Progetto Italia Sviluppo Immobiliare

The **VEGA WATERFRONT** Project

Publisher:
Daily Real Estate SRL

The VEGA WATERFRONT Project

eBook - Progetto Italia Sviluppo Immobiliare

Year I - Number 1 - November 2014

Edited by editorial team of **il Quotidiano Immobiliare**
in partnership with **VEGA - Parco Scientifico e Tecnologico di Venezia**

Title
The VEGA WATERFRONT Project

Publisher
DAILY REAL ESTATE S.R.L.
24121 Bergamo, Via Pascoli, 7
Tel. 035-211356 - Fax 035 4131217
www.ilqi.it - info@ilqi.it
ROC Registration N.22163

Graphic Layout
Daily Real Estate S.a.s.

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Photos and images provided by the author.

The series illustrates important Real Estate projects
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eBook - Progetto Italia Sviluppo Immobiliare is a part of the Network Daily Real Estate.
il Quotidiano Immobiliare is registered at Tribunale of Arezzo.
Registration n. 3, March 10th 2009

Editor-in-chief
Marco Luraschi

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Summary

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Summary

Chapter 1

From the origins of Porto Marghera to the origins of VEGA - the Venice Gateway for Science and Technology: a brief history

Founded at the beginning of the 20th century, Porto Marghera is one of the largest industrial areas in Europe, with over 2200 hectares provided with infrastructures – canals and bodies of water, roads, railways and technologic networks – so much so that it ranked among the most important industrial centres in Italy in the past century.

The development of Porto Marghera began in 1907 with the implementation of the Harbours Law, followed in 1917 by the signature of an Agreement between the Italian Government, the Venice City Council and the company Società Porto Industriale, which set the beginning of the development of Porto Marghera. This started with the reclamation of the "marshy land on the edges of the mainland" in the Bottenighi area.

Historic photo of the Marghera area in 1917: "the Marghera-Fusina marshy land"

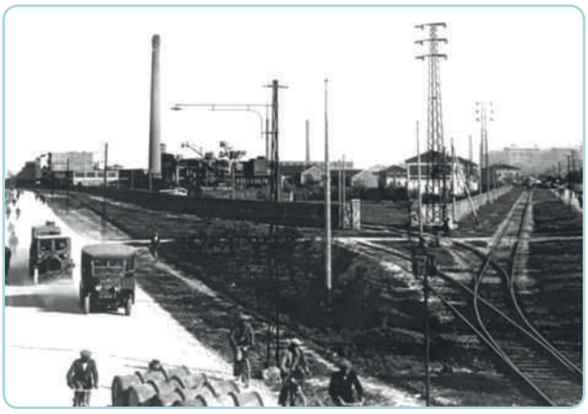
The high financial world of Italy, represented by Vittorio Cini, Giuseppe Volpi di Misurata, and Pietro Foscari, took the lead in starting the financial and business operation that would generate Porto Marghera. In particular Count Volpi – the founder of SADE, Società Adriatica dell'Elettricità (Adriatic Electricity Society) and Minister of Finance in Mussolini's government between 1925 and 1928 – played a fundamental role. Unable to compete with the mechanical industry developed in the region of Lombardy, or with the automotive industry in Turin, or still with the shipbuilding and metal-working industries in Liguria – all of which had strengthened further to deliver military supplies during World War I – Volpi decided to settle chemical, oil and raw material processing industries in this territory, on the outskirts of Venice. Its strengths were the availability of wide spaces for factories, the low cost of electric power and water supplies, easy access by land and sea, and inter-modal transport thanks to a widespread network of railways, roads, and navigable channels. The Società Porto Industriale of Venice was assigned all harbour works and the management of the industrial areas, whereas the Venice City Council was in charge of the construction of the systems and the public works that would serve both the industrial area and the residential neighbourhood.

Its strengths were the availability of wide spaces for factories, the low cost of electric power and water supplies, easy access by land and sea, and inter-modal transport thanks to a widespread network of railways, roads, and navigable channels.

In 1922 the works for the canal called Canale Industriale Nord started on the Macroisola Nord of the 1st Industrial Area, where the Venice Gateway for Science and Technology is currently located. Around this canal the first factories settled: Cantiere Navale Breda (currently Fincantieri), the shipyard and steel mill of Venice (Ilva), the company Veneta Fertilizzanti e Prodotti Chimici,

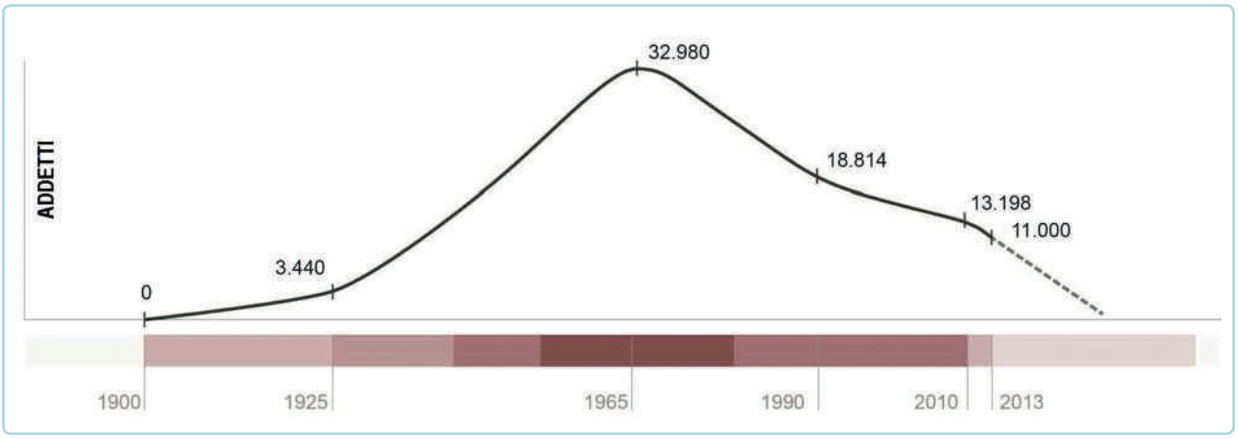
1920s historic photo of the Breda factory

Società Italiana Vetri e Cristalli and Società Italiana Coke and gradually all the other enterprises.



1930s historic photo of the Vega 1 area

Since the 1920s-1930s already, at the same time as the industrial development and with the aim of meeting the demand for labour, there developed the residential area of Marghera following a project by the Milan-based engineer Pietro Emilio Emmer of a new urban neighbourhood called "Città Giardino" (the garden city). During the 20th century, Porto Marghera experienced a cycle of progressive growth, decline and consequent dehumanization and abandonment of the industrial area.



Historic pictures of Porto Marghera workers

From the 6,000 Porto Marghera operators employed in the enterprises that had settled in the 1930s the number of workers rose to 16,000 operators - besides those employed in the satellite activities - in the 1950s, following the development of the 2nd Industrial Area that became the headquarters of the Petrolchemical Plant with all its activities of basic chemistry, polymer and materials chemistry .

In the mid 1960s the industrial area of Porto Marghera achieved its maximum economic and manufacturing development, with 33,000 operators working in 230 companies, which is why the decision was made to create the 3rd Industrial Area south of Fusina.

Then, the slow and relentless decline came. The oil crisis and the consequent crisis of the heavy industries, besides environmental issues – starting from the 1966 flooding of the Venice Lagoon, which undermined its delicate eco-balance – led to the gradual closing of factories and the industrial groups that had settled here abandoned the area in favour of new international markets.
In 1973 the first Special Law for Venice stopped the development of the 3rd Industrial Area, excluding further burials in the lagoon.

Starting from the 1990s, the industrial changeover and environmental improvement processes of Porto Marghera started with the recovery of the 1st Industrial Area, which is the current development area of the Venice Science and Technology Park.
It was in this context that in 1993 the company "VEGA - Venice Gateway for Science and Technology" was established with the purpose of promoting the development of the Porto Marghera industrial area.

