



L'ACCORD DE PARIS:

A Potential Game Changer for the
Global Real Estate Industry

Summary for decision makers

September 2016

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**Urban Land
Institute** **Center for
Sustainability**

About ULI

The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI is committed to

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both built and natural environments;

- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Established in 1936, the Institute today has more than 38,000 members worldwide representing the entire spectrum of the land use and development disciplines. ULI relies heavily on the experience of its members. It is through member involvement and information resources that ULI has been able to set standards of excellence in development practice. The Institute has long been recognized as one of the world's most respected and widely quoted sources of objective information on urban planning, growth, and development.



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Acknowledgments

ULI is grateful to the following members, trustees, and staff who generously provided their time, guidance, and insight as the Steering Group for this summary paper:

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Kate Brown, Director of Sustainability, Grosvenor, and Chair, ULI Europe Sustainability Council

Sarene Marshall, Executive Director, ULI Center for Sustainability

Molly McCabe, Founder, HaydenTanner, and Chair, ULI Responsible Property Investment Council

Roger Platt, Senior Vice President, Green Building Certification Institute, and ULI Trustee

Elizabeth Rapoport, Content Director, ULI Europe

Brian Swett, Director, Cities and Sustainable Real Estate, Arup

We are also grateful to the following people who offered their time and insights as panelists at the various COP-21 events convened by ULI in late 2015 and early 2016:

Sebastian Charles, Partner, K&L Gates

Matt Christensen, Head of Responsible Investment, AXA Investment Managers

Annie Degen, Special Adviser, Long-term Finance, and Energy Efficiency Coordinator, UNEP Finance Initiative

Louise Ellison, Head of Sustainability, Hammerson plc

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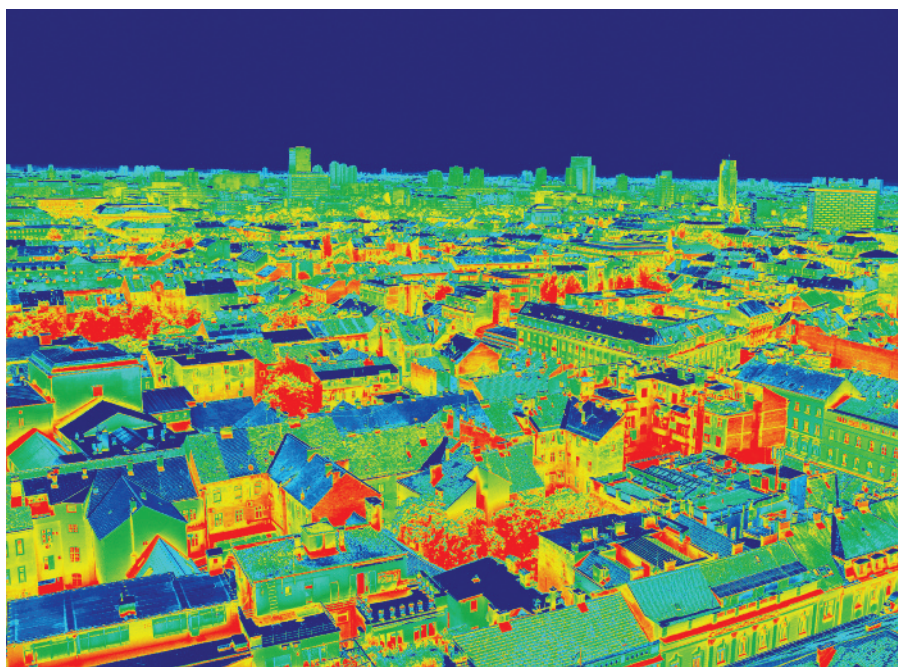
Executive Summary

In Paris in late 2015, the 21st annual Conference of the Parties (COP-21) to the United Nations Framework Convention on Climate Change took place. At this historic event, 195 countries reached an unprecedented agreement to combat climate change by accelerating and intensifying the transition to a near-zero carbon global economy this century: the Paris Agreement on climate change,¹ otherwise known as L'Accord de Paris. The central element of this agreement is the aggressive scientific objective of holding the increase in the global average temperature to well below 2°C above preindustrial levels and of pursuing efforts to limit the temperature increase to 1.5°C.

Buildings account for about a third of climate change—causing global carbon dioxide emissions,² more than any other sector, meaning that changes to newly developed and existing buildings will play a significant role in mitigating climate change. At the same time, it will be critical to adapt the built environment to withstand the impacts of a climate that is already changing profoundly. The Paris Agreement places equal weight on this so-called climate adaptation imperative.

This summary paper provides an overview of the key issues and implications for real estate that arise from the Paris Agreement and the steps that the industry can take in response. The paper does the following:

- Highlights the key elements of the Paris Agreement and the policy, market, and climate drivers of change in the post-COP-21 world;
- Outlines the nature of the opportunities that exist for the real estate industry, how leaders within the sector can set out to capture them, and the risks for those who choose not to; and
- Sets out the high-level steps that real estate organizations should consider taking to keep themselves relevant and competitive in the post-COP-21 era.



ULI has also prepared a full report with more detailed analysis of the outcomes, impacts, and case studies.

