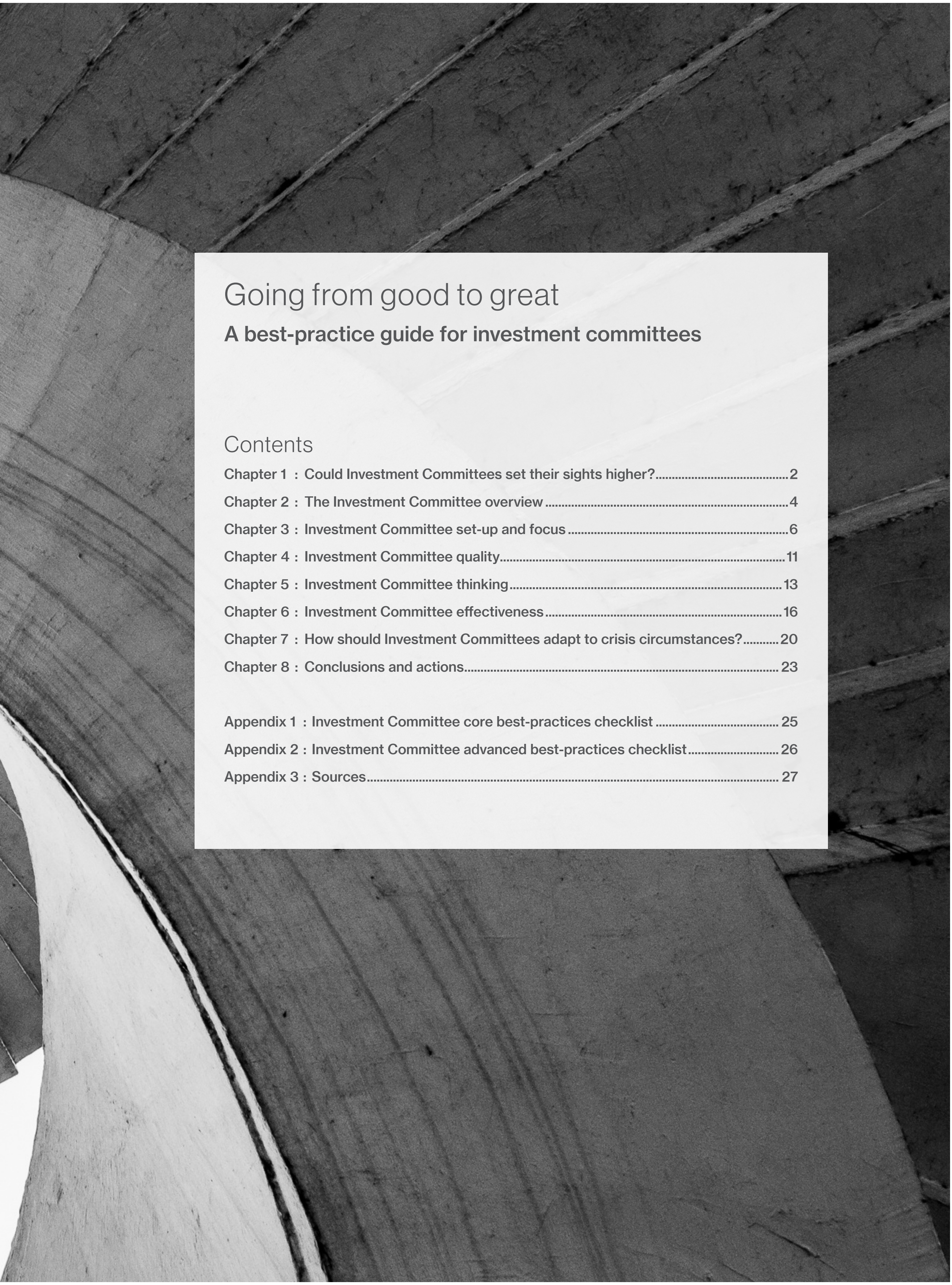
Thinking Ahead Institute

Going from good to great*

A best-practice guide for investment committees

*With acknowledgements to Jim Collins.



Going from good to great

A best-practice guide for investment committees

Contents

Chapter 1: Could Investment Committees set their sights higher?

"Success in the marketplace increasingly depends on learning. Yet most people don't know how to learn."
Chris Argyris

It may not have escaped your notice that governance and culture feature heavily in the Thinking Ahead Institute's growing body of research.

Why? Because the infinite variables controlling investment outcomes defy attempts to create templates or formulaic investing processes. Such processes are available (up to a point) in some industries, such as aircraft manufacture, where theory is largely settled, technology well integrated and high priority is given to learning from mistakes. The differences in maturity between the aircraft and investment industries are stark, as illustrated below.

The aircraft industry is far from perfect, but one statistic is telling: in the 1930s, for every 10 billion kilometres travelled, 2,000 travellers lost their lives. Today, there is less than one casualty per 10 billion kilometres travelled. Through structured learning, the aircraft industry reduces its mistakes.

There are two innovations that came directly from this structured leaning. First, pilots make substantial use of checklists to improve decision making which help focus and make sure all considerations are surfaced. Second, pilots make substantial use of dashboards which convey mission-critical issues concisely. Have these got relevance to the investment industry?

Figure 1 – **The investment industry needs to learn from its experiences**

System features	Theory	Technology + people	Feedback
Aircraft industry	Theory is largely settled	Technology is well integrated with the people	Structured learning
Investment industry	Theory has big missing pieces	The people are not yet effectively integrating the technology	Unstructured learning

It is widely believed that the unpredictability of investment returns means the investment industry cannot control outcomes. Is that really true? Or, are we just not trying hard enough?

Either way, it can undoubtedly improve and move outcomes closer to those desired. **And the only way the investment industry can improve outcomes is through better governance**. So we make no apology for returning to the issue again, this time in the context of investment committees (ICs).

The most common place to find ICs are at asset owner organisations but we have tried to make this paper relevant to the ICs that exist at asset manager organisations as well recognising a wider range of governance contexts. We use the word *organisation* for the parent body.

The governance we have in mind here is principally the strategic investment role, where investment implementation is left to others under clear delegation from ICs. However, we recognise that some ICs both plan and implement investment strategy, and this model is also addressed in this paper. In such cases, one of the key roles of ICs may be to select and monitor external investment managers.

The strategic investment role may be retained by a trustee board (or equivalent) or delegated by the board to an investment committee. We use the term *investment committee* (IC) as short-hand for both circumstances.

The staff delegated the roles by the IC we refer to as the *executive* or *investment team* noting that in the majority of cases these staff members are internal to the organisation, but in a growing minority of cases the delegation is to an external organisation, commonly referred to as *Outsourced Chief Investment Officers* (OCIOs) or *fiduciary managers*.

"This paper explores best-practice governance for ICs and sets out a core best practices checklist which all types of ICs (including those run by asset managers) can follow to improve their chances of better outcomes."

This paper explores best-practice governance for ICs and sets out a core best practices checklist which all types of ICs (including those run by asset managers) can follow to improve their chances of better outcomes.

Also, we go beyond this core checklist and examine how ambitious and well-resourced organisations can evolve their IC practice to an advanced model captured in an advanced best practices checklist. This includes a discussion on investment methodology and in particular coverage of the Strategic Asset Allocation (SAA) method that has been the norm for organisations and the Total Portfolio Approach (TPA) method that is an emerging alternative. TPA is used to introduce more dynamism into ICs and to improve the framing of decisions by reference to goals. The TPA incorporates most of the best-practice governance principles advanced in this paper.

When evaluating best-practice IC governance – where governance is defined as a combination of time, expertise and collective commitment (*see Clark & Urwin 2008*) we consider how to ensure:

- The right people are in the right roles
- The organisation is consistently strong in its thinking and communication
- The culture of the organisation is effective
- There is effective engagement of the IC with the investment team by:
  - acting as a sounding board to the investment team's ideas
  - making certain critical interventions periodically
  - acting as a catalyst for new thinking
  - ultimately holding it to account, while energising the individuals.

Could ICs set their sights higher? Absolutely they could. The stakes are too high for them not to take this path. And these current pressurised circumstances make such steps attractive right now.

Chapter 2: The Investment Committee overview

"The main thing is to keep the main thing the main thing."

