REflexions

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Foreword

As the name of this publication suggests, in this edition, we will be giving some serious thought and consideration to what has been an extraordinary time for our industry. Having to take fast and often unprecedented decisions in an environment that no-one really ever believed would ever materialize except in worst extreme case simulations or in the movies, has now given way to much more reflected and sound judgements albeit still marked by uncertainty.

We explore how COVID-19 has radicalized investor thinking within the Spanish real estate market with two clear strategies emerging – seeking to secure cash flows on the one hand whilst developing and repositioning assets to benefit from the imbalance of supply and demand on the other. Development of real estate has always been considered one of the levers for economic recovery, however the need to create a more sustainability world is gaining critical momentum.

Sustainability is not just about being more environmentally aware or friendly, it also encompasses the need to ensure fund managers and investors alike have access to high quality data to ensure their goals and targets are met. Collecting such data within the real estate industry is challenging given the multi-faceted aspects of our business. Not only do we face difficulties stemming from the variety of asset types for which data is required, combining this with lack of homogeneity of data definition and access coupled with the challenges of transformation and aggregation, all this sets up a perfect storm situation. Luckily help is at hand in the form of technology. Granted, many solutions are still emerging but they are fast becoming mainstream with scope for innovation and future-proofing. Many see technology as a disrupter but in real estate, it can act as an enabler and as a source of opportunities.

This view is shared by both of our interviewees. As ever, Reflexions would be considered incomplete without discerning insights from our clients. In our interview with Christy Hill, Head of Americas Asset Management and Global Head of ESG at PGIM Real Estate, she shares her thoughts on the trends and challenges facing our industry. It is worth remembering that these challenges can actually become opportunities which are waiting to be seized. Property will need to become smarter and healthier to support the ESG investment propositions required to meet investors' objectives. Our second interview is with Cristina Garcia-Peri, Head of Strategy and Business Development for Grupo Azora. Since its inception, Azora has pioneered institutional investment by focusing on non-mainstream asset classes, what she calls a "what others don't see" approach. Interestingly, Azora believes that to a very large extent, the pandemic has mostly accelerated trends that were already present rather than changing them.

To conclude this 12th edition, we invite you to delve in our analysis on the current trends shaping our industry but also our predictions for the future including how 5G is the new glue; offering real estate-as-a-service and self-sovereign identity solutions. Read on to find out more.

Benjamin Lam
EMEA Real Estate Funds Co-Leader

David Brown
EMEA Real Estate Funds Co-Leader

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CHALLENGES AND OPPORTUNITIES IN REAL ESTATE ASSET MANAGEMENT

Interview with **Christy Hill**
Head of Americas Asset Management and Global Head of ESG at PGIM Real Estate

CHRISTY HILL

HEAD OF AMERICAS ASSET MANAGEMENT
AND GLOBAL HEAD OF ESG AT PGIM REAL ESTATE

Real estate asset management is currently being shaped by trends such as ever-increasing interest in ESG, proliferation of technologies and the digitalisation of operations. Integrating ESG aspects in overall strategy, capturing new types of data and finding ways to leverage that data, as well as applying analytics, are just some of today's challenges in real estate asset management, but those challenges also present opportunities to be seized. While the fundamentals of good asset management haven't changed, the available tools, mindset and skills required to use them are evolving more rapidly than ever.

Deloitte US Real Estate Leader John D'Angelo speaks with Christy Hill, Head of Americas Asset Management and Global Head of ESG at PGIM Real Estate, about how these trends are impacting ESG strategy and Asset Management at PGIM Real Estate.

A trend we see is that asset management hasn't been focused on leveraging analytics - do you see the same thing and is there an opportunity to increase leverage of data and the use of analytics in the asset management function?

We have been leveraging data in Asset Management forever. Whether looking at construction costs, general market trends, demographics, tenant credit or lease and sales comps, we have always leaned on this information to inform our decision making. I think the big change is that the data we now have access to is getting more robust, is more readily available and is easier to use thanks to technological advancements. All of these changes are allowing us to be more efficient and thoughtful about the way we use and analyse our data. And, because of this improved efficiency, we are now even more focused on how to expand our data collection so that we can gain even deeper insights to shape our strategies.

As technology continues to improve, I am a believer in the notion that he or she who has the most data will win, assuming that the data can be dissected in a meaningful way. The key is having a platform that facilitates analysis and interpretation so that we're able to extract the greatest benefit from the insights we glean from our data and be nimble in the ways that we use it. As with many areas, COVID-19 has really shined a bright light on the importance of data and data collection as we have worked to manage through this crisis – for us, that meant effectively tracking cases, collections, occupancies and the impact of the pandemic on our building operations and systems. Working remotely for the past year has also highlighted how important it is to be able to access and use data from anywhere at any time.

Do you see, as a shift within PGIM Real Estate or more broadly across the industry, that data matters, that having trustworthy data matters, and being able to have the capacity to do something with it matters in a way that people did not see pre-pandemic?

Trustworthiness and PGIM Real Estate have always gone hand in hand, so we have always been incredibly focused on accuracy in general – including data accuracy – and always will be. The thirst for data has definitely been more pronounced in recent years and it's not a surprise that this is a trend that was very much accelerated by the pandemic. While many firms are just starting to recognise the importance of this, the shift at PGIM Real Estate is that we're focused on making data a competitive advantage, and having a more than 50-year investment heritage helps give us that edge. With a $188 billion global portfolio across real estate debt and equity, we are in a unique position to leverage and combine the best of third-party data providers with our robust proprietary data set. As one of the largest owners in the world, we think we are well-positioned to capitalise on the insights on which we can draw from within our own walls for the benefit of our investors and partners and, because it is our own data, we can also be substantially more confident in its accuracy. Certainly, data accuracy and data security will always be a priority.

There has also been a surge of funding in the PropTech space. As a result, the industry has better access to tools and information that have not historically been available. This will benefit the smaller organisations that don't have the data sets like PGIM Real Estate has to draw upon, making them more competitive as well. However, I do continue to beat the drum on accuracy. The space is evolving quickly, and data is useless if you cannot rely on it. I once heard someone say "Data that is 80% accurate is 100% useless", and we all need to remember this!

What has changed since you started in asset management?

Not as much as you would think; we are slow adopters in the real estate industry. When I think about my role as an asset manager 20 years ago, I was buying/selling, budgeting, business planning, leasing and interacting with the property manager. While markets evolve and strategies shift, fundamentally, those activities haven't changed.

One of the biggest changes, however, is the importance of ESG and resilience in real estate investing. For years we have focused on the "E" and sustainability gained traction because of the ROI and impact on the bottom line. The combination of COVID-19 and the social unrest and injustice we have witnessed over the past years has really shined a bright light on the importance of ESG broadly.

We have seen how COVID-19 has impacted underserved communities disproportionately. We are now very aware of the threat of climate change and how this may impact our portfolios. We also believe the impact of climate change on these underserved communities will be similarly disproportionate. ESG has become a critical consideration in our investment process and understanding that all risks we face on this front are critical to prudent investing.

Resilience is also a topic that has gained a lot of attention in recent years and is critical to the underlying strategy of any asset. In real estate, we have always looked to the durability of our cash flows. This is still the case, but we are now linking the physical and social durability of our assets to their financial durability.

This change and increased focus have not only been self-imposed but have also been reinforced by our investors who continue to elevate their focus on ESG broadly. I think it is great to see that this focus will continue to drive the industry.

However, at its heart, asset management is the intersection of where strategy meets execution, and while the areas of focus may evolve, this will always remain.

What shouldn't ever change or be different?

A deep understanding of your property and market. You need that and you're never going to solve it with spreadsheets. Asset management brings so much together; it's really about understanding the micro and macro drivers of the market, submarket and micro-market. To capture demand, you constantly need to know how you are positioned, what tenants need, what they value and what is changing in real time so that you can capture that demand.

> At its heart, asset management is the intersection of where strategy meets execution, and while the areas of focus may evolve, this will always remain.

When I think about automation and due diligence, there are aspects of underwriting that can probably be easily automated, as well as elements of budgeting, but there is a judgement layer in what we do that will always need to stay. My worry is that data becomes a crutch when it is meant to be a tool to help us make better decisions – it is not meant to replace our decision making.

Human connectivity and connection in deal making is also really important. It's the beauty of having a tangible asset; it's bricks and mortar and you can go there and see it. If the window is broken, you see it and fix it. It's the same situation with tenants in the building and talking with them directly. You can read an article about a large employer or you can tour a property with someone at that large employer who's looking for property – and you're going to learn a lot more from the latter.

How do you see asset management evolving over the coming years, particularly in how it leverages data and analytics?

Accessibility and speed of availability. The ability to access different datasets and the ability to access it in real time are two very different things. If you wanted to find comps ten years ago, you would call four different brokers, put the details in a spreadsheet and hope the information was accurate. Today, you can access comps through your own network, but you can also buy that data. This allows us to access relevant data, digest it quickly and aggregate, triangulate and use it to make better decisions. We are spending more time being analytical and strategic versus spending time hunting and gathering the data before being able to spend time thinking about what that data means. Our level of productivity increases as we are spending less time gathering data and, at the same time, ending up with better information.

What skills do you think we'll see increasing in demand – in other words, if there is an opportunity to better leverage data and use analytics, what skills and capabilities will likely be required?

Ultimately, the skills are the same. It's an investment discipline, so understanding and analysing transactions, markets and finance remain the same. The skill that is really evolving is flexibility in using different systems and that's where the digital native entering our industry has an advantage. Being tech resistant isn't going to be successful. It's about learning how to use the platforms, understanding there is a lot of data out there, and then getting to the right source. At the end of the day, the discipline remains the same – we're buying buildings, repositioning buildings, leasing buildings and selling buildings. The financial analysis isn't changing – it's that we now have the ability to be better informed and have easier access to better data and better tools with which to analyse that data.

What gets in the way of leveraging data, tools and analytics today?

While there are always tactical challenges to any data endeavour, I think the biggest hurdles are psychological. The people who historically didn't want to collaborate and hoarded their information have a bigger psychological hurdle to overcome.