Shifting Market Attitudes

The Paris Agreement was possible because political will, bolstered by public opinion, made climate action an urgent priority among decision makers. Climate change, and the failure to address it, are now considered the greatest global risk among business leaders, according to the World Economic Forum.³ The public shares this sentiment. In a recent *New York Times*/Stanford University poll,⁴ respondents cited the environment/global warming as the most serious problem facing the world in the future if nothing is done to address it. The ethos on climate change is also shifting generationally, with three in four millennials—who have an outsized impact on many corporate sustainability programs—believing that global warming is a fact.⁵

The Core Role of Cities and Businesses Going Forward

Actors beyond national governments played a fundamental role in securing the Paris Agreement. They included mayors (400 attended COP-21), governors, private sector companies, and industry bodies. The role of those actors—in particular, networks of cities that have committed to tackling climate change (such as the C40 Cities Climate Leadership Group and the Compact of Mayors)—is crucial to realizing the goals of the Paris Agreement. From a real estate point of view, the agreement is of particular relevance to city authorities, developers, and asset owners, as well as leaseholders. Many individual cities will go beyond national policy measures, requiring higher standards for energy, carbon, and climate resilience. That is already happening in mature and emerging markets around the world.

The advent of business-led, municipal, and public/private coalitions—including the Global Alliance for Buildings and Construction of which ULI is a founding signatory—is notable in the post-COP-21 landscape. Such partnerships will help achieve the level of collaboration across the real estate value chain that is necessary to realize improvements in building energy efficiency.

Tougher Future Policies and Regulations

National governments' plans to tackle climate change were set out in the Intended Nationally Declared Contributions (INDCs), submitted as part of the COP-21 negotiating process. Those INDCs will be formalized and monitored through the process of ratifying and implementing the Paris Agreement and through a binding international review of the agreement's overall goals and effectiveness. To translate the goals of the agreement into national policies and programs, sustained action by governments and the private sector will be needed, as will international cooperation on such key issues as land use change and technology transfer.

The Paris Agreement does not guarantee success in mitigating dangerous climate change, as the aggregate impact of the INDCs submitted by national governments is estimated to limit global temperature increases to about 2.7°C above preindustrial levels⁶—short of the scientifically targeted level of warming (“well below 2°C”) stated in the agreement. This means that efforts at a national level to tackle climate change—which include the use of fiscal, regulatory, and voluntary instruments—will increase in the coming years. A greater number of more aggressive policies will likely target buildings and urban development in particular, as carbon reduction for buildings, compared with other sectors and asset types, is cost-effective and economically efficient.

The Imperative for the Real Estate Sector

Climate change is complex. Arguably, this complexity has worked against comprehensive climate action within the real estate industry. As a result, many in the industry are not adequately prepared for the implications of the Paris Agreement or the changing climate to which it relates. However, taking action to address climate change is essential for the competitiveness of both individual real estate organizations and the industry as a whole.

Catalyzed by the Paris Agreement, a number of examples already exist of how real estate market attitudes and expectations are changing. They include (a) divestment from carbon-intensive companies and assets, (b) positive engagement with policy makers and stakeholders, (c) heightened disclosure on climate change risks and carbon performance, and (d) disruptive innovation on development and retrofit standards through new technologies and financing models. All point to a future of lower demand and suppressed value for real estate assets that do not meet these new market expectations. Despite notable examples of action, the real estate industry could pay more attention to climate risk in capital allocation and portfolio management strategies. The demand for high-performing assets (from a carbon, energy, and resilience point of view) remains muted in many submarkets.

Limiting and responding to the effects of climate change are central to ULI's mission of providing leadership in the responsible use of land and sustaining thriving communities worldwide. Moreover, they are indivisible from key elements of the ULI Code of Ethics, including those relating to respect for the environment, the future, and future generations. This summary paper provides a starting point for ULI members and others to take action on these fronts when it comes to climate change.

“As leaders in the responsible use of land, ULI’s global members have a pivotal role to play in addressing some of the greatest challenges facing our rapidly urbanizing world, including the pressing threat of climate change.

The Paris Agreement on climate change was a pivotal moment; it provides clear direction for change and will have important implications for developed and developing real estate markets alike, including new business and investment opportunities. ULI has published this paper to support our members in navigating the implications of this agreement, and charting strategies for success.”

Patrick L. Phillips, Global Chief Executive Officer, Urban Land Institute

Introduction



*Heads of delegations at the 2015 United Nations Climate Change Conference (COP-21), which led to the signing of the Paris Agreement.
(Presidencia de la República Mexicana/Flickr)*

In Paris in late 2015, the 21st annual Conference of the Parties (COP-21) to the United Nations Framework Convention on Climate Change took place. At this historic event, 195 countries reached an unprecedented agreement to combat climate change: the Paris Agreement on Climate Change,⁷ otherwise known as L'Accord de Paris. The Paris Agreement was a landmark diplomatic success built on a groundswell of business, societal, and political resolve to tackle and adapt to climate change.

The agreement sets the aggressive scientific objective of holding the increase in the global average temperature to well below 2°C above

preindustrial levels and of pursuing efforts to limit the temperature increase to 1.5°C. It is difficult to overstate how ambitious this goal is. The agreement is expected to have significant and far-reaching implications for national and municipal policy making and for business and investment decisions.

