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## **LOCAL SUSTAINABLE DEVELOPMENT AND PUBLIC-PRIVATE PARTNERSHIP: THE CASE OF CITY LOGISTICS IN NOLA (ITALY)\***

**ABSTRACT:** The research is focused on one of the most important urban problems: reducing the carbon emission in the city centers, mainly on its economic dimension. Apart from the more general problem of creating a green transportation system, there is a special need for city centers development in the context of urban sustainability. Bringing the retail and tourism businesses back to the city centers could revitalize the central areas that are either abandoned or making less contributions to the well-being of the citizens. Creating pedestrian zones plays the main role of sustainable development, contributing to its three dimensions: social, economic and environmental. It is not rare that the economic dimension of this type of projects give evidence of the projects' vulnerability. The case studies and literature give evidence of the problems in achieving sustainability of the partnerships with businesses and possibilities of public-private partnership, in general. The research is based on comparative analyses of city logistics in European countries. The case study illustrates the problems of introducing the PPP in the field of urban distribution in the historical city of Nola (Italy).

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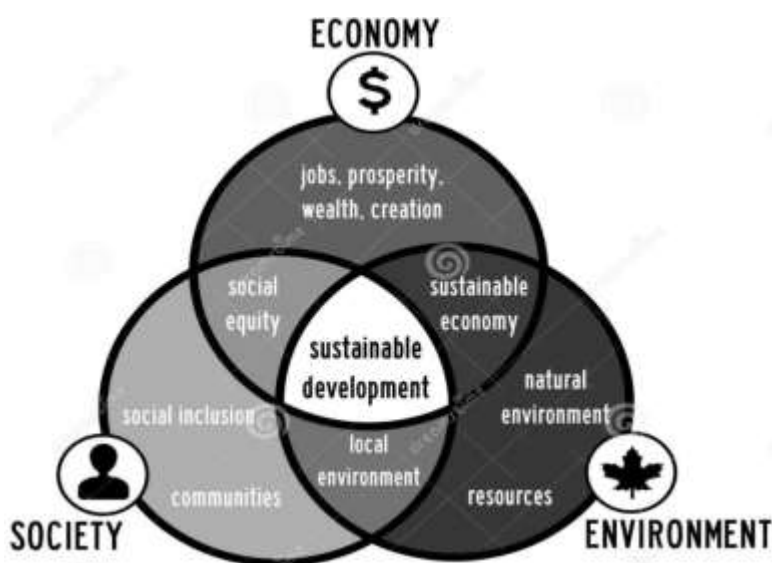
*Key words:* City logistics, urban distribution, carbon emission, place management, PPP, pedestrian zones

## INTRODUCTION

Sustainability plays an essential role in modern societies. Besides the interest of the global organizations for the problems of sustainability, behind the world's *politocratia* talks and declarations, there is an increasing interest among citizens to create and contribute to the concepts of regional and local sustainable development.

Historical reasons, and cultural and environmental reasons as well, are encouraging the special interest for studies focused on central city neighborhoods (Yabes, R. and Pijawka, D., 2008).

*Figure 1.* – Sustainable development and its three constituents



Source: Dreamstime.com

In this type of research, there are studies that have already been done in the field of place management. Managing places, neighborhoods, abandoned industrial districts, port areas became a new management sub-discipline, born in England as a response in searching the new life for the old cities, their main squares or harbors. The special respect is given to urban heritage (European Commission, 2010) of the cities, mainly located in the city centers (Stanojlovic, 2016). For citizens having “emotional, physical and economic attachment” to the central zones, creating pedestrian and pleasant

environment areas is of crucial interest. But, the sustainability problem is always present. Generally, one could say that many of the sustainable development projects are more oriented toward achieving the goals in the areas of local environment, less in the context of social equity and often minimizing the objectives of sustainable economy. When speaking about sustainable economy, the focus is on job creation and less on wealth creation. In the paper, the case of Nola city center is underlined as a project in which the project team listed as a first objective the increase of profit for the freight carriers delivering goods to the historic center of the city.

