

Systems Curriculum virtual event series

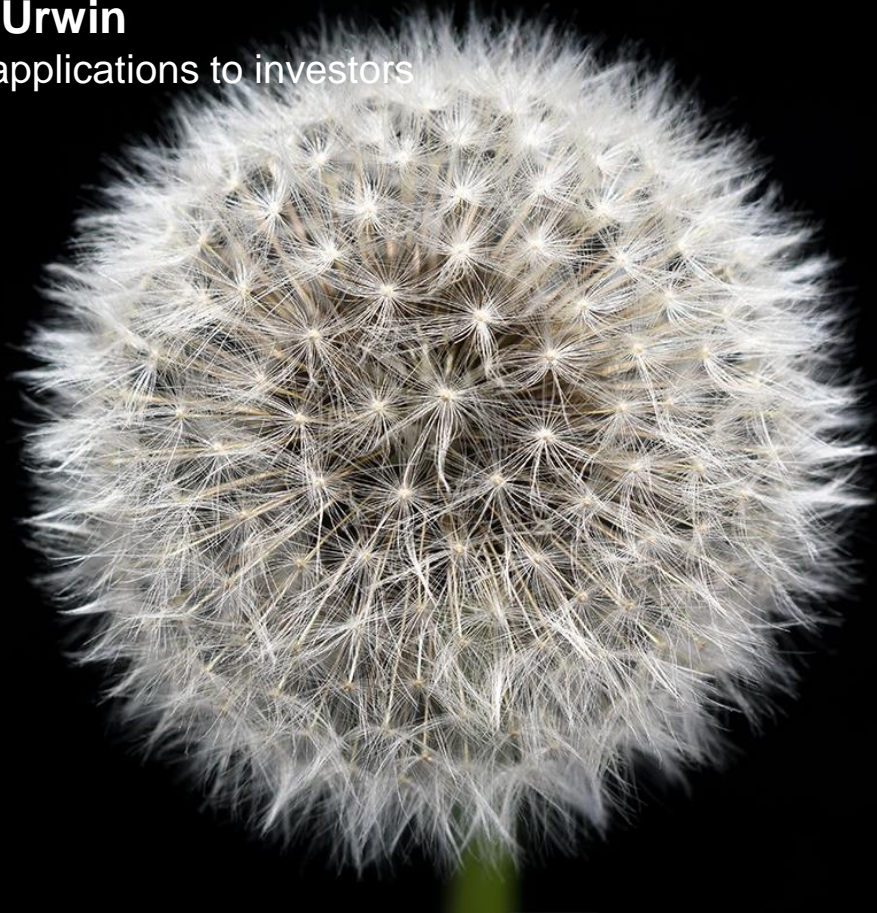
Principles and practical applications of systems thinking in the investment industry

Session 4. Sustainability | 13 November 2024 | Pre-reading slides



0. Prelude – Roger Urwin

Defining sustainability applications to investors



Systems curriculum: understanding the power and practice of systems thinking



4. Sustainability – 13 November 2024

Pre-reading

- 90 minutes hybrid
- Includes expert inputs
- Includes Q&A



0. Systems primer – the key features of systems thinking and systems design and the different lenses to see systems through



1. Systemic risk - Systemic risk concepts. Deepening understanding
Adapting our practices



2. Systems leadership – *the use of systems leadership models* which recontextualise problems as shared problems and use systems thinking to explore and solve the problem



3. Beliefs – *the use of system patterns* to understand the present landscape and plan for the future



4. Sustainability – Sustainable investing and *systems-level investing* in which the three dimensions of risk, return and impact are integrated



5. Measurement - *the use of balanced scorecards* in which measuring and incentivisation is addressed more holistically and systemically

Source: [TAI Systems Curriculum](#): June – December 2024

Systems view of sustainability: the need for adapting | Systems Curriculum session 4



4. Sustainability – 13 November

The elephant in the room is going to have to adapt

- Pre-reading
- 90 minutes hybrid meeting
- Two time zones




Best-practices. The Peer Study Best-bits Model

The Peer Study generated this Model of what the Peers considered their stronger propositions.

One of the biggest focus areas has been on the sustainability area #6, but all boxes are connected

Thinking Ahead Peer Study 'Best-Bits-Model' taken from the 26 Peers strongest propositions for success in future			
	Best-practice best bits (Canada model)	Total portfolio thinking best bits	P2P (People-2-People) model best bits
Governance	#1. Governance/fiduciary duty – Canada model <i>Considerable focus</i>	#2. Risk 2.0 – risk assessed wider, longer, softer <i>Emerging focus</i>	#3. Soft stuff – culture, governance, talent, tech <i>Significant focus</i>
Investment	#4. Private market emphasis – various versions <i>Significant focus</i>	#5. TPA- various versions <i>Considerable focus</i>	#6. 3D Investing – various versions <i>Rightsizing. Fiduciary Duty. Integrating ESG. Impact.</i>
Operating	#7. Org design & internalisation – mix of IPs <i>Considerable focus</i>	#8. Balanced scorecards – multiple comparators <i>Emerging focus</i>	#9. Beliefs – aligning values, beliefs, propositions <i>Emerging focus</i>