I think the greatest psychological barrier that needs to be overcome is to understand that you can only get so far by hoarding data and creating your own data silo. There needs to be an understanding that leveraging wider data sets yields broader understanding and better results. Those who are still clinging to their spreadsheets, with "their" data, will ultimately make poor decisions that will negatively impact their performance as an asset manager.

How has collaboration and leverage of technology changed in asset management?

We have all learned how to collaborate in a different way over this past year. I think this experience has and will continue to accelerate the adoption of technology. Everyone was forced to use technology and realise that technology is the way of the future and you can either get on board or get left behind. I think those who don't buy into the value of data and technology will become increasingly irrelevant. In a world where you can verify so many things, how are we going to look at the person that is still relying only on their gut? I do believe that instinct is critical in real estate but when you're a fiduciary, it's imperative to both trust and verify.

One of the biggest changes is the importance of ESG and resilience in real estate investing. For years we have focused on the "E" and sustainability gained traction because of the ROI and impact on the bottom line. The combination of COVID-19 and the social unrest and injustice we have witnessed over the past years has really shined a bright light on the importance of ESG broadly.

My premise is that over the arc of the next decade we are going to see an information / data analytic revolution coming to us, whether you like it or not. There is a change happening, not just acceleration but a reset, reboot and rethink that is not going away. Does that resonate with you?

Yes, this is happening, but let's go with it! It's going to be a massive undertaking as the industry gets its arms around all that we have access to and works to decipher what is critical. We just need to "eat the elephant" one bite at a time (so to speak). But it is a competitive space and the time we have to eat is compressing, so we may have to eat it a little quicker.

I think ESG is forcing this in a way nothing else has. So much of ESG is data-driven on the social and environmental side. If you look at the carbon neutrality commitments, you can't make that commitment without tracking your data. By this time next year, I expect we will see most major advisers making this commitment and it will be a commitment to data.

From a regulatory perspective, I expect we will see heightened requirements to track certain data going forward as well, if only on the environmental front. We are already seeing this in Europe and in limited places in the US, and I only envision this intensifying.

That's interesting. My take on it is that, as foreign investors are asking more questions and tenants are asking more about it, we have gone very quickly from something that seemed optional to something that was required in keeping an asset relevant. I am curious to know whether you see that playing forward in a post-COVID environment, with people going a step further into healthy buildings or evidencing the air quality and consumer ratings for the efficiency of buildings. Do you think that this is coming in a bigger way or is it going to be a slower evolution?

I think it's here; there are A-list celebrities advertising for healthy buildings. There was already a mounting focus on building health and the pandemic has definitely accelerated that. I think it's important to note that, as we think about ESG, those who are reluctant to adapt will be losers as well. Conveying the "health" of our assets to our tenants and the public is a critical part of the "S" in the ESG, and we need to be really thoughtful about how we track those metrics. Ultimately, we believe that a healthier building will be more durable.

Do you struggle with the ESG investment strategies you need to make (whether value-add or core plus) or are there investments that don't pencil out because of the

strategy of the hold period that would otherwise be good for the building (or does it not get in the way)?

ESG needs to be implemented as appropriate and complementary to the underlying investment strategy. You still frequently hear people say "ESG doesn't matter because I am a value-add buyer." However, if you are a value-add investor targeting a core exit, closing your eyes to ESG is likely closing your eyes to something that is important to the next buyer. As a result, failing to focus on this could result in a less successful execution. Theoretically, in a world where ESG matters to your core buyers, over time, a building with a better ESG profile will price better. If it's more resilient, a buyer should have more conviction around the cash flows which could lead to different pricing on a risk-adjusted basis. ESG is not one-size-fits-all for a multitude of reasons. It's possible to have different and successful ESG implementation across strategies.

Do you see uses for sensor/IoT data (i.e. occupancy sensors and data that can come from connected devices) from assets that may help asset managers get a better view of what's happening at a given asset and the risks/opportunities associated with that?

We are already using this technology in a number of ways and our building engineers focused on building systems have been leveraging this technology for a while now. We're heading in a direction where we can use sensor data as a strategy to act proactively instead of reactively. The key is extracting that data to be strategic, targeted and tactical in how we use it. Using data to inform and reform our strategies to be more targeted and tactical allows us to deliver on the proposition of reducing consumption, but also allows us to fulfill the investment promise as well.

Now that it's easier to see a building's resource consumption data, how closely do you look at that data and what do you do with it?

We're accountable now and, as owners of these buildings, this is an imperative. The notion that ignorance is bliss is by no means acceptable. We need to hold ourselves to a higher standard given the impact that real estate has on the environment. If you asked me 20 years ago to consider how we are going to monitor consumption, I couldn't answer the question then, but I can tell you now - exactly how and what we're doing building by building.

How important do you believe it is today, and will be in the future, to evidence that your buildings are smart, safe, healthy and responsible?

Buildings will need to get smarter to attract tenants. It's becoming basic marketing, especially for larger corporate firms and public companies, and they will start to have exclusionary screenings around the qualifications of buildings. Buildings will have to be smarter and healthier not only to support ESG goals but to support the investment proposition so that we capture more than our fair share of the demand.

We do need to be mindful of the unintended consequences of smart buildings. We want our buildings to be smart and dynamic, but the downside of cloud-based systems is increased cyber security risk. You need to make sure the building is smart without being exposed to these threats. You can't think about how to make a building smarter without considering the cyber threat every step of the way. It needs to be an underlying step in every action you take.

As ever, for your office portfolio, you want to attract and retain employers of choice – what is or isn't changing in how you do this?

We believe if we deliver the best and smartest buildings, then we will attract the best, smartest and most profitable tenants. We like these tenants because they likely have superior credit. This supports both the environmental and financial objective of the investment.

Do you see us as an industry, particularly investment management, getting better at looking forward with modeling and scenario planning, and using that forward view to better inform action? In a decade, how will an asset manager be spending their time differently than today?

I believe it is an area in which we'll get better, and it goes back to the data. We now have different and more robust data sets to choose from. Tapping into the data allows us to make more informed decisions. Looking ahead even five years from now, I think we will have cleaner data and be in a better position to leverage it versus gathering it. We are already using this type of scenario planning with climate risk, so the muscle memory is building.

Thinking about where we're heading, what is the most exciting thing for you?

Our ability to drive change while simultaneously driving financial performance is the most exciting thing for me. I am excited about our ability to impact positive change on the environmental and social front while delivering on the investment promise for our clients. As a large organisation, we have the ability to be an example and a leader to others and demonstrate that in real estate there can be an alignment of these objectives.

SPOTLIGHT ON SPAIN
A VIEW AT THE POST COVID REAL ESTATE MARKET

Alberto Valls
Managing Partner of Real Estate Deloitte Spain & EMEA
Chairman ULI Madrid (Spain)

The unexpected shock caused by COVID-19 has boosted both incipient and established megatrends. Post-COVID, investors are following two different strategies: cash flow protection, seeking secure cash flows to hedge inflation; and building on the core, by developing and repositioning assets to benefit from the supply and demand imbalance.

1

2020 – The year COVID hit

2020 was one of the most challenging years for decades. The unexpected arrival of COVID-19 brought the world to a halt and caused an impact on our society in terms of how we live, work and enjoy ourselves, from which there is no turning back. The world will no longer be the same after COVID-19, which has accelerated structural changes that were already in progress.

The global economy suffered a recession, and Spain was no exception, as it saw its GDP fall by around 11% in 2020, unemployment reach approximately 17% and the deficit give rise to a sovereign national debt level of about 120% of GDP (+24 points vs. 2019).

The Spanish economy was, and still is, heavily affected due to a 77% drop in foreign visitors, which reduced the number of tourists from 83 million in 2019 to 19 million in 2020. Also, the first quarter of 2021 showed a non-recovery level of 1.2 million visitors. Tourism and leisure, banking and real estate are the industries most affected by this market environment.

The end of lockdowns and restrictions, together with the speed of vaccination programmes, are the key drivers of economy recovery. The Bank of Spain now estimates that the Spanish economy will grow by 6% in 2021.

Real estate investment volume (2020)

The global real estate investment volume fell by an unprecedented 30% in 2020. In terms of asset classes, the hospitality industry recorded the sharpest decline with a 61% decrease on 2019.

In Europe, the real estate investment volume dropped by 22% in 2020, as Spain recorded the most significant decreases, with a 54% slump for the year and a drastic average decrease of 67% per quarter after Q2.

In this environment, the influence of Core and Core+ in the investment market has increased due to market momentum. The investment focus has been on the most resilient assets, with special importance placed on living property, which accounted for 27% of total investment (10 years ago: just 7%), as well as logistics.

				YoY Quaterly change in volume (20/19)			
European country	**Investment 2020 (€m)**	**Yoy (20/19)**	**Q2-Q4 (20/19)**	**Q1**	**Q2**	**Q3**	**Q4**
Germany	58.600	(23%)	(35%)	50%	6%	(36%)	(52%)
United Kingdom	44.400	(17%)	(18%)	(15%)	(11%)	(26%)	(17%)
France	33.000	(28%)	(40%)	42%	(28%)	(20%)	(57%)
Sweden	17.100	(4%)	(16%)	54%	(35%)	(12%)	(6%)
Netherlands	15.500	(27%)	(34%)	14%	(39%)	(51%)	(20%)
Spain	**8.700**	**(54%)**	**(67%)**	**42%**	**(70%)**	**(76%)**	**(57%)**
Italy	8.400	(32%)	(40%)	38%	(36%)	(42%)	(42%)
Norway	6.500	15%	23%	(9%)	(33%)	(23%)	127%
Poland	5.200	(15%)	(37%)	119%	(63%)	(14%)	(32%)
Switzerland	5.200	36%	74%	(40%)	40%	417%	(21%)
TOTAL	**203.300**	**(22%)**	**(32%)**	**24%**	**(22%)**	**(32%)**	**(38%)**

Source: Deloitte and Real Capital Analytics.

