

# Sustainability in the Real Estate Landscape



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# Italy is back

Urban development and real estate investments represent many of the human activities that shape the quality of life for populations within cities and countries. Fundamentally, real estate focuses on how assets will be used, lived in and seen by many for years to come. Because of this fact, responsible land and building development also means engaging with several stakeholders including public authorities, local communities, investors, and non-profit organizations. We could easily argue that, ultimately by definition, real estate is a public asset.

With this perspective in mind, a responsible and sustainable approach is an integral part to real estate, directly linking value creation and asset management and not simply related to marketing or philanthropic strategies.

Markets themselves are showing us how it's increasingly becoming a fiduciary duty of investment professionals to understand how the environmental and social attributes of their assets are related to their current value and future investment performance. Responsible property investing is going to quickly become the new normal in the real estate landscape. The faster we understand it, the better it will be for our industry.

For centuries, Italy has developed and disseminated best practices in urbanism, architecture and liveable city development on a worldwide basis. The post World War II period has progressively shown a deterioration in the quality of Italian leadership and expertise in real estate. This may ultimately generate a negative consensus within the sector. In a global economy where cities compete in attracting talents, firms and investments, Italy and Italian cities today need strong leadership to recover their legacy and roots.

For the time being, we are facing a unique opportunity to become one of the most advanced and dynamic real estate incubators in the world, to once again be in the position to set the highest standards for quality real estate development.

Historically, the timing could not be more crucial. In order to generate liquidity, the Italian government and hundreds of local authorities, as well as financial institutions, will be obliged to disclose real estate holdings. These assets will require an intense level of regeneration and retrofitting activity. It will be an extraordinary opportunity to set new standards and provide strong leadership and expertise to the sector and enhance our country's attractiveness. It will significantly impact the national economy and, above all, the well-being of the Italian people.

In the industry, a structural shift towards sustainable real estate has started and is generating higher quality developments and buildings, leading to higher standards, and thus generating, for the first time in recent history, a benchmark between higher and lesser quality products. The result is the

creation of a major gap in value as well as winners and losers. As a country, our challenge is to catch up with this positive trend and further develop it. This will require a strong commitment by industry operators at all levels, along with disciplined and structured dialogue with the national government, public authorities, non-governmental organizations, environmental associations, operators and, of course, investors.

Fondazione Riccardo Catella (FRC) has actively promoted best practices in real estate development and operations since 2006. With the goal of contributing to establishing and disseminating principles and tools of responsible property investing, we are publishing this first report intended to represent an overview of the most significant international studies on responsible property investing, as well as a useful toolkit that can help implement sustainability goals across the industry.

Taking into account what has been developed by international organizations and programs such as the United Nations Environment Programme Finance Initiative, The Responsible Property Investing Centre, Urban Land Institute and the Global Reporting Initiative, the strategic objective of this report is to raise a debate in the industry. We would like to contribute to the establishment of compelling standards but feel there is still a strong need for an adequate and applicable methodology that can be measurable and reportable to stakeholders through the entire value chain of the real estate landscape. This process will evolve over time as the industry becomes more transparent and more benchmarks can be developed.

Hoping to help the entire sector work to achieve this goal, FRC developed some pilot projects together with Hines Italia SGR on the investment management side and Coima on the property management side in the implementation of Responsible Property Investing principles. Each stated its sustainability vision and developed a series of innovative processes to ensure a concrete evaluation of their present and future performances. Hines SGR has set up a dedicated pilot investment fund, Hines Italia Core Opportunity Fund, which will be managed in accordance to RPI principles. Coima has developed property management best practices which will be applied to Porta Nuova. Conclusions on how these buildings are managed will take a few years before they are fully operational.

In order to broaden the culture of social responsibility, FRC intends to collaborate with Italian and international organizations working in this domain and to promote the adoption of high-quality standards in order to enhance the participation of Italy's real estate associations in the debate on the social role of the industry.

Manfredi Catella  
President  
Fondazione Riccardo Catella

## ABOUT THIS DOCUMENT

This document provides an overall picture of how environmental, social and governance issues impact the real estate business. It brings together the most important contributions from outstanding international organizations on these topics, synthesizes the most interesting outcomes and underlines the need for Responsible Property Investing.

The ultimate goal of the document is to offer an overview of the relationship between all sustainability-related topics in the real estate sector through the entire process.

It is addressed to all players who operate in this domain. However, given that investors are in a position that can influence the entire value chain, we took their perspective as the main point of view to go through the different topics.

## PROFILE

The FRC was established in 2005, in honor of the entrepreneur Riccardo Catella, and recognized by the Region of Lombardy in 2006.

The FRC's mission is to promote best practices in sustainable territory planning and development. The FRC is particularly sensitive in involving citizens in creating opportunities to better understand community needs in urban development.

The first activity promoted by the FRC in 2006 was the restructuring of an historical neighborhood building and surrounding garden, centrally located in Porta Nuova. This is where the FRC has developed its headquarters, transforming the building into a cultural center open to the city with its main focus being to raise the debate and promote the importance of sustainable development.