Stephen Covey

Life for asset owners and asset managers is already challenging. But in the next decade, the pace of change will quicken even further due to geo-political tensions, climate change, technological leaps and macroeconomic instability, among other factors including the ramifications of the COVID-19 pandemic.

This may sound daunting, but there is a silver lining: there are many opportunities for all ICs if they focus on implementing best practice. Our thinking is focused particularly on how ICs can be effective through diversity and engagement in building collective intelligence.

Diversity is the efficient accessing of multiple values, perspectives, experiences and knowledge of the entire group. In best-practice cases, the combination of the IC is more than the sum of its parts.

Engagement is the interaction and collaboration of the IC and the executive and their asset managers. Again, in best-practice cases their combination is more than additive.

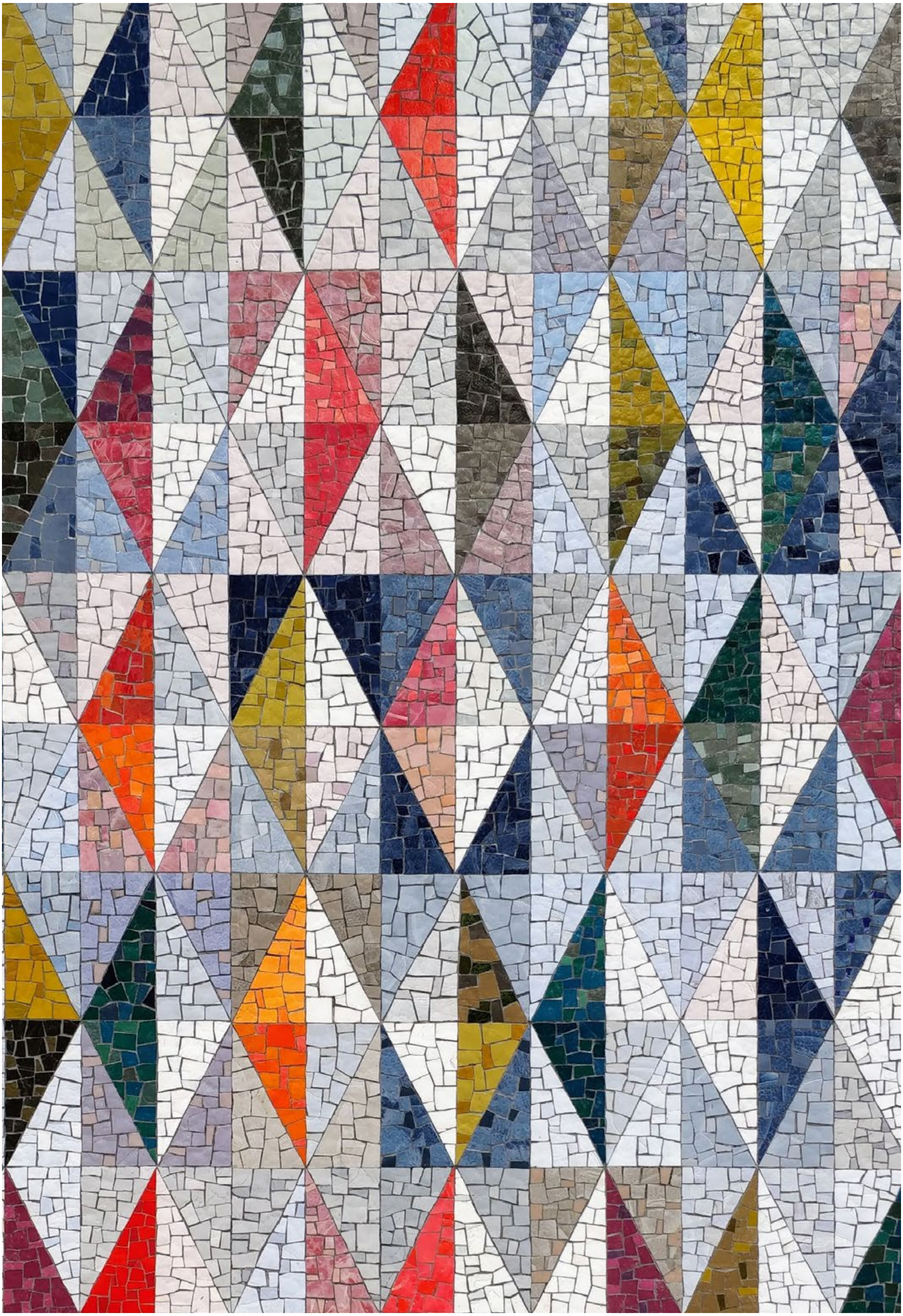
Collective intelligence is the effectiveness of the IC from group interaction and collaboration. This is the *portfolio* concept, where group combinations matter at least as much as the individual contributions. If there is one critical feature in taking an IC from *good to great* it is in this combination.

Many research sources could be used for evidence of the value of diversity and engagement but we are keen to cite Sunstein and Hastie, Karlgaard and Malone, and Woolley. How innovation is the result of combinations of people rather than one person's thinking is in *Rebel Ideas* by Matthew Syed.

How can we judge IC effectiveness and collective intelligence? The only rigorous way is through the assessment of process and outcomes which, for an IC, are a combination of: accuracy of discussions; quality of decisions; achievement of organisational goals; and adherence to political requirements.

So what are the elements of best practice that create the best chance for combinations to flourish and successful outcomes to be achieved? The principal functional parts of best-practice IC governance are these best-practice building blocks (figure 2) and our narrative is covered in the next four chapters.

Figure 2 – **Best-practice IC governance building blocks**



Chapter 3: Investment Committee set-up and focus

"If we don't trust one another, then we aren't going to engage in open, constructive, ideological conflict."

Patrick Lencioni

1 Strategic focus

Despite differences in organisational purpose, the operating landscape facing various types of ICs is similar. The challenges they face are all very big, complex and tricky.

In this context, retaining a strategic focus is vital for effective board governance and doubly important for ICs where there is often a temptation to get *lost in the weeds*. **In fact, ICs don't have to do too many things – but they have to make sure that things get done**. Their greatest strategic focus should be on attention to, and consistency with, high-order principles, notably: purpose, mission, values, beliefs and value creation where a board and its IC will overlap.

The IC process should start with clarity of mission and goals, have the correct focus and involve itself in investment management from a strategic, rather than micro-management, standpoint. Central to this approach is a *strategic investment plan* which is reviewed periodically and at least annually.

The *strategic investment plan* is a critical part of the IC's role. It certainly includes the investment goals and consideration of the risk budget and journey plan of the organisation. It includes either the SAA or the Reference Portfolio used in TPA. Best-practice principles are better aligned to the TPA methodology as explained in the panel entitled *Compare and contrast SAA and TPA* on page 18. While facing similar issues, ICs' intrinsic ability to respond effectively varies widely. The reality is that structural IC problems make attaining success very hard and these are most commonly caused when political expediency is put ahead of investment efficiency. This is where the conversation picks up in earnest.

These *structural deficits* vary in amplitude across ICs but are present to some degree in all. We develop the concept in a panel entitled *Governance budget and structural deficits* on page 9. These deficits are particularly significant when it comes to accountability, trust and alignment (see Lencioni – "The Five Dysfunctions of a Team")

The IC's strategic priority is to try to make these deficits as small as possible. After all, why tackle a big challenge with one hand tied behind your back? And the way to do this is work really hard on the ten best-practice building blocks.

2 Delegations

The IC – and any connecting board – has the critical role of establishing the governance framework covering responsibilities and accountabilities. There are several critical aspects to this. Boards and ICs must match their chosen responsibilities and delegations to their own skills. They should see considerable advantages to delegating many of the organisation's critical tasks to a highly competent investment team. This delegation should apply the principle of comparative advantage and is central to ensuring the IC doesn't get bogged down in the weeds.

"The IC process should start with clarity of mission and goals, have the correct focus and involve itself in investment management from a strategic, rather than micro-management, standpoint."