### **THE IMPORTANCE OF SUSTAINABLE URBAN DISTRIBUTION MODELS: THE ROLE OF PUBLIC-PRIVATE PARTNERSHIP**

PPP presents one of the hot topics in economic policy and management. Economic literature gives evidence on serious attempts of imbedding the PPP discussion in economic theory principles (Engel, E., Fisher, R. D., Galetovic, 2014). The PPP approach is very present in most of the studies in the field of local sustainable development and in its sub-projects, such as city logistics and creation of pedestrian zones. Here are some of the main characteristics of the local or city governance level in city logistic:

- a) Creating coalitions and charters
- b) Regulatory environment designed by the city authorities
- c) Monitoring the regulation process
- d) Creating a good ground for articulating different interests
- e) The need for performance audit and control
- f) The problem of implementation of the best (good) practices from other cities

There is a huge variety of forms of establishing public-private partnerships in urban distribution and city logistics projects, starting with the data collection share (in the initial phase of the project, but remaining as a permanent activity). This activity plays a vital role in the decision making process on starting the projects, but also it remains an activity which has to be permanent. The data are changing, so the dynamics of the modern economies and development of the urban conglomerations have to be followed and the measures in city logistics have to be based upon a recent data. Many factors and players are contributing in a data collection process: some of them being public, and some private. It is of interest of the public partners to contribute in data collection and to play an important role in the

further development of the system. Data collection in which both sides, private and public, are taking part, is of crucial importance for the intelligent system management, as the innovation area in the context of sustainable urban transport projects.

In city logistics, like in other kind of projects, two approaches could be recognized: narrow and broad. A number of authors are distinguishing two meanings of the private-public partnership (Browne, Nemoto, Vissar, Whiteing, 2003):

- PPP used in a narrow sense, and
- PPP used in a wider sense.

*Table 1* – Difference between narrow and broad PPPs

### **Difference between narrow and broad PPPs**

<b>Narrow definition of PPP</b>	<b>Broad definition of PPP</b>
Formalised co-operation in a joint venture	Relationship between partners is only partly formalised or not at all formalised
Resources made available by both partners put at disposal of joint venture	Partners retain control of the resources they provide
Risk and reward sharing	Information sharing
Co-ordination through joint venture hierarchy	Co-ordination through network structures
Applies mainly in the 'doing' phase	Applies mainly in the 'planning' phase

*Source:* Browne et al. (2003)

According to these authors, PPP is used more often in a wider sense, meaning information dissemination, good communication and cooperation or joint working. But, since the global financial crisis occurred in 2007/2008, PPP is generally understood in a more narrow sense, as a consequence of a dramatically changed economic conditions and problems of budget deficits faced in many countries and local and regional communities (Zaric, 2014). Nowadays, the predominant is the use of PPP in narrow sense meaning sharing the expenses, sharing the profits gained from the projects, but also being jointly responsible for the losses.

### **THE PROBLEM OF INSTITUTIONAL FRAMEWORK FOR THE PPP (THE INSTITUTIONAL VACUUM) AND ITS SUSTAINABILITY**

The short history of urban distribution centers and projects in the field of urban distribution has underlined the problem of institutional framework

as a critical one for the success of the undertaken projects. The leaders of the institutional economics, such as Douglas North (North, 1990), explaining the “path dependence” of various countries and regions, find the reasons in the different institutions which were developed through the long periods. In our case, there are no long traditions and some of the institutional responses have to be instantly created.

Generally, there are two types of institutions that are modeling and shaping our behavior and effecting the results in such projects: namely, in the phase of project planning and decision making if the area has a democratic traditions and more participatory models and activities, more civic engagements, it would be easier to promote the project and to push the project towards its implementation. Also, in the phase of project planning, and the implementation stage as well, it would be good to know what are the customs, norms and shared types of behaviors of the citizens. Citizens of the towns characterized by a rich cultural heritage, especially those having historical centers well preserved, are proud of their tradition, and, mostly, ready to support initiatives of improving the environmental conditions, creating large pedestrian zones and supporting the projects in the field of city logistics.

