

Green building: real estate investments and sustainable development

Not all buildings are created equal

Can a spring, a watercourse, be considered an immovable property? According to Catullus (84-54 B.C.) in his famous Poem 70, most definitely not: *sed mulier cupido quod dicit amanti, in vento et rapida scribere oportet aqua* ("but what a woman says to her desirous lover is fitting to be written on the wind and on fast-flowing water"). In fact, article 812 of the Italian Civil Code states that «the soil, springs and watercourses, trees, buildings and other constructions, even if tied to the soil on a temporary basis, and, more generally, all that is naturally or artificially incorporated to the ground» are **immovable property**. It is nevertheless quite clear that immovable property, construction, architectural work are the clearest and most durable sign of man's otherwise contingent passage on earth.

In economic jargon, immovable property often acts as a **"store of value"**, as a **secure investment** that over time rarely or never loses all value, or that may even increase, thereby acting as a counter measure against economic instability or high inflation. Nevertheless, it should be observed that this conviction has been deeply shaken by the rampant speculation of the recent past, such as that occurring in the United States in 2006 with dire consequences on the world economy. Yet the majority



of individuals continues to attach sentimental and symbolic value to the “house” – a value going well beyond the mere concept of bricks and walls.

From the point of view of an insurance company – without taking into account the various forms of property-related policies

– real estate investment is a deeply engrained activity: in Italy, ISVAP Ruling n. 36 of 2011 (article 17 of part III) sets down that out of the assets backing technical reserves, real property investments can amount up to 40% of the total. In 2011, Generali, for example, invested 4.9% of the total in lands and buildings. Taking for granted all financial considerations, it is therefore not surprising that a company like Generali has accumulated in its 180-year-old history a staggering amount of property, much of which of **outstanding historical** importance, such as the Procuratie Vecchie in Venice, or the buildings at piazza della Signoria in Florence and in Piazza Venezia in Rome, the latter a fine example of the classic and the modern blending perfectly in a magnificent setting. Assicurazioni Generali’s significant growth in the early part of the 1900s following a continuous streak of outstanding results led the management to launch a sweeping property investment programme, whose ultimate aim, other than the obvious one of diversifying commitments, was to give the Company “a home” in the heart of the major cities as well as an adequate visibility of the financial strength it had achieved.

This huge estate, consisting of **property assets worth €28 billion**, is presently managed by **Generali Real Estate**, the new entity concentrating all real estate services and activities of the Generali Group at an international level that, at its debut on 1 July 2012, had



Palazzo Generali in Rome: *ante litteram* innovators

The most representative building of Assicurazioni Generali's vast estate in Rome is the one located at piazza Venezia, opposite "palazzo Venezia" and against the background of the "Vittoriano," the monument, dedicated to King Vittorio Emanuele II, celebrating the Unification of Italy. The allure of locating Generali in that venue was expressed in the will of the then chairman Marco Besso to "place *La Venezia* – as Generali was called in Italy at that time – in Piazza Venezia, opposite Palazzo Venezia," but above all to have "a venue constructed by the Company for the Company in Europe's principal centres, choosing the most conspicuous locations, all decorated by our dear Lion." Curiously enough the building's foundations are made up of some 3,500 timber piles in Aleppo pine that in water harden and do not rot, exactly like the foundations of the most important buildings along the Canal Grande... in Venice. For this was the most efficient way to overcome the obstacles represented by a small underground stream "that flowed below the ground impetuously and often with abundant water."

The following is from the daily "Il Popolo Romano" of 9 March 1906: "Yesterday morning the scaffolding was removed from the new Palazzo Venezia... A sight truly magnificent that had passer-by awestruck. In the course of the entire day people stood by... to admire this monumental edifice, the most beautiful of its type in the new Rome. When the last of the wooden panelling will be taken down, the effect will be marvellous."