The construction of the industrial port: sediment tanks for the realization of the third industrial area

During its first 10 years, the company promoted the redevelopment of an urban area covering over 35 hectares of dismissed industrial areas on Porto Marghera's Macroisola Nord, a strategic brownfield at the gates of Venice serving as a hinge between the water city and the mainland. Here buildings were constructed for an overall floor area exceeding 35,000 sqm and aimed at the activities of the Science Park, namely entrepreneurial initiatives of research and innovation in synergy with the universities, the most important institutions and the companies in the area.
This first expansion stage was made possible also by the assignment of plots of land owned by some project partners and by the European structural funds; but once this stage was completed the project suffered a lack of the financial resources required to carry on with the urban redevelopment process. In 2001 the following development stage was made possible by the private investment of Nova Marghera

S.p.A., the co-developer for the promotion, realization and management of further 40,000 sqm. of buildings; and again in 2007, the Condotte Group acquired the VEGA 2 areas, where a multifunctional real-estate complex is under construction. This will host also the new Venice exhibition pavilion following a project signed by architect Michele de Lucchi, to be officially opened during Expo 2015.

Today VEGA forms a business district with buildings for an overall floor area of 80,000 sqm. It is a “physical and connected” place for the innovation of the whole metropolitan area with a 300 MB/second broadband connection, over 200 companies and 2000 operators who work there on a daily basis, a certified incubator currently hosting 24 innovative start-ups. Undoubtedly, it is an inspiring example of the industrial changeover of Porto Marghera. VEGA is a remarkable district also in terms of the economic impact and the research and development activities it generates: the aggregate turnover of the companies established in the Park exceeds 200 million Euros, with 38 registered patents, whereas the average value of research investments is 18% of the global turnover (far above the regional average that is around 1% of the GDP).

Vega district today

80.000 mq

200 companies

Aerial photo of the areas pertaining to the Science and Technology Gateway

Chapter 2

Town-development interventions: history, industrial dismantling processes and development projects

The current urban context of the Science and Technology Park VEGA includes over 35 hectares of areas (VEGA 1, VEGA 2, VEGA 3, VEGA 4) located on the Macroisola Nord of Porto Marghera: a new urban centre for tertiary, commercial, and accommodation activities hosted in over 80,000 sqm. of completed properties, while development interventions for further 150,000 sqm. are partially in progress. This urban context defines the Venice waterfront together with the new development area of Via Torino, with the wide urban park of Forte di Marghera, and with the Pili areas along the road taking to downtown Venice. The history of these areas is enriched by the enchantment of the past, which is still embodied in the marvellous artefacts of industrial archaeology that stand as the symbol of the economic and industrial development of Porto Marghera, of its subsequent decline, and of its second birth and urban redevelopment today.

2.1 The Microisola Nord of Porto Marghera

VEGA 1 Area "Ex Ceneri"

In 1926 the Milan-based company Veneta Fertilizzanti e Prodotti Chimici started the construction of a processing plant for pyrite ashes over an area of 110,000 sqm. Immediately

Macroisola Nord in 1967

after World War I, in the nearby areas, the company Montecatini installed a production plant of sulphuric acid, which is the raw material employed in the production of pyrite-based fertilizers. Copper can be extracted from pyrite ashes, which also produce by-products such as iron and sodium sulphate, used by Venetian glassmakers in the production of glass. These activities gave the name to the VEGA 1 Area - “ex Ceneri” (i.e. former ash area). Sulphuric acid production was discontinued in 1950, to be followed by the discontinuation of copper extraction activities in 1973. The competition of emerging countries with a larger availability of raw materials and of low-cost energy and labour, made Italian fertilizers less competitive in terms of costs. The site was closed in 1990. In May 1993, the feasibility study for the construction of the Science and Technology Park of Venice was submitted to the European Union.
Today the VEGA 1 area is Business District stretching over a covered surface of 80,000 sqm. and counting over 200 companies and 2,000 operators.

VEGA 2 Area “ex Depositi Costieri”

The VEGA 2 Area, which is historically known as Depositi Costieri dell’Agip Petroli (coastal deposits of Agip Petroli), was developed in 1928 with warehouses and refineries for liquid fuels.
The maximum handling capacity of fuels via sea transport was achieved in 1969, with over 350,000 tons. It then experienced a gradual decline up to business termination in 1990.
The area stretches over about 10 hectares and today it is partially owned by the Condotte Group, which is developing here a multifunctional facility (for exhibitions, commercial and tertiary uses) for an overall GFA (Gross Floor Area) of 52,000 sqm. The project was developed by architect

Michele De Lucchi.
An exhibition Pavilion of over 10,000 sqm. and an “urban storage” area of 15,000 sqm. are under construction to host Expo 2015 in Venice. For this event over 800,000 visitors are expected. It is an inspiring example of active placemaking, whereby a new economic function is introduced to a territory as a drive of the urban regeneration process.
VEGA owns the remaining plot of the area, with a building capacity of 32,000 sqm. for mixed uses.

An exhibition Pavilion of over 10,000 sqm. and an “urban storage” area of 15,000 sqm. are under construction to host Expo 2015 in Venice. For this event over 800,000 visitors are expected.

VEGA 3 Area “ex Complessi”

The VEGA 3 area hosted a Montedison plant for the production of the so-called “complex” fertilizers (Nitrogen, Phosphor and Potassium), hence the name “ex complessi”, or “former complex compound area”.
Built in the late 1940s, when the enthusiasm of post-war reconstruction strived to merge functionality and beauty, it is a beautiful example of industrial archaeology that is believed to have been designed by Nervi. The industrial activity carried here by Enichem Agricoltura was definitely discontinued in 1997. The area is currently owned by the real estate company Immobiliare Complessi S.r.l., which was established precisely for the development and changeover of property assets for tertiary and commercial use, for a total floor area of 28,000 sqm.

VEGA 4 Area “ex Cargo System”

The VEGA 4 Area was acquired in 1928 by the Milan-based company Feltrinelli, which used it as a warehouse and wood-working plant, and for the production of wooden shacks that could be disassembled. The plant - destroyed during World War II bombings - has never been rebuilt since. In the 1950’s the area was purchased by the

company Montevecchio for its research centre with the purpose of studying metallurgic processes. Following a series of changes in the ownership of the property, in the late 1970s the ENI Group established here the extraction and production of non-ferrous metals. In 1986 the company Cargo System S.p.A. acquired the northern part of the area and used it as a coal deposit. Now

VEGA 2, 3 and 4 areas in the 1960s

the area is partially owned by the company Venezia Tecnologie S.p.A. (ENI Group), which has established its headquarters here, whereas the remaining part - to be developed still - belongs to the company Docks S.r.l., which is about to start a property development project with a 38,000 sqm-building for tertiary and commercial use.

VEGA 1 Area - City Mall

The City Mall is an 11,000 sqm. real-estate complex located in the VEGA 1 Area. It hosts new services and entertainment functions in a dismissed industrial building, the former Magazzino Fertilizzanti (fertilizers warehouse) that has been recovered by the developer, Nova Marghera S.p.A.

Ex Italiana COKE Area

The Ex Italiana Coke area is particularly remarkable owing to its dimensions, location and harbour features within the Macroisola Nord of Porto Marghera. As a matter of fact, the area is located on the conjunction of the three main accesses to Porto Marghera heading towards Venice and the Lagoon, in front of the largest turning basin at the crossing among the following canals: Canale Malamocco-Marghera, Canale Industriale Nord, Canale Brentella, Canale Vittorio Emanuele III. Its 10 hectares are currently used as coal deposits, but hosted the headquarters of the plants of Italiana Coke and of Italiana Vetri e Cristalli, which were established in Porto Marghera upon the wish of Senator Giovanni Agnelli in 1924.

The Recovery Plan for Forte Marghera has already been developed and is undergoing approval procedures. The overall cost is equal to 13 million Euros.

This wide area, which is mostly provided with quays, features a building capacity exceeding 140,000 sqm.