The FRC has a yearly program called "The People's Project" which has two strategic objectives. The Project involves selecting urban development projects through community listening that are then developed in collaboration with the Municipality of Milan and with contributions from the community, architects, landscape architects, artists and craftsmen who all work together to better develop and maintain the public space of the neighborhood.

Through the FRC's activities and constant contact with surrounding communities, it has become keenly aware of the sensitivity to develop sustainably in all aspects and, as a result, has developed this report to contribute to the Italian industry in defining what Responsible Property Investing is.

## INTRODUCTION

A structural shift towards sustainability in the Italian real estate industry is needed in order to generate higher-quality development and buildings.

To succeed in reducing external costs, maximizing public health and minimizing exposure to material risks, the entire sector must deal with a series of cross-cutting issues. This will require a strong industry commitment and the active engagement of all stakeholders within the real estate sector.

The FRC concurs with this challenge, actively promoting international best practices and contributing to their implementation in Italy, starting with showing investment

## TIMELINE

### 2005–2006

The FRC is established and recognized by the Region of Lombardy.

### 2006 - 2007

The FRC restructures the historical building in the middle of the Porta Nuova development project area that will become its headquarters, and the first part of the future Porta Nuova public park is open to the public.

### 2008

The FRC launches its yearly civic program: The People's Project.

The FRC promotes The Park of Children's Rights, an innovative playground accessible to children with disabilities to encourage social interaction.

The FRC promotes the "Emilio Cazzani Giuseppe Sala" scholarships to attend the "Master of Architecture II Degree Program" by Yale University (USA). A young student from Milan Architecture University wins the scholarship.

### 2009

The FRC promotes "The Children Design the City", an open-air exhibit, displayed on the fences on construction sites and made with the drawings of several children from Milan public schools. The exhibit shows how children would like their city to improve.

The FRC relocates Isola neighborhood District's War Memorial to a nearby square at the request of the Isola citizens and in collaboration with the Municipality of Milan.

### 2010

The FRC takes part in the pilot project known as "Participating in Safety Rulemaking" conducted at the Porta Nuova construction site to involve employees in the process of defining safety procedures that constitute good practices. The FRC cooperates in the

## 2010 cont.

ideas competition called “Safety Rewards You” and promotes the project “The Children’s Construction Sites”, opening four major construction sites within the city of Milan to children who are able to participate in various construction activities.

FRC is awarded the “Ambrogino d’Oro” Certificate of Civic Merit by the Municipality of Milan due to the many civic activities it has developed in the city in collaboration with the non-profit sector, the citizens and the public administration.

## 2011

The FRC plans and completes the requalification of two public spaces in Milan in collaboration with local associations, citizens and the public administration, developing an innovative collaboration between public and private sectors in public space requalification.

The FRC signs a cooperation agreement with EXPO 2015 S.p.A. in order to develop The People’s Project program through initiatives that can be used as best practices in other cities.

## 2012

The FRC, together with EXPO 2015, launches a program called: “MiColtivo, Orto a Scuola” (school vegetable and fruit gardens) to redevelop courtyards and green areas of the city’s public schools with permanent vegetable and fruit gardens, promoting proper and healthy eating habits for children.

The FRC signs an Agreement with the Italian Ministry of Education, the Municipality of Milan and the Pedagogy Section of the University of Milan to develop the didactic program in the context of “MiColtivo, Orto a Scuola”, between 2012 and 2013 in two school districts of Milan, as pilot projects.

FRC develops a report on Responsible Property Investing and protocol to facilitate pilot projects and to promote responsible investing in the industry.

professionals how the environmental and social attributes of their assets are related to their current value and future investment performance.

Investors are indeed the only player in the field who can successfully align all of the interests in place within the sustainability agenda. If they understand that investing in sustainability is not only good for the environment and society, but also for their bottom line, they will start demanding it. Developers and constructors will be forced to follow this virtuous path. The result will be, in the medium term, a safer, more sustainable and more competitive industry, able to meet the challenges of the upcoming decades.

This report explains what responsible property investing is, highlights all the material RPI dimensions, explains its economic rationale and identifies a sound investing rationale taking into account what has been developed by major international organizations and programs.

### SUSTAINABILITY IN THE REAL ESTATE LANDSCAPE

Real estate is widely recognized as a complex and resource-intensive sector. The impacts of buildings, their location, construction, use, refurbishment, demolition and redevelopment on the environment can hardly be denied. To better understand how to achieve sustainability, we must first understand the financial, social and environmental aspects that will impact the sector in both the medium and long term. It also requires a deep understanding of the value chain, if one is willing to tackle all the challenges appearing during the life cycle of properties.

Reducing the impacts of the construction industry on the environment and society has always been a public concern. It has never been more important than today, given the major global trends that will heavily affect the industry itself and its bottom line.

## WHAT IS IMPACTING THE REAL ESTATE INDUSTRY AS WE GO FORWARD?

Climate change and the fight to reduce carbon emissions, use of land, demographic forecasts, energy and water scarcity are likely to have tremendous and far-reaching effects on the real estate business practice.

