

Integrated Action Plan - Suceava

FREIGHT TAILS ACTION PLANNING NETWORK

Innovative logistics solutions for freight transport and distribution



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1. INTRODUCTION

1.1. URBACT PROGRAM

URBACT is a European program developed within the framework of the European Union's Cohesion Policy, the Territorial Cooperation Objective, which facilitates the exchange of information with the scope of promoting sustainable urban development. The program provides cities with the opportunity to work together in order for them to respond to major urban challenges, confirming the crucial role that urban centers play in coping with the increasingly complex changes that society faces. URBACT supports cities in developing pragmatic, new and sustainable solutions that integrate social, economic and environmental dimensions. The program facilitates the exchange of best practices and experiences among all European specialists involved in urban policy.

Currently, 290 cities, 29 countries and 5,000 active participants are involved in the URBACT Program. **Projects funded under the URBACT III program run in two phases: the development phase and the implementation phase.**

In the context of increasing long-term challenges such as globalization, pressure on resources use and the aging of the population, as well as ever-tougher European and government regulations on taxation of carbon, water, or waste storage costs, it is necessary to find some methods of public awareness of the urban economic environment on the need of understanding the concept of sustainability and the adoption of measures to redefine new models for operating their own businesses.

In the context of the unprecedented development of trade and premises for commercial activities in Suceava Municipality, the local government has the responsibility to intervene and initiate projects to ensure a sustainable course for local development, preservation of natural heritage, support for the creation of a stable local economy and promoting a high level of employment.

All these commitments meet the objectives of the Europe 2020 *Strategy for smart, sustainable and inclusive growth*, which seeks to achieve EU-wide transformation into a 21st century economy - smart, sustainable and inclusive, leading to an increase in employment, productivity and economic, social and territorial cohesion.

The Territorial Interregional Cooperation Program for the Urban Development Network URBACT III is an exchange of experience and knowledge for cities that contribute to the "Regions for Economic Change" EC Initiative, whose main purpose is to help cities develop practical solutions that are new



and sustainable and integrating the economic, social and environmental domains.

The program is implemented with funding from the European Union through the European Regional Development Fund through the URBACT 2014-2020 Program (85%), the Romanian Government (13%) and the local budget contribution (2%).

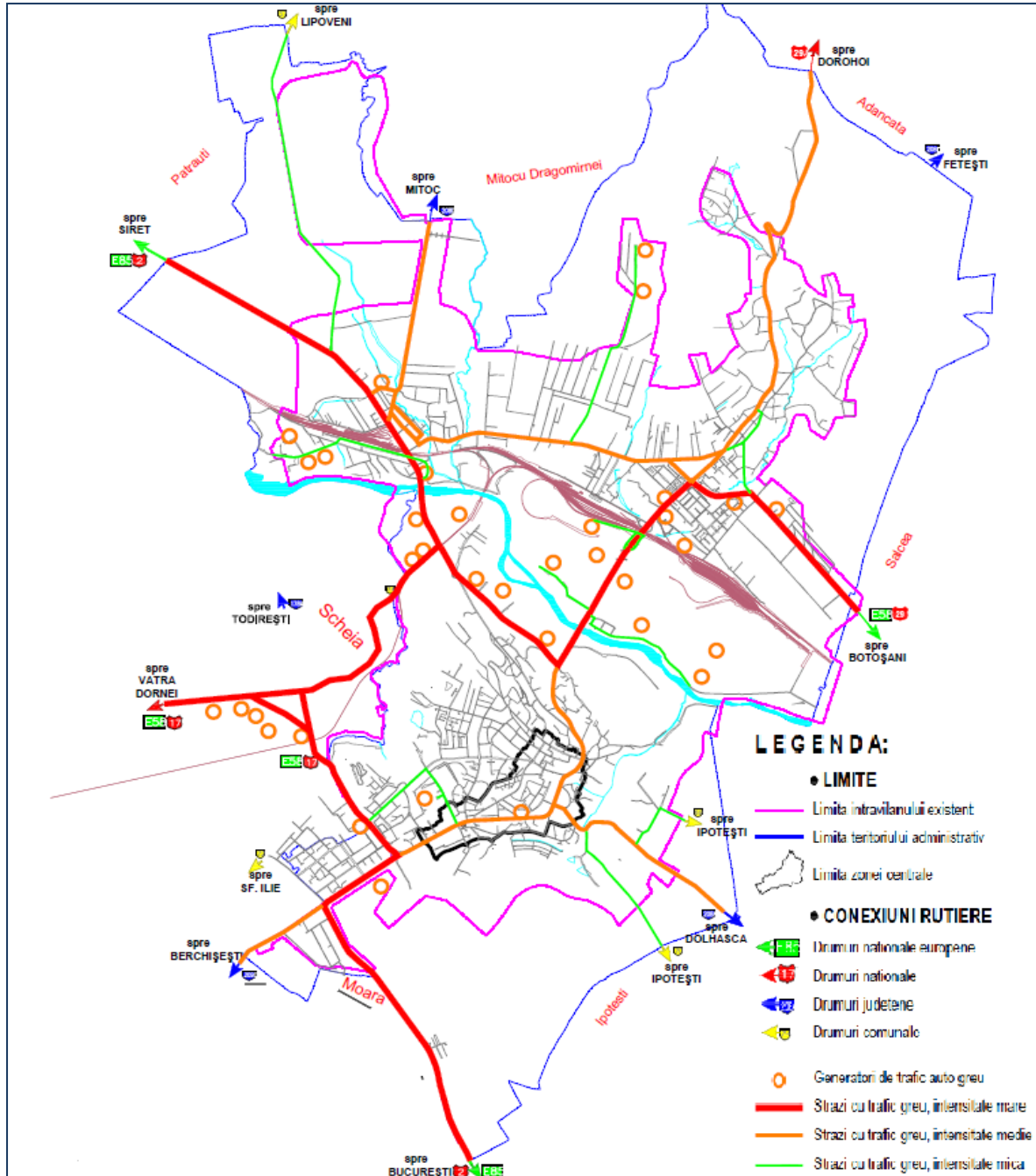
1.2. THE GENERAL FRAMEWORK FOR THE TRANSPORT AND DISTRIBUTION OF GOODS

Suceava is a reference commercial center for a wide neighbourhood: its malls and markets are regularly visited by thousands of both local and foreign (Ukrainian and Moldovan) buyers. The large shopping centers have the advantage of offering a wide variety of products in a single retail unit, but the activity unfolds in an impersonal framework without allowing direct contact with the primary trader and not always providing good quality services. The large number of such centers located in the city of Suceava and the over-dimensioning in relation to local needs make them difficult to re-adapt and this leads to financial problems, closures, relocations and bankruptcies. Local developers have the option of signing contracts for the rental of retail spaces within supermarkets, but the conditions must be advantageous on both sides, the alternative being the markets on public land.

The current road context is the one that demands such a solution. Due to the fact that Suceava is a road junction for two important national roads and given that Suceava's ring road is only partly completed and given for use, the whole traffic takes place on the circulating arteries inside the city. Thus, it is estimated that around 730 trucks arrive daily in the city center, where approximately 220 retailers operate. The 140 kilometres of roads that Suceava has, not adapted to heavy traffic, become insufficient in relation to the city's freight needs. This implies the necessity for immediate measures to alleviate the problem of freight transport and distribution as well as the degree of pollution resulting from the emissions of these vehicles.

Given the exponential development of commercial activities in the last ten years, as well as the location of the main commercial area in Suceava's meadow, practically between the two large districts of the city, the municipality faces a critical situation regarding the vehicular traffic and mainly with the traffic related to the activity of transport and distribution of goods. Taking into account that the investments in the road infrastructure in the last years were mainly focused on rehabilitation activities of the road network, and not on the extension and creation of alternative routes, the problems of agglomeration of vehicles, traffic congestion, the increasing level of pollution due mainly to traffic is a major factor of urban discomfort with negative implications on the quality of life in the urban environment and on the optimal development of economic activities that depend to a great extent on road transport.

Thus, the existing situation requires the identification of medium and long-term measures to allow the fluidization of road traffic, reducing the volume of vehicles passing through the city and reducing the pollution caused mainly by road traffic.



Source: Sustainable Urban Mobility Plan of Suceava Municipality

1.2.1. Location and context, framing, influence area, transport perimeter

Location, framing, influence area - county and regional perspective

The Municipality of Suceava is located in the north-eastern extremity of Romania, in the Suceava Plateau, at an average altitude of 325 meters. The locality is situated at the intersection of the European roads E85 and E58, at the distances of 432 km on the road and 450 km on the railway from the capital of the country, Bucharest.

The locality is situated on the Suceava River, separating the old town of Suceava from the newer integrated neighbourhoods of the city, respectively Burdujeni and Ițcani.

The territory of Suceava has an area of approximately 52 km² and together with neighbouring localities forms the "Intercultural Development Association Suceava Metropolitan Area". It was founded on 1 December 2011. Since Suceava is a city of second rank and cannot be a metropolitan area, it has been used as an association - the "Suceava Metropolitan Area Association", made up of the city of Suceava.

Suceava is not favoured by its positioning, as the North-East Region is considered the poorest nationwide, characterized by poor infrastructure development.

1.2.2. Synthetic socio-economic indicators on mobility in the area of influence of Suceava municipality

Population evolution

The evolution of the population in Suceava Municipality shows an increase in the first part of the period after 1991, so that a slight decrease could occur after 1998. In 1998, the largest number of inhabitants was recorded, after which the evolution of the population was on a downward trend. The general trend of the annual average rate over the last 4 years has been rising, but since 2011, the downward trend has re-established.

Between 1992 and 2002 the population of the city declined more pronounced than the county population in general, with a difference of almost 6 percentage points (-7.5% compared to -1.9%). There is a population decrease in Suceava County between the two censuses from 1992 to 2002, more intense in the city of residence, while in the period 1966 - 1992 the population volume increased, especially in the urban area of the county.

The decline of the population aged 0-14 and the increase of over 65 years indicates the establishment of a demographic aging process, which is becoming more and more felt at the level of the studied area. The phenomenon is similar for the other administrative units in the county, but in

2000, Suceava Municipality had a lower share of the younger population and a smaller proportion of the elderly (a 3.4 percentage point difference from the value county weight).

Evolution of economic activities

At the level of Suceava, the structure of employees by economic activity highlights three main activities in terms of local labor force absorption, services, industry and trade. The services are diversified and provide jobs for approx. 41% of employees in Suceava. The industry, dominated by the manufacturing industry, has a share of 35.8 in the total number of employees, and the trade, the third activity offering jobs, provides 21.9% of the paid jobs. In constructions field there are approx. 10% of the total number of employees, and primary activities taken cumulatively (agriculture, forestry, fish farming) do not exceed one percent.

The evolution of employees by economic activity is manifested differently within the sub-branches. For the 2011 and 2007 comparison years, we see a restructuring process that has led to the abolition of more than 7,000 jobs. The most affected sectors are tourism services, the category of employees working in hotels and restaurants decreasing by 36.40%. Financial and professional, scientific and technical services also lose approx. 24% and respectively 17% of the employees in the comparative period.

Industry is also being restructured under the impact of lower demand for its products and reducing consumption. The number of employees in the industry is reduced by approx. 28% in 2011 compared to 2007.

Tourism is considered an economic activity with great potential to generate development. Among the most important resources to support the future development of Suceava, tourism occupies the first place (54%) in the respondents' choice, followed by local resources (38%) and industry (37%). In the category of local resources, variables were introduced as local human resource, local intelligence, existing monuments, and opportunities to increase employment through job creation. Services, and in particular trade (32%), are still perceived as exploitable and revenue-generating resources, and the attraction of European funds can be an important resource for development in the opinion of 24% of respondents.

The influence of the socio-demographic and economic aspects on the trips to / from Suceava

Within the "Survey on labour force reconversion in Suceava Municipality and the trends of its movement in the territory", a study elaborated to substantiate the analysis of the existing situation in the General Urban Plan depicts the work trips in the absence of commuter data, by the migration data existing in official statistics and assertions based on the presentation of the volume and the evolution of the average number of employees in relation to the employees from the private

economic environment for the territorial level of the adjacent area of Suceava municipality, considered as the most likely for performing work trips.

The meaning of work trips is established by analysing the dynamics of the employees and the turnover of the localities from the peri-urban area of Suceava based on the data available for the private environment as well as those reported by the official statistics. This area is considered to be the most likely area to facilitate work trips in view of the distances travelled.

Road accessibility

Suceava is an important road node in north-eastern Romania, being at the intersection of two European roads:

- ✓ European road E85 (DN2) - which connects with Bacau and Bucharest and Bulgaria (to the south) and Siret and Ukraine (to the north);
- ✓ European road E58 (DN 17 / DN 29) - which connects with Vatra Dornei and Hungary (to the west) and Botosani and the Republic of Moldova (to the east).

In 2010 the construction of the bypass route of Suceava started but the works were not completed. The road descends from DN 2 before entering the town from Fălticeni, bypasses the town's inner city territory through the west, crossing DJ 209C, DN 17 and the Suceava River and returns to DN 2 after the way out from Ițcani to Siret.

Because Suceava is a major national road junction and as a result of its location on the commercial routes between Romania, Ukraine and Moldova, it is part of the TEN-T European road transport network, being located on one of the main routes of the TEN network -T that crosses our country. Moreover, due to the fact that Suceava is a relay on larger regional level, between states in the European Union and states outside the European Union, together with the periurban area is foreseen to be one of intermodal / interchange interchanges of Romania and this network.

Rail accessibility

From the point of view of the railway infrastructure, the territory of Suceava is crossed by the following mainline railways:

- ✓ Railway 500 Bucharest North - Ploiesti Sud - Adjud - Pascani - Suceava - Vicșani;

Air Accessibility

Ștefan cel Mare International Airport Suceava is located in the city of Salcea at 11.2 km away from the city of Suceava and 30.5 km away from the city of Botosani. Road access to the airport is provided by the national road DN 29 (E58) and the county road DJ 298.