Table 1 – **The split of responsibilities between an IC and its executive**

Investment committee	Executive
Investment governance responsibility including the 'responsibilities matrix'	Management of the executive function
Organisational 'identity' – purpose, mission and vision, endowments, culture	Development of comparative advantage as an investor
High-level principles and beliefs	Detailed investment principles and beliefs
Strategic investment plan – risk budget, journey plan, SAA or Reference Portfolio, resourcing	Input on high-level strategy and strategic investment plan
Oversight of investment strategy	Development and implementation of investment strategy
Communications, including IC meetings to engage with executive	Communications, including IC meetings to engage with IC
Relationships with stakeholders	Relationships with providers
Accountabilities to stakeholders including reporting	Accountabilities – consistency of purpose, effectiveness of actions, progress towards goals

Best practice here includes the IC regularly reviewing the resourcing for the investment strategy to achieve the organisation's mission and goals, focusing particularly on delegations. We outline an appropriate division of the roles and responsibilities of the IC and the executive in table 1.

An IC's greatest asset is its executive team and delegating well is a tried and tested way of ensuring strategic focus is retained at the board and IC level. The investment insourcing / outsourcing configuration is particularly important here, regardless of whether the internal team is the executive or an OCIO / fiduciary management model is preferred. We expand on this point in chapter 5.

Thinking about set-up and design, we suggest three principles:

First, that the IC should be well supported by joined-up specialised investment resources and functions covering risk, legal, finance, operations, IT and HR. This provides a strong link between the investment fund and all the resources required to deliver on its goals, which is critical to outcomes.

Second, there should be principled and effective leadership of the investment function. Leadership is critical and we cover this in more detail in chapter 5. While leadership is often associated with individuals, in best-practice models it is collective and best delivered via a balanced triangle of IC, CIO-ship and CEO-ship. Under this configuration, it is more likely the IC will be sufficiently informed of progress on strategic issues.

Third, the best ICs have a very clear matrix of roles and responsibilities covering all key elements of the investment process, identifying who does what, and where accountabilities lie.

3 Disciplined oversight

Oversight is a central IC activity and the discipline with which the IC pursues this role is important. This will involve going deeply into new investment strategies. Only with mastery of the detail can the engagement discussion be effective, and the IC's proper support be secured.

Oversight involves following progress through investment strategy, process, portfolio and performance. Disciplined oversight involves challenging the executive while helping to maintain the executive team's motivation. Understanding the foundations of the executive's decision-making process, including how beliefs and comparative advantages (see chapter 5) are incorporated will strengthen this oversight.

Good oversight involves the IC as a sounding board for the executive's ideas, while periodically making critical interventions. The IC can help the executive develop and encourage its thinking, while ultimately holding it to account. This is not to second-guess their views, that is not the purpose of engagement. It is to act as a challenge in cases where the investment team's papers and presentations are considered incomplete or unconvincing. The IC may override decisions in (hopefully) limited circumstances where alternative scenarios are better supported, particularly where they bring a fresh context.

Many ICs see the responsibility for the manager line-up as a higher-level oversight question. Practices differ in this regard and, for ICs that take more detailed responsibility for the manager relationships and performances, we highlight some considerations in the panel entitled *Managing the investment manager line-up* below.

Most oversight will be conducted in the IC meeting schedule. IC meetings need to be managed well and be well supported. IC members need briefing at times on critical issues to reach the requisite understanding of subject matter. This is best handled with a well-crafted agenda focusing first on strategic issues and appropriately detailed papers with dashboards that draw attention to key decisions and results.

The IC has to periodically address within-cycle issues and escalations, handled through conference calls. Communications should continue outside of formal meetings to share thoughts that occur outside meetings and to address changing market structures and events.

The ramifications of COVID-19 circumstances with IC meetings conducted virtually are covered in chapter 7.

"IC meetings need to be managed well and be well-supported. IC members need briefing at times on critical issues to reach the requisite understanding of subject matter."

Managing the investment manager line-up

Insightful selection of investment managers is an essential part of investment decision-making for some organisations.

With a strategic focus, many ICs will not have direct input into the selection of fund managers and manager reviews will be delegated to the executive where resources are deep and skilled. Given the call on IC resources, this can only be for the best.

However, absent these resources, the IC may take on the manager-selection role. This mission-critical role is multi-faceted and requires a formalised process and adequate resource.

Clear and appropriate benchmarks and other expectations within the manager agreement form the foundation of the relationship with managers. Performance success is usually only possible over long periods of time, so time horizons must be set realistically, with frequent discussions of expectations and outcomes.

The monitoring of managers should entail look-backs to review progress relative to benchmarks and look-forwards to review the continuing suitability of the manager. Monitoring of managers should also take place by reference to goals, cultural quality, style and process consistency.

The meeting-review cycle and process requires consideration. While managers may report in a quarterly cycle, meetings and reviews of managers' portfolios and performance are best kept to once or twice a year in order to retain a long-term perspective.

Occasional meetings at managers' offices to delve deeper into issues and consider investments more holistically will round out the IC's understanding of managers' abilities and competencies.

"Clear and appropriate benchmarks and other expectations within the manager agreement form the foundation of the relationship with managers."

Governance budget and structural deficits

The *governance budget* of any organisation is defined as the capacity to create value from effective actions in the chain of institution-specific tasks and functions. This concept is based on four principles:

- Governance is a finite and measurable resource and the size of this resource – the governance budget – is associated with planned and expected performance
- A fund's investment style and strategy should match its governance budget, wherein both investment strategy and governance are sensitive to the resources available for effective management
- A fund's risk budget should be closely related to its governance budget, the former being a crucial element in any institution's planned investment performance whereas the latter may be to determine the ambitions of an institution
- The governance budget should be seen as an investment in the long-term performance of the institution and should not be subject to false economy (see Clark and Urwin 2008).

By this account, the key building blocks for understanding institutional investment management and performance are the governance budget and risk budget (see Urwin 2001). Essentially, institutional investors use the risk budget to inform asset allocation and the governance budget to manage the investment process. The risk budget and the governance budget ought to be synchronised such that SAA and fund manager choice are subject to a level of appraisal and management commensurate with institutional capacity.

But the quality of governance is necessarily sensitive to the inherited form and functions of an institution, be it a pension plan, endowment, sovereign wealth fund or related investment institution. This inheritance often creates structural deficits and are seen across the spectrum of an IC's work:

- **Competency and capabilities:** Board/IC composition is not selected on competency or team fit
- **Teamwork:** this may be limited by the style and practice of leadership and culture
- **Independence:** there is a political element to decisions including mission and goals, with potential bias to certain stakeholders' interests
- **Accountability:** Board/IC accountability is often weak without sufficient awareness of the importance of outcomes
- **Diversity:** lack of cognitive diversity and desire to make cognitive diversity an explicit goal
- **Constraints on the executive:** the employee value proposition including compensation for the executive is restricted, affecting recruitment and retention and reducing alignment.

Structural deficits are particularly prevalent among pension funds with sponsor issues and public pension funds. There is no clear way of assessing the financial impacts of these deficits, but experience tells us they are material.

"...the key building blocks for understanding institutional investment management and performance are the governance budget and risk budget."

Chapter 4: Investment Committee quality

"Great vision without great people is irrelevant."

Jim Collins

4 Competent and diligent members

Jim Collins' timeless advice to organisations, in his book *Good to Great*, is that they need to get the best people "on the bus" and put them in the "right seats", before agreeing the destination. This is apt for ICs. IC members should be selected with considerable care and attention. And team balance is important too suggesting that having investment competency on the IC is critical but not required of every member; but every person should bring some unique skill.

So what makes an ideal IC member? Given that ICs face some of the most complex and challenging problems and that the best solutions will come from diversely constituted groups, it makes sense to look for members with differing experiences and competencies. In addition, as with any winning team make-up, a balance is sought between complementarity and diversity.

Consequently, there is not a one-size-fits-all specification for IC member competencies. The advantages of having members with investment subject matter competency is strong. In particular, organisations with a high exposure to illiquid, private market assets will benefit from members that draw on wider knowledge and a broader repertoire of experience.

Three points come up here on development. First, comprehensive induction of new IC members is particularly valuable to work alongside self-study on an effective IC portal. Then, where knowledge is short, some task-specific training is highly desirable. In addition, commitment to ongoing IC member development is critical. Contact with the organisation's peers represents one of the best elements in such a programme.

Any challenging role needs individuals to have certain values and attributes. We suggest the most important are: having a serving mentality; courage with accompanying accountability; and commitment and diligence. Also, having the ability to concentrate and stay focused is desirable. We find the research of Daniel Goleman on focus particularly relevant here.