- Informal institutions.
- Formal institutions.

Considering the informal institutions, in the case of urban distribution centers, some characteristic customs, habits and norms that are widely shared among the citizens of the area, could be of importance for the projects. For instance, it is well known that the inhabitants of the newly built areas with family houses for the population of middle or upper middle-class, use delivery services: they frequently order a big quantity of food and other goods for their houses, due to the lack of time, territorial distance from the main shopping areas, etc. One of the main problems remains: how to achieve longevity of the PPP schemes?

As it was pointed out, when discussing the reasons for failure of some of the projects or for abandoning them, the financial aspect was underlined as a decisive one. Careful examination of the practices of introducing economic incentive in urban distribution centers and other city logistics projects is of crucial importance. Here are the examples (except the case of Tenjin – Fukuoka, Japan, all the cases are taken from Europe) of the efforts of the city governments and policy makers to design the regulatory environment, but also subsidies, in order to create the projects that are sustainable and long standing.

From the outset the La Rochelle project has benefitted from public funding by the local government, which provides a fixed subsidy per

package delivered (started at 2.08 Euro and later diminishing to 0.7 Euro), free facilities (partially equipped) and vehicles (including maintenance). Some specific funding from EU demonstration projects has also been available (ELCIDIS) (La Rochelle, France); 50% of the feasibility study and 15% of the investment in vehicles has been funded by the French agency for energy and environment. The City Council provides the depot area in an underground parking at discount price. The scheme keeps operating with profits every year (Paris (La Petite Reine), France); the UDC benefited from EU CIVITAS-VIVALDI (demonstration project) funding. CIVITAS was aimed to introduce gas-powered trucks for city logistics. It is not clear if it keeps operating nowadays without external funding (Bremen, Germany); the UDC operated without subsidies. The carriers involved paid the neutral carrier against an agreed price. It is not clear if the UDC was terminated in 2005 due to financial reasons (Kassel, Germany); no available information (Regensburg, Germany); public grants on total inflows have decreased from 85% in 2004 to 22% in 2007. The goal is to achieve economic self-sustainability (Padua, Italy); the UDC was established with financial aid of a demonstration project (ALIFE) – nearly 2 million Euro. Annual operating costs since the third year onwards are stabilized at 145,000 Euro approximately. The UDC has also received funding from eDRUL project from 2002 to 2005, specifically aiming to enhancing IT services (Siena, Italy); the scheme is self-sustaining. It has never been granted public subsidies (Fukuoka (Tenjin), Japan); both consolidating facilities have been provided by the government of Monaco (Monaco); delivery cost is expected to be kept around 30 Euro per ton of goods delivered (Evora, Portugal); the experience has benefited from funding of the CIVITAS-TRENDSETTING project (Stockholm (center), Sweden); the UDC has received funding from the CIVITAS-VIVALDI project. The trial was initially free for the participating retailers. It was anticipated that it would require on-going support from the city council once the European funding was over, as well as contributions from the participating retailers (Bristol (Broadmead), UK); the scheme is self-sustaining. The charges to the retailers are not fully transparent and they likely contribute to the UDC through the lease rents for their retail premises (Heathrow airport (retail), UK).

Many of the operating centers and projects do not report complete facts and figures on their results. The metrics which is used is also not systematically organized. There are no standards which help in evaluation of the UDC's performances. But, anyhow, there is a big importance of the so-called successful stories, which are motivating new comers into the area of city logistics and UDC to look after the possible results and to improve their own way of measuring and importing. We find the problem a very important

for the future development of this kind of the projects and of local sustainable development in general.