1.3. GENERAL DESCRIPTION OF THE PROJECT

Since May 2016, the City of Suceava has been implementing, together with the Westminster City Council - UK – Leader Partner, Maastricht - The Netherlands, Parma - Italy, La Rochelle - France, Gdynia - Poland, Umea - Sweden, Tallinn - Estonia, Brussels - Belgium and Split - Croatia, the project "Freight TAILS ACTION PLANNING NETWORK - Innovative logistics solutions for freight transport and distribution".

The project is co-funded by the European Union through the European Regional Development Fund under the URBACT III Interregional Co-operation Program for Urban Development Network, Priority 1.1 Cities as motors of growth and creation of working places - Exchange of experience and learning.

By implementing the "*Freight TAILS ACTION PLANNING NETWORK - Innovative Logistics Solutions for Freight Transport and Distribution*" project, Suceava will receive non-refundable technical assistance with the scope of regulating and optimizing the activity of private companies in the field of freight transport and distribution in order to reduce the negative impact due to road traffic, for the reduction of emissions and the fluidization of traffic in urban areas.

Suceava will have the opportunity to implement the Integrated Action Plan, which will include project proposals specifically designed to streamline road traffic and regulate the freight transport and distribution system, and in the framework of the international partnership knowledge transfer activities and good practices between partner cities will be possible.

Throughout the project, technical experts and representatives of local administrations in partner cities will conduct practical training sessions in Suceava to transfer knowledge and examples of successfully implemented projects applicable to local realities in Suceava.

The main objective of the project is to reduce the global demand for freight transport and to achieve a long-lasting, efficient, sustainable and less polluting freight transport and distribution.

The specific objectives refer to:

- ✓ Elaboration of an Integrated Action Plan for the settlement of nonconformities in the field of transport and distribution of goods in the Municipality of Suceava;
- ✓ Reduction of traffic agglomeration accompanied by air pollution
- ✓ Implementation of a local delivery consolidation system;
- ✓ Implementation of a local regulation for the delivery of goods.

The budget of the project is 42,615.80 euros.

The project financing is distributed as follows: 85%, respectively 35,092.93 euros, represent the European Union contribution from the European Regional Development Fund, 13%, respectively 5.367,15 euros, represents the contribution from the Romanian state budget and 2%,

respectively 825,72 euros, represent the local contribution related to Suceava Municipality, which is provided by the remuneration of the employees delegated in the implementation of the project, partially from the working quota of 8 hours a day.

The implementation period is 24 months starting May 2016.

2. IDENTIFICATION OF IMPLIED FACTORS AND CONSTITUTION OF SUCEAVA LOCAL GROUP

2.1 Identification of factors involved in activities related to the project domain

It is recognized that public participation and involvement of citizens in developing ways of common understanding of objectives, issues and possible strategies that provide solutions to problems can improve the quality of decision planning, implementation and evaluation, increase efficiency in financial terms, efficiency, transparency, acceptability and public support, but also its legitimacy.

The resulting benefits: Improvement in the quality of decisions, certain problems and difficulties are identified in the planning phase, and the consultation in the planning phase leads to the approval of controversial issues and the prevention of opposition in the decision-making process, can prevent delays and reduce implementation costs, increased acceptability of measures, empowerment of community members, decision-making becomes more democratic, gives the local communities the power to influence decisions. Also, public consultations lead to strengthening the ability to make plans at local level, increase public confidence in decision-making, learning and exchange of experience.

As a result, local institutions and organizations active in the public and private sector have been contacted, that can influence and / or are influenced by the endeavour to identify viable solutions for the problems caused by the transportation and distribution of goods in the Suceava Municipality. Thus, 21 institutions signed the Association Agreement no. 19326 / 16.06.2016, and formed the Suceava Urbact Local Group, in order to implement the second phase of the project "Freight TAILS - Innovative logistics solutions for freight transport and distribution".

The meetings allowed debates that led to a clear understanding of the objectives of the project by all participants, facilitated the completion of the study on the existing state of the commodity transport system in Suceava at the time of the start of the project, allowed the creation of a summary action plan, which, subject to the partnership's attention, was able to lay the foundation of a package of activities to be carried out in order to create a viable and integrated freight transport system in the context of the overall transport system, the economic, social, and environmental conditions specific in Suceava Municipality.

2.2 Presentation of the members of the Suceava Local Group

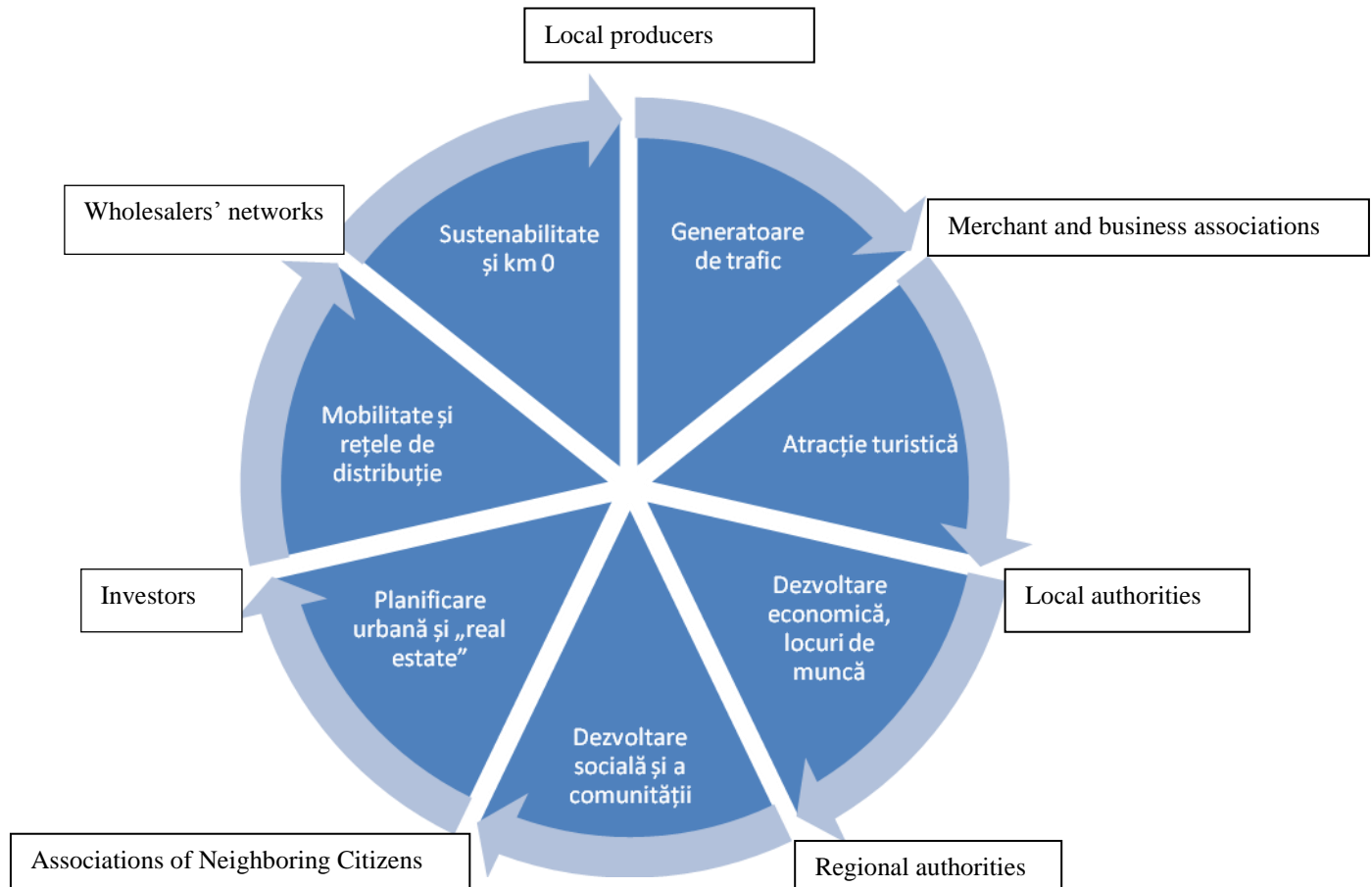
Under the Association Agreement, the Urbact Local Group of Suceava consists of:

1. Crai Nou Suceava
2. National College "Ștefan cel Mare" Suceava
3. Technical College "Petru Mușat" Suceava
4. Technical College "Alexandru Ioan Cuza" Suceava
5. S.C. RELIANS CORP S.R.L.
6. S.C. ADRIA S.R.L
7. The association *Grupul Ecologic de Cooperare -GEC Suceava*
8. S.C. Transport Public Local S.A Suceava
9. Office - Local Transport Authority, Suceava City Hall
10. National Environmental Guard, Suceava Regional Commissariat
11. The Environmental Protection Agency of Suceava
12. Suceava County Council
13. Regional Resources Center for NGOs
14. Faculty of Electrical Engineering and Computer Science, "Ștefan cel Mare" University of Suceava
15. Faculty of Economic Sciences and Public Administration, "Ștefan cel Mare" University of Suceava
16. SC TAXICSV SRL Suceava
17. SC FETCOM SRL Suceava
18. Shopping City SRL Suceava
19. SC DAREX AUTO SRL Suceava
20. City Council of Suceava Municipality
21. Suceava County Police Inspectorate - Police of Suceava Municipality - Road Office.

In the context of the project, setting up partnerships and conducting working meetings has led to the identification of the main areas where each partner has experience, the strengths and weaknesses of the organizations, the extend in which everyone is affected by the actual state of the freight transport system, interest and possible involvement in the establishment of a strategy for implementing the well-integrated sustainable urban transport concept of economic, social and environmental sustainability.

3. FREIGHT DISTRIBUTION - INTEGRATED CONCEPT

The market model of the future is based on the concept in which commodity distribution (and implicitly the related transport sector) must play a major role in community life, local business activities and local urban development.



The URBACT Local Group with continuous activity includes traders and business associations, local authorities, regional authorities, higher education institutions, business development consultants and grants, youth education organizations, whose experience can make a significant contribution to identifying solutions and proposing activities that need to be implemented locally to streamline freight transport and distribution within the strategic planning process at the local level.

4. DEVELOPMENT OF STRATEGIC SWOT ANALYSIS: OPPORTUNITIES, THREATS, STRENGTHS AND WEAKNESSES

All representatives of institutions identified as key stakeholders were involved in this approach and formed working teams by competences and fields of activity to identify the main factors / sub-factors that have implications, their possible impacts on markets and specific actions designed to use the benefits or counteract the specified negative effects.

The way of work follows 5 progressive phases - listing the factors in each field, identifying potential impacts and their possible future development, determining the importance for each impact by marking it with a score of 1 to 10, analysing internal factors, making alternative scenarios and establishing the more performing scenario.



4.1 Activities prior to the meeting

Prior to the first workshop with the Urbact Local Group, various necessary activities were carried out before the event, namely:

- meetings with the representatives of Suceava Municipality involved in the implementation of the project in order to understand and outline a plan for communication, approaching the theme and organizing the event;
- Phone and email correspondence with the persons involved in the implementation of the project;
- Analysis of the outlined materials for inviting and bringing together GLU members;
- Online research in the field and theme of the project.

4.2 SWOT ANALYSIS

On October 6, 2016, starting with 9:00 am, the first meeting of the Urbact Local Group Suceava took place in the Conference Hall of the Center for Supporting Bucovinian Traditions.

Mister Dan Dura, local project coordinator, opened the meeting with the presentation of the URBACT Program, of the context and purpose of the TAILS ACTION PLANNING

NETWORK - Innovative Logistics Solutions for Freight Transport and Distribution. He also provided a conclusive example of such a project: the Integrated Action Plan used in London, a city that also faces major traffic problems due to heavy vehicles crossing the city for various purposes. The action plan includes measures such as: composing a GLU, building consolidation centers (off-shore warehouses from where the freight need is distributed with smaller and less polluting cars), taking *last mile* type logistics measures (the last component of the distribution gear of a specific product - food, mail, technological product - is carried out only by means of ecological transport, bicycles, electric vehicles or using alternative fuels. This concept is generally applied in the centers of large cities where the level of pollution is high, it is imposed by decisions of the local deliberative and its infringement leads to major financial penalties), the construction of buildings of great importance in strategic places that do not contribute in addition to the traffic problem, as well as the education and training of retailers in the sense of adopting specific schedules and specific modes of transport and distribution of goods.

There were also presented as references for project action, objectives and expected results:

- reducing demand for freight journeys and delivering them in a sustainable, efficient, secure and cleaner way;
- reducing agglomeration / congestion of traffic and, implicitly, air pollution;
- the implementation of a consolidated transport and distribution system at local level;
- the implementation of a local regulation for the delivery of goods.

Each member of the Urbact Local Group was given a SWOT analysis sheet and they were asked to complete it. After completing the individual sheets, the members were divided into two groups to make a comprehensive SWOT analysis that included the strengths, weaknesses, opportunities and threats identified by each stakeholder group. After the completion of the workshop, each of the two groups presented the SWOT analysis and decided which of the elements identified by each working group will be retained in the final document that will constitute the SWOT analysis for the project.



The SWOT analysis as a strategic planning method involves specifying the project objectives and identifying the internal and external key issues (using various statistical studies) that are favourable or unfavourable to achieving the objectives.

One of the main reasons for applying this method of analysis was the construction of a comprehensive picture of the current situation imposed by freight transport and distribution. Thus, both the internal, positive and negative factors, as well as the external forces that influence, positively or negatively, the current situation could be identified.

SWOT ANALYSIS REPORT

As a result of these activities, the result was recorded in the SWOT Analysis, as shown below.