Perhaps critically, *institutional memory* needs to be collectively strong, which supports IC appointment term limits being longer than many other boards.

The very best IC members will know their limits and be conscious of the need for advice on certain issues. We have developed the subject of what constitutes best-practice advice in the panel entitled *Some advice on advice* on page 12.

Working well collectively as a team is imperative for an IC and we support the merits of *T-shaped* teams. These are groups whose members are equally at home with the highly specialised technical aspects of the job (the vertical stroke of the 'T') as well as with the wider lateral aspects where the issues are often about stakeholders (the horizontal stroke of the 'T'). These types of teams are fundamentally strong at connecting all the dots, whether it is with other disciplines or integrating organisation-specific context.

5 Correctly sized

There is considerable research on ideal team size. We have found the publication entitled: *Wiser: getting beyond groupthink to make groups smarter* by Sunstein and Hastie a particularly helpful source.

Smaller IC teams are more likely to produce better outcomes. This is a bold statement, but in our experience five to seven members is a good size for an IC, being large enough to ensure a wide range of expertise and diverse perspectives but small enough that decision making is timely and efficient. Importantly the relatively small size also leads to higher-conviction decisions.

Another benefit of small size is that diversity is not diluted as each IC member can feel engaged and connected to all decisions the IC makes. By contrast, if an IC is much bigger than five to seven members there is a strong likelihood of more time in discussion with no commensurate improvement in outputs. And any smaller than this size range, the group will struggle with a lack of cognitive diversity and be vulnerable to institutional memory loss as members leave.

Some advice on advice

Independent advice is a governance issue in its own right and advisory models take many different forms but can generally be classified by certain key characteristics. These include internal or external sources of advice, which incorporates independence. They can also have different styles: either content-rich (investment-led) or context–rich (governance-led) approaches.

Some models are reactive whereas others are proactive. The OCIO / fiduciary management model is the most evolved as a proactive model and encompasses various delegated authorities. Furthermore, advice can be classified as single input or second opinion, with the second-opinion model potentially introducing second guessing.

Circumstances dictate the most effective approach, but often the model of choice is likely to be a combination of:

- Internal CIO input for core requirements
- External independent consultant input for depth of investment content coverage
- External independent consultant input on governance issues and to help facilitate more effective IC practice.

Advisers can be part of the problem or part of the solution for ICs. Best-practice advice could be summarised as: always helpful; as effective as possible; and accountable and honest. It does not intrude on areas where it is not wanted or needed, and it is trusted. Best practice is not always adhered to, for a variety of reasons, but fixing three key areas are critical for all advisory relationships:

1. **Clear contracts** – these are essential and even internal advisory relationships need clear influencing rights and responsibilities
2. **Alignment** – individuals and organisations inevitably respond to incentives, which usually have an element of financial gain. Advisers may charge by time, by project, by outcomes or a blend. As part of this they may advance their own products or arguments, highlighting the importance of aligning interests such that they work for, and not against, ICs
3. **Accountability** – who is responsible for which outcomes? The level of transparency in the contract and in the processes are a key route to accountability. This includes fee structures and the arguments and evidence that lie behind the advice provided.

Chapter 5: Investment Committee thinking

"Combatting the HiPPO principle – where decisions ultimately rest with the Highest Paid Person's Opinions – is a key step to improving decision making."

Liang Yin

6 An effective chairperson (chair) that sets direction

A good chair makes such a difference to an IC, it is hard to stress this enough. Their role is crucial in terms of setting and managing overall strategic direction and culture. They are responsible for achieving best practice and high standards as well as playing a critical member-development and liaison role.

In best practice models, where a typical IC member might be committing 25 days per year (or 200 hours) to their role, the typical IC chair might be committing 75 days per year (or 600 hours) or three times as much.

This is not surprising considering the multiple additional responsibilities the IC chair must assume if the IC is to operate at its most effective level. We see the chair contributing strategic focus, facilitation, team building, communication and subject-matter knowledge. These elements are further illustrated in a graphic entitled *Characteristics of an IC chair* on page 14.

The IC chair must have the vision and drive to lead the IC to meet its overall mission. The chair organises the composition, business, efficiency and culture of the IC. The role has a strong strategic focus, including leading the strategic review and allocating resources. Developing an effective working relationship with the CIO, CEO and leadership team are essential to meeting goals and fostering the culture.

The IC chair must assess the agenda and relevant documents before meetings, and, of course, take responsibility for the conduct of the meeting, including facilitating a full set of discussions and ensuring a full range of views are aired. This involves setting the cultural tone of the meeting to be inclusive and respectful.

In team building, providing feedback is another crucial responsibility so that the IC develops a learning culture. The ideal chair typically acts as a coach and a feedback provider to the CIO (as part of a good 360-degree review) and that of other IC members. The IC chair can also provide input to the CEO's senior team selection and succession planning. **Chairs that adopt this extended role contribute significantly to the collective intelligence of the IC**.

The chair's communication responsibilities are to ensure that effective relationships are maintained with all major stakeholders. She or he may be involved with building and enhancing the organisation's brand by acting as a spokesperson and fostering a network of contacts with major providers, partners and other stakeholders.

Chairs are also recognised for their contribution of content to the IC. They can be additionally valuable if they bring some unique subject-matter expertise and experience to the discussions. This is particularly valuable in the area of innovation and intellectual capital especially where they can make contributions to the beliefs and investment philosophy of the organisation. In addition, the chair's knowledge and experience of applying effective governance matters deeply to IC effectiveness.

"We see the chair contributing strategic focus, facilitation, team building, communication and subject-matter knowledge."

Strategic focus

- Holistic approach
- Ability to see corporate and investment strategy – the 'big picture'
- Significant investment governance knowledge and experience
- Can provide challenge oversight to the CIO

Innovation and intellectual capital

- Develops investment philosophy
- Strengthens investment beliefs
- Assimilates good ideas and rejects bad ideas
- Evolves as the fund evolves

Team building

- Strong leadership
- Diverse and effective team work
- Expose the Board IC to a strong and effective culture which includes full accountability
- Commands strong personal respect, derived from industry reputation and commitment

Communication

- Significant indirect influence
- Highly competent interaction with internal staff, particularly the CEO/CIO
- Represents and promotes the organisation in stakeholder relations
- Ensures clarity of roles and responsibilities

Figure 3 – **The characteristics of an IC chair**

7 Diverse thinking and unified decisions

Differences of opinion are inevitable, but effective ICs make sure they confront these differences and come together with unified conclusions.

In this context, with many challenging decisions likely, it is not clear why so many ICs never take votes. Simple technology (for example Sli.do) enables polling to provide quick checks on mood, deeper examination of issues and a contribution to the trail of why decisions were made.

Many investment decisions are marginal calls, so expecting a full consensus to emerge is a false hope, whereas aiming for a *settlement* of views is much more achievable.

Governance comprises two complementary groups – the IC and the executive – and for investment decisions to be effective these must *engage* with each other on both cultural and pragmatic levels. After all, in the end, strong investment decisions are predominantly derived from the interactions of people and the resulting processes.

Under a clear strategy, the IC can be a sounding board for the executive's ideas, while periodically making critical interventions. And in return the IC can help the executive develop and encourage its thinking, while ultimately holding it to account.

The critical benefits of ICs acting in this coherent team-building way are to build out the stronger collective intelligence of the IC. We highlight, in the panel entitled *Biases in group decisions* on page 15, the difficulties and biases encountered in group decision making that require considerable self-knowledge to recognise and overcome.

Good engagement is also critical in its second-order impact, often resulting in better IC appreciation of investment team competencies. In addition, it facilitates encouragement and motivation of the right behaviours and professional standards and gives the IC ability to judge the quality of internal and external resources employed. We return to this topic when discussing effective practice in insourcing and outsourcing in Chapter 6.

8 Well-grounded principles and beliefs

Principles and beliefs are a relatively new feature of a well-run IC, having come to prominence over the last decade or so. Beliefs are working assumptions about the investment landscape and the organisation's specific context which can be turned into the principles to be applied to future decisions. Good beliefs are clearly drafted and to be of greatest value should be edgy. These beliefs should extend into governance and identify the principles of best-practice thinking.