Here are some of the examples (successful stories) showing the results from the projects that are realized. Some authors analyze the cases of sustainable transport (Buehler and Pulcher, 2011), such as the case of Freiburg. Others are focused on city logistics. Besides formatted reports done on the base of (financial or performance) auditing, there are some very important data reported from the projects that are already realized. Facts and figures that are reported from several UDCs round the world are not of the same importance. Also, not all the UDCs report the same type of data/ there are no standard structures or formats of the reports. But, the literature already collected regarding the problem gives quite a number of successful attempts in collecting the relevant facts and figures that illustrate the role of the centers. Some of the data used were collected and prepared for the Final report «Urban distribution centers: a mean to reducing freight vehicle miles travelled:», prepared by The NYU Rudin Venter for Transport Policy and Management, New York, in 2011. For this purpose, a comparative study of 13 operating centers was carried out. Here are some of the most relevant data on the effects of UDCs:

Energy (-48%), pollutant emissions in situ decreased because of electric vehicles. Congestion and VMT balance is unclear. There are also economic estimations of savings due to noise and accidents avoided (La Rochelle, France); for the first 24 months: savings included 156,000 km (diesel vans), 43 tons oil equivalent, 112 tons CO<sub>2</sub> (Paris (La Petite Reine), France); 1997 data: number of trips (-12.7%), load factor (+28%). 2005 data: VMT (-9,000 km per month), fuel (-1,100 liters of diesel per month) (Bremen, Germany); load factor (increased from 40% to 80% by volume, from 25% to 60% by weight), VMT (-40% miles to the city, -60% miles within the CBD), other logistics metrics (see CITYPORTS report) (Kassel, Germany); VMT (20,000 vehicle kilometers saved between 1998 and 2005) (Regensburg, Germany); VMT (-127,000 vehicle kilometers in 15 months, trip mileage reduced by 26%), pollutant emissions (38.4 tones CO<sub>2</sub> saved in 15 months). For a 5 year period, the estimated economic value of environmental benefits has been estimated to double the amount of subsidies for the project (Padua, Italy); delivery trips to the city center (-37%) (Siena, Italy); operating trucks (-61%), VMT (-28%), parking operations (-72%), parking time (-17%), energy, pollutant emissions. The traffic involved represents only 5.6% of the freight traffic in the CBD (Fukuoka (Tenjin), Japan); according to a report by the French government, the Monaco UDC outperforms that in La Rochelle. A major share of the benefits is achieved in the consolidated trips between the depots in Nice and Fontvieille. For this trip, -53% VMT, -25% energy consumption. Inside Monaco, -21% VMT, -

36% energy consumption. Pollutant emissions have been reduced by the same proportion as energy (Monaco); expected benefits: 35% reduction in trips and CO<sub>2</sub> emissions. These benefits are estimated and not confirmed yet by real operational data (Evora, Portugal); estimated 17% reduction in energy consumption and pollutant emissions. VMT is expected to decrease by 65%. However the basis for these calculations is unknown (Stockholm (center), Sweden); 68% reduction in the number of trips. VMT and pollutants emissions metrics also available (Bristol (Broadmead), UK); 2004 data showed 70% trip reduction and 144,000 VMT saved for that year. Economic estimations for the trial stage showed an equivalent annual saving of £245,000 in time and £53,000 in fuel for the carrier companies. Pollutant emissions savings are also available (Heathrow airport (retail), UK).

The growing importance of PPP in a crisis (recession) times is opening the discussion. Some authors (Cvijovic, 2015) explain the growing interest for public-private partnership, especially in European countries with the crises of the welfare state, in general. In the period of the global financial crises, in many countries, PPP projects became more attractive and a matter of growing interest. There is a special role in the infrastructural projects, and the motivation of the public sector lies in a:

- a. lack of capital and public funding (due to the crises and budget problems);
- b. the need for a more efficient ways of managing projects. It is expected that the private capital should play an important role in improving project efficiency.

Projects in the field of city logistics and urban distribution centers do not give a certain evidence and comparison in efficiency yet, due to the model of the project. Namely, there are projects in which a joint companies have been created, or the projects operating without the establishment of SPV. It would be important to make an additional survey of projects failure, concerning the form of the particular public-private partnerships being planned. As there is already a big number of projects that failed, haven't been realized at all, or after the first year being in operation, the significant results could be achieved.