STRENGTHS (+ Intern)



- The past experience of Suceava Municipality in this type of projects and strategies {CIVITAS II SMILE - "Ecological alternatives for the sustainable development of the cities of Europe" (2005-2009), MIDAS - "Measures regarding the influence of the transport demand for sustainable development" (2006- 2009), Integrated urban development plan (2010), Sustainable Urban Mobility Plan (2014), Sustainable Energy Action Plan (2012), Suceava Local Action Plan for the Promotion and Implementation of Electric Vehicles and Charging Infrastructure in Suceava within the EVUE project "The Pilot Electromobility Network of European Cities" - 6091 co-funded by the URBACT II Program;
- Implementation in the last 4 years of road infrastructure projects that involved the rehabilitation of the road infrastructure on the main thoroughfares of the city, including the CFR bridges and passageways located on the main transport routes;
- The existence of a complex and already welded Local Support Group;
- Conducive legislative framework that supports electromobility;
- Open and generally positive attitudes, both at the level of the population, the economic agents, as well as at the level of the local administration, to everything that means environmental protection, ecological and alternative solutions to solve the problems caused by freight transport and distribution;
- Existence of an ongoing investment project at the level of the Suceava Local Council for the completion of the bypass route of Suceava Municipality, currently partly built, and for the realization of an alternative mini-route that includes a new bridge over the Suceava river;
- Existence of ongoing projects on the purchase of electric vehicles and charging

points;

- The existence of "Stefan cel Mare" University, which could help the project both with ideas and solutions, as well as with academically prepared people;
- Partial concentration of commercial areas as well as the existence of some on the outskirts of the city;
- The existence of a diversified distribution network at the municipal level: road, rail (the existence of three railway stations, the former county bases of supply, the loading points and the logistics necessary for the freight transport) and the aerian;
- Opening towards the acceptance of alternative ecological solutions in the context of the existence of alternatives such as: hybrid machines, electric machines, compressed-air or alternative fuel machines, etc., due to the existence of the outdated car fleet of the companies involved in freight transport and distribution;
- Existence of zones and areas close to the city that can be arranged as warehouses, from where the necessary freight could be transported inside the city with smaller and less polluting machines;
- Existence of alternative roads that could be transformed and arranged in bypass routes of the industrial / commercial area already congested;

WEAKNESSES (- Intern)



- Chaotic development and systematisation of the city from the urban and infrastructure point of view, which is currently defective in the transportation and distribution of goods (the existence of only two bridges over the Suceava River);
- Improper delimitation of areas of interest (urban area vs. commercial area vs. industrial area);
- Lack of parking lots both inside and outside the city for heavy vehicles;
- Not finalizing the bypass route of Suceava;
- The existence of a single thoroughfare linking the two poles of the city;
- The lack of hot points analysis and their map;
- Uniform non-commitment of responsibilities that certain local authorities have, for the purpose of applying existing regulations and corrective and restrictive measures in this respect (abusive parking, commodity supply at peak hours);

- Non-commitment at individual level of a responsible attitude
- Poor education on environmental protection;
- Poor promotion of appropriate civic attitudes through the media, due to the poor involvement of those who are part of this branch;
- The existence of shopping centers in the middle of the city, the difficult traffic and the lack of traffic decongestion points in these areas;
- Inappropriate planning of the functional areas of the municipality;
- The absence of an updated and approved PUG since the beginning of the urban development of the city of Suceava
- Limited space to extend existing roads or specific routes for electric vehicles;
- Poor connection to the national transport network;
- Lack of studies to identify the type of goods transported / hauling companies / routes used by them for real-time monitoring of freight transport and distribution;
- Lack of a concrete scheme for urban planning;
- Existence of economic operators in the field of construction (concrete stations, construction materials warehouses) in urban areas or places for domestic waste disposal;
- Area-specific climate, geographical positioning;
- Lack of facilities for investors (industrial park and infrastructure);
- Failure to adapt the car park to the current situation of the city;
- Lack of a paid parking management system;
- The limited financial possibilities of Suceava Municipality and other local authorities;
- Lack of a regulation obliging carriers to plant or to landscape green areas to compensate for the associated degree of pollution;

Opportunities (+ extern)



- Existence of the external know-how;
- Existence of internal and external financing lines;

- Existence of a national concern for car fleet change (through programs of the Ministry of Environment such as Rabla or Rabla +) or at European Union level to find solutions to reduce pollution mainly due to road traffic, such as ecological transport;
- Growing purchasing power;
- Opening of final consumers (citizens and the private environment) to protect the environment;
- Existence on the market of electric or alternative vehicles;
- The existence of a Master Plan of Transport at regional and national level;
- European legislation supporting sustainable urban development;
- The strong interest of economic agents at the macroeconomic level for efficient traffic management in order to avoid lost times;

Threats (- Extern)



- Reluctance to change;
- Continued commercial expansion that generates goods and distribution needs;
- Corruption and the existence of personal interests;
- High cost of electric vehicles;
- Excessive and unnecessary use of vehicles in areas with high traffic problems;
- Continuous increase in the number of cars of all types;
- The frequent changes of the political class, without maintaining a continuity of previous measures and visions;
- The power of persuasion of economic agents that might be affected by certain regulations;
- The individualistic approach of urban space to the population and stakeholders;
- Increased demand for transport due to tourism development;
- Developing online commerce that requires door to door delivery;
- Non-correction of the national legislation with the European Union regulations;

5. ACTIONS PROPOSED FOR IMPLEMENTATION DURING THE PERIOD 2018 - 2028

While establishing the innovative logistics solutions for the transport and distribution of goods at the level of Suceava municipality, we have started from the needs / problems identified in the analysis of the urban context, implicitly of the needs and solutions proposed within the Urbact Local Group constituted for the elaboration of the Integrated Action Plan.

From the chapters presented above, the following general problems specific to Suceava can be drawn:

- Low accessibility, connectivity and mobility - a problem generated by a number of needs related to local transport infrastructure (poor connectivity between the two urban parts of the city, poor modernization of the road infrastructure, low development of the alternative transport infrastructure, failing parking system, lack of traffic management system, heavy traffic through the central area of the city);
- High CO2 emissions generated by both road traffic and the lack of integration of energy efficiency measures in public (high operating costs, including lighting) and residential buildings.

The issues / needs presented above have a major impact on the living standards and quality of life of the inhabitants of Suceava.

The centralization of the above-mentioned problems, as well as the needs that generate them, has led to the following analysis criteria:

- city development potential;
- the resources available to the municipality in order to meet the needs;
- the impact of the needs on the sustainable development of the city;
- the degree of urgency in solving the needs.

General objective: Implementation of a reliable and efficient freight and distribution system in Suceava Municipality in order to streamline road traffic, reduce emissions and increase the quality of life of the inhabitants

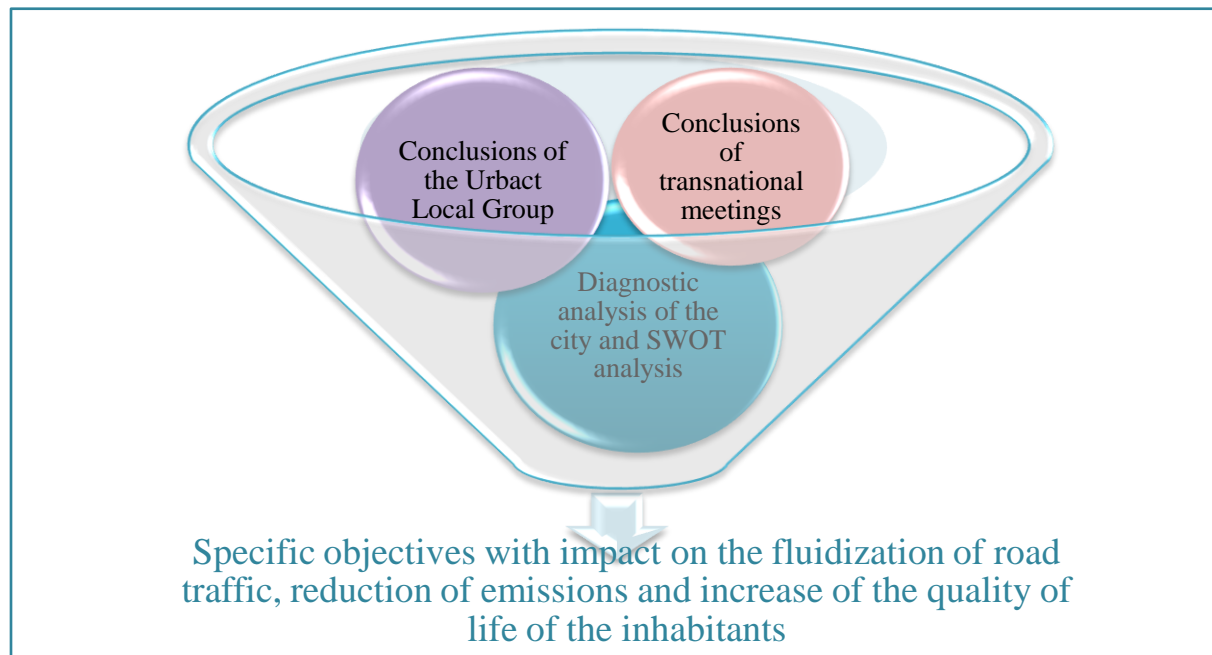
In formulating the general objective of the long-term locality target from the point of view of the freight transport and distribution system, it has been ensured the observance of **generally valid principles**, which are the key to the implementation and monitoring of the short-, medium- and long-term activities, respectively:

- ✓ Direct correlation between national and regional general strategies, specific strategies, priority measures and projects identified according to the needs of the community;
- ✓ Ensuring the participatory level of all local factors through public consultation mechanisms, involvement of all stakeholders through public-private partnerships and of the population in the elaboration or implementation of an action plan;

- ✓ The limited character of the human and financial resources available to the community - own or attracted - the efficiency of the use of resources through their integration.

In order to achieve the mission of the implementation concept of a reliable and efficient freight and distribution system for transport and distribution in the city of Suceava, five specific objectives were identified.

Aspects that have outlined the specific objectives:



In order to achieve the specific objectives, a series of specific activities were outlined. The focus of the specific objectives and activities covered by the Integrated Action Plan is thus presented

Specific objective	Activities
Specific Objective 1: Creating, developing and upgrading road infrastructure to streamline road traffic	<i>Activity 1.1</i> Creating the Consolidated Goods Distribution Center
	<i>Activity 1.2</i> Creation of a new connecting route between the two urban poles of Suceava
	<i>Activity 1.3</i> Identification and development of connecting routes between the Ițcani and Burdujeni neighbourhoods in order to decongest the traffic on the main road Calea Unirii

	<i>Activity 1.4</i> Road systematization in order to streamline the traffic (especially on the main thoroughfare and commercial area)
Specific Objective 2 Innovative Traffic Management for Sustainable Local Development	<i>Activity 2.1</i> On-line information application "Traffic manager"
	<i>Activity 2.2</i> Implementation of an integrated traffic management system with Smart City specific modules
	<i>Activity 2.3</i> Develop an on-line communication platform between Local Public Authority, Civil Society, Business Environment - including freight forwarding and distribution companies, non-governmental organizations to facilitate the active participation of the company in the development and implementation of actions and projects related to the freight transport
	<i>Activity 2.4</i> Establishment of a "smart" advisory council with members from different fields of activity, public and private sector
	<i>Activity 2.5</i> Elaboration of a roadmap guide on the steps to be taken in order to transpose an idea, activity into a project implemented in the field of transport efficiency and distribution of goods, including the identification of the financing source
Specific Objective 3 Support and promote the use / implementation of innovative technologies and solutions	<i>Activity 3.1</i> Acquisition of alternative vehicles especially at the level of transport companies, goods distribution and taxi
	<i>Activity 3.2</i> Installing a network of electric vehicle charging points, allocating and signalling parking spaces exclusively for electric vehicles
	<i>Activity 3.3</i> Visible allocation and signalling of parking spaces reserved for alternative vehicles in public car parks
	<i>Activity 3.4</i> Purchase of electric vehicles by the City Hall of Suceava to provide an example of good practice for the other public and educational institutions
	<i>Activity 3.5</i> Identification of non-reimbursable financial sources to increase the fleet of alternative vehicles to the detriment of conventional vehicles and their popularization in the private sector
	<i>Activity 3.6</i> Stimulating alternative transport in the private sector through the purchase of alternative vehicles by private companies
Specific Objective 4 Promotion of legislative and financial measures favourable to the purchase and use of electric vehicles to	<i>Activity 4.1</i> Creating a Local Support Group to develop and agree on a concrete strategic plan for implementing an alternative vehicle operating system
	<i>Activity 4.2</i> Initiating a Local Council Decision for the introduction of toll parking for all conventional vehicles and the exemption from parking toll of electric vehicles in public space

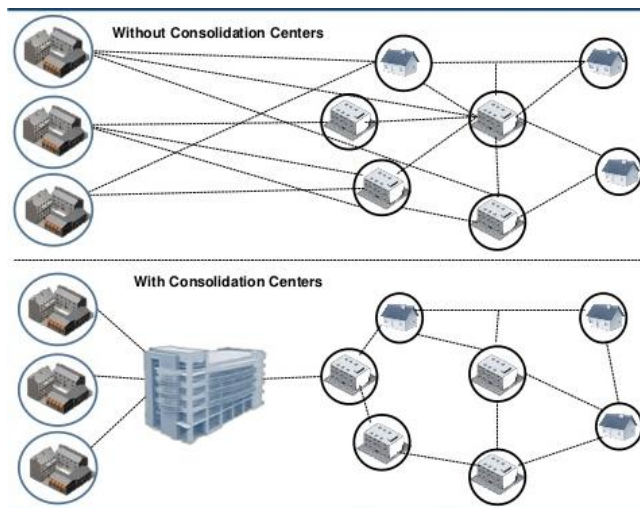
stimulate electric transport in the private sector - especially for the freight transport and distribution sector	Activity 4.3 Implementing an eco-driving program in public and private local companies. Elaboration of travel plans at the level of the public sector and especially of the private sector
	Activity 4.4 Access, stationary and supply regulations for the distribution of goods and courier, home delivery, sanitation, construction companies.
	Activity 4.5 Initiating a Local Council Decision to introduce fiscal incentives to purchase electric / alternative vehicles
Specific Objective 5 Educational and awareness-raising measures on the importance of reducing emissions	Activity 5.1 Information and awareness campaign on the benefits and impact of the use of alternative vehicles in the transport and distribution of goods, including eco-driving
	Activity 5.2 Promoting alternative / electric vehicles at national level by initiating projects and legislative proposals

Specific Objective No.1: Creating, developing and upgrading road infrastructure to streamline road traffic

Activity No. 1.1 Creating the Consolidated Goods Distribution Center			
Action leader	Suceava Municipality		
Organization type	Local public authority		
Main partners	Private sector involved in the distribution / reception of goods. National Union of Romanian Road Traffic Unions (UNTRR)		
Forecasted results	Reducing the number of vehicles passing through the city center and residential areas to ensure the distribution of goods in the commercial area with impact on: <ul style="list-style-type: none"> ✓ reducing transit times for the city; ✓ reduction of noise pollution; ✓ reduction of CO2 emissions at the level of Suceava Municipality. 		
	Development of alternative modes of transport, increasing the visibility of alternative transport (including electric) and contribution to improving the quality of life in the city of Suceava		
	Reduction of operating costs in the freight transport and distribution sector		
	Promoting an example of good practice		
		Period	Sources
Estimators	Consolidated Goods Distribution Center	2019 2023	Studies, statistical data
	CO2 emissions reduced by 2.2%	2023	Studies, statistical data
	Increasing the number of alternative / green transport means	2023	Studies, statistical data
	Reducing the number of machines that transit through the central area	2023	Studies, statistical data
Activity description			
<p>The status of a European city, on which the Municipality of Suceava aspires, implies, among other things, the provision of optimal, decent, ecological and civilized conditions for carrying out the transport activity. This can be accomplished by making substantial investments in infrastructure for assuring and supporting the freight transport.</p> <p>Freight transport, by its very nature, has a negative impact on cities - urban deliveries are increasing and often they are made by large, noisy, polluting vehicles, most of them equipped with diesel engines.</p>			

Urban freight transport plays a fundamental role in the sustainable development of urban areas. In order to cope with the steady growth of road freight transport, specific to the last decades, and to achieve more sustainable solutions, a whole series of initiatives have been adopted around the world, such as new traffic regulations, infrastructure improvement measures, related to sharing space and regulating the methods and times of delivery of goods, etc.