2.2 The areas surrounding Via Torino, or the Scientific Pole of the Universities of Venice

Via Torino is a modernity laboratory of the city of Mestre. This area develops between Via Torino and the Canal Salso, a historic waterway access to the city of Mestre. Owing to this marginal location compared to consolidated downtown Mestre, and which is nevertheless privileged because of its infrastructures and waterways – this area might serve as a potential hinge between the parks area – Forte Marghera and San Giuliano – and the Science and Technology Park of Marghera. This "natural" strategic position has led the university departments of Venice to choose it as their mainland location for the construction of a campus area shared by IUAV (the School of Architecture of Venice) and the Cà Foscari University. Today the area hosts the Fruit and Vegetables Market (which is meant for other purposes), the new IUAV and Cà Foscari buildings, as well as some buildings for business use.

2.3 The areas of intervention around San Giuliano Park

Among the environmental redevelopment interventions realized to date, the San Giuliano Park ranks amongst the most significant. The City Council is also willing to promote the enlargement of the park following the masterplan developed according to the project by architect A. Di Mambro, which would complete San Giuliano with the following areas, among others: Forte Marghera, the Pili area and the areas along the Canale Brentella, close to the Science and Technology Park. The City Council established that the necessary resources aimed at completing the park and all its related works can be raised through the investment of private funds; in return, the investors would be allowed to realize some activities that are compliant with the town-development regulations.

The Recovery Plan for Forte Marghera has already been developed and is undergoing approval procedures: its purpose is providing the fortress with the necessary urbanization works to connect the fortress with the Science and Technology Park and with the facilities on Via Torino. The overall cost is equal to 13 million Euros.

Chapter 3

The development of the Science and Technology Park and the town-planning procedures

Following the industrial dismantling process occurred in the 1970's and 1980's on the Macroisola Nord of Porto Marghera, in the 1990's the local institutions and the relevant authorities worked on the definition of a new strategy for a production changeover and for the building, environmental and functional redevelopment of this strategic area on the municipal territory.

For this purpose the feasibility study "PROPOSED VENICE SCIENCE PARK DEVELOPMENT" was commissioned to KPMG of London in 1990. In 1993 the consortium Consorzio Venezia Ricerche – with the support of EU experts and in partnership with various economic and social players from the Venetian territory – developed the feasibility study for a Science and Technology Park in the industrial area of Porto Marghera. This would be funded with the European Community structural funds allocated to "depressed industrial areas". The same year witnessed the establishment of VEGA S.c.a.r.l Parco Scientifico e Tecnologico di Venezia Società Consortile a Responsabilità Limitata senza fini di lucro (The Science and Technology Park of Venice not-for-profit Limited Liability Consortium) aimed at the reconversion of the industrial area of Porto Marghera.

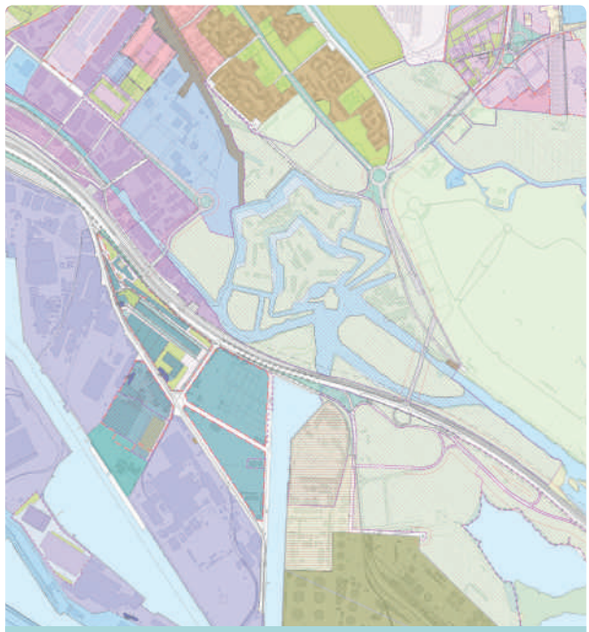
It was in this context that between 1993 and 1999 urban regeneration works were carried out on the first 10 hectares of dismissed areas, followed by the changeover of some existing factories and the construction of new buildings for a total floor area of 35 thousand sqm.: namely, Porta Innovazione, Antares, the Hammon Tower, Pegaso, and Pleiadi.

In 1999, in order to re-launch Porto Marghera as a pole, an alteration to the Porto Marghera Planning Scheme was passed. It provided for the changeover of wide dismissed industrial areas into sites for research and development activities. The same year witnessed also the approval of the Master Programme setting the guidelines for the re-organization of the whole urban context and the creation of the Science and Technology Park.

The regulations of this Science and Technology Park are over twenty years old now, and they were conceived when the Venice City Council wanted to boost a specific destination of use – i.e. a science park with a strong focus on business and management – and direct operators and investments in that direction.

The above regulations were successful in generating the start-up of the Park; the goals it was conceived for at the time have basically been achieved thanks to the European Funds for property development and for the start-up of new innovative enterprises.

But by the end of the last decade of the past century, when the Alteration was passed that acknowledged the consolidated functions of the Park, the model for the Park was exhausted. The need was felt for new economic functions and, therefore, for new



Abstract of the General Town Planning Scheme in force

destinations of use. Such motivation combined with the need for the financial resources required to continue the urban redevelopment process, and led the consortium to transfer part of its properties to the developer, Nova Marghera, which erected further 40 thousand sqm. of business buildings from the year 2000 to 2003.

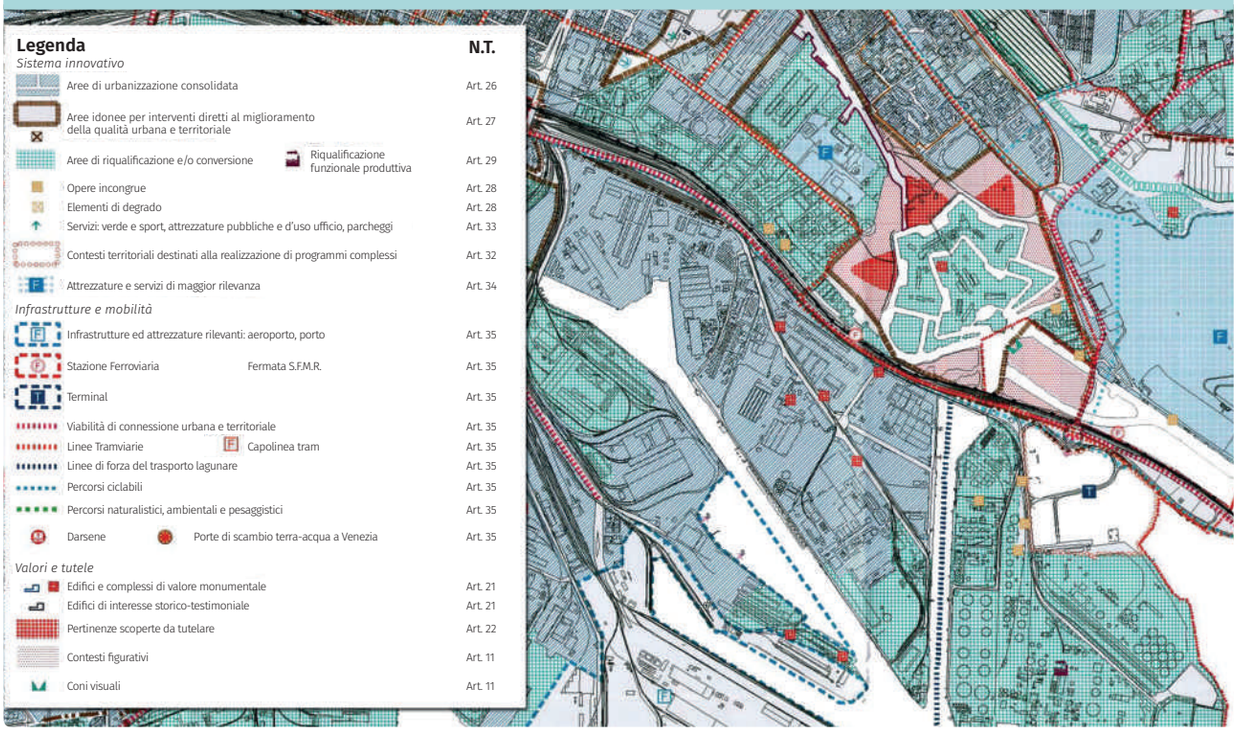
In the meanwhile in the nearby urban areas of Via Torino and Forte Marghera, new development ideas were implemented despite their being

The regulations of this Science and Technology Park are over twenty years old now

almost completely disconnected from the provisions of the outdated town-planning regulations. It was in 2010 only that the new town-planning instrument (the PAT: Regional Planning Programme) mentioned the need to “re-organize the university buildings on via Torino, the fruit and vegetable market area, and the new junction with the Science Park, in order to create an urban core characterized by the development of the services system and of leisure time services.”