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## **THE ROLE OF STAKEHOLDERS IN THE CITY LOGISTICS MANAGEMENT**

### **Public-private partnership and its institutional framework**

From most of the successfully implemented projects in city logistics, urban distribution centers and urban freight transport, it comes out that the appropriate articulation of the interests of a variety of stakeholders plays a vital role for the overall feasibility of the initiatives. Planning the model of urban distribution centers and city logistics in general, means that the key players should focus on participatory policies. There are two levels of participation that are important for the process of planning, but also for establishing efficient mechanisms of project realization:

- a. Policy of stakeholders inclusion– in order to realize a necessary public-private partnership – involving private interests in financing the projects, and
- b. Diffused participatory policies, that are not essential in terms of project financing and making relevant decisions, but very important from the point of view of citizens and their representatives who make decisions through the process of budgets re-allocation. Citizens play a strong role in the sustainability of such projects. It is also of great importance to create diffused participatory policy whether the urgency of identifying private interests and involving them into public-private partnerships usually postpone the adequate solutions in diffused participatory policies, producing delays and, many times, their total absence.

One of the conclusions that comes out is that the involvement of the stakeholders from the very beginning is obligatory for a good planning. In this kind of projects, the number of stakeholders is usually big. So, in the first phase of the planning process, it is of crucial importance to make a good screening of different interests of the parties that we call the stakeholders.

### **Involving different interests of stakeholders**

There are following steps in the process of involving the interests of the stakeholders in city logistics initiatives:

- a. Identifying economic agents, institutions and organizations that have the interest in some of the key issues and initiatives.
- b. Designing their specific and particular roles in the city logistics projects.

There are various types of structuring the property rights and governing capacities. Many of the projects are focused on classical public-private partnership, but there are also projects which are fully private or fully public. There is also an interesting example of Monaco, with a publicly owned center, but privately organized distribution. Some of the best practices and best UDC companies intend to enter franchising, what could provide also interesting approaches and results. Publicly owned UDC (La Rochelle, France; Monaco); single private ownership, “suggesting” landlord (Paris (La Petite Reine), France); unclear, but most likely a private joint venture (Bremen, Germany); private joint venture, delivery by neutral carrier (Kassel, Germany; Regensburg, Germany); public-private partnership, agreement with existing company (Padua, Italy; Stockholm (center), Sweden; Bristol (Broadmead), UK); public-private partnership, newly created company (Siena, Italy); private joint venture; delivery by newly created company (Fukuoka (Tenjin), Japan); private joint venture (Evora, Portugal); single private ownership, “demanding” landlord (Heathrow airport (retail), UK).

### **Involving the stakeholders from the very beginning**

Urban freight actors are numerous. Public policy makers have to work jointly with a huge number of freight transportation companies, but also with a huge number of private partners and agencies interested in getting a part of the project activities. There is also a big number of private partners (companies, agencies) to whom, anyhow, some activities have to be outsourced, thus becoming more efficient and producing better economic results. That could be external agencies for data collection or maintenance of the intelligent system models. All of them could be involved in the public-private partnerships and working together.