A promising solution, successfully adopted in major cities, is the Urban Consolidation Centers (UCC). They are a logistic facility located in the proximity of the geographic area they serve, from where consolidated deliveries are transported to the area served.



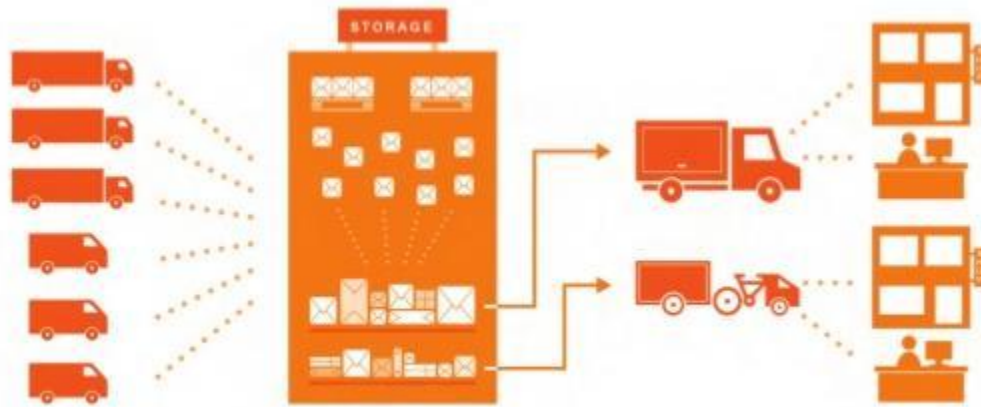
The overall goal of the UCC is to avoid crossing the city by heavy-duty vehicles that deliver goods to urban centers / areas. This goal can be achieved by providing facilities to consolidate the products for later deliveries in the city by using low-capacity / durable means of transport (vans, freight bikes), preferably with alternative fuels.

Thus, long-distance and long-haul freight vehicles arrive at the Consolidated Freight Distribution Center and unload the cargo. It is then sorted and consolidated into small-capacity vehicles.

This can reduce the number of journeys made by the vehicles that carry out the transport and distribution of goods by optimizing the distribution system.

As a rule, Consolidated Freight Distribution Centers are located in the proximity of city access areas, detour ways or railways.

The action aims at creating at least one Consolidated Distribution Center. In order to identify the appropriate location so as to generate the advantages and benefits of implementing such a system, an investment opportunity study and location / locations identification will be carried out.

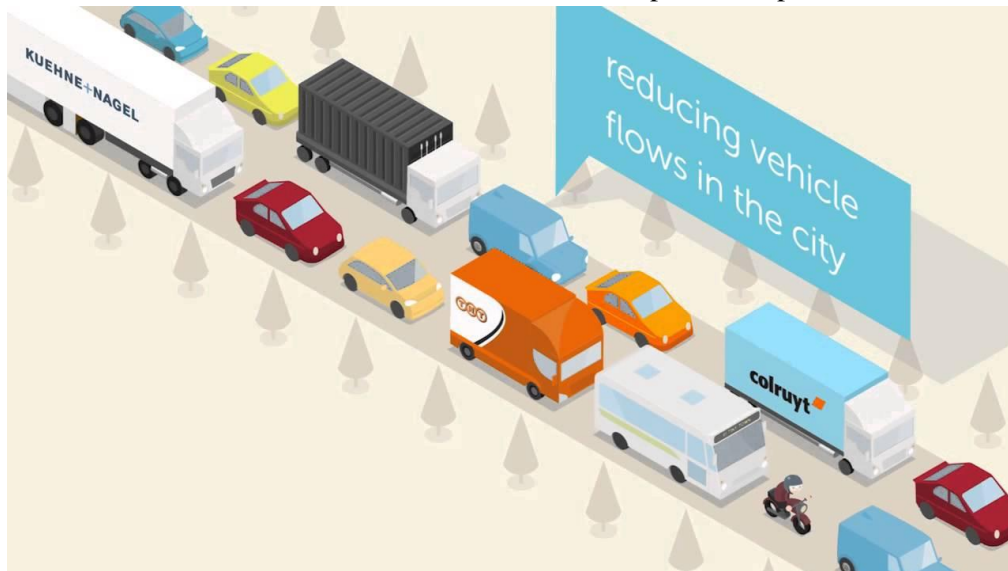


Nurnberg, Regensburg and London are cities that have developed such Consolidated Freight Distribution Centers. Initiatives in these cities had as success factors:

- ✓ imposing restrictions on access to the city;
- ✓ integration of the Consolidated Freight Distribution Centers into the city's mobility policy;
- ✓ the existence of a scientific expertise in a first phase of development and implementation;
- ✓ implementation of regulations by local authorities;
- ✓ Early involvement of all actors and waste collection for more efficient use of vehicles for return routes to the Consolidated Freight Distribution Center.

Advantages of using the Consolidated Distribution Center:

- ✓ Reduction of the number of vehicles passing through the city center;
- ✓ Reduction of CO2 emissions as a result of decreasing the number of vehicles;
- ✓ Economic benefits from cost reduction on shipment expedited and delivery speed.



In order to reduce the negative effects of freight transport on urban areas, Consolidated Freight Distribution Centers have, in many cities, been the most chosen solution by local governments.

According to specialized studies, the success rate (functional system after a larger number of years) is higher if the system is implemented by smaller cities, not by the very big cities. The argument is that the service area is smaller and closest to the location of the Consolidated Freight Distribution Center.

Description of the system:

- ✓ Creation of a public-private partnership for shaping the building of the Consolidated Distribution Center;
- ✓ Adaptation of local regulations in order to provide operators and distribution companies with facilities to use the Consolidated Distribution Center for the current activity;
- ✓ Adaptation of local regulations to establish restrictions that encourage the use of the Consolidated Distribution Center.

Estimated budget / Sources of funding	Estimated budget: 1.200.000 Euro
	Funding sources: European Regional Development Fund (ERDF) / Private Capital

Activity No. 1.2 Creation of a new connecting route between the two urban poles of Suceava Municipality			
Action lider	Suceava Municipality		
Organization type	Local public authority		
Main partners	Road traffic police, freight forwarding and distribution operators		
Forecasted results	Reduction of CO2 emissions at the level of Suceava municipality		
	Reducing the number of vehicles passing through the city center and residential areas to ensure the distribution of goods in the shopping area		
	Reduction of operating costs in the freight transport and distribution sector and of delivery times		
		Period	Sources
Estimators	An alternative route of connection between the two main neighbourhoods of the city	2019-2023	Studies, statistical data
	Reduction of CO2 emissions due to traffic	2019 - 2023	Studies, statistical data
	Improving the quality of life in urban areas	2019-2023	Studies, statistical data
	Reducing the number of machines that transit through the main thoroughfare	2019-2023	Studies, statistical data
Activity description			
<p>Currently, due to the geographical location of Suceava, there are only two main connecting routes between the central area and the northern area of the city, both crossing the Suceava River and the commercial area (the former industrial zone) located in the city center area.</p> <p>These traffic thoroughfares are characterized by high transit volumes, a high number of vehicles using this road infrastructure, frequent traffic jams and high pollution.</p> <p>It should also be noted that the main public transport routes use the same two arteries to carry out the passenger transport service.</p> <p>In order to decongest road traffic and mainly to create facilities for the transport and distribution of goods it is necessary to implement an investment aimed at building a road artery that will connect the two urban poles of Suceava (located on both sides of the Suceava River) including a bridge over the Suceava River.</p> <p>This project involves interventions in road infrastructure aiming at reducing the use of personal vehicles for urban travel in favour of public transport use and facilitating the access of freight transport vehicles to decongesting the main traffic road (ie Calea Unirii). The new road infrastructure, which will include a bridge over the Suceava River, will link the Burdujeni neighbourhood (a high residential density area with a concentration of commercial activities) to</p>			

the central area and neighbourhoods of the South. It will depart from Calea Unirii, in the area of Salciilor Street, follow a parallel route with Calea Unirii, cross the Suceava River and connect to Str. Energetician, the sector between Iulius Mall and Calea Unirii.	
Estimated budget / Sources of funding	Estimated budget: 3,258,600 Euro
	Financing sources: ERDF and local budget

Activity No. 1.3 Identification and development of connecting routes between the Ițcani and Burdujeni districts in order to decongest the traffic on the main road Calea Unirii			
Action leader	The city of Suceava		
Organization type	Local public authority		
Main partners	Road traffic police, private operators		
Forecasted results	Reduction of CO2 emissions at the level of Suceava municipality		
	Reducing the number of vehicles that transit through the main thoroughfare		
	Reduce operating costs in the freight transport and distribution sector by reducing delivery times		
		Period	Surse
Estimators	A connecting route between Ițcani and Burdujeni	2019-2023	Studies, statistical data
	Reduction of CO2 emissions due to traffic	2019 - 2023	Environmental reports
	Improving the quality of life in urban areas	permanent	questionnaires
	Reducing the number of machines that transit through the main thoroughfare	2019-2023	measurements
Activity description			
<p>In order to decongest road traffic and mainly to create facilities for the transport and distribution of goods, it is necessary to implement an investment aimed at building the connecting route between the Ițcani and Burdujeni neighbourhoods.</p> <p>There is currently an access path linking Ițcani and the commercial area, the wholesale market, but currently inoperative. Given the impact of this investment on decongesting traffic and increasing the mobility of the freight transport and freight sector, the development of the access road in Ițcani district directly to the commercial area is an optimal solution given the avoidance of the main art of Suceava.</p> <p>This project involves interventions in road infrastructure with the objective of reducing transport and delivery times of goods with an impact on the reduction of CO2 emissions at urban level.</p>			
Estimated budget / Sources of funding	Estimated budget: 500,000 Euro		
	Financing sources: ERDF and local budget		

Activity No. 1.4 Road traffic planning system (especially the main artery and commercial area)			
Action leader	The city of Suceava		
Organization type	Local public authority		
Main partners	County Police Inspectorate, Road Police, Supermarkets, National / Regional Distribution Companies		
Forecasted results	Reduction of roadblocks and streamline traffic (including freight) in the shopping area		
	Reduction of greenhouse gas emissions		
	Reducing travel time / freight delivery		
	Increasing the quality of life		
	Sustainable local development		
		Period	Sources
Estimators	Reduced travel times between the two city centers	2019-2023	Studies
	Reduced number of transport and distribution vehicles passing through the central area	2019-2023	Studies, statistical data
	Lower greenhouse gas emissions (especially CO ₂)	2019-2023	Studies, statistical data
Activity description			
<p>The location of the commercial area between the two major centres of the city and the existence of a single main transit and access route create discomfort, traffic jams, high greenhouse gas emissions, malfunctions in the supply, and transport and distribution services of goods, all of which generate discomfort and syncope in commercial activity and beyond.</p> <p>Following the conclusions of the traffic study conducted in 2016 specifically for the commercial area and the one realized in 2017 for the entire area of Suceava, a number of malfunctions were identified, as well as the necessary activities to be carried out consisting mainly in road traffic infrastructure interventions, road signalling and alternative routes, namely:</p> <ul style="list-style-type: none"> ✓ Circulation of motor vehicles on Calea Unirii Street takes place in difficult conditions due to the existence of 4 pedestrian level crossings, of which 2 with semaphores and one without and the lack of correction of traffic lights; ✓ The existence of two roundabouts; ✓ There is a flooded underground passageway in the area that is not usable; ✓ For traffic streamline, it is proposed to build / rehabilitate the underground passageway or to make an over-passageway, eventually shifting the pedestrian crossing from the bazaar under the bridge over the Suceava River if the water management service allows this; 			

- ✓ Circularization capacity of the Unirii Road is outdated, resulting in a four-lane bandwidth for the current traffic;
- ✓ The roundabout at Iulius Mall has the service level F, ie it is not functional and measures will be taken to divert traffic and eventually to prohibit heavy traffic;
- ✓ Traffic diversion will be done on other thoroughfare, but it necessarily results in the necessity to build a new road bridge over the Suceava River. It is necessary to build an alternative route to the main one on the following route: Center - Mirăuți - construction of a new bridge over the Suceava River - Iulius Mall - ACET treatment plant - exit to the European road E58;
- ✓ Linking traffic lights on both directions by increasing green times and eventually adopting green light;
- ✓ Traffic lights of pedestrian crossings shall be correlated so that road traffic will be prioritized to the detriment of pedestrian traffic;
- ✓ The band next to the border of the same intersection in Suceava - Burdujeni direct to the traffic lights all the green intermittently for the fluent traffic

Because the streets that make up the main thoroughfare in Suceava have been rehabilitated through the Investment Project *Rehabilitation of the central area of Suceava through the creation of underground passageway, pedestrian rehabilitation and streets* can not be made until the monitoring period (January 2019). However, high traffic volumes in this area, especially those for freight transport and distribution, create traffic congestion, high greenhouse gas emissions, dysfunctional economic activity, high fuel consumption and discomfort for pedestrians.