Buildings account for about a third of climate change—causing global carbon dioxide emissions,⁸ meaning that changes to newly developed and existing buildings will play a significant role in mitigating climate change. Fortunately, improving energy efficiency and reducing the carbon impact of buildings are one of the most economically efficient solutions

available to mitigate climate change. For the real estate industry, this all means that—in the context of the aggressive goals established in the Paris Agreement to reduce carbon emissions—governments, investors, and other private sector firms will pay profound attention to achieving energy reductions in buildings, and that those reductions stand to have positive bottom-line effects.

This summary paper provides an overview of the key issues and implications for real estate that arise from the Paris Agreement and the steps that the industry can take in response.

Post-Paris Drivers of Change

Despite the ambitious goals set out in the Paris Agreement, the climate is changing—and changing rapidly. And with those changes, real estate assets around the world are being put at risk. The market and policy environment in which the real estate industry operates is rapidly adjusting to address climate change—both the cause and the unavoidable impacts.

Following L'Accord de Paris, this adjustment will accelerate, as countries, cities, and companies implement changes in order to comply with the commitments they made at COP-21. This section summarizes the critical changes that will occur and how they may affect the real estate industry.

Climate Causes and Impacts

Climate change is related to the real estate industry in several important ways. There is a clear scientific consensus that both the clearing of land and the burning of fossil fuels create climate-changing carbon emissions. Globally, energy use in buildings is the largest single source of carbon emissions.

However, limiting the carbon impact of real estate to mitigate climate change is just one side of the coin. The other is adapting the built environment to withstand the impacts of a climate that is already changing profoundly (see figure 1).

The Paris Agreement itself does not guarantee climate safety. A significant gap exists between the long-term temperature goals (+1.5°C to +2°C) agreed in Paris and the estimated

aggregate effect of commitments of the parties submitted in the form of INDCs to date (+2.7°C). The severity of climate risks will depend on how successful countries are in achieving the goals set out in the agreement.

ULI research has demonstrated that exposure to increasingly extreme weather events poses financial and operational risks to real estate assets.⁹ Predicted changes in temperature patterns and natural resource availability can also shift market demands and expectations. The Paris Agreement places equal weight on this so-called climate adaptation imperative, and this strong focus on adaptation provides opportunities and incentives for enhancing the resilience of buildings and communities. Figure 2 summarizes some of the key results of climate change and their possible implications for real estate organizations.

Figure 1: Climate Mitigation and Adaptation: an overview

Climate Mitigation

Definition

Climate mitigation measures focus on tackling the causes of climate change. Included are measures to reduce, prevent the emission of, or capture the greenhouse gases that cause climate change.

Examples

- Switching from fossil fuels to renewable energies.
- Improving energy efficiency of equipment or buildings.
- Changing practices or behavior to reduce energy use.
- Protecting natural carbon sinks like forests and oceans, or creating new sinks by planting trees.

Climate Adaptation

Definition

Climate adaptation measures focus on tackling the actual or expected impacts of climate change, or taking advantage of the benefits it presents. They include adjustments to natural or human systems.

Examples

- Elevating buildings or roads to avoid flooding from sea-level rise and increasing coastal storms.
- Employing new, low-water technologies in areas anticipating drought.
- Adjusting agricultural growing seasons and crop varieties to match changes in temperature and precipitation.
- Installing cool roofs or cooling centers to address heat risk in cities.

Figure 2: Results of Climate Change and Implications for Real Estate Industry

Results of climate change	Examples of implications for real estate organizations
Increased physical risks. Physical risks include those relating to sudden, extreme episodes of heat, precipitation, and storm, as well as more systemic shifts in climate affecting the function of buildings and the comfort and productivity of the people and businesses using them.	Real estate owners, investors, and lenders may find that they experience <ul style="list-style-type: none">• greater insured and uninsured losses as a result of the increased frequency and severity of extreme weather events, causing damage and disruption to assets;• more restrictive terms and higher costs associated with securing insurance, as may their tenants;• higher energy costs in certain parts of the world as a result of the need to keep spaces cool under higher temperatures; and• the need to build climate-related contingencies into operational planning and property management procedures.
Shifts in natural resource availability. Climate change and natural resource availability are closely linked, notably with respect to water. As the impacts of a changing climate take deeper hold, demands on property and development may shift.	Depending on the geographies in which they operate, real estate organizations may experience <ul style="list-style-type: none">• requirements to integrate locally specific solutions to particular resource constraints, such as graywater and blackwater recycling in areas of water stress;• constraints imposed by regulators on resource use (e.g., irrigation bans in areas of drought);• changes in the availability and pricing of certain construction materials; and• new value opportunities associated with new building functions, such as food growing, air quality amelioration, and renewable energy generation.
Focus on adaptation. The Paris Agreement emphasizes the urgency of adaptation to the likely impacts of climate change.	If underprepared for the consequences of climate change, real estate organizations may experience <ul style="list-style-type: none">• greater volatility in capital markets generally and lower investment flows to particular markets and submarkets that are deemed to be particularly vulnerable;• greater difficulty in attracting capital and less favorable terms where funding is raised;• negative value corrections at asset, portfolio, or company level;• higher operating costs;• disruption to the business operations of tenants, resulting in loss of confidence and income; and• unrealized opportunities to attract the premium investors and occupiers who are divesting from carbon-intensive assets.



“An increasing concentration of greenhouse gases in our atmosphere is warming the planet, posing significant risks to the prosperity and growth of the global economy. . . . [W]e are aligned on the importance of policies to address the climate challenge.”