When approving the PAT, the City Council provided that the area of the Park would be allowed all the destinations of use traditionally foreseen in the so-called urban area. These provisions were the prerequisite for Porto Marghera’s Macroisola Nord to become part of the city, the hinge between land and water, between the old city centre, the mainland, the port, and the industrial areas.

Abstract of the Regional Planning Program in force



Chapter 4

Critical issues and opportunities concerning the areas

The area on which the Gateway for Science and Technology develops is one of the few areas in Porto Marghera characterised by the production changeover of abandoned buildings and polluted areas, which has been accomplished in a short time through building, environmental and functional redevelopment. The dozens of new enterprises based here and the nearly two thousand operators bear witness to the success of this operation.
Such reconversion process started in the mid-1990s of the past century; after a decade about one third of the urban development plans had been accomplished, but then the process stopped. In recent years despite many projects have long completed or are about to complete their approval process, no new activities have been started and therefore no new buildings have been erected in the area, with the exception of the new exhibition pavilion under construction.

The major criticalities basically depend upon the following reasons:

1. **physical and infrastructural issues:** land and water connections, transports, technologic networks and public spaces are poor. Consequently this industrial area requiring a changeover, has been unable to become an urban hub for the whole town territory and the metropolitan area;
2. **functional issues:** the lack of balance among the economic functions (dominated by the science-park oriented activities) has somehow hampered the area's connection with the city, thus

undermining the creation of a new property value. In addition, it has prevented the creation of new connections amongst the functional centres that would have boosted the town offer (namely the university complex in nearby Via Torino, and the leisure facilities in Forte di Marghera). In the late nineteen nineties already, when the Alteration to the Town Planning Scheme was passed to acknowledge the consolidated Gateway functions, another issue arose: the Gateway model was exhausted by then and the operators started to feel the need for new economic functions. The model that had proved an excellent tool in the start-up of the redevelopment stage, was beginning to show its need for an update;

3. **administrative and urban issues:** the town-planning instrument is outdated and it is not adequate for the current, strong flexibility requirement. By approving the new PAT (Regional Planning Programme) such old-dated requirements were overcome and replaced by broad-based town-planning regulations;
4. **environmental issues:** since these former industrial areas pertain to a Site of National Interest, the regeneration process has implied complex and costly reclamation interventions that are still underway. Since 2012, such situation has partially improved with the implementation of the "Clini Decree" on environmental issues, which has actually opened up to the concept of sites reclamation interventions, strictly related to their final use;
5. **ownership issues:** the site looks fragmented because the areas forming the urban context of the VEGA Gateway are owned by different subjects, who have a merely speculative approach to their property investments. This has compounded all the efforts aimed at organizing and integrating the area. But today the owners are becoming aware of the need of adopting a comprehensive view of this property operation focusing on urban infrastructures, in order to increase the value of their individual property initiatives.

In the late nineties the Gateway model was already exhausted.
The operators started to feel the need for
new economic functions

As a result, the VEGA Waterfront project is looking for new solutions that would support and re-launch the area while solving its critical issues. In doing so, it is drawing inspiration from the most virtuous examples of the Science and Technology Parks in Europe - "22@Barcelona" is an old dismissed manufacturing district which was upgraded to host a multimedia library and innovative institutional centres, "SRB North Liverpool" has established solid bonds with the local communities through real estate initiatives, the "Palacký University Olomouc" Park is perfectly integrated with the Czech university complex, Dortmund Technology Park. The purpose is to make the area a real and integrated part of the city, which can be experienced throughout the day thanks to the enhancement of the urban infrastructures and of the physical connections, as well as through the diversification of the functional mix it will provide.

The new EXPO 2015 exhibition pavilion

More specifically, this new urban system shall develop according to the relations that can form amongst the different contexts pertaining to it, making the most of the remarkable opportunities that each context can generate:

- with a catchment area exceeding 1.5 million citizens, it holds a pivotal and strategic position in respect of the metropolitan area and Venice old town, respectively;
- wide availability of "brownfield" areas for which the urban redevelopment process is already in an advanced stage;
- a business district with over 200 companies and 2,000 operators, a physical and connected place of innovation for the metropolitan area, and the site of important institutions (offices of the Regional Government, La Biennale, Confindustria - the Italian Employers' Federation, and public investee companies);
- the site of the exhibition pavilion for the Venice branch of the Expo 2015;
- the new university campus in Via Torino;

- availability of areas provided with services and infrastructures (the Pili area, Forte Marghera, the VEGA Gateway urban context) which integrate leisure time functions (including temporary events) with economic activities and functions.

View of VEGA1 area today

Chapter 5

The state of the art and development prospects

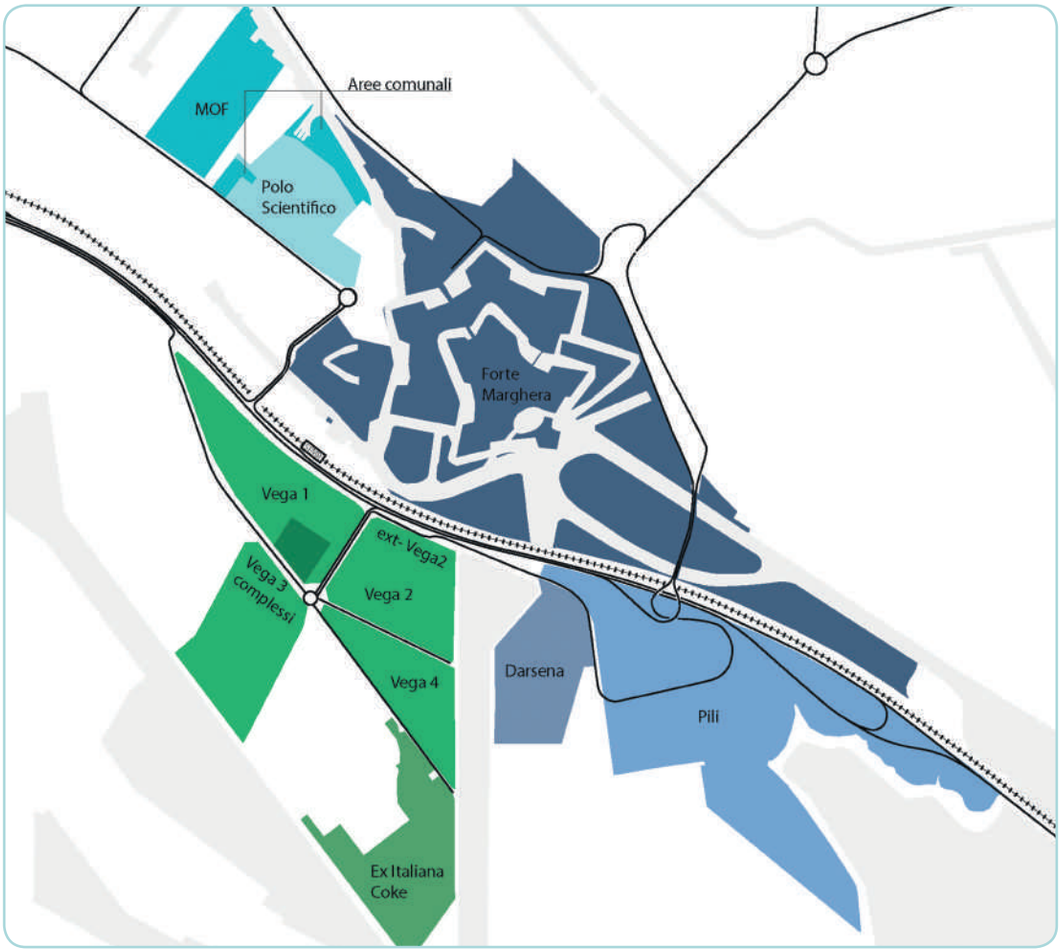
Two issues characterizing the current organization of Macroisola Nord are of relevance in the VEGA Waterfront initiative. The first issue is associated with the need of creating stronger physical and functional relations amongst the different contexts: VEGA, Via Torino, Forte Marghera, and Pili/Dock. The second issue involves the projects underway, which are integrated in the VEGA Waterfront project and can be developed further thanks to a system-like approach with a metropolitan-scale territorial vision.