In this latter regard a sub-set of beliefs should deal with pinpointing the organisation's comparative advantages, something that produces better focus and greater collective intelligence in the organisation.

With rising complexity on the IC agenda, having well-socialised principles and beliefs has become enormously important. They are particularly helpful in contested subjects like sustainability and investment methodology, for example around SAA and TPA, by reducing overlapping discussions. Strong beliefs support both better discussions and better investment thinking. Having strong principles and beliefs in place allow the IC to focus on being a long-term steward and ensure long-term factors are fully integrated.

Too many ICs treat beliefs as a *set and forget* exercise or perhaps as another tick on the good-governance checklist. However, to be truly effective, beliefs must be ever-present in decision making. This should be evident in having them fully integrated into conversations between the IC and executive.

Biases in group decisions

Groups can make better decisions than individuals when three conditions apply: diversity, independence and an effective means of aggregating views. All areas where improved practice can help.

Ultimately, a modern investment organisation is a complex combination of multi-layered decision makers, small groups (teams and committees), individuals and technology. The goal of decision-making research is to improve the effectiveness of the collective decision making.

The investment environment is particularly challenging for our brains because it is volatile, uncertain, complex and ambiguous (VUCA). Useful intuition is difficult to develop because the feedback is often remote and subject to false interpretations. Financial markets being reflexive systems – a two-way relationship between fundamentals and behaviours – renders any pure deductive reasoning weak in explanatory power.

The origin of our decision-making struggle can be traced back to a mismatch between so-called systems 1 and 2, according to influential research by Daniel Kahneman.

Our senses are collecting information all the time, most of which is irrelevant to the decision in hand. System 2 cannot deal with this information overload effectively. But, while system 1 can deal with this it struggles to produce meaningful narratives. And a lack of meaning is often confusing for system 2.

To deal with this lack of meaning, we filter out data aggressively, sometimes ignoring useful, observable and relevant data. The decision-making ecology of asset owners is influenced by fiduciary duty, representativeness and collective commitment, which often act as impediments to best-practice decision making. (see Clark & Urwin 2009).

Evidence suggests that machines and algorithms produce better decisions than human experts in certain environments, although we caution against slavishly applying these findings directly in the field of investment where judgement skills may be extremely valuable. Humans and machines have complementary strengths. The human biases that individuals and groups must confront are multiple and we suggest some of these in table 2.

Table 2 – **Combatting human biases in decision making**

Bias	What is it?
1. Production blocking	In a brainstorm session, one cannot think of new ideas while listening to others in the group at the same time, so blocking the thought process
2. Free riding or social loafing	People reduce their effort when working in a group as opposed to working alone, expecting other group members to complete the task
3. Hindsight bias	Individuals believe that they “knew it all along” i.e. an event is more predictable after it has already occurred than a prior to it
4. Hidden profile	In a group discussion some information is shared by all members but other pieces of information are not shared
5. Overconfidence effect	Tendency of an individual to have higher subjective confidence in her/his judgement than objective accuracy would allow
6. Information cascade	An individual modifies his actions or decisions based on observations of others in the group at the cost of her/his own information or judgement
7. Myopic loss aversion	Individuals temporarily lose sight of the big picture and concentrate on the immediate problem at hand
8. Confirmation bias	Individuals tend to selectively search for, interpret or recall information that confirm their own pre-existing beliefs

Source: Thinking Ahead Institute including ‘Collective decision-making in action’ | 2018

Chapter 6: Investment Committee effectiveness

“Culture eats strategy for breakfast.”

often attributed to Peter Drucker

9 Effective practice on insourcing and outsourcing

Choosing the most appropriate insourcing or outsourcing model is a critical decision for creating effective and balanced IC governance.

A large asset owner’s scale can support an internal team that is highly competent across a wide investment scope and works particularly well under the leadership of a strong CIO. These internalised teams are also referred to as insourced chief investment officer (ICIO) arrangements.

In many circumstances though, scale, competency and scope can only be achieved using the outsourced model. These arrangements, generally referred to as OCIO, are where an external firm is appointed in a fiduciary management role to implement the IC’s mandate. This arrangement has the benefit of providing access to scale and specialist expertise, but in order to be fully effective requires an IC membership with a thorough understanding of governance. Importantly, they must ensure clarity of roles and strategic direction as well as being capable of the judicious handling of any principal-agent issues that will inevitably be present (see Clark & Urwin, 2017).

“The increased resources available in strong ICIO and OCIO arrangements are likely to play to the strengths of the TPA arrangements involving more freedoms, teamwork and real-time decision-making benefits.”

Funds that are constrained by size, scale and sponsorship may well be content for their IC to retain core-governance attributes while delegating the remaining responsibilities. In practice this translates to performing key activities well such as: defining their mission and beliefs; allocating priorities and time and resources to tasks; and establishing the fund’s risk budget. Their mission statement is best described as *doing things right* and we identify the associated best-practice attributes of this *core model* in Appendix 1.

The alternative mission of *doing the right things* would be used by more ambitious organisations with fewer constraints aiming for higher levels of effectiveness. **This restyling of the delegations with more sophisticated structures and processes contributes to collective intelligence**. We describe this *advanced model* in Appendix 2 with a checklist of advanced IC best-practice attributes.

The investment methods used are a factor in this configuration. The SAA approach has been the standard approach adopted up until now, but this is changing and we suggest why in the panel entitled *Compare and contrast SAA and TPA* on page 18. The increased resources available in strong ICIO and OCIO arrangements are likely to play to the strengths of the TPA arrangements involving more freedoms, teamwork and real-time decision-making benefits. Correspondingly, we see the IC’s involvement as focused on the highest-level strategic decisions and this appears to reflect the IC’s strengths.

10 Good culture

Many of the current difficulties in the investment industry stem from asset owners and asset managers underestimating the power of culture. **Culture can be thought about as the leverage of good people through behavioural norms that are brought to life by leaders**. Research from Thinking Ahead Institute, entitled *The impact of culture on institutional investors – 2019*, shows: how culture is a unique ingredient in competitive advantage; how it can be shaped and developed over time; and how it can be assessed.

If ICs want to be more effective they need to examine their own culture using established industry frameworks or models. A good time for doing this is when the chair checks-in on IC effectiveness.

The benefits of a strong and well-articulated culture are clear and manifest in engaged team member participation and, in effective interactions between the IC and the executive that also support the IC's collective intelligence.

Some of the characteristics of an effective IC culture are:

- Prioritising diversity, which avoids groupthink during meetings
- Inclusion and respect
- Transparent communication
- Openness to feedback
- Willingness to take responsibility and be accountable

ICs with strong and well-managed cultures are fully conscious of the significant amount of responsibility they carry and adopt high levels of accountability for processes and outcomes in line with this.

The IC should also examine the culture of their executive, whether internal team or OCIO. ICs should ask the tough questions in these reviews, including: how much focus are you giving to this organisation's needs? How well are your team aligned and motivated? And, what are you doing to attract and retain talented team members?

As part of developing an effective culture, IC teams should focus on development and transition. By adopting a *never stop improving* mantra and periodically transitioning to new benchmarks and structures, decision making can be enhanced. Applying looped learning principles, as in the aircraft industry, is a critical part of ongoing improvement. In essence, the first learning loop is to take existing models and apply them to different settings. The second loop is accepting that old models may not necessarily work and trying out new ones.

This thinking is particularly relevant when it comes to dealing well with the disruptions arising from COVID-19 which we explore in more detail in chapter 7.

Lastly, we've observed a *cultural failing* in many ICs: the inability to acknowledge, remember and celebrate progress, which is in stark contrast to most other business environments. This is simple to address and would contribute disproportionately to IC effectiveness.

Compare and contrast SAA and TPA

SAA is a key foundation decision to the vast majority of investment arrangements. The SAA investment model involves IC (or Board) agreement on a portfolio benchmark comprised of asset classes which when combined meets the organisation's objectives and which can then be implemented via manager mandates in a hub-and-spoke approach. In the SAA method:

- The IC has significant responsibility for the SAA through a calendar-time review of the SAA conducted annually (or even less frequently)
- The executive is responsible for the actual portfolio on a real-time basis but within bands around the SAA
- The asset allocation is tied to asset classes

Total portfolio approaches are more goals-based and dynamic investment methods that have been evolved by some leading investment organisations around the world in preference to SAA. TPA is a portfolio implemented in real time through the best single portfolio that achieves its objectives, by a single team working collaboratively.