The mapping from current to future

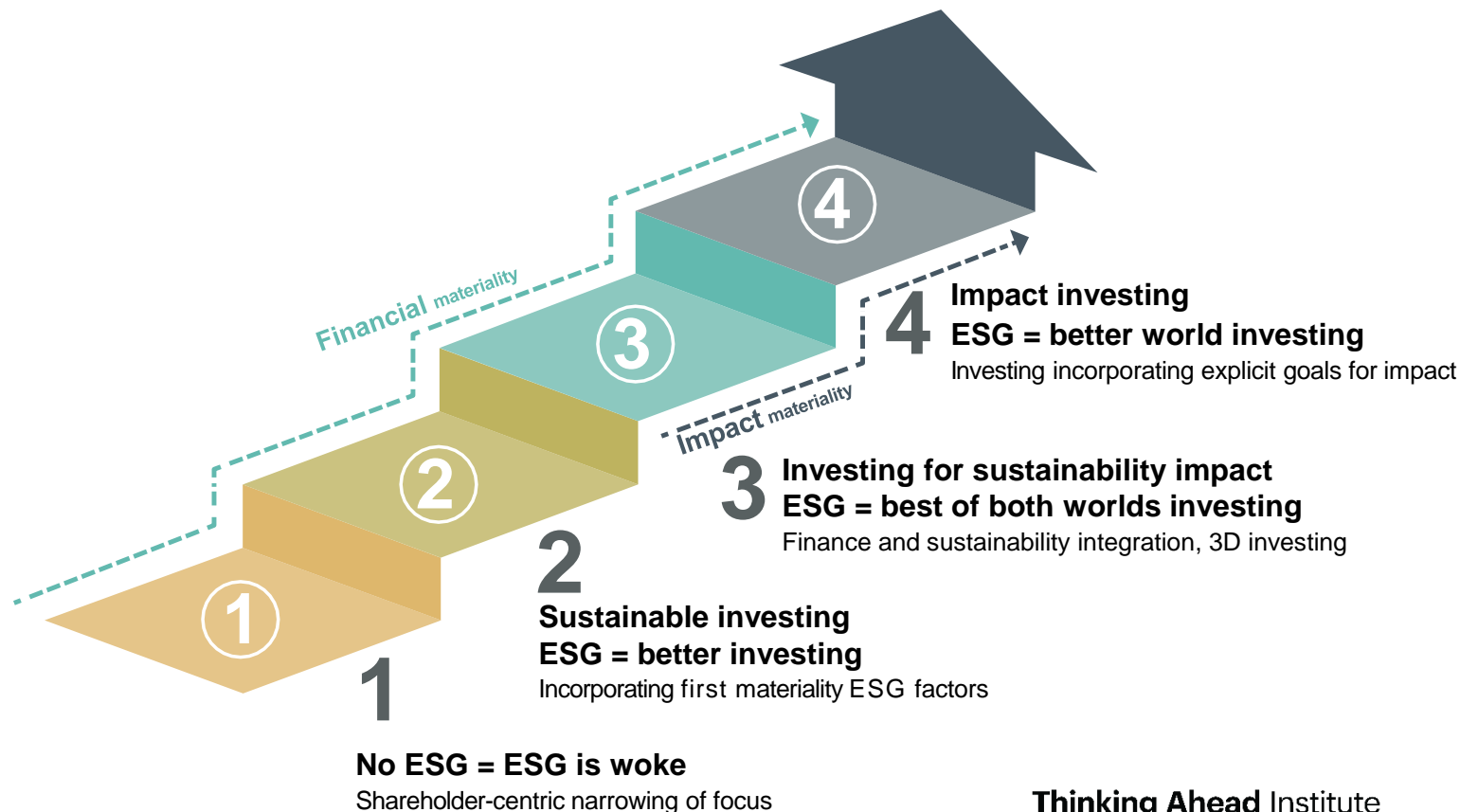


From	To
2D investing – risk & return	3D investing - risk, return & impact
SAA	TPA
Risk 1.0	Risk 2.0
Measuring alpha	Measuring multiple comparators
Change hurts	Change works

1. Rightsizing sustainability and fiduciary duty



There are multiple ESG / sustainable investing investment models



ESG is a loaded term. Going forward sustainability is the better term to use

The future of ESG is being contested. While backlash views have gained ground, supporters have also become more vocal. It is vital we understand how this contest is playing out. And that we emerge from it with a reset of thinking.

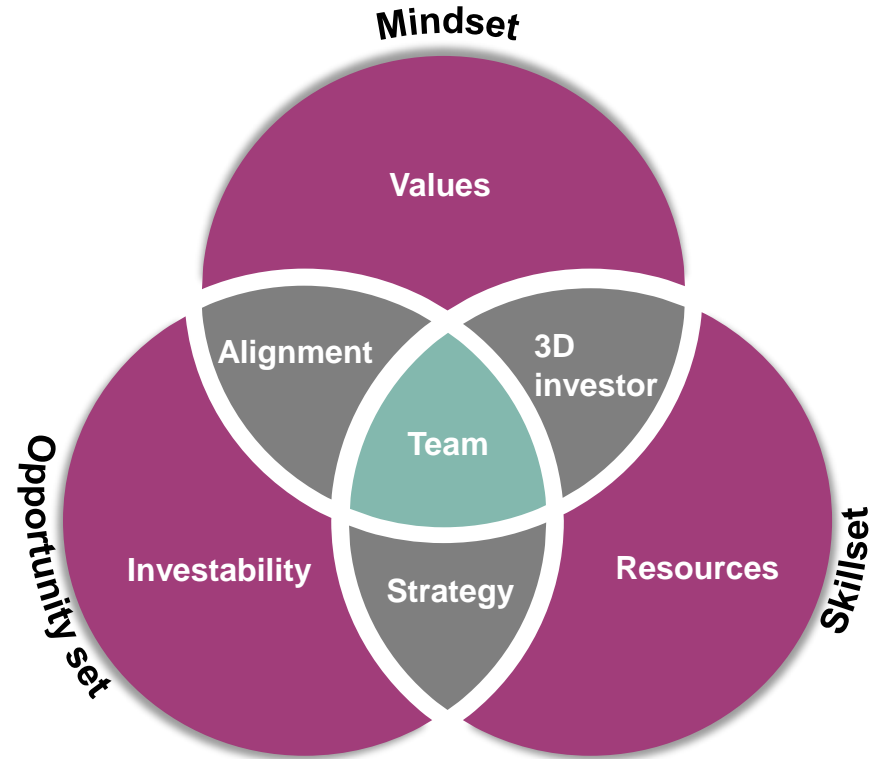
- Four distinct ESG segments are on the chart above:
 1. Not doing ESG will be one model, it is a politicised version yes, but it will exist – the ESG backlash
 2. ESG is simply better investing, this is integrated ESG by another name
 3. The ambitious model – ESG = best of both worlds, impact alongside risk and return. This is 3D investing by another name. Net zero is in this bucket
 4. There is an impact investing model – more found in family offices, and philanthropy, and charities and foundations not normally found in pensions and SWFs

Alternative models

- We will see alternative taxonomies come and go, but these four should become the foundation of segmentation
- Around the four models there is a spectacular range of textures to the ESG fabric
 - Sustainability talk and sustainable investing will continue to grow as key concepts
 - Overclaiming and greenwashing will not be banished
 - There will be a bigger mix of standards, regulations, politics and controversies descending
 - Some deepening of climate consideration
 - Some widening of ESG reach into 'S'
- Also, some widening of ESG reach into systemic risk – climate, nature, inequality, biodiversity – these are all connected.

Rightsizing sustainability – general framework

- | | |
|--|--|
| | <ul style="list-style-type: none"> Deciding on and acting on a particular ambition and commitment with respect to sustainability / impact reflecting mindset and skillset of the organisation and opportunity set to do what is intended |
| | <ul style="list-style-type: none"> Not overdoing it and compromising legitimacy Not underdoing it and foregoing the opportunity Rightsizing the role to play, in contributing to society's toughest challenges, while not trying to be the solution when government has to be in that seat |
| | <ul style="list-style-type: none"> Need for purpose and vision to be clear and aligned with strategy. Vision informs strategy. Strategy grounds vision in reality |
| | <ul style="list-style-type: none"> Rightsizing brings together <ul style="list-style-type: none"> mindset model – what net positive impacts are valued skillset model – what is the unique investment edge, what is special about the people - passion, values, attraction, retention opportunity set model - what is viable, commercial and deliverable via investing and stewarding |
| | <ul style="list-style-type: none"> Need to stress test various scenarios to check whether goals and intentions line up with realistic expectations for outcomes Various challenges including measurement and communications and need for enabling |



Fiduciary duties – crucial investment guardrails; Social license – increasingly relevant

Fiduciary duty

- There is no single globally consistent interpretation of fiduciary duty but most versions include:
 - Loyalty: acting in accordance with the specific power of investment by putting the interests of beneficiaries first and avoiding conflicts of interest
 - Prudence and care: investing prudently, exercising good judgement and reasonable care; diversify according to accepted investment theory
 - Impartiality: avoid favouring the interests of particular beneficiaries over others
- Interpretation will not be easy to pin down objectively, it is a window more than a precise place
- Appropriate interpretation will change as investment principles, practice and circumstances evolve
- Fiduciary duty has always put financial interests first but interests concerning well-being may be counted as well