The Palazzo, in addition, presented solutions at that time truly innovative. "It was endowed with radiator heating from the basement up to the tower. Staircases, floors and rooms all have electric light. In the offices and apartments, gas is available while all rooms have toilettes and bathrooms." "The new venue of Assicurazioni Generali – "La tribuna di Venezia" reported at that time – will henceforth be considered one of the most outstanding architectural works made by private citizens in Italian Rome," giving to the men of Assicurazioni Generali the possibility to live in the heart of the capital's commercial and cultural interests, at the same time turning them into the privileged witnesses of the founding events of the nation.



already emerged as one the leading players in the European real estate sector.

Real and green estate

A distinguishing trait of the Generali Group's real estate investment and management policy has always been the attention given to environmental aspects.

Generali's green conscience may probably be traced back to the 1850s when the Company finalised its **earliest land investments**. In 1851, Generali purchased in the Vene-



to region a vast property, mostly marshlands, occupied by a smattering of huts. The massive land reclamation drive that followed, involving the digging of canals and the construction of a water pumping system, led to the establishment of **Ca' Corniani**, a farm spreading across an area of 1,770 hectares.



From those pioneering days, of course, things have changed significantly, but that environmental concern has remained and become stronger over the years – a process towards a reconciliation of environmental, social and economic demands first outlined at Ca' Corniani, with the establishment of a farm that starting with the resources of the land could also offer local farmers the possibility of social redress. That approach has since been progressively codified in the concept of sustainable development within the framework of the Environmental Management System created by Assicurazioni Generali.

One of the key pillars on which sustainable development rests is the concept of **green building**, or green construction. But what exactly is a “green building”?

The *green building* concept can be linked to the awareness that developed around a **new way of conceiving the constructed environment** in the past 30 years following the oil crisis of the 1970s, where maximum focus is given to low environmental impact and high efficiency options throughout the building's life, from the choice of the site to the design, from the construction to the maintenance, from the restructuring to the demolition.

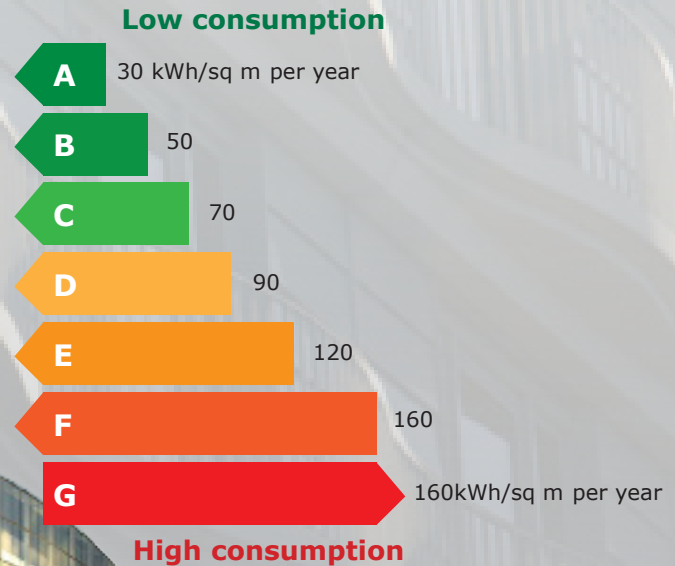
Within this far-reaching theme, where technology plays a key role in ushering ever more innovative solutions, there are nevertheless a number of recurrent factors, namely:

- **the efficient use of energy** – through the maximisation in the saving of non-renewable resources and optimising the renewable ones (sun, wind, water, etc.)
 - focus on **environmental impact** – by minimising pollution and wastage so as to affect as little as possible the planet
 - maximum focus on the **health and wellbeing of persons**, both workers during the construction phase and, successively, future residents.
 - selection of **“efficient” materials** (wood from renewable plantations, recycled metal, heat-efficient concrete...)

- special care, at an aesthetic level, to ensure that the **construction blends** with the surrounding environment.

Against this backdrop, green buildings have been recording a constant **upward trend** in both the residential and non-residential building sectors in northern America and Europe alike. According to some estimates, non-residential green construction grew 2% in 2005 to 10-12% in 2008, with growth expected to increase 20-25% by 2013.