Joint Statement by Bank of America, Citi, Goldman Sachs, JPMorgan Chase, Morgan Stanley, and Wells Fargo, November 2015

The Paris Agreement: A Catalyst for Change

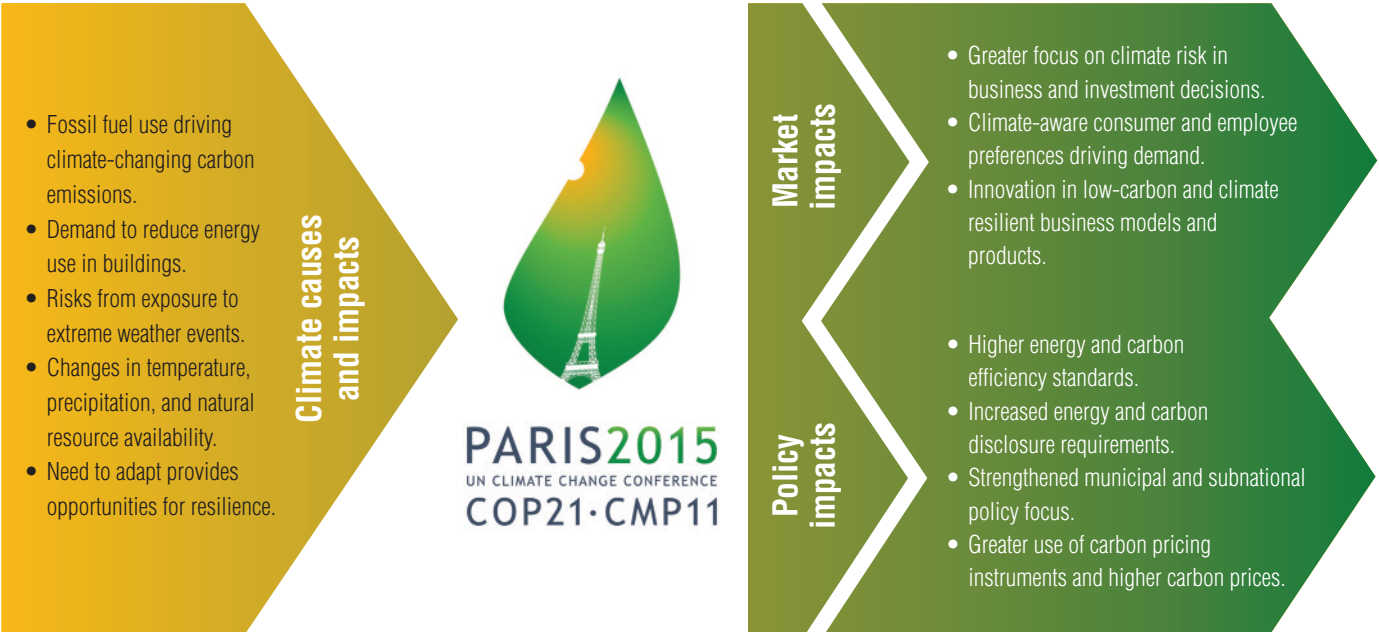
The signing of the Paris Agreement will have a number of substantial effects on the real estate industry.

The agreement reinforces the urgency for those investing and operating in the real estate market to work to mitigate and adapt to climate change. As countries, cities, and businesses begin to take action based on their INDCs and other commitments made at COP-21, important changes will likely take place in both the policy and market environments in which the industry operates. These changes will drive an evolution in industry behaviors, the implications of which are summarized in figures 3, 4, and 5 and described in more detail below.

“The management of land, and land use change in particular, has a vital role to play in realising the ambitious goals of the Paris Agreement. Not only does this mean ensuring that buildings and infrastructure are highly energy and carbon efficient, it also means that **land stewardship and urban planning need to make an active contribution to reversing atmospheric pollution.** Whilst much of this makes good financial sense already, . . . governments around the world will be looking to strengthen the investment case for carbon positive approaches to urban planning, development and asset ownership.”

Sir David King, Foreign Secretary’s Special Representative on Climate Change, UK

Figure 3: Climate Change: Drivers of changes and their impact on real estate



Market Impacts

Increasingly, businesses are adopting a proactive attitude on climate change. Real estate investor and occupier markets are already shifting in response to the Paris Agreement, and to climate risk more broadly, often as part of a wider shift toward stronger environmental, social, and corporate governance efforts. That shift is driven by greater awareness of the real or anticipated impact of policy on investors and occupiers, as well as the growing trend toward climate-conscious consumer and employee preferences. The private sector played a strong role in COP-21, and many companies are continuing to pay greater attention to climate risk and carbon impact when making decisions on operational portfolios and investment decisions across asset classes.

