

**Deloitte.**



**European Operations and Technology Survey  
for real estate investment managers  
Report 2019**



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# Executive summary



The 2019 European Operations and Technology Survey for real estate investment managers portrays an industry that is currently adapting to evolving market conditions, a changing regulatory environment, and a fast-growing technological landscape.

The level of interest in innovation is very strong and this perhaps reflects the level of opportunity seen in the sector in using disruptive technologies to gain competitive advantage.

A large number of investment managers are rethinking their operating models, outsourcing strategies, IT tools, and investments in technological innovations to support these changes. The efforts to identify inefficiencies and maximize value across all investment management activities is a common denominator in the survey.

The digitalization of contracts/documents, big data and data analytics, as well as robotic process automation are increasingly a key target area for investment. Artificial Intelligence is regarded as having the potential for a significant impact on the sector but is still perhaps too early in the cycle for wide adoption.

The real estate investment managers surveyed have a strong pan-European influence, with 66 percent of their worldwide employees operating in Europe and 47 percent of its real estate assets under management in Europe.



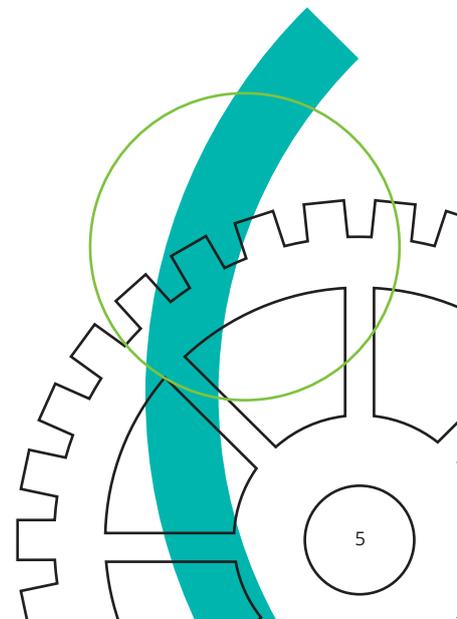
There is strong challenge for talent (recruitment and retention), real estate pricing, and deal flow. Over 70 percent of those surveyed has invested or intend to invest in the areas of asset management and data warehousing systems. The level of satisfaction with technology, SPV accounting, consolidation and property accounting & management is also an area of concern.

This survey provides an overview of the most relevant challenges that the industry

is currently facing and, in particular, focuses on how real estate investment managers have utilized (and/or are planning to utilize) technology to overcome both existing and predicted challenges.

The survey also provides an insight into outsourcing trends, operating model satisfaction, current and future investments in software and applications, and a vision for future technology deployment.

The digitalization of contracts/ documents, big data and data analytics, as well as robotic process automation are increasingly a key target area for investment.



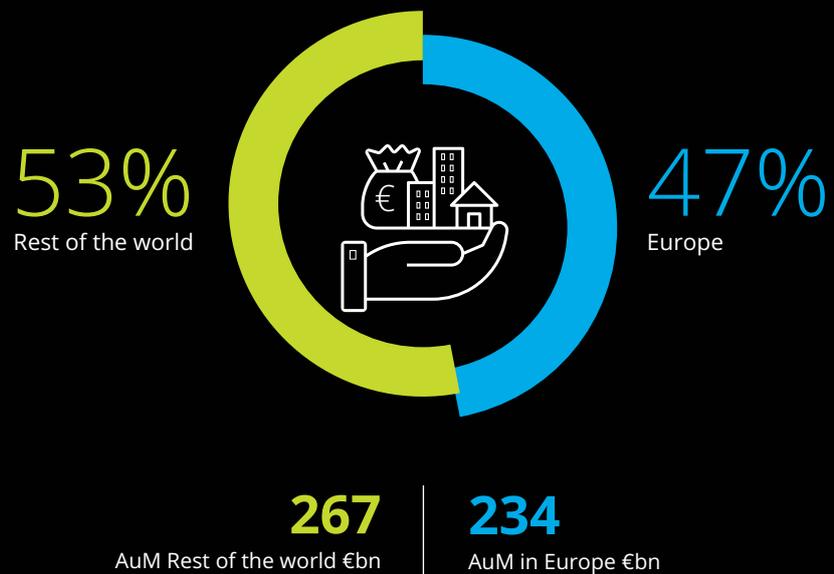
# Introduction

The 2019 European Operations and Technology Survey covers 18 global real estate investment managers with European assets under management (AuM) of €234 billion, and addresses some of the most relevant trends around technology and operations in the industry, with an outlook over the next three years.

Within the survey group, the total number of offices in Europe is 112 (55 percent of the global total offices of 203). The surveyed global real estate investment managers have an average of six offices in Europe and 11 offices globally.

For the majority of real estate investment managers surveyed, direct real estate business represents the greatest portion of their alternative assets revenue (as of 30 September 2018 or latest available date). The contribution of direct real estate business to the total alternative assets revenue ranged from 20 percent to 100 percent, with an average of 84 percent.

## AuM in Europe and in the rest of the world



From those surveyed, the AuM in Europe represents approximately 47 percent of the global assets (€234 billion out of €501 billion). Direct real estate business represents an average of 84 percent of alternative assets revenue.

# General overview

The real estate asset investment managers surveyed employ more than 1,500 people worldwide, with employees in Europe representing more than 66 percent of the global workforce (almost 1,000 employees).

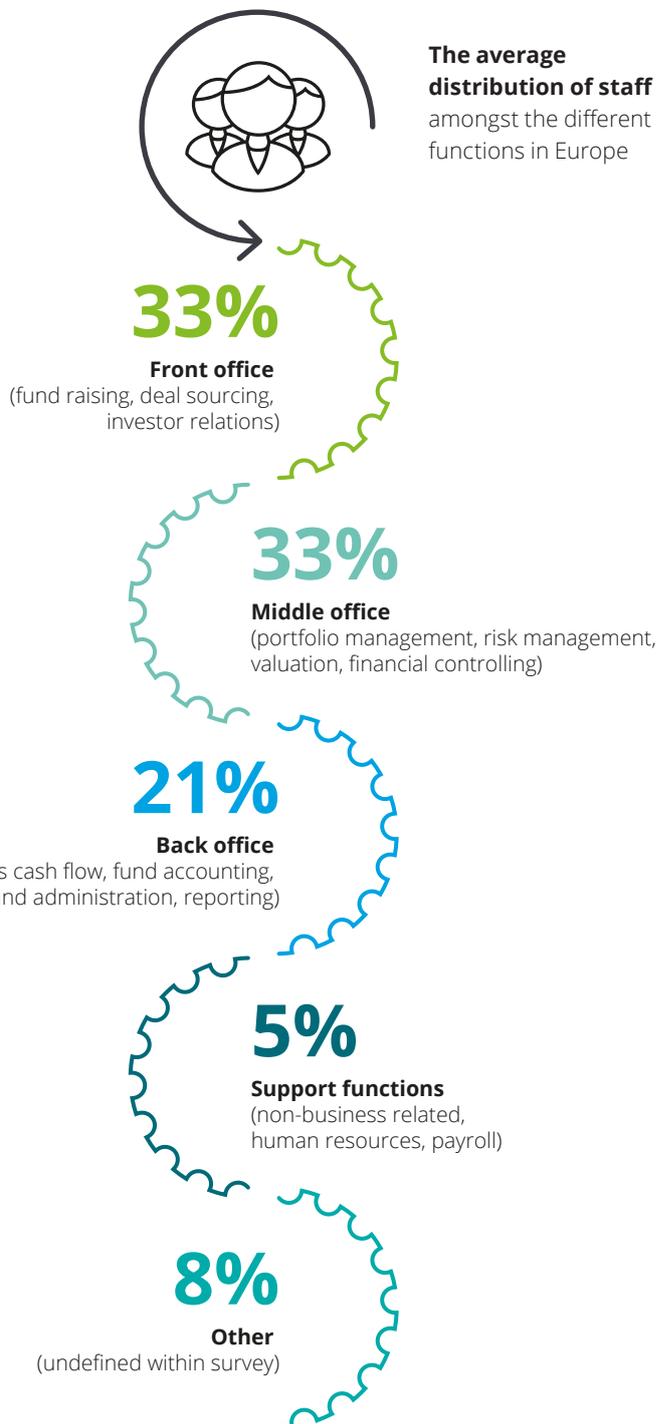
Front and middle office represent the greatest part of the employee distribution (more than 66 percent combined).

