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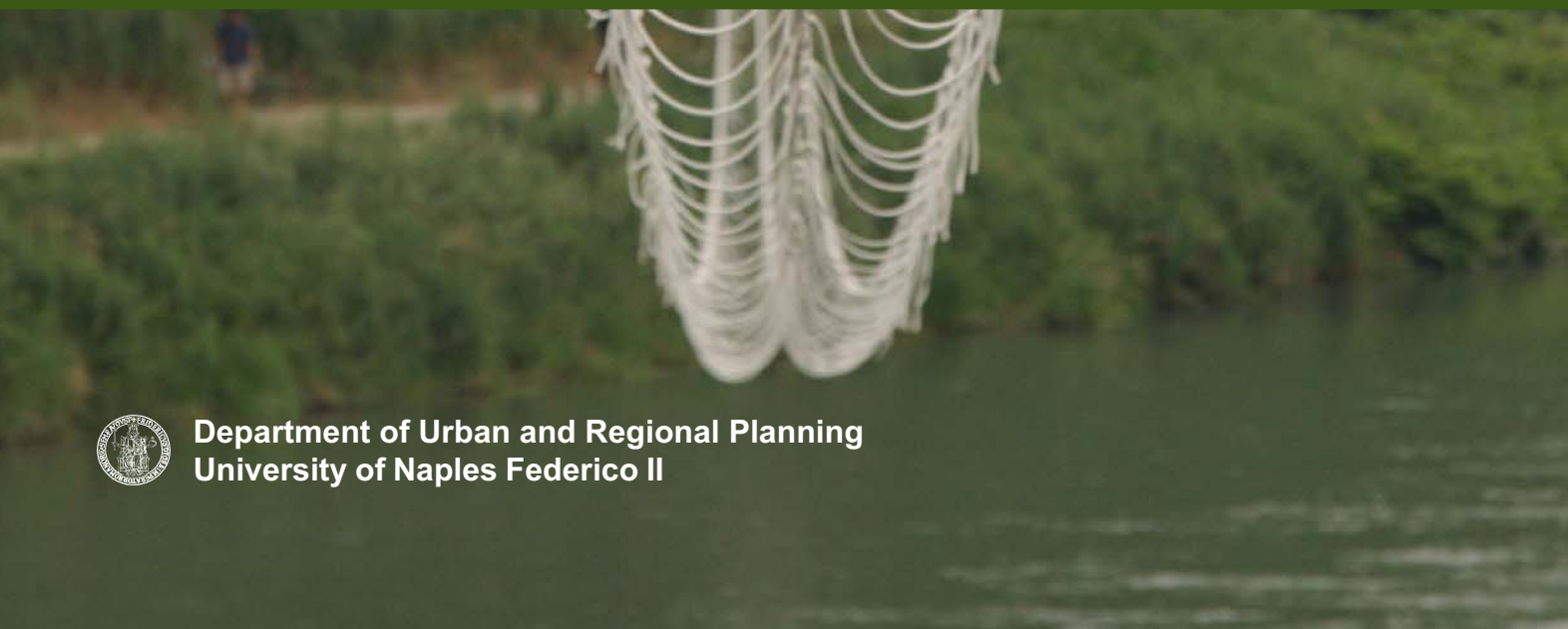

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Contents

TeMA
SP.10

Contents

TeMA
SP.10
Focuses

TeMA*Lab* journal of
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Campania: Territory and City in Front of the Challenge of the Logistics

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ABSTRACT

Logistics can be defined as the process of planning, organization and control of all the activities of transport and storage of goods and informations; it interests all the productive phases, from the acquisition of raw materials, to the production process in the factories, up to the delivery of the finished products to the final customers. In this way the logistics intersects the territory at different stages of its activity: when the raw materials are brought to the factory, when the factory sends semi-production units to other factories, where products are stored in equipped areas, and when the final goods are brought to terminal sales.
Inside the Southern territorial system the Campania is an important hub in the transport and sorting of goods. This role has made stronger after the carrying out of new logistics infrastructures, related to other support infrastructures, as railways and motorways.
The regional system presents nationwide excellence's peaks that could encourage its role in this sector, but there are also negative factors that may to slow the take-off of the sector. The reference is to the infrastructures and operating bottlenecks interfering its efficiency, but also to the weakness of the regional production's system that doesn't ensures a local critical mass to the logistics.
A third aspect is the lack of a clear structure of programming investment and of a greater transparency in the roles assigned to various initiatives, arising mainly on local, uncoordinated pushes.
The paper analyzes the situation of logistics and of its spatial interrelationships in Campania, identifying strengths, weaknesses, and potential evolutionary factors. The discussion faces up aspects of territorial logistics: it differs from the urban logistics for the amount of handled commodities and for the concentration in strategic poles, because these logistics platforms require specialized equipments and wide spaces for movement and deposit.
The first part of the paper analyses the relationships between territory and logistics and identifies either the main elements of interconnection or crisis in the use of physical space, due to the diverging objectives between territorial government and economic actors.
The second part considers the condition of good's movement in relation to the Mediterranean port facilities, to the state of the regional logistics system, and to the economic and territorial Campanian situation.
To this purpose, the paper also explores the evolution of territorial planning in Campania, highlighting how a series of choices, including those related to the location of logistics facilities, have been made outside of existing planning tools.