Also, the main thoroughfare is also transported by public passenger transport which makes it difficult for traffic.

According to the Trafficking Survey in Suceava Municipality, a study conducted to obtain funding under the ROP 2014-2020 for the project "Integrated Public Environmental System in Suceava", the most important traffic problems are mainly generated by:

- (i) *the low connection of the transport network due to the sectioning of the urban territory by the railway transport network and the Suceava River gully, the two elements of the natural and anthropic framework separating the city's neighbourhoods into two main bodies;*
- (ii) *the lack of a complete bypass route to take over transit traffic, which in the present situation uses the urban street network, existing sectors where freight vehicles intersect with pedestrian, bicycle and local public transport, which poses traffic safety problems and have a negative impact on the environment*
- (iii) *the high degree of use of the personal vehicle for internal displacements within the locality. The latter case may be diminished by modal shift of passenger trips to local public transport as a result of improving the quality of service provided by it.*

As a result of the Traffic Survey in Suceava Municipality, conducted in 2017, it is noted that there is a high degree of overlap of the public transport lines. In this respect, the following sectors of the network are highlighted:

- Calea Unirii, between Str. Traian Vuia and Str. Nicolae Iorga (passageway CF), characterized by the overlapping of 10 of the 11 lines of the network. The only route not found on this network sector is the route associated with line 5, Ițcani - Corduș - Ițcani Railway Station;
- Calea Unirii, between Str. Petru Rareș and Str. Traian Vuia, unused sector by line 3 Burdujeni railway station - Suceava West Railway Crossroad - Burdujeni railway station;
- Str. Marasesti is used by the following six lines: 2, 3, 4, 5, 17 and 21.

This situation has an advantage for the users of these segments of the network characterized by the concentration of the public transport offer, to the detriment of the other participants in traffic.

Within the urban street network, the above-mentioned sectors, on which public transport lines are concentrated, are located in areas that are characterized by the congestion phenomenon in peak traffic hours. They are affected by delays which lead to a reduction in the commercial speed of transport in general, implicitly also of freight transport.

The public transport routes generally comprise the main thoroughfares of Suceava, providing transport from the Obcini neighbourhood to Suceava Nord Railway Station, Burdujeni Railway Station, Burdujeni Cinema, Burdujeni Sat, Șcheia area.

The values of the indicators analysed at the level of the city of Suceava from the point of view of the implementation of an integrated ecological public transport system (involving the acquisition of about 40 electric buses, the modernization of the motorbike, including the purchased electric vehicle loading system, the implementation of e-mail and passenger information system, but and upgrading of public transport stations) for the base year 2017 and the forecast horizons 2022 and 2026 are centralized in the following table:

Indicator / Analysis Horizon	First year of project implementation (base year), 2017	The first year after the completion of the project implementation, 2022	The last year of the sustainability period of the financing contract, 2026
The scenario - the variant where there are no interventions on the local public transport system			
Persons using public transport, non-motorized modes and cars			
Public transport	12.852.721	12.118.287	11.794.118
Non-motorized transport	29.251.343	29.735.898	30.683.260
Private transport	35.658.612	39.798.395	48.486.742

The scenario - the variant where actions for modernization of the local public transport system are envisaged

Persons using public transport, non-motorized modes and cars

Public transport	12.852.721	12.914.779	15.409.930
Non-motorized transport	29.251.343	31.400.918	37.059.607
Private transport	35.658.612	37.900.612	39.328.792

These variations in transport demand result in a reduction in greenhouse gas (CO2) equivalents of 4.0% in 2022 and 20.2% in 2026 in the "With Project" scenario compared to the "No project".

Taking into consideration the analysis carried out for the public transport system, it is a priority to carry out a specific traffic study for freight transport and distribution with highlighting the optimal solutions for reducing the travel times, bypass routes, optimal delivery intervals and presenting the benefits of systematization of the system freight transport on the reduction of greenhouse gas emissions.

In view of the above situation, the following actions are proposed:

- ✓ Road markers, pedestrian crossings, relocation of existing pedestrian crossings, traffic rush islands, road infrastructure remediation, optimized traffic lighting, access bans, turn and transit bans, all of which aim to streamline traffic and separating the flow of transport and distribution of goods from public and private transport;
- ✓ Developing regulations on the transport and distribution of goods, in particular for the supply of shopping centers, with reference to: gauge, access, timetable, various restrictions;
- ✓ Campaigns for media coverage, especially for transport and distribution companies for business premises located in the intervention area.
- ✓ Developing a traffic study by specialized firms to provide solutions based on the study of traffic values and their modelling in order to streamline traffic, create access alternatives and impose restrictions especially on freight traffic;
- ✓ The fitting of road signs both with mandatory role and as a recommendation but with beneficial effects the environment and the improvement of the quality of life of the inhabitants.

Indicator NO IDLING – PLEASE STOP ENGINE

A study conducted by the US Consumer Energy Center shows that, for example, keeping the engine running for two minutes while the machine stays at McDonald's Drive, consumes the same amount of fuel as a machine running about a mile and a half. Recommendation of environmental specialists: Turn off the engine if you plan to stay for more than 30 seconds. That's because ten seconds of running the engine without pushing the car consumes more than the stop / start manoeuvre.



<ul style="list-style-type: none"> ✓ Establishing areas where cars are not allowed to stay with the engine running, such as neighbourhoods of schools, neighbourhoods, or fast food restaurants; ✓ Mounting of indicators in the above mentioned areas; ✓ Carry out campaigns to inform drivers of the importance of stopping the engine if they stay for several minutes; ✓ Setting penalties if the conditions are not met. 	
Estimated budget / Sources of funding	Estimated budget: € 215,600
	Financing sources: Local budget / ERDF

Specific Objective No. 2: Innovative Traffic Management for Sustainable Local Development

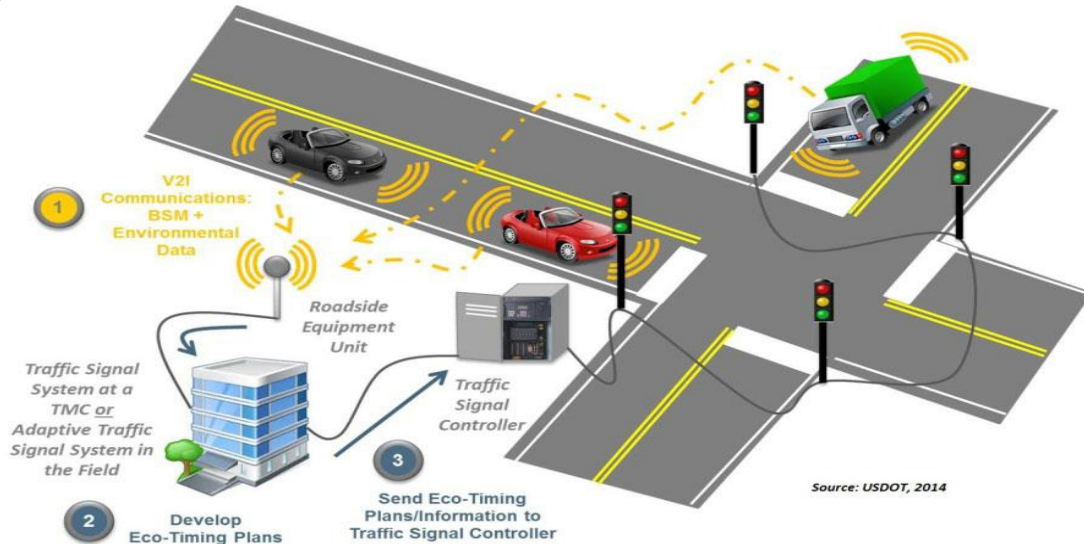
Activity No. 2.1 On-line "Traffic Manager"			
Action leader	Suceava Municipality		
Organization type	Local public authority		
Main partners	"Ștefan cel Mare" University - Suceava, ITC Companies, Road Police, Public Utilities Companies		
Forecasted results	The ability to access real-time information about traffic conditions and events		
	Reducing congestion and traffic jams and, implicitly, increasing traffic fluency		
	Increasing the quality of life and environment.		
		Period	Sources
Estimators	"Online" application - traffic manager	2018-2020	Studies, statistical data
	Transit / Travel Times in the shopping area	2018-2023	Studies, statistical data
	The amount of greenhouse gases	2018-2023	Studies, statistical data
Activity description			
<p>Creating an on-line platform to provide real-time information about:</p> <ul style="list-style-type: none"> ✓ Traffic conditions (traffic jams, road surface status, vehicle number) ✓ Works executed (in progress) in the carriageway ✓ Suggested transit routes and / or alternative variants ✓ Distances between certain points of interest, maps, fuel consumption and emissions according to route and driving mode ✓ Suggestions for "eco-driving" ✓ Weather conditions or any other nature that may affect shipping routes and freight destinations ✓ Contact information for courier companies, local authorities, auto service and towing companies, ✓ Manuals / guides for preventive and "green" driving <p>The alert pace of technological development requires major upgrades and technological adaptations of existing infrastructures in local communities - streets, utilities, information and communication systems. Local communities must become intelligent habitats so they can truly</p>			

respond to people's needs.

Traffic management

1. Traffic lights solutions

- ✓ Traffic lights synchronized systems according to recorded traffic;
- ✓ With a system of special sensors and controllers, traffic lights are automatically adjusted at junctions to streamline traffic.



2. Monitoring dispatch

- ✓ all traffic information from the video surveillance system is centralized into a dedicated dispatcher
- ✓ from here you can monitor in real time all traffic events, making possible the intervention of the police forces in case of need

3. IP video surveillance

- ✓ Possibility of surveillance, control and recording of images and events from distance, 24/7
- ✓ Quickly locate potential threats through video analytics;
- ✓ Flexibility in expanding systems, including wireless technology
- ✓ Increased security level through the ability to send SMS or email alerts
- ✓ Easy integration of all security systems

5. Monitoring and control centers

- ✓ Monitoring, capturing and analysing information in real time;
- ✓ Making decisions and solving problems quickly;
- ✓ 24/7 operation;
- ✓ Optimal centralization of information from multiple sources;
- ✓ Effective Emergency Management;
- ✓ Reduction of maintenance costs;

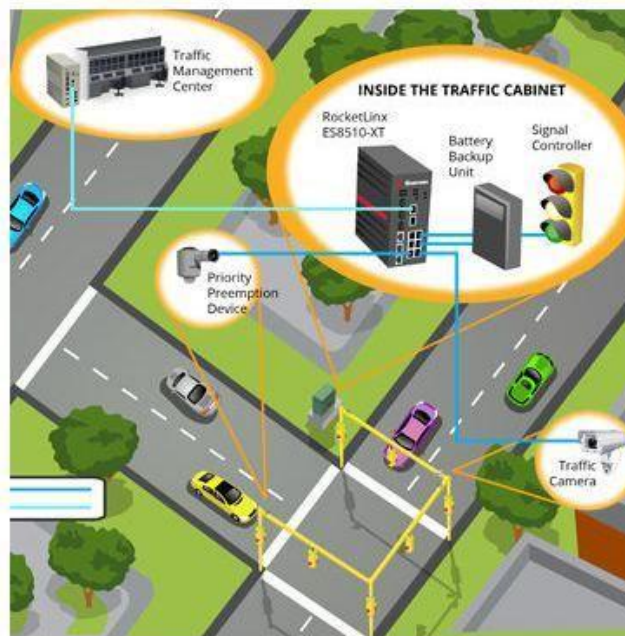
✓ Achieving an ergonomic working environment.	
Estimated budget / Sources of funding	Estimated budget: 700,000 Euro
	Financing sources: local budget / ERDF

Activity No. 2.2 Implement an integrated traffic management system with Smart City specific modules			
Action leader	Suceava Municipality		
Organization type	Local public authority		
Main partners	"Ștefan cel Mare" University - Suceava, ITC Companies, Road Police, Public Utilities Companies		
Forecasted results	Reducing time spent in traffic		
	Reduction of pollution and, implicitly, increased comfort for both drivers and passengers in public transport		
	Reducing the number of road accidents and increasing road safety		
		Period	Sources
Estimators	Integrated Traffic Management System implemented	2019-2023	Annual reports of the local government
	Reduced travel times	2019-2023	Reports generated by the system
	Increased road safety	2019-2023	Reports of the Suceava Road Police
	Number of road accidents decreased	2019-2023	Reports of the Suceava Road Police
Activity description			
<p>The Traffic Management System monitors the real traffic characteristics and, as a result of traffic information and set parameters, automatically implements synchronized traffic times. Traffic information is captured by detectors, and based on these, remote control modules ensure the implementation of synchronized traffic.</p> <p>Synchronization (adaptability) is applied to intersection groups and pedestrian crossings.</p> <p>The system is based on the principles of coordination between downstream and upstream intersections, 3 being modular and redundant with a distributed architecture in order not to lose functionality locally.</p> <p>The system "reacts" to different types of malfunctions:</p> <ul style="list-style-type: none"> ✓ failure of the central system ✓ failure of adjacent intersections ✓ failure of the communications network ✓ failure of detectors ✓ failure of the traffic machine 			

If the central system fails or stops working, each intersection will communicate with the adjacent intersections and perform the "adaptive" function based on its own sensors and those at the other intersections.

- ✓ By using the traffic data collected by the detectors, the following parameters can be automatically changed at intersection level and Traffic Signal Group:
 - ✓ the intersection cycle times (from the moment when a traffic light is green until it is green again);
 - ✓ Relative green Traffic light times between adjacent intersections;
 - ✓ Green Traffic light time or other sets of traffic signals.

The implementation of the integrated system will be a source for the impact studies related to traffic that will be carried out at the urban level.