**In Europe, the average distribution of staff amongst the different functions is as shown on the right.**

Front and middle office represent the greatest part of the employee distribution (more than 66 percent combined).



The surveyed real estate investment managers employ more than 1,500 people (65 percent of them in Europe). Front office and Middle office represent a significantly greater proportion of the business in Europe (66 percent).



# Industry challenges

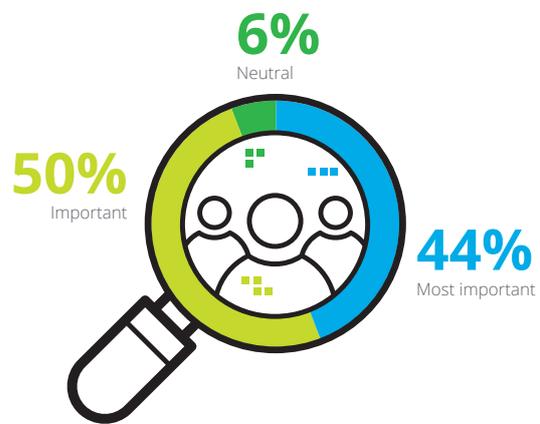
The surveyed global real estate investment managers considered that the three most important challenges currently faced by their organizations were – in order of importance - talent (recruitment and retention), real estate pricing, and deal flow. 83 percent of surveyed managers also included data management, the use of technology, and regulation impact as immediate priorities. More than 61 percent of respondents explained that financial controlling and regulatory reporting were frequently marked as neutral or less important.

## 01 Talent

Talent (recruitment and retention) was highlighted as one of the key challenges currently faced by real estate investment managers in the survey group. As in many other industries, there is fierce competition for recruitment and retention of the best talent to work on real estate investment management. This area is considered

crucial for the continued success of their organizations.

These results are not surprising, as the need for increasingly sophisticated investment vehicles and tighter fee structures means that there is a battleground for the best performing staff (at all levels and across all disciplines) in the market.



**Talent (recruitment and retention)**  
Responses in percent



**02 Market conditions**

Market conditions naturally affect the performance of real estate investment managers. 94 percent of surveyed managers consider real estate pricing and deal flow as important challenges faced by their organizations. Furthermore, 78 percent of survey respondents marked pressure on fees as an important challenge too. The following graphs show investment managers' views on challenges related to market conditions.

The increased consolidation in the market combined with fewer larger players are key factors in driving the pressure on fees. Real estate investment managers are required to be increasingly creative in finding and developing assets that meet their expected return targets, thus creating pressure on both pricing and deal flow. Simultaneously, the pressure on the fees leads to the necessity to become more efficient and cost effective, while trying to enhance the deal flow. Finding ways to solve both issues

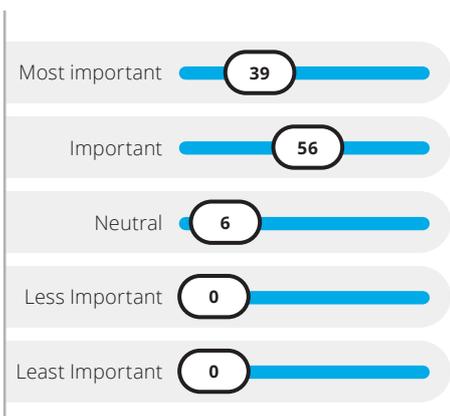
is a major challenge for the industry, and it is unlikely to see improvement in the immediate future.

94 percent of surveyed managers consider real estate pricing and deal flow as important challenges faced by their organizations.

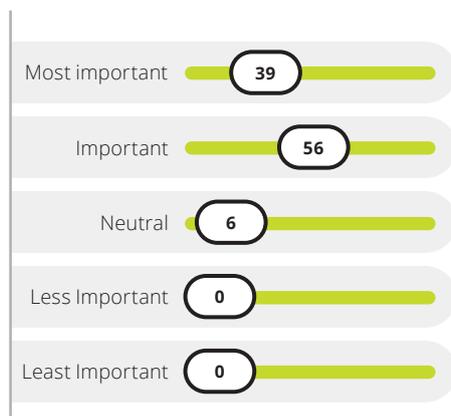


**Investment managers' views on challenges related to market conditions**

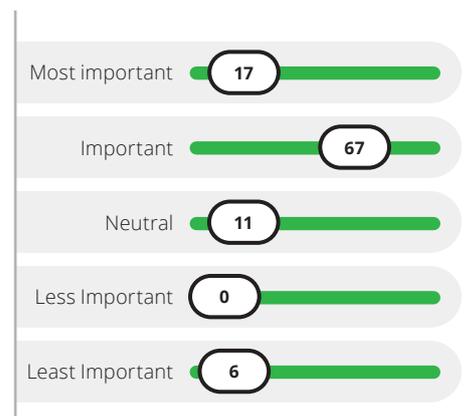
**Real estate pricing  
Responses in percent**



**Deal flow  
Responses in percent**



**Pressure on fees  
Responses in percent**



### 03 Regulation

The past decade has seen real estate funds, like all alternative investment vehicles, affected by a wave of regulations (such as AIFMD or FACTA). In previous surveys, all real estate investment managers confirmed that regulation had a significant, to very significant impact on their organizations, forcing them to reconsider the way they were operating. They also deemed it necessary to review their operating models and governance structures in order to comply with new regulatory requirements.

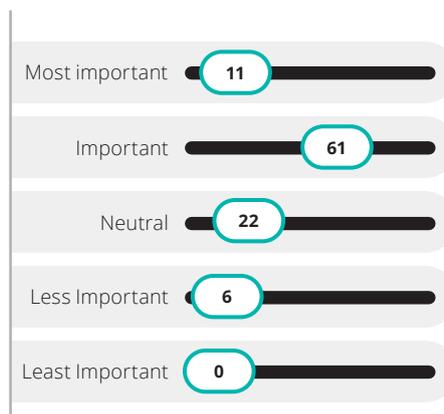
Regulation impact is the key challenge (15 out of 18 investment managers mark this factor as important or most important for their organizations), along with increased compliance and structural costs (13 out of 18 respondents). There is a neutral view on the impact of regulatory reporting: only 33 percent of real estate investment managers in the survey view regulatory reporting as an important challenge, whilst 61 percent consider this a neutral concern.