Need of a deepening

Inside the Southern territorial system the Campania is an important hub in the transport and sorting of goods. This role has made stronger after the carrying out of new infrastructures dedicated to the logistics, related to other support infrastructures, as railways and motorways.

The regional system presents nationwide excellence's peaks that could encourage its role in this sector, but there are also negative factors slowing the take-off of the sector. The reference is to infrastructural and managerial bottlenecks interfering the efficiency, but also to the weakness of the regional production's system that doesn't ensures a local critical mass to the regional logistics. A third aspect is the lack of a clear structure of investment's planning and a greater precision of the roles assigned to the several initiatives, arising mainly on local, uncoordinated pushes.

The paper analyzes the situation of territorial logistics and of its spatial interrelationships in Campania, identifying strengths, weaknesses, and potential evolutionary factors. The discussion faces up aspects of territorial logistics: it differs from the urban logistics for the amount of handled commodities and for the concentration in a few strategic poles, because these logistics platforms require specialized equipments and wide spaces for movement and deposit.

The first part of the paper analyses the relationships between territory and logistics and identifies either the main elements of interconnection or, often, of crisis in the use of physical space, due to the diverging objectives between the territorial management and the action of the economic subjects.

The second part considers the condition of good's movement in relation to the Mediterranean port facilities, to the state of the logistics system of Campania, and to the economic and territorial

state of the region. To this purpose, the paper also explores the evolution of Campanian territorial planning, underlining how a series of choices, including those related to the location of logistics facilities, have been made outside of existing planning tools.

Economy and territory

The planning of a regional system requires the full identification of the elements and of the interrelationships among the factors; for this aim the system's analysis is of one of the most used methods to determine and measure causes and effects of human actions on the territory. This assumption undertakes a particular importance for the study of the land's use in an economic perspective.
The freight is a key component of an economic system and its importance (in terms of contribution to the wealth's growth) descends from three factors, namely: the economic growth, the demand for transport and the impact on urban congestion and environment (Taniguchi *et al.* 2000). In this perspective, the analysis of the impacts (true and potential) of the good's movement is part of the systemic connections inherent the relationships between territory and economy.

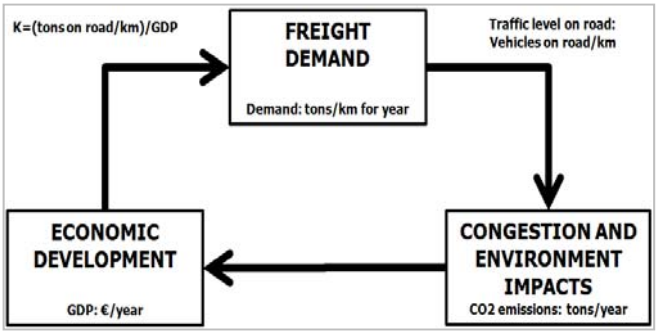

Table 1 - Freight transport is a key element of an efficient economic system; its contribution to the growth of wealth is recognized, as well as its negative impacts in terms of congestion and pollution (Source: Taniguchi 2000)

Three are the reasons for this assumption:
- the distinctive features of the economic factor in the territorial transformations, because the monetary currency is the main incentive for the space's adjustment and adaptation;
- the impact of the good's movement on the territory, in relation to the use of the space for the construction of storage and transportation facilities (ports, railway stations, freight terminals, airports) and in relation to the congestion of wide tracts of transport network for allow the freight's movement;
- the impact of the good's movement on the pollution of soil, air, water, and noise and, consequently, on the quality of the human life and of natural ecosystems.

According to Perroux (1950), the economic space is defined by the relationships among a series of different economic factors. It follows that the spatial location of each economic element, in relation to others, assumes a specific value: this value is different if located in another place and connected with other elements.
In a territorial space in which there are several infrastructure systems the relations among economical actors create a lattice space that it locally born and develops; afterwards, this space can become more extended, if given boundary conditions rise. This transformation to larger dimension and to prevailing hierarchical positions becomes possible only if given infrastructures equip the territory, if we reduce the transportation's costs – thanks to the appliance of the logistics principles –, and if the spatial constraints become weaker reducing the friction's effects due to the physical space and low fluidity of the socio-economic actors.