### CLIMATE CHANGE

In some cases, climate change is already affecting operational performance of commercial and retail properties, which could impact values in the future. Research by the Institutional Investors Group on Climate Change (IIGC) claims it will increasingly have impacts on property functionality and property values. The range of physical impacts of this climate change on property include increased risk of flooding, augmented damage to the external envelope of a building due to higher wind speed and increased solar radiations, more frequent wind-related structural damage, decreased durability and performance of materials caused by predicted increases in temperature, and more.

While risks related to climate change are generally considered long-term risks, the fight to reduce greenhouse gas emissions is a hard reality. Real estate is said to be responsible for around 30-40 percent of global carbon dioxide emissions. Because of the highly inefficient sector performance, buildings are offering the most significant opportunities for cost-effective emission reduction worldwide. As widely known, Europe has agreed to cut CO2 emissions by 20 percent by 2020. National governments are putting new policies in place to meet these international commitments and are recognizing the potential for imposing taxes, fiscal incentives and penalties to encourage reduced greenhouse gas emissions. Extra costs to adapt their assets will affect property owners, which will be forced to dilute future returns. The establishment of controls and policies requires the industry stakeholders to align their interests to develop appropriate benchmarks and standard methods to measure the impact of sustainable operating practices.

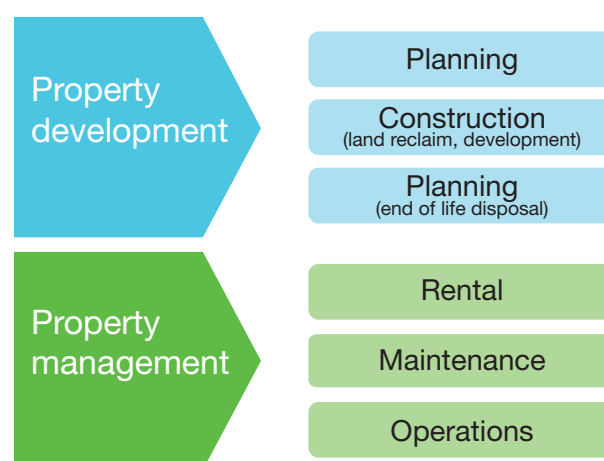
### SCARCITY OF RESOURCES

Scarcity of resources (energy, water, land) is another significant trend that needs to be taken in to account when considering the sector's outlook. Particularly, considering long-term demographic projections will lead to rising prices and rising operational costs if operators don't dramatically improve their efficiency. With regard to energy, efficiency won't be enough and there will be a need to move towards low carbon and renewable sources. Water scarcity could also lead to unreliable water supply and higher pricing. Land consumption and energy-efficient land use will also be a hot issue, considering the increasing preference for urban environments and the rising costs of public transports and infrastructures.

## DIFFERENT CHALLENGES FOR THE VARIOUS PLAYERS

To succeed in reducing external costs, maximizing public health and minimizing exposure to material risk, the sector must deal with these cross-cutting sustainability related issues. It will require a strong industry commitment and the active engagement of all the stakeholders within the real estate value chain. Only when the industry is able to address these challenges through all stages of a building's entire life cycle (from planning to disposal) will we be successful in understanding how to best manage and occupy buildings.

It's important to note how the variables differ in relation to the kind of activity and the lifecycle phase we take into consideration. The figure below clearly shows the difference between property development and property/facility management. Benchmarks, and eventually standards, are required in order to develop appropriate performance indicators to deal with this complexity. Issues such as energy and resource consumption, environmental loadings, social and economic aspects will have a different manifestation and a different importance when dealing with one activity or the other.



## MATERIALITY OF SUSTAINABILITY ISSUES FROM AN INVESTOR'S PERSPECTIVE

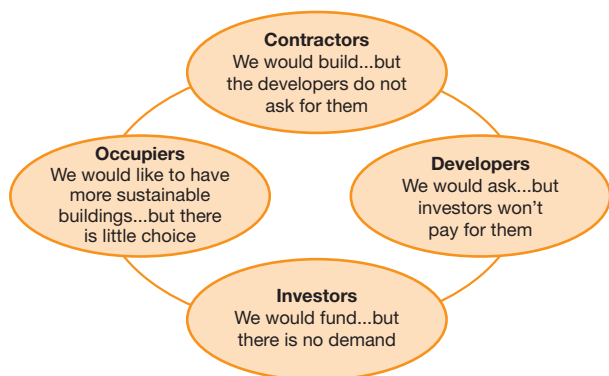
The scenario described above clearly suggests to investors and fund managers the need to take environmental and social performance seriously. If they want to avoid a rapid obsolescence of their properties and the incurring of additional costs associated with inefficient resource use, investors will have to quickly understand what implementing a Responsible Property Investing strategy means. They will have to do so by actively engaging fund managers, service providers and tenants as well, if they want to be sure to really improve their performance.



