle strategy for Oslo (*Sykkelstrategi for Oslo 2015-2025*). Most of the work that is being done in operations and maintenance, bicycle parking, signage and roadmap, investigation and analysis and within the field of communication has its mandate from the bicycle strategy. In accordance with the strategy, one of the most important initiatives in order to increase the number of cyclists is to establish a comprehensive network of cycling infrastructure. In the Bicycle infrastructure plan (*Plan for sykkelveinettet i Oslo)* Oslo Municipality and the National Road Administration commit themselves expand the cycling network from about 200 kilometers in 2018 to 280 kilometers in 2025, and then further to 530 kilometers before 2040. They also commit themselves to that everything that is building new or upgraded must meet the Oslo standard (*Oslo standard for sykkeltilrettlegging).* Likewise, there is also an ambition that all new bicycle parking that is established by Oslo kommune should meet certain standards enabling, for example, cargo bikes to be more easily parked in the city (*Sykkelparkering i det offentlige rom*).

1.2. Road and traffic regulations – Oslo/ Norway

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

In general, the Norwegian traffic rules and regulations are in standard with the rest of Europe, with the exception that it is legal to bike on pavements. Regulations regarding the effect of helping motors are the same as in the European Union.

Since a few years, back new and upgraded infrastructure build by the Municipality of Oslo and the National Road Administration in Oslo as well as most bicycle parking are built in accordance to *Oslo standard for sykkeltilrettlegging* and *Sykkelparkering i det offentlige rom* and dimensioned for cargo bikes.

1.3. Safety and child transport legislation – Oslo/ Norway

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

There are no specific regulations with regard to child transport using a cargo bike in Oslo.

1.4. Regulations for small businesses – Oslo/ Norway

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

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Mobile food services must have the following documentation:
- Certificate of tax and value-added tax not older than three months
- HMS (Health, Environment, Saftey) declaration filled out and signed
- Company registration certificate
- Credit rating/rating, not older than three months, and based on the latest known accounting figures
- License to serve food
- Drivers license class B
- Vehicle registration.

1.5. Decision-making institutions – Oslo/ Norway

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.
- City Department of Environment and Urban Planning (Byrådsavdelingen for miljø og samferdsel
- Urban Environment Agency (Bymiljøetaen)
- Climate Agency (Klimateten)
- Planning and Building Agency (Planning- og bygningsetaten).

2. Local Involvement

2.1. Local CCCB project team – Oslo/ Norway

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project manager	Supervise and coordinate project local team	dayton.skjerve-gordley@bym.oslo.kommune.no	
2	Communication manager	Responsible for communication plan and social media, awareness raising and campaign measures	ellen.paalgard@bym.oslo.kommune.no (replaced by Line Sofie Uldal in February)	
3	Technical expert	Coordinate infrastructure measures	simon.ohlin@bym.oslo.kommune.no	
4	Finance expert	Responsible for accounting and finance reporting	endre.jandl@uke.oslo.kommune.no	
5	Evaluation and analysis expert	Coordinate evaluation and monitoring measures	johan.raustorp@bym.oslo.kommune.no	

2.2. The Decision on implementing CCCB project – Oslo/ Norway

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Urban Environment Agency	Rune Gjøs	Director	Mobility division
2	City Department of Environment and Urban Planning	Lan Marie Nguyen	Councilor	
3	Urban Environment Agency	Liv Jorun Andenes	Director	Department of Walking and Biking

2.3. Local CCCB potential partners – Oslo/ Norway

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

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At this stage in the project, we do not have any formalized local partners. The following table concerns potential partners for the CCCB project based on current information regarding their activities.

No.	Institution/ organization	Type	Role
1	EVO El-Sykler	Dealer of electric and cargo bicycles	Oslo municipality has a joint venture agreement with EVO for the procurement of electric bicycles.
2	Oslo City Bikes	A private company in charge of administrating and developing the city's city bicycle scheme	Oslo municipality has a contract with Oslo City Bikes. Independently of this contract, they are soon underway with a pilot for renting out cargo bike project in 2019 in the inner city.
3	Bilkollektivet SA (The Car Collective)	Car-share Cooperative in Oslo	In August 2018 they started to rent out two types of cargo bikes in the inner city.
4	Smarter transport in the Oslo-region (STOR) project	A cooperative project between The Norwegian Public Roads Administration, The City Environment Agency of Oslo and Ruter (a common management company for public transport in Oslo and Akershus)	The project focus is testing out of new and innovative mobility services and optimizing existing services. This includes combined mobility to simplify daily logistics and reduce the need for private car ownership. https://www.vegvesen.no/vegprosjekter/stor
5	Climate Agency	The municipal agency in Oslo	Responsible for the municipality's grant schemes for cargo bicycles to individuals and businesses.

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Oslo/ Norway

a) Target area

We are looking at 2-3 target areas in Oslo (Sagene, Hellerud and/or Holmlia).

Fig.1. Oslo and surrounding area

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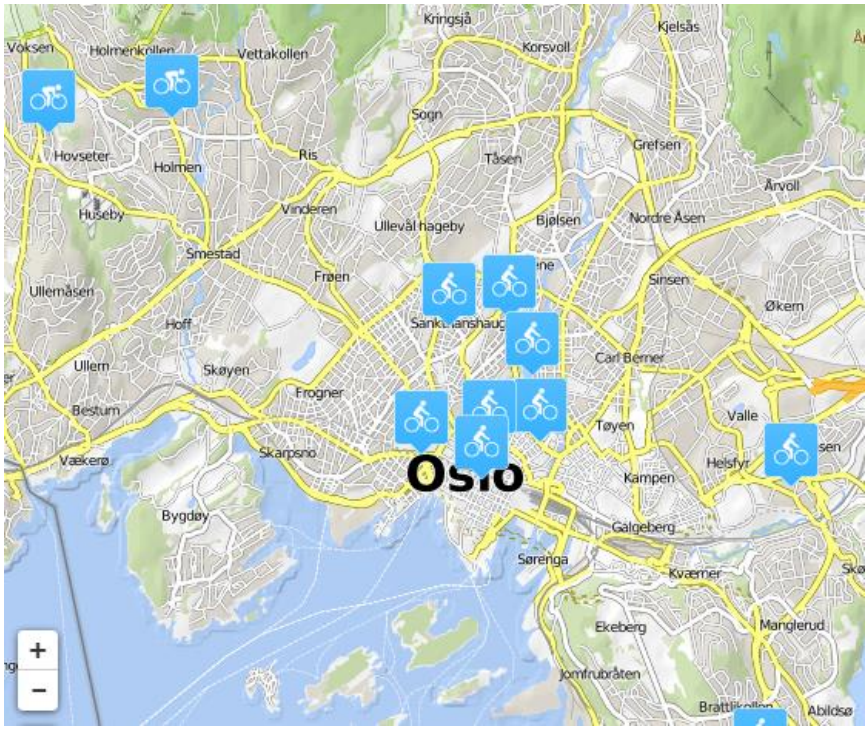

Fig.2. Main bicycle lanes in Oslo (bikemap and route planner)

b) Traffic conditions

We have chosen areas which already have good bicycle infrastructure, preferably bike lanes that are separated from the main road.

c) Potential clients/ users

Target groups are private persons, but also businesses within the municipality (health care institutions), the local library (for cargo bike borrowing) and housing associations.

3.2. Actual existing initiatives in the same target area – Oslo/ Norway

Initiative	Started/finished	Budget	Results
Grant scheme for procurement of electric bicycles for municipal services	01.01.17 – on-going	2017: 480 000 EUR 2018: 880 000 EUR 2019: 100 000 EUR	Grant scheme is under evaluation. The grant scheme has supported the purchase of 260 electric bikes and 55 electric cargo bikes.
Grant scheme for procurement of electric bikes for private individuals	2016	525 000 EUR (5 215 000 NOK)	1043 private individuals received a grant commitment of 5000 NOK (500 EUR). Of these, only 695 applied to be reimbursed.
Grant scheme for procurement of electric cargo bikes for private individuals	2017	300 000 EUR (3 000 00 NOK)	298 private individuals received a grant commitment of 10000 NOK (1000 EUR). Of these, only 152 applied to be reimbursed.
Grant scheme for procurement of electric cargo bikes for businesses and organizations	2017	200 000 EUR (2 000 00 NOK)	170 businesses/organizations received a grant commitment of 10000 NOK (1000 EUR). Of these, only 52 applied to be reimbursed.
Grant scheme for procurement of electric	2018	200 000 EUR (2 000 00 NOK)	60 businesses/organizations received a grant commitment of 10000 NOK (1000 EUR). Of

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cargo bikes for businesses and organizations			these, only 5 applied to be reimbursed.
Grant scheme for procurement of electric cargo bikes for businesses and organizations	2019	200 000 EUR (2 000 00 NOK)	

Table 1. Existing cargo bikes projects in Oslo

4. Existing local traffic management and simulation tools – Oslo/ Norway

Oslo Municipality (in collaboration with Regional Motorway Authority, SVRØ) has developed an Aimsun traffic model for the city (AOM). The model covers the city boundaries and is run in mesoscopic level with some areas run at a microscopic level. Origin/Destination (O/D) matrices include private vehicles, commercial traffic, and public transport. O/D matrices are based on EMME macroscopic model (RTM23+) for the Oslo metropolitan area (Oslo and Akershus). EMME model includes O/D matrices for all transport modes (including bicycles). Bike infrastructure and bike distribution are not included in the existing Aimsun model. We simulate bike traffic in area-specific models "clipped" out of the city-wide model when needed. Simulation of bicycle traffic for the whole city is functionality we would be interested to work within the future.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix X – Local Analysis Report - Mechelen/ Belgium

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Mechelen/ Belgium

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

In November 2017 the Flemish government issued the 'Introduction to bicycle logistics' policy paper. This paper covered the basics of cargo bikes and also methods to stimulate their use, such as giving financial and kind aides, taking awareness measures and creating a favorable environment and policy framework.

An increasing number of cities are also implementing car-free, car-limited streets or traffic circulation plans in their city centers. A few examples can be found in Ghent, Mechelen, and Leuven. Also, some larger cities, such as Brussels and Antwerp are now enforcing low-emission zones. These measures can be framed among reducing pollution and increasing livability in cities. Cargo bikes have the advantage that they're still able to move around these areas freely, usually without any time- or direction-constraints.

1.2. Road and traffic regulations – Mechelen/ Belgium

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

Terminology

The Belgian traffic law makes the distinction between *fietsen* and *rijwielen*. Because the English translation for both of these words is the same, the Dutch name will be used with the explanation.

"Rijwiel" is considered as every vehicle with two or more wheels, that is being moved through pedals or handles by one or more users and isn´t motorized.

"Fiets" is a type of *rijwiel* with two wheels.

This distinction is very important also for cargo bikes because the laws for *rijwielen* and *fietsen* can differ. Also, *rijwielen* are not considered vehicles anymore when there is no one driving them, which has implications for parking rules.

Three types of *rijwielen* are considered in Belgian law:

1. Bikes (*rijwielen*): bikes without additional electrical or engine support or electrical or engine support (up to 0.25 kW) up to a maximum speed of 25 km/h.
2. Motorized bikes (*gemotoriseerde rijwielen*): bikes with additional electrical or engine support (up to 1 kW), up to a maximum speed of 25 km/h. The minimum age for driving a motorized bike is 16, though no driver license is needed.
3. Speed pedelecs: bikes with additional electrical or engine support (up to 4 kW), up to a maximum speed of 45 km/h. These bikes are classified as a moped class P. A moped driving license is needed for this kind of bike. Users are required to wear a helmet.

A summary is made in the table below:

Name	Wheels	Max. speed	Engine support	Minimum age/license required	Helmet required	Registration required
Rijwiel	≥ 2	None (engine support up to a speed of 25 km/h)	None or up to 0,25 kW	No	No	No
Fiets (a subcategory of *rijwiel*)	2					

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Gemotoriseerd rijwiel (motorized bikes)	2-4	Engine support up to a speed of 25 km/h	Up to 1 kW	16 years	If >2 wheels	Yes
Speed pedelecs (moped class P)	2	Engine support up to a speed of 45 km/h	Up to 4 kW	Driving license (can be acquired when 16)	Yes (crash helmet or cycling helmet)	Yes

Table 1. Main vehicle types in Mechelen

There are even more laws and distinctions made in terms of terminology, but considering cargo bikes these are the most general ones.

Use of bicycle lanes

A bicycle lane is a part of the road that is reserved for *fietsen* and moped class A. Therefore the use is restricted to certain *rijwielen* with only two wheels. Since cargo bikes are mostly equipped with 3 or 4 wheels, the rules for them differ.

Rijwielen with 3 or 4 wheels is allowed to use an available bicycle lane when their width (cargo included) doesn't exceed 1 meter. Note that this is not mandatory! If their width, however, does exceed 1 meter, then they aren't even allowed to use dedicated bicycle paths or lanes.

Generally speaking, speed pedelecs are allowed to use bicycle lanes or paths only in certain circumstances. When the maximum speed is 50 km/h, they are allowed to use bicycle lanes only when they don't endanger other users. When the maximum speed is >50 km/h they have to use the bicycle lanes. Because this is a relatively new vehicle class, some road signs still have to be updated to this law.

1.3. Safety and child transport legislation – Mechelen/ Belgium

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Children are regarded as regular passengers of the modes presented. There is no distinction on an age-basis. Other aspects (age, helmet, etc.) are related to bike type (already presented at 2.2.10)

1.4. Regulations for small businesses – Mechelen/ Belgium

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

There is a distinction made between food businesses that just sell food on the go to set customers (delivery, pick up only) or businesses that have a restaurant/ bar where people consume drinks and food delivered on site. In the first case, there is no license required on a local level. However, they have to comply with federal regulations by the *Federaal Agentschap voor de veiligheid van de voedselketen* (Federal food safety agency). If for example, they have a restaurant a local *horecavergunning* (hotel-restaurant-bar permission) is required, for which a number of licenses are necessary, such as a hygiene certificate, correct land-use, and proper insurance. Applying for a *horecavergunning* itself is free of charge.

1.5. Decision-making institutions – Mechelen/ Belgium

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

- *Federale Overheidsdienst Mobiliteit en Vervoer* (Federal Government Service of Mobility and Transport), including:
  - *Dienst Inschrijving Voertuigen* (Vehicle Registration Service)
- *Mobiliteit en Openbare Werken* (Mobility and Public Works) on a Flemish level, including:
  - *Departement Mobiliteit en Openbare Werken* (Department of Mobility and Public Works)
  - *Strategische Adviesraad Mobiliteit* (Strategic Advisory Board of Mobility)
  - *Agentschap Wegen en Verkeer* (Road and Traffic Agency)
- Police:

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- *Federale politie* (Federal police)
- *Lokale politie* (Local police), Mechelen is included in the local police zone MeWi (Mechelen-Willebroek).

- Stad Mechelen:
  - *Directie Integraal Stedelijk Beleid*
- *Fietsberaad Vlaanderen*

2. Local Involvement

2.1. Local CCCB project team – Mechelen/ Belgium

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Head Project Coordinator Projects and Planning	Supervise and coordinate the project local team regarding urban development, mobility, and spatial planning	tom.depuydt@mechelen.be	+3215297823
2	Mobility Team Project Coordinator	Supervise and coordinate the project local team regarding mobility	leen.schaerlaekens@mechelen.be	+3215297938
3	Project Coordinator	Coordinate projects regarding mobility and urban logistics	veerle.demeyer@mechelen.be	+3215297953
4	Project Coordinator	Coordinate projects regarding mobility and urban logistics	joris.huijbregts@mechelen.be	+3215297945
5	Subsidy Advisor	Coordinate European projects on all fields	anne.recour@mechelen.be	+3215297590
6	Administrative Assistant	Handling of financial documents	nancy.goossens@mechelen.be	+3215297975

2.2. The Decision on implementing CCCB project – Mechelen/ Belgium

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Stad Mechelen	Bart Somers	Mayor	
2	Stad Mechelen	Erik Laga	General Director	
3	Stad Mechelen	Veerle Costermans	Director	Integral Urban Policy
4	Stad Mechelen	Alexander Vandersmissen*	Alderman of Mobility	
5	Stad Mechelen	Patrick Princen*	Alderman of Public Works	
6	Stad Mechelen	Marina de Bie **	Alderman of Sustainability	

2.3. Local CCCB potential partners – Mechelen/ Belgium

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.\

No.	Institution/ organization	Type	Person	Role
1	Thomas More Hogeschool	University College	Peter Verspecht	Coordinator logistics-track
2	Fietsersbond	NGO	Luc van Espen	Contactperson Mechelen-branch
3	Ecokoeriers	SME/Logistics sector		
4	Fietsatelier	Non-profit		
5	Fiets-o-theek	Non-profit		
6	Green driver	SME/Logistics sector		

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3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Mechelen/ Belgium

a) Target area

Our target area is mainly bounded by the inner ring road (R12) plus the area around the main train station. Also, two upcoming urban developments (Ragheno and Keerdok-Eandis) are included. Of course, targeted deliveries from/to this area can also be located outside of this territory.