Logistics and territory

Logistics can be defined as the «process of planning, organization and control of all the activities of transport and storage of goods and informations; it interests all the productive phases, from the acquisition of raw materials, to the production process in the factories, up to the delivery of the finished products to the final customers» (Luceri s.d.).
The specific trend of the production's process due to the logistics involves the flows and storage of goods, from raw materials to semi-finished goods to finished products, so they are available to consumers.
In this way the logistics intersects the territory at different stages of its activity: when the raw materials are brought to the factory, when the factory sends to other factories semi-production units, where the products are stored in equipped areas, and when the final goods are brought to terminal sales.
The intersection between logistics and territory, therefore, occurs at various times of the production process and produces physical (space for storage, networks for the movement) and socio-economic impacts (jobs, environmental quality, ...).
It follows that in many situations the logistics intersects other urban functions positioned in the area and influences their quality and importance.
Logistics is a tool to make efficiency to production and distribution; this is the leading meaning, but in this paper it interests to deepen the aspect of the conflict of an economic entity with the territory, ie when raw materials are transported to the place of production or

when the final product is distributed to customers.

To this end, it is clear that to one side there is a private company, on the other there are the different subjects managing the territory with different plans. These two parts have different objectives, often in conflict.

In fact, the basic goal of any private logistics company is to contribute to the profit's creation bringing to the customers the goods at the lowest total price; the storage (both upstream and downstream of production) and the good's transport takes part in the achievement of this goal. Aim of the territorial governance, however, is to make possible this operation at the lowest social cost, creating an effective monitoring and prefiguring a rational use of the space.

Logistics is a purely economic process and its recent development derives from the deep changes in the production processes, which have seen more and more the development of fragmentation's phenomena in the distribution and, then, an increasing role of transportation and handling phases.

A second factor to take into account is that the production system has extended the range of steps bringing the product to the consumer: activities such as storage, movement, handling, packaging, and distribution were once prerogative of the manufacturing company; today they tend to be "outsourced" if not strategic and functional to the specific society core business (Borghesi, Buffa, Canteri 1997).

Fundamental components of a logistics system are:

- number, size and geographical distribution of plants;
- cost of service in terms of speed and reliability, also in relation to the quality of the transport network.

These components are interrelated to each other, and their optimization can be achieved through a systemic approach and can lead to different operating configurations. In relation to the range of offered services and to the number of specialized operators, the logistics districts may distinguish itself in different categories: in particular, polarized districts, multi-specialized districts, logistic platforms and wide range districts (Vona 2001).

Another link with the territory is to found in the remark that logistics is a district phenomenon (Becattini 1999). A manufacturing district formed in a territory, because of the outsourcing of specific phases of the process, creates in the same area a system of companies offering spin-off services, in particular related to logistics; in this process the economic development due to the territorial contiguity takes a great importance, and this is a factor that affects both on mutual control among enterprises and on the creating of service's activities with a "condominium" nature.

The creation of industrial districts stands on the size of the established firms even; so the presence of a weak economic system reduces the possibility of setting up of logistics systems; it follows that the productive districts are preferably located in developed and self-consistent economic areas.

A logistics district represents a value-added in a territory, because it creates a number of positive benefits in economic and infrastructural field; among they it is possible to remember:

- growth and innovation of the system, with positive effects on incomes and jobs;
- location's advantages of the territory compared to other territories;
- specialized and competitive emulation among enterprises located in the area;
- construction of new infrastructures working to area's advantage;
- quantitative and qualitative development of services.
- Besides, are to consider the mobility's external costs (Boscacci 2004), namely:
- the environmental costs endured by the citizens who inhabit and live in contact with the various activities related to transport;
- the environmental costs of natural resources from impairment nicked;
- the congestion's costs related to the travel time and to the safety.

A logistics system manages the transportation and distribution of two categories of goods: first, the goods produced in the area and distributed both in the same territory and outside it; second, the goods produced outside the area and distributed in it or in transit through it. The significance of the system of local production affects the size of the first tranche, while the latter becomes more prominent when the territory is only a place of consumption or transit to other destinations.

The processes of construction of poles for logistics can't be triggered without the presence of appropriate infrastructure resources, such as road, rail links, and installation for logistics and intermodality (open space, trucks bundles, electrified railways, information and telecommunication systems, high value-added activities, handling in refrigerated environment or in controlled atmosphere).

The realization of these infrastructures derives, for the most part, from public investments because not many private investor would have the ability to make infrastructural investments of this dimension, for their size and for their social character. «For this reason, therefore, and for the fact that the freight's activity can be, in some ways, assimilated to a public utility service, the national and local governments, and the European Union itself have increased the funds allocated to the upgrading of infrastructure networks for the exchange of agricultural and industrial products, financing specific investment programs» (Vona 2001, 213).

The ports of Campania and the state of the Mediterranean trades

Speaking of logistics and freight transport means paying special attention to the most used freight's vehicle, that is the maritime. In 2008, the Italian port system has handled 343,996,013 tons of goods; the most important, Genoa, handled 55,666,701 tons. The three main European ports (Rotterdam, Antwerp, and Hamburg) have moved, respectively, 406,032,000, 181,500,000 and 140,381,000 tons.