In the past, real estate investment managers confirmed that a country's tax regime plays a crucial role in the selection of investments, and viewed fiscal neutrality as a key driver for performance. Additional regulations have made and will continue to make an impact on the industry. Not surprisingly, more than half of the participants included changes in tax environment as an important challenge for their organizations.

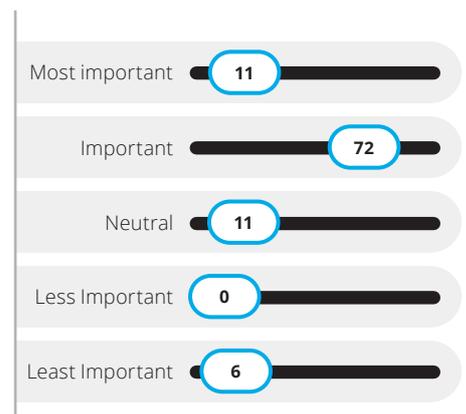
Regulation impact is the key challenge (15 out of 18 investment managers mark this factor as important or most important for their organizations), along with increased compliance and structural costs (13 out of 18 respondents).



**Increased compliance and structural costs**  
Responses in percent

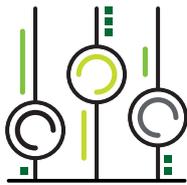


**Regulation impact**  
Responses in percent

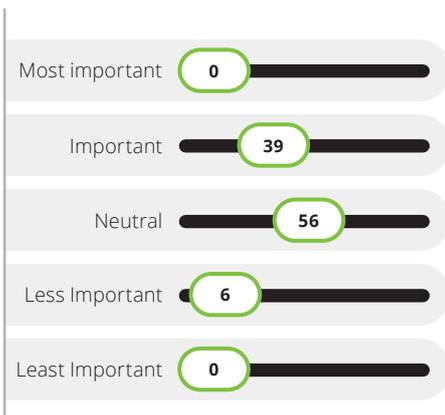


Regulation, such as AIFMD, was relatively new when previous surveys were undertaken and has required significant operational changes to ensure correct adoption. As the new regulations have become embedded into the 'ways of working' of real estate investment managers, there may be less of a need for direct management focus, although the importance of compliance remains high. In anticipation of further regulatory changes

in the upcoming years, the trend will further move towards flexibility in terms of data structures and reporting, to avoid huge change and implementation projects each time new demands occur.



**Financial controlling**  
Responses in percent



**Regulatory reporting**  
Responses in percent



**Changes in tax environment**  
Responses in percent



**04 Quality and risk**

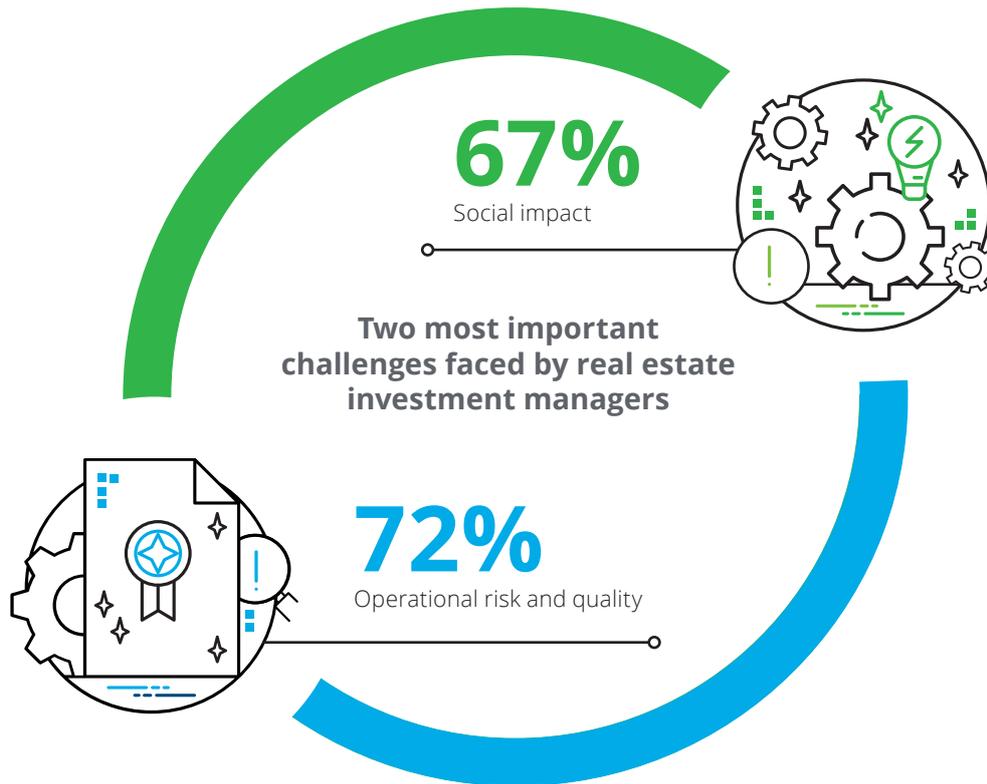
In terms of quality and risk, the two most important challenges faced by real estate investment managers in the survey group are operational risk and quality (72 percent) and social impact (67 percent). Cyber risk is also becoming an increasingly important challenge for these organizations (62 percent). For 50 percent of participants, investor reporting and risk management are regarded as important challenges.

The regulations, such as AIFMD, have driven a different structural approach to risk management and this, perhaps, explains the level of importance in this area.

Cyber risk, while seen as important, is not given the prominence that might be expected. If, as has been experienced in other industries, cyber-attacks on real estate investment management business does create a significant data breach, then this may generate a shock wave in the industry and raise its profile.

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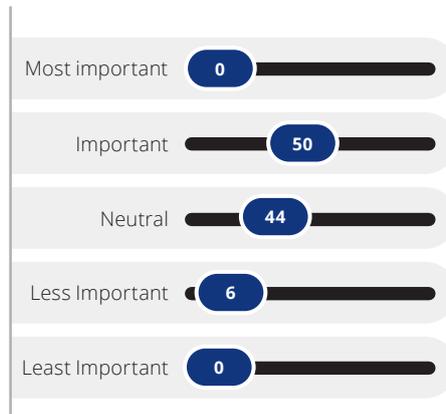




**Cyber risk**  
Responses in percent



**Investor reporting**  
Responses in percent



**Social impact**  
Responses in percent



### 05 Data and Technology

The real estate investment industry is (and has been for the last few years) at a turning point in terms of technology, as investment managers move towards more sophisticated tools to answer investors' needs.

When it comes to the implementation of IT and automation, real estate has traditionally been perceived as slow-moving compared to other industries, particularly regarding the use of specific management and consolidation tools. Not surprisingly, 83 percent of investment managers surveyed consider that their use of technology tools is an important or most important challenge for their organizations.

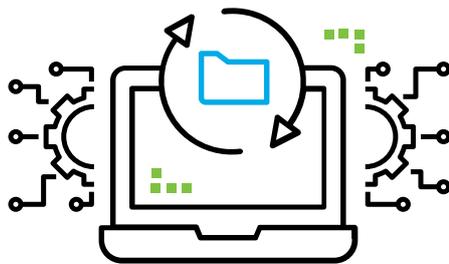
When it comes to the implementation of IT and automation, real estate has traditionally been perceived as slow-moving compared to other industries, particularly regarding the use of specific management and consolidation tools.

In the same line, 88 percent of respondents also highlighted data management as an important challenge.