Investment trends paint a positive and mixed picture

Despite this economic context, the economy has tailwinds that can enable it to make a speedy and strong recovery:

- Central bank liquidity programmes (quantitative easing) have driven real estate yields to their highest spread versus risk-free rate since 2013, with probable future yield compression in premium assets.
- Capital values are still below their peak (2007) in real terms, although in a lower interest rate environment, and there is still room for value-add assets and market consolidation.
- Unemployment rates are lower than the levels expected at the beginning of the crisis caused by the pandemic: in Spain a rebound at a peak level of 21-22% was expected, but currently there is a consensus that the level will not exceed 18.5%, boosting disposable income and expenditure.
- The Next Generation EU plan will be a lever for growth, digital transformation and evolution towards a more efficient and sustainable economy. The expectation is that Next Gen EU will contribute to a yearly GDP increase of around 2%.
- Spain has an unparalleled leisure offering and a competitive hospitality industry that will attract tourists. The key is the speed of vaccination programmes and the provision of measures to ensure visitors' confidence.

The above factors augur well for economic recovery and, accordingly, the real estate industry expects to gather momentum.

The Future is here

The crisis has affected different asset classes in different ways. The unexpected shock caused by COVID-19 has generated and boosted both incipient and established megatrends.

The areas of retail, offices and hotels suffered greatly and are now under review due to the changes -both temporary and structural- to which online sales, remote working and travel restrictions have given rise. The shock can be described as cathartic, without any return to the starting point.

Resilient assets have been living properties, logistics and data centers, which is precisely where there is a lack of an up-to-date offering to cater for demand-driven changing habits.

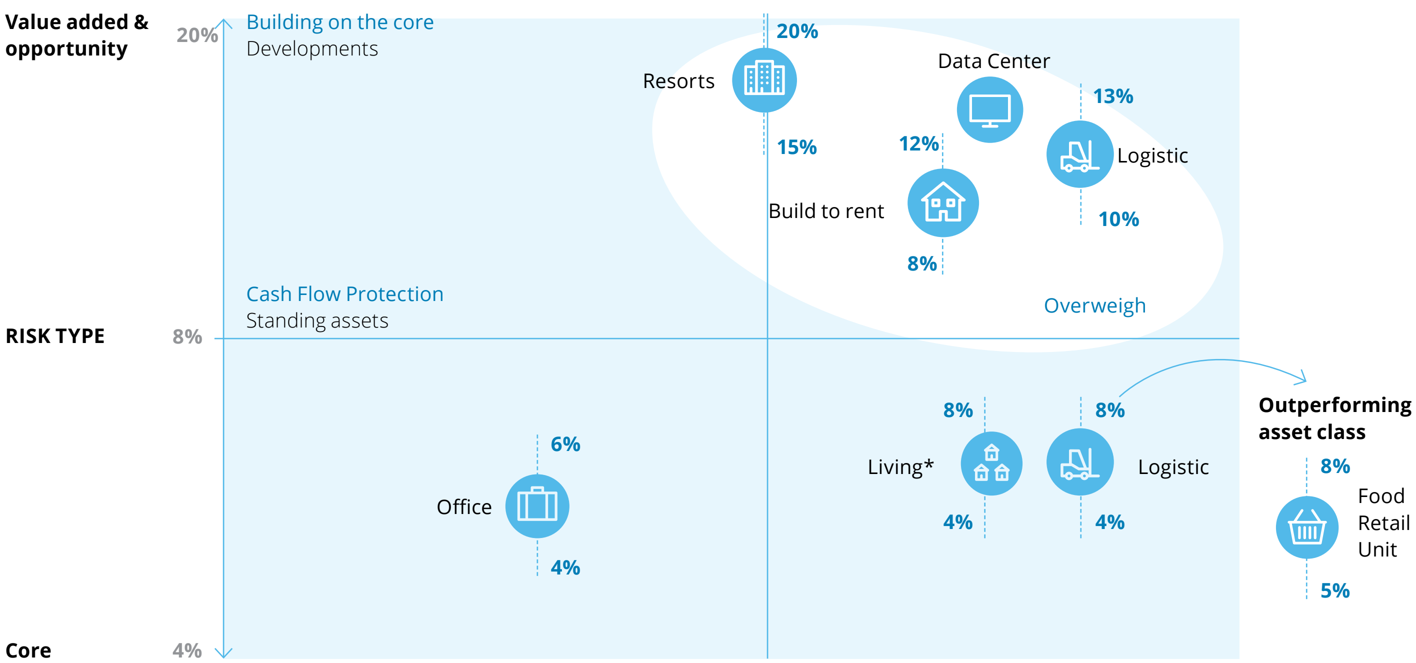
In this environment, investors are following two different strategies:

a. **Cash Flow Protection:** Seeking secure cash flows to hedge inflation, mainly in living, logistics, food retail and prime offices.

b. **Building on the core:** Developing and repositioning assets to benefit from the supply and demand imbalance.

The value-add strategies look more challenging and will probably be in more of a stand-by situation in anticipation of consolidation of the economic recovery.

We estimate that, in this low interest rate environment, transactions will occur due to need for rotation of value-add investors that entered the market between 2017 and 2019 and long-term investors' search for yielding assets (pensions, sovereign funds, core funds).



Facing Challenges Head-on

The speed of vaccination programmes is our toughest short-term challenge. Immunity will be a turning point in the leisure and travel markets, driving a swift recovery after the eighteen months of downturn and crisis.

The recovery will mitigate the risk of major and long-lasting impacts on labour markets. A quick recovery in employment rates linked to gradual economic openness will unlock unprecedented levels of growth, resulting in a partial recovery from the impact of the last year.

Real estate development is always one of the levers for economic recovery.

Economic Boosters

The changes we have experienced in our way of living, together with the need to upgrade and constantly adapt cities to meet the demands of modern society, will give rise to significant activity in terms of the design and planning of new major developments. Urban regeneration and transformation through projects of this kind will attract significant market investment. Examples of urban regeneration are 22@ in Barcelona and the Madrid Nuevo Norte, Renazca, Méndez Álvaro and City Airport projects in Madrid.

In addition, ESG will be at the forefront of investment criteria. Urban transformation will be necessarily and clearly led by these principles. Additional capex investments will also be more frequent in order to perform upgrades to meet these standards.

Alongside private investment, the Next Generation EU programme will boost investments to achieve these and other goals. Public-private partnerships will become one of the keys to increasing development activity in certain areas, having already commenced affordable housing programmes in Madrid (in both the region and city).

Above and beyond all trends and challenges, we will find sustainability. The need to create a better world means that ESG is already one of the key investment drivers in all underwritings. 2021 is a challenging year but, without a doubt, the future is here.

Recovery-driven demand is challenging inflation, and short-term increases should be expected. Economic growth backed by liquidity programmes could be threatened by price expansion containment measures, with the subsequent effects on interest and yields. We are facing a stable outlook for the moment, but real estate markets will always be vigilant in this regard.

Affordable housing will be highly visible in both public and private agendas. This is already an issue that must be tackled, combining market trends, investment appetite and requirements, and public policies. The shortage of affordable housing (over one million units) is boosting build to rent activity in the Spanish market.

Above and beyond all trends and challenges, we will find sustainability. The need to create a better world means that ESG is already one of the key investment drivers in all underwritings. 2021 is a challenging year but, without a doubt, the future is here.

ESG DATA MANAGEMENT IN THE REAL ESTATE FUND INDUSTRY

A VIEW ON TECHNOLOGY SOLUTIONS

Arnaud Bon
Partner – Consulting
IM & PERE

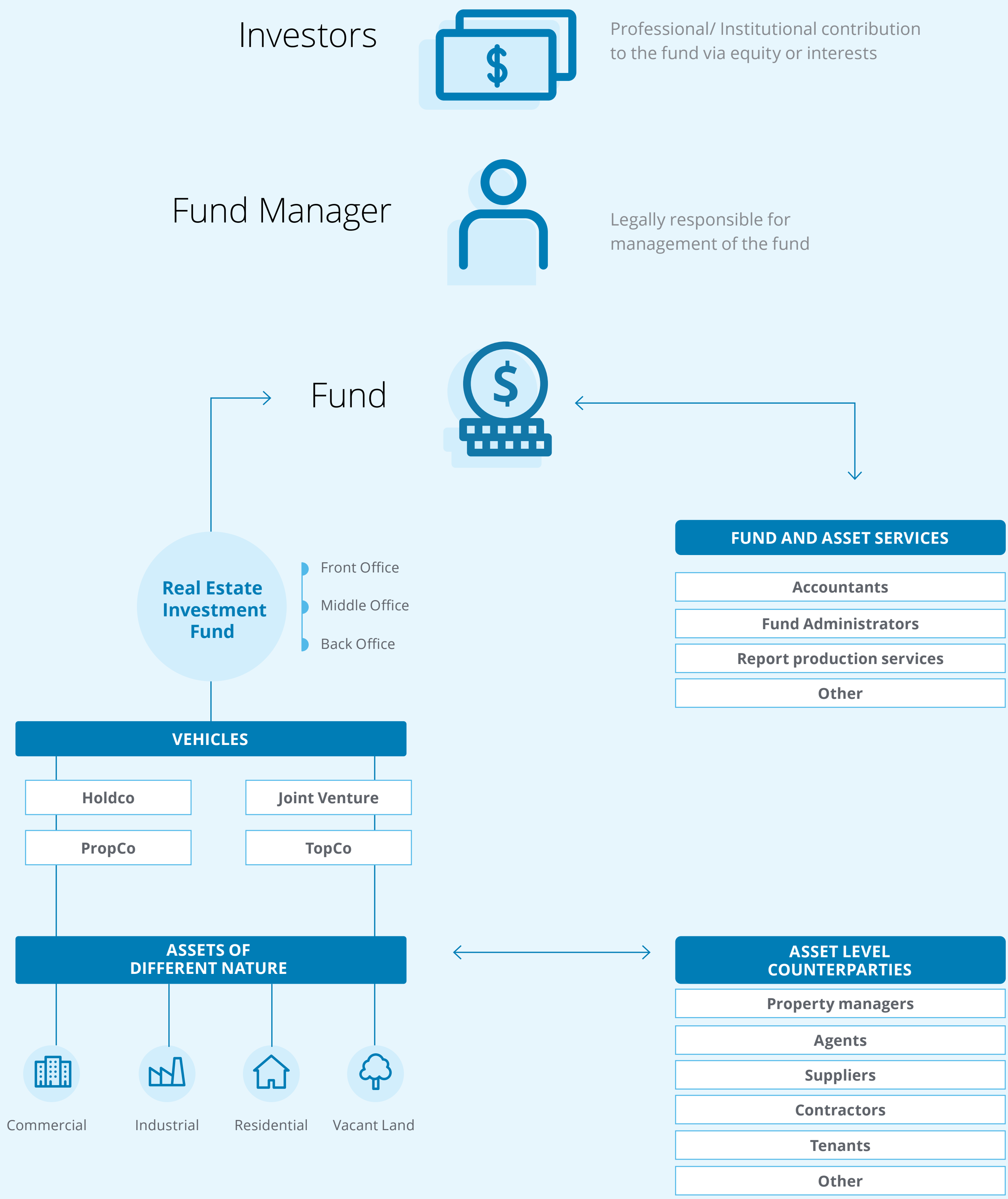
Thibault Chollet
Partner – Consulting
IM & PERE

Nicolas Griedlich
Partner - Artificial
Intelligence & Data

Deloitte Luxembourg

Emerging ESG challenges are on priority action lists across the Real Estate sector. This highlights the importance of Data Management as an ESG priority for Fund Managers.