According to the World Economic Forum's *Global Risks Report*, climate change—and the prospect of failing to mitigate and adapt to it successfully—is the greatest single economic risk globally.¹⁰ Extreme weather events, also closely linked to climate change, are reported as the third-greatest concern over the same timescale. Research commissioned by ULI shows that monetary losses related to real estate and infrastructure as a result of severe weather events has already tripled globally during the past decade, with direct losses recorded by reinsurance companies amounting to US\$150 billion per year.¹¹ Meanwhile, analysis by Mercer suggests that real estate is one of few asset classes that stand to benefit from climate change policy and technology adoption if the spirit and ambition of the Paris Agreement are realized.¹²



Figure 4: Post-COP-21 Market Drivers and Implications for the Real Estate Industry

Post-COP-21 drivers	Examples of implications for real estate organizations
<p>Increased investor engagement. Many investors are engaging more actively in their portfolios. They expect more rigorous performance measurement and benchmarking, sharper attention to climate risk assessment and management, and a greater focus on carbon reduction within asset portfolios.</p>	<p>Real estate organizations may experience</p> <ul style="list-style-type: none">• a demand for greater transparency in their approaches to climate risk and carbon management, including through investment management activities, corporate governance arrangements, and participation in reporting initiatives, such as CDP and the Global Reporting Initiative;• inclusion of more probing due diligence questions/requests for information on the policies and plans that are in place for managing energy use, reducing carbon emissions, and addressing climate risks at the asset and portfolio level;• a push for science-based emission-reduction targets to be adopted;• more positive engagement and goodwill where well-reasoned responsible investment and climate risk management strategies are in place; and• a requirement to participate in relevant industry benchmarking initiatives as a condition of investment placing.
<p>Changing consumer demands. Many tenant organizations are increasingly seeking out spaces that support their own climate change and broader sustainability commitments and goals, reflecting a wider shift in consumer awareness and demand.</p>	<p>Real estate owners may experience</p> <ul style="list-style-type: none">• reduced tenant appeal, lower rents and retention rates, and longer vacancy periods in assets that are not adequately positioned in the post-COP-21 era;• an expectation from existing and prospective tenants for better support and engagement on climate issues, especially in relation to energy and carbon performance, resilience, and building user comfort; and• a demand from tenants for their landlords to be more transparent and accurate with regard to utility (especially energy) supplies and charges.
<p>Opportunities for competitive advantage. Opportunities for competitive advantage and outperformance through the adoption of new business models and products, such as green bonds, technological innovations, and new concepts for net-zero-energy and net-zero-carbon buildings and cities.</p>	<p>Owners of existing assets and developers of new buildings may experience</p> <ul style="list-style-type: none">• opportunities to engage with new and wider groups of stakeholders, including peers, in seeking to bring forward climate-adapted building and investment solutions;• competition and opportunities from new and unexpected sources as disruptive products and service models enter and gain traction in the market; and• governance and operational challenges when incorporating technological, financial, and design innovation in the management, renovation, and development of assets.

Policy Impacts

The Paris Agreement established a strong international political commitment to address climate change. The national declarations of policy commitments (INDCs) submitted in the lead-up to COP-21 reflect what individual countries consider to be achievable using laws that already exist or that are in development. To meet their commitments, governments will need to use, extend, and strengthen fiscal and regulatory policy instruments designed to tackle climate change. In many cases, subnational governments (e.g., state, provincial, and municipal) will lead in this area. The Paris Agreement is expected to result in significant shifts in policy and regulation affecting the building sector. Governments in both developed and emerging economies are increasingly focused on reducing energy use and carbon emissions from residential and commercial buildings.

“The Paris Agreement has created an irreversible pathway towards the new low-carbon economy. Now it is time to . . . usher in a new era that rewards those companies who integrate the risks and opportunities of climate change into their decision-making. **This new environment demands that climate risks are addressed in every real estate and investment portfolio** as we take collective action to accelerate the transition to a sustainable world.”

Peter Bakker, President and CEO, World Business Council for Sustainable Development