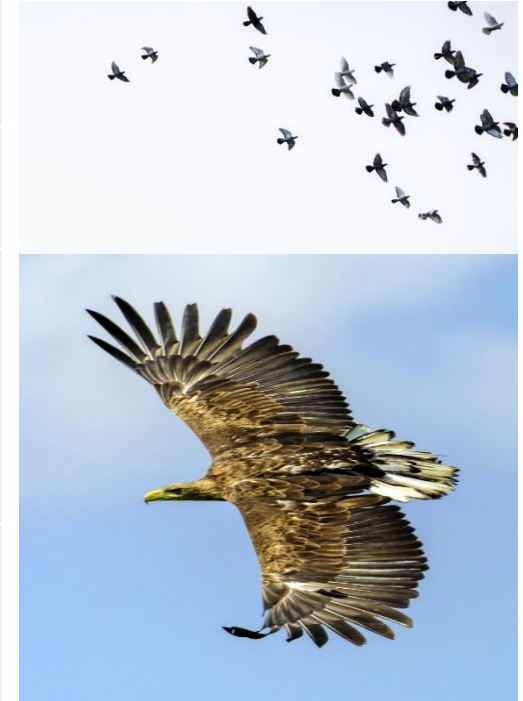
Social license

- The definitions of social license are not consistent globally, but most versions include:
 - that investment industry organisations rely on a covenant from society to pursue financial goals
 - the deal is that the realisation of wider socially-valued goals legitimises the pursuit of commercial goals alongside these
 - this is a social construct that reflects a solidarity of working together when you're in it together – there are co-dependencies between society and the industry
- As for fiduciary duty, interpretation will not be easy to pin down objectively, it is a spectrum more than a precise place
- Appropriate interpretation will change as the societal zeitgeist evolves
- Societal license to operate puts non-financial interests for society alongside financial interests

‘Rules of the game’

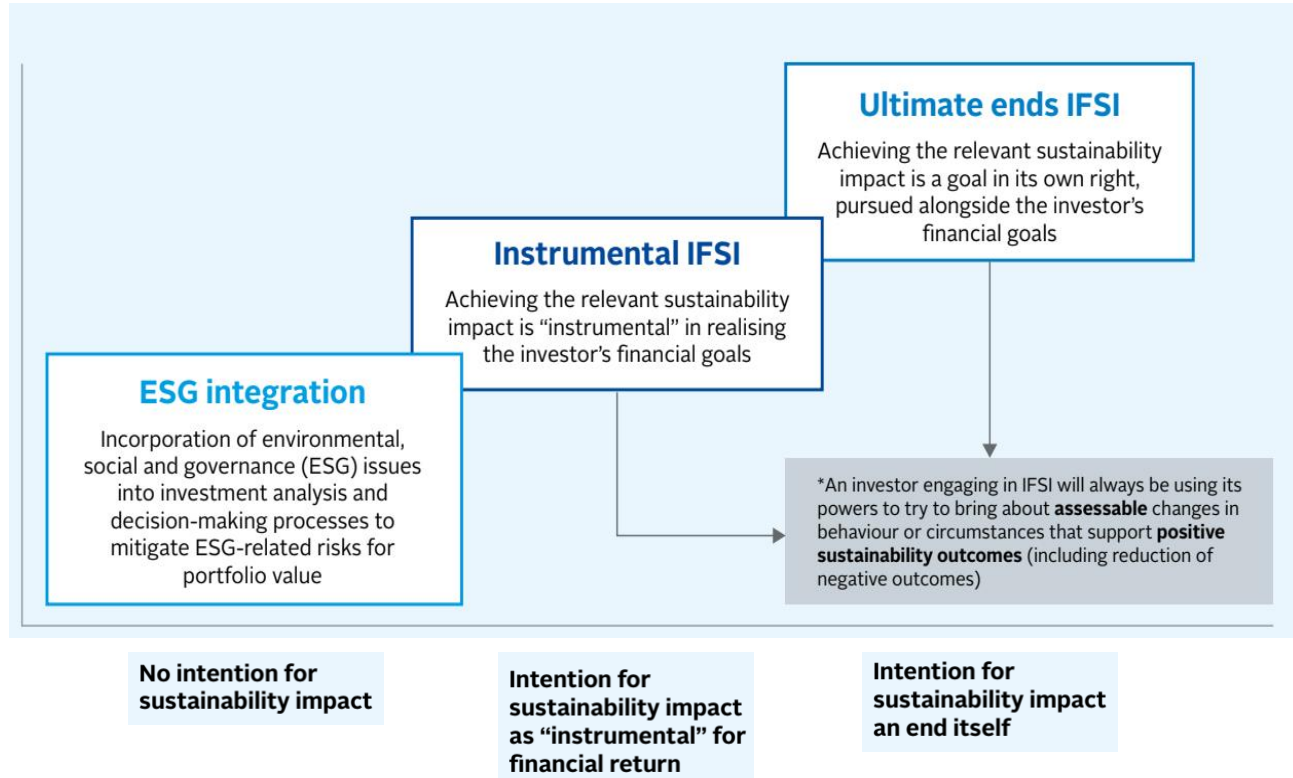
Fiduciary duty issues

- Fiduciary duty – a long-running foundational principle in investing – a big part of rules of the game – is being discussed widely, reviewed legally, and explored practically. It matters to our industry that we move with it in the right direction
- Fiduciary duty is a high-dissonance subject – the levels of misunderstanding and misrepresentations are very high reflecting its subtle characteristics.
- Fiduciary duty has arrived at a fresh place in its journey with the PRI-Freshfields-Generation work with the treatment of [investing for sustainable impact](#).
This is encouraging a 3D investing model – risk, return and real-world impact in which financial outcomes are improved through increasing resilience to systems change and real-world impact can be a parallel outcome
- Fiduciary duty is summarised under this framing in three parts
 - investing affordably and securely – balancing risk and return in the present
 - investing sustainably – balancing risk and return over time
 - investing systemically – securing the system health over time (combining the social, economic, environmental and financial systems)



Progress in fiduciary practice on sustainability

The PRI & Freshfields Legal Framework for Impact



Source: Legal Framework for Impact - 2021

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Fiduciary duty challenges and solutions

Challenges	<ul style="list-style-type: none">▪ Politics presents big challenges – it is casting a long shadow over the investing landscape, with differences in ethos introducing greater divisions in views, by geography, type of investor, and players’ values. This is challenging the application of fiduciary duty▪ Market infrastructure issues are big challenges – governance, disclosures, standards, data, incentives. We have been incentivised to manage a long-term system by concentrating on short-term factors▪ Net zero investing has been maturing slowly and incrementally while the climate change issues have been escalating substantively. We are not on track for net zero outcomes or 1.5 degrees
Solutions	<ul style="list-style-type: none">▪ Net zero investing and 3D investing are very big transitions, and will need transformational content, with a new story, theory and supporting data and narrative.▪ This will take innovation in time horizon, benchmarks, incentives, measuring and 3D investing. Innovations like <i>3D investing</i> itself, the <i>TPA</i> that supports it; the <i>balanced score cards</i> that inform it, report on it and measure it; the <i>systems thinking</i> that ties the theory and practice together