5.1. The Macroisola Nord

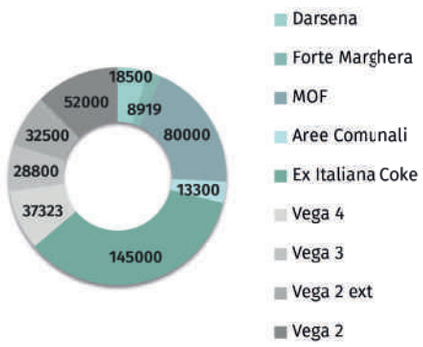
The Macroisola Nord of Porto Marghera is mainly characterized by the Venice Gateway for Science and Technology and by the urban context bearing the same name, plus the neighbouring dismissed industrial areas. The overall extension is of 38 hectares; here the existing property core (VEGA 1) stretches over a surface of 80 thousand sqm., some areas allocated to the Gateway have a building potential of further 150 thousand sqm. (VEGA 2, 3 and 4) - of which about 50 thousand sqm. are under construction - and a broad waterfront area with a building potential of 145 thousand sqm. is awaiting proposals and ideas.

Since all the above areas are subject to well-known environmental risks and to bureaucratic and town-planning limitations, a process has been implemented aimed at organizing and improving traffic and mobility, besides defining the optimal functional mix that may identify it as an unparalleled urban waterfront.

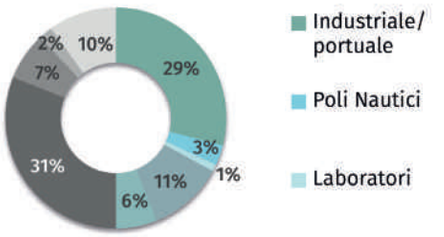
The VEGA Waterfront areas involved in the urban redevelopment process



SLP in Project - Breakdown for areas



SLP - Breakdown for intended use



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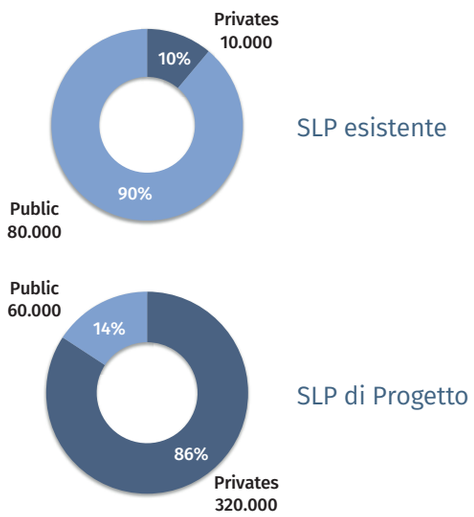


5.2. Via Torino

In Mestre, for the past 20 years Via Torino has undergone remarkable changes that have solidly influenced the road and infrastructural networks in town owing to a series of new connections introduced over time (the Viale Ancona bridge, the unfinished flyover to and from Venice, the new boulevards of Viale Ancona and Via Torino, and the new junction with Corso del Popolo).

The large insulae characterizing the landscape of Via Torino host tertiary sector activities and services, such as the post office and banks, companies supplying equipment for the hospitality and catering industries (along Viale Ancona in particular), university buildings (the former slaughterhouse area) and the new science centre, the former fruit and vegetable market, warehouses, supermarkets and deposits. The Canal Salso and the other waterways are dotted by docks and little piers, which however play a marginal role along the road.

The Via Torino Recovery Plan has turned the sites of the IUAV and Cà Foscari universities into the key functional activities in the area

The portion of Via Torino involved in the VEGA Waterfront project includes areas with an overall building potential of 130 thousand sqm., of which 35 thousand have already been completed.

The Via Torino Recovery Plan has turned the sites of the IUAV and Cà Foscari universities into the key functional activities in the area: the new road network connects them directly to the main locations in town, besides creating close connections with the Science Park.

In recent times the Town Hall has acquired back two waterfront areas from the Universities. Both are meant to be improved with the purpose of placing them on the market to raise funds for the development works of the nearby Forte Marghera.

The plans for the former fruit and vegetable market site would trigger remarkable urban redevelopment opportunities, which could contribute to shaping that essential functional mix as is required to connect the science pole to the town of Mestre.

5.3. Forte Marghera

Today Forte Marghera is an important social meeting point for the inhabitants of Mestre: a large green area with a 38-hectare extension and a building potential of 30 thousand sqm., most of which (21 thousand sqm.) are buildings of great architectural value to be recovered. Located close to San Giuliano Park in a context of remarkable landscape value, the Forte area is a true and proper city park. The presence of historic buildings of considerable architectural interest further increases the value of this area, which plays a central role in connecting the Macroisola Nord of Porto Marghera with Via Torino. The Recovery Plan of the area opens up opportunities of synergy with the tertiary-sector establishments in Via Torino and in the VEGA area.

The Forte area is a true and proper city park. The presence of historic buildings increases the value of this area

5.4. Pili

Pili is an area extending over about 40 hectares, which are currently used only partially as a parking space. The town-planning instrument would turn this area into a "hub" by enhancing its inter-modal potential, creating new parking lots, equipped green areas and amusement parks which might also become the location for temporary events.

5.5. The Dock

The Dock on the Brentella canal is the ideal crowning of the interventions currently underway on the areas of the Science and Technology Gateway. The projects for this area and for the Canal stemmed from the considerations of architect Di Mambro and have developed into a less ambitious, yet more tangible project for the construction of 400 berths and dedicated facilities with a floor area of 18,500 sqm.

Chapter 6

Description of the urban changeover intervention

The VEGA Waterfront is a strategic project of urban and environmental changeover aiming at the development of a strategic hub for the city of Venice in the next 20 years. The area involved is the lagoon waterfront on the mainland including the Macroisola Nord of Porto Marghera, which embraces VEGA – the Venice Gateway for Science and Technology.

This broad, long-term project is characterized by a high complexity due to the extent of the area involved, to the multiple players involved and to the current market conditions. Nevertheless it stems from the need to adapt to the fast pace of change and to seize new competitive advantages.

This is why 20 years since its establishment, the VEGA Park steps forward as a laboratory for a new urban development model. The main purpose is to present the domestic and international Real Estate markets with an innovative project supported by a "finance-based" and sustainable approach, which will enable potential investors to clearly and transparently identify the risks and seize the opportunities characterizing it.

The first urban intervention area is the Science and Technology Park: over 20 hectares of land with a building potential of further 150 thousand sqm. jointly owned by a public and private partnership. This forms part of a broader strategic hub in the city; its changeover requires a flexible Masterplan that may adapt to the changes along a wide timespan and be coherent with the business plan of this initiative.