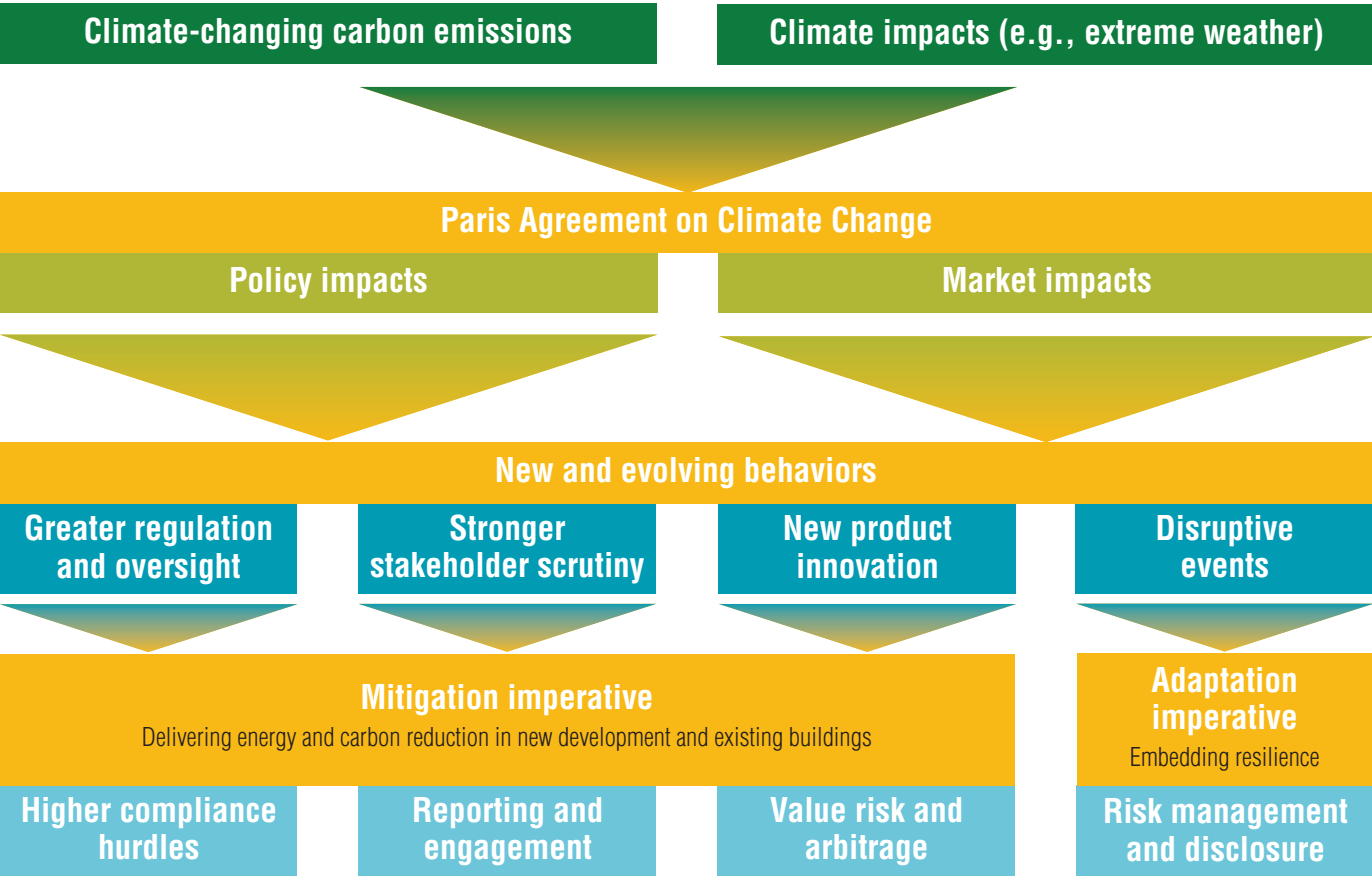
The impacts of climate change outlined above will require a greater focus by real estate organizations on mitigating climate change by reducing their carbon impacts while improving the resilience of their assets, portfolios, and business activities to the effects of an already-changing climate.

The implications of the Paris Agreement for the real estate industry, summarized in figure 6, reinforce the urgency for those investing and operating in the real estate market to work to mitigate and adapt to climate change. The following section provides suggestions on where to start.

Figure 5: Post-COP-21 Policy Drivers and Implications for Real Estate Industry

Post-COP-21 drivers	Examples of implications for real estate organizations
Stronger policies. Policies will strengthen energy and carbon standards for new and existing buildings. Climate risk disclosure requirements for investors and companies will become more stringent. Carbon pricing will be higher and extended.	Many real estate organizations will likely face <ul style="list-style-type: none">• mandatory disclosure requirements on risks to financial performance arising from climate change and transparency on how those risks are managed, including as part of financial reporting;• evolving regulatory requirements with respect to the energy and carbon standards required of their developments and existing assets, as well as on building-level reporting and disclosure in many cities;• impacts on capital and life-cycle cost (some negative, some positive) as a result of those higher standards;• opportunities to take advantage of positive incentives for exceeding regulatory compliance and tougher penalties and reputational damage for failing to be compliant; and• higher operating costs associated with the rising cost of carbon, as well as higher pass-through costs to tenants for energy supplied to them.
Growing complexity. The policy framework will vary, often significantly, across cities and countries.	Real estate organizations will almost certainly <ul style="list-style-type: none">• experience greater complexity with respect to the different policy requirements in different markets and geographies; and• need to learn to navigate different policy environments and adapt their product(s) to different legislative contexts.

Figure 6: Implications of the Paris Agreement for the Real Estate Industry



“Asia is in the midst of the largest urbanization in human history, and . . . it is critical that it plays its role in tackling climate change. What is encouraging about the Paris Agreement is that for the first time we see international climate change policy addressing the challenges and priorities of rapidly urbanizing and emerging economies. Nowhere will be more important in ensuring we meet the agreement's global warming targets than our cities. **What is clear for the region's real estate sector as a whole, is that ever greater attention will be paid to best practices in sustainable development.**”

Raymond Chow, Executive Director, Hongkong Land Limited, and ULI North Asia Chair



How the Real Estate Sector Can Respond

The business case for taking action to address climate change is becoming compelling—doing so can help real estate actors manage risks and capitalize on new opportunities. As well as acting individually, the real estate sector can play a powerful role and protect the value of its assets by working together to address and advocate further action at the national, regional, and municipal levels.

Benefits of Action

Real estate actors have a number of incentives to take a comprehensive, proactive response to the impacts of COP-21, including the following:

- **Ensure products remain fit for purpose.** Real estate products—whether in the form of new development, existing assets, investment vehicles, or service offerings—need to continue to perform in the context of the changing policy, market, and climatic environment that will result from the decisions and commitments made

at COP-21. Climate resilience is of increasing concern for business productivity, competitiveness, and continuity, as well as for the insurability of real assets and the activities carried out in them.