Progress in fiduciary practice in the UK on sustainability

The UK investigation into fiduciary duty under the Financial Markets Law Committee

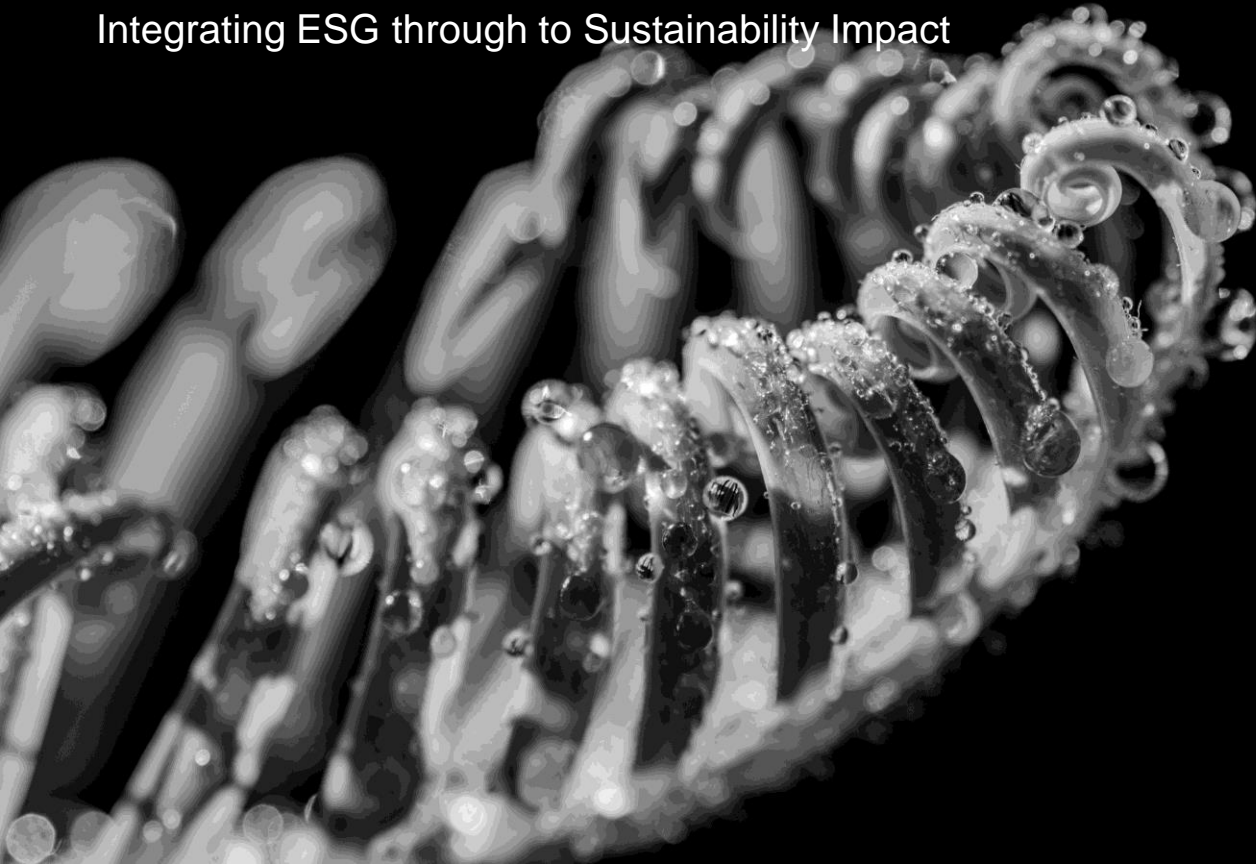
1. *'Pension funds exist as participants in much wider financial and economic networks'*. This suggests they should be given systemic treatment because of this fact. Climate-change related risks being systemic will not be hedged by portfolio diversification the same way that non-systemic risks might be diversified. Other ways to influence the system need to be considered – like stewardship.
2. Where funds seek to make a real-world impact on climate there is the benefit of a public good, but the fund must derive its own private benefit in better risk-adjusted returns net of all costs. The test comes down to whether *'there are appropriate, lawful, cost-effective steps available to be taken in collaboration and coordination with other pension funds'*. In this test of financial primacy funds can singly employ their scale advantage, or benefit from pooling their influence. The documentation and justification of investment beliefs is a vital part of trustee process here.
3. The special factors in this uncertain system mean that *'numbers on their own will not be able to tell this story, and narrative and numbers are the way forward'....'Sometimes financial factors cannot be quantified but it does not follow that they lack weight'*. This is a very important resetting of the principle of 'what gets measured gets managed' with 'what can't be measured must still be managed'.
4. Wider factors to climate should also be seen as material systemic risk factors *'including nature, environment, community, and biodiversity'*. In each case the lens applied is that the fund's purpose is pursuing financial goals and the use of trustee powers to achieve that purpose by reference to applicable time horizons and the system supporting future returns.
5. To properly integrate these four points, pension funds need perhaps to extend their golden rule to 'balancing risk and return, securely and affordably, *and sustainably and systemically*'. Using 'sustainably' downplays investing for shorter term gains when they create risks to the longer-term returns. Using 'systemically' suggests considering the interconnectedness of the investment ecosystem across a myriad of material factors – social, environmental, economic and political in particular.
6. A new step in sustainable investing is needed to advance this wider purpose. The big asset owners in owning the slice of the world economy (identified as 'universal owners' practising 3D investing) increasingly take the mindset that the returns they need will only come from a system that works; and they have the size and resources to contribute to supporting the system to secure better risk-adjusted returns. In this thinking stewardship will play a bigger part than before including systemic engagement on matters of public policy to mitigate systemic risks.