Figure 1: Real Estate Fund Industry Layers



CURRENT SITUATION

Why Data Management should be a key topic on Fund Managers' Agendas

Data management is becoming a hot topic in the Real Estate Fund industry. This is driven by a higher overall interest in ESG topics, a changing regulatory landscape and subsequent increased demand from investors and regulators for disclosure of sustainability metrics.

Fund Managers should focus on aligning data management practices to address challenges stemming from the complex nature of Real Estate investment funds and the limited maturity of current data management practices in order to address the increasing demand for ESG reporting. Technology has a role to play in assisting Fund Managers in this complex task, with more and more solutions entering the market and existing solutions adapting their product offerings to align with the changing requirements.

In comparison with other alternative investment strategies such as Private Equity, which has leaner structures, Real Estate investment funds are more complex. These funds have various layers, jurisdictions and players to be considered, from Environmental, Social and Governance ("ESG") data retrieval to ESG data reporting, as represented in Figure 1. All of these various assets, players and vehicles reside in different jurisdictions and are subject to different regulations and standards.

This layering and diversity accentuate the challenges faced by Fund Managers, who are required to report on ESG factors. Fund Managers are facing challenges at different stages of the data management process, from data collection to data transformation and final data usage in reporting and KPI calculations.

KEY CHALLENGES

What is adding complexity in the RE Fund industry?

Data collection

The importance of high-quality data collection is not a new issue, since data collection is essentially the foundation supporting all activities that follow it. Within the Real Estate Fund industry, one difficulty for ESG data collection arises from the **variety of asset types.** Depending on the type of asset, there will be different levels of automation for collecting and reporting the data. For example, offices might be equipped with the Internet of Things (IoT) to monitor data such as energy consumption. Integrated with facility or building management software, this will enable automated measurement of structured ESG factors, especially environmental ones. On the other hand, other types of assets like vacant land (e.g. forests) will be managed by other software systems that may not be able to leverage the same level of technology to collect and centralise high-frequency ESG data. It is clear that the asset type will impact data collection, which can lead to unbalanced information between different asset classes.

The **level of granularity** of the data required to compute ESG Key Performance Indicators (KPIs) brings about additional challenges. For example, it will be more complex to collect data at unit level and for every single tenant than at asset level without considering the tenants. Data definition standards, like unit measurement formulas, will also require special attention.

A recent Deloitte study shows that of the data collected and disclosed by Fund Managers, 45% are environmental data, 37% social data and 18% governance data. This existing gap between E, S and G reporting highlights another data collection challenge stemming from the **type of data** used for reporting the different factors. For example, Environmental data such as energy consumption are quantitative and measurable at a very granular level, making them easier to capture. On the contrary, Social and Governance factors, e.g. freedom of association or exclusion principles, will be more complex to collect and monitor, as they represent more qualitative data types.

Homogeneity of data definition and access is impacted by the country of origin and jurisdiction of the fund assets, related counterparties and vehicles. This affects the data collection process, as differences and discrepancies between countries regarding disclosure requirements, language barriers, regulations (e.g. authorisation to access and use data) and data security can restrict information access and prevent smooth information flows. This is especially true when personal data such as tenant-related information is required for ESG reporting.

It is crucial for Fund Managers to overcome these challenges. One step in the right direction would be to clearly define the data to be collected and align operations with the tools, templates and technologies that can support them. This will help clarify and ease the process for data collection to build a strong foundation for final ESG and general reporting. Data standardisation is clearly a challenge of the RE IM industry. It remains to be seen whether the recent International Real Estate Data Exchange Council ("IREDEC") initiative will manage to harmonise data exchange standards – and therefore collection – by placing under the same umbrella the five leading international data standards organizations, namely, FIDJI (France), GIF (Germany), INREV (Europe), OSCRE International (UK, North America) and REDEX (Netherlands).

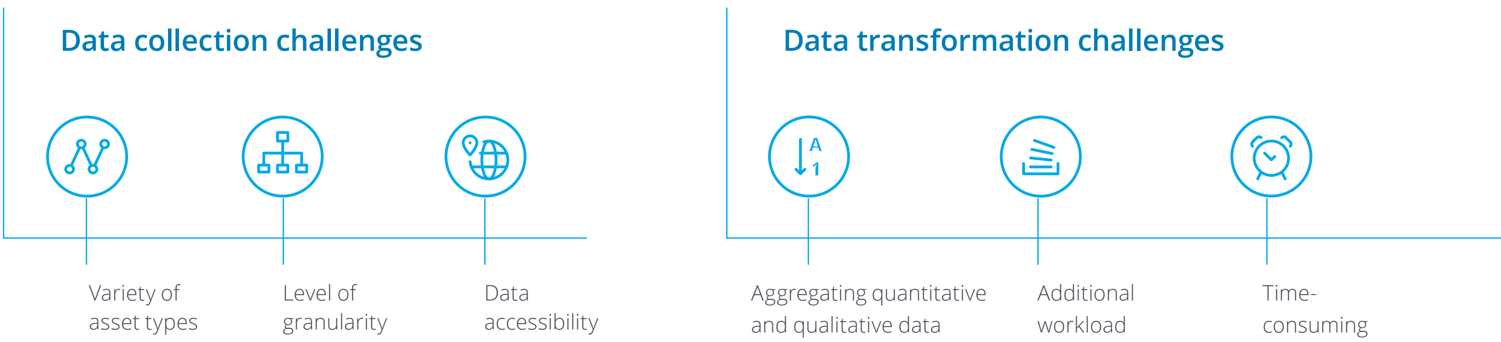
This will also be a key step to feeding quality data into the next phase of data transformation, where data harmonisation and aggregation bring about new challenges.

Data transformation

Once Fund Managers are able to collect and retrieve data from all the relevant layers of the Real Estate fund, they will face more challenges with regard to transformation, aggregation and harmonisation, taking into account all forms of data manipulation that must be performed before the data is ready to be reported, consumed and used for decision making.

From a general point of view, **aggregating qualitative and quantitative data** can give rise to complexities. ESG data are mostly

Figure 2: Key DM challenges and solutions



non-financial data and in some cases (especially for social and governance) will be more qualitative than quantitative. This means that the data would therefore be more **difficult to aggregate.** For example, data on indicators such as transparency and competitive behaviour for assessing general compliance with the law (e.g. corruption, bribery and anti-competitive conduct) are challenging to identify and aggregate as purely qualitative.

In addition, the different calculation methodologies, metrics and indicators used across jurisdictions imply an **additional workload** and an additional step of transformation to align the raw data from different assets, and possibly different countries, to one single data model. The ESG KPI derivation process can be a **time-consuming** and tedious task, adding yet another data set to transform for Fund Managers who already have their hands full with aligning, controlling and validating data for other monitoring and reporting purposes.

In order to compute ESG KPIs consistently, Fund Managers will have to deal with data captured at **different granularity** levels across the fund portfolio. Without the same unit, the same frequency, the same level and the same format, Fund managers will not be able to merge and compare data easily. A recent Deloitte internal analysis indicates that data collection is not providing standard granularity levels, which can lead to high complexity for Fund Managers in aligning KPIs. For example, to compute CO_2 emissions, over 25 different reported data points have been identified, using different units, calculation methodologies and scopes. This demonstrates that if data collection is not aligned to bring about more standardised inputs, data harmonisation will remain tedious.

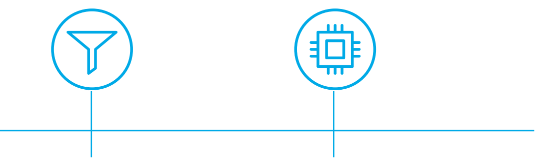
Lastly, it will be important for Fund Managers to enable tracking of **different data sources and lineage.** By identifying data origin, the data transformation process and data evolution, we can enhance data visibility and the ability to trace potential errors and disruption in the data transformation process.

Data usage

Once the data has been collected and aggregated, data consumption brings the data to its end use. At this point, it will be possible to report various ESG metrics relevant to the Real Estate Fund industry. The data will be ready to inform decision making, allow monitoring and be reported. However, appropriate data consumption does not come without certain obstacles.

When it comes to data integration at portfolio and fund level, difficulties regarding the granularity of data and **reporting templates** will arise. This will be aggravated by the complex layering of the investment structure and **multiple stakeholders involved** at each layer, which will impact ESG reporting through the various technology platforms used to collect, record and monitor data. It is crucial for Fund Managers to define the KPIs which they need to assess their ESG performance in comparison with the rest of the market or to respond to regulatory requirements (e.g. Sustainable Finance Disclosure Regulation -SFDR).