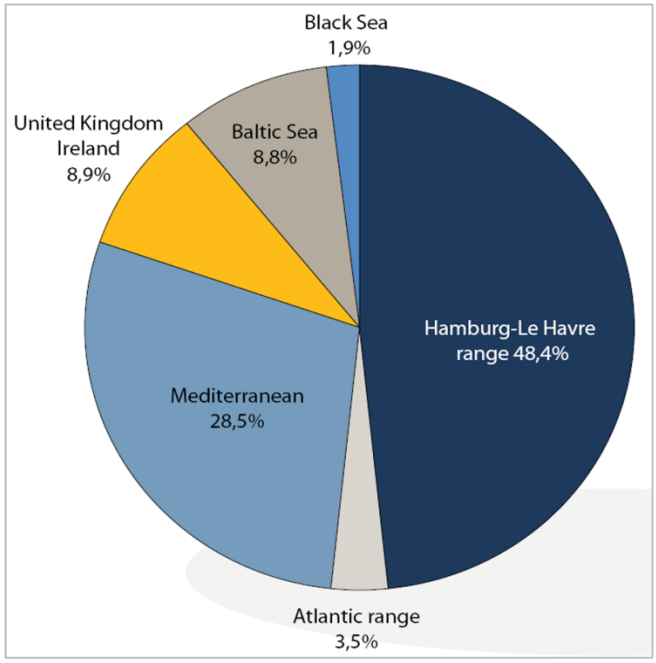

Table 2 - The movement of containers in European ports is estimated amounted to 90.7 million TEUs (1) (2008). Of these, 28.5% (about 25.85 million TEUs) transits in the Mediterranean Sea, along the main East-West route

The economic and financial crisis that began in 2008 has started a series of reactions in the international freight. The structures involved in handling and transport of goods, primarily the commercial ports, are responding to the crisis in different ways with the aim of achieving better international positioning when the economic recovery will feel its effects also on the goods traffic.

In the Mediterranean Sea, the main course followed by the freight traffic goes from Suez to Gibraltar. Along this course are located a series of port facilities absorbing a share of total tonnage, while the remaining flow of goods pass through.

The Mediterranean ports have different characteristics. Some allow the Ro-Ro handling of goods, others are specialized in the docking of large container ships and in the subsequent boarding of the goods in smaller container ships (transhipment); others, finally, allow loading and unloading of unpacked goods. Often in the same port are present different specializations in different areas.

At the entry in the Mediterranean Sea through the Suez Canal, a product packed up in a container destined to Northern Europe can choose different paths. The main ones are:

1. to cross the Mediterranean Sea from East to West, to pass Gibraltar and to sail the Atlantic to North;
2. to unload the container in a transhipment port, to load it on a smaller ship and to continue by boat to destination;
3. to unload the container in transhipment port, to load it on a ship up to a port in the North of Mediterranean Sea, to load it into freight train and to bring it to destination;
4. to unload the container in a transhipment port, to load it on a freight train and to bring it to destination.

The choose of the best travel alternative results from various factors which are essentially based on the service's efficiency in terms of handling's cost and of time required to reach the final destination. You consider, for example, that if a container unloaded in a port in the northern Mediterranean could go on smoothly to Rotterdam, and arrives 8 days in advance compared to the same containers that goes on by sea, with a significant reduction in travel time and, at the same time, in CO_2 emission (45 kg for each moved container, according to Minella 2010).

Compared to these general considerations which are the moves that Mediterranean ports are carrying out?

In the Mediterranean Sea there are historic ports with a continental importance (Genoa, Marseilles, Venice, Barcelona, ...) and old structures recently developed (Valencia, Gioia Tauro, Cagliari, Taranto, ...). There are also new realities that are gearing up and that will play an important role in the flow's redistribution of cargo handling; the hint is, in particular, to the ports of Mediterranean Africa, as Tangier in Morocco, New Damietta and Port Said in Egypt, Endifha in Tunisia, Oran in Algeria. According to some estimates, in 2015 the handling capacity of these African ports may reach 5 million of containers (for comparison, Naples in 2008 has handled about 481,000 containers) putting in new competitors in the challenge on the attractiveness of the goods flows.

With regard to the Italian port there is a general repositioning tracing new alliance's systems. Gioia Tauro, Taranto, and Cagliari, which together handles about 4.5 million TEUs, decided to create an association, known as IMETA, with the aim to implement agreed actions for the inward of container's flows; one of the first actions was the cancellation of the port dues.

A second alliance is among the ports of the northern Adriatic: Trieste, Venice, Ravenna, and Koper agreed joint measures to make

this port system as the main entrance to the Central Europe markets (Trupac, Kolenc 2002).
The association, called NEPA (North Adriatic Port Association), plans in the coming years investments for 3.4 billion €, of which 2.2 come from private societies. Investments in the ports are intended to improve the provision of infrastructures. In Trieste there is the foresight of creating a logistic platform and restructuring of the piers (642 million euro); in Venice the foresight is the construction of sea's motorways and container terminals (850 million); in Koper a new pier and a container terminal (500 million); and in Ravenna the digging of canals and a new railway terminal (470 million).