2. Video 1-2-1










3. 3D investing

Integrating ESG through to Sustainability Impact

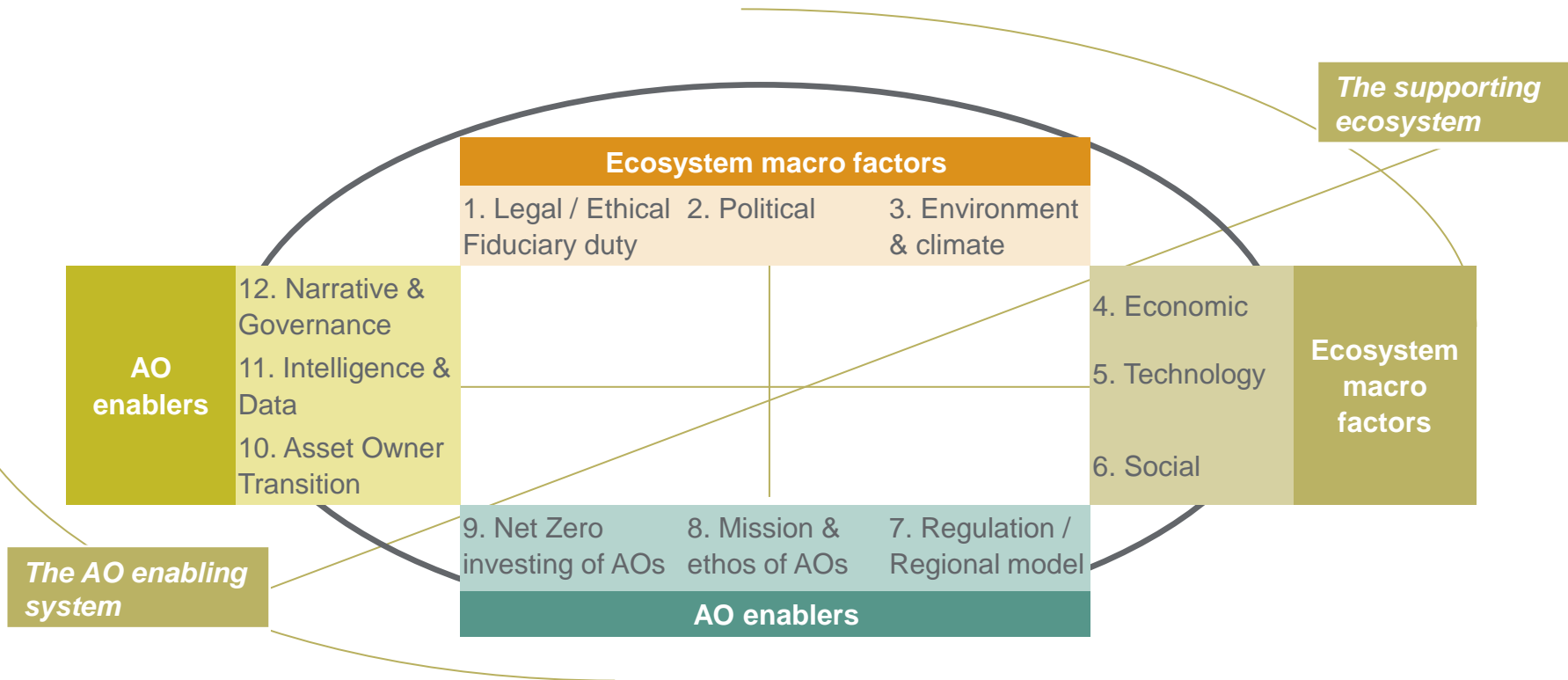


3D investing framework – a strawman

			Lite	Full-on
	1. 3D goals	<ul style="list-style-type: none"> The portfolio and strategy seeks to integrate risk, return and impact (= positive, measurable social, and environmental impact) 	✓	✓
	2. Total portfolio thinking	<ul style="list-style-type: none"> Strategy is focused on producing long-term absolute returns contributing to the total portfolio risk and return consistent with goals 	✓	✓
	3. Strategic partnership	<ul style="list-style-type: none"> Adding IP to the AO outside the mandate; providing strategic input – investment strategy ideas, and reverse enquiry new mandate ideas 	✓	✓
	4. Core sustainability strategies	<ul style="list-style-type: none"> Integrated ESG and active ownership adding insight and engagement to support value creation, short-term and long-term 	✓	✓✓
	5. Impact strategies	<ul style="list-style-type: none"> Targeting and achieving real-world impact using Universal Investor strategies – portfolio and stewardship positions – including climate management 	✓	✓✓
	6. System-level engagement	<ul style="list-style-type: none"> Addressing the systematic risk elements in their portfolios – climate change, financial stability, social stability 	✓	✓✓
	7. Score-card monitoring	<ul style="list-style-type: none"> Combination of hard and soft measures TCFD reporting 	✓	✓

Many moving parts in the system– *that are all moving together*

A system with a function, bringing together multiple parts and inter-connections, that is endemically changing, with growing complexity and other emergent properties. Captured in a systems map below

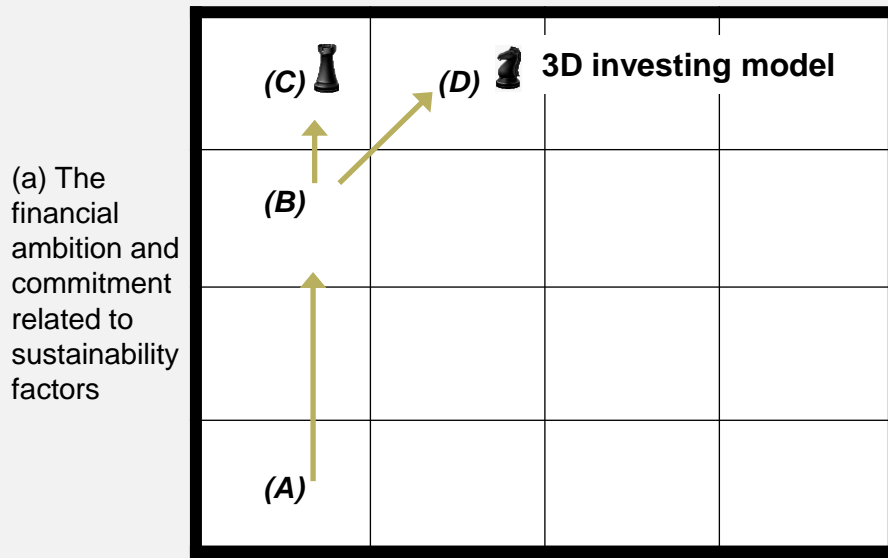


Fiduciary duty and the fiduciary window

The idea of fiduciary duty as a key influence on asset owner and asset manager policies

- The 'fiduciary window' identifies the set of acceptable investment policies given the application of fiduciary duty
- It has the vertical plane for financial materiality and motivation; and the horizontal plane for non-financial materiality and motivation
- The positioning of a fund in this window will be the result of sustainability 'rightsizing'. That is a process deciding on and acting on a particular ambition with respect to sustainability
- In the window we can characterise three relatively common sustainability positions
(A) is the non-ESG state, where funds started
(B) is the integrated ESG state with single materiality where many asset owners and asset managers are now
(C) is the evolving double materiality state with influence on real-world impact (*rook's move*)
(D) is the universal owner / system-level investing state with intentional impact (*knight's move*)
- The window (like the [Overton window](#)) is not fixed in time and will move with various factors (societal, legal, etc)