*Chart 1 – Planning team with the participation of stakeholders*



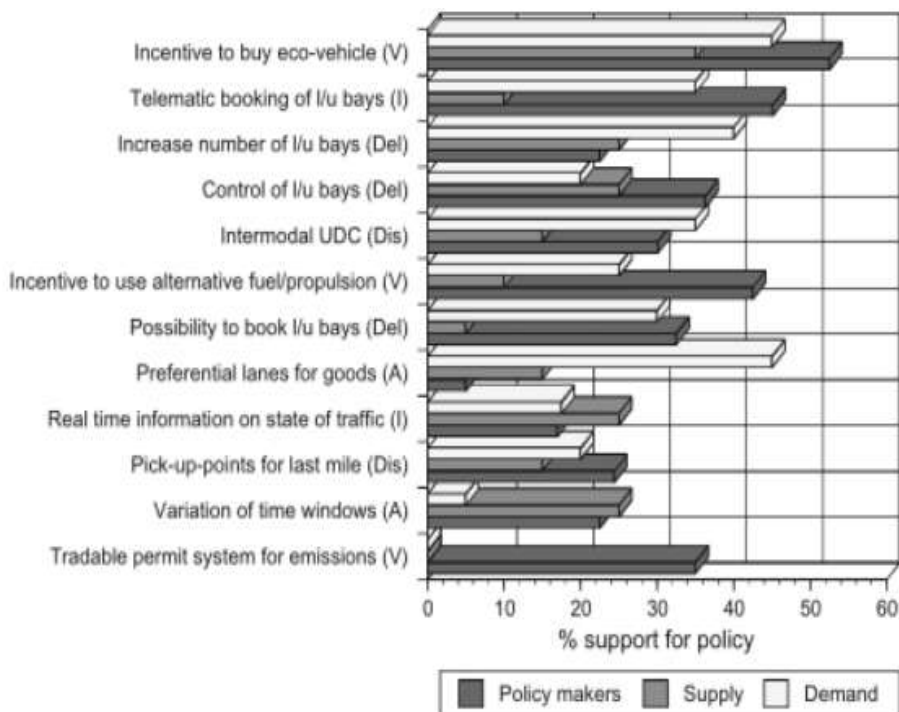
*Source: Browne et al. (2003)*

The precondition for the success is to give a time for the planning process, to cooperate with private partners from the very beginning, to choose the most appropriate model of the public-private partnership, to manage the risk in a sound and proper way.

### **Reconsidering the aims and expected outcomes in accordance with the inputs and opinions of the stakeholders**

When starting UDC project planning it is very important to identify the incentives and expectations of the partners. Some problems are characteristic for the involvement of private businesses. Businesses are more concerned and focused on their relations with the market environment. In many cases, there is a lack of communication with their non-market environment (Baron, 2013). This produces modest results in general and low understanding of the problems of sustainable development and of PPP, in particular.

*Figure 2 – Stakeholders policy options*



*Source:* Stathopoulos et al. (2012)

Emphasizing the role of stakeholders in creating the project (scheme) economically sustainable, the municipality planners have to prepare the variety of forms of stakeholders inclusion, before starting the process of

negotiation. As in many other activities, a good preparatory work is of crucial importance. The above figure from Stathopoulos et al (2012) shows a variety of options that could be the essence or basis for the stakeholders policy.

The other part of the problem which has to be re-thought by the public government and its policy makers is the importance of having the legislative and regulatory option in advance. Namely, in order to achieve the margin of profitability, and sustainability of the project, city governments are motivated to undertake changes in a regulation of urban freight transport and in some other fields. But, the point is that this policy has not to be discriminatory toward other players at the freight and distribution market, and that some extreme extensions or privileges cannot last for a long time. At the same time, some of the regulatory policies must have a solid and long duration in order to provide stakeholders with stable bias and conditions for their long-run activities and projects. City policy makers and government bodies have to take both aspects into consideration, to reconsider the feasibility of the projects within such a regulatory and legislation framework and to present it in a transparent and sound way to their possible partners, i.e. stakeholders in the public-private partnership project such as city logistics project or establishment of urban distribution centers. It seems that besides existing barriers, the general approach has to be collaborative (Lindawati et al, 2015)

### **CASE STUDY NOLA: SETTING THE LIST OF OBJECTIVES, CONDITIONS FOR ACHIEVING THEM AND THE CORRESPONDENT CRITERIA**

The point of our analyses is creating a pragmatic list of objectives of the Nola project in terms of

- a. feasibility and
- b. accountability.

Namely, the system of performances has to be designed in the way that provides a simple understanding and transparency for all the stakeholders, backed with a sound and clear condition for achieving the objectives, and, from our point of view, a system easy to be measured. The list of the actors involved in the city logistics projects could be long. It is necessary to mention that in this study we have not been including the specific objectives that could characterize the activity of the Urban Distribution (Consolidation) Center, in our project, the Nola Interporto. As Vaghi states, the UDCs in Italy are already existing infrastructures, serving to cross docking.