In the United States the **ecological construction** sector is expected to create some 7.9 million new jobs in the 2009-2013 period (McGraw Hill Construction data). According to **Green building economy**, the first comprehensive report on construction, efficiency and renewable resources compiled by Giuliano Dall'O', professor of environmental physics at the Milan Polytechnic, there has been in Italy a growing attention for efficiency: latest short-term data showed that 56.6% of buildings constructed or finalised in 2010 were highly efficient in terms of energy consumption; while projects for 2011, or starting in 2012, indicated that the number of class A and B buildings are expected to rise. We would like to recall that coming under **Class A** are those buildings with a consumption level of under 30 KWh/sq m per year, which translates in an annual consumption of between € 200 and € 330 for every 100 sq. m of residential space. An "F" Class home consumes per sq. m. respectively 5 times more than an "A" Class one, the triple of a "B" one and more than the double of a "C" one. But other than consumption, value too should be taken into account: it has



been calculated, in fact, that a Class A house is worth € 450 more per sq. m while a Class C one is worth only € 200.

The Generali Group's Green Buildings

Generali has developed within its ranks expertise and competencies for the monitoring of its estate and the implementation of the latest in technology aimed at maximising energy saving, at minimising emissions and water consumption and at optimising recycling – factors increasingly in demand among leaseholders and tenants.

A case in point recently occurred in France where Marks & Spencer, the famous high street UK retailer, chose the building at 100 Avenue des Champs Elysées for its first ever store across the Channel. The *immeuble* has been entirely renovated and restructured by Generali utilising state-of-the-art technology besides being one of the first in France to be endowed with a LED lighting system. In Italy the Italian Operations Head Office, in Mogliano Veneto, and buildings in Milan as well as in Rome have been subject to specific improvements aimed at higher energetic efficiency.

The Group has introduced across its entire European real estate portfolio the “**Green Rating**” campaign aimed at measuring the environmental performance of selected groups of building by means of tangible indicators, such as:

- energy consumption
- CO2 emissions
- water consumption
- waste cycle
- transportation
- wellbeing



These indicators allow to identify areas where improvements can be achieved, besides allowing for comparisons to be made with competing buildings. They also enable the singling out of risks connected to technical ageing.



An improvement of the “Green Rating” coincides not only with the improved energy performance of the building (reduction of consumption levels for winter and/or summer air conditioning) but also with comfortable and convenient public transportation, with the proximity of green areas, with a rational and appropriate waste management, with an optimised use of natural resources – all aspects that contribute to reduce property management costs while boosting commercial values.



These activities have enabled the Group to obtain a number of significant environmental quality certifications. The EOS complex at Issy-Les-Moulineaux was among the first to obtain the High Environmental Quality Construction certificate, while Terra Nova 3 at Montreuil was awarded the High Environmental Quality Operating Certification in 2009. In addition, two buildings in Austria received the prestigious “Greenbuilding Award”.

Generali Real Estate

€28 billion in property assets, managed by a team 600 operators in 10 countries, these are the highlights of **Generali Real Estate (“GRE”)**, the new entity that concentrates the Group’s real estate operations at an international level. GRE is an Italian multinational with a solid international presence considering that some 60% of its assets are located abroad. Besides Italy, Generali Real Estate is present in France, Germany, Austria, Spain, Belgium, Netherlands, Switzerland, Eastern European countries and Asia, with operative structures in the key centres of each market. Operative as from 1 July 2012, the new entity plans to develop property management services for third parties as well, aiming to emerge as a specialised operator for institutional investors in the real estate sector and setting for itself the ambitious target of reaching € 36 billion in property assets under management in 2016.

At an organisational level, GRE can rely on a central structure, dedicated to global strategy, strategic planning and cross-border activity, that coordinates local units, corresponding to the real estate companies in the various markets.