- **Retain value.** Assets and portfolios that disproportionately contribute to climate change through their energy use—and those that are excessively exposed to climate risks (e.g., via extreme weather, sea-level rise, drought, etc.)—may suffer negative value corrections and diminished financial and operational returns. Mitigating and adapting to climate change will help protect against depreciation and will help identify value arbitrage opportunities. Investment managers have a fiduciary duty to understand and actively manage climate-related risks.
- **Lower cost of capital.** The cost of capital is typically lower for organizations that robustly attend to environmental, social, and corporate governance issues,¹³ including

climate change. Some lenders and investors have already begun to offer preferential rates and availability of capital to organizations demonstrating their commitments to lowering their environmental impact.¹⁴

- **Build brand value and goodwill.** As public attitudes continue to shift, brand value and consumer goodwill will be influenced by companies' actions on climate change. Their actions will also affect talent retention and recruitment prospects, political support for projects, and collaboration with third parties.

Where to Start

Knowing where to start on an issue of this magnitude can be a challenge, especially because implications exist across the building and investment cycles. The particular purpose and function of an organization, and its real estate product or service, will also determine what types of actions to take.



“The Paris Agreement has relevance to all countries and markets, and all ULI members. At Grosvenor, we have been examining the relationship between climate change vulnerability and city resilience through our ranking of 50 global cities. **We believe that in the short to medium term this will begin to affect city attractiveness to investors and the security of underlying occupier markets.**”

Mark Preston, Executive Trustee, Grosvenor Estates, and Chair of the Advisory Board for the ULI Center for Sustainability

The first priority for real estate organizations should be to audit their organization's resilience to the post-COP-21 impacts outlined in this paper. That audit should include reviewing the risk exposure of their assets and the capabilities and expectations of their stakeholders. The most effective framework for assessing the impacts of climate change and the implications of the Paris Agreement will likely be unique to individual entities. However, a number of important factors need to be considered. The following are suggested questions that organizations can use as a starting point.

Climate risk

- What climate hazards are our assets and our core operations exposed to? How resilient are we to the potential physical and financial impacts of those hazards?
- How might different future climate scenarios affect us and our investment or business strategy?
- How do we ensure that we are taking proper account of climate risk and energy issues in our due diligence and appraisals when looking at transactions or when entering into ventures with third parties?

Client and stakeholder expectations

- What do our clients expect us to be doing to manage climate risk?
- How do they want us to report to them on our activities to manage climate risk?
- Are we giving our wider stakeholders the data and narrative they need to arrive at an informed view of how we are managing the implications of the Paris Agreement—and climate risk more broadly?

Competitor approaches

- What are our peers and competitors doing, and what benefits do they get from their actions?
- Where are we in relation to our competitors in this area? Are we leaders; are we keeping pace with the market or lagging behind?



Policy change

- How are policies and regulations expected to evolve in the markets where we invest or operate?
- How well prepared are we for likely changes to policies and regulations?

Asset performance

- What opportunities do we have to deliver energy and carbon reduction programs on our assets? What should our goals, targets, and priorities be in this regard?
- Do we have the right systems and technologies in place to measure performance toward our goals?
- How can the use of green building certification systems aid the performance and resilience of our assets and projects, and what are their limitations?
- Do metrics or standards exist that are specific to the submarkets in which we are invested?

Value chain

- Are our vendors and service providers (e.g., valuers, advisers, managing agents, property managers, investment managers, contractors) apprised of climate change

- issues and implications, and are they integrating appropriate responses and metrics into their advice and services?
- How vulnerable or resilient is our supply chain to climate risk?
- Do our procurement policies and standards pay sufficient attention to energy and carbon performance?
- Do we need to review our service-level agreements?

People/processes

- Who in our organization has (or should have) responsibility for climate change? What support and resources do they need?
- Do our people have the necessary skills, knowledge, tools, and incentives to embed climate action in their roles? Do they need additional training?
- Do we need to bring in external expertise?
- Do our policies and procedures need to be reviewed?

Clearly, the scope of any such assessment of resilience and readiness will be specific to individual organizations. Figure 7 shows how potential actions relate to principal stages of the real estate investment cycle.