Many studies report that distribution centers tend to fail if not market-based and oriented. The real criterion is that centers have to be commercially

successful. Besides the important role that the Nola Interporto plays for the region (and Nola, as well), the study focused on the role of the three main interested parties: logistics service providers, mainly in transportation, residents and shop keepers and the local government creating positive regulatory measures. The results from the follow up activities (as a permanent process, performed by the management of the city logistics team) have to be reported in the quantitative way, with the clear understanding of the reported figures, via established and agreed criteria.

### *Freight Carriers and Shippers*

Shippers: Consignor, exporter, or seller (which may be the same or different parties) named in the shipping documents as the party responsible for initiating a shipment, and which may also bear the freight cost (<http://www.businessdictionary.com>).

#### **Objective 1: Growth in profit**

↓

**Conditions** for achieving objective:

Reduction of the transportation cost,

Growth in sales in the retail sector of the city center

Reduction of the number of empty runs

Reduction of the realization time

↓

**Criterion:** The increase of the amount of sales in the shopping area of the Nola city center

Lowering the transportation costs by reducing the empty runs and the realizations time

Controlling the dwell time in front of the objects (survey to be done)

#### **Objective 2: Higher utilization**

↓

**Conditions** for achieving objective:

Shorter delivery times

Increasing the quality of the information flow

Higher schedule reliability

↓

**Criterion:** The decrease of the logistics costs

**Objective 1:** Growth in profit

↓

**Conditions** for achieving objective:

Reduction of the transportation cost,  
 Growth in sales in the retail sector of the city center  
 Reduction of the number of empty runs  
 Reduction of the time of realization

↓

**Criterion:** The increase of the amount of sales in the shopping area of the Nola city center

Lowering the transportation costs by reducing the empty runs and the time of realizations  
 Controlling the dwell time in front of the objects (survey to be done)

*Residents of Nola*

There are three objectives of the Residents:

**Objective 1:** Ensuring good living environment

The objective is creating a friendly environment, and reducing the chronic diseases and respiratory and asthmatic problems.

↓

**Conditions** for achieving the objective:

Reducing the pollution caused by the traffic in the city center

↓

**Criterion** (created for the case of Nola) is the level of NOx emissions from commercial and other vehicles and lowering the existing level of HC.**Objective 2:** Increasing the prices of the real estates (retail shops and warehouses, apartments, office buildings)

↓

**Conditions:** Bringing people to the city cluster and improving conditions for shopping, working and living determines the increase of a demand for retail stores, office space etc.

↓

**Criterion:** The level of real estate prices  
 (on annual price level, through the reports of the real estate agencies)

**Objective 3:** Increasing the social capital among citizens

↓

**Conditions** for achieving the objective:

a. Achieving better communication between the citizens and local government

↓

**Criterion:**

a. measuring the trust into local institutions (institutional trust),

b. the reduction of the total number of complaints from the residents

c. The number of complaints from the business sector operating in the city center (center of Nola)

### *Local Government of Nola*

**Objective 2:** Producing positive economic impacts for the city administration /government

a. Better conditions for the service industry

b. The increase of tax revenues

c. Lowering the local level expenditures

↓

**Conditions** for achieving NOLA project objectives:

a. Achieving an attractive environment for investments in retail, tourism and HORECA sector

b. Raising the interest for property ownership in the city center

c. Attracting organizers of events, bazaars, fairs, performances, cultural events

↓

**Criterion:**

a. The income from real estate operations and owners' taxes on property

b. Fiscal and para-fiscal taxes on economic activity

c. The expenditure on the urban infrastructure maintenance (it is expected that it would be lowering)

d. The costs of maintenance of the historical sites and buildings (due to the lower pollution, lower expenditure is expected)