Generali Real Estate’s business model is based on two areas of specialisation: **asset management** activities, focusing on increasing the value of property and developing real estate rotational programmes, and property-related service activities focusing on the maintaining and enhancing the **efficiency** of property under management.



“The Straight, the Crooked and the Curved”: the future of the green building sector in Milan

Among the Group’s “greenest” projects there is **CityLife** that, it should be recalled, is Milan’s largest pedestrian area thanks to the decision to shift circulation and parking lots below ground.

It will be a **zero-emission quarter**, with no gas heaters or other sources of combustion. The primary energy resource will be **water**: with teleheating facilities for the heating and cooling of

the towers and the utilisation of ground source heat pumps for residences. All CityLife buildings feature high energy performance levels: the photovoltaic panels will significantly reduce the energy consumption for the functioning of facilities. The ecologic profile of the area will be closely linked to the creation of a 168,000 sq. m public park that will integrate with the green areas in the northwest creating Milan’s most important ecologic network, essential for the depuration of the city’s air and to achieve urban rebalancing.

But the distinguishing trait of the project is the huge central piazza – hosting a number of public facilities – on which rise the three office towers named after the three architects who designed the complex. CityLife Business & Shopping District will consist of some 130,000 sq. m of office space distributed in the Isozaki, Hadid and Libeskind, towers, which were designed to ensure optimised energy costs.

With work on its construction expected to start sometime in 2015, the Isozaki Tower has been identified as a possible venue to host all Generali Group operations in Milan, a decision that could cut operating costs by approximately half.





The tower is 202 metres high with 50 floors and a plan layout of 63 m by 27 m, equivalent to five tennis courts.

The Isozaki Tower – “The Straight” – has already obtained the “Gold” LEED™ pre-certification after having met all the stringent international environmental sustainability standards set by the green building rating system. The Hadid Tower, too, has received the “Gold” LEED™ pre-certification; known as the “The Crooked,” it is 170 m high, and work on it will start a few months after the construction of the main tower. As for the 150-metre-high Libeskind Tower, known as “The Curved”, it too has been designed along similar green building criteria. These pre-certifications confirm CityLife’s commitment right from the outset to implementing green building design, construction, operations and maintenance solutions in a bid to create a zero-emission, eco-friendly, city quarter.