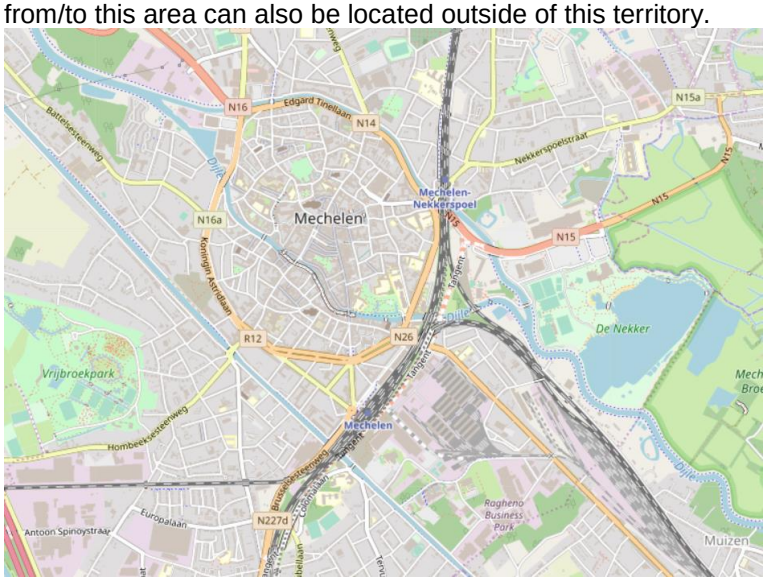

Fig.1. Project target area - Mechelen

b) Traffic conditions

Within the ring road, the general speed limit is 30 km/h (some *woonerf*-exemptions where the maximum speed is 20 km/h) and the road setup is focused on shared space. Therefore, there are no traffic lights and only a few dedicated bicycle lanes. However, two *fietsstraten* (bicycle streets) are present.

Some of the areas are also car-free or car-limited. For delivery of goods, there are time frames. In these zones, deliveries are generally allowed before 11 am and after 6 pm. These zones are being controlled with cameras. Motorized transport that doesn't have a permit to enter the car-free or car-limited zones are being caught by the camera and fined.

c) Potential clients/ users

Within the inner ring road, a diverse profile of businesses is present. Most of them are SMEs including, for example, restaurants and clothing shops, but also branches of larger chains are located here. A total of 892 commercial buildings are situated between these borders. This equals approximately 43,77 buildings or 3.472 m2 shop floor area per 1.000 inhabitants. The delivery demand is therefore very high. One of the initiatives that we want to implement is a cycle-taxi that'll serve the car-free and car-limited areas of the city.

3.2. Actual existing initiatives in the same target area – Mechelen/ Belgium

There are already several initiatives in the set target area. Here below a few examples are described, supported by the city with various subsidies:

Ecokoeriers

In 2015 the city of Mechelen helped to start-up a bike courier service called Ecokoeriers. This was initiated as a 6-month pilot through the Cyclelogistics Ahead-project with the goal of setting the stage for sustainable urban logistics through a viable business model around delivery by cargo bike. The city bought their first cargo bike, worth 8.500 euros, and further supported them through subsidies for two more cargo bikes, support through communication in social media and promotion in other channels as well as help with organizing a co-creative session. Mechelen also backed their participation in the 'Handsfree shopping service' by providing a hub with the crew in the city center for

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the distribution of their goods. All of our internal last-mile deliveries are done by Ecokoeriers. The goods are sent to the central city hub and from there on consolidated and distributed to the various offices of city services.

Broodbroeders and bike sharing

For over two years now, the Broodbroeders (located near the main train station) are delivering fresh bread to businesses and collection points within and outside the city center. Over 100 deliveries are done by cargo bike each month and they want to expand with another 50. The city supported its implementation of a sharing system for their acquired cargo bike with 5.000 euro.

Soeper

Since 2013 the Soeper-company started with delivering fresh soup by hand made cargo bike to companies and individuals. About 170 deliveries are made each month. The city granted a subsidy of about 3.500 euro.

4. Existing local traffic management and simulation tools – Mechelen/ Belgium

Currently, there is no traffic management or dispatch system in operation in Mechelen. The main roads and streets in Mechelen are included in the traffic model of the Antwerp province, which can be read through Cube Voyager.

There is however a parking system with dynamic road signs that lead visitors to parking garages with free spaces.

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Appendix XI – Local Analysis Report - Lisbon/ Portugal

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Lisbon/ Portugal

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

Lisbon's Municipality Mobility Vision (MOVE), is a strategic document that gives an insightful overview of the process and goals of the city mobility wise. It's being revised and will be waiting for approval in 2019 as a key document to the implementation of cargo bikes in the capital city of Lisbon.

1.2. Road and traffic regulations – Lisbon/ Portugal

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

UE directive n.º 2002/24/CE was transposed to the Portuguese law DL 238/2003 de 3 outubro, that governs vehicle homologation and it excludes bicycles and PEDELEC (assisted pedal vehicles equipped with an auxiliary electric motor with a maximum continuous rated power of 0,25 kW, whose power is progressively reduced and finally interrupted when the vehicle speed reaches 25 km / h or before, if the rider stops pedaling), from homologation.

Portuguese road and traffic regulation code – (**Código da Estrada**) **Law n.º 72/2013, de 3 de setembro**, was extensively reviewed in 2013 and among other changes, introduced the concept of "*vulnerable user of the road*" and the existence of "*Shared zones*" where there's minimal segregation between transportation modes. The main objective was to reduce traffic fatalities while promoting sustainable means of transportation and creating liveable cities, and so bicycle users and pedestrians' status was reinforced.

Main changes for bicycle users were:

- The use of bicycle lanes, when existing, it's not mandatory. A bicycle user can opt for road use when in the presence of a bicycle lane if it's more suitable **(n.1 do artigo 78º)**;
- The general right of way is also applicable to bicycles **(n.º 1 do artigo 30º)**. Bicycles were obliged to give way to other vehicles when approaching by the right-hand side, not anymore.
- Bicycles are allowed to cycle in the roadside **(n.º 2 do artigo 17º)**;
- Within localities, bicycles are able to use the entire road lane, to cycle and perform legal maneuvers;
- Bicycle users can ride two by two as long as it doesn't cause traffic problems **(n.º 2 do artigo 90º)**;
- On roundabouts bicycle users are not obliged to comply to general rules, being able to ride on the rightmost lane even if one wants to leave the roundabout on the last exit **(nº2 do artigo 14º-A)**;
- On bicycle passages, when a bicycle lane crosses a road, motor vehicles have to give way to bicycle users **(nº3 do artigo 32º)**;
- Children up to 10 years old are allowed to cycle on sidewalks **(n.º 3 do artigo 17º)**;
- Bicycle users have to carry personal ID **(n.º 3 do artigo 85º)**;
- Fines applied to bicycle users are half the value of those of engine vehicles **(Artigo 96º)**;
- PEDELECs and Kick Scooters are considered bicycles **(n.º 3 do artigo 112º)**;
- Cars must keep a lateral distance of 1,5 meters when passing by a bicycle **(n.º 3 do artigo 18º)**;
- Bicycles users are now considered "vulnerable users of the road" and therefore other users of the road must have special attention to those **(n.º 2 do artigo 3º, n.º 1 do artigo 18º, alínea e) do n.º 1 do artigo 25º)**.
- Shared zones are legislated, giving priority to pedestrians and bicycle users **(Artigo 78º)**.

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A digital and paper leaflet (Guia do Condutor de Velocípede) was issued in 2014 by the **National Association for Road Safety (ANSR)** in order to increase public awareness for these changes.

Driving License, license plate, and insurance

According to the Portuguese Road and Traffic Regulation Code, bicycles and PEDELECs are not obliged to have a driving license **(n.º 6 do artigo 121º)**, license plate **(Artigo 117º)** and civil responsibility insurance **(Artigo 150º)** to ride on the road.

Helmet usage

Bicycle and PEDELEC users are not obliged to wear a helmet **(n.º5 do artigo 82º)**. This issue was not very clear in the law about PEDELEC's users, and after a meeting with the government and national police authorities in December 2018, **ANSR** issued a technical instruction **(instrução técnica n.º 1/2018)** clarifying it.

Size limitations

Trikes and two-wheeled trailers aren't allowed to circulate on bicycle lanes if they exceed one meter in width **(n.º 3 do artigo 78).**

Passengers transport

Bicycles are only allowed to transport passengers if they're built for it, i.e. there are seats with pedals (tandems) or seats with hand, foot and back protection. (pedicabs, trailers, bakfiets etc.). The exception is made for children under 7 years old that can be carried on a child seat mounted on a bicycle **(n.º 2 do artigo 91º)**.

Cargo transport

It's only allowed to transport cargo on a bicycle in a trailer or in a cargo box **(n.º 1 do artigo 92º)**.

Lights

From dusk to dawn, and during the day if visibility is an issue **(n.º1 do artigo 61º)** bicycles can only circulate if there's white steady light in front and red steady or blinking presence light behind **(n.º 3 do artigo 93º)**.
Bicycle lights are set by the law Portaria n.º 311-B/2005.

1.3. Safety and child transport legislation – Lisbon/ Portugal

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Bicycles are only allowed to transport passengers if they're built for it, i.e. there are seats with pedals (tandems) or seats with hand, foot and back protection. (pedicabs, trailers, bakfiets etc.). The exception is made for children under 7 years old that can be carried on a child seat mounted on a bicycle.
There's no mandatory equipment although it's recommended the use of a helmet.

1.4. Regulations for small businesses – Lisbon/ Portugal

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Since 2009 there's one single law governing the access to touristic activities **(DL n.º 108/2009).** It states the mandatory registry in the Touristic National Registry (RNT) by all touristic related businesses and the payment of a single tax.

This registry considers the transport of passengers on bicycles, either on a single bicycle as a part of a tour, or on a pedicab. Civil responsibility and personal insurance are mandatory.
If it's a small business or a single person, with a certification by IAPMEI (https://www.iapmei.pt/) the registry tax is cheaper and if one wants their activities to be recognized as "Nature Tourism" doesn't have to show a "Nature Conservation Project" as required to medium and big size businesses.
For semi-stationary businesses, there's the law **DL n.º 10/2015** that governs the access to commerce, services, and restoration activities. It came to change the street vending system previously managed mainly by Municipalities. Nowadays the municipality defines the criteria for different commercial operators in the municipal regulation of street vending (**deliberação n.º 298/CM/95**) while the parishes provide the licenses and its inspection. It also changed the placement of semi-stationary businesses by requiring mandatory selection procedures by annual sortation as well as unrepeatability of places. Parishes are having difficulties in licensing new businesses because new Lisbon's regulation it's still waiting for approval. Meanwhile, parishes approve what they can inspect, normally old and established vending types as roasted chestnuts, packaged ice creams, flowers, and seasonal fruit. Some parishes take a step further and license food and drink businesses that run the risk of being against the law when the municipal regulation is approved (expected to be in 2019). There is no discrimination for or against cargo-bikes on these regulations, although some parishes prefer autonomous business (without electric or sewage connection to main grids).

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For urban logistics, there's a municipal cargo dispatch regulation (deliberação municipal 85/CM/2004) and the Municipal parking regulation (deliberação n.º 47/AM/2013 (Proposta n.º 254/CM/2013). Both don't refer cargo bikes but Lisbon's Municipality Mobility Department wants to merge those two regulations to be sent for approval in 2019.

1.5. Decision-making institutions – Lisbon/ Portugal

This sub-section lists possible institutions involved in approval of cargo bikes usage and CCCB implementation approval.

Lisbon Municipality (CML) – The municipality has a broad responsibility in mobility matters in the city, especially in planning, communication and operation through its Municipal Mobility Department (**DMM**), an implementation of measures through its Mobility and Parking Company (**EMEL**) and Lisbon's Tram and Bus Operator (**CARRIS**), as well the compliance of law through its Municipal Police (**PM**).

Ministry of Internal Affairs (MAI) – Among other important issues, is the Portuguese Government's department responsible for the implementation of public safety and road safety prevention policies.

Institute of Mobility and Transports (IMT, I.P.) - is a public institute integrated into the indirect administration of the Portuguese state that performs functions of technical regulation, licensing, coordination, supervision, and planning in the sector of the terrestrial, fluvial transport and its infrastructures, among others;

Road Safety National Authority (ANSR) – is a central service of the direct administration of the State endowed with administrative autonomy with the mission of planning and coordination at the national level the Government's policy on road safety, as well as the application of road laws.

Polícia de Segurança Pública (PSP) – The, non-military, Public Security Police that among its responsibilities lies the insurance of the compliance with laws and regulations relating to road transport, to promote and guarantee road safety, in particular through the supervision, planning, and discipline of traffic;

Guarda Nacional Republicana (GNR) - The National Republican Guard is a security force of a military nature. Normally doesn't interfere simultaneously with PSP, but may occur, and have the same responsibilities.

2. Local Involvement

2.1. Local CCCB project team – Lisbon/ Portugal

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone (+351)
1	Project Manager - Inês Henriques	Supervises and coordinates the project local team.	ines.henriques@cm-lisboa.pt	213501359
2	Project Team Lead- Gonçalo Pais	Manages specific project plan activities and contributes to the project plan developed in collaboration with the project manager	goncalo.pais@cm-lisboa.pt	213501304
3	Communication manager - Maria João Caneiras	Creation, implementation, and coordination of communication programs	maria.joao.caneiras@cm-lisboa.pt	218171112
4	Finance expert - Nuno Medeiros	Oversees accounting allocations, reporting, and cash management	nuno.medeiros@cm-lisboa.pt	213501347
5	Legal expert - Ana Sofia Castanheira	Monitors all legal affairs and provides legal counsel for the project team	sofia.castanheira@cm-lisboa.pt	213501312

2.2. The Decision on implementing CCCB project – Lisbon/ Portugal

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Lisbon Municipality	Miguel Gaspar	Deputy Mayor for Mobility and safety	Mobility Council
2	Lisbon Municipality	Francisca Ramalhosa	Mobility Department Director	Mobility Department

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3	Lisbon Municipality	Inês Henriques	Head of Mobility Studies and Planning Department	Mobility Department - Mobility studies and Planning Division

2.3. Local CCCB potential partners – Lisbon/ Portugal

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	JF Parque das Nações	Local Parish	Jorge Bonito	Parish vowel for mobility issues
2	Associação de Pais da Escola básica do Parque das Nações	Parents association of local public school	Ricardo Marino	Association's general meeting president
3	Ciclo Expresso do Oriente	Family organization	João Bernardino	Volunteer
4	Colégio Pedro Arrupe	Local private school	Miguel Morais	School administrator

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Lisbon/ Portugal

a) Target area

Fig.1. Project implementation area location

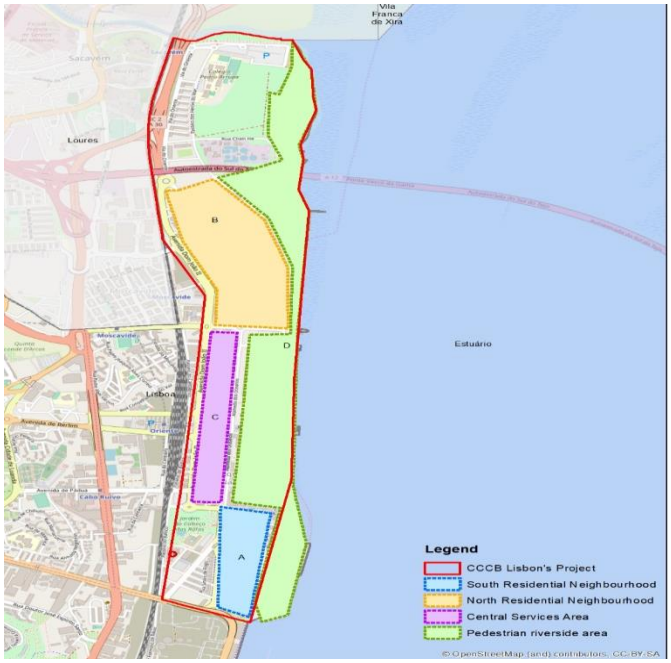

Fig.2. Project implementation area boundaries

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The pilot area is set on the northeastern parish of Lisbon – Parque das Nações, in a flat 5km^2 area with 10kms of bicycle lanes.
Parque das Nações is one of the parishes that emerges from the administrative reorganization of Lisbon that takes place in 2013. It covers part of the territory of the remodeled Santa Maria dos Olivais parish and the parish of Moscavide, belonging to the neighboring municipality of Loures and corresponds, for the most part, to the area where world Expo 1998 took place. It is thus a recent intervention area (69% of the building built after 1991), high buildings (68% of 5 and more floors) with 3 or more dwellings per building (74%), which are mostly owned by the occupant (72%). It has typologies of 5 or more divisions (50%), or 3 to 4 (47%) that have between 101 and 200m^2 (51%) but also between 50 and 100m^2 (35%). With an index of low aging (49%), the lowest in the City (183%), the parish of Parque das Nações, has 20% of the population until the age of 14 (Lisbon has 13%), 18% of families with people aged 65 or over (Lisbon has 39%), the highest number of people with the highest education (39%) but also double (10%) of the City's unemployment (5%).

b) Traffic conditions

Parque das Nações (PN) consists of two main residential areas - PN south and PN north neighborhoods (**A** and **B)**. Although there's a big Avenue on the westside that was built to divert through-traffic from the North Neighbourhood (B), Alameda dos Oceanos, that crosses it in the middle, has some high-speed traffic. Besides that, traffic in these areas is calm.
Between these two neighborhoods, there's the services' heart of the parish (**C**), near the Oriente Station, where major trains (regional and international), as well as express buses, leave and arrive in Lisbon. It is also an interface to the local bus and the subway network of the city.

c) Potential clients/ users

This central area houses headquarters, branches and offices of major companies such as Vodafone, CTT - Correios de Portugal, IBM, Danone Portugal, etc.. as well as some public services as the Justice Campus. This offer brings with it the existence of many small businesses that in conjunction with a big mall generates a lot of traffic.
Also in the central area, but near the river, there's a huge pedestrian area that goes all the way north via riverside gardens and south via a leisure boat yard (**D**). This area has a lot of entertainment and leisure facilities - museums, theaters, the oceanarium, etc., as well as Lisbon's international exhibition fair building that hosts, among others, the Web Summit. It's a premium area for businesses, mainly restaurants.
Cargo bikes can be used for logistics, food sale, leisure.