## **CONCLUSIONS**

a. Being rich in options, stakeholders and PPP projects

Speaking about the revitalization of the cities and the future of the urban environment, it seems that the active participation of the citizens in

order to achieve a higher quality of the ambient is a pre-condition for success. Citizens have to be attracted by the intended development and in the position to co-create the “panorama” of goals and actions (Warnaby, 2012). Many of the authors insist on wide spreading information, and, in many of the cases, on the role of universities as reliable institutions whose participation is welcomed. The stakeholders have to be aware of the range of options in the sustainable local development projects, but also of an array of public policies options. Some of the characteristics of the local environment seem to be encouraging for this kind of projects (there is a positive correlation between the fewer disparities in income of the economic classes and lower pollution). Public-private partnership could offer a necessary sense for profitability (the economic side of sustainability, very often underestimated). The problem of many of the PPP projects is the optimal contract length between the partners. As Hart (Hart, 2003) states, trying to throw more light on this issue (finally, awarded a Nobel prize for economy, 2017), “ownership does matter when contracts are incomplete”.

The range of options has to be supported by a strong insight into the information, starting from the information on environmental hazard.

#### b. The bearable sustainable local development

It means that this projects and programs must be acceptable. In the environment characterized by huge stocks of social capital and planning process that include all the interested parties, it could be achieved. But, these development activities have to be followed in a long run, and the use of “medication” makes them bearable.

#### c. Sustainable means viable

Mentioning the need for continuous adjustments and medication means to understand the sustainable local development as a living thing – capable of succeeding. Following and reporting plus collecting questionnaires from the citizens and staff permanently based or temporary working in the area could prove the sustainability of such a project.

#### d. Citizens and economic agents concerned

The local development and its sustainability mean that the governing bodies have to deal fairly and equally with all the parties concerned – citizens, business operators, retailers, tourist bodies, HORECA sector, the young. Dealing equally, mainly in protecting the particular interests could

make the neighborhood and the entire cities a pleasant place to live. The collaboration between stakeholders in urban logistics is necessary. Cellucci (2011) insists on overcoming the “communication gap” that exists among the stakeholders from both (private and public) sectors. The research identifies that some new research opportunities could be gathered with wider scope of the data collection plus including new methodology, such as stated preference surveys, focus groups, interviews.

e. Finally, monetary incentives

Making the local community environmentally friendly, with protected historical heritage, means also that the citizens will enjoy the economic benefits of the projects and selected way of development. Some authors (Lownades, 2001, Lang, 2011). In some cases their property rights could be restricted, but, in the process with low transaction cost (see: Coase theorem), the result has to be a favorable allocation of the resources. Simply, the increase of real estate prices has to be evident. The problems occur from the very beginning (no access for cars, noise in the morning hours made by commercial vehicles, more tourists and other consumers of restaurant services and possible increase of prices), but the prospects have to be drawn precisely and transparently.

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**PARTNERSTVO: SLUČAJ PROJEKATA GRADSKE LOGISTIKE**  
**GRADA NOLA (ITALIJA)**

Istraživanje je fokusirano na jedan od najvažnijih urbanih problema: smanjenje emisije CO<sub>2</sub> gasova u gradskim centrima, pre svega na njegovu ekonomsku dimenziju. Pored oštijeg problema kreiranja „zelenog“ transportnog sistema, postoji i posebna potreba za razvojem gradskih centara u kontekstu urbane održivosti. Ponovno dovođenje maloprodaje i biznisa vezanih za turizam u gradske centre, može da revitalizuje centralne prostore koji su ili bili napušteni, ili nisu proizvodili dovoljno doprinosa blagostanju građana. Kreiranje pešačkih zona igra glavnu ulogu u održivom razvoju, doprinoseći njegovim trima dimenzijama: socijalnoj, ekonomskoj i ekološkoj (ambijentalnoj). Nije retko da upravo ekonomske dimenzije u ovakvom tipu projekata svedoče o ranjivosti projekata. U studijama slučaja u literaturi prisutni su problemi održivosti partnerstava sa svetom korporacija, kao i mogućnosti javo-privatnog partnerstva uopšte. Istraživanje je bazirano na komparativnoj analizi praksi organizacije gradske

logistike u evropskim zemljama. Studija slučaja ilustruje problem uvođenja javno-privatnog partnerstva u istorijskom gradu Nola u Italiji.

Ključne reči: gradska logistika, urbana distribucija, emisija CO<sub>2</sub>, menadžment mesta.

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