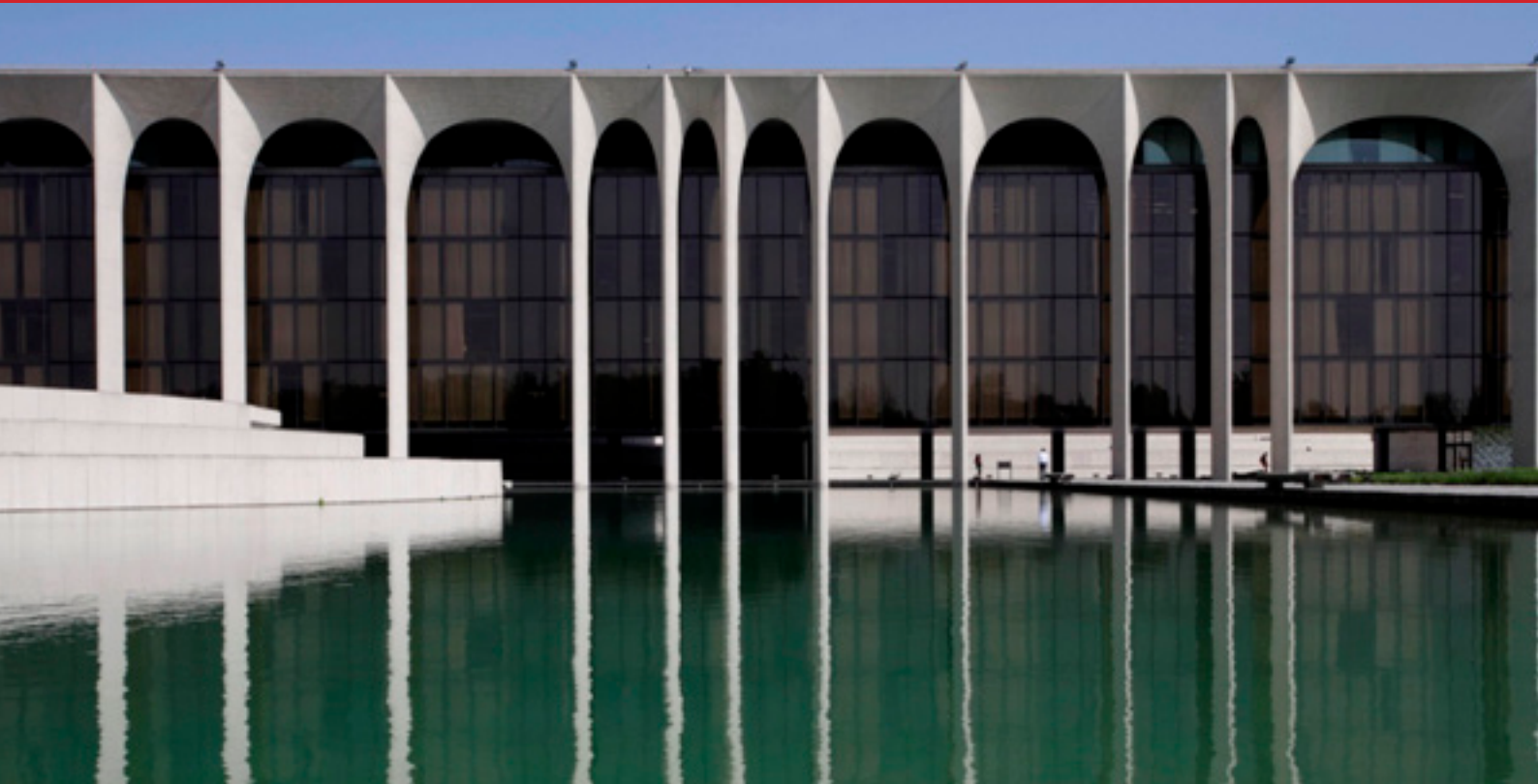
In the last few years Generali has been successful in improving all the environmental ratings assigned and in joining the principal ESG indexes such as **Aspi Eurozone**, **ESI**, **FTSE4Good**, **MSCI ESG** and **STOXX Sustainability**. Generali’s environmental performance connected with climate change mitigation obtained 80/100 from the Carbon Disclosure Project, scoring 12 points higher than last year. It is a score that falls short of the ‘excellent’ threshold (85/100).

Conclusions

But if there are only advantages to be had, why shouldn’t all construction be “green”?

Clearly, the utilisation of advanced technologies and construction techniques is more expensive and requires bigger investments. Yet by sustaining an estimated initial cost of just 2% more with respect to conventional constructions, the return on investment during the buildings’ life cycle can be expected to be 10 times higher.





If the exact estimate of just how better the quality of life can be in a “sustainable” building is still a matter of ongoing debate among scholars and experts, there is no doubt that regarding several fundamental parameters – such as lighting, perceived quality of air, room temperatures, safety, space reserved to socialisation, overall workplace wellbeing workers perceive – working areas within sustainable buildings seem to offer a better outlook, generating positive consequences in terms of reduced absenteeism and work-related stress and improved health.

And the same, of course, could occur in residential construction, confirming, once again, that it is indeed possible to reconcile housing with social awareness.



In the words of Mr. **Scotti**, CEO of Generali Real Estate: *“GREEN buildings and energy efficiency are key challenges for a real estate managing company like GRE. The creation of spaces that are environmentally efficient, where people work, live and meet, is an operative priority for us. We are constantly seeking the highest environmental standards for our historic building – through the implementation of measures aimed at safeguarding their heritage status – as well as our new constructions, which are conceived and designed according to state-of-the art green technology. Clients’ green awareness is increasing worldwide, and our commercial success will also depend on our ability to deliver products featuring top-level environmental efficiency standards.”*