3.2. Actual existing initiatives in the same target area – Lisbon/ Portugal

Chronopost

After Toulouse and Nuremberg, Lisbon is the third city to receive the Cargo Bike, electric bicycles that **Chronopost** uses to deliver parcels in the center of the cities. The pilot project involves the use of electric bikes, free of emissions harmful to the environment, as a means of transportation and will allow developing a new approach in the way the orders are delivered.
The project started in February 2018 with two electric bikes with trailers which operate on a 12 Km^2 in the Parque das Nações parish. These vehicles deliver parcels of up to 1 kg leaving the Chronopost hub for the last mile delivery.
During the first 10 days, electric bicycles delivered parcels only in the morning, delivering 187 volumes on 142 visits. The number of orders carried depends on the volume of the boxes, because each bicycle transport box has a capacity of 0.25 m3.
Predictions are to deliver 82 parcels per day, 20.000 parcels on the first year of operation which mean 16 T CO^2 avoided per year.

4. Existing local traffic management and simulation tools – Lisbon/ Portugal

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Lisbon Municipality has a centralized traffic management system – GERTRUDE – implemented back in 1985. It's a system that works in real time using ground sensors ensuring the flow of traffic, especially public transport in BUS corridors, controlling emissions of polluting gases into the atmosphere. This system, unfortunately, doesn't reach the Parque das Nações area, due to its recent urbanization and its relative distance to the city center. Because of its age and outdated technology, Lisbon plans to substitute it in the short term. Meanwhile, traffic lights and traffic flow in Parque das Nações is managed by the Mobility Operations Department using a closed system.
Lisbon Municipality implemented in 2014 a transport model system in PTV Visum software for the whole city. Back then, not all of the Parque das Nações parish belonged to Lisbon, leaving the northern part without expression in the model.
One of the Municipality goals in 2019 is to update its PTV Visum software and provide continuous training to the mobility department, ensuring that the existing model is updated and used for planning and decision making mobility wise.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix XII – Local Analysis Report – Strasbourg/ France (P12)

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Strasbourg/ France

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

For now, French law doesn't make a difference between a normal 2 wheels bike and a cargo bike.

The French ministry of transport is in the process of preparing a standard norm for the cargo bikes, which should be presented soon. However, this will be a standard technic norm for the bike constructors, not a mandatory regulation.

1.2. Road and traffic regulations – Strasbourg / France

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

a) Laws regarding use of public roads

Public roads are organised by a law signed by the city mayor. For example, in Strasbourg, one bylaw is forbidding some streets for car or bicycle circulation, and another one is authorizing a bicycle circulation both directions in a one-way street. On the other hand, in Paris, there's a bylaw that forbids a 3 wheel cargo bike (tricycle) to drive in bus lanes.

b) Vehicle registration policy

At this moment, vehicle registration is mandatory only for cars.

c) Usage of bikes/ cargo-bikes

Special law requires that during the night, outside of cities, cyclists need to wear a high visibility vest and to be equipped with lights (in front, behind, in wheels and pedals).

Also, bicycles are allowed to ride on green lanes, in 30 zones, and in the pedestrian area (where pedestrian always has a priority, and cyclist needs to get down from the bike if the zone gets crowded).

d) Age restrictions

There are no restrictions on age for driving vehicles.

e) Limitations regarding the capacity of helping motors

For speed up to 25 km/h usage of bike paths is allowed; above that speed, the cyclists need to drive on the street.

f) Standard referring to bicycle lanes :

There's no national standard for bicycle lanes, only recommendation. However, here in Eurométropole de Strasbourg, we have a charter of bicycle facilities. The standard for one way bike paths is to be 1,5 m wide, and 3,2 m for bidirectional. When it comes to vélostras (high-speed bicycle network), the standard is 2m wide for unidirectional, and 4m for the bidirectional bike path.

g) Dimensional/ weight bike restrictions

There are no restrictions for the moment, and cargo bikes registration is not needed.

h) Driving permit if needed

A driving permit is not needed for bikes/ cargo bikes.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

1.3. Safety and child transport legislation - Strasbourg / France

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Existing legislation impose the following rules:

- Children under 12 years have an obligation to wear a helmet (Code de la route, Art. R. 431-1-3).
- While transporting children under 5 years on/in a bike, bicycles must have attached a system made especially for it (Code de la route, Article R431-11).
- Children can use the pedestrian path/sidewalk until they are 8 years old; after that age limit, they have to drive on a bike path

1.4. Regulations for small businesses - Strasbourg/ France

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Small businesses using bikes (cargo bikes) must have a commercial license issued to them by the city administration (public space occupation).

1.5. Decision-making institutions - Strasbourg/ France

This sub-section lists possible institutions involved in approval of cargo bikes usage and CCCB implementation approval.

- Ministry of ecological and integrated transition (in charge of transport)
- The Mayor (via bylaws)
- FUBicy (with seat in Strasbourg) who is a national association working on the promotion of bicycle culture on a local and national level
- Local NGO's

2.1. Local CCCB project team - Strasbourg/ France

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone +33(0)
1	Project manager	Supervise and coordinate local team	pierre-marie.garnier@strasbourg.eu	368986375
2	Communication manager	Ivana Kovacic		
3	Technical expert	Pierre-Marie Garnier	Piere-marie.garnier@strasbourg.eu	368988009
4	Finance expert	Evelyne Koebele	Eveline.koebele@strasbourg.eu	

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

2.2. Decision on implementing CCCB project - Strasbourg/ France

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	City of Strasbourg	Roland Ries	Mayor	
2	Eurométropole de Strasbourg	Robert Herrmann	President	
3	Eurométropole de Strasbourg	Pierre Laplane	General Director	
4	Eurométropole de Strasbourg	Jean-Baptiste Gernet	Deputy mayor for alternative mobility	
5	City of Strasbourg	Thierry Bechtel	Director	Transportation, public and green spaces
6	City of Strasbourg	Ronan Golias	Chief of Mobility Unit	Mobility Unit

2.3. Local CCCB potential partners - Strasbourg/ France

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project**.**

No.	Institution/ organization	Type	Person	Role
1	CADR 67	NGO	Fabien Masson	director
2	Bretz'selle	NGO	Coline Trautmann	
3	Vélo station	NGO	Isabelle Gillot	
4	Strasbourg Mobilités	local bike sharing company	Camille Janton	Commercial director
5	Local bicycle shops	Private companies		
6	Les triporteurs strasbourgeois Novea 67	Private companies Private companies		

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.**3.1. Project target area - Strasbourg/ France**

a) Target area

Practically, the target area is planned on almost the entire territory of the Eurométropole de Strasbourg.

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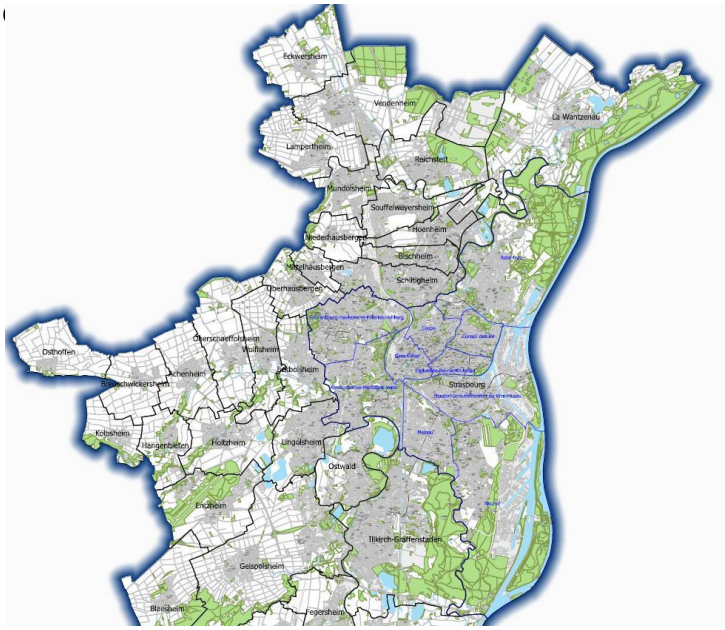

Fig.1. Target area and main bicycle lanes (blue) in Strasbourg

b) Traffic conditions

In the area, we have almost 700 km of bike lanes, and by 2028 we're going to develop a high-speed bike route (vélostras) to improve the connection between different cities on the territory. There are 5 main reasons for this project: friendliness of bike paths (possible to bike in pair), the effectiveness (possible to go over 20km/h), reliability (available 24/7, 365 days/year), readability (easy to understand the paths and connections between them) and security (light on the paths, etc). Attached is the future map of vélostras :

Fig.2. High speed bike routes in Strasbourg

When it comes to traffic lights, Strasbourg has 560 intersections with traffic lights, with 440 stations for traffic control of which 60 are for cyclists.

c) Possible clients/ users

There are 33 cities in Eurométropole de Strasbourg.

Possible users include local associations, small companies (like craftsman's, services), families with children and local supermarkets or shopping malls, who can provide cargo bikes to their customers.

3.2. Actual existing initiatives in the same target area - Strasbourg/ France

a) Example, start and finish

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

There are existing initiatives in the same area. The first initiative started in 2010 by the development of the bike-sharing system in Strasbourg. The same system today has 6000 bikes to provide for the use of citizens, 80 child bikes, 10 tandem bikes, 250 e-bike, 9 cargo bikes and 1 cargo bike for the transport of disabled people.

b) Budget

Each bike (classic bike, not e-bike) costs cca 500€. The fleet of 9 cargo bikes costs 40 000€.

c) Results

So far this initiative has been a great success, and we still have a bigger demand than the offer. The cargo bike initiative is in place since 2015 with 1 trike cargo bike, but in June 2018 we changed with 2 news trike cargo bike and 7 new cargo bikes to the fleet. They can be booked for a couple of hours, up to 15 days, to give the best possible chance for every interested group to try them on. Some of the interest groups: families, small companies/artisans, kindergartens, companies specialized in delivery, etc.

d) Other aspects

When it comes to promotion of e-bikes, Strasbourg doesn't have a subvention as some other cities in France. However, we worked with banks and local bike shops to create a special offer for buying e-bikes, called 'offre véloptimiste'. We have a dedicated web page for this offer: https://www.strasbourg.eu/veloptimiste
The point is to enable our citizens to buy a high-quality e-bike with a relatively cheap credit with his local bank, and he also gets 3 years of maintenance. This e-bike doesn't cost him more than 2€/day for maximum of 3 years.

4. Existing local traffic management - Strasbourg/ France

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

- There is a traffic management system for the whole Eurometropolis of Strasbourg, called SIRAC, since 1978 (service d'information et de la régulation automatique de régulation), which includes a traffic dispatch system operational in this area.
- There is available a model of the transport system in PTV Visum; furthermore, the municipality is working on the development of this model, to be able to integrate into the model the bicycle circulation for better data analysis. Also, there is under analysis a system able to connect induction loops in bike paths with this model, in order to detect cyclists in advance and to be able to change traffic lights in their advantage.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix XIII – Local Analysis Report - CEA – Vitoria Gasteiz/ Spain

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – CEA – Vitoria Gasteiz/ Spain

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) Regulatory Municipal Ordinance of the uses, traffic, circulation, and Security in Public Routes of Urban Character. November 29th, 2013

According to article 23 of the Municipal Ordinance Regulating the Uses, Traffic, Circulation, and Safety in the Public Roads of Urban Character, as a general rule, the circulation of cycles and bicycles by pedestrian spaces is prohibited, but considering article 10.8, the Municipal Authority may exempt from all or some of the limitations established in the pedestrian areas to certain vehicles and for justified reasons, in particular, to bicycles and tricycles that transport people, parcels or advertising services.
According to article 12.1 of the Ordinance, in some streets or areas, the City Council may determine the exclusive use of special types of vehicles for the distribution of some goods and at certain times, prioritizing the use of those that, due to their technical characteristics and its propulsion system, generate less impact on the environment (emissions and noise) and occupy less space on public roads.
The detail, modification or extension of the mentioned streets or zones, as well as the type of authorized vehicles, will be established through the corresponding Mayor's Decree. Authorized vehicles may only occupy the areas reserved for loading and unloading while these tasks are being carried out, considering that illegal use is being made for the purpose of not carrying out said operations. In any case, the owner or lessee of the authorized vehicle must be registered in the Tax on Economic Activities.

b) Mayor´s Decree (February 22th, 2016)

This decree, allows circulation in any pedestrian area, without the limitations in some streets and plazas at certain times, of bicycles and tricycles that transport people, merchandise or courier service. Said authorization shall be subject to the provisions of article 12.1 of the Ordinance.
More information: http://www.cleanair-europe.org/en/projects/vcd/ebc/cargo-bikes-in-commercial-transport/

c) Ordinance regulating the operation and construction of bicycle parking spaces in buildings, January 5th, 2018

At article 9, is stipulated that special parking spaces will be available for unconventional cycles that require more space for parking (cargo bicycles, wheelchairs, etc.), whose minimum dimensions will be 2.00 meters x 0.90 meters, is located in the spaces close to the accesses. In parking places with more than 40 parking spaces, at least one special parking space must be fitted for every 40 standard seats (or fraction).

1.2. Road and traffic regulations – CEA – Vitoria Gasteiz/ Spain

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

- Municipal Ordinance Regulating the Uses, Traffic, Circulation, and Safety in Public Roads of Urban Character 26/02/2016 (Municipal)
- General Circulation Regulation 21/12/2003 (National)
- General Regulation of Vehicles 23/12/1998 (National)
- Law on Traffic, Circulation of Motor Vehicles and Road Safety 30/10/2015 (National)

1.3. Safety and child transport legislation - CEA – Vitoria Gasteiz/ Spain

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

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On bicycles and cycles, cargo and people can be transported if the driver is of legal age. Bicycles and cycles that, by construction, can not be occupied by more than one person, may transport, nevertheless, when the driver is of legal age, a minor of up to seven years in an additional seat that must be homologated.
The transport of people, cargo or advertising cycles must be done in such a way that they cannot:
- Drag, fall totally or partially or move in a dangerous way.
- Compromise the stability of the vehicle.
- Hide the lighting or optical signaling devices.

Bicycles, semi-trailers or other properly approved elements may be used for the transport of people or cargo. The City Council may regulate the transport service of people in cycles and bicycles through the corresponding Mayor's Decree.

1.4. Regulations for small businesses - CEA – Vitoria Gasteiz/ Spain

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Small businesses using cargo bikes, must have:

- Civil Liability Insurance to cover the possible damages that could be caused by the sale activity.
- Certificate of training in matters of Food Hygiene of the vending persons. (for food preparation)
- Canon payment and deposit.
- Registration to pay the tax on economic activities. (The processing permit unit reserves the possibility of collecting any type of complementary documentation for the correct management of the process.)

1.5. Decision making institutions - CEA – Vitoria Gasteiz/ Spain

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

- General Direction of Traffic (National)
- Vitoria-Gasteiz Town Council Traffic service
- Euskotren Tranbia (Public Company of the Basque Government)

2. Local Involvement

2.1. Local CCCB project team - CEA – Vitoria Gasteiz/ Spain

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Juan Carlos Escudero Achiaga	Coordinator and Technical Expert	jcescudero@vitoria-gasteiz.org	945 161616 ext 4964
2	Asier Sarasua Garmendia	Technical Expert Communication manager, t	asarasua@vitoria-gastei.org	945 161616 ext 4956
3	Isabel Garnika Ortiz	Technical and administrative activities	igarnika@vitoria-gasteiz.org	945 161616 ext 4967
4	Aitor Albaina Vivanco	Technical and administrative activities	aalbaina@vitoria-gasteiz.org	945 161616 ext 4958

2.2. Decision on implementing CCCB project - CEA – Vitoria Gasteiz/ Spain

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Vitoria-Gasteiz	Gorka Urtaran Agirre	Mayor	
2	Municipality of Vitoria-Gasteiz	Iñaki Prusilla	Councilor	Environmental Departament

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3	Municipality of Vitoria-Gasteiz	Carlos Zapatero	Councilor	Citizen Security Departament

2.3. Local CCCB potential partners - CEA – Vitoria Gasteiz/ Spain

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	Gasteiz On	Retailer Association	Marta Bengochea	President
2	Gasteizko Bizikleteroak	Association of urban cyclists		
3	Camina Gasteiz	Pedestrian association	Mikel Rueda	President
4	Enbizi, Euromensajeros, DHL, etc.	Parcel companies		
5	Plaza de Abastos	Food Market association	Eloy López de Foronda	Manager
6	BM, Eroski, Corte Inglés, etc.	Supermarkets		
7	Evolo	Cargo bike manufacturer	Eduardo Rodríguez	Sales deparment
8	Inteligent parking	Mobility solutions and access control services		
9	Trike koffe roasters	Coffe seller in cargo bikes		
10	Sejuber-Saunier Duval	Technical service boiler maintenance		
11			Schools, Association of parents and mothers of students	

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area - CEA – Vitoria Gasteiz/ Spain

a) Target area:

The urban area of Vitoria-Gasteiz (35 km2). 145 Km of bicycle lanes (2014)

Fig.1. Interactive map of cycling trails in Vitoria-Gasteiz

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b) Traffic conditions:

- The maximum speed limit in urban areas: 50km/h, 30km/h in one-way streets.
- 47 streets with calmed traffic and according to Major´s decree to regulate bike circulation on pedestrian areas

c) Potential clients/ users

Supermarket deliveries, parcel companies, public services of the City Council, Schools, Small retailers, food preparation and sale on the streets.