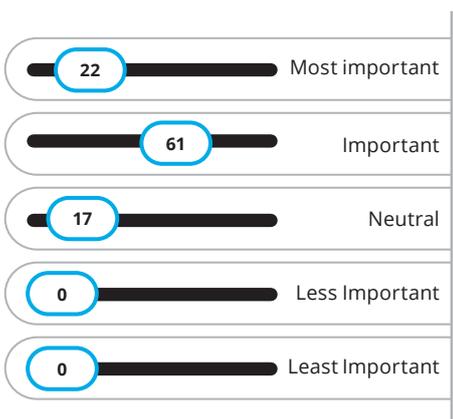
The general feedback in the industry appears to suggest that data (both structured and unstructured) and the corresponding data governance

is increasingly critical. This trend is expected to continue as more sophisticated data analytic tools are adopted and investments become increasingly cross-border, demanding an ability to harmonize different local data structures.

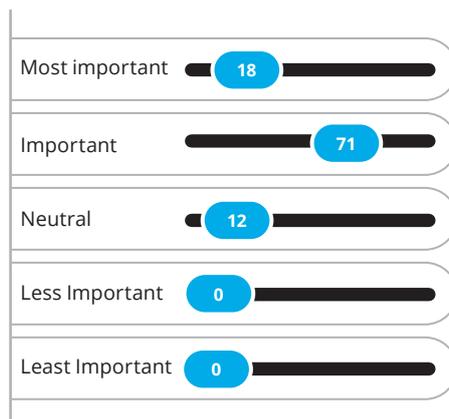
As larger players become increasingly sophisticated and innovative in their use of analytical tools, the limitations and risks of traditional tools such as spreadsheets are likely to become more pronounced.



**Use of technology tools**  
Responses in percent



**Data management**  
Responses in percent





..... The surveyed real estate investment  
..... managers consider that the three  
..... most important challenges currently  
..... faced by their organizations are talent  
..... (recruitment and retention), real estate  
..... pricing, and deal flow.

# Operating model

Investment managers' views regarding different aspects of the operating model are presented below. Property management is the most commonly outsourced activity. Asset management and fund management are the activities in which system implementation seems to be well established. Data warehousing and asset valuation are currently being targeted by managers for ongoing, and future, technology investment. There is a varied level of investment manager satisfaction with their current operating model across different activities. This dissatisfaction is predominantly focused on technology and systems.

## 01 Outsourcing

It is widely known that, on average, real estate investment managers work with many service providers in the running of their businesses. Furthermore, real estate is an inherently local-orientated business and as such requires local expertise, mostly at property level. The most commonly outsourced activity (83 percent) therefore is property management, including collecting rental payments, maintaining the property, etc.

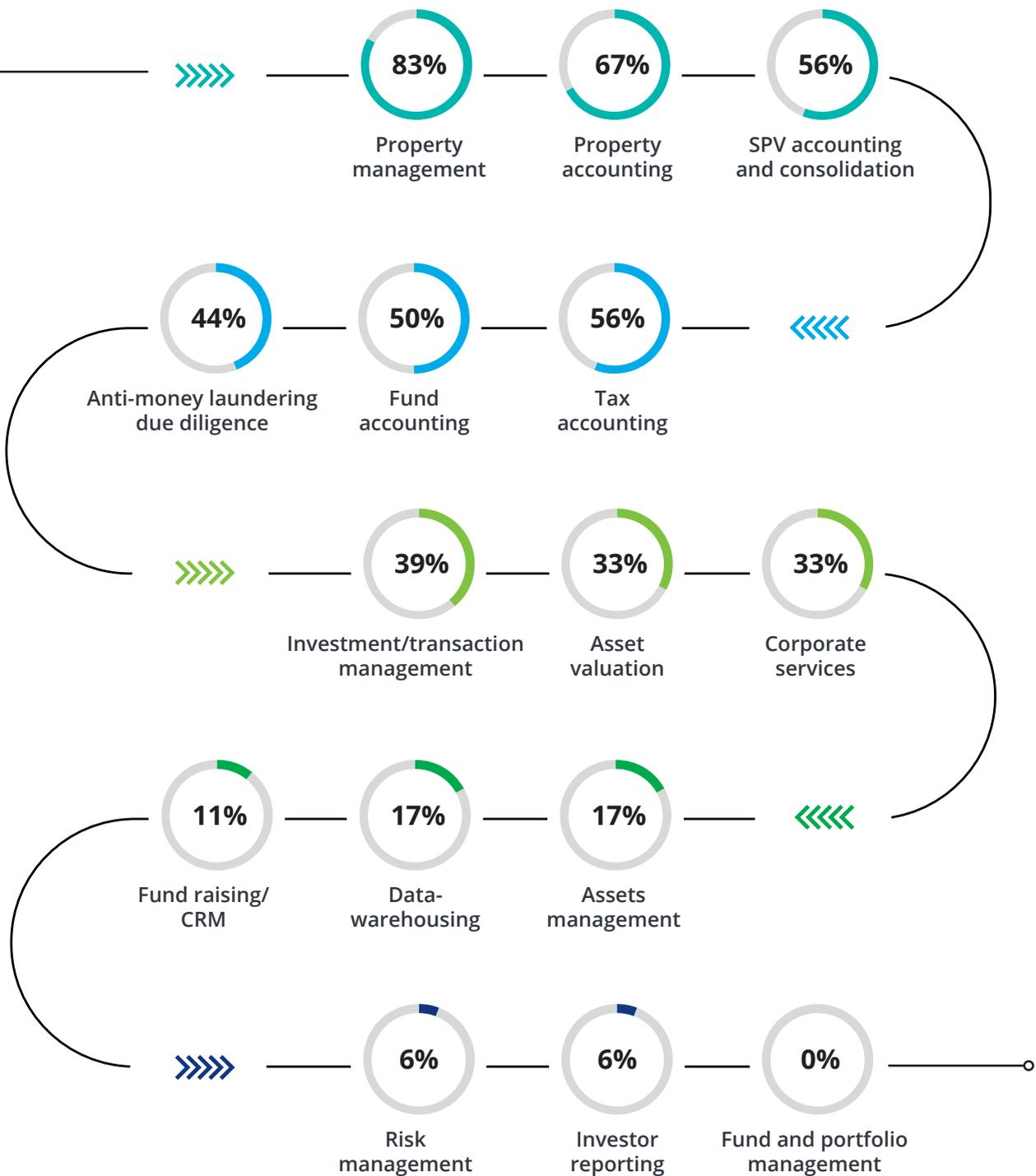
In other areas, such as property accounting (establishment of accounts under IFRS or Local GAAP), SPV accounting and consolidation, tax accounting, and fund accounting, on average, 50 to 67 percent of the investment managers surveyed outsource these activities. This level of outsourcing is quite surprising, as we expected this to be higher. Perhaps this is an area where we will see a growth in outsourcing as it is may be perceived as a 'non-core' function by real estate investment managers.

On the other hand, some activities are at the core of the investment management function and hence are never, or almost never, outsourced by those surveyed. Only 5-6 percent of the investment managers surveyed would outsource activities related to risk management or investor reporting. None of the participants outsource fund and portfolio management.



These results are not surprising and perhaps reflect the relative maturity of the outsourced market in certain service areas (e.g. property management). As the service market matures and technology improves, it is expected that a number of other services will come under increasing scrutiny as targets for outsourcing.