Fund Managers should ensure that the final output allows **flexibility and drill-down capabilities.** This would allow a view of ESG KPIs at the different levels of the Real Estate Investment Fund layers. In order to identify the impact/weight that each asset has at portfolio level, certain investors might request that the ESG ratings of a RE fund include a list of the performance of each asset per E, S and G criteria rather than a mere list of asset ratings. The capacity to track E, S and G performances at asset level will support Fund Managers and investors in their decision making (e.g. improving the insulation of a building) to reach their sustainability goals. This emphasizes the importance of being able to trace the raw factors of aggregated data points and provide users with the possibility of navigating up and down the investment structure at asset, portfolio and fund level.



Granularity (level, format, frequency...)

Data sources and lineage

Data usage challenges

Reporting templates

Multiple stakeholders involved

Flexibility and drill-down capabilities

SOLUTIONS

How can technology help you with Data Management?

In an era in which technology plays an increasingly prominent role in our day-to-day surroundings, Fund Managers can rely on different technology solutions to help address Real Estate ESG Data Management challenges.

Existing technology solutions can help Fund Managers address the different challenges separately, but there are also broader solutions that will support them throughout the Data Management chain, from data collection to data visualisation.

Technology integration for ESG Data Management is not a standard, single solution. Core system providers have the ability to develop and add ESG packages to their current program.

HOT TECHNOLOGY SOLUTIONS

IN ESG DATA MANAGEMENT

Cloud-based data collection software

The use of Cloud technologies can accelerate the adoption of new services in various ways, including scalability, agility and increased access. Cloud Services are easy to deploy and would not require additional infrastructure set-up. This makes certain cloud-based data collection services a very flexible solution that can be adapted according to companies' needs.

Within the Real Estate Fund industry, cloud-based software ("Software as a Service" or "SaaS") is emerging and targeting asset operators. There are solutions specifically designed to collect Real Estate ESG data at source. To overcome certain privacy concerns and increase data accessibility, some solution providers offer means of contacting all tenants directly and obtaining their agreement to launch automated data collection from the energy providers. Cloud-based automated data collection will allow Asset Managers easy access to a rich and automatically collected data pool on a centralised platform.

Furthermore, these cloud solutions **provide certain templates** specifically designed for data capture of Real Estate ESG information. There are also basic **quality controls** and **normalisation of the data** which come embedded, based on a predefined data model. This is done through algorithms which automate data quality checks and assess missing data to ensure that metrics are reliable. Additionally, the **data can be automatically realigned** to link disparate pieces of data together.

It is clear that these cloud-based solutions can provide assistance to overcome many data collection and transformation challenges in order to achieve more reliable data usage. Cloud-based analytical tools can also contribute to data consumption by establishing KPIs that give Fund Managers insight on the performance of their assets and help them make more informed decisions.

PropTech

Beyond cloud-based data collection software solutions that can also be qualified as PropTechs, PropTech, in more global terms, refers to all applications of new technologies developed specifically for the Real Estate industry. This can typically include solutions based on Artificial Intelligence (AI), big data or IoT. For instance, these solutions can involve data from a wide range of public sources.

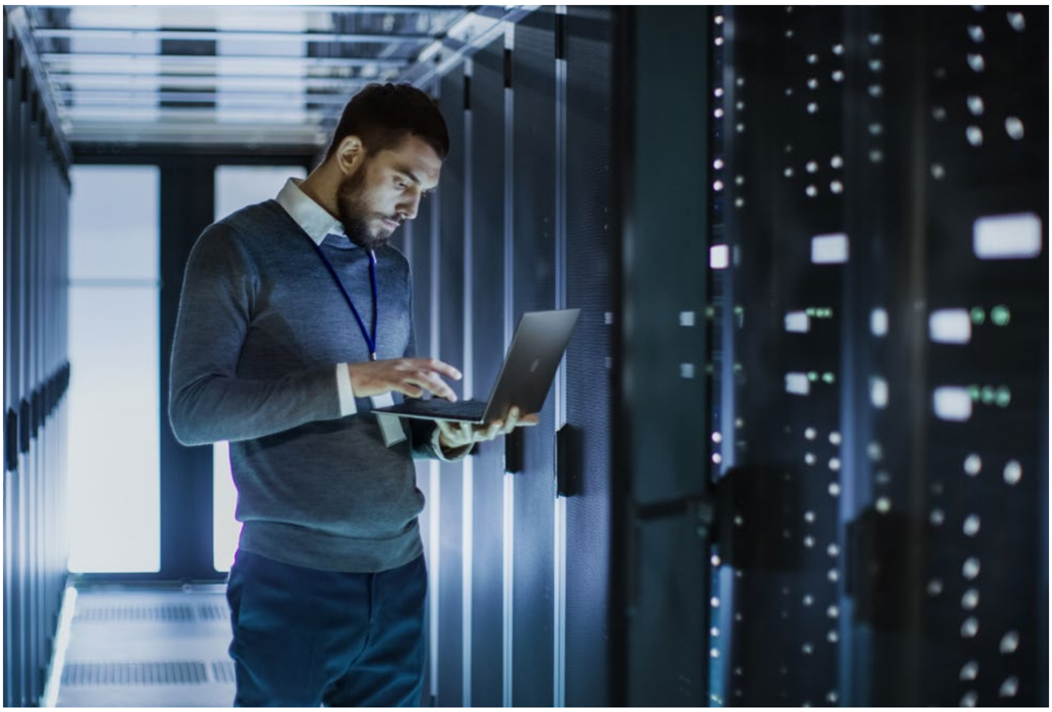
Over 400 PropTech companies are listed in the 2020 PropTech Map, showing that Real Estate technology solutions are booming. These solutions are classified into five categories: Invest and finance, building operations, asset management, market and smart city solutions.

PropTechs aim to support managers, property owners and landlords to manage real assets with more flexibility and accuracy, e.g. by offering facial recognition to help increase the security of a building or offering help with energy consumption data capture. Having access to these types of data will help Fund Managers **comply with regulatory reporting requirements.**

As PropTechs are experts in the Real Estate sector, they are best suited to provide tailor-made solutions that will fit and answer industry-specific needs. PropTechs can therefore be key when it comes to smooth data management processes, as the offerings ease and **automate monitoring and reporting processes** for all Real Estate assets.

Core Real Estate Platform

Core real estate platform providers that are able to offer comprehensive solutions covering investor, fund, investment and property management are also looking at extending their solutions with specific products or modules that specifically address ESG data management and reporting.



RE IM Portfolio Monitoring Solutions

There are also solutions that address broader needs, such as portfolio monitoring tools which offer ESG data management modules. These assist ESG data collection and reporting by proposing standard data sets and dashboards at portfolio level. For example, some templates offer automated **regulatory reports** that will comply with SASB, GRESB or even SFDR requirements. This **saves time** and allows Fund Managers to keep abreast of potential ESG regulatory changes.

This reporting function can be extended through **customisation.** Indeed, if access to different levels of data is needed (from raw data to portfolio performance), certain IT solutions offer **interactive drill-down** capabilities. By tracking the data, different levels of KPIs can be accessed, allowing Fund Managers to customise reports to suit their specific ESG needs.

Additionally, for Real Estate assets, tech solutions are able to build certain **risk reports** that assess the exposure of assets to natural disasters and climate change. These reports can provide Asset Managers with an informed view on their assets from an ESG risk perspective. For example, risk reports would evaluate the exposure of a portfolio to rising sea levels, as research has indicated that Real Estate assets exposed to this risk are selling below the price of similar non-exposed assets.

Based on the support of these front-end reporting tools, certain technology providers specialised in ESG monitoring also propose working on an ESG plan to reduce portfolio impacts. These Providers define a **sustainable roadmap** with specific objectives, focusing on potential areas for improvement. They then monitor these objectives over time. In addition, analytics tools can complete those front-end solutions. For instance, some service providers offer the possibility of benchmarking and indexing companies based on their ESG performance in comparison with their peers.

FUTURE OPPORTUNITIES

How will technology be integrated in more standard offers?

Beyond technology solutions, we have also observed that asset servicers have begun to offer ESG data management services. In these emerging offerings, ranging from cloud-based data collection software to PropTech, RE IM Portfolio Monitoring Solutions and ESG-dedicated products of the Core Real Estate Platform, the challenge will be to choose the right solution that fits the strategic vision as well as the company's infrastructure. With some solutions focusing on core ESG data management processes and other offerings including additional wider usage and options, Real Estate Fund Managers should evaluate the tech solutions tailored to their needs and objectives.

However, technology integration for ESG Data Management is not a standard, single solution. Core system providers (e.g. software vendors in the Real Estate industry) have the ability to develop and add ESG packages to their current program. Fund Managers can also delegate their ESG data management to external and independent third-party service providers.

Technology solutions and data management services are still emerging and it is likely that the market will develop and propose further innovative solutions and services in the coming years. This will go hand-in-hand with the changing ESG reporting landscape, as technology providers and asset servicers seize opportunities to respond to growing demand from investors and Fund Managers for extended ESG reporting and further scrutiny on general transparency in the Real Estate Investment Management industry.

POST-PANDEMIC INVESTMENT MANAGEMENT TRENDS

Interview with **Cristina Garcia-Peri**
Senior Partner at Azora

CRISTINA GARCIA-PERI

SENIOR PARTNER AT AZORA

Cristina García-Peri is Head of Strategy and Business Development for Grupo Azora, a leading asset manager focused on real assets and founded in Spain 17 years ago with over €8,000 million of assets under management since its inception. In her role, Cristina´s main focus is the definition of Azora´s strategic choices with regards to assets classes and geographies, its growth as a firm and the development of Azora´s relationship with key global investors. Cristina is also a member of the European INREV ESG Committee, Independent Board Director at Bankinter and Chairwoman of the Board of Trustees of the NGO Plan International.

Prior to joining the Azora Group in 2011, she worked for 16 years in the investment-banking sector at both Merrill Lynch (2 years) and JP Morgan (14 years), where she held various positions in the area of Mergers and Acquisitions for 4 years and for 10 years as Managing Director responsible for Corporate Equity Derivatives for Europe, the Middle East and Africa. She started her career in McKinsey in Spain.

Cristina has a degree summa cum laude in economic and business sciences from ICADE (Spain) and an MBA from Harvard Business School.