Sustainability positioning in the fiduciary window



(b) The non-financial ambition & commitment related to sustainability factors

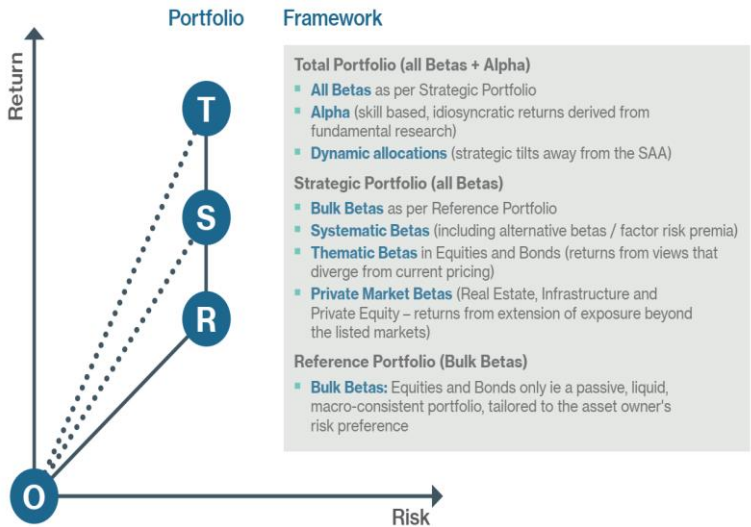
Pillars of effective stewardship



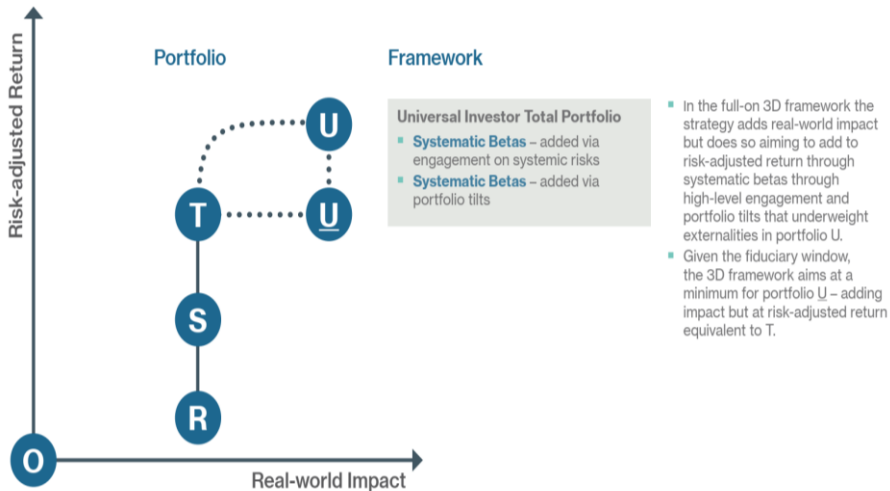
3D investing / universal ownership theory and TPA

3D investing-lite $GB_{f,esg} \times RB_{f,esg} > GB_f \times RB_f$	Governance Budget	100% financial
Governance budget expanded to integrate ESG produces better risk-adjusted returns than the alternative	Risk Budget	100% financial

3D investing full-on $GB_{f,i} \times RB_{f,i} > GB_{f,esg} \times RB_{f,esg}$	Governance Budget	80% financial / 20%impact
Budget expanded to incorporate universal ownership produces better returns & real-world outcomes	Risk Budget	100% financial






- In the total portfolio thinking the key is using various building blocks to produce the optimal portfolio for its overall goals.
- From reference portfolio upwards to total portfolio.
- This includes integrated ESG and active ownership and can be equivalent to a 3D lite framework.



- In the full-on 3D framework the strategy adds real-world impact but does so aiming to add to risk-adjusted return through systematic betas through high-level engagement and portfolio tilts that underweight externalities in portfolio U.
- Given the fiduciary window, the 3D framework aims at a minimum for portfolio U – adding impact but at risk-adjusted return equivalent to T.

Systems models and tools | the iceberg model

		Iceberg model elements	3D model
Visible 	 Observables	The outcomes, situations and events relevant to the system that are visible manifestations of the ecosystem in a complex adaptive way	<ul style="list-style-type: none"> ▪ Performance progression – short- and long-term ▪ Sustainability additionality
Not visible 	Patterns	The trends or patterns of observables and situations that guide our understanding of past and future events	<ul style="list-style-type: none"> ▪ What gets measured gets managed ▪ Time horizon pressures and challenges
	Structures	The ways that the system works through policies, processes, and practices which result in the trends, patterns and outcomes	<ul style="list-style-type: none"> ▪ Mandates ▪ Sustainability reporting and measurement
	Mental model	The shared values & beliefs, mindsets & attitudes, that created the system and how it operates – a compression of how something works	<ul style="list-style-type: none"> ▪ Beliefs capturing the sustainability proposition ▪ Beliefs on universal ownership theory

Start here at the bottom

Financial factors and real-world factors

- Enter the complication of certain factors that seem on the surface not to be ‘financial’ that we can identify as ‘real-world’. ‘Real-world’ is basically about impacts on the environment and society captured in part by well-being. Climate is our first candidate.
- The motivation to secure a better future for our climate via the decarbonisation of our economy at first blush comes across as real-world and not financial.
- But it is also financial. The evidence that adverse climate outcomes will damage future investment returns is compelling.
- This is where one of the current confusions lies – we speak as though financial and real-world impacts are binary, whereas many motivations and outcomes are both. We seek to exploit an opportunity that has both a financial and real-world motivation, impact and outcome.
- This blend of financial and real-world factors comes together in two steps:
 - In step one pension funds cost-effectively contribute to a decarbonised economy and a stabilised climate, this is more real-world than financial
 - In step two and into the longer term a supportive climate secures a better long-term risk-adjusted return from the mitigation of physical climate risk and transition risk. With the collateral real-world of a better climate on top. But more financial than non-financial.
- A long-time horizon is crucial to this investment proposition, it has less suasion with shorter term funds whether by goals or behaviours, including funds de-risking and aiming to buy out etc.

The stronger view of fiduciary duty ‘dual mandate’

But careful what you wish for

- A new version of fiduciary duty that permits a small concession to performance goals in return for larger non-financial goals would involve a very considerable change in alignment of various stakeholders.
- It would open a more complex world in which the exercise of trustee powers would undoubtedly have large consequences with no doubt some of them unintended.
- Widening fiduciary duty to align more to a best-interests standard could be considered.
- There is huge devil in the detail in how this might work but it might for example involve trustee discretion to trade long-term value versus certain limited short-term concessions to return.
- This would be more consistent with the world as it has become or is becoming where value is more than just financial value. And it would put pension funds closer to corporate practice where the UK Companies Act allows companies latitude to factor in wider relationships.
- And it would also allow the responsible practice of UK pension funds to be more highly valued and more valuable.

4. Case study: TPA and 3D investing at NZ Super



Case study: TPA and 3D investing at NZ Super – the story, theory and data



The story

- **New Zealand Super** has been a **very sure-footed** organisation over its entire life being early in many trends: governance, transparency, TPA, sustainability
- **It has practiced TPA since 2010 and their version of 3D investing since 2018**
- The back-story starts with the **governance focus on AOs** in the 2000s that lead to the WTW Clark & Urwin model and governance measurement – that NZ Super used
- The **internalisation of big AOs** through the 2010s – that NZ Super took on gradually over 2 decades
- AOs feel **increasingly pressured** with high expectations for transparency, accountability, sustainability & performance – that NZ Super has so far met



2000s

Clark & Urwin
governance best-practice model

Focus on Boards, resources, time & org effectiveness

NZ Super inception in 2003



2010s

AOs maturing
through growing
their internal teams

TPA and private market growth are big themes

NZ Super develops TPA, strategic tilting



2020s

AOs reach points of
inflection with
resourcing

Focus on building combinations of internal / external IP

NZ Super becomes well-studied model



The future

AOs pressured by
change, complexity
& uncertainty

Focus on better organisational design & resilience

NZ Super attains global-best practice



The theory

- **Organisational alpha** is the enabler of AO performance from people and process seeing AOs as P2P ((people-to-people) organisations in which leadership & systems design are critical
- **Big patterns** are highly evident among leading peers
 - the soft stuff is the hard stuff
 - combinatorial value and being joined-up
 - what gets measured gets managed
- **The model elements**
 - **Canada model** in governance, alts and insourcing
 - **TPA model** in joined-up people and process, and ideas
 - **P2P model** in culture, talent and technology