In the TPA method:

- The IC has responsibility for the risk budget (often via a reference portfolio)
- The executive is responsible for the total portfolio on a real-time basis
- All assets pre-qualify for inclusion, asset classes are not a significant factor

In TPA, the investment team works together on one shared objective, in SAA the team divides and works on their respective separate objectives. TPA actually covers a spectrum of approaches that tick three boxes, they:

- Start with goals – very clearly specified investment goals
- Employ one joined-up process – a competition for capital amongst all investment opportunities
- Are dynamic – they operate in real-time governance

The spectrum, in simplified terms, has traditional SAA based approaches sitting at one extreme and a *fully fledged* version of TPA sitting at the other extreme.

A TPA can be thought of as reflecting greater levels of conviction, in moving from the left-hand side to the right-hand side on a number of different components, as illustrated in table 3.

Table 3 – **TPA conviction spectrum**

	SAA	TPA
Performance assessed vs.	Benchmarks	Fund goals
Success measured by:	Relative value added	Total fund return
Opportunities for investment defined by:	Asset classes	Contribution to total portfolio outcome
Diversification principally via:	Asset classes	Risk factors
Asset allocation determined by a:	Board-centric process	CIO-centric process
Frequency of change:	Infrequent, calendar meeting based	Continuously monitored, changes made in real time
Portfolio implemented by:	Multiple teams competing for capital	One team collaborating together

Better decision framing

Better decision making

Greater dynamism

Alignment with best practices

TPA has been designed to be aligned with best practice to solve for the governance and investment challenges. By contrast, SAA is designed to solve a governance issue and there is an investment alignment problem with organisations managing (a) by sectors and (b) versus tracking error. And not (a) by total fund and (b) versus the total fund goals.

For example, in SAA, the asset class team (e.g. liquid alternatives) has a natural incentive to spend their tracking error risk budget on beta (producing a higher information ratio), but in doing so produces a drag on the total fund by over-loading beta risk (producing a lower Sharpe ratio). By contrast, TPA is set up to integrate the beta and the alpha (one shared objective) and properly value uncorrelated alpha.

The SAA asset class set-up generally underweights or even misses assets outside those asset classes. For example, assets like reinsurance or bridging loans are not likely to figure in SAA, but are attractive in TPA.

SAA even with a perfect start will be way short of optimal as conditions change. For example, new conditions, for prices and risks, create portfolio opportunities each quarter that support better returns in TPA, whereas SAA arrangements cannot exploit these opportunities as much.

"The SAA asset class set-up generally underweights or even misses assets outside those asset classes."

Chapter 7: How should Investment Committees adapt to crisis circumstances?

"If you went through this pain and aggravation and suffering and you didn't learn, well then shame on us. Shame on us."

Andrew Cuomo, Governor of New York

We explore the subject of ICs at a time of writing when the COVID-19 pandemic is creating crisis circumstances. This has introduced some significant disruptions to the ways that ICs will have to operate, particularly with the impacts of social distancing on work arrangements and a considerable transition to remote working. We consider the COVID-19 disruptions before turning to a more general view of how ICs should approach crises.

COVID-19 ramifications

The ramifications from COVID-19 suggest three large changes in IC practice which are necessary in the near term and may prove critical the medium term as well.

Transitioning ICs to a fully-functioning virtual meeting configuration

We have put forward suggestions for making this transition in the *Thinking Ahead Institute (TAI) virtual IC meeting model* captured in table 5 on page 22. The key features are to compensate for losses of *effective practice* in the physical-meeting model with *practice enhancements* in the virtual model. We believe this model is useful near term but has longer-term appeal to complement physical meetings once they resume.

Ensuring that opportunities for innovation are addressed by the IC

Crises encourage the adoption of innovations. This is because at such times organisations are forced to do new things and trial new arrangements, for example the OCIO model was adopted in earnest following the 2008 global financial crisis (see table 4 on page 21 for other examples). The strongest ICs will be set apart by the number of opportunities to innovate they exploit.

Understanding what cultural changes are desirable

With very limited levels of personal contacts available in COVID-19-challenged circumstances, the value chain that produces the value creation to organisations must undergo some re-wiring. ICs should be conscious of the challenges and opportunities in this transition and must put in place new parameters for critical concepts like *trust* and *professionalism* and acknowledge that new cultural norms will be needed.

Good governance always sets organisations apart, and more so in crisis conditions if it flexes to respond to crisis circumstances in new ways.

Governance responses to crisis conditions

The step-up response needed can occur in several ways, including:

1. **Balance the urgent with the important**. ICs should work on the critical short-term agenda but do so showing respect for the issues in the medium and long term. They cannot afford to lose sight of the longer-term mission. The fundamental temptation is to over-do anxiety, instead of stepping up to better governance by meeting the long-term mission through a balance of time horizons.

   It is also about holding your nerve on strategy. As long-term investors, being patient is crucial, safe in the knowledge that you can stay the course through whatever turmoil markets produce. Current market volatility is scary, and there is a chance it will get worse, but history should confirm our beliefs that we will be fine in the longer term.

2. **Try to see around corners**. ICs can leverage their skill through anticipating future trends and patterns. In present uncertain times we must work harder on the unexpected as many more issues lurk out there. When we think we see the light at the end of the tunnel, we should not relax, and the focus should still be on *seeing around corners* – one of good governance's most prized features.

   Investment beliefs remain the mainstay of good IC practice and some may need updating now. There are the long-term core beliefs that only need light refreshing, but there are *the world has changed* beliefs which need serious work.

3 **Reprioritise**. Staying true to core principles and beliefs is important but good governance should be adaptable around its edges. This suggests doing a few things more deeply and letting lesser stuff drop away. We must respect the idea that a governance budget is finite.

Doing a few critical things well is the key principle here. This environment means we are experiencing a series of *squeezes* everywhere, for example liquidity, capacity, communication, resilience and wellbeing. Accepting that there are constraints to what is possible is critical to ensure the actions ICs take actually add value. This means reprioritising strategic agendas and focusing on activities that have highest impact relative to the effort involved.

4 **Communicating deeper, wider, better**. IC communications must pick up pace at times of crisis. Many aspects of good communication are timeless. Central concepts here are managing expectations through communications frequency and cadence. But at times of uncertainty, the key is to communicate even more, even when it seems like there is fundamentally less to say given the uncertainty. The *TAI virtual IC meeting model* is an example of improved communication.

5 **Live your values**. Values set the tone for behaviours, the behaviours drive the actions, the actions drive the outcomes, simple. At a time that is presenting massive dilemmas everywhere, people and purpose come ahead of profits and performance. This is a key element in governance thinking. In current times with life and death playing out, people must come first. And profits will surely follow in the long run if we can cluster around a stronger *purpose crucible*.

Governance through a period of change

Irrespective of the resolution of the COVID-19 crisis, investment organisations must address a number of fresh challenges in their investment governance. In the Thinking Ahead Institute publications: *Asset Owner of Tomorrow* and the *Asset Manager of Tomorrow,* we describe the quickening pace of change for both types of organisation.

With ICs in mind we suggest there are four areas where high-level agenda time should be allocated in the coming years:

- Investment methodology: the investment methods used by most organisations have not evolved for some time. Our recent global TPA peer study research indicates particular support for considering TPA as an improvement in methodology over the incumbent SAA
- Culture: the changing circumstances of culture as the main force aligning behaviours right across the value chain. The changing factors affecting talent and technology management suggest the IC must judge how culture can evolve to stay in synch with strategy
- Sustainability in investing: the transformational change necessary is to move investment goals from the two-dimensional world of risk and return to the three-dimensional world where accounting for real-world impact is critical alongside risk and return. We cover this topic in detail in a new TAI publication entitled: *Sustainability: understanding impact and value creation*
- Data management in investing: while organisations have always been accustomed to managing massive amounts of data, the increases to the data challenge introduced by sustainability and alternative data have made existing data platforms appear less than adequate.

Conventionally, necessity proves to be the mother of invention, however this is not always true for organisations in the pensions world where conservative cultures and regulation support their longevity. But there should have been more progress on governance by now and the principle of *never wasting a good crisis* is presently to the fore.