Azora: a success story from inception. What do you think the key success factors have been? Keys to generating alpha.

Azora came into being as an alpha investor, trying to see what others didn't and, since its inception, it has managed to pioneer institutional investment in a number of different asset classes. For example, rented residential, which is one of the most sought-after sectors today, was the first strategy followed by Azora back in 2004, when it was seen as an "ugly duckling" in comparison with the residential for sale market. Another prime example is the case of European hotel resorts, which we've invested in since 2014, first through Hispania (a listed REIT sponsored by Azora) and more recently through our new pan-European hospitality fund (Azora European Hotel & Lodging, F.C.R.) which we expect to close before the summer, having raised EUR 680 m at first close in June 2020.

The reason Azora took this path, rather than follow the mainstream sectors, is because we focus on returns rather than size. Our obsession is to never lose money for our investors, and we've been successful in that aim in every vehicle we've sponsored. At Azora, we'd much rather let a deal pass by if we're not 100% convinced, rather than do a bad deal, and this has enabled us to deliver high returns and substantial alpha across very different real estate cycles.

In fact, we don't measure ourselves against the market, but instead against the risk we're taking. Often we find that markets and specific sub-segments don't appropriately compensate investors for the risks being taken and this tends to happen in overcrowded, over-fashionable sectors. That's why focusing on what others don't see has allowed Azora to offer better absolute returns and much better risk-adjusted returns than other managers.

We believe that you can't be the best at everything all the time, and our investors know this. Therefore, when we select our strategies they know that there is a lot of research and thinking behind our choices and they trust us.

What are the new post-pandemic investment management trends? What lessons have you learnt?

I'd say the idea the pandemic has reinforced in my mind is that it is important to correctly identify what's a fad and what's a megatrend. In this regard, in order for a megatrend to be "real" it needs to fulfil a societal need, solve a high-priority concern or deliver on an existing need in a much better and superior way than was previously the case. It is only when one or all these three conditions are met that megatrends prevail, even in the face of major, unexpected shocks such as covid-19.

To a very large extent, covid-19 has mostly accelerated trends that were already present, rather than changing them (and this has been the case for both segments with tailwinds and those with headwinds).

E-commerce growth has accelerated massively as people have been forced to adopt online shopping and have realised how convenient it can be; office space that fosters innovation and attracts talent has become a necessity rather than "nice to have" for all companies; and the role that companies can play in their communities has become evident with the tremendous support that companies of all sectors have provided during the pandemic and which has made employees, customers and neighbours proud to be associated with those companies.

The other main lesson that the pandemic has taught real estate markets is that neither investors nor managers can isolate themselves from the underlying operations of the real estate bricks. A shock like covid has tested many fixed leases and resulted in significant renegotiations and grace periods. For operators, this has proved that fixed leases are liabilities and should be treated as such and, for many investors, it has been a realisation that fixed leases are not necessarily bulletproof. This doesn't mark the death of fixed leases, as they will continue to work well in certain real estate assets, but it should mark a shift away from them in those asset classes which have a high underlying operating component. In those segments I believe we will see a gradual shift towards risk sharing and, consequently, upside sharing contracts between operators and landlords.

What will the winning strategies in this new environment be?

At Azora we look for long-term value drivers.

In many cases, this long-term value comes as a result of sustainable rental growth which, in turn, stems from a favourable supply/demand imbalance. Changes in behavioural, social and demographic trends are some of the long-term drivers we look for. In this space, we are very focused on population ageing, as baby-boomers are going to be the largest, wealthiest and healthiest silver generation we've ever had. They're going to require tailored residential, healthcare, hospitality and leisure solutions, none of which exist today in sufficient quality or scale.

Another source of value will be in those sectors where significant capex can be deployed in an accretive way. At Azora we are particularly focused on the opportunity to redevelop office space in gateway cities across Europe since office space, especially in some of the best locations, has become obsolete and unsuitable for fulfilling the needs of companies and employees.

In certain segments, there are multiple value drivers which are concurrently creating great investment opportunities. Three sectors we focus on and firmly believe in are rented residential, last mile logistics and leisure hospitality.

At Azora we continue to see rented residential as a very attractive opportunity. Younger generations, either by choice or by need, are delaying the age at which they purchase their first home and, consequently, we're seeing significantly increased demand for rental accommodation, especially in growing cities which are benefiting from increasing urbanisation. These dynamics are generating a very favourable supply-demand balance for investment in rental accommodation across Europe and, at Azora, given our expertise in the asset class, we are laser-focused on this segment.

The second sector in which we see a very attractive opportunity is last-touch logistics, where there is a major need to build and refurbish warehouse space, with easy access to large cities to be used to deliver products to the inner city in a fast and efficient way. At Azora we are about to launch the first Iberian pure-play fund focused on the acquisition and development of last-touch logistics assets, and we believe that this segment will become consolidated as a core investment in the near future.

Last but certainly not least, we continue to believe in leisure and tourism. Millennials travel six times more than baby boomers and as the share economy grows, people have increasingly more income to spend in leisure activities. Leisure is being embedded across all asset classes: in residential, in the office sector and in retail. Covid has hit leisure activities very hard due to the limitation in mobility, but we are convinced it will come back intact and even strengthen. Our focus on tourism driven hotels that started in 2014 continues intact and today Azora manages the largest Pan-European hospitality focused fund currently in the market with a target of €785 million of capital.

Specialisation or diversification? Asset class, geography, or both?

As I said before, I don't think you can be good at everything all the time. Therefore, at Azora we strongly believe in specialisation, although we give it a twist: we touch on all the themes we strongly believe in, but have specialised teams focused on each of them. We believe that this allows us to grow whilst retaining our essence and expertise in the various segments in which we invest. In essence, we work as a diversified specialist.

With regards to geography and despite the famous adage, I believe that real estate is no longer only about location. Once you have the right location, you need to tailor the bricks to your intended tenant and user and, even afterwards, you'll need to operate it yourself or find the right operator. Layout, services and amenities all play an increasingly important role in the quality and sustainability of such assets.

The assets will no longer be solely about the bricks but about much more than that. They will be about services, branding and customer experience, which are all driven by the megatrends that we have discussed already.

Firstly, you need to identify a real megatrend; secondly, you need to identify the best way to benefit from it as a real estate investor and then you decide where to start investing in the theme.

As a manager, you may start in one country, but if you've really managed to be a first mover and have a superior product, you'll be able to roll it out across other countries. As an investor, if you believe in the investment theme you'll want to roll it out across different countries and, even if investors choose different managers in each country, they'll be looking to deploy capital along the same theme.

Pioneering trends and building strong execution capabilities, including a thorough understanding of all operating aspects, is a winning combination required to be able to deliver alpha across geographical areas.

How do you think technology is changing the real estate investment industry?

Technology is disrupting many industries but in real estate I believe it's acting more as an enabler and source of opportunities than as a killer of incumbents.

Technology is forcing both managers and investors to create value in different ways. It's democratising markets by making information available so widely that you need to create your competitive advantage in a different way. So, knowing a market, its rent levels, the land available, etc. is no longer a differentiating factor.

At the same time, technology is helping the industry become more efficient and profitable. Modular construction, for example, is not only cheaper, but is also faster and, therefore, it reduces the development risk by shortening the time between deciding to invest and build and being able to attract tenants. The Internet of things allows tenants to reduce their utility costs and be more environmentally friendly; also, in the case of rented residential, technology makes it possible to offer a much better tenant experience, resulting in higher revenue for landlords.

In the world of hotels, technology is enabling the analysis and management of all the data collected on guests, and it allows operators and owners to target their offering, better adapt the experience for different guests and manage overbookings much more efficiently.

I'm convinced that if we, the industry incumbents, manage to embrace new technologies, we'll be able to benefit from a tremendous opportunity to create new business models, enhance customer experience and, ultimately, increase returns for our investors.

At Azora we've taken the view that we need to be at the forefront of the latest prop-tech trends, and we've managed to do this through a combination of in-house work and relationships with leading third parties in the space. For example, we invested in Fifth Wall's first European fund and are using the contacts and relationships provided by Fifth Wall to identify new tools for our day-to-day activities.

ESG is a must. How are E, S and G changing investment criteria? Where and how should investments be made?

ESG is having a tremendous impact on our industry, which is to be expected given that real estate is among the most impactful industries, particularly across E and S. Nobody in the industry can ignore ESG factors and regulations, which are a source of added responsibility, but also new opportunities.

Real assets impact the environment through the energy they consume while they are being built and operated. They also impact the communities in which they are located, because they dictate how people move, work, play and live. On the investment side, we're responsible for managing very large amounts of money from private and institutional investors who need full transparency, and this creates a strong fiduciary responsibility for all of us in the industry. All of this converges and explains the clear need for the real estate industry to remain sharply focused on ESG in terms of both players and the value chain.

This has given rise to an increased focus throughout our industry on how to improve across all E, S and G matters and this is very welcome. In addition, tenants, occupants and their clients are increasingly focused on all of these matters and this is only expected to grow, which means that when you're thinking of an asset that you might hold for 5, 10 or even 20 years, you need to ensure that it'll continue to be fit for purpose and, if it won't, you must clearly understand how much it'll cost to bring it to that condition. Along these lines, when we think of sustainability, we must also remember that a major component of being sustainable is economic sustainability and, whilst we need to progress more swiftly in reaching ambitious ESG targets as an industry, we mustn't forget our fiduciary duty to our investors and the need to deliver attractive risk-adjusted returns for them.

At Azora we've been focused on ESG for years, but over the past 2 to 3 years we've seen a clear shift in the importance of ESG factors for investors and tenants and, in view of this, we've adapted our processes and the way in which we capitalise on megatrends. A good example is our last-touch logistics strategy, through which we are focusing on existing assets with good ESG metrics but, importantly, are deploying substantial capital into the development of state-of-the-art warehouses, which have top ESG metrics and are in the best locations. We believe that this provides a de-risked proposition in a segment with a large amount of dated and sub-quality products.

In this market context, what are the main challenges in investment management?

As managers, we are facing an industry polarisation not too dissimilar to what's already happened in the world of liquid asset management strategies.