The most commonly outsourced activity (83 percent) therefore is property management, including collecting rental payments, maintaining the property, etc.



## 02 Software and applications

The use of software and applications to perform a variety of tasks is becoming increasingly common across the industry. Some areas of business attract significant investment and extensive implementation of systems. However, there are significant gaps in investment, which may be due to a lack of flexibility, functionality, or availability of suitable products to meet business needs.

The key messages for real estate investment managers obtained from the survey regarding the use of software and applications are:

### Property management

In general, it seems that this is not an area for significant investment and utilisation of technology by our surveyed group. However, we do know from previous survey results that the property management industry has a high level of outsourcing. We can therefore assume that a large number of our surveyed group use third party systems as their source of property management data.

### Fund and portfolio management

The largest investment and utilisation of technology within the real estate investment management market focuses on fund and portfolio management activities. Almost all participants in the survey have a technology system in place for this activity (the surveyed investment managers often had two or three coordinated systems).

### Data warehousing

40 percent of the surveyed investment managers have developed internal applications for data warehousing, mostly from Oracle, SAP, and Yardi. As the ease of data transfer improves with lower cost, more effective tools, and/or suppliers in the market, the attractiveness of data warehouse solutions is expected to increase.

### Asset management

Along with fund and portfolio management, asset management is one of the activities where investment managers have allocated most of their external vendors' resources (56 percent of investment managers use an external vendor application for this activity).

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### ➤ The most common external vendor software platforms in the survey group were:

**Yardi:** Fund and portfolio management, asset management

**SAP/Yardi:** SPV accounting, fund accounting, property accounting, investor reporting

**Argus:** asset valuation/asset management

**Salesforce:** fund raising/customer relationship management (sales, marketing, etc.

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### ➤ The most common activities supported by internally developed applications or tools are:

- Investment/transaction management
- Data warehousing
- Fund and portfolio management

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### ➤ The most common activities supported by MS Office applications or equivalent are:

- Investor reporting
- Fund and portfolio management
- Corporate services

The survey recorded the use of almost 50 different software applications and platforms for all the investment management related activities.

**03 Systems investment**

There is a significant drive in the industry for investment in new software or enhancement of existing software and applications to support real estate investment management activities.

The top three activities targeted by investment managers for the implementation of new or enhanced systems are:

- 01** Asset management
- 02** Data warehousing
- 03** Asset valuation

The surveyed investment managers' plans to invest in asset management and data warehousing were higher than any other activities.

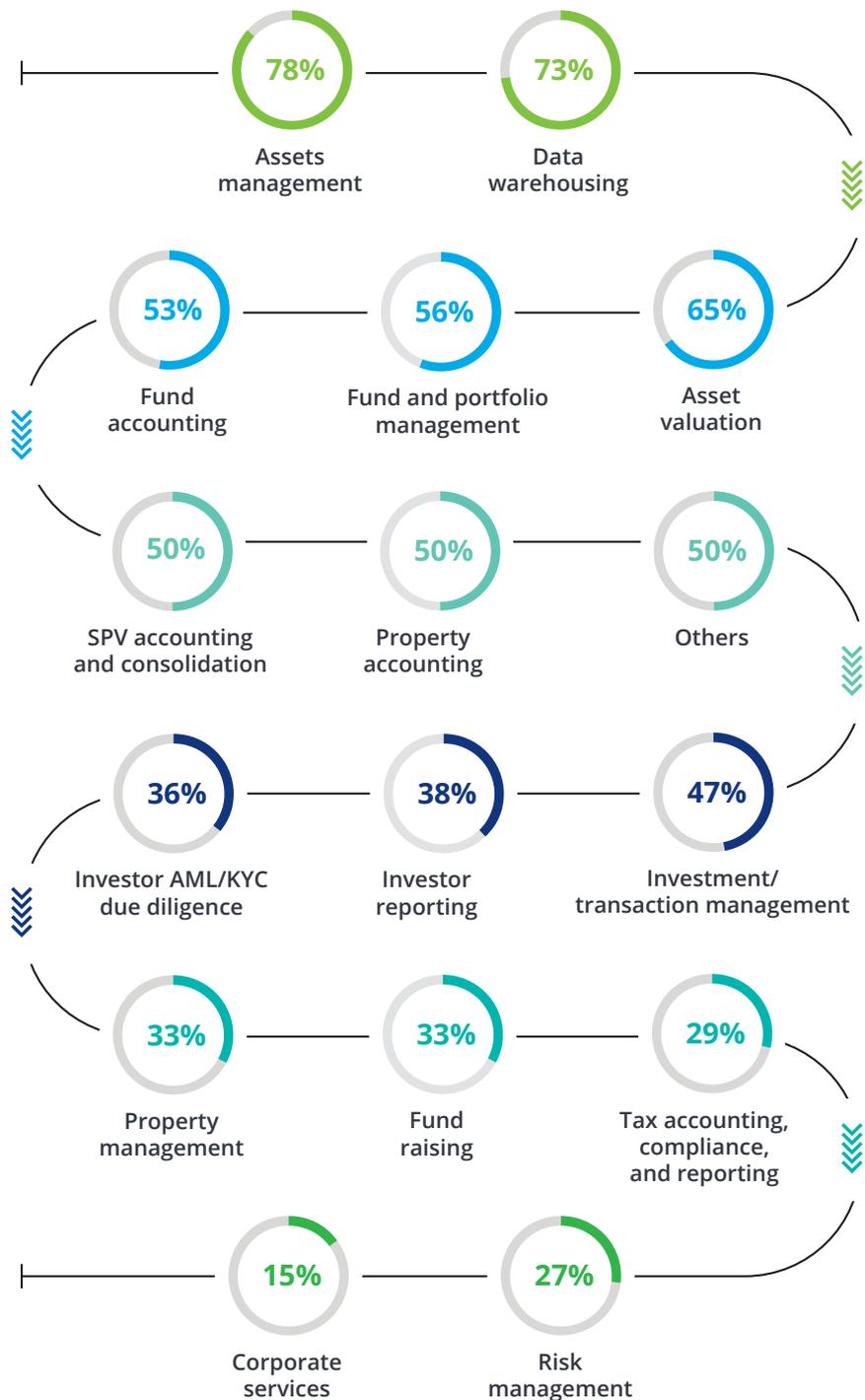
The bottom three activities in terms of plans to invest in technology were:

- 01** Corporate services
- 02** Tax accounting, compliance and reporting
- 03** Risk management

Between 71 percent and 85 percent of investment managers have no plans to invest in these areas in the next 18 months.

The picture here is complex. The increased interest in asset management and data warehousing may reflect the longer-term desire to have a platform that allows for structured and unstructured data to be analyzed using advanced analytical tools (e.g. machine learning).