In actual fact the town-planning issue is only one side of this delicate and complex development initiative. The urban redevelopment requires a comprehensive view of the whole context: the rationale for the organization of the road network, mobility, infrastructural networks, environmental reclamations, and landscape; town-planning considerations; and mostly of all, the need for a sustainable economic and financial plan, as well as viable governance. Should all these aspects be neglected, the economic process in this area will not start again.
All the above implies that the City Council, the other owners of the areas pertaining to the urban context of the Science and Technology Park and, in general, all the stakeholders involved should share a clear and feasible strategy for that delicate piece of the urban territory. In other words, the intervention plan must be implemented immediately, with the City Council and the VEGA managing this complex chapter pursuing coherent logic and a participatory process.
VEGA Waterfront is a public controlled project which will issue an international tender aimed at selecting an interdisciplinary work team to act as the co-director. Given the current market conditions, a real estate initiative can be feasible if the public and the private sectors work in synergy, operating through an "integrated process" to make the asset look interesting in terms of marketability and maximization of the salvage or changeover value.
Waterfronts intended as a European and global issue, are actual town-development places that often open up property-improvement opportunities, so much so that the waterfront buildings sometimes acquire a higher value than those in the old city centres (e.g. Hafencity in Hamburg).

The Port of Hamburg

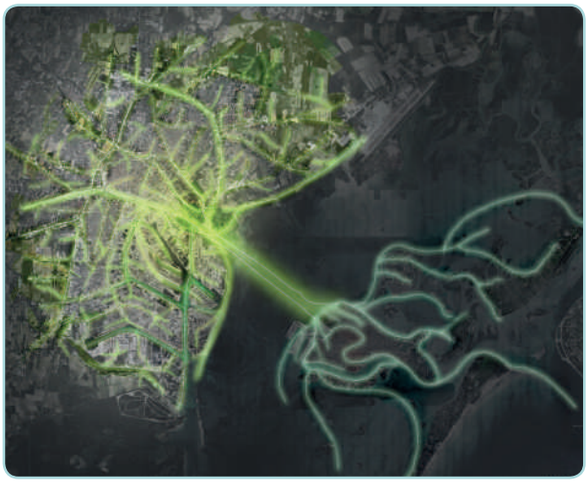
The work carried out to date involved an interdisciplinary work team. It is the first instance of the systematization of the whole context, starting from the VEGA-Forte Marghera-Via Torino areas to the purpose of defining the process guidelines. The focus will be the improvement of open spaces first, turning green areas into the connective tissue of the urban fabric.

This “Strategic Intents Manifesto” for the changeover and the eco-friendly development of Porto Marghera could become the shared platform to steer the debate on the changeover of an area that has a great symbolic and strategic value for the metropolitan city of Venice.

6.1 The new Paradigm

In the Venetian territorial system a delicate environmental, artistic and cultural heritage of paramount value coexists with one of the largest industrial areas in Europe. This industrial district is approaching the final stage of its life cycle and is seeking its own physical and economic changeover: this urges the need for a reflection on a new paradigm, capable of providing Venice with development and economic growth prospects in a metropolitan perspective.

The metaphor that inspires the urban and environmental transformation project of the VEGA Waterfront sees the Venetian territory as a tree rooted in the city of Venice and its history, but growing its foliage on the mainland, there where manufacturing, innovation and science activities have developed.



The Green Tree Strategy: the new urban and environmental transformation paradigm

The **“GREEN TREE STRATEGY”** for Porto Marghera stems from this image. It outlines a new image for the Metropolitan City of Venice, which aspires to an improvement of its territory on the mainland, the creation of new centres, and the multiplication of relations-generating places. The landscape becomes the catalyst of the transformation process by activating a complex and ever-evolving cultural process, and it also serves as an opportunity to redesign relations between the old city, the consolidated city and the transformation city.

The new approach consists in a radical paradigm change whereby the rebirth of the city does not occur through a mere urban renovation, but stems from an environmental redevelopment process that sets the foundations and creates the

fertile ground for new functions and activities and, as a result, for new architectural interventions. This urban renaissance starts from the rethinking of the non-built space, the "empty" space, and the public space. In this context Venice and its Waterfront represent a formidable application field connected to the current reconversion of the manufacturing areas of Porto Marghera, at the heart and engine of which there rises VEGA, the Science and Technology Gateway.

The recover of waterfronts is underway all over the world; many cities have already transformed old harbour and industrial areas in lively places that are becoming central to the city (e.g. Hamburg, Toronto, Barcelona, Moscow). In Venice the transformation involving the whole Venetian Area could start exactly from VEGA, the pivot of Porto Marghera. The purpose is creating an urban system capable of improving the places that orbit the attraction pole of Venice, and of providing a new quality of life and a new urban concept. Porto Marghera is a complex urban transformation site. It is the post-industrial laboratory par excellence. Here the gradual dismantling of factories and the planning of new "green infrastructures", i.e. the rethinking of public spaces, can generate reinvigorating opportunities for abandoned places awaiting new destinations of use, which in their turn may define the new identity of the industrial landscape and the competitive re-launch of the area. Nonetheless, Porto Marghera also possesses a great strategic potential thanks to its well-constructed access system and to its proximity to important infrastructures - the Port of Venice and the Marco Polo Airport - not to mention the high historical and cultural value stemming from its closeness to the Science Centre in Via Torino, the historic site of Forte Marghera, and the view over Venice. With a change in perspective Porto Marghera can turn into a proximity heritage divided between fragility and development, set in an equally fragile environmental eco-system, and waiting for a new strategy for its development and growth.

Krimskaya Embankment in Moscow

Consequently, the challenge launched by the GREEN TREE STRATEGY is about the formulation of a new transformation "format" where the key urban renaissance concept is the organic process connected to the environmental quality that modern societies aspire to, and able to seize the opportunities offered by the existing urban setting to regenerate its vitality and its economic worth.

Concept: urban transformation based on green connections and infrastructures

6.2 The strategy of Urban and Environmental Redevelopment

The urban and environmental redevelopment strategy aims at the evolution of the urban structure by the gradual dismantling of the existing industrial organization, and the creation of green links that will redefine Porto Marghera's true identity - physically and functionally. The environmental and architectural regeneration requires a radical paradigm shift, which should drive the development of a place rich in environmental values, the true post-industrial transformation place. By seizing the opportunities implied in a manufacturing area, this process will multiply the potential of the new system through a deep environmental regeneration process.

The first experimental step of the new paradigm will be the creation of a new physical connection among the VEGA Gateway areas. This should underline the transformation underway and stimulate new uses of the space.

The physical connection between the Mestre Railway Station – the Brentella Canal –

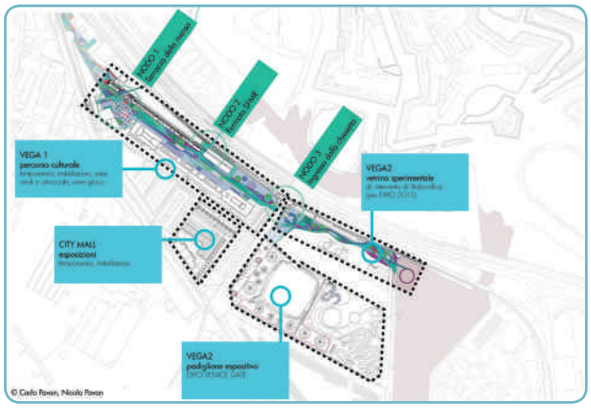
Transformation stages

the EXPO GATE Exhibition Centre crossing the VEGA 1 and 2 areas, is the opportunity to bestow renewed importance and functions on these places by means of a green by-pass, a new promenade heading to Venice, capable of attracting visitors and drawing attention on the transformation process of one of the largest industrial areas in Europe, a laboratory to test innovative urban and environmental regeneration practices.

The need for a coherent urban and environmental transformation project is now undeniable, a project that would be solidly integrated and oriented to a new quality of life, operating on the territory issues of VEGA and the Macroisola Nord of Porto Marghera, of Via Torino and of the development areas of San Giuliano Park. Such a need is testified by the existing imbalance in the functions and relations between the green areas and the developed areas, as well as by the urge to reinvigorate the abandoned spaces that are waiting for a new vital and productive destination of use.