## THE ROLE OF FIDUCIARY INVESTMENT MANAGERS

Meeting the challenges of sustainability will require cooperation between investors, fiduciary managers, developers, constructors and tenants. At the moment, these players are reacting with different schemes, trying to protect their role and position in the business ecosystem.

Investors are the only player in the field who can successfully align all the interests in place within a sustainability agenda, breaking what has been called the “circle of blame”. It is where responsible property investment comes into play:



### The circle of blame<sup>1</sup>

## WHAT IS RESPONSIBLE PROPERTY INVESTING

Responsible Property Investing (RPI) is the natural evolution of socially responsible investing (SRI) within the real estate industry. SRI practices emerged in the 1960s and are increasingly influencing the way financial markets work. They no longer represent the concerns of a niche of practitioners and are now widely discussed in high-level working groups facilitated by the United Nations and by business associations themselves. More than 1000 institutions signed the UN Principles for Responsible Investing, and among them we can count several of the most important real estate players.

The most frequently quoted definition of Responsible Property Investing comes from Mark Mansley, a British fund manager who stated in 2000, “Responsible property investing facilitates a more comprehensive engagement between investors, their properties, and tenants by taking into account social, ethical and environmental factors in the selection, retention and realization of investments, and the responsible use of rights that are attached to such investments.”

This is clearly a broad definition that can be applied to responsible investment in properties as well as responsible investment in equities. The United Nations Environmental Programme Finance Initiative’s Property Working Group (UNEP FI) went a bit further, stating that RPI can be considered “an approach to property investing that recognizes environmental, social, and governance considerations along with more conventional financial objectives. It goes beyond minimum legal requirements,

to improving the environmental or social performance of property, through strategies such as urban revitalization, or the conservation of natural resources. RPI can be implemented throughout the property life cycle, through the following examples:

- Developing or acquiring properties designed with environmentally and socially positive attributes (e.g. low income housing or green building)
- Refurbishing properties to improve their performance (e.g. energy efficiency or disability upgrades)
- Managing properties in beneficial ways (e.g., fair labor practices for service workers or using environmentally friendly cleaning products)
- Demolishing properties in a conscientious manner (e.g., reusing recovered materials on site for new development)

## RPI ISSUES

Around these principles, a general consensus has been created in the last few years, and even though there is no common standard, we can say that there is a general understanding of the direction to follow.

In this perspective, we can consider the reflections of bodies such as the UNEP FI Property Working Group as guidelines for positive actions. Hence, RPI can also be defined in terms of social and environmental dimensions of real estate that investor and developers should actively take care of, including:

- Smart Growth (e.g. transit-oriented development, walkable communities, mixed-use development)
- Social Equity and Community Development (e.g. affordable housing, community outreach, fair labor practices, workforce development)
- Urban Revitalization (e.g., goods and services provided to underserved communities, infill development, flexible interiors, brownfield redevelopment)
- Energy Conservation (e.g. energy-efficient buildings, conservation retrofitting, green-power generation and purchasing)
- Environmental Protection (e.g. water conservation, recycling, habitat protection)
- Worker Well-Being (e.g. plazas, indoor air quality, child care on premises, handicapped access)
- Health and Safety (e.g. property security, avoiding hazards, first-aid readiness)
- Local Citizenship (e.g. aesthetics, minimum neighborhood impacts, considerate construction, stakeholder engagement, historical preservation)
- Corporate Citizenship (e.g. regulatory compliance, sustainability disclosure, independent directors, and adopting of independent voluntary codes such as LEED®, ENERGY STAR®, Green Star, UN Principles for Responsible Investment and the Global Reporting Initiative)