Estimated budget / Sources of funding	Estimated budget: 100,000 euros
	Financing sources: Local budget, ERDF

Activity No. 2.3 Develop an on-line communication platform between Local Public Authority, Civil Society, Business Environment - including freight forwarding and distribution companies, non-governmental organizations to facilitate active participation of the company in developing and implementing actions and projects related to freight transport			
Action leader	Suceava		
Organization type	Local Public Authority		
Main partners	Non-governmental organizations, SMEs, "Ștefan cel Mare" University of Suceava, consulting firms, private operators, economic agents from various domains (trade, distribution)		
Forecasted results	Facilitating the "active" participation of civil society in the development and implementation of actions and projects in the field		
	Increasing transparency and awareness		
	Increase the involvement of society, especially of the actors involved		
		Period	Sources
Estimators	On line communication platform - local public authority and civil society	2018-2023	Studies, statistical data
	Number of "feedbacks" taken through public opinion polling procedures	2018-2023	questionnaires
	Satisfaction level of civil society regarding the activity of transportation and distribution of goods	2018-2023	questionnaires
Activity description:			
<p>In most cases, the lack of real-time communication and the transparency between the local public authority and civil society create distrust and lack of support from citizens for local authority projects.</p> <p>The existence of a real-time on-line communication platform can increase the credibility and transparency of local public authority activity, increase the involvement of citizens in the design and implementation of actions and projects aimed at transporting and distributing of goods, avoiding inconsistencies between the actions of the administration local and real business environment needs, identifying solutions, common, new, intelligent and generally accepted ideas at the local community level.</p> <p>The communication platform must:</p> <ul style="list-style-type: none"> ✓ be associated with the Local Public Administration website; ✓ provide exact, accurate, correct, detailed information on areas of interest, investment priorities, regulations and opportunities; ✓ be administered by competent persons on the basis of established procedures, response time, methods of intervention, type of information requested / received; 			

- ✓ ensure in particular the provision of information for the business environment for the purpose of establishing public-private partnerships for actions, projects of local interest or for investment in the transport and distribution of goods that will lead to sustainable local development, job creation, the transfer of state-of-the-art technology, the efficient use of local budget funds, the identification of unanimously accepted solutions, the avoidance of implementing unpopular solutions.

This communication platform will be part of the official website of the Suceava City Hall.

Estimated budget / Sources of funding	Estimated budget: 3,000 euros
	Financing sources: Local Budget

Activity 2.4 Establishment of a advisory board for "smart" solutions with members from different fields of activity, public and private sector			
Action Leader	Suceava Municipality		
Organization type	Local Public Authority		
Main partners	Civil society, non-governmental organizations, SMEs, "Stefan cel Mare" University of Suceava, business environment, private operators		
Forecasted results	Reducing discrepancies between the real needs of civil society / business environment and the projects / actions / regulations implemented by the local public authority		
	Improving the implementation process of the local government's projects and investment objectives		
	Avoidance of malfunctions, inconsistencies, establishment of optimal solutions generally accepted by the local public authority and civil society, maintenance of real communication between local authorities and citizens		
		Period	Sources
Estimators	Set of "smart" performance indicators	2020-2024	Studies, statistical data
	Number of projects implemented e in compliance with the "smart" procedures	2020-2024	Studies, statistical data
	Satisfaction level of citizens / business environment	2020-2024	Studies, statistical data
Activity description:			
<p>In order to avoid inconsistencies between the requirements, ideas, needs of civil society and those of the Local Public Authority, it is necessary to elaborate and implement a public evaluation and consultation system that will include the previous consultation stages during the implementation period and after the completion of the project or local actions.</p> <p>In addition to this action, it is necessary to organize at local level a consultative council structure for discussing, transmitting, developing, evaluating and implementing "smart" solutions related to local development projects, in order to implement the concepts of sustainability and sustainability with references in transport and distribution of goods.</p> <p>Within a meeting schedule established under the rules of operation of this organizational structure at the local level, will be created the premises for:</p> <ul style="list-style-type: none"> ✓ Discussing ideas for projects, actions, regulations and local regulations in the public environment; ✓ Transfer of knowledge, examples of best practices and state-of-the-art technologies to include them in local development projects and in the business environment; ✓ Ensure access to information and facilitate real-time communication between all representatives of the local community; 			

<ul style="list-style-type: none"> ✓ Providing the premises for the implementation of the "smart" concept and of the durable and sustainable local development; ✓ Evaluating and monitoring the implementation of local development projects, with the possibility of analysing the malfunctions and identifying the optimal solutions for their remediation; ✓ Conclusion of public-private partnerships for the implementation of local development projects in the field of freight transport and distribution. 	
Estimated budget / Sources of funding	Estimated budget: € 2.500
	Financing sources: Local Budget

Activity No. 2.5 Develop a roadmap guide on the steps to be taken to translate an idea, activities into a project implemented in the field of freight transport efficiency and distribution, including identifying the financing source			
Action leader	Suceava Municipality		
Organization type	Local Public Authority		
Main partners	"Stefan cel Mare" University of Suceava, consulting firms, SMEs, civil society		
Forecasted results	Developing a guide for the implementation of business ideas, activities		
	Identifying sources of funding, particularly non-reimbursable, in particular for private operators investment projects		
	Increasing the efficiency of using private financial resources		
		Period	Sources
Estimators	Guidelines for implementation and evaluation of investment projects	2018-2022	Studies, statistical data
	Number of projects implemented	2019-2022	Studies, statistical data
	The amount of non-reimbursable and private funds identified and accessed	2019-2023	questionnaires
Activity description			
<p>The current practice has revealed that although there are a large number of ideas, actions on the agenda of local authorities and private companies for which technical and economic documentation (feasibility study, technical project, authorization documentation for intervention works) were elaborated, very few of them are implemented - mainly because of the lack of necessary funds.</p> <p>Also, in the case of private companies, there is some reticence or a lack of interest in the development of studies or technical-economic analyses that determine the possibilities of developing and implementing new business ideas.</p> <p>It is necessary to adopt some measures mainly to increase the number of projects implemented and the value of funds (especially non-reimbursable and private) accessed at local level especially in the private sector.</p> <p>Actions consisted of:</p> <ul style="list-style-type: none"> ✓ Develop a guideline containing "smart" procedures regarding the steps to be taken to transform an idea into an implemented project. This guideline will include technical, procedural details, necessary information, minimum data to be analysed, references for departments involved according to project specificity, legislation, framework content for technical and economic documentation, potential sources of funding and programs that can be accessed for implementation; 			

<ul style="list-style-type: none"> ✓ prioritization of projects and their correlation, as the theme, implementation period, objectives and results, depending on the existing or future financing opportunities, including the natural sequence of their implementation; ✓ Developing cost-benefit analysis models in order to ascertain as accurately as possible the relevance of the project, the implementation, the necessary resources; ✓ Developing methods, monitoring and evaluation systems, both in the <i>idea phase</i> implementation phase and after the completion of the project to accurately quantify the benefits, the results obtained in relation to the resources, the funds used; ✓ the inclusion of "smart" indicators at different stages of the implementation process of investment projects - design, auction, execution, evaluation; ✓ prioritization of energy efficiency requirements, environmental and local community impact, use of renewable resources / materials to quantify as accurately as possible the relevance and implementation costs; ✓ identification of recommended procedures / ideas / technologies to reduce both implementation and maintenance of the investment objectives costs as well as of the private sector amenities in freight transport domain; ✓ a description of the local, national and European legislative framework related to the implementation procedures and, in particular, the possibilities of attracting private sector funds to investment projects. 	
Estimated budget /	Estimated budget: 35,000 euros
Sources of funding	Financing sources: Local budget

Specific objective 3: Supporting and promoting the use / implementation of innovative technologies and solutions

Activity 3.1 Acquisition of alternative vehicles especially at the level of transport, freight distribution and taxi companies			
Activity manager	SMEs		
Type of organization	The private sector, car dealers		
Main partners	Environmental Protection Agency, Car Dealers, Romanian Auto Registry, Romanian Road Transport Authority		
Forecasted results	Use of alternative cars (especially electric cars) in the freight transport and distribution		
	Promoting alternative technologies, diversifying the activities of private operators (car dealers) and of the companies offering automotive services and technologies		
	Improving the quality of life and the environment at local level		
	Creating working places.		
		Period	Sources
Estimators	Number of private companies using alternative vehicles	2018-2023	Statistical data/Questionnaires
	Number of registered electric vehicles (for freight transport)	2018-2023	Statistical data/Questionnaires
	The amount of CO2 emissions (equivalent) reduced	2018-2023	Annual State of the Environment/Measurements
Activity description			
<p>In order to reduce the impact of road traffic (in particular of freight transport and distribution companies) and greenhouse gas emissions (in particular CO₂), it is necessary to apply measures (activities) that mainly concern:</p> <ul style="list-style-type: none"> ✓ Introduction of alternative cars (especially electric) in the fleet of operators carrying out freight transport and distribution, of local and / or regional public transport operators transiting through the city, of the taxi companies; ✓ Introduction of new technologies (the provision of electric vehicles, charging stations and maintenance, repairs, support services) within existing companies or the new ones; ✓ Introduction of charging stations for electric vehicles in public spaces (parking lots, residential areas) but also in private realms (belonging to transport and distribution companies). 			

The Suceava municipality is to carry out information campaigns and drive-test activities with equipped electric vehicles, especially for private companies operating in the field of freight transport and distribution, as well as meetings involving representatives from the private sector and specialists of the deals who are providing electric vehicles.

The purpose of these actions is to provide information and technical details relating to electric vehicles, operating mode and operating costs, advantages and maintenance and exploitation costs, cost benefit analyses, aimed at replacing classic vehicles, especially for private operators (freight transport, public transport, taxi).

Estimated budget/Sources of funding	Estimated budget: 2.500.000 EUR
	Sources of founding: Private equity

Activity 3.2 Installing a network of electric vehicle charging points, allocating and signaling parking spaces exclusively for electric vehicles			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	Private company suppliers of charging and electricity equipment, distribution companies, local producer associations, citizens		
Forecasted results	Creating a unitary system of charging points in public spaces above ground, with good visibility for them - pilot project		
	Raising citizens' awareness regarding alternative vehicles and the benefits they bring to quality of life in Suceava Municipality		
	Increasing the confidence of private operators, citizens - car users in the reliability of the new technology of electric vehicles		
	Business stimulation in the private sector		
		Period	Sources
Estimators	28 charging points for electric vehicles, including 14 fast charging points and 14 standard charging points	2017-2019	Studies, statistical data
	56 parking spaces exclusively for alternative vehicles that are clearly signposted	2017	Studies, statistical data
	Minimum 14 charging points made available to taxis, citizens and public institutions	2017-2019	Studies, statistical data
	Exclusive parking places for alternative vehicles signposted in underground parking lots	2017	Studies, statistical data
	Number of citizens who are informed about alternative vehicles and understand the benefits of their use	2020	Qualitative market research
	Number of companies that have expressed their interest in engaging in electric vehicle business	2020	Internal audit records
Activity description			
National Public Investment Policy, by the beginning of 2014, establishes the need to reorganize public investment expenditure in order to move from fully funded national investment to EU co-funded investments.			

Thus, in the context of the economic crisis and the reluctance of private investors to make investments, the local public authority is working to find resources to initiate a pilot project to install a network of charging points in Suceava, in the accessible public places for drivers, a demonstration of the functionality, reliability and ease of use of electric vehicles.

Having at its disposal non-reimbursable funding and experience in attracting EU funds from the EU and from national governments, Suceava Municipality can initiate a pilot project and provide an example of good practice to other legal entities in the city. By increasing overall confidence in this technology, it is estimated that individuals who have non-street personal parking facilities in their area where they live or work will be aware of the long-term economic benefits of this electromobility technology.

The proposed activities to be implemented under this action are:

- ✓ Location of 28 charging points for electric vehicles in Suceava;
- ✓ Location of two charging points for electric vehicles in the underground car park located in the immediate vicinity of the pedestrian area where the open air market of traditional products will be arranged;
- ✓ Implementation of an electric vehicle rental system by companies operating in the distribution and marketing of traditional products, destined for markets in particular;
- ✓ Implementation of an electric bicycle rental system for citizens and tourists (by co-opting the accommodation units in Suceava in the program) for the use of electric bicycles in everyday activities;
- ✓ Promoting the concept of electromobility among citizens, traders and producers of traditional products in order to increase the number of electric vehicles used for economic and private activities in Suceava.

All these activities, and in particular those related to the introduction of environmentally friendly vehicles, possible alternatives thanks to the support provided by central authorities through legislative provisions designed to support the purchase of environmentally friendly vehicles that, once introduced into traffic volumes, can contribute through their low intake of pollutants, to the improvement of the conditions of urban life.

Charging points will be located in the vicinity of public institutions, residential car parks, and underground car parks in the center of Suceava, near SNCFR stations.

By concluding public private partnerships or concession contracts to assure the installation, maintenance and exploitation of technological equipment in designated parking lots, the number of above-ground charging points on the public space could be increased and interest in the increased business type.