**Activities invested or planned to be invested in**



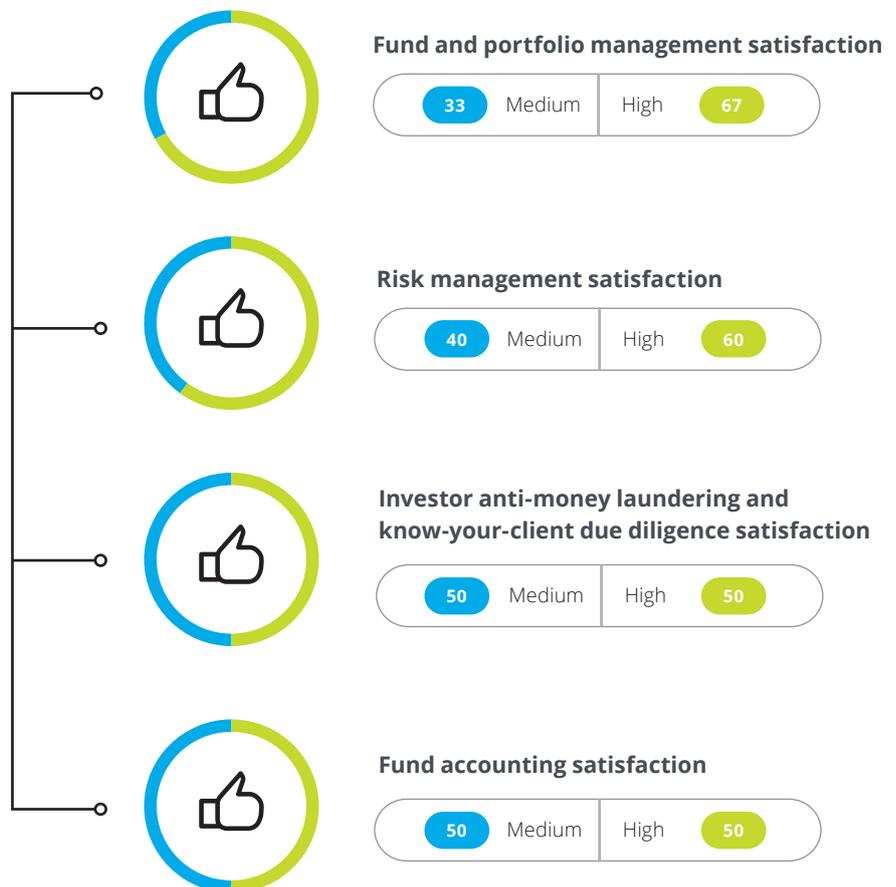
#### 04 Operating model satisfaction

The level of investment managers' satisfaction with their current operating model was tested in three dimensions: governance and processes, technology, and outsourcing. Of 392 responses across 15 activities, 83 of them (21 percent of total) showed low satisfaction on some aspect of the operating model.

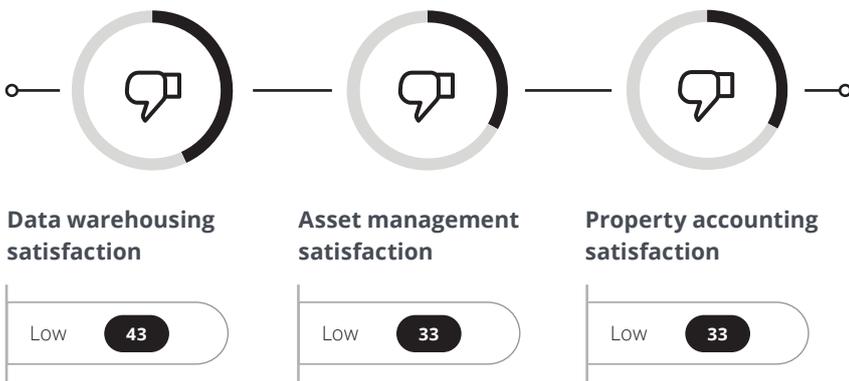
Of 392 responses across 15 activities, 83 of them (21 percent of total) showed low satisfaction on some aspect of the operating model.

##### 04.1 Governance and processes

In terms of the governance and processes supporting their operating model, the investment managers surveyed have the highest level of satisfaction with the following activities.



The target areas in which satisfaction level is lower are:



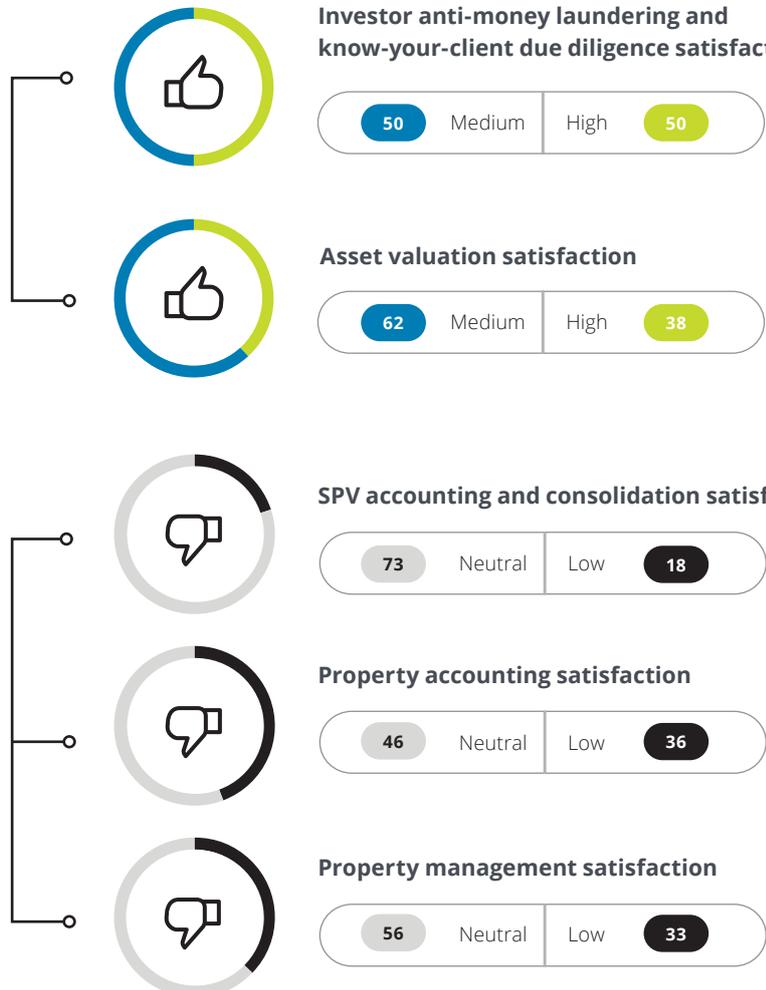
This result is not surprising. There is direct correlation between strong governance and processes and an effective data warehouse or asset management solution. Similarly, frustrations over the need for a high level of internal resources to undertake the reconciliation of data between providers on property accounting may explain the level of dissatisfaction in this area.

#### 04.2 Outsourcing

With regards to outsourcing, investment managers were more satisfied in the areas shown on the right.

These areas have a high degree of specialization and are easier for real estate investment managers to define their requirements in detail, which may explain the level of satisfaction with the results reviewed.