The data

- NZ Super is a **global-best practice** organisation. More than half the individual WTW ratings were AAA or AA
 - The **value-add of 1.3% pa** over 5 years and 1.5% pa since inception is statistically significant
 - NZ Super is the top performing multi-asset state fund over 10y
 - The results reflect the exceptionally **strong leadership impact** and continuity from 4 CEOs and 5 Board Chairs over 20 years
 - WTW made **7 recommendations** in the Review – all accepted
- See NZ Super Review and TAI Peer Study of 26 mega AOs**

5. Wrap and takeaways



Some changes are needed

Changes to thinking		Changes to investment practice		Changes to leadership	
Systems thinking	Recognise systemic risk Apply systems thinking	Adapt to systemic risk	Adapt to lack of meaningful data Incorporate 3D investing	Adapting the mindset	Triaging problems: problems, wicked problems and super-wicked problems
Extended risk framework	See risk through multiple lenses. Think of risk in wider, softer terms Adopt total portfolio thinking	Risk culture	Develop organisational resilience Build resilience from awareness	Systems leadership	Applying systems leadership selectively and coherently
Narratives & numbers	Balance between data and narrative Respect the limits of data inference	Build in robustness	Extend portfolio-level scope Extend system-level scope	Promotion of systems leadership	Socialising the methods and the results of systems leadership

Beliefs. Changes to process	
Use beliefs as scaffolding	Compelling reasons to train, rehearse and prepare - the sports analogy. You need accuracy, alignment and actionability
Use collective methods	The power of the collective effort to deal with the toughest challenges
Embedding, enablement and empowerment	Embedding - needs socialising Enablement - needs clear policies & processes Empowerment - needs decision matrix clarity and supportive culture

Sustainability. Changes to process	
Rightsizing of goals. Aligning policy with fiduciary duty	Asset owners have choices that reflect the coming together of mindset, skillset and opportunity set
Develop mandates aligned to goals	Sustainability introduces a range of mandates in a spectrum
Embedding, enablement and empowerment	Being joined-up carries a particular advantage with sustainability

Takeaways from sustainability

Deeper understanding. Increased collective intelligence

BaU – Business-as-Usual	BbU – Business-beyond-Usual
1. Socialise understanding of sustainability in its scope and through the beliefs	3. Build a systems-led 3D investing program – lite or full
2. Sharpen your skills, broaden your boundaries, battle your biases, know your limits	4. Use the iceberg as one of the scaffolding poles

Supporting materials

Systems and systems thinking

Define your terms

Connecting dots - *seeing wholes as inter-connected not isolated parts*

Recognising patterns - *seeing moving patterns not static pictures*

Socialising solutions - *seeing solutions through a collective not individual effort*

The definition of systems thinking in Arnold & Wade (2015)

Systems thinking is a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviours, and devising modifications to them in order to produce desired effects.

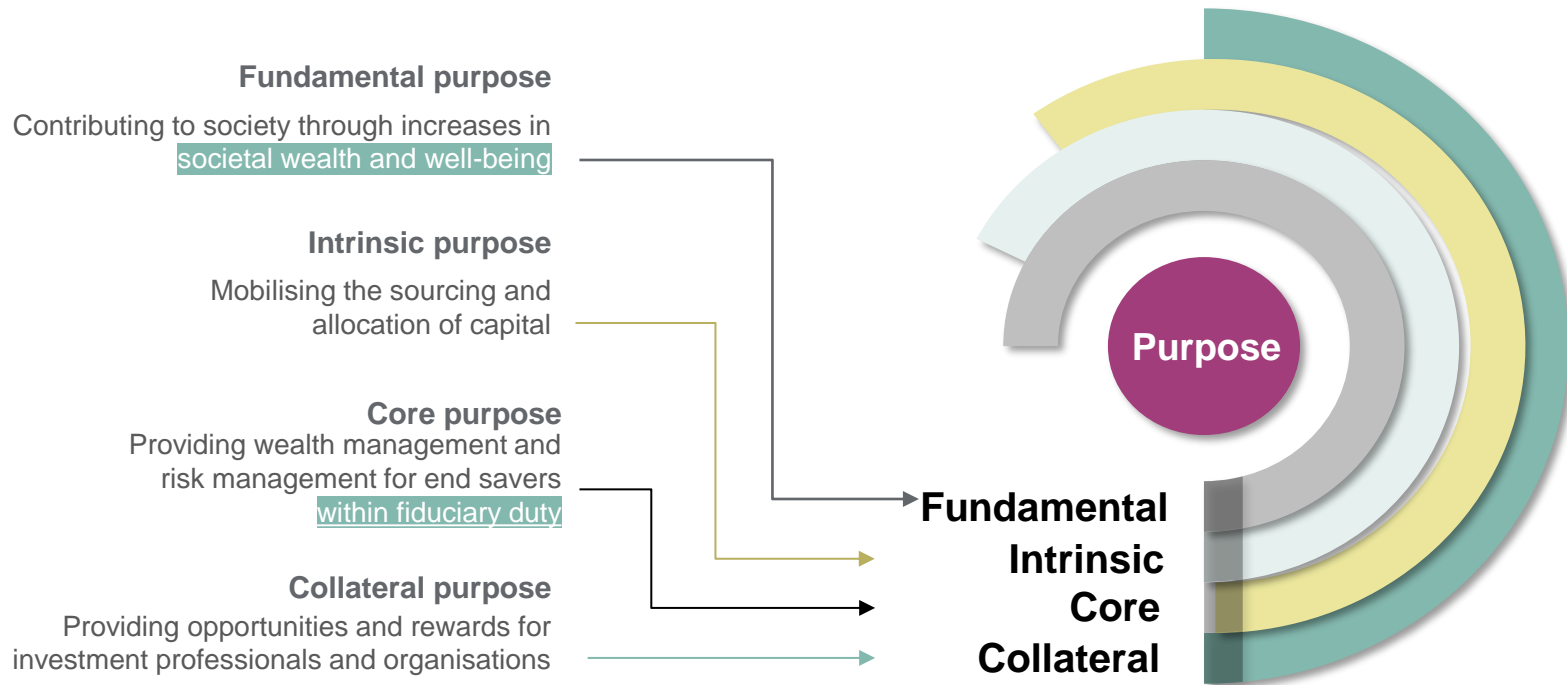
The system is defined as a collection of elements that are inter-connected and fulfil a certain purpose or function.