At one side of the spectrum you have very core strategies which deliver increasingly tight returns but attract substantial capital and will continue to do so, particularly while interest rates remain so low. Many investors are getting involved in this type of investment as their bond portfolios mature and they face negligeable or negative returns should they re-invest in fixed income. Because these assets generate low absolute returns and require little active management, the level of fees generated for managers is low and it's only an attractive business if the amounts under management are sufficiently large.

At the other end of the investment spectrum, investors need to generate sufficient returns to compensate for the very low returns from the safer part of their portfolio and are expecting managers to deliver on new strategies and ideas, which requires a different skill set than many managers used to have.

As managers, we are facing an industry polarisation not too dissimilar to what's already happened in the world of liquid asset management strategies.

Develop-to-core strategies, among the most popular with investors looking to capture higher returns, require managers to have in-house technical and project management skills. Fixed and variable contracts require managers to have specialist teams that understand the underlying operations of the assets they invest in. Short-term rentals, flexible rentals and management contracts all require strong in-house asset management skills.

Managers who are unable to deliver on both sides of the spectrum will struggle to compete for institutional capital, because if they can't offer good deal flow on the core part of the investment spectrum they run the risk of becoming irrelevant in the eyes of their investors. However, if they are unable to deliver on the higher value-add strategies, they will miss out on the most profitable part of the business and will be left to compete in the area of fees, in a market where differentiation will be increasingly difficult.

Luckily for Azora, we've implemented this dual approach since our creation, 18 years ago. We've invested in rented residential from the very beginning (and it continues to be our largest vertical) but have also made a name for ourselves as active, value-add managers across a number of segments, including hospitality, student housing, offices and logistics. In addition, we've always focused on operationally intense segments and the market has also evolved towards increasing operational exposure, which plays to our strengths.

Azora: what next? What is the most exciting thing for you?

At Azora we're entering a phase of high and exciting growth because the market is moving towards areas that should allow Azora to deliver strong alpha.

The increasing investor appetite for operating assets and intensive management strategies plays right to our strengths. We've been building our in-house capabilities to be able to understand, monitor, control and selectively take on the operations of the real estate assets we invest in. The trend towards variable lease contracts and flexible and shorter contracts with tenants also favours our larger-than-average asset management teams, as well as our granularity and reach. And theme investing is what we have been doing almost exclusively for 18 years now.

In addition to our ability to deliver and execute high-return strategies, we also want to continue identifying strong megatrends and new and better ways to play them. We will continue to look for sustainable value drivers and good opportunities.

In times of unprecedented uncertainty and volatility which have seen the de-rating of some assets and the strong appreciation of others, it is ever more important to be disciplined and thorough in investment underwriting, as well as in understanding the long-term prospects of each asset and sector.

Not all assets that have lost significant value will be worth owning and, likewise, not all sectors/locations where cap rates have compressed massively are too expensive. We at Azora will strive to continue making the right calls and helping our investors generate sustainable superior risk-adjusted returns.

REAL ESTATE PREDICTIONS

FROM LOCATION, LOCATION, LOCATION TO LOCATION, INSIGHTS AND EXPERIENCE

Wilfrid Donkers
Director Financial Advisory
Deloitte

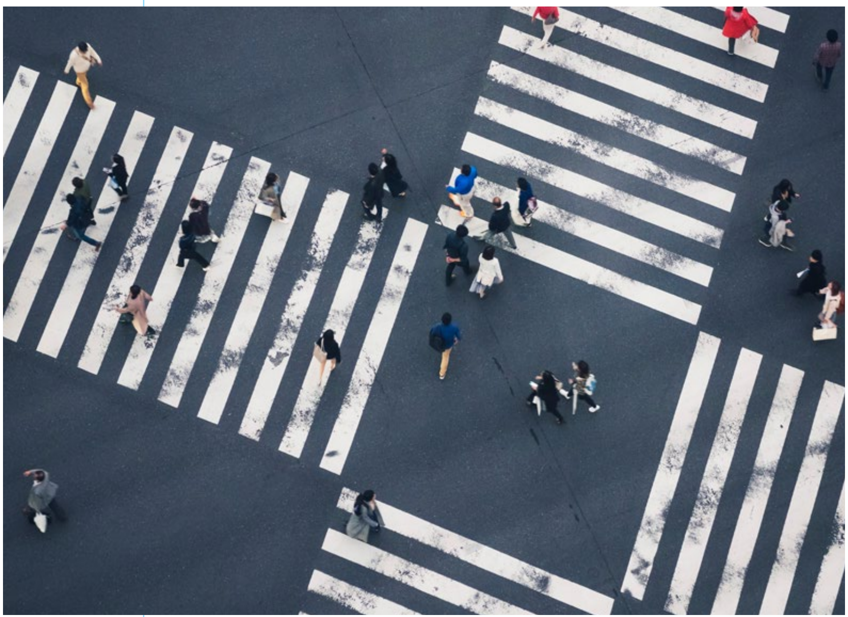
The COVID-19 pandemic has accelerated a number of trends in the world of real estate. What is the value of real estate in an increasingly digital world? And how can we prepare for an even more data-based, digital – and preferably sustainable – future?

The Deloitte Real Estate Predictions analyse the trends that are shaping the industry this year. Read our predictions and find out more about the future of work, sustainability, digitalisation and innovation in the real estate sector.

5G as an enabler for new and smarter ways of working

2020 has been a tumultuous year full of seismic shifts in everyday norms. In a year marked by greater public scrutiny of embedded social structures and behaviours, it is easy to forget that another impactful infrastructure change is quietly taking place. The next wave of digital disruption is on course and 5G will be the "glue" that will keep all of our devices, buildings and cities together, enabling new and smarter ways of working.

2020 may have slowed down the 5G technology revolution, but it has also further highlighted the need for improved connectivity, greater network speeds, reduced latency and wider bandwidth capacity to support digital transformation. Although there are challenges in implementing 5G and greater speeds will doubtlessly soon exceed it, the economic and social benefits will outweigh the costs. The real estate sector has the "bandwidth" to reap some of the greatest benefits from its implementation.



Gaining a competitive edge in real estate with AI-driven geospatial analytics

Data analysis can significantly improve decision making in real estate, from valuation, the sale/purchase of properties and contracting to negotiations, risk analysis and planning. 2021 will kick-start an era in which enhanced AI-driven location analytics for real estate will reach maturity and become suitable for the masses. They will reach a level of maturity that will allow them to be adopted by enough users to make a real impact in the market. This will unleash their full potential for the first time. For those who have invested early, time- and cost-intensive data gathering and cleansing efforts will eventually become a thing of the past.

Gaming the commercial real estate talent conundrum

COVID-19 has disrupted human connections, which are at the heart of the commercial real estate (CRE) business. Last year, leaders in all industries were challenged to digitalise many aspects of work while shifting and engaging employees in a virtualised environment. Companies had to provide the infrastructure that would enable employees to work effectively from home, while prioritising health and safety. Looking ahead, what does this tell us about the future of work?

The need to quickly change and adapt has never been so critical for the CRE industry. Right-skilled talent can play an important role in determining whether a company stays ahead of the competition or plays catch-up as the business environment evolves over time. CRE leaders should consider redesigning talent by rethinking and adapting the way their employees work, embedding technology into their decision making, and redefining skills, talent processes and practices to help them prepare for the future world of work.

Innovation & construction in the shadow of global crisis

The COVID-19 crisis has enabled us to reflect on another well-known crisis that has the potential of exponentially harming humanity to a point of no return - global warming. If we want to avoid the many consequences of global warming, we should accelerate our efforts, starting now. How can digitalisation and innovation enable the industry to prepare for a sustainable future?

Robotics & Automation as well as Management Tools for the Construction Site are two technology trends that will drive the real estate construction industry forward. Innovation has previously led real estate to new heights, and we must be open, receptive and critical (when necessary) when considering technology that could further improve the industry. COVID-19 will probably end as other previous pandemics have done. However, global warming is quite another story. When hits, it will hit hard, with lasting consequences. Innovation and the implementation of new technologies could be our “vaccine” to help us prepare for the next crisis and enable the real estate construction industry to thrive.

The virtual office for Corporate Real Estate

As the dust settles on a tumultuous year, the one factor that is emerging loud and clear is the groundswell of support for hybrid working to continue into a post-pandemic future. The widespread adoption of remote working in 2020 has greatly shifted the role of the workplace within organisations. All indications point to a future where hybrid working is here to stay, as employees reap the benefits of greater choice in their working week and employers re-examine their real estate requirements. So how do real estate owners respond as the virtual office becomes a key component of working in the "new normal"?

With remote working experience under the belts of nearly every organisation worldwide, the time to embrace change is now. Real estate operators can get ahead of the curve, adapting traditional approaches by reimagining the role of the office and their operating models by keeping employee choice, community and data at the front of their minds. Hybrid working is here to stay, and those that embrace the resulting changes will reap the rewards.

Real Estate-as-a-Service: From "product and space" to "system and service"

Real estate is undergoing a fundamental business model redesign enabled by digitalisation and a growing market for smart buildings. This redesign is important in a (post-) pandemic era when so many businesses are evaluating what their property brings to the company by providing on-demand, customisable and scalable access to space, amenities and services. REaaS combines and cross-leverages capabilities across systems to enable platform-based features and analytics that were previously impossible. This platform unlocks the potential to sell these features and services to end users. This will enable businesses to quantifiably improve their experience, productivity and space usage, and it will help property owners transform from their "product and space" offering to a new value-added and future-proof role as a service provider.

The impact of social commitment on real estate

ESG ("Environmental, Social and Governance") has become an important business consideration all around the world. For instance, real estate investors increasingly focus on sustainability. However, ESG in real estate can be so much more impactful. How can it become an important value driver?

ESG-related regulations are expected to increase in detail. Investors will likely be impacted by ESG-related legal and regulatory disclosures, for which proper advice from experts may be needed. Also, there is no doubt that the global real estate market is already aware that ESG principles are key for sustainable investments. In fact, sustainable investment could soon become the standard manner of investing. In order to achieve this, real estate investors should ensure that fund management is aligned with the positive social impact that they seek. At Deloitte we are looking forward to embarking on this journey with our clients to achieve a successful "sustainability-proof" business.