<sup>1</sup>David Cadman - 2000

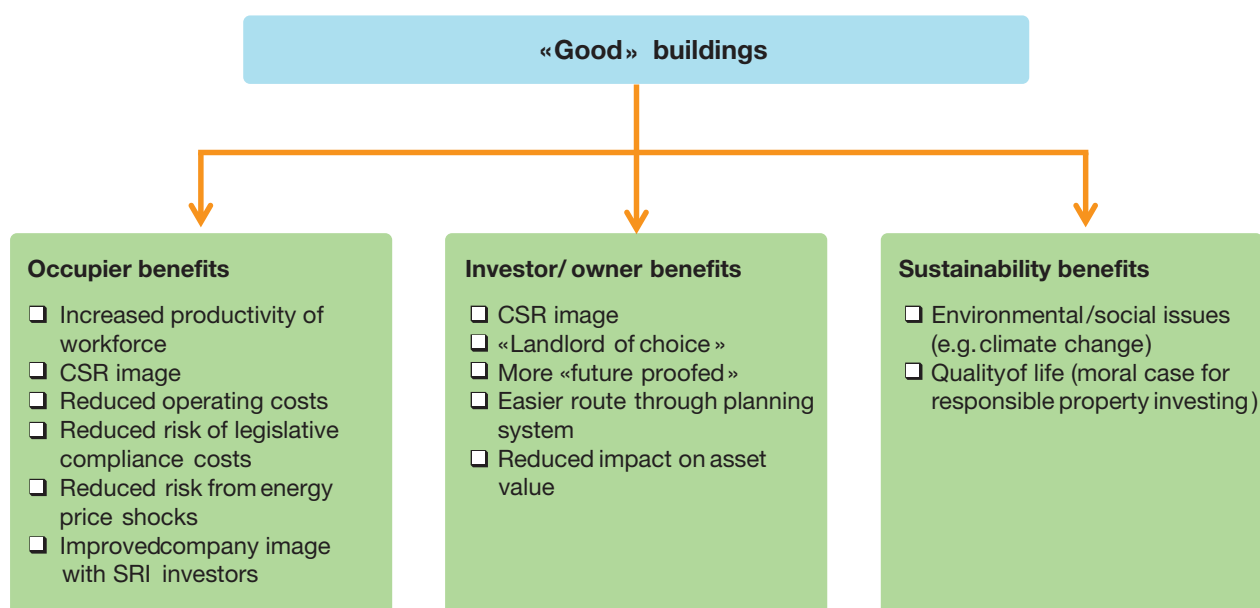
## ECONOMIC RATIONALE

The above issues have to be taken into account, but these guidelines don't guarantee a positive impact by themselves. Standardization and impact evaluation are needed if one wants to transform voluntary efforts into something more.

Responsible investing, as a driver of future quality developments and efficient properties, has the potential to significantly impact a wide range of building and occupation

characteristics. It will have a huge impact on the industry, if it's proven that the creation of economic value has a direct relationship with addressing the social and environmental issues we have discussed.

The chart below clearly shows the ways in which better Environmental, Social and Governance (ESG) performance can lead to enhancing occupiers and sustainability benefits, and also benefit the sector's business metrics.



*Responsible Property Investment policies and practices in place “indicate that a company is managing risk effectively and demonstrates that a company is enhancing reputation among stakeholders and maximizing business opportunities. RPI facilitates compliance and risk management, improves competitiveness and operational efficiency, enhances reputation and promotes market differentiation.” (UNEP FI, Building Responsible Property Portfolios)*

*According to UNEP FI research, “Investors and asset managers can achieve lower operating expenses, higher net operating incomes, improved tenant retention and*

*satisfaction, and higher property values from responsible investment strategies such as energy conservation, water conservation, recycling, fair wages and benefit for janitors and other service workers, investing in urban regeneration, preserving parks and open space, tree planting, historic preservation, community engagement and development, good architectural and urban design, green buildings and green power purchasing, better corporate governance, transit-oriented development and maintaining safe premises.” (UNEP FI, Responsible Property Investing: What The Leaders Are Doing)*

## INVESTING RATIONALE

It can surely be stated that there is a clear investment rationale which is being built.

Data from Urban Land Institute research<sup>2</sup>, says that in the U.S. market:

- Energy use in green buildings is 29 to 50 percent less than non-green counterparts.
- Green buildings use an estimated 40 percent less water.
- Carbon dioxide emissions in green buildings are reduced by 33 to 39 percent.
- Solid waste attributable to green buildings is reduced by 70 percent.

It means that efficiency gains coming from sustainable resources use can easily translate into lower operating costs and higher property values. This is going to be even truer if a number of sustainability trends have the impact they are supposed to have in future decades, as shown in the two tables below.

If...	Investments implications	Underlying effects on responsible property as sets
Tenants prefer to occupy green buildings	Rental differentials should emerge between green and non-green buildings	Either rental growth higher or asset depreciation lower
Investors prefer to invest in green buildings	Green properties prove quicker to transact	Green properties are more liquid and should therefore attract a lower risk premium
Operating costs are significantly reduced in green buildings	A higher proportion of occupancy cost is allocated to rents	Rental growth should be higher for green buildings
Regulators increase pressure on improving energy efficiency	Greener assets attract and retain more and higher quality tenants	Risk premium is lower than for non-green buildings
Demographic trends favor urbanization	Higher demand for urban properties	Rental growth, depreciation reduction
Consumer demands favor walkable communities	Premium for mixed-use transit accessible properties	Rental growth, depreciation reduction
Support for low-to- moderate income exists from public bodies and mission-driven investors	Sources of subsidy for targeted areas, political risk mitigation	Reduced costs of capital for development and acquisition

<sup>2</sup> ULI, Metrics for responsible property investing: developing and maintaining a high performance portfolio