	Teu 2008	Δ% 2005-2008
European ports	90.700.000	23,0
Mediterranean ports	25.850.000	=
Gioia Tauro	3.467.772	9,7
Genoa	1.766.605	8,7
La Spezia	1.246.000	21,6
Taranto	786.655	9,7
Livorno	780.000	18,4
Neaples	481.521	21,9
Venice	379.072	29,4
Trieste	335.943	66,9
Cagliari	256.564	-60,6
Savona	252.837	15,1
Ravenna	203.702	20,8
Italian ports	9.956.671	=

Table 3 - The container's movement in the main Italian ports in 2008. It is evident that they animate about 30% of containers moved in the Mediterranean ports. This percentage has wide margin for improvement

A more fluid situation is that of the ports of the North Tyrrhenian Sea (Genoa, Savona, La Spezia, and Livorno). In this case, the individual ports are working for the strengthening of their position, as is the case of Genoa, which has formed an alliance with the port of Tangier.
To consider the contribution of a large bank like Unicredit Bank, which provided investments for 1 billion €, split between Trieste and Genoa. In this description, the Campanian port are characterized by a great historical and economic role in the region, but also for the problems they face and which are related to their intrinsic characteristics (Mazzeo 2009). In particular:

1. the main ports of Campania (Naples and Salerno) are universal port facilities, then the goods are handled with different and, often, non-specialized technologies;
2. the two main ports are at a national level with regard to the competitive scale and size of freight;
3. the ports are the main loading and unloading goods door in the region, but doesn't seem to have a big role outside of the Campania Region;
4. the ports are undersized because they are close along the coastline from a very dense urbanization which limits their growth's potential;
5. among the main issues is to mention the lack of ground facilities serving as distribution centers outside the ports. These structures may play an important role when there are clearly defined in their functional mission and well composed in the physical structure, in particular in the ability of intermodal and freight handling. To partially remedy this deficiency a direct shuttle has recently opened a connection between the port of Naples and Campania Freight Village of Nola.

The hidden role of spatial planning in Campania

The location of strategic infrastructures, as those related to logistics, is set up as a typical example of territorial level forecasting, in connection with parallel forecastings contained in the development's economic planning.
This interrelationship substantiates a process of ordered territorial transformation and it is the basis of the assumptions of the economic programming from the Sixties on.
In Campania, as in other regions, such convergence has not been implemented, mainly because the territorial planning assumptions are hardly ever become an official guide tool for the changes, although the assumptions of territorial organization and the trends in it provided have been deeply affected into the operational policies implemented in the region.
The localization of the areas for industrial development identified in the first phase of the extraordinary action for the South of Italy (Cassa del Mezzogiorno, 1951-1992) (Cafiero 2000), the realization of North-South and East-West motorways, the choice of the polarities of territorial development are a not complete set of programming actions that have set up and added alterations in the evolutionary trends of the territory.
The Territorial Regional Plan (Regione Campania 2008) states that «retracing the events related to the territorial order and the development of the Campania Region through the key documents and plans produced by the late 1950s, it shows how land use planning has been little operative and often only a statement of general or address proposals for instruments to be drawn up at different times, though often based on studies of considerable dimensions and on a large body of statistical data. The planning documents are not accidentally often referred to as 'studies', 'addresses' or 'schemes' and not 'plans'».
Common characteristic of the proposals is the problem of the territorial rebalancing. This recurring objective is tackled in different

ways over the past 60 years; the used models foresee spatial patterns that are classifiable in two ways: by strips (from the coast to the interior the territories delineate different spaces with different allocation of resources and services) or by development axes (preferential lines for the spreading of the development to the interior spaces reducing the congestion of the costs).

One of the first territorial plans, the Plan of the Naples District (Piano del Comprensorio, Comune di Napoli 1964), was extended to 96 Municipalities in the Provinces of Naples, Caserta and Salerno, and foresaw the decompression and the functional rehabilitation of the coastal strip, the development of an industrial system outside Naples and the building of a real metropolitan system. One of the main forecast was the lightening of the historical development axis (Pozzuoli-Castellammare di Stabia) by a cross axis devoted to the productive development (from Villa Literno to Nola) and by the development of two rebalancing poles positioned near Mondragone (Caserta) and Battipaglia (Salerno).

The Territorial Order Scheme (Schema di Assetto Territoriale, CRPEC 1968), adopted by the Regional Committee in 1971, wanted to guide the development process towards the interior of the Region reversing the effects of concentration along the coast.

After ten years was prepared another plan, the Territorial Order Addresses (Indirizzi di Assetto Territoriale, Regione Campania 1981). This plan follows of one year the earthquake of 1980 and contains a specific attention to the problem of the rebuilding and of the development of the internal areas. It raises once again the image of Campania formed by strips, an assumption that was proposed for the first time at the end of 1950s in the economical studies of Nino Novacco and Manlio Rossi Doria (Sbriziolo De Felice 1972); each strip had different endowments in terms of resources. On this territorial model the plan proposes operations of re-establishment of the urban, economical and mobility systems.