It is true that these imbalances have influenced the vocations of the areas - notably Macroisola Nord as an innovation centre, the leisure time facilities in Forte Marghera, the Pili and Dock area as a hub for intermodal exchange, Via Torino as a proper enlargement of the city of Mestre. But it is equally true that this sharp polarization has blurred the need of creating a system and exploiting the synergic opportunities that could have developed had the different contexts been connected.

The right strategy, therefore, will aim at creating a connection between the supply of services and the urban quality by making the most of the existing resources. Some areas like Forte Marghera will contribute to increasing the overall property value of the urban system to the benefit of property investments on the Macroisola Nord, Via Torino and the Pili/Dock areas, if these prove able to establish all those green, infrastructural, physical and relational strategic connections that the planning process has only roughly defined for the moment.



The start up of the urban redevelopment process

Chapter 7

Investors participation project

7.1 The integrated approach

Economic and financial sustainability is a key factor determining the feasibility of a complex project of the likes of VEGA Waterfront; hence the need for an integrated planning approach and for an interdisciplinary work team (steering group) capable of defining and implementing such an approach.

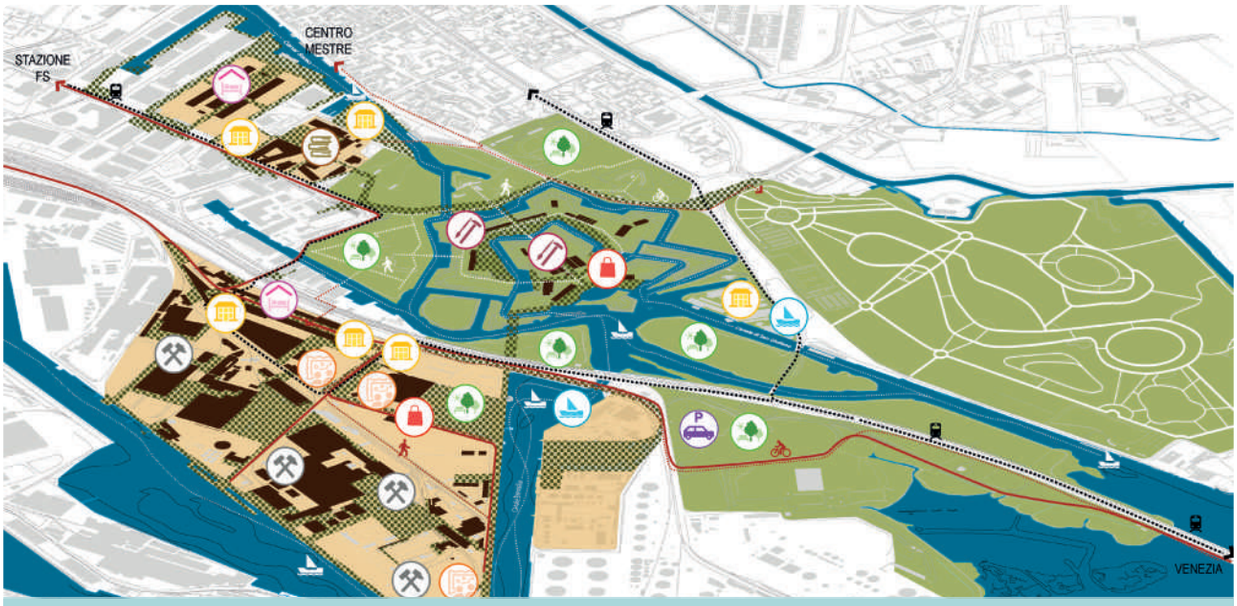
Public and international players shall be involved in this stage to contribute the following skills:

- Real estate finance (public and/or private management companies);
- Real estate (developers and real estate advisors);
- Transport and road networks (urban and smart engineering);
- Town planning (urban architecture, Masterplanner);
- Governance and contracts (legal skills);
- Administrative, environmental and procedural aspects (legal skills);
- Green sustainability (environmental sector landscapers and advisors).

7.2 The Masterplan concept

Statements such as "*Much more people in the cities*" and "*cities like a place of solutions*" perfectly summarise the current world trend that sees cities as the places of future economic development. And that is the process underway in the "metropolitan" area embracing

the towns of Padua, Treviso, and Venice.
In line with this trend, the so-called crowdfunding phenomenon – i.e. investing in the area where you live - is taking place in cities and in brownfields in particular. Crowdfunding was already adopted in the development of VEGA 1 when local enterprises and citizens acquired the new tertiary-sector buildings for an overall floor area of 40 thousand sqm., in less than five years.
For an area undergoing an urban changeover process to be attractive and meet the market needs, it has to offer maximum ease of access, a mix of all the possible destinations of use with a park serving as the barycentre, the exploitation of the existing water resources and zero-energy buildings.
Being an initiative that will span over a period of 20 years, its broad planning process should be characterized by maximum flexibility to adapt to possible future changes; such a plan should specify only those aspects that are not be implemented.
In addition, the building potential must necessarily be separated from property ownership (through compensation mechanisms, as well as incentive and rewarding rights).



The functional mix of the new VEGA Waterfront functions

Being an initiative that will span over a period of 20 years, its broad planning process should be characterized by maximum flexibility to adapt to possible future changes

7.3 Governance

Particular attention shall be paid to the governance aspects of the changeover process. Clear, precise and stable rules shall be applied during the whole implementation period, which is why the most viable solution is represented by the property fund and, more specifically, by a special "fund of funds" structure: a "parent" fund to manage the process, and some funds (or individual Special Purpose Vehicles) for the different, homogeneous contexts.

On the one hand a fund for "start up" initiatives; on the other, a fund for those initiatives that will be launched only once the infrastructures, the bureaucratic risk or the cost absorption time are mature.

On the one hand a fund for "ethical" initiatives; on the other, a profit-generating initiatives fund.

And again, a fund for public assets on the one hand, and another for private assets on the other.

Furthermore the property fund acts as a compensation mechanism amongst the different properties participating to the urban changeover project. The transfer into the fund will enable the various owners to benefit from the property development at an amount adjusted to the land index.

7.4 Fund raising

The next step in the implementation of the VEGA Waterfront initiative is the launch of a tender to create a "parent" fund that will be state-controlled mainly. Simultaneously all the possible ways to access to public finance for property development will be analysed:

1) **FIV** (Fondo Investimenti per le Valorizzazioni: Development Investment Fund): it is the fund owned by CDP (Cassa Depositi e Prestiti: Deposit and Loan Bank) that acquires real properties directly;

2) the asset management company **INVIMIT**: established in February 2014, it establishes property funds investing in public-private partnerships;

3) the **Property Assets Directorate** of the Ministry of Treasury.

In actual fact, part of the areas owned by VEGA as well as other public areas (e.g. Forte Marghera) could be conveyed to one of the funds managed by the above-mentioned players; as a second option, the same players could participate to a broad initiative together with the public and private subjects involved.

In view of this contribution, the asset management company could acquire some shares of the fund (up to 50% of the contribution value) paying them directly to the contributing bodies. As

a result an immediate budget outturn would be achieved (the capital gain resulting from the contribution), as well as a cash outcome (the subscription of shares by the new investors).
Besides the "public" assets, some private properties could be conferred as well (or the shares of the property funds investing in those areas).

A mostly state-owned "parent" fund would then be established and it would lead the whole process; at a later time, private properties could be conferred into it.
To date this appears to be the most feasible proposal to manage a complex and large-scale development process, such as the one for the Science and Technology Gateway areas. It clearly assumes a "majority stake" of the public subjects (at least in the fund establishment stage).
The disinvestment of single shares from the parent fund or from the sector-specific funds could generate new financial resources, which could be reinvested in the established investment plan.