Variables	Typical Sub Areas	Investment Logic
Energy usage, management and generation	Electricity; gas used; other fuels used; existence of energy management systems; the sources of energy used; the presence of on-site energy generation	If energy costs rise above the rate of inflation, this increased real “cost of carbon” will: a) impact property occupiers through depressing their ability to pay rent and; b) decrease net income for owner. Therefore, knowing about the energy efficiency of properties in a portfolio provides insight into its potential to generate future rental growth and returns.  A property that can provide some of its energy needs should keep costs down and prove a lower risk.
Carbon Dioxide Emission	Carbon Dioxide emission	As in the UK, this could become the basis for national and regional carbon trading schemes and form the basis for future local and national property taxes. These would then form a reduction from investors’ gross income.
Water usage	Existence of water management system; the presence of on-site water harvesting	In some regions of the world, climate change will increase the importance of the availability and cost of water. Providing some of its own water needs should keep cost down, provide a higher net income and prove a lower risk to owners and investors.
Property Accessibility	Proximity to public transport systems and nodes; dependence on petrol/ diesel powered vehicles; cycling related facilities	If the cost of private travel rises above the rate of inflation, then the users of properties more distant from public transport will experience greater real costs. The increased costs of travel for consumers and workers should increase costs and reduce income for occupiers and, thereby, depress tenants’ ability to pay rent, thereby decreasing asset value.
Asset Vulnerability	Violent storms; extreme heat and cold; utility disruption	The implications of changes in weather offer both opportunities and challenges. Will operating costs increase or decrease, will tenants be able to occupy the asset and pay rent, or will there be a loss of return to investors as a result of their inability to service tenants and the increased operational and capital costs that may become necessary to preserve the asset against these vulnerabilities?

(UNEP FI, An investor’s perspective on Environmental Metrics for Property)

Furthermore, the following table shows that considering environmental and social issues in planning, developing and managing new as well as retrofitted buildings makes a lot of sense also from a pure economic point of view. The growth of

people’s expectations in terms of social and environmental responsibility is indisputable and this will inevitably shape the way supply-side operators will compete in the market. The weight that social and environmental performance can have in consumers’ choices may vary according to market segmentation, but there is little question about its overall importance.

## IMPLEMENTING RPI STRATEGIES

What's happening right now is that investors are starting to work towards enhancing their social and environmental responsibility in several ways, including:

- Adopting governance practices which support ESG concerns
- Establishing commitments to address ESG concerns
- Developing policy commitments focused on selected areas
- Establishing leadership positions and teams dedicated to ESG issues
- Assessing the capabilities of internal investment managers on ESG issues
- Developing investment analysis tools and metrics
- Supporting research on related themes
- Asking their service providers to incorporate ESG considerations

[UNEP FI – Building Responsible Property Portfolios]

What they will have to do from now on is to integrate their core business activity and decisions with ESG issues. And that, according to the UNEP FI Property Working Group, means thinking at environmental, social and governance issues when:

- Allocating assets or managing portfolio composition
- Creating new investment vehicles
- Selecting funds or fund managers
- Selecting properties for acquisition
- Selecting property managers
- Managing existing property assets
- Developing new properties
- Obtaining other goods and services from suppliers

### A typical framework for implementing an RPI strategy

- **Building an investment rationale**
- **Integrating ESG into the investment process**
  - Asset allocation
  - Property selection
  - Property management
- **Build RPI capacity**
  - Catalogue potential RPI interventions
  - Carve out a subset of properties for analysis
  - Build RPI toolkits to engage key stakeholders
- **Engage in industry wide-standard setting and best practice setting**

## THE ROLE OF THE PORTFOLIO INVESTMENT MANAGER

As we have seen, taking RPI seriously means thinking of the investment activity in a completely different way. It means building a new investment rationale in which responsible principles have a significant impact on value creation and risk management.

Reasoning at a portfolio level, things can become more complex. A completely new system for measuring and benchmarking property performance and an information system has to be designed and RPI matters need to be integrated into the investment process, which means understanding which RPI principles and performance indicators are relevant for each stage of the process.

The portfolio manager clearly plays a key role in this scenario, since he has the responsibility to take strategic and tactical allocation choices on the basis of the data he will be able to measure, weighing each input according to the relative importance given to each sustainability issue.

Managing a portfolio implies three different activities: investment selection, holding and monitoring, and active engagement.

- i) Selection phase: the portfolio manager will primarily have to assess the characteristics of a given asset, trying to understand if it will be able to meet its targeted performance related to particular social and environmental concerns (or if it has the potential to do so, in case it is a property which is in its planning or construction stage).
- ii) Holding and monitoring phase: the actual performance will need to be taken into consideration and benchmarked with performance targets.
- iii) Engagement phase: if the targets are not met, the portfolio manager will have to actively engage with the subcontractors, service providers or tenants in order to reach efficiency gains or improve the management of a specific phase of the property development process.

Prior to all these considerations, a strategic decision on the meaning of RPI principles for any given property investment fund has to be made. Different understandings of what RPI means will lead to different approaches to equity investment.

RPI can be seen as a means to manage risks in a better way, through enhanced analysis, as a standard setting in order to select best-in-class equities to invest in or as a filter of the universe of investible assets with respect to specific asset characteristics such as the relative location of properties, certain physical attributes of buildings and/or the attributes of tenants occupying them.

Even if, in general, a portfolio manager won't depend on a single approach to pursue his or her aims, it's important for him or her to perfectly understand the connotations of the various investment styles and the value propositions related to them. In summary, the more aware the portfolio manager is of the principles and performance of RPI, the more value he or she can bring to his or her stakeholders.