Understanding Private Rented Sector property

One of the megatrends in real estate is the need for rented housing in main capitals, and COVID-19 has accelerated this trend. The reasons behind the increased demand are the rising population, the fall in the average number of people per household, restrictions on financing combined with decreasing savings ratios, and changes in habits. However, there is an insufficient and inadequate stock of rental housing, so a specifically designed product must be developed to match demand and offer new real estate opportunities. Major investors, such as large investment managers, insurance companies and sovereign funds, are already taking advantage of key strategic markets, confirming the megatrend and converting PRS into the main asset class in the future.

Optimising your use of office space and real estate footprint

COVID-19 has accelerated new ways of working, which in turn will impact the use of office space. The glass ceiling of teleworking has been shattered at all organisations. From now on, each corporation is seeking its own standards in terms of work organisation.

The matrix approach is one of the most effective standards. It offers a combination of several factors: the evolution of avocations, the adaptability of resources and skills, and the set-up of places and spaces based on uses and needs. This unprecedented context strongly encourages corporations and their teams to arrive at conclusions regarding motivations for commuting to the office every day. Each employee, visitor or partner will seek an experience through adapted digital tools and facilities, which will allow immersion in a dedicated work ecosystem.

For such a structuring project, the key word is “anticipation”. Deadlines may seem far away, especially the milestone dates for lease maturities, but an optimisation project of this nature, which will impact working methods, requires iterative and collaborative exchanges with all stakeholders. The world has seen a glimpse of the future of work in this COVID-19 era. What does this mean for the real estate industry? Real estate owners and their tenants who want to thrive in the near future know what to do. It’s time to act.

Protecting your identity in the digital world

Protecting (proof of) our identity is extremely important in our society. Particularly in the digital world, identity theft or misuse is a serious risk and interactions and transactions in the digital world have a serious impact for us in the real world. Self-sovereign identity is all about control over our digital identity. Will self-sovereign identity disrupt the way real estate transactions are being executed?

We are without doubt standing on the brink of a completely different type of personal data sharing, driven by inefficiencies and privacy compliance risks in today’s processes. In fact, major steps were taken in the development of self-sovereign identity solutions in 2020. An interesting example of its current application is the sharing of proof of a negative COVID-19 test or vaccination that Deloitte and others are working on. Experiments and pilots with self-sovereign identity solutions in real estate in 2020 have shown to be very promising. We therefore expect that self-sovereign identity solutions will be dominant in real estate transactions within two to three years.

Improvise. Adapt. Overcome. How to cope with the impact of climate change

Climate change has consequences for nature, people and, therefore, also real estate. Mitigation and adaptation are strategies to deal with the potential risks of climate change. What is the impact of climate change strategies on the future of real estate, in terms of markets, planning, construction and renovation?

Strategies for reducing and managing the risks of climate change can be divided into mitigation and adaptation strategies. Mitigation deals with the causes of climate change by reducing emissions. Adaptation is about dealing with the unavoidable physical impacts of climate change, such as heavy rainfall, heat, draught, subsidence and flooding. These potential impacts can occur at different levels and have various consequences. Four different strategies can be applied: returning land to the water, spatial planning, renovation and construction. Each strategy requires a different approach, different partnerships and awareness of possible complications. In this regard, it remains important to always compare short-term solutions with long-term solutions, not just for the benefit of real estate owners, but also for users.

Digitalisation is here to stay - How to achieve an effective digital transformation in real estate

The real estate industry is currently adapting to evolving market conditions, a changing regulatory environment and a fast-growing technological landscape. This is described in detail in our 2019 European Operations and Technology Survey for Real Estate Investment Managers, a survey that was completed by a range of European real estate investment and asset managers. What can we learn from their replies? How can an effective digital transformation be achieved in our industry?

Digitalisation is here to stay, and real estate investment, fund, asset and property managers can either embrace it or risk becoming marginalised within the market. It is a complex issue, but it largely relies on the willingness and ability of people to change rather than pure technology. Organisations that are willing to experiment and be prepared to try, test and fail – and then try something slightly different again – are far more likely to take advantage of the new offerings than those who are cautious, risk-averse and traditional in their outlook. The opportunity offered by digital solutions has the scope to radically change the way real estate professionals work. Therefore, we are entering one of the most exciting times in our industry.

How to support strategic decision making in real estate

Urban planning, asset management and investment decision making require a thorough understanding of the current and future supply-demand dynamics and underlying macroeconomic factors. The integration of Artificial Intelligence (AI) with real estate and financial planning expertise can help support new ways of analysing historical data in an attempt to improve future decisions.

The availability of robust real estate market data varies across geographical areas. Incorporating disparate datasets into a forecasting algorithm in a structured and standardised manner enables the user to visualise how the different data layers interact in, for instance, complex environments such as an asset register for large real estate portfolios. The overarching purpose of enriching the data layer with as much internal, external and macroeconomic data as possible is to help understand the impact of future trends by feeding the forecasting process with more information. Ultimately, this can arm decision makers with customised, interactive analytics which are made available in easily digested and mobile formats, where necessary.

As a machine-learning-based tool customised for the real estate sector, the entire system becomes smarter and improves over time. In this way, it is able to link socioeconomic factors, such as the number of jobs by key economic sector, with the real estate asset demand over time, to assess how this might impact future performance, including price. The tool can also provide absorption forecasts for planned assets and help define the appropriate phasing strategy for each one. Finally, the forecasting tool can be further integrated within business planning and financial feasibility models to drive a market-based response to real estate development. This will support future decision making even more.

Interested in further reading on the topic?
A detailed report of our predictions is available at: https://deloi.tt/3eM6pLy

CONTACTS

Global

Katherine Feucht
Partner
Global Real Estate
Sector Leader
+1 414 977 2662
kfeucht@deloitte.com

Southeast Asia

James Xu
Partner
+65 6 224 8288
jaxu@deloitte.com

Australia

David Hagger
Partner
+61 2 9840 7350
dahagger@deloitte.com.au

Robbie Robertson
Partner
+61 293 223 595
rorobertson@deloitte.com.au

Jeremy Pitchford
Partner
+61 293 225 163
jepitchford@deloitte.com.au

Austria

Gabriele Etzl
Partner
+43 1 51309 13
g.etzl@jankweiler.at

Belgium

Danny Stas
Partner
+32 28007011
dstas@DELOITTE.com

Canada

Craig Irwin
Partner
+14166438095
cirwin@deloitte.ca

Anthony Cocuzzo
Partner
+1 416 601 6432
acocuzzo@deloitte.ca

Central Europe

Maciej Krasoń
Partner
+48 601 383 010
mkrason@deloittece.com

Miroslav Linhart
Partner
+420 246 042 598
mlinhart@deloittece.com

France

Laure Silvestre-Siaz
Partner
+ 33 1 55 61 21 71
lsilvestresiaz@deloitte.fr

Jean Csuka
Partner
+33 1 58 37 95 13
jcsuka@deloitte.fr

Stéphane Martin
Director
+33 140 88 76 64
stephmartin@deloitte.fr

Germany

Michael Müller
Partner
+49 892 903 684 28
mmueller@deloitte.de

Jörg von Ditfurth
Partner
+49 211 877 241 60
jvonditfurth@deloitte.de

Christof Stadter
Partner
+49 89 29036 8269
cstadter@deloitte.de

Greece

Alexandra Kostara
Partner
+30 210 6781 100
akostara@deloitte.gr

Ireland

John Doddy
Partner
+35314172594
jdoddy@deloitte.ie

Brian Jackson
Partner
+353 1 417 2975
brijackson@deloitte.ie

Italy

Giacomo Bellia
Partner
+390283322041
gbellia@deloitte.it

Claudio Tierno
Partner
+390 283 325 078
ctierno@deloitte.it

Luxembourg

Benjamin Lam
Partner
+352 451 452 429
blam@deloitte.lu

Francisco da Cunha
Partner
+352 451 452 337
fdacunha@deloitte.lu

Lize Griffiths
Partner
+352 451 452 693
lizgriffiths@deloitte.lu

Alexandre Prost-Gargoz
Partner
+352 661 452 057
aprostgargoz@deloitte.lu

Basil Sommerfeld
Partner
+352 451 452 646
bsommerfeld@deloitte.lu

Middle East

Robin Williamson
Managing Director
+971 4 506 4738
rwilliamson@deloitte.com

Netherlands

Jef Holland
Partner
+31 882 881 991
jholland@deloitte.nl

Jurriën Veldhuizen
Partner
+31882881636
jveldhuizen@deloitte.nl

Nordics

Tinus Bang Christensen
Partner
+45 30 93 44 63
tbchristensen@deloitte.dk

Portugal

Jorge Marrão
Partner
+351 21 042 25 03
jmarrao@deloitte.pt

Spain

Alberto Valls
Partner
+349 143 811 26
avalls@deloitte.es

Joaquín Linares
Partner
+34 911577734
jlinares@deloitte.es

Turkey

Koray Öztürk
Partner
+902123666059
kozturk@DELOITTE.COM

United Kingdom

David Brown
Partner
+44 20 7007 2954
debrown@deloitte.co.uk

Siobhan Godley
Partner
+44 20 7007 2745
sgodley@deloitte.co.uk

Andrew Carey
Partner
+44 77 1470 8842
ancarey@deloitte.co.uk

US

John D'Angelo
Managing Partner
+1 4157837570
johndangelo@deloitte.com

Jeffrey J. Smith
Partner
+1 6174372804
jefsmith@deloitte.com


Katherine Feucht
Partner
Global Real Estate Sector Leader
+1 414 977 2662
kfeucht@deloitte.com


Benjamin Lam
Partner
EMEA Real Estate Funds Initiative Co-Leader
+352 451 452 429
blam@deloitte.lu


David Brown
Partner
EMEA Real Estate Funds Initiative Co-Leader
+44 20 7007 2954
debrown@deloitte.co.uk

Designed by the Marketing & Brand department, Madrid.