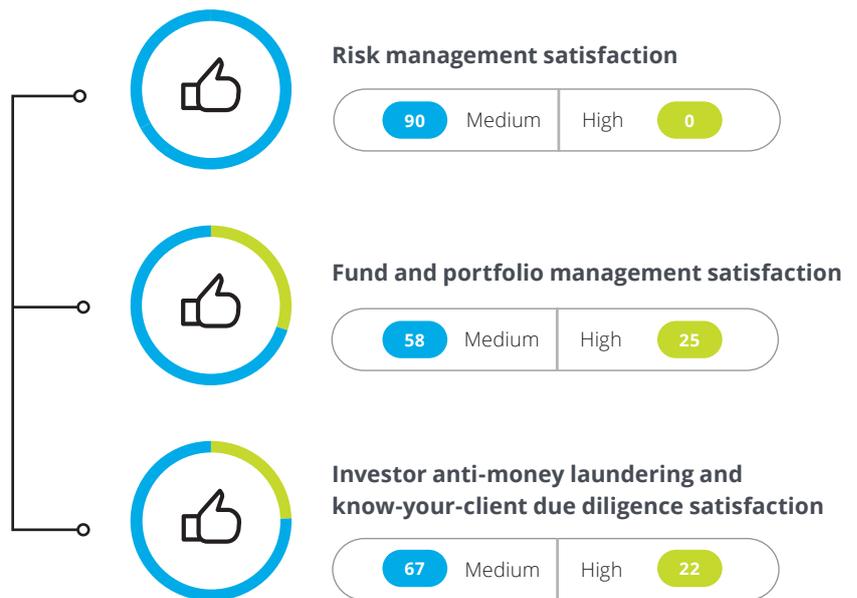
Areas where there appeared to be less satisfaction (i.e. a vast majority of investment managers' answers were marked as either neutral or low) included property management, SPV, fund, tax and property accounting, and corporate services.



### 04.3 Technology

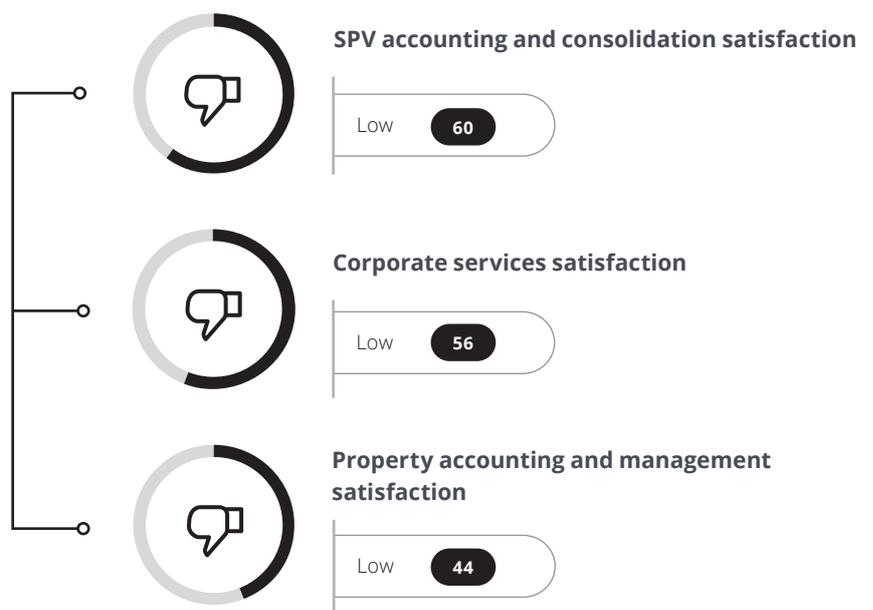
With regards to the technology that supports their operating model, investment managers were more satisfied in the areas shown on the right.

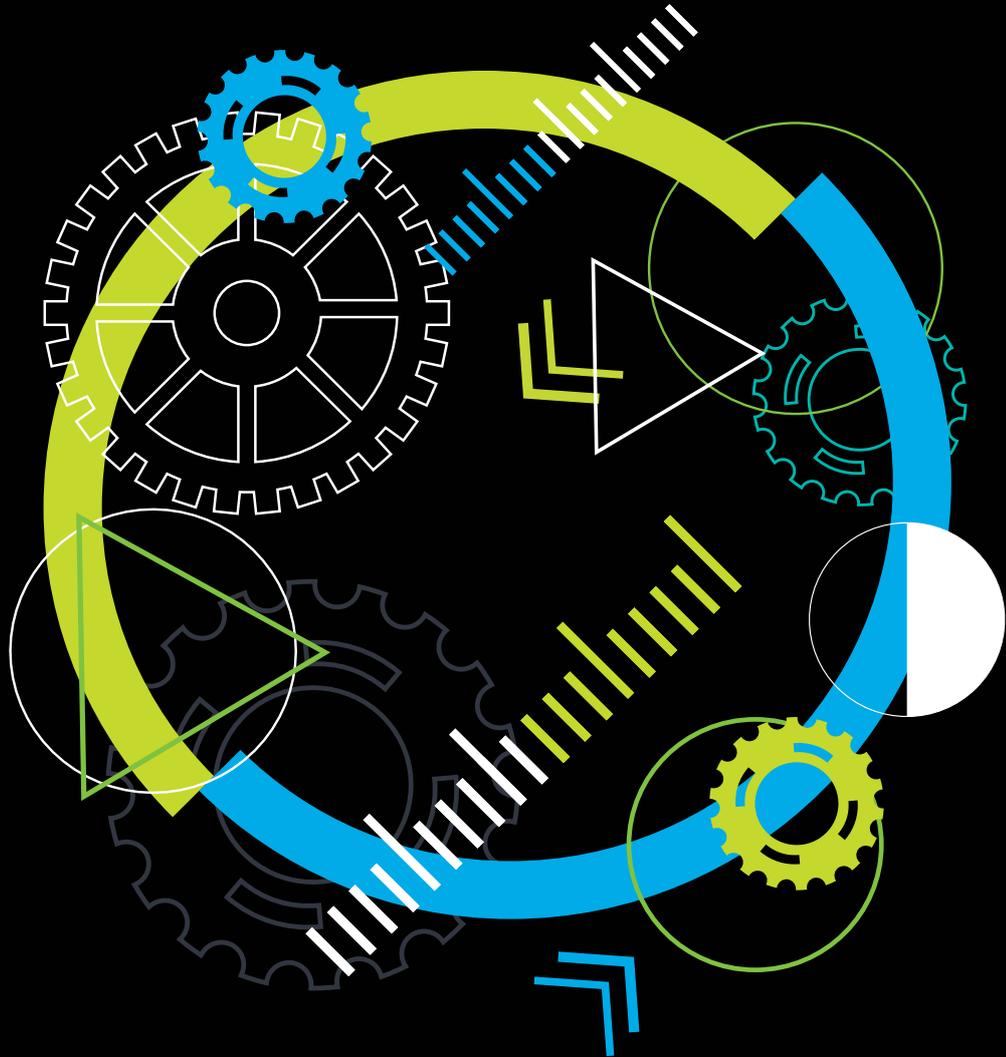
Interestingly the level of satisfaction with data warehousing solutions was quite mixed, with 40 percent of those that responded indicating a high satisfaction and 40 percent with the remainder neutral. A large proportion had yet to form an opinion which might explain (alongside those dissatisfied) why this is a focus area for investment (i.e. there is a pent-up demand).



Conversely, investment managers show the highest degree of dissatisfaction with the technology supporting their operating model in the areas on the right.

This result may be related to the fact that there is a high level of technology support required for the investment managers' operating models in SPV accounting and consolidation, corporate services, and property management. The high level of interaction and consequent frustration with system performance and functionality in these areas may explain the low satisfaction. As these activities are often strongly related to third parties, it may be that in some cases, the actual software is not the key problem, but the defined processes and lack of alignment with the data delivering sources.





21 percent of surveyed investment managers showed low satisfaction with their current operating model in one of these three dimensions: governance and processes, technology, and outsourcing. The dissatisfaction is greater around technology and outsourcing. Over 70 percent of those surveyed have invested or intend to invest in the areas of asset management and data warehousing systems.