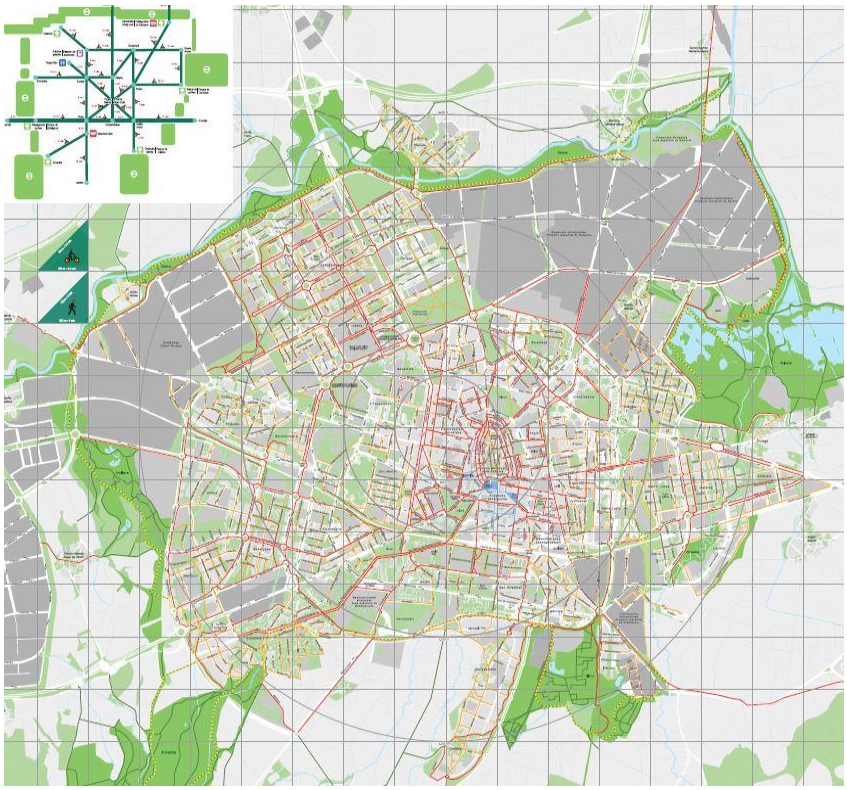

Fig.2. Traffic map in Vitoria-Gasteiz

3.2. Actual existing initiatives in the same target area - CEA – Vitoria Gasteiz/ Spain

There are small business on-going initiatives in the same area. This includes:

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Organic products association

Retailer product distribution

Retailer product distribution


Retailer product distribution


Supermarket delivery

Parcel delivery company


Coffe seller


Coffe seller

Fig.3. Cargo bikes usage in Vitoria-Gasteiz

No data are available about the implementation results.

4. Existing local traffic management and simulation tools - CEA – Vitoria Gasteiz/ Spain

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

- There is a traffic management system in Vitoria Gasteiz area, but it doesn't include a traffic dispatch
- In the current revision of the Local Mobility Plan, there are mentioned two models to be implemented for the transport system of the city (Visum and Transcad), authorities being interested in the development of such models.

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Appendix XIV – Local Analysis Report - Alba Iulia/ Romania

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Alba Iulia/ Romania

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) National regulation framework

In Romania, the legal framework is set by the Government Emergency Ordinance 195/2002 regarding Traffic on Public Roads and multiple amendments (the last one from May 2018), reflecting the evolution on public roads usage and the necessity of compliance to EU regulations. This Ordinance states main aspects regarding vehicles and pedestrian or other participants to traffic on public roads rights, obligations and responsibilities, together with institutions and public administration attributes on applying them. The provisions laid down in this Emergency Ordinance are intended to ensure the smooth and secure conduct of movement on public roads, as well as the protection of life, bodily integrity and health of persons participating in traffic, or in the public road area, protection of the rights and legitimate interests of those persons, public and private property and the environment. The main authority in initiating and applying traffic regulation is the Ministry of Administration and Internal Affairs, and the Romanian Police General Inspectorate.

Public road Traffic regulations shall be issued, as appropriate, by the central or local public authorities in this field, only with the opinion of the General Inspectorate of the Romanian police and in compliance with the agreements and conventions to which Romania is a party.

On the other hand, Order of the Minister of Public Works, transport and housing Nr. 211/ 2003 approved Regulations on technical conditions to be met by road vehicles for admission to circulation on public roads in Romania-RNTR 2. This regulation has also several amendments (the last one in Jan 2018) and integrates many aspects of the Regulation (EU) no. 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and surveillance of the market for two or three-wheel vehicles and for quadricycles.

For driving a bicycle on public roads, there are several restrictions: over 14 years of age; possess a personal ID; in some cases, the driver has legislation and defensive training (especially for mopeds). Bicycles must be properly equipped (lights, signals, brakes, etc.) and drinking is not allowed.

Bicycle Track- is defined as a subdivision of the roadway, sidewalk or separate road track, specially arranged, flagged and duly marked, intended only for the movement of bicycles and mopeds.

Local administrations shall take steps to arrange sidewalks and lateral roads for pedestrian movements, bicycle lanes, and strips intended exclusively for the public transport of persons on the roads they administer, with the opinion of traffic police.

In order to circulate on public roads, vehicles, with the exception of those drawn or pushed by hand and of bicycles, must be registered or registered at the local administration, as appropriate, and bear plates with the registration or registration number, with shapes, sizes, and content provided by the standards in force. The categories of vehicles for which the driving license is issued, includes Category AM, mopeds;

Bicycles and mopeds circulating on public roads must be equipped with means of illumination and reflective-fluorescent devices. It is prohibited to move them at night without these means and devices in a state of operation.

Assisted pedal bikes equipped with an auxiliary electric motor of a maximum continuous nominal power of 0, 25kw, the supply of which is progressively reduced and finally interrupted when the vehicle reaches a maximum speed of 25 km/h or sooner, if the cyclist stops pedaling are excepted from the type-approval or driving licence for users over 18 years; tricycles with engine requires 21 years and A license.

Moped-motor vehicle, with two or three wheels, the maximum construction speed of which is greater than 25km/h but does not exceed 45 km/h and which is equipped with an internal combustion-ignition engine with a cylindrical capacity not exceeding 50 CMC or with a T internal combustion engine or, where applicable, electric, the maximum nominal output of which does not exceed 4 KW, and the vehicle's own mass does not exceed 350 kg, not including the mass of the batteries in the case of the electric vehicle. Quadricycles are assimilated to light mopeds.

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On express roads and motorways, pedestrians, motor vehicles with outlines or masses, without special transport authorization issued by the public road administrator, shall be prohibited, in accordance with the regulations in force, vehicles drawn or pushed by hand, bicycles and mopeds.
By two-or three-wheel vehicles and quadricycles, for the purposes of this chapter, a) two-wheel mopeds (category L1e) shall be understood: b) Three-wheel mopeds (category L2e); c) Two-wheel motorcycles (category L3e), D) two-wheel motorcycles with sidecar (category L4e), E) Motorcycles (category L5e), F) lightweight quadricycles (category L6e), g) heavy quadricycles (category L7e) as defined in Regulation (EU) No. 168/2013.
In the two-or three-wheel vehicles and the quadricycles referred to in chapter I, the provisions of the UN-ECE Regulations shall be complied with: protection helmets for drivers and passengers of motorcycles and mopeds; replacement brake linings; symmetrical beam lamps
EU Regulation 168/2013 is not properly defining cargo bikes, because it refers mainly to “Vehicles of category L shall comprise two, three and four-wheel motor vehicles in accordance with the categories defined in this article and in Annex I, including motor bikes, mopeds with two-and three-wheel motorcycles, motorcycles with sidecars, light and heavy-duty "Quad" road vehicles and light and heavy quadricycles.”

b) National regulation framework for infrastructure (under development)

Due to high traffic on roads, lack of space on existing infrastructure and budgetary constraints, many cities created bicycle lanes painting a 1m line with paint on pedestrian lanes.
Ministry of Regional Development and Public Works prepared a draft for public consultation regarding main characteristics for bicycles infrastructure. This guide includes recommendations regarding infrastructure for bicycles tracks (width of 1,5m per line - 2,5m for both directions, max angle of 7 degree, smooth surface, signaling, intersections, etc.) and parking spaces. If this guide is adopted, it will bring important improvements to local bicycle infrastructure.

c) The Sustainable Urban Mobility Plan (SUMP) of Alba Iulia Municipality (2016)

SUMP represents a strategic document concerning the satisfaction of the people’s need for urban mobility in order to improve the quality of life and environmental conditions. This Plan provides measures to be taken to develop alternative transport systems for cycling and walking as well as measures to decongest traffic in the city center by applying a differentiated parking system for parking areas. The document highlights the fact that to increase accessibility and mobility within the city, it is necessary to have bicycle tracks and to encourage people to ride a bicycle. Besides the well-known role in protecting the environment, the construction of cycling tracks and encouraging the population to use it contributes to the growth of the local economy (eg retail), improves health and productivity of the workforce.

d) Sustainable Energy Action Plan (SEAP) for Alba Iulia

Provides investment in equipping schools and public institutions with infrastructure for bicycles to encourage inhabitants to cycle to school or to their workplace. The project for upgrading tracks for bikers and storage areas within the municipality is integrated into the Masterplan of green areas. It also aims at developing a bike-sharing system, a system for maintenance, monitoring and management of the integrated bicycle lane system, and a plan to rearrange the green spaces and pedestrian tram along bike paths.

1.2. Road and traffic regulations – Alba Iulia/ Romania

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

- Regulation for the administration of public roads in the Municipality of Alba Iulia (http://www.apulum.ro/ro/pdf2/drum%20reg.pdf) - establishes the conditions for the public roads administration in Alba Iulia and the relations between the administrator of the street networks and all their users, regardless of whether they are natural or legal persons, residing in Alba Iulia or not.

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- Road Code - there is no Special Road Bicycle Code, but only provisions related to these in the Road Code and in the Implementing Regulations of the Government Decision no. 965/2016 on public road traffic. Main provisions specify the age of 14 and ID for using bicycles on public roads and the prohibition of drinking.
- Vehicle registration is needed only for vehicles exceeding 25km/h, like mopeds.
- We didn't find restrictions regarding cargo bikes driving or usage, maybe because there are in a very limited number, and mainly used in parks or pedestrian areas (usually not on public roads)
- Is not clearly stated a limit age for driving cargo bikes, but over 18 is usual age for public roads access
- Helping motors are limited to 0,25kW, 25km/h, without registration
- Bicycle lanes are proposed to 1,5m width (2.5m for both ways)
- Cargo bikes are expected to have 0.9-1.2 m width and max. 2,6 m length

1.3. Safety and child transport legislation - Alba Iulia/ Romania

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

In accordance with Article 70 of GEO 195/2002, updated by Government Emergency Ordinance 63/2006., bicycles must be properly equipped. Young people between the ages of 14 and 18 are no longer entitled to carry children, and the major people who carry them can do so only if the bicycle has a seat fitted or later fitted but approved, specially dedicated to a child under 7 years transport. Helmets and other protective equipment are recommended.

1.4. Regulations for small businesses - Alba Iulia/ Romania

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

The Alba Iulia Municipality organizes an annual public auction at the City Hall, with a view to renting land for the placement of mobile shops (like vintage carriages and cargo- bicycles) in order to trade activities strolling. City Hall issues an authorization including the area of activity, and companies are paying a local tax accordingly. For food sale, companies must respect specific aspects related to public health.

1.5. Decision-making institutions – Alba Iulia/ Romania

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

At the national level:

- Ministry of Internal Affairs
- National Police
- Romanian Vehicle Registry
- Ministry of Regional Development and Public Works

At the local level:

- Local Council – for projects approval
- Traffic Police
- Local Police
- In absence of a dedicated urban mobility department, Alba Iulia City Hall – is using existing human resources from the public administration, who are involved in investment and development projects concerning urban mobility and from the technical department. It is expected that a future department will have attributions and responsibilities for regulating the city's parking system, implementing the regulations for utilizing public domain, as well as implementing measures specific for urban mobility from the existing development strategies (SUMP), which discourages the use of automobiles and encourages walking and cycling or other alternative, non-polluting transportation methods.

2. Local Involvement

2.1. Local CCCB project team - Alba Iulia/ Romania

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The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project Manager	Supervise and coordinate project local team; project meetings; collaborates in the local context; monitoring activities, solving problems	valentin.voinica@apulum.ro; valivoinica@yahoo.com	+40722249765
2	Communication manager	Manage information, PR, intellectual property, promotion events, mass media relations, meetings	ioana.cioloca@apulum.ro ioana.cioloca@yahoo.ro	+40746062385
3	Technical experts	Development of sustainable transport in Alba Iulia; organize pilot/ try-sessions	lucian.tanislav@apulum.ro cristiana.fica@apulum.ro ovidiu.podaru@apulum.ro	
4	Finance expert	Maintaining the financial and accounting records in accordance with the regulations in force and the provisions of the Financing Agreement; ensuring the financial management of the project.	alina.lazea@apulum.ro	

2.2. Decision on implementing CCCB project - Alba Iulia/ Romania

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Alba Iulia	Mircea Hava	Mayor	
2	Municipality of Alba Iulia	Local Council		
3	Municipality of Alba Iulia	Nicolaie Moldovan	City Manager	Public administration
4	Municipality of Alba Iulia	Silvia Moldovan	Director	Technical Dep.
5	Municipality of Alba Iulia	Mircea Alexandru Romaniţan	Chief Architect	Urbanism
6	Municipality of Alba Iulia	Lucian Tanislav	Manager	Roads Maintenance
7	Municipality of Alba Iulia	Floare Hategan	Manager	Authorizations
8	Municipality of Alba Iulia	Iacob Podaru	Advisor	Investments and assets
9	Municipality of Alba Iulia	Dan Ilcu	Director	Local Police
10	National Police	Dan Toma	Local traffic responsible	Traffic Police

2.3. Local CCCB potential partners - Alba Iulia/ Romania

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project

No.	Institution/ organization	Type	Person	Role
1	1st of December 1918 University of Alba Iulia	Education	Daniel Breaz	Provost
2	Local colleges	Education		
3	The Regional Development Agency – Centre	Administration	Simion Cretu	Director

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4	STP Alba	Public transport	Stelian Nicola	Director
5	Local architecture offices	Urbanism		
6	Local mass media	Unirea, Alba 24		
7	Polaris	Waste management	Lucia Pera	Director
8	Kaufland Romania	Supermarket		
9	Green Revolution (I'Velo)	Bycicle rent		
10	Bicheru Cycling	Association	Cristi Cioroga	President
11	Directorate Sports and Youth	Administration	Stanea Florina	Counselor
12	Local Environment Associations			
13	Start-up Alba	Association	Dorin Mada	
14	Ministry of Communications – Smart City partner	Administration		
15	Romanian Police	Administration	Dan Toma	Traffic Commissar

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Alba Iulia/ Romania

a) Target area

The main area will be in the Citadel, in limited/ restricted areas and the surrounding main streets. Central city area must be analyzed (bikes lanes must be integrated into several areas).

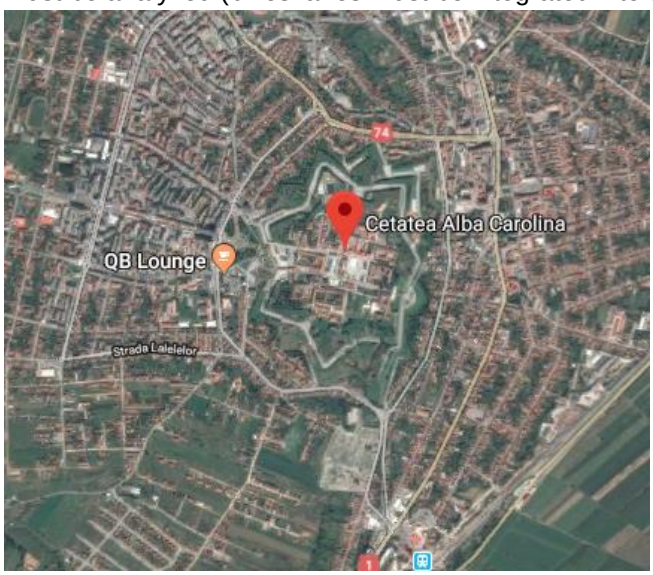

Fig.1. Alba Iulia aerial view

Fig.2. Existing (blue) and proposed bicycle lanes

According to SUMP, existing bicycle lanes (20km, dark blue) will be much extended (orange), integrated with green spaces, bicycle parking, park & ride locations for citizens, tourists and commuters.

b) Traffic conditions

- Pedestrian areas in Citadel; low traffic, asphalt, and pavement; bicycle lanes available

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- Circular ring/ central area; asphalt, high traffic; some slopes and hills

c) Potential clients/ users

- Logistic delivery
- Info/ souvenirs/ tourism
- Coffee/ tea/ drinks/ snacks
- Recycling/ Street cleaning

3.2. Actual existing initiatives in the same target area – Alba Iulia/ Romania

- 2 existing private cargo bikes (tourism/ souvenirs; coffee)
- Cargo bikes for recycling (just paper, weekly) operated by local waste management company
- Leasure special (2-4 people) bikes/ e-bikes in Citadel tranches (pedestrian area, bike lanes) for rent
- I'Velo, bicycles for hire (60 bicycles, seven days out of seven); young people under the age of 16 and pensioners have the possibility to rent bicycles free of charge, based on the student's book, respectively of pension card.