Estimated budget/Sources of funding	Estimated budget: 1.560.000 EUR
	Sources of funding: PCER / Local Budget

Activity 3.3 Allocation and visible signposting of parking spaces intended solely for alternative vehicles in public car parks			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	n/a		
Forecasted results	Visible signposting of alternate vehicle charging points located in underground and above ground parking lots		
	Raising the awareness of citizens and private operators in the field of freight transport and distribution, regarding alternative vehicles and the benefits they bring to the quality of life in Suceava		
		Period	Sources
Estimators	Four places for parking and charging electric vehicles in underground public car parks	2019	Statistical data
	Number of citizens who are informed about the use of alternative vehicles	2020	Market research
Activity description			
<p>Non-financial incentives can be as effective and motivating as financial and tax incentives to increase the interest of the owners of motor vehicles and motor vehicles belonging to the company, for alternative vehicles. Therefore, in order to ensure the availability of spaces equipped with electrical battery power systems, and also their visibility, these parking spaces will be allocated only to alternative vehicle users.</p> <p>The use of non-street charging points located in public parking lots and 48 street points will have the precise purpose of providing test models and technical charging solutions. It is anticipated that the most frequently used will become those charging points around the dwellings and office premises. However, it is important to note that only 8-10% of the urban population has access to personal garages and land plots around residential areas, which will make it impossible to install them safely.</p>			
Estimated budget/Sources of funding	Estimated budget: 5.600 EUR		
	Sources of funding: PCER/Local budget		

Activity 3.4 Purchase of electric vehicles by the City Hall of Suceava to provide an example of good practice for the other public and educational institutions			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	n/a		
Forecasted results	The introduction of electric vehicles in the motor vehicle fleet at the level of the local public administration		
	Providing a model of good practice for other public institutions by implementing an electric transport within the parking lots of the local municipality		
	Increasing citizens' confidence - vehicle users in the reliability of new vehicle technology		
	Changing the perception and behaviour of the citizens of the city in relation to the purchase of a personal electric vehicle in relation to a conventional one		
		Period	Sources
Estimators	15 electric vehicles within the fleet operated by the Suceava City Hall	2017-2019	Statistical data
	An increase in the knowledge of technical aspects of electric vehicles and benefits from the perspective of environmental protection	2020	Qualitative market research
	Number of miles that you drove, number of operating hours, energy consumption, financial result of the operation of electric vehicles in the Suceava municipality parking lot	2020	Own determinations
Activity description			
<p>Involvement of local public administration projects for the use of renewable electricity and the efficiency of its own energy consumption certifies the commitment of Suceava Municipality to meet national targets on climate change and sustainable transport, objectives set by European policies.</p> <p>Recent studies on car driving show that in most cases over 80% of urban travels is less than 60 km per day, which means that it could be covered with EV. In order for this finding to be effectively integrated, we must be able to define the groups of potential future users and areas of application, so that we can plan measures with direct addressability to them.</p>			

The Suceava Municipality has its own relatively small number of car fleet, about 10 vehicles, especially intended for short-distance trips within the city. Therefore, electric vehicles could respond appropriately to the displacement needs of the driving staff at whose disposal they are and could serve some of the local administration's own operational needs.

Promoting electric transport in the private sector through the purchase of electric vehicles by private companies could be done through the cost price of electricity, which would be advantageous for charging at night tariffs and this action should be supported in collaboration with the company suppliers of electricity, then the leasing rate, the tax and the road tax can become incentive tools for electric transport in the private sector.

The proposed activities to be implemented under this action are:

- ✓ Acquisition of 15 electric vehicles (11 cars, 2 vans, 1 auto-sweeper and 1 road tanker) to serve the administrative activities of Suceava Municipality;
- ✓ Purchase of ten electric bicycles that are made available to citizens / tourists and can be used for everyday activities;
- ✓ Acquisition of electric vehicles for freight distribution / transport, for traders and citizens.

Estimated budget/Sources of funding	Estimated budget: 860.000 EUR
	Sources of funding: PCER/Local budget

Activity 3.5 Identification of non-reimbursable financial sources to increase the car fleet of alternative vehicles to the detriment of conventional vehicles and their popularization in the private sector			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	n/a		
Forecasted results	Increasing the number of electric vehicles in Suceava and reducing the number of conventional ones		
	Increasing interest in electric vehicles from the private market segment		
		Period	Sources
Estimators	Identifying programs that grant non-refundable purchase of environmentally friendly vehicles	permanent	Information
	Number of electric vehicles purchased through non-reimbursable financing programs vs. Number of conventional vehicles replaced	2020	Own market research and statistical data
Activity description			
<p>Suceava Municipality has so far seen a marked increase in motoring and the negative effect of locally registered cars is added to that generated by transit traffic and motor vehicles belonging to some operators who carry out economic activity on the territory of the municipality but have a fleet registered in other localities. The negative impact was felt immediately and consisted of increased congestion, CO2 emissions and social costs expressed in accidents and noise pollution.</p>			
<p>In order to contribute to these targets, Suceava Municipality aims at promoting measures to speed up the replacement of inefficient and polluting vehicles at the same time as ensuring the interoperability of the ecological vehicle loading infrastructure, taking into account also the diminishing consumption component of non-renewable energy resources. In order to attract the funds needed for these interventions, it will aim to track all funding programs that propose actions to implement sustainable local transport that can make a significant contribution to the effort to reduce GHG emissions.</p>			
<p>From the experience and suggestions of the project partners, the largest potential for takeover of electric vehicles is made by private fleet owners, of which those private rental fleets are potentially electric vehicle absorbers due to low maintenance costs, constructive simplicity, the possibility of battery revaluation; other advantages arise from the fact that they can ensure proper battery recycling and a technical specialist, lifting this burden from the user's shoulders and</p>			

removing a shortcoming in the current phase. The issue of autonomy of electric vehicles integrated in urban transport is not a hindrance, as traffic studies show that most car users in cities do not travel over distances of more than 120-150 km per day, which is a normal autonomy for an electric vehicle at the present technological level.

The Action Plan includes concrete proposals for strategic initiatives with the following objectives:

1. Promoting investment in cutting-edge technologies and innovation in environmentally friendly vehicles, for example by:

- ✓ a comprehensive package of measures to reduce CO₂ emissions, other pollutant emissions and noise pollution;
- ✓ road safety measures, including the deployment of intelligent transport systems;
- ✓ developing infrastructure for alternative fuels (electricity, hydrogen and natural gas);
- ✓ an EU standard for recharging interfaces for electric cars;
- ✓ A European initiative regarding environmentally friendly vehicles within the program Orizont 2020 to promote investment in research and innovation.

2. Improving market conditions, for example by:

- ✓ strengthening the single car market through an improved type-approval system, including market surveillance, to combat unfair competition;
- ✓ streamlining financial incentives for environmentally friendly cars;
- ✓ consistently applying the smart regulation principles, including the analysis of the effects of the main strategic initiatives on competition, in order to assess their specific impact on the automotive industry.

3. Supporting industry to enter the global market by:

- ✓ the conclusion of balanced trade agreements, the careful assessment of the cumulative effects of these agreements and the promotion and perpetuation of bilateral dialogues with the main third country partner countries;
- ✓ stepping up international harmonization of car regulations, pursuing the fundamental purpose of establishing an international type-approval system for cars and establishing worldwide safety requirements for electric cars and related batteries.

4. Promoting investment in qualification and training to meet structural changes and to anticipate labour market needs and needs in terms of qualifications, for example by encouraging the use of the European Social Fund (ESF) for this purpose.

Suceava Municipality intends to carry out information campaigns that include details on funding programs and sources to enable private operators to obtain the necessary funds for the purchase of alternative vehicles to replace conventional vehicles in the course of freight transport and distribution activities.

Estimated budget/Sources of funding	Estimated budget: 5.000 EUR
	Sources of funding: Local budget

Activity 3.6 Promoting alternative transport in the private sector through the purchase of alternative vehicles by private companies			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	Environmental Protection Agency Suceava, Private Companies		
Forecasted results	Starting the adoption of electric cars by operators with diverse economic activities at the local level		
	Promoting the establishment of alternative vehicle management and maintenance services in local services		
		Period	Sources
Estimators	Local information campaigns organized periodically by 2020	2018-2020	Statistical data, studies
	Minimum 10 electric vehicles adopted as pilot in the private sector	2018-2020	Statistical data
	Minimum 1 garage equipped with equipment and specialized personnel to ensure EV maintenance and servicing	2018-2020	Statistical data
	Number of companies that have been attracted to businesses in electric vehicles and related fields	2018-2020	Market research
	Passenger of the motor vehicles	2020	Market research
Activity description			
<p>Promoting electric transport in the private sector through the purchase of electric vehicles by private companies could be done through the cost price of electricity, which would be advantageous for charging at night tariffs and this action should be supported in collaboration with the company suppliers of electricity, then the leasing rate, the tax and the road tax can become incentive tools for electric transport in the private sector.</p> <p>The importance of aspects such as reliability, noise, pollution and a good charging infrastructure with standardized elements should also be signalled. Also included in this category is the obligation to recognize, in public procurement procedures for new vehicles, the ISO Environmental Standard, so as to favour in particular the trading of clean vehicles. The increase in the cost of the car should be supported by the state by granting direct subsidies to the purchase of vehicles and not only through the Rabla Program.</p>			

<p>The psychological impact should not be neglected because any newly introduced element brings fears related to operation, feasibility, duration, cost vs. benefits. Therefore, public figures need to be involved in the design of government policies, and then citizens can be interested in using electric vehicles in urban, public and private environments. In this regard, it is very important that the sales price also include lifetime maintenance of electric vehicles to give credibility and confidence to potential buyers. In order to make this possible, a new market can be created on which alternative and / or electric vehicles maintenance and management companies act.</p>	
Estimated budget/Sources of funding	Estimated budget: 350.000 EUR
	Sources of funding: Private equity

Specific objective 4: Promoting legislative and financial measures conducive to the purchase and use of electric vehicles to stimulate electric transport in private sector - especially for the freight transport and distribution sector

Activity 4.1 Creating a Local Support Group to develop and agree on a concrete strategic plan for implementing a specific alternative vehicle operating system			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	Local Support Group for Alternative Vehicles Suceava		
Forecasted results	Organizing at least 8 meetings, roundtables with Local Support Group representatives to develop a specific implementation plan for a support system for alternative vehicles		
	Developing a Plan to implement a specific system for operating alternative vehicles		
	Guiding users to alternative vehicles and increasing their confidence by improving their operating infrastructure and logistics		
		Periods	Sources
Estimators	Eight consultation and debate meetings	2016 - 2020	Minutes of meetings
	Plan to implement a specific system for the operation of alternative vehicles	2018 - 2019	Study
	Alternate vehicle operating system designed, implemented and operational	2018- 2020	System reports
	Number of users of the operating system, holders of alternative vehicles	permanent	Annual records
	The degree of satisfaction of alternative vehicle holders who benefit of the alternative vehicle operating system	2020	Market research
Activity description			
<p>The set-up of the Local Support Group for Alternative Vehicles (including electric vehicles) is an important step in respecting European practices that establish that all programs, planning, project ideas must appear as a result of consultations and debates within the local community, by bringing together the stakeholders groups by field of activity. Measures taken in this regard must take into account all target groups, there must also be good communication and information between public authorities and the community, and the benefits of this type of planning approach are now well understood: transparency of decision making, legitimacy through public</p>			

participation decision-making, better public acceptability and a higher rate of success, do they respond correctly and concretely to the needs of the community and integrate ideas and opinions from all levels.

Within the Sustainable Urban Mobility Plan of Suceava, specific measures have been included to allow connection to interoperable connected services with a role in maximizing and streamlining the use of alternative vehicles, including the interoperability of mobile telephone services, Internet accessibility, smart cards, GPS tracking, and surveillance with video cameras, smart map including locations, spaces, and charging points.

The design of the operating system will be subcontracted to a specialist firm, which will be tasked with hosting on a web page of the online application, to assure maintenance and to allow upgrades as needed. The service contract will be prolonged beyond 2020 as it is estimated that the alternative Romanian vehicle market is likely to be more open after 2020 and by 2030, as the private sector moves towards smart technology.

Estimated budget/Sources of funding	Estimated budget: 5.000 euro
	Sources of funding: Local budget

4.2 Initiation of a Local Council Decision on the introduction of pay parking for all conventional vehicles and the exemption from parking payment of electric vehicles in public space			
Activity Leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	n/a		
Forecasted results	Regulating the use of parking areas in public areas by introducing car parking tax and fines for non-compliance with the new infrastructure use regime		
		Periods	Sources
Estimators	Local Council Decision on the introduction of tax provisions for parking spaces in the public space	2019	Official site of Suceava City Hall
	Decision of the Local Council on the introduction of tax provisions for underground parking lots	2021	Official site of Suceava City Hall
	Local Council Decision on the granting of exemption from parking for alternative vehicles	2019	Official site of Suceava City Hall
	Parking rules, as well as setting a fine for non-compliance with the regulation	2019	Official site of Suceava City Hall
Activity description			
<p>One of the key impediments that potential buyers of electric vehicles face is the high cost of purchasing them. Even if total operating costs are lower over the life of the vehicle, the amount of initial capital is often an obstacle in adopting new technology.</p> <p>To solve this problem, a number of new business models are being developed to reduce the initial cost in addition to the purchase of alternative vehicles as well as the financial risk and uncertainty of potential buyers.</p> <p>Currently, Suceava is in a major urban regeneration process, using EU non-reimbursable structural funds under cohesion policy through its convergence objective. The North East Development Region of which Suceava is a part (consisting of a total of 5 neighbouring counties and Suceava County) is considered to be the second poorest region in the EU in terms of purchasing power per capita.</p> <p>Only 5% of the total parking space is currently charged, and parking charges are insignificant. The relatively low incomes of the local urban population, the constantly increasing livelihood costs and the insufficient number of parking places have so far hampered any initiative to introduce pay parking or even restricted parking in crowded areas of the city .</p>			

The proposed regulation will come from the department responsible for the management of roads and public streets "Street Administration Department", with the support of the European Integration Service and Development Strategies, and will become a legislative act by Local Council Decision. With regard to underground parking lots, a parking and stationing fee will be introduced for personal motor vehicles belonging to economic operators, after a period of 5 years from their entry into service.

It is forecasted that in this context there will be good and accurate information and awareness among citizens of the medium and long-term financial return on the use of alternative / electric vehicles.