## HOW SHOULD AN INVESTOR MEASURE SUSTAINABILITY IN ITS INVESTMENT DECISIONS

Several research projects, promoted by either academic or industry lead initiatives, have produced and fine-tuned different “families” of indicators. All these lists contain valuable information to be considered when developing an RPI program. Yet not all of them are equally important in the way of deciding whether to make/maintain a specific investment. In other words, indicators have to be interpreted in the right context otherwise they can indicate a wrong direction. The effort that is needed is to subdivide the investment lifecycle steps and categories in order to use the right indicator exactly for its intended purpose.

Sustainability has to be considered in a two-fold perspective:

- It is a goal unto itself. Investors are also citizens in society and have to contribute to the achievement of an equal and viable economy, where people and planet coexist in harmony.
- It is a means to guarantee stable economic value creation in the long term. As demonstrated above, there is a great amount of sense in considering ESG issues into the investment process, since the logic is fully consistent.

This means that in every decision sustainability has to be taken into consideration in one way or another. Of course, a portfolio manager cannot reconstruct the complete reasoning which is behind the concept of sustainable development and needs a kind of shortcut, i.e. a “litmus test,” providing easy-to-digest but reliable information that can be used as an element for decision making.

In order to control such a complicated process in each phase, a complete set of indicators has to be identified and tested. Indicators are valuable as long as they are able to condense the results of different variables interacting with each other in one single piece of information.

Sustainability has to be assessed for both internal and external purposes. As part of the investment process, it has to be translated into metrics that help the portfolio manager make sound decisions. Key indicators can establish the alignment between our investment policy and the portfolio characteristics. An integrated interpretation of economic and non-economic indicators can provide us with useful insights to the extent that each dimension strengthens the other ones.

Besides that, external stakeholders more and more demand transparency and disclosure. A selection of both qualitative and quantitative information has to be communicated to those who have legitimate expectations towards the company.

## KEY RPI DIMENSIONS: THE SUSTAINABILITY FUNDAMENTALS

During the past ten years, several research projects and high-level working groups facilitated by industry or independent organizations have identified a wide range of ESG dimensions that matter. Here we present a selection of the most cited ones to provide a comprehensive idea of what it means nowadays for a real estate developer or a property investor to take environmental and social issues into account.

When considering the acquisition or the investment in an existing building, a property investor or fund manager will have to evaluate the actual performance in terms of impact on a number of stakeholders.

When considering whether it makes sense to invest in a project or to monitor it, the investor will need to pay attention to ESG indicators evaluating the potential performance of the given building, which often implies a more qualitative approach or the need to look for ESG proxies.

ASSET CHARACTERISTICS	METRICS	EXPLANATIONS
Property Type	Core, Value-Added, Development	
Property Age	Number of Years	
Development Stage	Status of Development	% of completion and work in progress
Retro Commissioning	Performed or not	Date of last retro commissioning performed
(Potential) Occupants	Number of (potential) occupants	Provide occupancy rate
	Activity of (potential) occupants	Tenant business type and mix
Green Leases	In place or not	Green clauses included in leases
ENVIRONMENTAL PERFORMANCE (DESIGN)	METRICS	EXPLANATIONS
ENVIRONMENTAL PERFORMANCE (DESIGN)	Certification Schemes	Are there any 3rd Party Green Certifications associated with the project; LEED, BREEAM, Green Star, Energy Star
ENVIRONMENTAL PERFORMANCE (DESIGN)	Qualification of Architects and Designers	LEED/BREEAM/ Green Star/ Energy Star Accredited Professional throughout development process
ENVIRONMENTAL PERFORMANCE (DESIGN)	Site Development - Protect or Restore Open Habitat	What is the % of green areas relative to the total project areas
ENVIRONMENTAL PERFORMANCE (DESIGN)	Storm Water Quantity Control	Are there processes to manage pollution from stormwater run-off by control and/or Reuse systems
ENVIRONMENTAL PERFORMANCE (DESIGN)	Heat Island	Has an evaluation of Heat Island effect been performed (Roof, Nonroof, hardscape, parking lots, open areas - shading and material SRI values)
ENVIRONMENTAL PERFORMANCE (DESIGN)	Light Pollution	Has a study determined indoor and outdoor light pollution levels. Has a plan to reduce or minimize light pollution been developed and implemented
ENVIRONMENTAL PERFORMANCE (DESIGN)	Energy Efficient Design (insulation, windows, heating, cooling, ventilation)	Energy efficient product/ design Envisioned reductions in energy consumption (cost/ sqm) compared to ASHRAE 90.1 baseline
ENVIRONMENTAL PERFORMANCE (DESIGN)	Use of Energy Resources in the Construction Process	Responsible Sourcing of Major Building Elements: (i) Cost of regional materials (ii) Cost of recycled materials (iii) Value of FSC certified wood
ENVIRONMENTAL PERFORMANCE (DESIGN)	Land Consumption; Brownfield vs greenfield	Soil consumption; re-use of previously developed sites; development footprint; contaminated land, bioremediation and soil reuse
ENVIRONMENTAL PERFORMANCE (DESIGN)	Land Contamination and Remediation	Land and other assets remediated and in need of remediation for existing and intended land use according to applicable legal designations
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	METRICS	EXPLANATIONS
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Environmental management procedures and policies	Has the previous management incorporated Green management activities into operation
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Alternative Commuting Transportation	Has a study been performed to identify alternative transportation methods
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Water Metering and Performance Measurement	Is metering in Place, Minimum Indoor Plumbing Efficiency, Landscaping needs, Cooling Tower Water Management