Fig.3. Existing cargo bikes initiatives in Alba Iulia

4. Existing local traffic management and simulation tools – Alba Iulia/ Romania

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

- There isn't a traffic management system or a traffic dispatch available in Alba Iulia; there is a dispatch for public transport (all buses have GPS)
- Local traffic data were measured in a local study for SUMP and in Gehl study
- Actual info about car traffic and pollution are available for some intersections/ areas as components of Alba Iulia Smart City pilot project
- A video surveillance system will be tested in some important intersections
- There is in technical analysis stage a major project for mobility, including bicycle infrastructure and traffic management, as an extension to smart city pilot
- Alba Iulia municipality is not using a traffic modeling software yet but is analyzing possibilities to integrate it in the city mobility plan

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Appendix XV – Local Analysis - Dubrovnik/ Croatia

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Dubrovnik/ Croatia

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) Transport Development Strategy of the Republic of Croatia

Analysis the citizen mobility in the sense of the use of public transport (rail, tram, bus, waterborne, etc…), as well as individual mobility (transport by car or bicycle and walking). Also, it`s mentioned that cities suffer most from congestion, poor air quality, and noise exposure. In order to improve the situation, it is necessary to increase the modal split in favor of public transport and soft modes (pedestrians and cyclists). A bicycle is a very useful means of transport that can be implemented for transport on shorter distances and in urban areas. There is a great potential to change the travel behavior in favor of bicycles, public transport, e-mobility etc., which would bring a significant reduction of greenhouse gas emissions and enable the application of multi-modal transport systems.

b) National Road Safety Programme of the Republic of Croatia 2011-2020

The main objective of the National Program is to reduce the number of deaths in traffic accidents by 50 percent, by the end of 2020. To achieve this, the National Program measures are divided into five areas of action: change of behavior of traffic participants; better road infrastructure; safer vehicles; effective medical care after traffic accidents and other areas of action.

c) Master Plan of Functional Region South Dalmatia

Developing cycling traffic in urban environments means building bicycle infrastructure, adjust streets and transport infrastructure in the form of customized and suitable for cycling and other forms of movement (public transport, hiking), provide the appropriate budget from the city budget and systematically plan and develop sustainable traffic in cities.

d) Decision on the Communal Order of The City Council of the City of Dubrovnik on its 6th session (2009)

In this decision, at article 66, the traffic in the Old Town Dubrovnik was approved for specific needs like delivery of goods to supply the shops, markets, and restaurants, hotels, homes, convents, etc. Also, it was approved access to motor vehicles which maximum mass does not exceed 3,500 kg. In especially justified and exceptional circumstances, within the Historical City Core may be authorized the carriage by heavy goods vehicles up to 5,000 kg.

1.2. Road and traffic regulations – Dubrovnik/ Croatia

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

a) The Sustainable Urban Mobility Plan (SUMP) 1.0.

Developing cycling traffic in urban areas means to build cycling infrastructure, adjust streets and transport infrastructure in the form of customized and suitable for cycling and other forms of transport (public transport, walking), to ensure adequate budget from the city budget and systematically plan and develop sustainable transport in cities.

b) The Sustainable Urban Mobility Plan (SUMP2, Draft)

Includes measures that are encouraging the use of cargo bikes:

- reduce driving speed to 30 km/h on some roads (around hospitals, schools, kindergartens, universities and other public institutions)
- promotion of sustainable mobility and healthy lifestyle through educational activities
- encouraging changing actual taxi fleet to hybrid /electric vehicles
- gradually replacing existing public vehicles with electric vehicles

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- systematic counting of cyclists and motorcyclists
- implementation of the system of cargo bikes - responsibility: City Administration (Directives and Framework), Private Operators (Infrastructure), costs: 42.000 € (3.000 per bike), the source of financing: local budget, private funds, EU funds
- implementation of public bicycle systems - responsibility: City Administration, Private Infrastructure (Infrastructure and Bicycles) Costs: 150.000 € (48 bicycles) Source of financing: Local budget, state aid, EU funds.

The plan states in the area of Dubrovnik has no organized cycle path or cycling strip. Actually, the bicycle infrastructure includes only three recreational cycling routes in the Konavle municipality and because terrain configuration is not suitable for cycling, alternatives to traditional bicycles are necessary, the introduction of a system of public electric bicycles being considered. The plan states the implementation of the system of cargo bikethe s for transport of goods, as a realistic and environmentally friendly alternative to motorized transport. Indirectly, the plan estimates an increase of cycling in total modal distribution, a reduction of the impact of traffic on the environment and improved sustainability of the transport sector. The plan also considers results of a local poll, in which 87.8% of respondents would support the introduction of cargo bikes in the Old Town instead of the existing motor vans.

c) The Local Council decision on the regulation of traffic in the City of Dubrovnik

The document stipulates the terms and conditions for the regulation of traffic on public areas. Traffic on public roads is permitted to everyone under the same conditions within the limits prescribed by law, according to this decision and other decisions of the City of Dubrovnik related to traffic issues. Traffic regulation includes cars and vehicles traffic, bicycle traffic, pedestrian zones, safe routes for schoolchildren, special technical measures for the safety of pedestrians and cyclists in the vicinity of educational, health and other institutions, playgrounds, cinemas. By article 38, bicycle trail is included in the area of special traffic regime.

d) Decision on unclassified roads in the area of Dubrovnik

This decision, regulates the management, construction, reconstruction and maintenance of unclassified roads in the City of Dubrovnik, together with control and supervision of works on unclassified roads and measures for their protection. The term ”unclassified roads” is used for traffic vehicles which can be freely used by any person under the conditions prescribed by law, other regulations and this Decision, but which are not classified as public roads. The traffic department of the City of Dubrovnik manages the unclassified roads.

On the national level, there are no legal obligations regarding cargo bikes, but national guidelines for cycle traffic are defined. Road Traffic Safety Act establishes the fundamental principles of mutual relations and behavior in road traffic. Also, all rules for bicycle drivers are stated in this Act. Other strategies for the traffic are listed in the text above.

1.3. Safety and child transport legislation - Dubrovnik/ Croatia

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

According to the Road Traffic Safety Act (NN 92/2014), all children up to 150 cm must be bonded in an appropriate restraint system in the car seat. Exceptionally, children between 135 and 150 cm can ride in the vehicle's seat belt, but only if their seat belt fits and is attached to the rear seat. The bicycle driver older than 18 years can carry persons over 8 years of age only if the bicycle has special seats for each person, hand and foot holder, or pedals, while children under the age of 8 can only be carried in a separate seat, adjusted to the size of the child and firmly attached to the bicycle, and the child must have a prescribed and properly fitted protective helmet. A child under the age of 12 can not be driven on a moped or motorcycle.
Children are considered a particularly vulnerable group in traffic and are protected by various laws. The traffic police publish advice on how to prepare children for safe participation in traffic.

1.4. Regulations for small businesses - Dubrovnik/ Croatia

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This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.
Usually, public tenders are announced for leasing public areas and all the regulations that must be complied with are prescribed. Mostly, the public tenders are for the stands, but not stands on wheels because cargo bikes are not used in Dubrovnik.

1.5. Decision-making institutions - Dubrovnik/ Croatia

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

- Ministry of Internal Affairs
- Traffic Police of Dubrovnik Neretva County
- Department for Municipal Services
- Local Self-Government of the City of Dubrovnik.

2. Local Involvement

2.1. Local CCCB project team - Dubrovnik/ Croatia

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project Manager	Matea Kordić	mkordic@dubrovnik.hr	+385 20 351 -861
2	Communication manager	Ivan Đurasović	idurasovic@dubrovnik.hr	+385 20 351 -817
3	Technical expert	Ivo Cvjetković	icvjetkovic@dubrovnik.hr	+385 20 640 -883
4	Finance expert	Božena Raič	braic@dubrovnik.hr	+385 20 351-777
5	Project adviser	Nataša Mirić	nmiric@dura.hr	+385 20 640-554

2.2. Decision on implementing CCCB project - Dubrovnik/ Croatia

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	City of Dubrovnik	Mato Franković	Mayor	
2	City of Dubrovnik	Zrinka Raguž	Head	EU Funds, Regional and International Cooperation
3	DURA City Of Dubrovnik Development Agency	Ana Marija Pilato Krile	Director	

2.3. Local CCCB potential partners - Dubrovnik/ Croatia

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project**.**

No.	Institution/ organization	Type	Person	Role
1	DURA City Of Dubrovnik Development Agency	Development agency	Ana Marija Pilato Krile	Director
2	University of Dubrovnik	University	Nikša Burum	Rector
3	Association of Traffic Safety in Dubrovnik	Association	Denis Pavela	President
4	Dubrovnik Neretva County	Institution	Nikola Dobroslavić	Head
5	Libertas Dubrovnik	Company for public city transport	Ante Vojvodić	Director

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6	Sanitat Dubrovnik	Company for parking,etc.	Tomislav Tabak	Director

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Dubrovnik/ Croatia

a) Target area

The target area is the Old Town of Dubrovnik, covering 18 hectares and where bicycle lanes don`t exist.

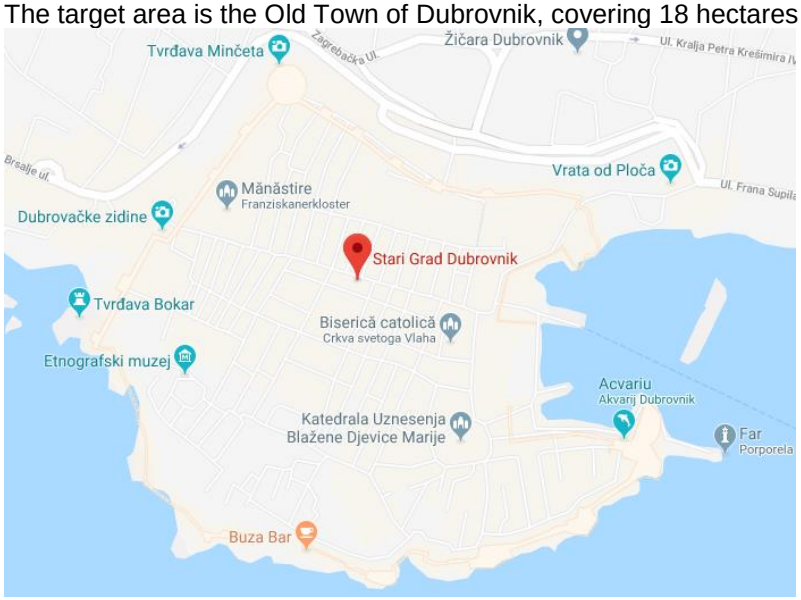

Fig.1. Dubrovnik Old Town map

b) Traffic conditions

The traffic in the target area is organized by *Decision about the organization of traffic in the City of Dubrovnik* passed by the City Council with the prior approval of the Ministry of Interior. The Old Town Dubrovnik is a zone of special traffic regime and is considered as a pedestrian zone, where the permitted vehicle speed same as pedestrians and there are no traffic lights. Also, the City Council regulates the amount of payment of traffic and parking fees and parking in special zones. For the extraordinary use of a non-classified road or other public traffic areas under the jurisdiction of the City of Dubrovnik, a legal or natural person is obliged to obtain a decision of the Administrative Department of the City of Dubrovnik. Also, for the excessive use of the non-aligned road, a legal or natural person is obliged to obtain a decision of the Administrative Department issued on the basis of the *Ordinance on excessive use of public roads* or for extraordinary use, based on the *Ordinance on the protection of the public area.* Inspection supervision is performed by Communal Officers according to the Law on roads.
Also, the traffic in the target area is organized by *Decision on unbundled roads in the area of Dubrovnik* where are written all rules, as well as penalties for non-compliance with the rules and by *Decision of stopping and parking of tourist buses and personal cars (8 + 1) in the zone of special traffic regime,* in the wider area around the Historic City Center of Dubrovnik. For the parking, all Travel agencies or the owners of the vehicle have to pay the compensation to the company Sanitat Dubrovnik.
All permits for entry into the Old City Core, that is for the traffic on streets marked for pedestrians, and all permits and solutions for the excessive use of public transport areas will be issued exclusively in the manner that the applicant fills the form from the Traffic Department of the City of Dubrovnik.

c) Potential clients/ users

The possible clients and users in the target area will be owners of shops, bars, restaurants, souvenir shops etc. who are using goods delivery services.

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3.2. Actual existing initiatives in the same target area – Dubrovnik/ Croatia

There are **no** existing initiatives and implementations within the target area.

4. Existing local traffic management and simulation tools – Dubrovnik/ Croatia

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

- Actually, there is a Video Supervision System in the public area of Dubrovnik, which includes the target area. Also, in the City of Dubrovnik, there are *Information panels*, which show the current number of visitors in the historic core, shown also on the official web page of the City of Dubrovnik. That information is useful for checking because of the crowd, especially in the tourist season.
- The local dispatch monitors traffic for respecting rules such as directions of arrival, departure, speed, etc. It includes a dispatch room for monitoring the areas covered by cameras for the employees of the traffic department of the City of Dubrovnik and for the Traffic Police.
- There was a Traffic model of the City of Dubrovnik in the program PTV Visum, used for the development of the Traffic Study of the city. According to estimations, similar models will be developed again.

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Appendix XVI – Local Analysis Report - Rimini/ Italy

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Rimini/ Italy

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) PUMS of Rimini Municipality:

SUMP (Urban Plan on Sustainable Mobility), whose guidelines were approved on 31 May 2016 by the City Council, is a strategic planning plan that guides mobility in a sustainable way with a long-term life (10 years). Several checks and monitoring actions will be hold at predefined time intervals, SUMP aims to meet the demand for mobility of people through the identification of strategic choices and actions in order to promote the use of more sustainable modes of transport and improve the quality of life in the city.

b) New local circulation rules

The municipality of Rimini is working on new circulation rules that will reduce the entrance of cars and motorcycle in the historic center, in order to improve the utilization of bike and cargo bike in the delivery of goods. So, Rimini municipality made a study about the city logistic by a questionnaire to many kinds of trades, in order to understand: quantity of goods transported, type of supply, type of vehicle used, delivery time, etc. The aim of the study is to locate some transit points to avoid high vehicle traffic and promote low emission vehicle use or cargo bike. For the same reason, a traffic dispatch area will be organized near the motorway, in order to have a point in which goods can be stored waiting for cargo bike transportation.

c) Pedestrian and ZTL areas

Pedestrian areas are regulated by Italian national traffic laws, and by regional PAIR 2010, a special prescription that forecasts an extension of 100% of ZTL area in the historic centers, and an increase of 20% of the pedestrian area in historic centers.

In several Historic Italian cities, there are ZTL (areas not available for cars) zones; in these areas, cars and motorcycles can't enter the Historic Center. Milan has a particular ZTL area because a ticket has to be paid to enter, both for commercial and private cars (Euro 1,2,3,4,5). This area named C, is active from Monday till Friday from 7.30 pm till 19.30 pm on Thursday ends at 18,30 pm and it measures 8,2 km^2 . The access is free for electric vehicles, motorcycles and hybrid vehicles, or vehicles alimented by GPL gas.

1.2. Road and traffic regulations – Rimini/ Italy

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

In Italy, there are specific national traffic laws valuable for the entire territory; supplementary, each municipality puts in place ZTL in historic centers and other restrictions for vehicles.

Standard referring to bicycle lanes is stipulated in a national law D.M. 557/1999.

A driving permit is not needed in Italy to ride a bike, but some associations tried to sensitize the population on the possibility to have a voluntary driven license for bikers.

1.3. Safety and child transport legislation – Rimini/ Italy

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Inside Italian national traffic laws, there are rules on security and child transport, including a rule that points out that during night and evening bikers should dress a yellow phosphorescent waistcoat.

1.4. Regulations for small businesses – Rimini/ Italy

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

In this case, the sanitary law regarding food sale and preparation apply.

1.5. Decision-making institutions – Rimini/ Italy

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

- Ministry of transport
- Local public administrations

2. Local Involvement

2.1. Local CCCB project team – Rimini/ Italy

The composition of the partner's local teams and their roles.

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project Manager	Ing. Alberto Dellavalle	alberto.dellavalle@comune.rimini.it	+39 0541-704853
2	Communication manager	Arch. Donata Bigazzi	donata.bigazzi@libero.it	+390541704337
3	Technical expert	Arch. Tommaso Zappata	tommaso.zappata@comune.rimini.it	+390541-793993
4	Finance expert	Dott.ssa Tiziana Felletti	tiziana.felletti@comune.rimini.it	+390541704155

2.2. Decision on implementing CCCB project – Rimini/ Italy

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Rimini	Roberta Frisoni	Councillor	Mobility

2.3. Local CCCB potential partners – Rimini/ Italy

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	AMR/PMR	Public transport	Cinzia Ciavatti	Employee
2	START Romagna	Public transport	Alessandra Gotini	Employee
3	MiMuovo	Bike sharing	Marco Giuppone	President
4	Manolo cargo bike	Cargo Bike seller	Davide Concordia	President
5	Officina del ciclo	Repairing center for bikes and cargo bikes	Roberto Urbinati	President

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6	Urbico	Urban cargo bike courier service	Www.urbicobike	
7	ECO B.M.	Urban cargo bike courier service	Www.ecobm.it	
8	Fiab Rimini	Association	Enzo Finocchiaro	President
9	Camera di Commercio	Sellers association	Anna Del Prete	President
10	Pedalando e camminando	Bike association	Sandro Luccardi	President
11	La formica social coop arl onlus	Association	Arjana Vogli	Member
12	Mercato cooperto	Association for the covered market	Andrea Fabbri	President
13	Liceo Serpieri	High School	Linda Fabbrini	Vice Principal
14	n. 24 Municipalities into Fua of Rimini Province	Public authority		Mayors

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Rimini/ Italy

a) Target area

City of Rimini (Emilia-Romagna, Italy) has an area of 134,20 sqthe . km, urban center having (Municipality of Rimini) 149.403 inh., and functional urban area (Rimini and others 7 surrounding municipalities) 277.666 inh.

b) Traffic conditions

Currently, there are 96,3 km of bike lanes and the target for 2028 will be 220 km.
Connecting the walking/cycling paths network of the city center with its suburbs, as well as along the seaside, the Bicipolitana will connect the main attraction areas and hubs (Railways stations, Hospital, TRC, Schools, etc.). The routes will be protected, to improve the safety of users, and recognizable with dedicated signs. Actual motorization rate is 1car/1.3 inhabitants.