A fundamental aspect in the integrated approach to this initiative is the access to the European structural funds. These would cover part of the necessary resources to support the infrastructural and redevelopment interventions of the missing urban spaces

The additional resources required to support the initiative can be collected by marketing single functional lots or allocating shares of the parent fund (or of the sector-specific funds) to the institutional investors, thus ensuring their involvement in the governance process.

A fundamental aspect in the integrated approach to this initiative is the access to the European structural funds. These would cover part of the necessary resources to support the infrastructural and redevelopment interventions of the missing urban spaces that will link the different property initiatives one to the other.

Chapter 8

Final considerations and consequences

The overall size of the transformation process guiding the VEGA Waterfront project exceeds 150,000 sqm. that are part of a wider area – 500,000 sqm. – requiring redevelopment initiatives. The VEGA Waterfront project will develop in an area that is already provided with buildings and infrastructures, forming the built lot within the urban project for the Park. In line with EU green economy policies and with the urban regeneration guidelines, this project envisages:

- the construction of an Exhibition Conference & Accommodation District that will boost the further development of the tertiary industry in the area, following the construction of the new exhibition centre designed by architect Michele De Lucchi in the VEGA 2 Area and to be officially opened during the Expo 2015;
- the construction of a university campus in close partnership with the Science Pole of Via Torino, equipped with all the necessary facilities and services as are required to the “population” of students and to boost the educational offer;
- The establishment of a service and inter-exchange hub to support the old city centre and as the embodiment of the natural vocation of this area;
- The strengthening of the current Innovation District serving the metropolitan area, by networking the research laboratories, the start-up incubator, university spin-offs, and the supply of sites for innovative enterprises.

This is the functional attraction the program can exert, with its economic and manufacturing consequences and a growth of services; yet the VEGA Waterfront program looks interesting also in terms of fund raising. A portion of the funds from the new EU financial planning for the period 2014-2020 and allocated to urban regeneration can be invested exactly in the VEGA Gateway. It is in this physical and networked place of Innovation that the infrastructural and redevelopment interventions can be started immediately. Thus they modify those urban spaces that are of basic importance to trigger the urban regeneration process, at well as the interventions aimed at bestowing new functions into already existing or newly-built buildings for an overall floor area of 30,000 sqm. These actions will be made possible by the ERDF funds allocated for the period 2014-2020. This is fully in line with the principles expressed by the European Parliament on urban development: to improve the urban environment by regenerating the abandoned areas, to promote sustainable transport, to support the structural and economic transformation of the most neglected neighbourhoods. The VEGA Gateway, in association with the different players and investors that joined the initiative, will be able to access the over 200 million € available. Such access will be made possible by the Regional Operational Programme of the Veneto as part of the European

... to improve the urban environment by regenerating the abandoned areas, to promote sustainable transport, to support the structural and economic transformation

Regional Development Fund (ERDF) for urban regeneration and inclusive, smart and eco-friendly development. The co-funding of private investors can be included as well.

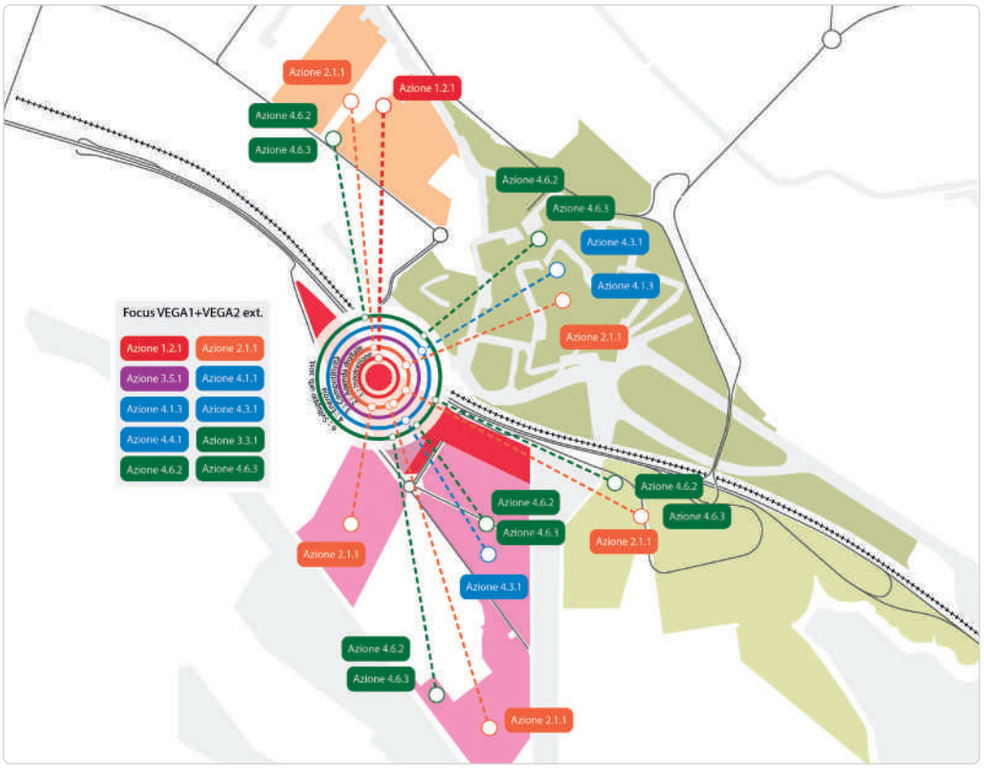
In this regard, VEGA has already indentified 12 development projects to be implemented through public-private partnerships and aimed at intervening in the following contexts:

- technologic research and development, infrastructural strengthening interventions on the multidisciplinary research platforms devoted to the development of innovative products and services in IT and design technologies, new materials and green buildings;
- digital agenda and extension of the broadband in the digital divide areas;
- competitiveness and production systems, creation of facilities and networks to host business development and finance initiatives, and dedicated to the

incubation of start-ups and spin-offs;

- sustainable energy and quality of life, renovation of individual buildings or complexes and installation of smart remote-monitoring, energy-monitoring and management systems (smart buildings);
- sustainable urban development, new road connections, parking areas, connections to cycle paths, in a safe and eco-friendly context thanks to the application of technologies and environment monitoring sensors.

The opportunities represented by the European urban development funds



Fonte: Fondo Europeo di Sviluppo Regionale 2014 - 2020

Assi prioritari:

Asse 1
Ricerca, sviluppo tecnologico e innovazione
1.2.1 - Sostegno alle infrastrutture di ricerca

Asse 2
Agenda digitale
2.1.1 - Diffusione banda larga

Asse 3
Competitività dei sitemi produttivi
3.5.1 - Supporto alla nascita di nuove imprese e incubatori di imprese

Asse 4
Energia Sostenibile e qualità della vita
4.1.1 - Promozione dell'ecoefficienza energetica
4.1.3 - Adozione di reti di illuminazione efficienti
4.3.1 - Sviluppo di sistemi smart grids
4.4.1 - Installazione di impianti di cogenerazione

Asse 6
Sviluppo urbano sostenibile
3.3.1 - Sviluppo di nuovi modelli di attività per le PMI e per l'internazionalizzazione
4.6.2 - Interventi di mobilità sostenibile
4.6.3 - Sviluppo di sistemi di Infomobilità

As a result, the **VEGA Gateway** looks the natural starting point for the implementation of the VEGA Waterfront programme inspired to the **GREEN TREE STRATEGY** paradigm by architect *Andreas Kipar.* It is in this context that the town-planning tool in force envisages the creation of a network with the neighbouring areas. It is the right place to start the redevelopment process and the creation of new urban cores around Venice, characterized by the development of the services system, the improvement of quality of life and leisure activities, in line with the sustainable development of global cities.

And the implementation of the new paradigm will start from VEGA: living and working on the mainland, benefiting of low-cost accommodations and facilities, but feeling as if being on an island; enjoying a unique city, not only formed by a static offer (the artistic heritage), but also by dynamic proposals and economic contents (education, innovation, business opportunities and leisure).