Estimated budget/Sources of funding	Estimated budget: n/a
	Sources of funding: n/a

Activity 4.3 Implement an eco-friendly driving program in public and private local companies.			
Elaboration of travel plans at the level of the public sector and especially of the private sector			
Action leader	Private sector involved in the distribution / reception of goods.		
Organization Type	Private companies, local public companies		
Main partners	Local Authority, Academic Sector, Road Police, Road Traffic Design Companies		
Forecasted results	Reducing greenhouse gas emissions		
	Reducing traffic congestion and jams		
	Fluidization of road traffic especially in the shopping areas		
	Reduce shipping costs for companies		
		Period	Sources
Estimators	Number of mobility plans developed and implemented	2018-2022	Reports / Studies
	Greenhouse gas emissions due to reduced road traffic	2018-2023	Measurements / Statistical data
Activity description			
<p>Eco-friendly driving programs can have a significant positive impact on a company's budget. Improving the driving behaviour allows for immediate fuel savings of 20% and on long-term of 5-7%. In addition, machine maintenance costs and accident rates are reduced.</p> <p>In the European Union, for example, almost all heavy goods vehicles (HGV), most of the light commercial vehicles (LCVs) and about half of the new cars are purchased by companies. As a result, for the huge amount of fuel for these fleets, European companies spend almost 200 billion euros annually, and as a result, total cost of ownership (TCO) rises to about 600 billion euros per year.</p> <p>Many companies are looking for methods to reduce fuel consumption in order to reduce their expenditure as much as possible. Beyond the effects on business profitability, the action has as result also the mitigation of the greenhouse gas emissions impact on the environment. To this end, Delft CE consultants say that there is a need for automotive policies centered on measures for reducing CO2 emissions and clean technologies. These approaches can take various forms: eco-driving, good quality tires, adding components with aerodynamic features and, last but not least, replacing classic vehicles with electric or hybrid cars.</p> <p>In a recent article in Flote Auto magazine, we show that a company can save an average of 7,000 euros / car if it uses an electric vehicle instead of an internal combustion engine for 4 years (25,000 km / year) with a consumption of 0.7MJ / km. If you choose a hybrid vehicle (with 30% of electric power), you can mitigate your costs on average by € 2.000 / car.</p>			

Eco-driving and expenditure reduction

Using fuel efficient driving styles is a very popular measure among large fleet companies to reduce fuel costs. The so-called "eco-friendly driving" involves a number of techniques that drivers can use to improve fuel economy. According to the "Saving fuel, saving cost" report, the most effective ways of driving include:

- ✓ making the most efficient use of the engine by using a higher gear and avoiding rapid acceleration;
- ✓ anticipating the route by reducing unnecessary braking;
- ✓ reducing redundant energy consumption to a minimum, for example by minimizing idling and limiting unnecessary consumption;
- ✓ maintaining tire pressure at the specified levels.

Most of the available literature estimates indicate that an ecological drive allows for a reduction in greenhouse gas emissions of 10-15%.

The authors of the study believe that, along with eco-driving, fleet managers can take other measures that may lead to even greater spending cuts, them being as important as the courses themselves:

- ✓ Monitoring the individual performance of drivers and transmitting periodic feedback to them.
- ✓ Evaluate drivers and inform them about results, through speed and smartphone indicators. More in-depth research has shown that in a fleet of 118 vehicles, informing drivers of their environmental performance through on-board devices has led to a 2.8% fuel economy. On the other hand, the lack of feedback led to a lower spending cut of only 1.5%.
- ✓ Organize internal competitions on environmental friendly driving skills. Such competitions, according to the Delft EC document, increase their effects if the results are published and the drivers rewarded.

Expenditure involved

Undoubtedly, all necessary measures to reduce fuel consumption involves a first stage, and a cost to be borne by the company:

- ✓ Payment of an eco-friendly driving instructor and loss of service hours for drivers sent to courses. The "Saving fuel, saving cost" study shows that, on average, such a course costs about 50-100 euros, and the absence of every driver in the company, expressed in hours of work, means a drop in company revenue of between 300-1.000 euro.
- ✓ Cost of driver tracking package: EUR 15 for the gear shift indicator (for a series of cars it is part of the standard equipment);

Implement a monitoring and feedback system. According to Delft CE, the costs depend on its complexity.

Benefits monitoring	
<p>At first glance, this chapter should not produce astounding revelations. Fuel savings achieved through the adoption of an eco-friendly driving style are calculated by multiplying the reduction in fuel consumption (in l / km) with its cost and the number of kilometres travelled.</p> <p>However, other monetary benefits, such as the reduction of accidents and the reduction of maintenance costs, can be added to the decrease in fuel costs.</p> <p>Finally, the authors of the study emphasize that an eco-friendly driving can also bring social benefits such as reducing traffic noise and improving road safety. This latter aspect influences health and reduces medical costs.</p>	
Estimated budget / Sources of funding	Estimated budget: 30,000 Euro
	Financing sources: private / public capital

Activity No. 4.4 Access, stationing and supply regulations for the distribution of goods, courier, home delivery, sanitation, construction companies			
Action leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	County Police Inspectorate - Circulation Service, Private Operators in Freight Transport		
Forecasted results	Fluidization of road traffic especially in predominantly commercial areas and on main traffic streets		
	Reducing greenhouse gases, increasing the quality of life and reducing environmental pollution		
	Reducing the number of road accidents		
		Period	Spurces
Estimators	Local regulation for transit and destination of goods with customized measures based on specific criteria	2019	Studies, statistical data
	Volume of sales / freight transport	2020	Studies, statistical data
	Satisfaction of citizens and business operators	2020	Market research
Activity description			
<p>The lack of local regulations on freight transport and distribution cause the occurrence of frequent traffic jams, road traffic accidents, traffic discomfort, and not only for citizens. Also the</p>			

blocking of some parking spaces and sometimes even of traffic lanes and of malfunctions in the conduct of trade and distribution activities are effects of this phenomenon.

It is imperative to develop, adopt and comply with a local regulation on the transport and distribution of goods in order to reduce the dysfunctions associated with this economic activity.

This regulation should specifically address the commercial areas of the municipality, the areas of public institutions, markets and areas for business activities, especially those located in predominantly residential areas.

Local regulations must provide:

- ✓ Gauge / Tonnage Specifications for Freight Transport and Distribution Vehicles, differentiated according to the location / final destination of deliveries;
- ✓ Transmission and distribution timetable specifications, specifying that they must be correlated to the traffic values of the area, needs / frequency of delivery for each area / commercial space. Preferably delivery times have to be set outside the peak hours for road traffic, but any discomfort created for citizens and businesses must also be taken into account;
- ✓ Specifications on temporary or total access restrictions in certain areas (eg pedestrian areas), differentiated by time, gauge and goods specificity;
- ✓ Penalties and deterrent measures in the event of non-compliance with the provisions of the Regulation;
- ✓ Recommended alternative routes and real-time information about traffic conditions and restrictions;
- ✓ Facility specifications (Exceptions in the cases where alternative vehicles are used: electric, hybrid, etc.) to achieve the distribution of goods.

The drafting of the regulation will be carried out in meetings with the interested persons / companies, will be submitted to the public debate and subsequently adopted by the Local Council Decision.

Estimated budget / Sources of funding	Estimated budget: 20,000 euros
	Financing sources: Local budget

Activity No. 4.5 Initiating a Local Council Decision to introduce tax incentives favorable to the purchase of electric / alternative vehicles			
Action leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	The Police Inspectorate, the County Council, the Suceava Environmental Protection Agency, the Suceava Environmental Guard, the "Stefan cel Mare" University,		
Forecasted results	Legislative proposals and program initiatives obtained through public consultation		
		Period	Sources
Estimators	A Local Council Decision with legislation imposing special restrictions on environmental issues: access charges, low and zero emission areas, parking facilities, access to routes and lanes for buses or cyclists	2018-2020	Official site of Suceava City Hall
	Local Council decision with legislation granting discounts or exemptions from local taxes for the purchase of alternative vehicles (including electric vehicles)	2018-2020	Official site of Suceava City Hall
Activity description			
<p>In order to overcome the major impediment – the purchase price, it was highlighted the need to promote favourable tax measures (access fee exemption, local tax exemption, even national lobby for lower value added tax), granting of non-financial facilities and incentives by allocating preferential parking places free of charge to reduce the cost of purchasing electricity (in Romania, it would only be possible to make endeavours to obtain the night price for the unit sales price), to ensure a higher visibility of the alternative vehicles and continuous information on the advantages of using electric motor in road traffic compared to thermal motorization.</p> <p>The use of positive discrimination in this area brings benefits to all members of the community, including those directly affected by discriminatory measures.</p> <p>These measures may bring unpopularity to those who promote them unless a prior preparation of civic consciousness and the specific minimum conditions of unobstructed use of electrical mobility are made.</p> <p>It is intended to issue a Local Council Decision providing facilities for the purchase and use of alternative vehicles, including those for the transport and distribution of goods. The facilities refer to the reduction / exemption of local taxes, the exemption from the fees related to parking in public places and other initiatives to support the purchase and use of alternative vehicles in the public and the private sector.</p>			
Estimated budget / Sources of funding	Estimated budget: n / a		
	Financing sources: n / a		

Specific Objective No. 5: Educational and awareness-raising measures on the importance of reducing emissions

Activity No. 5.1 Information and awareness campaign on the benefits and impact of the use of alternative vehicles in the freight transport and distribution, including eco-friendly driving

Action leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	Private companies		
Forecasted results	Carry out public information campaigns		
	arising awareness and public awareness of the impact of road traffic and how to drive cars and the environment		
	Reduce congestion in traffic and the number of freight vehicles in residential areas		
		Period	Sources
Estimators	Number of public information campaigns carried out	2018 – 2020	Reports of meetings
	CO2 emissions due to reduced road traffic	2018 – 2023	Annual Environmental Status Report
	Number of companies that are informed and implement "eco drive"	2018 – 2023	questionnaires

Activity description

Eco-driving a set of behavioural, vehicle control and verification measures that reduce fuel consumption, thus protecting the environment.

Whether we talk about individual or professional drivers, there is a need for awareness-raising and information campaigns on eco-driving at the level of Suceava Municipality. The target entities that need to be systematically concentrated are transport and distribution companies, driving schools, bus companies (TPL Suceava). These companies have the greatest impact on the successful implementation of methodologies and also the greatest potential for reducing air pollution in transport in a relatively short time.

Moreover, environmental management also means saving money. This is a win-win solution for drivers as well as for the environment.

It is envisaged to carry out the campaigns in collaboration with specialists in the field of urban planning, road traffic, with representatives of the Road Police and with specialists from the "Ștefan cel Mare" University of Suceava.

It is intended to carry out campaigns within:

- ✓ **Freight forwarding and distribution companies;**
- ✓ **Shopping centers in Suceava - especially for commercial spaces owners who supply their own businesses and for large distribution companies with supply contracts with**

retailers in the area;

✓ **Educational establishments including university education institutions.**

Examples of good practice, eco-friendly and preventive driving methods, possible impacts of adopting an environment-friendly driving style, direct and indirect benefits both in the financial (including reduced fuel) and in the field of protection environment (reduction of emissions of NOx, noise level).

There will be presented examples of partner cities, actions taken and results obtained, and will be carried out test drive sessions including electric vehicles in the property of Suceava City Hall.

Example of environment-friendly driving from alternative vehicle perspective: LINK example https://drive.google.com/file/d/0B6FMa_GeOUsZNGNKcDVQU3NBTnc/view

Estimated budget / Sources of funding	Estimated budget: 5,600 euros
	Financing sources: local budget

Activity No. 5.2 Promotion of alternative / electric vehicles at national level through the initiation of some projects and legislative proposals			
Action leader	Suceava Municipality		
Type of organization	Local public authority		
Main partners	Suceava County Council, Suceava Environmental Protection Agency, Suceava Environmental Guard		
Forecasted results	Legislative proposals and program initiatives obtained through public consultation		
		Period	Sources
Estimators	Special laws dedicated to the implementation of the specific framework for the introduction and operation of alternative vehicles	2018-2020	Statistical data
	Programs to support the emergence of specialized car services on alternative vehicles	2018-2020	Studies / statistical data
Activity Description:			
<p>The revolution of the technology that provides the means of urban mobility cannot be done without major governmental involvement without a proper legislation and without financial allocations to invest in new technology models, so it is necessary to launch national programs that provide a unitary and favourable framework to the introduction of alternative / electric vehicles, to the appearance of car garages providing servicing and maintenance of alternative / electrical vehicles, of the introduction of tax reductions (VAT and first registration tax), other measures that give priority to RAR or to the payment of a flat rate.</p> <p>Although it is known that such measures can lead to significant imbalances at the national budget level, given the country's economic situation and the need to invest in other priority and strategic areas, yet as a member state of the EU, Romania has undertaken the fulfilment of some environmental objectives and specific targets, which will have as result the fact that lobbying measures and proposals that came from central level through the voice of local politicians be accepted and transposed into nationally applicable laws.</p>			
Estimated budget / Sources of funding	Estimated budget: 5,600 euros		
	Financing sources: local budget		

8. FUNDING OPPORTUNITIES FOR THE 2014-2020 PERIOD

Horizon 2020 is the European Union's framework program for research and innovation and is the economic instrument for ensuring the global competitiveness of the European space. Horizon 2020 will be carried out between 2014 and 2020, with a budget of over € 70 billion. Horizon 2020 aims to encourage research and innovation, strengthen the technological and scientific basis that will contribute to the development of the European Research Area where researchers, scientific knowledge and technology can freely move.

ERASMUS Plus is the new program of the European Union in the field of education, training, youth and sport. The program starts in 2014, will be operational by 2020 and is part of the EU's multi-annual funding framework. The projects will be structured in three key actions as follows: a) learning mobility; b) Cooperation for innovation and good practice; c) Support for policy reform. The budget is € 14.7 billion for all countries over the 2014-2020 period.

COSME - the Program for Business Competitiveness and for SMEs. With a budget of € 2.5 billion for the period 2014-2020, the Enterprise and SME Program is a financing instrument that continues to a large extent the activities under the current Competitiveness and Innovation Program (CIP).

LIFE – The Program for Environment and Climate, 2014-2020, has a global budget of € 3.2 billion over the entire deployment period for projects managed by both public and private bodies. The program is divided into two sub-programs: Environment and Climate Action.

Urban Innovation Action (Urban Development) is a program of studies and pilot projects for new solutions on issues related to the sustainability of urban development. The budget of the program will be 350 million euros.

Creative Europe is a European Union funding program to run between 2014 and 2020. The program has a total budget of 1.46 billion euros. Creative Europe has three sub-programs: Media, Culture and a cross-cutting component dedicated to supporting bank credits for cultural and creative sectors and cooperation in the field of cultural policies (available as of 2016).

EaSI is a new funding program designed to stimulate employment and social innovation. EaSI (Employment and Social Innovation) will benefit from an allocation of € 920 million for the 2014-2020 period. EaSI integrates and extends the coverage of three financial instruments: the Employment and Social Solidarity Program (Progress), the EURES European Employment Services network and the Progres European Microfinance Facility.

Health for Economic Growth, the third multiannual EU health action program for 2014-2020. It helps / supports Member States in: - undertaking the necessary reforms for having innovative and sustainable health systems; - increasing access to better and safer healthcare for citizens; - promoting good citizenship and disease prevention; - protecting citizens against cross-border threats. The budget of the program will be EUR 446 million.