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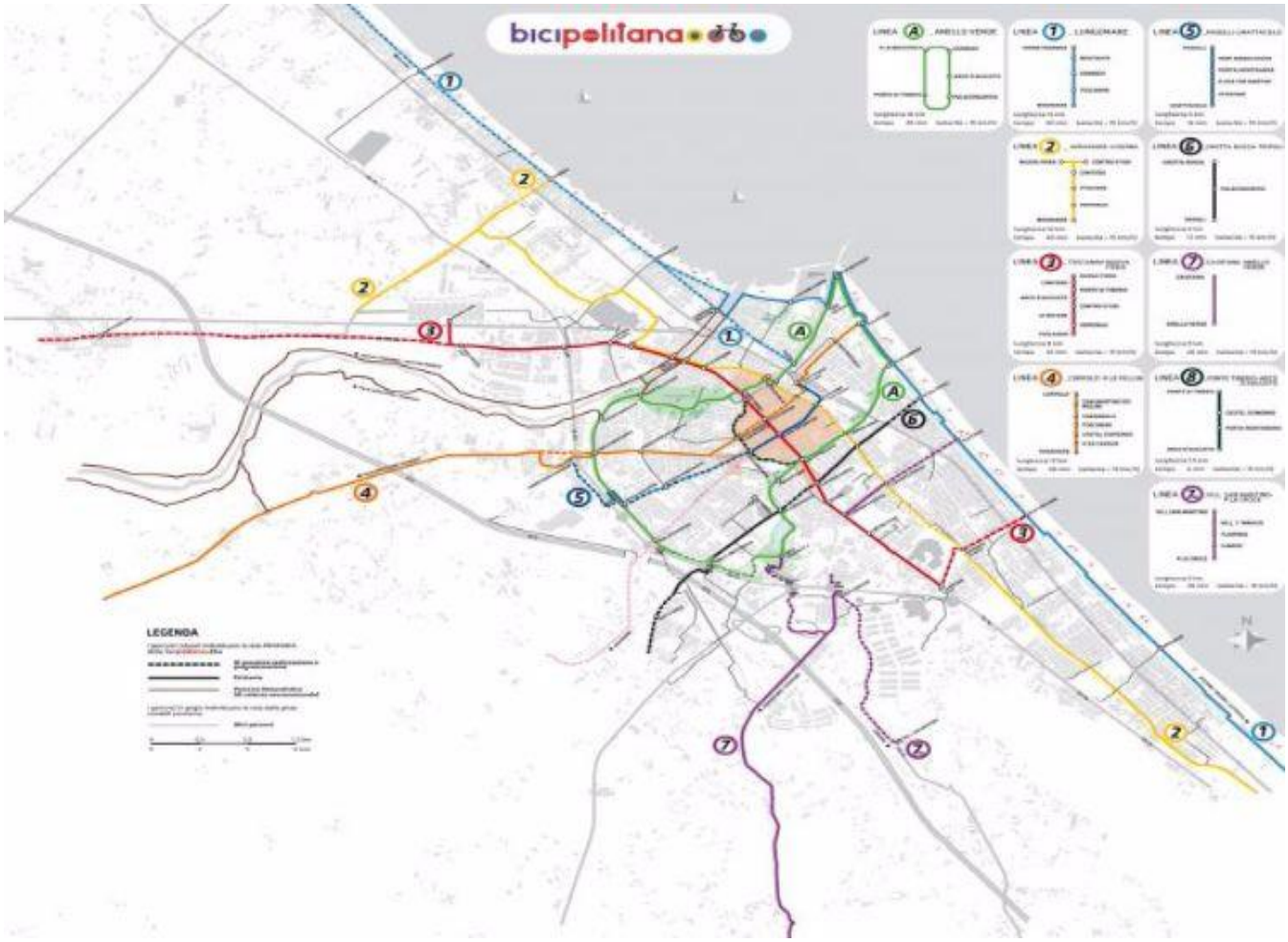

Fig.1. Bicipolitana – Rimini bicycle map

c) Potential clients/ users

Small firms, shops, medium firms; the proposed service will install a traffic dispatch for an operational area of 8 km from the city center. In this area, goods will be stored and cargo bikes will deliver them.

3.2. Actual existing initiatives in the same target area – Rimini/ Italy

In 2019, a Pilot action on cargo bike delivery will take place; actual freight transport components are:
- Industrial logistics related to large retailers
- Heavy vehicles and trucks, City logistic based on trucks and lorries
- 1,340 deliveries/day

Actual types of freight transport:
- 19% own account
- 11% of third-party providers
- 70% of suppliers

According to estimations, 80% of deliveries can switch to cargo bike service. The pilot has a budget of *€ 20.000.*

The main result is to reorganize the delivery of goods in the historic center by cargo bikes instead of utilizing trucks.

A second Pilot action on bikes will take place in the municipality of Rimini in 2019. This second pilot action is divided into two parts; the first one is intended to commuters (employees, and workers), who already have a train subscription, to boost the use of the bike on the train, those commuters will have the bike ticket prepaid by the pilot action. The second one is intended to employees of Rimini Municipality to use the bike to reach the office; those

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employers will find a guarded shelter for bikes, a shower, and a dressing room. The advertising campaign of this second pilot action will be thought and draft by a student of a high school in Viserba (RN).

4. Existing local traffic management and simulation tools – Rimini/ Italy

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

Rimini municipality is using a dedicated traffic management system, based on VISUM. A special traffic dispatch will operate near the motorway, in order to manage a storage facility, and from this area, only cargo bikes will ensure deliveries.

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Appendix XVII – Local Analysis Report - Gdynia/ Poland

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Gdynia/ Poland

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) Technical Standards for cycling infrastructure in Gdansk, Gdynia and Sopot (2012)

In 2012 the Mayor of the City of Gdynia signed a regulation on the implementation of technical standards for cycling infrastructure in the city. This document contains detailed guidelines for the design and implementation of bicycle infrastructure elements.

b) BYPAD certification for Gdynia (2013)

It was the first and general approach to encouraging bikes for all.

c) Sustainable Urban Mobility Plan for Gdynia (SUMP) for 2016-2025

Includes measures linked with cargo bikes and prepare a strategy for goods delivery in Gdynia's center with cargo bikes which are part of the city's fleet.

d) EU project CoBiUM

Gdynia is involved in another project with cargo bikes in the city's fleet. Within it, entrepreneurs, city units as well as NGOs can borrow cargo bikes up to 28 days for their duties.

e) MEVO

Is an e-bike-sharing system in 14 municipalities including Gdynia, which is a good study case to show that bikes are considered as a fully-fledged mean of transport for the whole year. The system doesn't include cargo bikes, so the development of the city's system in Gdynia is a huge chance to raise awareness about them among inhabitants.

1.2. Road and traffic regulations – Gdynia/ Poland

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

Based on Polish Road Traffic Law regulations:

- The cargo bike is considered as a bike. In general, cargo bikes concern the same rules as all bicycles, and rules for bicycles are in a deal with most of the rules applicable to all vehicles on the road. An adult person (18 years) can cycle without any special permissions or license. The bicycle and its equipment must fulfill the requirements of the Regulation of the Minister of Infrastructure from December 31, 2002, regarding the technical conditions of vehicles and their necessary equipment – cargo bikes must be equipped with at least one brake, bell, front and rear lights, and a reflective backlight. Cargo bikes are not registered. The minimum age of person driving cargo bikes isn't defined as well as the maximum capacity of loading box in a cargo bike.
- Definition of the 'bike' – A vehicle not exceeding 0,9 m in width, moved by the muscles of person driving the vehicle; the bicycle can be equipped with an electric drive activated by an auxiliary pedal pressure of no more than 48 V with a nominal continuous power not exceeding 250 W, whose output power decreases gradually and falls to zero after exceeding the speed of 25 km / h (Art. 2, paragraph 47, Road Traffic Law).
- A vehicle moved by muscles with a width exceeding 0,9 m is not a bicycle, but a "bicycle trolley" and it has no right to use a dedicated bicycle infrastructure (cycles tracks, lanes, ways, advanced stop line). It must move on roads. In this case, rickshaws are usually considered as bicycle trolleys.

In Poland there aren't any special parking spaces for cargo bikes yet. However, where they are introduced, they are still treated as specific bike racks, and no one is required to pay additional fees, even if they are in a paid parking zone.

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1.3. Safety and child transport legislation – Gdynia/ Poland

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Based on Polish Road Traffic Law regulations:

- A child under 7 years of age, may be transported on a bicycle only in the case when is placed on an additional saddle ensuring safe driving (Art. 33, paragraph 2).
- Most cargo bikes have special benches for transporting children, but just like in bicycle trailers, children should be fastened with seat belts.
- When an adult cyclist takes care of a cyclist younger than 10 years old, both of them must ride on the pavement (they are treated as pedestrians). In the case of children on the board of a cargo bike, they have to use normal cycling infrastructure.
- Helmets and reflective vest are not mandatory for cyclists.

1.4. Regulations for small businesses – Gdynia/ Poland

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

At the national level:

- Everybody who works in gastronomy/catering is obliged to carry out tests for the Salmonella bacteria and if it's needed to examine by a doctor responsible for occupational health care.
- Everybody who runs a business is obliged to pay taxes. Some discounts are prepared for starting entrepreneurs, but it's not strictly connected with for e.g. cargo bikes.

At the local level:

- Everybody who wants to sell e.g. coffee or other refreshments from mobile service points (including cargo bikes) in City of Gdynia is obliged to get periodical permission from the City Hall. Authorizations are paid and dedicated not for whole cities, but for the specific area.
- If an entrepreneur plans to conduct business activity in a dedicated place (especially where space is limited), the City Hall should be contacted in order to obtain a special permit.

1.5. Decision-making institutions – Gdynia/ Poland

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

At the national level:

- Ministry of Infrastructure
- Police

At the local level:

- Mayor of the City of Gdynia and City Council
- Advisory Board and Plenipotentiaries of Mayor of City of Gdynia
- Roads and Green Areas Management
- Metropolitan Area Gdansk Gdynia Sopot
- Metropolitan Public Transport Association of Gdansk Bay

2. Local Involvement

2.1. Local CCCB project team – Gdynia/ Poland

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone

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1	Project Manager	Supervise and coordinate project local team	a.pawlowska@zdiz.gdynia.pl	+48 5876440 02
2	Communication manager / Technical expert	Responsible for dissemination and development of the project in the city	d.gajda@zdiz.gdynia.pl	+48 58 764 40 09
3	Communication manager / Technical expert	Responsible for dissemination and development of the project in the city	a.lewandowska@zdiz.gdynia.pl	+48 58 764 40 09
4	Finance expert	Supervise local project budget	k.marszalkowska@zdiz.gdynia.pl	+48 58 764 40 02

2.2. Decision on implementing CCCB project – Gdynia/ Poland

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	City of Gdynia	Wojciech Szczurek	Mayor	
2	City of Gdynia	Roman Witowski	Director	Roads and Green Areas Management
3	City of Gdynia	Alicja Pawlowska	Head	RaGM – EU Projects & Mobility Mgnt.
4	City of Gdynia	Jakub Furkal	Plenipotentiary of Mayor for Cycling Transport	RaGM – Cycling Transport

2.3. Local CCCB potential partners – Gdynia/ Poland

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project.

No.	Institution/ organization	Type	Person	Role
1	Public Library in Gdynia	Budgetary unit	Natalia Gromow	Director
2	Social Innovation Lab in Gdynia	Budgetary unit	Aleksandra Markowska	Director
3	Gdynia Sports Centre	Budgetary unit	Rafał Klajnert	Director
4	InfoBox	Budgetary unit	Marta Juraniec	Employee
5	Rowerowa Gdynia Association	NGO	Kajetan Lewandowski	Chairman of the Board
6	Companies in Gdynia – participants of “Bike to work” campaign	All	n/a	n/a

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Gdynia/ Poland

a) Target area

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Our aim is to raise awareness on cargo bikes among private users – inhabitants of Gdynia and neighboring municipalities.
We don't have a specific area for CCCB, it's the whole city. Moreover, it will be possible to use cargo bikes (but not leave) also out of Gdynia, but it's not known in details yet.
Here you find main cycling routes as well as public GPS tracks of cyclists which cover the use of bikes: https://www.openstreetmap.org/relation/2603248#map=13/54.5141/18.5118&layers=CG

Fig.1. Cycling routes in Gdynia

b) Traffic conditions

The city of Gdynia is on the routes of EuroVelo 10 – Baltic Sea Cycle Route and EuroCelo 13 – Iron Curtain Trail, so our quality of infrastructure is improving. Beside EVs, we have been developing a coherent cycling paths network which is based on cycle lanes, advisory cycle lanes, tracks, contraflow cycling, cycle parking, etc. The process of building is long, so CCCB gives us the opportunity to improve the quality of cycling infrastructure by e.g. collecting data from GPS about routes chose by cargo bike users. In Gdynia, we have a lot of bike routes in the forests (not only touristic meaning, but also for commuting), but in our opinion, they won't be used by cargo bike cyclists. The main goal for cycling infrastructure now is to connect each district in Gdynia with the city center. The estimated total length of cycling roads is 60 km.

c) Potential clients/ users

Within our network of City's stakeholders, we want to start a pilot of rent cargo bikes for inhabitants. Thanks to Public Library (departments in many districts of Gdynia), Social Innovation Lab (social community houses), Gdynia Sports Centre (many sport buildings or entertainment centres) and InfoBox (observatory of changes in Gdynia – famous city's place in centre) we are able to ensure cargo bikes for people who live not close to the Gdynia's center. With Internet registration, a user can book a cargo in a chosen place and take it up to 3 days (TBD). He or she will get a battery charger and other bike equipment. After the rental period the user is obliged to return cargo to the same place. All tracks will be saved by GPS device on board as well as cyclists will fulfill a questionnaire about the quality of service and cargo bikes.

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The second way of developing the CCCB in Gdynia is to use experience and resources from the city's annual campaign „Bike to work". We want to approach users of cargo bikes through companies where they work. In the last year edition, we had 300 companies and about 2200 employees on board. This year we want to prepare some dissemination materials and gadgets to introduce the idea of cargo bikes among them. During the next year edition (and maybe in 2021) we want to award companies with cargo bikes which will be dedicated for their employees for private use.
In 2019, Gdynia will organize Cargo Bike Festival with a parade on the city's streets, so it's a great opportunity to get an audience, especially inhabitants of Gdynia and nearby municipalities to raise awareness on this kind of bikes and project.

3.2. Actual existing initiatives in the same target area – Gdynia/ Poland

In November 2018 within the EU project CoBiUM we introduced a service for city's entrepreneurs, public institutions, and NGOs (from January 2019). We bought a fleet of 10 cargo bikes (Babboe). Models of cargo bikes are different (trikes, long-johns, with equipment for people or only for goods - in total 5 different models). All of them are e-bikes and have additional equipment such as locks, covers, tents, repairing tools, etc. All of them were bought for 27,000 Euro. On the city's website dedicated to mobility (www.mobilnagdynia.pl), we prepared registration tool to everybody in the target group and interested. Every user can cycle a borrowed cargo bike up to 28 days. The area of measure is mainly Gdynia, but we allow to go to e.g. Gdansk or other cities.
We notice that weather is a crucial aspect of the success of this initiative. Many entrepreneurs or public institutions said that they are interested, but they are waiting for spring and summer time. We hope that once they try this mean of transport that will get used to it and use cargo bikes all-year round.

4. Existing local traffic management and simulation tools – Gdynia/ Poland

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.
The City of Gdynia is a part of the Tricity Integrated Traffic Management System called TRISTAR. Within it, 2 Centers of Traffic Management and Control (in Gdynia and Gdańsk), as well as an operator's office in Sopot, operate. There is a model of the transport system implemented in PTV software.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix XVIII – Local Analysis Report - Varna/ Bulgaria

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Varna/ Bulgaria

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

a) **National law** – Poads act / https://www.mrrb.bg/en/roads-act/, and Spatial development act / https://www.mrrb.bg/en/spatial-development-act/ ,
b) **Road traffic act** https://www.mrrb.bg/en/road-traffic-act/ ,
c) **Ordinance** No РД-02-20-2 of 20 December 2017 for planning and designing the communication-transport system of the urbanized territories https://www.mrrb.bg/bg/naredba-rd-02-20-2-ot-20-dekemvri-2017-g-za-planirane-i-proektirane-na-komunikacionno-transportnata-sistema-na-urbaniziranite-teritorii-obn-dv-br-7-ot-2018-g-popr-br-15-ot-2018-g-izm-i-dop-br-98-ot-2018-g/ ,
d) **Rules for the implementation of Road traffic act** https://www.mvr.bg/docs/default-source/normativnauredba/ppzdvp.pdf

1.2. Road and traffic regulations – Varna/ Bulgaria

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

Same legislation as mentioned at 1.1 apply.

1.3. Safety and child transport legislation – Varna/ Bulgaria

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

Road traffic act https://www.mrrb.bg/en/road-traffic-act/

Bicycles must me proper equipped (brakes, lights, reflective signs); drivers must use dedicated lanes or limited space on the right side of public roads, use reflective waistcoat, and use muscular force.

1.4. Regulations for small businesses – Varna/ Bulgaria

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

Normal authorization and taxation are applied to small companies, without special provisions for cargo bikes. Special legislation applies in the case of food products:

Food Law https://www.mh.government.bg/media/filer_public/2018/10/25/zhr.pdf ; Law for the Bulgarian Food Safety Agency http://www.babh.government.bg/userfiles/files/Zakoni/ZAKON_za_Bylgarskata_agenciq_po_bezopasnost_na_hranite(1).pdf

1.5. Decision-making institutions – Varna/ Bulgaria

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

- Ministry of Interior
- Ministry of Regional Development and Public Works
- Local Council

2. Local Involvement

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

2.1. Local CCCB project team – Varna/ Bulgaria

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project Manager – eng.Mladen Ivanov	Supervise and coordinate project local team.	Ivanov.parkingi@gmail.com	+359885600438
2	Coordinator – Garo Kaprelyan	Support of Project manager, preparation of requested documents, communication with lead partner and other project partners	garo_sport2002@yahoo.com	+359884804232
3	Accountant – Mariana Sotirova	Financial management of the project.	msotirova@varna.bg	+35952820342

2.2. Decision on implementing CCCB project – Varna/ Bulgaria

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Varna	Ivan Portnih	Mayor	
2	Municipality of Varna	Mladen Ivanov	Director	

2.3. Local CCCB potential partners – Varna/ Bulgaria

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project

Not identified yet.