In table 4, we outline how the previous two financial crises were catalysts for the adoption of major innovations and speculate about the equivalent innovations arising from this crisis. Will the innovations that catch on be: ESG / sustainability integration through TPA; fractionalisation; and widespread adoption of the OCIO governance model? Time will tell.

Table 4 – **Crisis changes**

Crisis year	Innovation areas		
	Investment model	**Asset class**	**Governance**
2001 Dot-com	LDI and balance-sheet management	Alternative investments	Risk budgeting by asset owners
2008/9 GFC	Factors and allocations to risk factors	Private debt	Internalisation at asset owners
2020 COVID-19	ESG/sustainability through total portfolio integration??	New investible assets using fractional interests or tokenisation??	OCIO model for asset owners??

Table 5 – **The Thinking Ahead Institute virtual IC meeting model**
A design of a physically-distant but socially-connected governance model.

1.	**Build out the prequel segment to the meeting**	Work in this prequel segment includes pre-reading and indicative polling (see below) and puts IC members further forward before the meeting starts
2.	**Work to a well-structured set of papers**	Meeting papers are a more critical contributor to effective virtual meetings needing better executive summaries, narratives and background references; and Board 'books' like Diligent and work spaces and like Teams contribute
3.	**Develop the 'Run-Sheet' to add to the meeting agenda**	'Run-Sheets' are precise specifications of meetings that add key parameters over and above an effective agenda; the specifications need to cover the hard and soft 'ask' of IC members, and of outside parties
4.	**Use high-quality video technology**	Meetings will need to be appropriately convened in a high-quality video format – Skype, Web-Ex, Zoom, Teams, etc
5.	**Work at chair-effectiveness through planning and preparation**	The chair is critical – they are first of all facilitators, and secondly strategists, coaches, arbiters and content providers. Facilitating a virtual (call) meeting is a big challenge, but good preparation takes you far. And some of the chair's 'social' functions – time-keeping, turn-taking, re-focusing, etc – can be passed to a second person
6.	**Apply cognitive diversity and turn-taking**	Cognitive diversity requires surfacing all views and this is helped by going around the 'room' person-by-person on certain issues
7.	**Use informal polling**	Polling can be used to provide insights on key issues indicative to values and preferences, without becoming binding votes. Polling also adds diversity
8.	**Gather feedback on meeting effectiveness**	Meetings should be assessed for on-time, on-inclusiveness, on-point delivery. Good feedback gathered consistently is critical to be able to improve practices
9.	**Build out the sequel segment to the meeting**	Meetings need to be completed with accurate minutes, notes, clear follow-ons, including polling results to support thinking and action
10.	**Stage the virtual meetings to complement physical ones**	When constraints requiring virtual meetings are removed, ICs should explore a new cycle of physical and virtual meetings as a more efficient and sustainable solution to IC governance

Source: Thinking Ahead Institute including 'Collective decision-making in action' \| 2018

Chapter 8: Conclusions and actions

"No-one ever erected a monument to a committee."

Anon

Governance is a modern invention that, at its best, delivers a product that is far more than the sum of its parts. The IC is a highly influential ingredient to success for asset owners and asset managers. Why do we not do more to make it work better?

It is true that taking an IC from good to great outcomes is not simple. But it is eminently doable with strong leadership that rises above the many detailed IC tasks before it. It must set out a strategy that is as ambitious as it dares within the confines of resources and time. We believe the IC can make the biggest gains in these five areas:

- Boards and ICs must match their chosen responsibilities and delegations and take significant comparative advantage from a well-designed responsibilities matrix
- Getting the right people on the IC 'bus' is critical and the chair is super critical, especially in the areas of competency, teamwork and accountability
- Exploiting the opportunities for improved efficiency and collective intelligence, notably: extending the chair role; building the IC teamwork; pinpointing its comparative advantages; restyling the IC process; and developing a richer culture
- Taking the opportunities the COVID-19 crisis presents, starting with exercising more innovative thinking and practice in the conduct of IC meetings
- Identifying the big challenges of the future and allocating a strategic agenda in respect of them. Our recommendations are: culture; investment methodology and TPA; and sustainability and data management.

The challenges that lie ahead for ICs are getting larger due to pressures on performance, difficulties in managing complexity, increased regulatory influence and the growing influences from multiple stakeholders. **And our experience shows that improving IC practices is most certainly the best route to improving the quality of investment governance**.

"No-one ever erected a monument to a committee" is the widely referenced quotation and perhaps for good reason. But given their importance to millions of savers around the world it is surely worth the effort for ICs to step up and merit a monument.

"The challenges that lie ahead for ICs are getting larger due to pressures on performance, difficulties in managing complexity, increased regulatory influence and the growing influences from multiple stakeholders."

Appendix 1: Investment Committee core best-practices checklist

The following are key check-list principles underlying the IC design to act as a norm to guide **core practice**.

1. IC role	▪ The IC focuses on being a long-term steward and considering long-term factors. This is setting the key strategic principles and focusing on appropriate mission, goals and vision, including risk budgets ▪ Critical to the IC role is the development of investment principles and beliefs that support the mission; this is also approving the executive sub-beliefs ▪ The IC establishes the governance framework (responsibilities and accountabilities) and governance budget model. This is to provide clarity around authority and responsibility, ensure accountability and upholding of decision principles via a responsibilities matrix
2. IC roster	▪ The above role is significantly more developed than the role that ICs are customarily playing implying an extension to most IC's meeting cycles. While ICs needs vary by circumstances, six regular meetings and two special meetings is a *starting proposition* for annual commitments ▪ The IC has to periodically address within-cycle issues and escalations, handled through conference calls ▪ The time commitment for IC members is ideally around 150-250 hours per annum
3. IC composition	▪ The ideal for a well-balanced IC is 5-7 people ▪ Selection of competent and diligent members is critical ▪ An effective chair, with an ability to manage and facilitate the IC, is an essential element
4. IC culture	▪ IC culture, as for any board, must support openness, collaboration and diversity ▪ The culture of the executive should be centred on serving the organisation and motivating the team ▪ The culture of co-operation between the IC and the executive is important

Appendix 2: Investment Committee advanced best-practices checklist

The following are key check-list principles underlying the IC design to act as a norm to guide **advanced practice**.

1. Strategic focus	▪ The IC is focused on issues at the correct strategic level without micro-management ▪ There is considerable attention given to organisational purpose, mission and identity
2. Effective delegation	▪ There is significant insight in the drawing up of a matrix of delegations, and clarity in its application ▪ There is a balanced leadership across the IC, CIO and CEO 'triangle'
3. Effective oversight	▪ The IC is sufficiently informed and knowledgeable of the progress made on the investment strategy ▪ The IC gives considerable attention to its oversight role by assiduous consideration of the executive's papers
4. Diligent and competent members	▪ Ideally IC members are selected for their competency in the investment subject area ▪ IC members should receive sufficient development and training to succeed in their governance role, including just-in-time training for specialised subjects
5. Sized appropriately	▪ The IC should try to strike the balance between diversity (favouring more members) and efficient practice (favouring fewer members) ▪ This is generally supportive to the 5 to 7 person 'strawman' IC with members given quite long-term limits
6. An effective chair that sets direction	▪ The chair adopts an extended role in leading, managing, facilitating, coaching and stakeholder communications ▪ The chair leads the IC through an annual discussion on the strategic investment plan covering an investment strategy review and including the resource plan
7. Diverse thinking and unified decisions	▪ The IC builds its collective intelligence by expressly limiting problems with group-think and agency issues ▪ IC meetings should be executed well and be well-supported under general principles with the need for clarity of purpose, quality of execution and time
8. Well-grounded principles and beliefs	▪ Strong investment beliefs (accurate, aligned and actionable) support both better discussions and better investment thinking ▪ Common language is used with reference to beliefs to help the IC and executive to use beliefs consistently
9. Insourcing/outsourcing	▪ The critical design uses insourced or outsourced resources to establish the link between the strategic plan and the resources to deliver the strategic plan ▪ The investment support functions (e.g. risk, legal, IT and HR) provide joined-up support in addition
10. Good culture	▪ There is an open IC culture that encourages IC member participation and IC – investment team interaction ▪ The culture is innovative and supportive to continuous incremental improvement