The plan foresees a splitting of the regional territory into three strips: the first included the metropolitan area of Naples and was extended between the Volturno and Sele, with areas of high concentration around Caserta and Salerno; the second included the internal system that goes from the upper Calore River to the Ofanto River valley, to the upper valley of the Tammaro River and of Sele River, containing the cities of Benevento, Ariano Irpino and Lioni; the third included the middle area with Avellino, its area, and the area of National Park of Cilento and Vallo di Diano.

The issue of the economical and territorial re-balancing is present also in the following development plan (Piano di Assetto Territoriale – PAT, Regione Campania 1986).

The plan proposes the strengthening of the intermediate area of the Region, formed along the axis connecting Caserta, Benevento, Avellino, and Salerno, in order to reduce the pressure on Naples permitting the building of a real metropolitan area.

The PAT identifies a system of 8 “program areas”, that are: the metropolitan area of Naples and Salerno; the rebalancing area including the cities of Caserta, Benevento, and Avellino; the two hinge areas of the Lower Volturno and Aurunci and of Lower Sele and Tusciano; the interior area of Alifana zone and Matese Mountains; the interior area of Upper Sannio, Arianese area and Picentini Mountains; the coastal and inland area of Cilento and Vallo di Diano. Each area presents specific development’s processes, but with the common aim to overcome two types of imbalances: 1. between the cost and the inland; 2. in the organization of the single program areas.

Also the Regional Development Plan (Piano Regionale di Sviluppo, Regione Campania 1990) is based on the concept of dualism between a coastal regional metropolis and other territorial units, mostly internal, made up of urban areas, axis and environmental connection’s units.

The last plan is the Regional Plan (Piano Territoriale Regionale – PTR, Regione Campania 2008) at present in force. It is a typical strategic plan and designs a system of territories fixing types of strategic actions at different scales without to come down into specific implementation’s details.

The Regional Plan of the Campania, approved by regional law on October 2008, represents a typical planning tool without plan (Mazzeo 2006); to it is assigned a highly procedural and strategic character that turns the plan into an instrument of “generation of image change” (Belli 2003). The logical construction of PTR is based on three “strategic images” from which derive seven thematic areas and sixteen strategic addresses. The effort to give a territorial reading of the plan lies in the construction of four “territorial reference frameworks”, one with a reticular character and three with an spatial character (settlement spaces, territorial development systems and complex territorial fields). Among they the most important are the “territorial development systems”, characterized as micro-regions – intermediate territorial units for which are traceable development trajectories identified as shared strategies for the use of land resources –, and “complex territorial fields” – areas of intersection of dynamic processes and interrelated actions.

The value gained by these territorial subdivisions is really poor: the PTR, in fact, acts as composition and synthesis of strategic behaviors leaded by all the local actors, but not as a real definition of actions and localized operations.

This indeterminacy is also present in subsequent programming instruments for the regional development. The considerations on this point derives from the crossing of single strategical projects and of the main planning sources, as the Regional Plan (PTR) and the Regional Operative Plan 2007-2013.

The crossing of the two series of forecasts could be coherent for the declared strict relation between the two plans and it could create a grid of interventions that, if realized, can create new poles towards to direct the evolution of the territorial system of Campania.
Actually you can verify that only some of the interventions are simultaneously provided by the two mentioned instruments; some are mentioned in one of the instruments, while some of them are not even clearly localized.

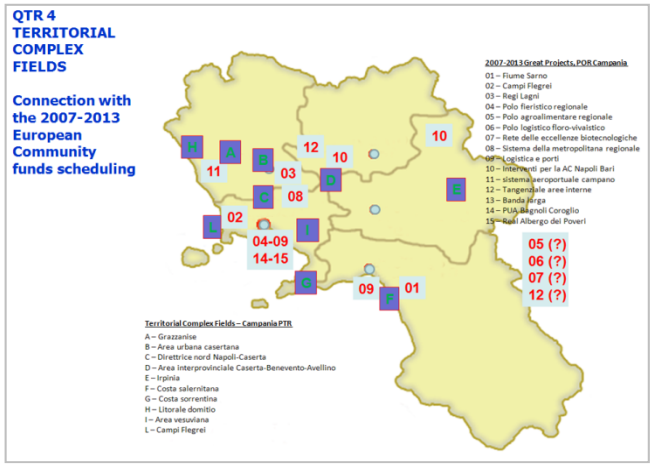

Table 4 - The Regional Territorial Plan (PTR) was conceived as an instrument closely related to the development's planning. In reality the hint of PTR and those of the POR Campania 2007-2013 does not appear completely consistent

This is evident, in particular, linking the "Territorial Complex Fields" of PTR with the "Big Projects" contained in the POR (Regional Operative Programm) of Campania. The big projects, contained in the Campania POR - FESR 2007-2013 and defined in EU Council Regulation No 1083/2006 (article 39), are systems of actions including a series of projects, activities or services interesting investment over € 25 million in the case of the environment and € 50 million in other sectors. The Campania Region has identified 16 big projects on the basis of the strategic priorities set out in the Regional Strategic Document. At least 5 big projects (regional food hub, plant life and nursery logistics hub, logistics and ports; Napoli-Bari high-capacity railway, Campania airport system) are directly or indirectly related to the logistics.