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Varna/ Bulgaria

a) Target area

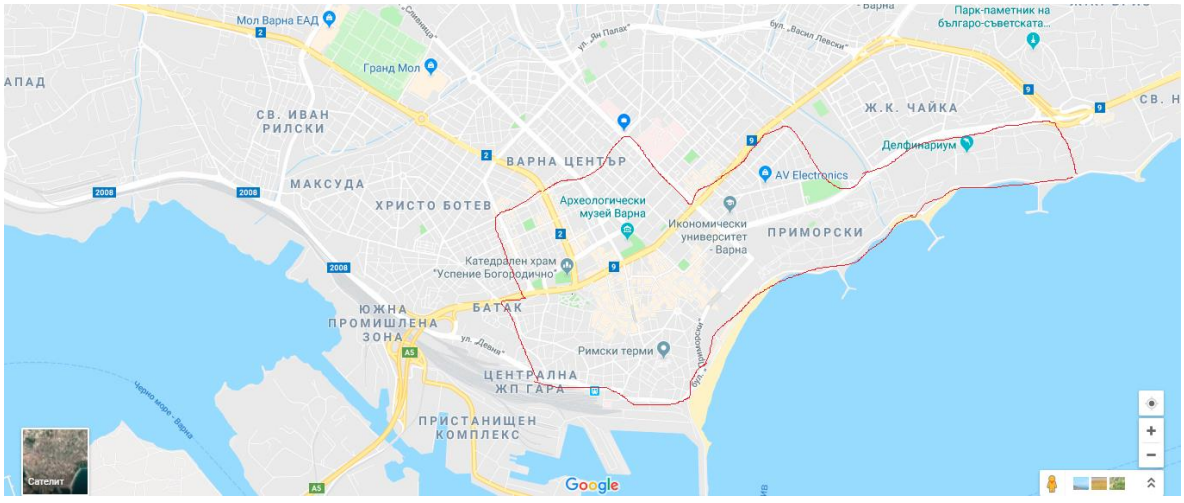

Fig.1. Target area for Varna

b) Traffic conditions

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Cycling paths and infrastructure are developed according to a master plan.

c) Potential clients/ users

Our initial plan is to attract small and mid-size delivery companies to test the product and at a later stage to extend our target group to big companies with mid to large daily deliveries. The first focus will be on:

- food/ goods delivery companies
- post delivery companies

When we have the technology tried and tested we will focus on personal users.

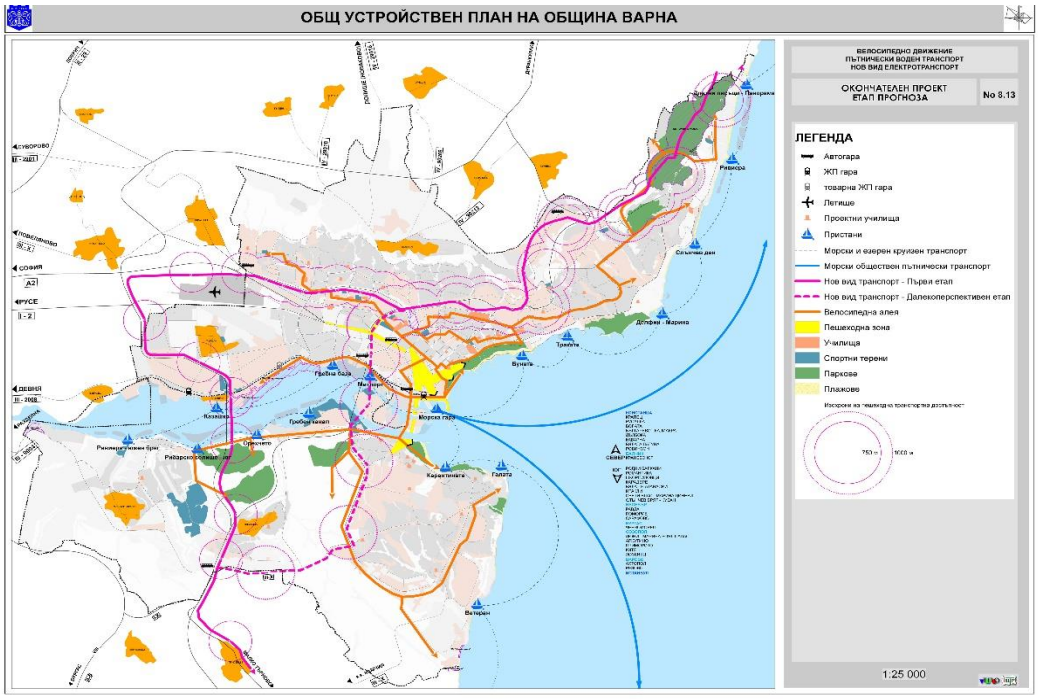

Fig.2. Cycling infrastructure in Varna

We already have some interest from big delivery companies which is a positive signal for the future integration of CCCB in the transport system within the city which will be in line with our pillar to become a less car- dependant and environmentally friendly city.

3.2. Actual existing initiatives in the same target area – Varna/ Bulgaria

In the same area, there are several projects: Integrated Urban Transport – Phase 1 and Phase 2; EU –Mobisec project. These initiatives started in 2012 and will finish in 2020.

The total budget for those projects is over 1.5 mil. Euro, including 25 km of bicycle lanes and 10 covered byke parking for 100 bikes.

4. Existing local traffic management and simulation tools – Varna/ Bulgaria

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

At this moment, Varna has a traffic management system (http://tasrud-varna.com/?page_id=189 ; http://itransport.varna.bg/Map/Index.html#/), including a traffic dispatch, but a model of the transport system of the city is not available. That's why Varna municipality is interested in developing such a modeling system (like PTV Visum or Airsum).

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 769086

Appendix XIX – Local Analysis Report - Dimos Drama/ Greece

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Dimos Drama/ Greece

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

We didn't find national or local laws, regulations or policy papers that are in favor or restricting the use of cargo bikes.

1.2. Road and traffic regulations – Dimos Drama/ Greece

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

We didn't find legislation regarding the use of public roads, vehicle registration or usage of cargo bikes.

1.3. Safety and child transport legislation – Dimos Drama/ Greece

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

We didn't find information regarding legislation dedicated to safety or child transport on cargo bikes.

1.4. Regulations for small businesses – Dimos Drama/ Greece

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

We didn't found regulation regarding special permits or taxes for small businesses using cargo bikes. Some legislation regarding local taxes on public space or health insurance may apply.

1.5. Decision-making institutions – Dimos Drama/ Greece

This sub-section lists possible institutions involved in approval of cargo bikes usage and CCCB implementation approval.

Probably Ministry of Interior, Transport and Local Council.

In Greece, there is no national law related to Cargo Bikes. Our municipality main task is to work hard in order to start talking about Cargo Bikes and involve the government in addressing the usage of Cargo Bikes. Our scientific advisor for SUMP is also a member of a ministry committee for Urban Development and he will make suggestions for the use of Cargo Bikes in Greek cities. Also, our scientific advisor for the interim report of Drama's Covenant of Mayor's commitment added in the report the use of Cargo Bikes as a measurement for the reduction of CO2 emissions in Drama.

2. Local Involvement

2.1. Local CCCB project team – Dimos Drama/ Greece

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Aikaterini Iosifidou	Supervise and coordinate the project local team	kiosi@dimosdramas.gr	+302521350665
2	Aikaterini Iosifidou	Communication manager	kiosi@dimosdramas.gr	+302521350665

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3	Thessalonikia Karatzoglou	Technical expert	thkar@dimosdramas.gr	+302521350651
4	Evggelia Ziouti	Finance expert	eziou@dimosdramas.gr	+302521350632

2.2. Decision on implementing CCCB project – Dimos Drama/ Greece

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	Municipality of Drama	Christodoulos Mamsakos	Mayor	
2	Municipality of Drama	Dimitrios Karampatzakis	City Councillor	
3	Municipality of Drama	Aikaterini Iosifidou	CCCB Responsible	Programming and EU Projects
4	Municipality of Drama	Thessalonikia Karatzoglou	SUMP Responsible	Technical Works
5	Municipality of Drama	Ioannis Tsapalakis	Officer	Municipal Police

2.3. Local CCCB potential partners – Dimos Drama/ Greece

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project

No.	Institution/ organization	Type	Person	Role
1	National Technical University of Athens	University	Efthimios Bakogiannis	Scientific Advisor - SUMP
2	Democritus University of Thrace	University	Konstantinos Lymperopoulos	Scientific Advisor - COM
3	SUMP Management Team	Local Authorities	Thessalonikia Karatzoglou	Stakeholders in decision making

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Dimos Drama/ Greece

a) Target area

Actually, bicycle lanes have only about 2km, as shown on map below.

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The target area for the CCCB project is the same as the urban area of Drama's SUMP, shown in the picture below:

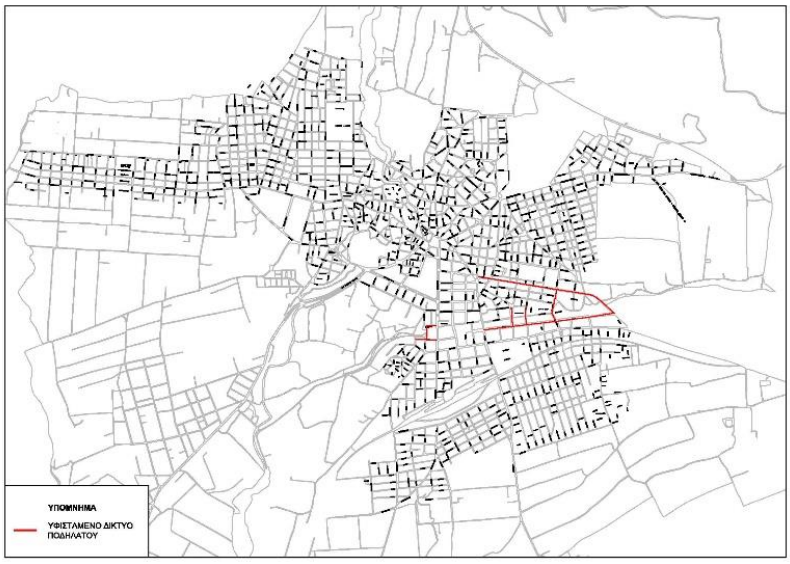

Fig.1. Existing bicycle lanes in Drama (red)

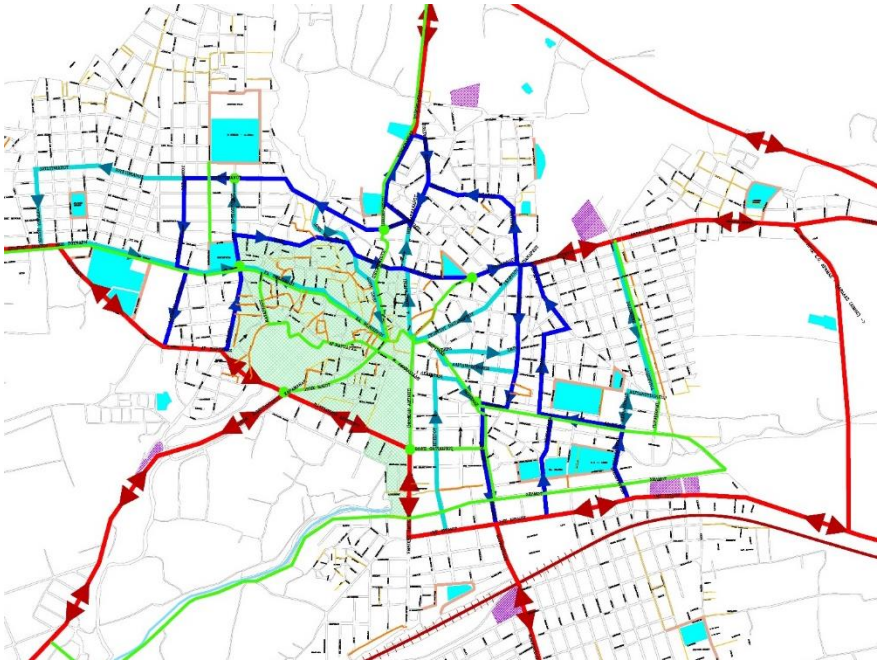

Fig.2. Proposed new bicycle infrastructure (Drama's SUMP)

b) Traffic conditions

At this moment, data related to traffic conditions and the surface of the target area is analyzed in our SUMP reports (but is in Greek). In the next steps of the CCCP project, we will prepare all the details needed for defining the use cases or pilot tests.

c) Possible clients/ users

We are assuming that the first use of Cargo Bikes in Drama will be for municipal services. We will use Cargo Bikes for pleasure rides dedicated to elderly people (public houses for elderly people) and people who visit our cultural events. Also, we are going to use Cargo Bikes for municipal street cleaners.

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3.2. Actual existing initiatives in the same target area – Dimos Drama/ Greece

In the same target area, there are several local initiatives, including:

- Implementation of bike lanes: Municipality of Drama constructed a small bike lane network (2 Km), as a pilot measurement in the framework of Urban Sustainable Development. These constructions were funded from ERDF in the programming period of 2007-2013 as a part of two Urban Regeneration Projects. The total budget of the Projects was 3.000.000,00 €. The use of bikes in the target area increased significantly.
- Implementation of a sharing bike system: In the framework of European Mobility Week 2016, the municipality of Drama was funded from the Ministry of Environment to establish a permanent measure during the campaign. Thought, a sharing bike system was obtained. The budget of the Project was 5.700,00 €.
- Research for the Sustainable Urban Mobility Plans: The Municipality of Drama commissioned the National Technical University of Athens to conduct the research of SUMP for Drama City. The budget of the Project was 93.000,00 €.
- Participation on the European Mobility Week: The last five years (2014, 2015, 2016, 2017, 2018) the Municipality of Drama participating to the EMW in cooperation with local authorities, local SME and NGOs in order to raise awareness for urban mobility. The initiative and the number of actions as well as the number of participants were the reasons for National and European distinctions.

4. Existing local traffic management and simulation tools – Dimos Drama/ Greece

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.

At this moment, there is no traffic management system or an operational dispatch in Drama. The municipality is interested to implement a transport model system, based on a dedicated software. In city SUMP, there are special activities defined for implementation, including infrastructure development and traffic management in Drama, based on ICT technologies.

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Appendix XX – Local Analysis Report - Messenger – Prague/ Czech Republic

1. Local and national framework conditions with regard to the use of cargo bikes.

In this section, project partner cities are listing identified national and local conditions such as regulations, laws or policy papers and give some detail about the measures that are in favor of encouraging or restricting the use of cargo bikes.

1.1. Favorable/ restricting policy papers – Messenger – Prague/ Czech Republic

This subsection includes a list of national and local laws or decisions, national and local mobility strategies and projects, local council decisions.

In the Czech Republic, a bicycle ride is regulated by Act, No. 361/2000. The rules for bikes are very similar as in central Europe. There are the same rules for bikes as for cars. There is zero tolerance for alcohol while riding a bike. Everyone must carry some type of ID at all times.

1.2. Road and traffic regulations – Messenger – Prague/ Czech Republic

This subsection includes a list of existing laws regarding usage of public roads, vehicle registration policy, laws regarding usage of bikes and cargo bikes, age for driving vehicles, limitations regarding capacity of helping motors or speed, standards referring bicycle lanes, dimensional or weight restrictions for bikes, cargo bikes registration, driving permit (if needed).

People riding a bicycle are not allowed to ride side-by-side, even on cycle paths. On the road, the bicycle rides at the right edge of the road; if pedestrians are not compromised or restricted, they may go to the right-hand side. The bicycle is also a scooter in terms of road traffic.

If the vehicle moves slowly or when the vehicle is standing at the right-hand edge of the road, the cyclist may in the same direction drive or ride the vehicle from the right-hand side of the right-hand edge of the carriageway or deck if there is enough space on the right of the vehicle.

If the road sign “Pedestrian and cyclist trail” designates a pedestrian and cyclist trail, the cyclist must not endanger the pedestrians walking along the trail.

It is compulsory to use dedicated bicycle lanes. There is no minimum margin for overtaking cyclists given by law. However, overtaking is not allowed when it would endanger the overtaken cyclist or if the maneuver couldn’t be safely managed. However, it is prohibited to block an overtaking vehicle.

Cyclists are strictly obliged to ride on the right side of the lane. Czech road code does not consider situations when cyclists need to take the whole lane for safety reasons. However, taking lanes for safety is practical and if it does not hinder drivers, it’s generally tolerated.

At crossroads, bikes are allowed to overtake traffic on the right side of stopped or slowly moving cars. But they must always be cautious not to overtake vehicles turning right. When riding in the dedicated lane, other drivers can cross the lane only to turn or leave the road. Cyclists cannot be endangered, even at the end of the lane.

On the road, some bike corridors are composed of pictograms. It’s just an informative painting showing recommended a position for cyclists and has no legal value.

1.3. Safety and child transport legislation - Messenger – Prague/ Czech Republic

This subsection is listing existing standards and laws regarding the safety of persons and child transport, need for special equipment or wearables, restricted access in high traffic areas.