ENVIRONMENTAL PERFORMANCE (OPERATIONS)	METRICS	EXPLANATIONS
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Energy Efficient Operations	Is the following clearly documented - Sequence of Operation, System types, occupancy adjustments and Opportunity Assessment associated with building hours and major plant operations
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Energy Use	kWh/sm consumed referred to ASHRAE 90.1
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Energy Efficient Performance Benchmarking	Has operational efficiency benchmarking been performed where energy intensity is expressed and documented
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Refrigerant Management	Identify what types of refrigerants are used in the project
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Existing Building Commissioning	Investigation, analysis and documentation of all building energy use, options have been explored and ongoing implementation plans are documented
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Building Automation System	Is there a BMS in place controlling all major building systems and maintenance of BMS is performed per manufacturer
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	System-level metering	Is there a documented breakdown of all energy use in the building
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Renewable Energies	Determine if "on" or "off-site" renewable energies are utilized at the project. If yes, indicate amount of energy produced
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Green Energy Purchasing	Is green energy purchased if available in the market
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Carbon Emissions Reporting	Is there documented tracking and recording of all emissions reduced by implementation of enhancements
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Sustainable Purchasing	Documented and in place an "Environmentally Preferable Purchasing Policy"
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Solid Waste Management	Documented and in place "Solid Waste Management Policy" for waste streams within site managers control
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Recycled Waste / Diversion Rate	Tons of waste diverted from landfill through recycling programs, % diverted
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Waste Collection	Availability of facilities to separate waste collection
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Indoor Air Quality	Is there an IAQ plan in place to prevent development of IAQ related problems
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Environmental Tobacco Smoke (ETS) Control	Is a Non-smoking policy documented, enforced and managed
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Green Cleaning Policy	Documentation indicating a "Green Cleaning Policy" is being implemented
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Occupant Comfort	Are there occupant comfort monitoring, survey, response and remediation systems in place
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Occupant Control	Do the occupiers have control over lighting levels in their space
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Daylight and Views	Has a study been performed to demonstrate occupied space to achieve adequate day lighting
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Fresh Air	Has a study been performed to demonstrate occupied space to achieve adequate fresh air
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Thermal Comfort	Has a study been performed to demonstrate occupied space to achieve adequate thermal comfort
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Transit Orientation	Distance to subway, bus or train stop
ENVIRONMENTAL PERFORMANCE (OPERATIONS)	Walkability	Proximity to goods and services, pedestrianized areas; infrastructure and neighborhood that supports pedestrian traffic



SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	METRICS	EXPLANATIONS
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Mixed use	% of space for different usage
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Open Space, Parks and Plazas nearby	Is there public space maintained by the project
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Accessibility for Disabled Persons	Facilities to grant access to disabled persons
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Affordable Housing	Availability of units for rent or purchase affordable to limited income families
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Spaces for the Local Community	Presence of non profit or public purpose facilities in the project
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Minimization of Potentially Negative Impacts	Are there plans to limit and manage potentially negative impacts
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Direct & Indirect Creation of Employment Opportunities	Number of employees involved in development and operations
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Childcare Services	Availability of childcare facilities and services for working parents
SOCIAL PERFORMANCE - DESIGN AND OPERATIONS	Tenants Health and Safety	Is a risk management plan in place
TRANSPARENCY/ CORRUPTION	METRICS	EXPLANATIONS
TRANSPARENCY/ CORRUPTION	Disclosure and Reporting	Performance on RPI is reported back to stakeholders
TRANSPARENCY/ CORRUPTION	Anti Corruption Policies in Place	Are there policies and practices to mitigate corruption risks (codes of conduct, whistle blowing procedure, specific training, etc.)
TRANSPARENCY/ CORRUPTION	Anti Competitive Behaviour	Are there policies and procedure to identify and avoid anti competitive behaviour (code of conduct, ethics training, etc.)
TRANSPARENCY/ CORRUPTION	Transparency of Lobbying and Contribution to Political Parties	Public disclosure of total value of financial and in-kind contributions to political parties, politicians and related institutions
COMMUNITY/PHILANTROPIC	METRICS	EXPLANATIONS
COMMUNITY/ PHILANTROPIC	Philanthropic Activities and Charity	Number of philanthropic activities organised and coordinated
COMMUNITY/ PHILANTROPIC	Community Engagement	Is a periodic newsletter drafted and distributed to the community
COMMUNITY/ PHILANTROPIC	Community Networking	Are networking opportunities organized regularly
COMMUNITY/ PHILANTROPIC	Urban Furniture	Investments in urban furniture for public areas