Logistics in Campania

The regional system for the logistics is focused on three commercial ports, Naples and Salerno, national level port, and Torre Annunziata, of regional level; on two freight villages (Nola and Marcianise-Maddaloni) (2); and on an under construction subsidiary plant, the supply center of Battipaglia, partially autonomous. Within this system it is possible to include also the airport of Capodichino.
The two main freight villages of Campania constitute poles with a high development capability for their location and structure. Made in two of the major decongestion areas of the coast (Marcianise and Nola) they are interconnected to the rail network and serve as a node in the goods handling from North to South and from East to West. Their location (with that of Battipaglia) is another example of public investment in absence of territorial planning.
The Southern Europe Freight Village of Marcianise-Maddaloni is located near the homonymous railway marshalling yard and is equipped with 1 bundle of collection and delivery (each of 3 tracks), 1 intermodal terminal with 2 tracks of 640 meters, able to handle both domestic and foreign traffics (with cars or combined), 1 arrivals bundle formed by 20 tracks and 1 departures bundle consisting of 32 tracks.
In the freight village are presents different types of operators (logistics, freight forwarders, couriers, and managers), as well as activities related to goods handling destined to the wide retailing chain.
The village provides administration services and fringe activities such as custom offices, computer and telecommunication services, building maintenance services, banks and insurance, security service, personal services, dining, vehicles services, areas for maneuvers and approaching both to the terminal and to the warehouses, structures used for the maintenance and repair of trucks and rolling stocks.
The railway station of Marcianise Maddaloni handles about 150 trains by day, automatically separated and reordered. It is a transit hub for rail traffic from North to South and from East to West, and allows to economically operate with dedicated trains or with single wagons.
The freight village's warehouses cover a total area of 180,000 square meters and are available in various sizes; they also can be "tailor-made" and organized according to the needs of operators. Each warehouse, autonomous in the freight village area, is supplied with large maneuvers areas with a dimension equal to the covered area.
In the East side of the freight village is located the main custom house of Caserta. The building hosts both the offices of the new custom and the local command of the Guardia di Finanza, the military corps dealing with customs, with expertise in the customs department and on the shipping offices.
The Freight Village "Campano", located near Nola, extends on an area of 3 million square meters, of which about 500,000 covered; it has first category customs offices, 180,000 cubic meters of cold

storage warehouses, multipurpose cells with temperature from 0° to 30°C, an inner train station (named Nola Interporto) with 13 pairs of electrified tracks and 1 intermodal terminal with 6 tracks of 750 meters each.

Through the RFI-Trenitalia network, the freight village is connected with the ports of Naples, Taranto, Bari, Gioia Tauro and has an intermodal terminal of about 225,000 square meters. In the village are present 175 companies with approximately 2,500 employees, 236,000 square meters of areas which allow the simultaneous parking of about 3,000 TIR, and has in service 24 Km of roads and bridges. It is projected for moving over 30 millions of tonnes at full capacity.

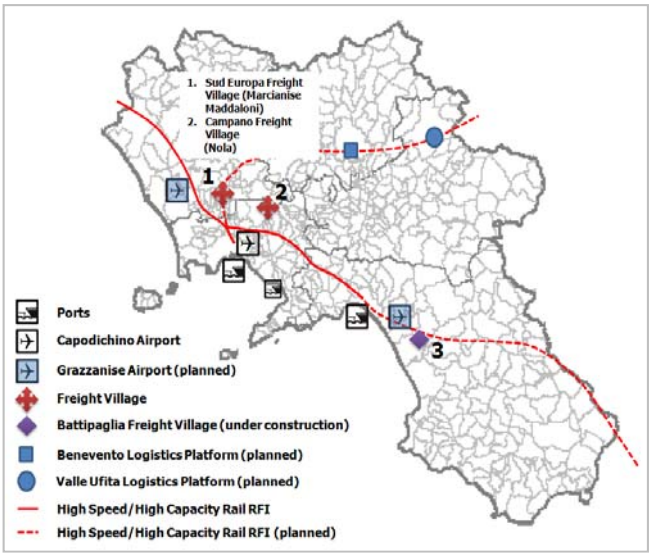

Table 5 - The logistics system of Campania is structured on the ports of Naples and Salerno, on the airport of Capodichino and on the freight villages of Marcianise and Nola. Under construction is the supply center of Battipaglia. The development forecasts of the sector foresee two new airports (Grazzanise and Battipaglia) and a logistics platform along the future high-capacity line from Neaples and Bari

The freight village has development's projects that foresee the completion of the inner areas, the construction of other 50,000 square meters of buildings assigned to management and services activities, and its extension on an area of 1,200,000 square meters, for the realization of 400,000 square meter of latest generation sheds set aside of advanced technologies and assigned to national and international specialists in logistics. There will be also the extension of the tracks and the doubling of the intermodal terminal.

A part of the enlargement will be devoted to the repair shops of NTV society (New Passenger Transport), the new railway company that will begin its passenger activities with high speed trains in 2011.