# Technological **innovation**

The surveyed investment managers believe that certain activities could benefit significantly from technological innovation. Furthermore, investment managers are targeting specific cross-industry technology innovation areas such as digitalisation and data analytics to support their businesses.

## 01 Targeted activities for technological innovation

77 percent of investment managers in the survey group believe that asset management activities could benefit the most from technological innovation.

This is followed by investment/transaction management and investor reporting activities (54 percent).

All investment managers who participated in the survey considered that these three activities (asset management, transaction management, and investor reporting) could benefit in some way from technological innovation.

On the other hand, 23-25 percent of investment managers consider that the following activities could not benefit at all from technological innovation compared to their current performance:



**Asset valuation**



**Property management**



**Fund accounting**

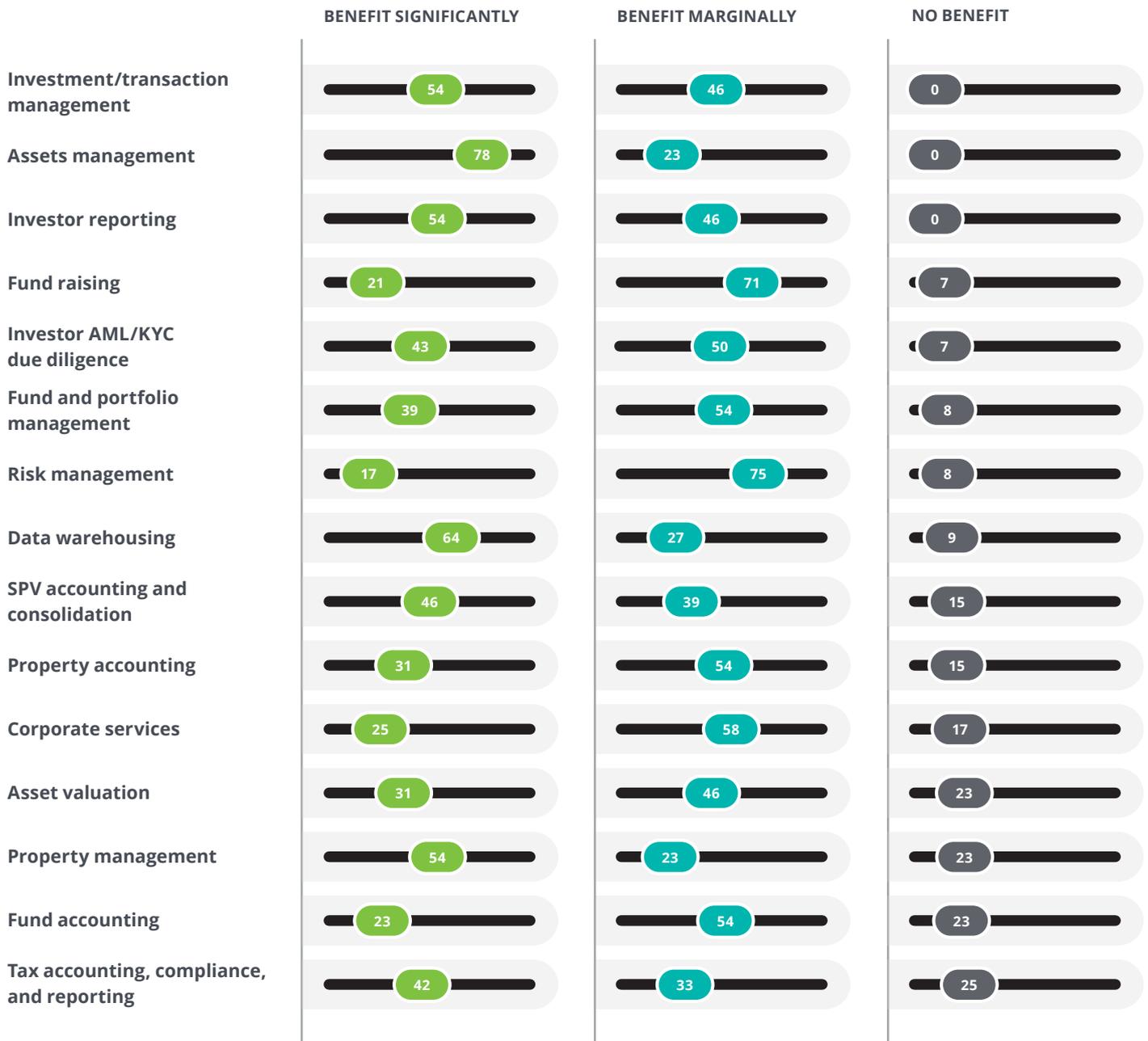


**Tax accounting, compliance, and reporting**

All investment managers who participated in the survey considered that these three activities (asset management, transaction management, and investor reporting) could benefit in some way from technological innovation.

The opportunity to use innovation to streamline the transaction process and gain greater insight to perform more effective asset management/reporting is clearly recognized by investment managers.

More process-driven activities (e.g. valuation, accounting related) may be perceived as offering less scope for radical change through innovation. Nonetheless, we would expect significant potential for automation and increased efficiency also in those areas



## 02 Technological innovation impact and future deployment

There are a number of technological innovations being deployed globally, utilized for many different purposes. Not all of those will have the potential to significantly change or improve the performance of investment management activities. However, some of them are seen as having scope for larger impact.

Investment managers are strongly targeting the following:



**Digitalization of contracts/documents**



**Big data and data analytics**



**Robotic process automation**

88 percent of investment managers believe that digitalization of contracts and documents will have a strong or medium impact on them and their peers and 83 percent of them have invested or are planning to invest.

81 percent of investment managers have invested or are planning to invest in big data and data analytics, which is driven by the fact that 81 percent of investment managers believe this area has a strong (69 percent) or medium (13 percent) impact on their activities.

Robotic process automation comes in third on the list of targeted technological innovations by investment managers with 73 percent of them investing or planning to invest in this area. 80 percent of investment managers believe that robotic process automation will have strong or medium impact on them.

However, artificial intelligence (AI), which 87 percent of investment managers believe to be impactful (and 56 percent, strongly impactful) is attracting less investment than might be expected. Less than one in two investment managers have invested or are planning to invest in this area. This is understandable, given the low maturity of AI-solutions compared to the topics that are more actively targeted. While the industry believes in the potential of AI, it does not seem to believe the technology is at a stage of efficient utilization yet.

For all the technological innovations discussed, there is a greater desire to invest in the future compared with historical investment levels.

There is less interest for investment managers in some of the cutting edge technological innovations. Less than 1 percent of respondents to the survey have invested or are planning to invest in 3D printing technology. Similarly, less than 1 percent of investment managers have invested (and only 7 percent are planning to invest) in augmented reality. It is fair to assume that real estate investment managers are often too far removed from the asset here. These technologies are likely to be more in the focus of property managers and project developers.

In overall terms, the investment focus areas on innovation are unsurprising. Improving process or efficiency (e.g. robotics and digitalization) or providing greater insight (e.g. data analytics) are inevitably attractive to investment managers.

Some innovations may be too early in the cycle (e.g. artificial intelligence) or may be targeted more effectively by other parts of the real estate sector (e.g. 3D printing, augmented reality).

However, the level of interest in innovation is very strong and this perhaps reflects the level of opportunity seen in the sector in using disruptive technologies to gain competitive advantage.



Real estate investment managers are targeting specific cross-industry technological innovation such as digitalization and data analytics as potential enablers of improved performance.

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