Conclusion



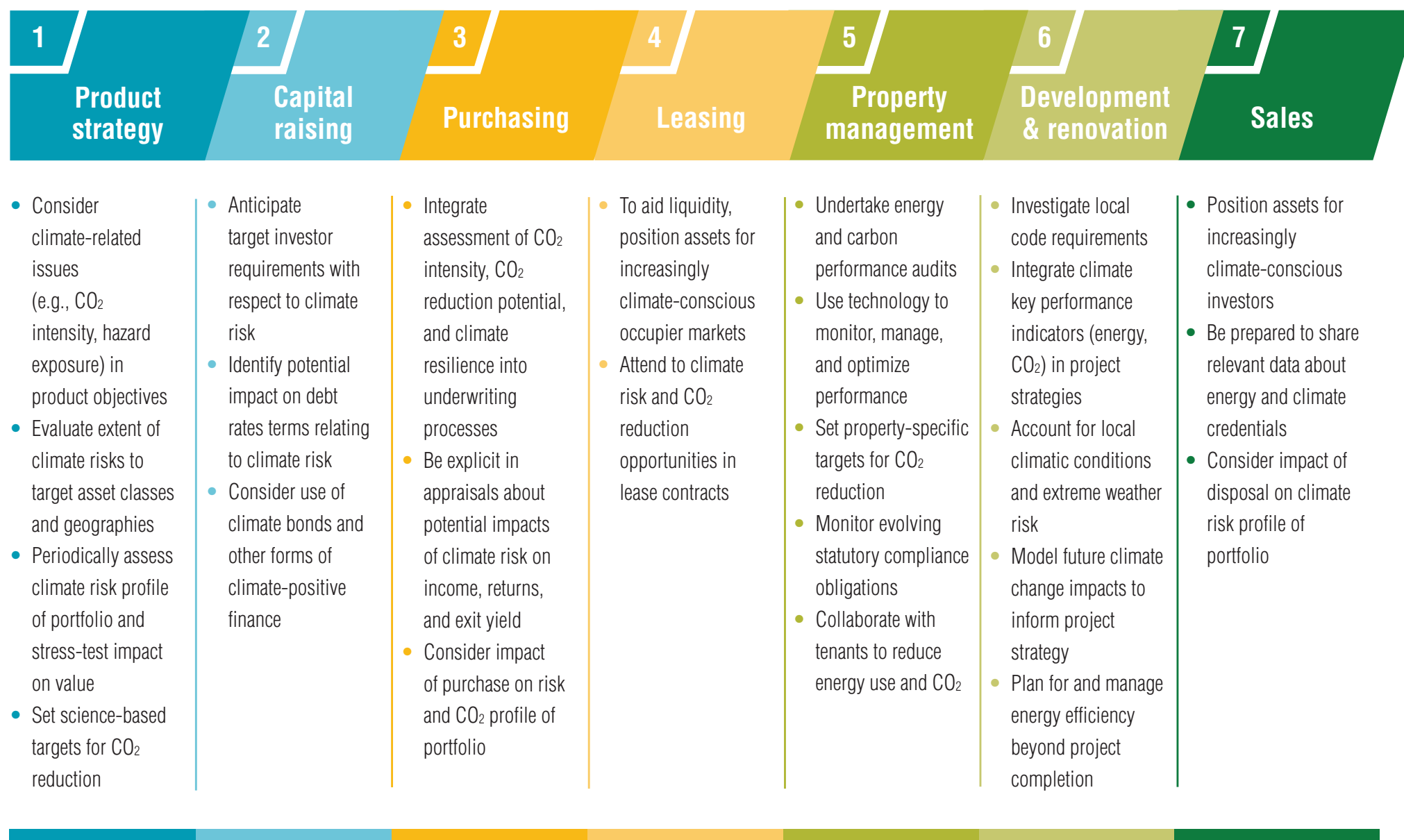
This summary paper attempts to explain the main points of the Paris Agreement on climate change and three primary sets of changes that stand to affect the real estate sector in the post-COP-21 world. It also outlines key opportunities for real estate players to act on and guidance on where to start.

As ULI members—and others in the real estate sector—grapple with the post-COP-21 realities, they will no doubt be forging new strategies and approaches to address climate risk and to realize new strategic opportunities. Continuing to share those experiences and lessons will allow the entire industry to move faster in reducing the economic, social, and environmental risks posed by the threat of climate change, a threat that the Paris Agreement aims to rapidly reverse.

“The Paris Agreement demonstrated a clear political will to act on climate change. **The evidence on climate risks compiled in the lead-up to COP-21 . . . further reinforced the need for real estate owners to embed resilience into their capital allocations and portfolio strategies.** It's become a key feature of responsibility for fiduciaries, and our clients have become more engaged than ever on how we are addressing climate change issues throughout our mandates.”

Mike Sales, Cohead of Real Estate, TH Real Estate

Figure 7: Climate Considerations throughout the Real Estate Investment Cycle



Notes

¹ “Paris Agreement,” United Nations, 2015, http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.

² *Transition to Sustainable Buildings: Strategies and Opportunities to 2050* (Paris: International Energy Agency, 2013), www.iea.org/publications/freepublications/publication/Building2013_free.pdf.

³ *The Global Risks Report 2016*, 11th ed. (Geneva: World Economic Forum, 2016), www.weforum.org/reports/the-global-risks-report-2016.

⁴ “New York Times/Stanford University Poll on Global Warming,” January 2015, www.nytimes.com/interactive/2015/01/29/us/politics/document-global-warming-poll.html?_r=0.

⁵ “Millennials on Global Warming,” Harvard Public Opinion Project website, April 2015, <http://iop.harvard.edu/iop-now/millennials-global-warming>.

⁶ “Synthesis Report on the Aggregate Effect of the Intended Nationally Determined Contributions,” Secretariat of the United Nations Framework Convention on Climate Change, October 30, 2015, <http://unfccc.int/resource/docs/2015/cop21/eng/07.pdf>.

⁷ “Paris Agreement.”

⁸ *Transition to Sustainable Buildings*.

⁹ Sven Bienert, “Extreme Weather Events and Property Values: Assessing New Investment Frameworks for the Decades Ahead,” Urban Land Institute, London, 2014.

¹⁰ *Global Risks Report 2016*.

¹¹ Bienert, “Extreme Weather Events and Property Values.”

¹² “Investing in a Time of Climate Change,” Mercer, 2015, available from www.mercer.com/our-thinking/investing-in-a-time-of-climate-change.html.

¹³ Gordon L. Clark, Andreas Feiner, and Michael Viehs, “From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance,” Oxford University and Arabesque Partners, March 5, 2015.

¹⁴ See, for example, programs from Fannie Mae, www.fanniemae.com/multifamily/green-initiative-green-building-certifications.



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