The Freight Village "Campano" has recently signed an agreement with the Bologna Freight Village in order to offer intermodal logistics services between the two structures, connected by a link that is part of Corridor 1 (Berlin-Palermo) of the TEN-T (Trans-European Transport Networks).

Another little freight village will be built near Battipaglia, one of the most active industrial and commercial center in Campania, located in the North of the Sele Plain; the area is also close to the port of Salerno, the A3 highway (Salerno-Reggio Calabria) and the RFI railway network.

The logistics center will extend for 167,444 square meters with a covered area of 92,644 square meters; will be present facilities dedicated to the sorting and handling of long and short range loads. Two large warehouses will built, for the settlement of logistics operators that can perform, on behalf of other societies, storage and processing of the goods after the production phase.

The intermodal rail terminal of Battipaglia will cover an area of 35,244 square meters, with three tracks for the modal change, yards for operating of the trucks and for the temporary storage of cargo units, direct connection to the railway station of Battipaglia and 1 crossing line with the warehouses. The location of the terminal seems to be very favorable for the development of combined transport, because it is next to two national railway lines, the Naples-Reggio Calabria line (affected also by the deployment of high capacity) and the Battipaglia-Potenza-Taranto line.

This freight village will have an area of 127,117 square meters, of which 14,259 square meters covered, for the management offices of the area, workshops, petrol stations, parking areas for temporary and permanent trucks, cars, and loading units, and roads connections with the national roads.

Apart from these logistics structures, existing or under construction, other poles are in programming or designing. These poles (in particular the logistics platform of Benevento and the logistics platform of Ufita Valley) are planned at a short distance one from another, along the new future high-capacity rail line Napoli-Bari.

The fate of the two projects is, for now, different; while for Benevento the Regional Council has given the green light to the feasibility study (March 2010), because consistent with regional development planning of logistics and intermodality, for Irpinia the situation is stalemate.

It is clear that the new high-capacity line, along with the highway Napoli-Bari and the proposed construction of the North-South road from Grottaminarda and Contursi, represent potential development's flywheels for the inland areas of Irpinia and Sannio. For this the infrastructure's assumptions consequent to it (as the logistics platform) are to be welcomed.

Less obvious is how two logistics platforms can live a few miles of

each other and how their implementation can proceed also if the new networks (high-capacity connection from Bari to Naples and the Apennines North-South road) does not exist, even as concept design.
It is also to consider that the mentioned logistics platform, for the size of the local economy, will be primarily a transit platform, which makes the structure strongly linked to external economic factors.

Conclusions

The development of infrastructure related to logistics has a strong public service characterization. The private companies operating in the field use public utilities realized by regional, national, and EU funds and provided to the companies. This is particularly true for the Campania Region; furthermore, the logistic system of Campania, a public system, is based on logistics centers not yet defined in their global form or in their final configuration.
The economic system of Campania is dimensionally weak compared to that of Central and Northern Italy. The moved flows of goods are, for large part, of transit and have poor effects on the socio-economic situation of the area.
More relevant seem to be, on the other hand, the negative impacts due to the heavy traffic's increasing spatial volumes, to the poor capacity of the rail network to handle significant volumes of goods, to the occupancy of high quality agricultural land, and to the spread of pollutants.
The Campania system consists spatially of a territory in which are present two very distinguished main areas. The first (near the coast) is characterized by an extreme concentration of infrastructures, while the second (the inland areas) are characterized by low concentration and strong dilution of the same infrastructures.
In the first area are currently located all the Campanian logistics infrastructures, due to the presence of the handling's key junctions (the ports of Naples and Salerno) and to the largest part of the rail and road mobility system, even if this system could be more efficient with a more greater economic strength of the surrounding area and with a more relevant quality of the infrastructure system.
A specific speech interests the inland areas of the Region.
These areas appear to be aspects of strong weakness in terms of population, infrastructure (especially rail) and relevance of the production system, for which the construction of logistics infrastructure in these areas is essentially a bet with a high percentage of risk.
This risk could be reduced if it comes true two conditions, namely the strengthening of the inland areas economies and the building of modern transport infrastructure, in order to create a critical mass making sustainable a dedicated logistics infrastructure.
Remains strong, however, the doubt about the sustainability of two logistic centers within short-distance in an area characterized by low concentration of activity, because of the clear duplications in investment's costs (easy to define as a waste) and of the uncertainty of the investment's returns.

Notes

[1] TEU (Twenty-Foot Equivalent Unit) is the standard measure of container transport. A container of 20 feet of length is equivalent to 1 TEU. Another standard measure is that of 2 TEU (40 feet). Is to remember that 1 foot is equal to 0.296 meters, so 20 feet are equal to 5.92 meters.

[2] The Italian Law nr. 240/90 defines the freight village as "an organic unit of structures and integrated services finalized to the exchange of goods among different transport types; it includes a railway station able of forming or receive complete trains and connected with ports, airports and great communication roads".

Acknowledgement

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