A cyclist under the age of 18 is obliged to use a protective helmet of an approved type according to legal regulation. The helmet must be properly fastened. A child younger than 10 years of age shall be on the road, local roads and publicly accessible purpose-of-use communication to ride a bicycle only under the supervision of persons over the age of 15. If the bicycle is equipped with a child-carrying aid and fixed leg rests, a person over the age of 15 may carry a child under the age of 7 years.

1.4. Regulations for small businesses - Messenger – Prague/ Czech Republic

This subsection lists local regulations regarding small businesses using cargo bikes, like driving license, commercial license, health authorizations, taxes, a special or dedicated area for activity.

The Czech Republic has been a member of the European Union since 1 May 2004. Since that day, the Czech market has been entirely open for both existing and the new EU Member States. The Czech Republic does not apply any restrictions to entrepreneurs based in the EU area.

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The basic provisions governing business obligations and other specific aspects of doing business in the Czech Republic are set out in the Act of Corporations (Zákon o obchodních korporacích) and in the Civil Code (Občanský zákoník).

The general conditions applying to a natural person pursuing a trade are: to have reached the age of 18 years, to have the full legal capacity and a clean criminal record.

About food transport, any vehicle, container, etc. used for the transport of foodstuffs must be kept clean and in good technical condition and protect the food from pollution and, if necessary, hygiene must be designed and constructed to allow adequate cleaning or disinfection.

1.5. Decision-making institutions - Messenger – Prague/ Czech Republic

This sub-section lists possible institutions involved in the approval of cargo bikes usage and CCCB implementation approval.

Institutions in charge of decision making in the Czech Republic with regard to the use of cargo bike are:

- Ministry of Transportation
- Municipal authorities
- Police
- Local Associations.

2. Local Involvement

2.1. Local CCCB project team - Messenger – Prague/ Czech Republic

The composition of the partner's local teams and their roles

No.	Local project team	Roles/ responsibilities	Email	Phone
1	Project Manager	Supervise and coordinate the project local team	katerina.ovesna@messenger.cz	+420 603104102
2	Communication manager	Communicate with local partners, municipalities, opinion leaders, interest organizations	david.voverka@messenger.cz	
3	Technical expert	Technical tasks, testing	sira@messenger.cz	
4	Finance expert	Planning, budget, analysis	iveta.matejckova@messenger.cz	

2.2. Decision on implementing CCCB project - Messenger – Prague/ Czech Republic

List of departments/ persons involved in decision making regarding the implementation of City Changer Cargo Bike project.

No.	Institution	Name	Role	Department
1	MESSENGER	David Voverka	Owner	
2	MESSENGER	Radek Schierreich	CEO	
3	MESSENGER	Katerina Ovesna	Sales & marketing director	Sales & marketing
3	MESSENGER	Iveta Matejckova	Financial specialist	Financial Department

2.3. Local CCCB potential partners - Messenger – Prague/ Czech Republic

List of local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs) potentially involved in CCCB project

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No.	Institution/ organization	Type	Person	Role
1	Prague City Council	Local Authority	Zdenek Hrib	Mayor
2	Prague City Council	Local Authority	Sylva Svihelova	Transport Development Specialist
3	Municipality of Prague 1	Local Authority	Pavel Cizinsky	Mayor
4	Auto*Mat, z. s.	Civic association	Michal Lehecka	Sustainable development of transport in Prague

3. Project implementation area

This section identifies bounds of the target area for CCCB project and other cargo bikes implementations, together with existing traffic conditions, possible clients or users of cargo bikes and existing initiatives in the same area.

3.1. Project target area – Messenger – Prague/ Czech Republic

a) Target area

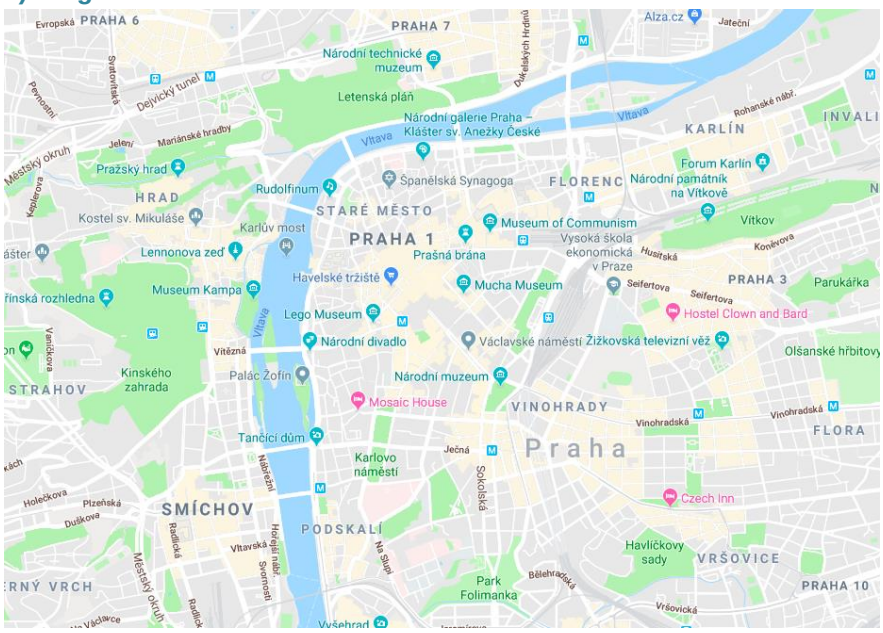

Fig.1. Map of Prague

b) Traffic conditions

After several years of stagnation, the Prague City Council in 2018 doubled its investment plan for cycling infrastructure. While between 2013 and 2017, investments ranged between 40 million and 48 million crowns a year, it was almost 100 million last year.

Cycle route planning is still very problematic in the city center. The town is hilly; the streets in the historic center are narrow and tiled.

c) Possible clients/ users

Cycling in Prague nevertheless gains importance in both the private and the commercial sector, year after year.

3.2. Actual existing initiatives in the same target area – Messenger – Prague/ Czech Republic

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Last management of Municipality of Prague 1 (center of Prague) limited bicycles in the town since July 2018. With the protests of interest groups, the court canceled this regulation and the signs were gradually dismantled.
In autumn, there were elections in Prague, and the city has new leadership, so the future of cycling in the city will still be in place. According to initial information, the new management should be much more accommodating to cycling. The City of Prague City Council also extends cycling routes every year and plans new cycle paths across the city.
Messenger is one of the main partners of project ECOLOGIS – the aim of this project is to have a better life in Prague – better transport, using bikes, etc. (http://www.ekologis.cz/homepage/partners). Messenger also cooperates as an industrial partner with IPR Prague. The Institute for Planning and Development of the City of Prague (IPR Prague) is the main conceptual workplace of the City of Prague in the field of architecture, urbanism, development, creation, and administration of the city. It processes strategic, urban and territorial development documents.
Messenger is a first company who started to use the cargo bikes in Prague. Within the framework of the CCCB project, in autumn 2018, the campaign called MAGIC set out to bring Prague's cargo bikes closer and emphasize their advantages in urban transport. The first cargo bike was designed in December 2018 and is moving around the city every day, attracting the attention of passers-by. The couriers were trained to inform the public about the advantages of cargo-bike transport and about the CCCB project.

Fig.2. Messenger cargo bike

4. Existing local traffic management and simulation tools – Messenger – Prague/ Czech Republic

This section is gathering information from partner cities regarding the existence of a traffic management system, a local traffic dispatch, usage of dedicated tools for modeling the transport system (like PTV Visum, Aimsun, etc.) or interest in developing such a model.
In 2017, with the support of the Prague City Council, a map for cyclists in Prague was created, showing all routes, closures, and changes (map.prahouna.kole.cz). We don't have information regarding traffic management systems or software traffic modeling tools.

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Appendix XXI – Template for Local Analysis – Task 2.2

1. **Local and national framework conditions with regard to the use of cargo bikes. (Please list all the existing local and national conditions such as regulations/ laws/ policy papers and give some detail about the measures that are in favor of encouraging the use of cargo bikes).**

   1.a - Favorable or restricting policy papers

   1.b - Road and traffic regulations (national/ local)

   1.c - Regulations with regard to safety and child transport

   1.d - Regulations with regard to small businesses including food preparation and sale (taxation, authorization, health insurance)

   1.e - Establishment of departments/institutions in charge of decision making (regarding cargo bikes usage/ projects)

2. **Local Involvement**

   2.a – Please present the composition of your local teams and their roles

   2.b – Please send us the list of departments/persons involved in decision making regarding the implementation of Cargo Changer Cargo Bike project

   2.c – Please list your local partners and their stakeholders (third sector bodies, local SME, logistics sector, family organizations, NGOs)

3. **Project implementation area**

   3.a – What is the target area you plan to work with?

   - Please, specify/ describe the bounds of the project target area (Google Map or Open Street Map are he preferable; bike lanes? Infrastructure?)
   - Please, describe the traffic conditions and existing traffic restrictions in the target area
   - Please, define profiles possible clients and users in the target area (size of business, type of services proposed, predicted demand for deliveries, etc.)

   3.b – Are there existing initiatives and implementation within the target area? If yes, please, describe them:

   - When the initiative started / finished?
   - What was the budget of the initiative?
   - What are (preliminary) results of the initiative?

4. **Availability of simulation tools**
   - Does the city have a traffic monitoring system?
   - Is a traffic dispatch system operational in that area?
   - Is there an available model of the transport system of the city (or the target area) implemented in PTV Visum, Aimsun or other (software modeling) program?
   - If such a model is not available, will you (or city authorities) be interested in developing such a model?

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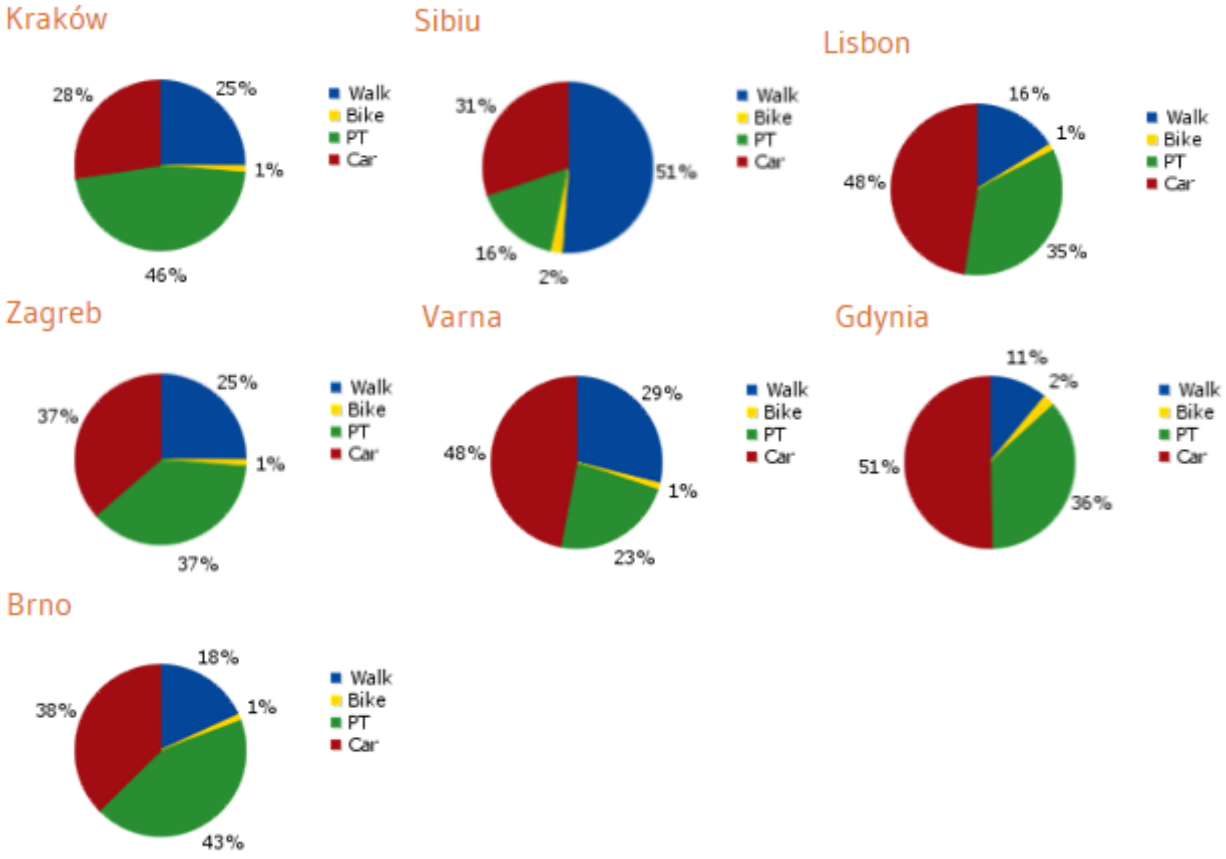
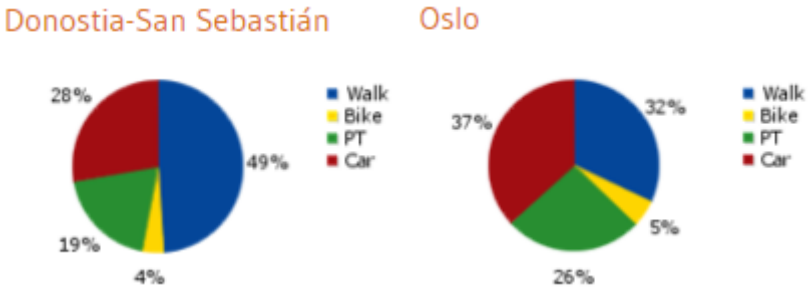
Appendix XXII: Partner cities transport modal split

Sources: http://www.epomm.eu/tems/index.phtml (2015-2016)
http://www.cityclock.org/urban-cycling-mode-share/#.XJzU15gzbIW
Obs: Where info were not available, we used a city in the same area

1) Very low bicycle usage (<2%): Krakow, Zagreb (Dubrovnik), Lisbon, Varna, Sibiu (Alba Iulia), Gdynia, Brno (Prague)



2) Low bicycle usage (up to 5%): San Sebastian, Oslo



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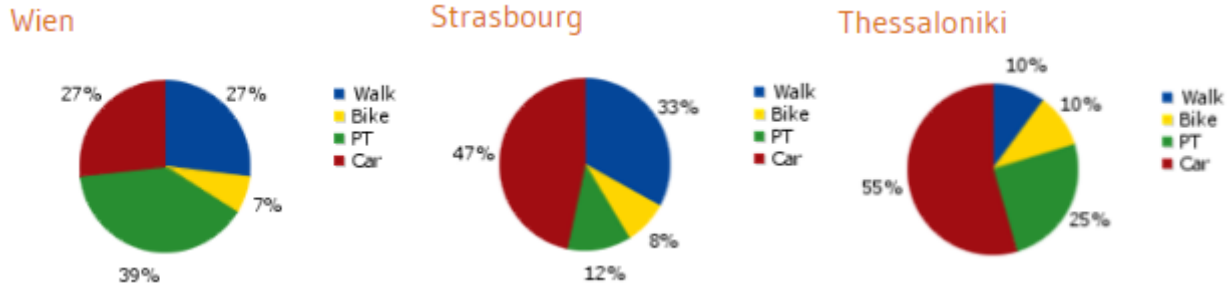
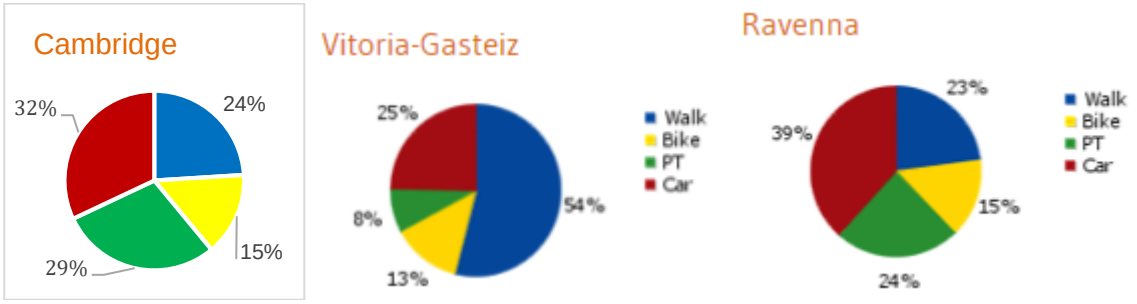
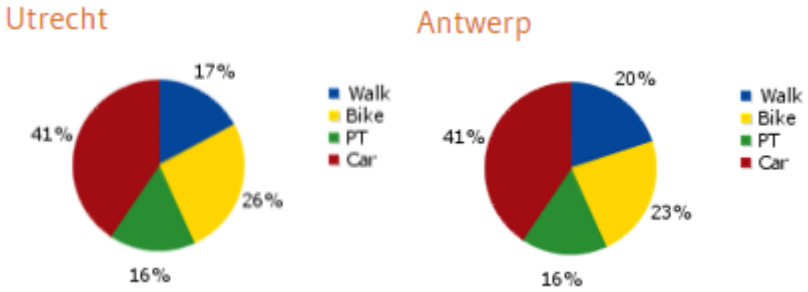
3) Average bicycle usage (up to 10%): Wien, Strasbourg, Thessaloniki (Drama)



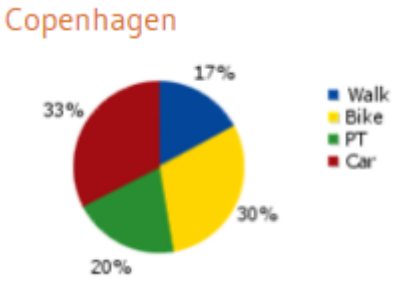
4) High bicycle usage (up to 20%): Cambridge, Vitoria – Gasteiz, Ravenna (Rimini)



5) Very high bicycle usage (>20%): Utrecht, Antwerp (Mechelen)



6) TOP bicycle usage: Copenhagen (>30%)



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