Appendix 3: Sources

Clark & Urwin | Best-practice investment management | 2007

Clark & Urwin | Innovative models of pension fund governance in the context of the global financial crisis | 2008

Clark & Urwin | Making pension boards work, the critical role of leadership | 2009

Clark & Urwin | The outsourced chief investment officer (OCIO) management model | 2017

Collins | Good to Great

Goleman | Focus: The hidden driver of excellence

Kahneman | Thinking Fast and Slow

Karlgaard and Malone | Team Genius

Lencioni | The Five Dysfunctions of Teams

Sunstein and Hastie | Wiser: Getting beyond groupthink to make groups smarter

Syed | Rebel Ideas | *2019*

Thinking Ahead Institute | *Asset owner of tomorrow | 2017*

Thinking Ahead Institute | *Asset manager of tomorrow | 2018*

Thinking Ahead Institute | *Collective decision-making in action | 2018*

Thinking Ahead Institute | *The impact of culture on institutional investors | 2019*

Woolley et al. | Evidence for a Collective Intelligence Factor in the Performance of Human Groups

Limitations of reliance

Limitations of reliance – Thinking Ahead Group 2.0

This document has been written by members of the Thinking Ahead Group 2.0. Their role is to identify and develop new investment thinking and opportunities not naturally covered under mainstream research. They seek to encourage new ways of seeing the investment environment in ways that add value to our clients.

The contents of individual documents are therefore more likely to be the opinions of the respective authors rather than representing the formal view of the firm.

Limitations of reliance – Willis Towers Watson

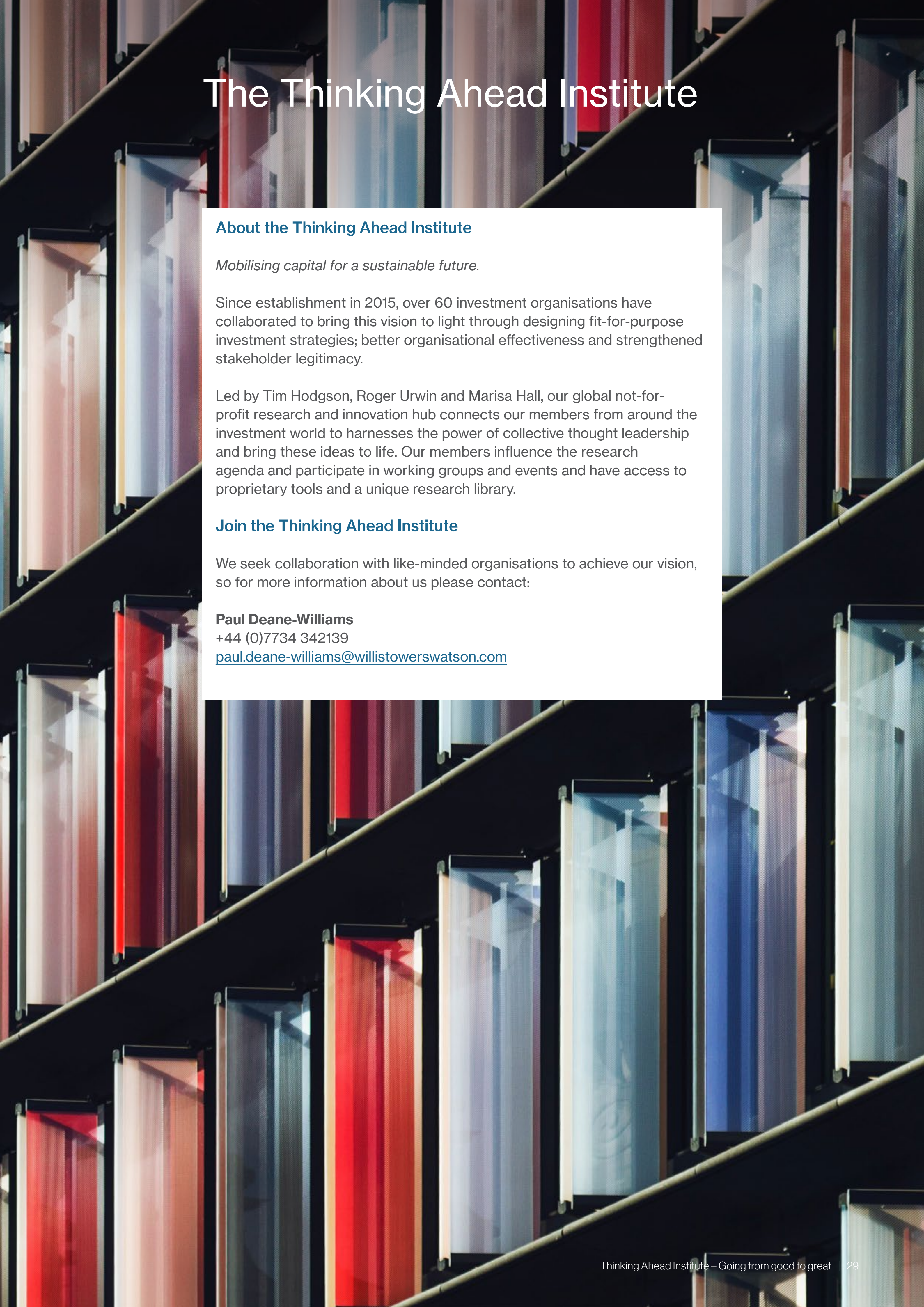
Willis Towers Watson has prepared this material for general information purposes only and it should not be considered a substitute for specific professional advice. In particular, its contents are not intended by Willis Towers Watson to be construed as the provision of investment, legal, accounting, tax or other professional advice or recommendations of any kind, or to form the basis of any decision to do or to refrain from doing anything. As such, this material should not be relied upon for investment or other financial decisions and no such decisions should be taken on the basis of its contents without seeking specific advice.

This material is based on information available to Willis Towers Watson at the date of this material and takes no account of subsequent developments after that date. In preparing this material we have relied upon data supplied to us by third parties. Whilst reasonable care has been taken to gauge the reliability of this data, we provide no guarantee as to the accuracy or completeness of this data and Willis Towers Watson and its affiliates and their respective directors, officers and employees accept no responsibility and will not be liable for any errors or misrepresentations in the data made by any third party.

This material may not be reproduced or distributed to any other party, whether in whole or in part, without Willis Towers Watson's prior written permission, except as may be required by law. In the absence of our express written agreement to the contrary, Willis Towers Watson and its affiliates and their respective directors, officers and employees accept no responsibility and will not be liable for any consequences howsoever arising from any use of or reliance on this material or the opinions we have expressed.

Contact details

Roger Urwin
roger.urwin@willistowerswatson.com



The Thinking Ahead Institute

About the Thinking Ahead Institute

Mobilising capital for a sustainable future.

Since establishment in 2015, over 60 investment organisations have collaborated to bring this vision to light through designing fit-for-purpose investment strategies; better organisational effectiveness and strengthened stakeholder legitimacy.

Led by Tim Hodgson, Roger Urwin and Marisa Hall, our global not-for-profit research and innovation hub connects our members from around the investment world to harnesses the power of collective thought leadership and bring these ideas to life. Our members influence the research agenda and participate in working groups and events and have access to proprietary tools and a unique research library.

Join the Thinking Ahead Institute

We seek collaboration with like-minded organisations to achieve our vision, so for more information about us please contact:

Paul Deane-Williams
+44 (0)7734 342139
paul.deane-williams@willistowerswatson.com

About the Thinking Ahead Institute

The Thinking Ahead Institute seeks to bring together the world's major investment organisations to mobilise capital for a sustainable future. Arising out of Willis Towers Watson's Thinking Ahead Group, formed in 2002 by Tim Hodgson and Roger Urwin, the Institute was established in January 2015 as a global not-for-profit group comprising asset owners, investment managers and service providers. Currently it has over 40 members with combined responsibility for over US$12trn.

Towers Watson Limited (trading as Willis Towers Watson) of Watson House, London Road, Reigate, Surrey, RH2 9PQ is authorised and regulated by the Financial Conduct Authority.

TAI-IC011/06/2020

thinkingaheadinstitute.org

Thinking Ahead Institute
Willis Towers Watson