Three key characteristics

- Each system has its elements, its purpose or function, and, often, associated goals. The elements in the systems and the systems themselves are linked through various interconnections, some intended and some not
- There is no single system; there are multiple systems of which we are a part. These systems overlap and have a hierarchy, and some systems contain other systems
- Systems are always changing; they add new elements, lose old elements, change their interconnections, and evolve different functions. These systems are always adapting to changing circumstances hence *complex adaptive systems*

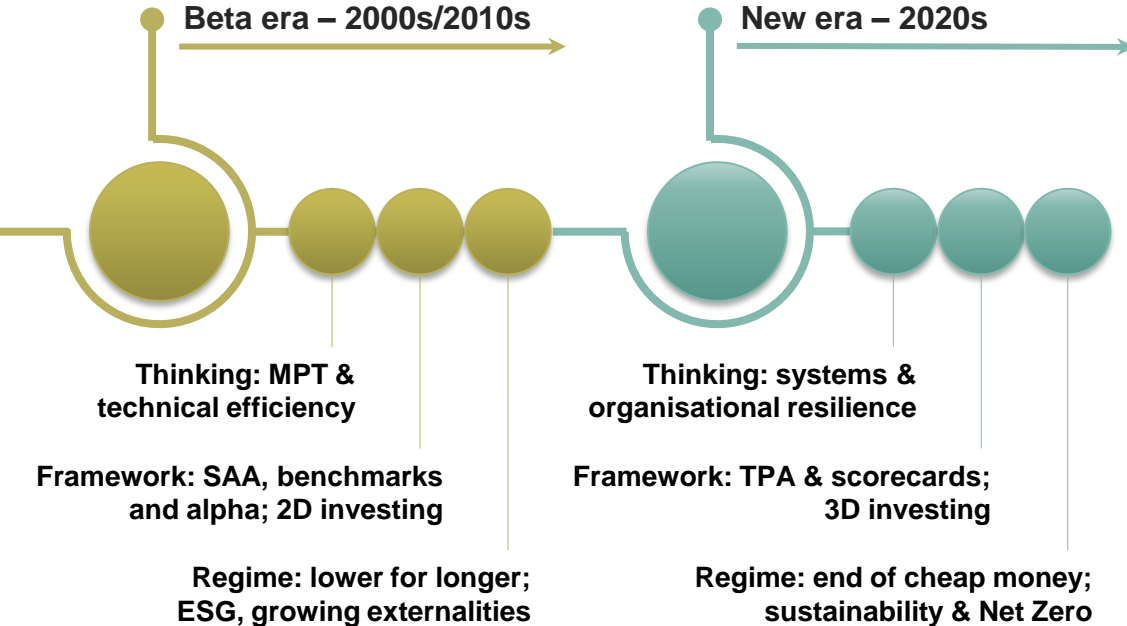
The purpose(s) of the investment industry

Asset owners have followed the lead of other institutions towards greater stakeholder orientation.
But staying very conscious of the financial primacy in fiduciary duty



Investment industry era change – thinking, framework and regime

Change on multiple fronts Structural change is generally slow and sticky



- Are we at a major inflexion point in terms of how the world operates? **The world has several crises** to wrestle with. It has geopolitics, it has climate change and the issues of inequality that could collectively challenge capitalism as we know it.
- The principal asset owner model of **multiple external managers has come under pressure**. Internalisation has progressed, particularly in listed markets and further versions that internalise private market investing via offshore investment teams are now being tried. These carry many advantages, but their effectiveness can only be judged over long periods of time with individual contexts significant.
- All asset owners retain complex operating models using many third parties. They have always had **multiple stakeholders**, but the reality is that stakeholder management has got harder with more pressure being brought to bear by sponsors. In this situation, it is no surprise that governance arrangements are under pressure.
- The macro has fundamentally changed and quite swiftly from lower to longer to the end of cheap money. Investment beliefs need a big makeover with rates and inflation very different going forward. We again face lower real return expectations.

Big changes occurring in the big ecosystem settings

The big reset

Systems leadership	<ul style="list-style-type: none">▪ Mindset shift, to work in such close collaboration, to find shared benefits▪ To build traction there needs to be a story, a theory and some figures▪ Agility to respond to outcomes and other feedback
Aligning purpose, vision, and strategy	<ul style="list-style-type: none">▪ Organisations have weak alignment of purpose▪ Socialisation is time-intensive but results-accretive▪ There are periodic moments to relitigate the mix
Evolving board and leadership practices	<ul style="list-style-type: none">▪ Deepening the communications with stakeholders about key issues▪ Reinforcing the apolitical mandate of the fund but working with the growing likelihood of a bigger political context▪ Strengthening the diversity in leadership, dialogue and governance design

There is a quiet revolution coming here...

**Systems theory and
systems leadership**

are critical tools for
our institutions to use
and should be a
central paradigm
supporting
sustainable investing

**Total Portfolio
Approach**

is the thought partner
to the systems-theory
paradigm of investing
using the hyper-
integration of multiple
decisions to align with
fund-specific goals

3D Investing

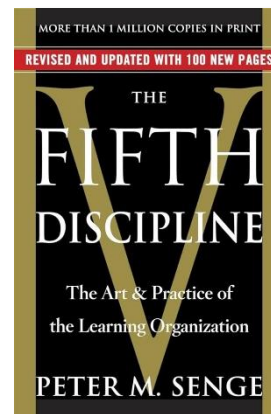
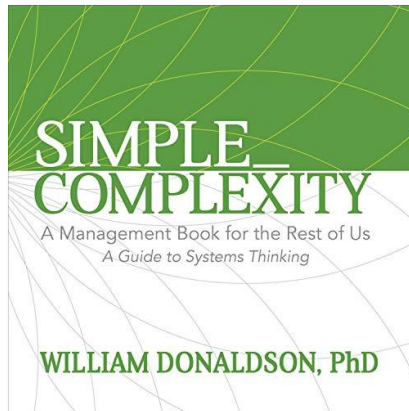
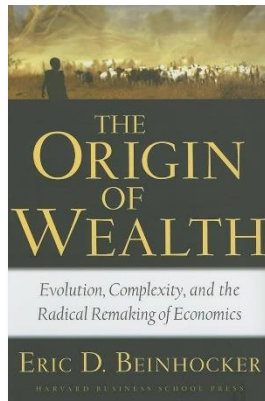
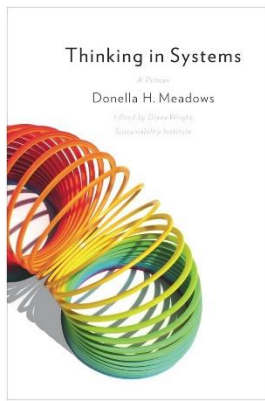
(Universal Owners)
are the institutions
best-placed to benefit
from this thinking and
approach premised
on culturally adapting
to this way of thinking
and acting

Case Study 4. Systems thinking patterns – joined-up ways of thinking and working

Complex systems have motion, flux & feedback	Tragedies of the horizon are failures of imagination	If you torture the data, it will confess to anything	People respond to incentives, the rest is commentary	Quick fixes will usually fail, the easy way out leads back in	The soft stuff is the hard stuff, it's all about the people	We're better together when we're in it together
Circular feedback is generally more vicious than virtuous	Long-term investing is damned if you do, damned if you don't	Measurement gives a subject a respect. What gets measured gets managed	Progression & regression are hard to see, e.g. the boiling frog	Same as ever <u>and</u> different this time. Yesterday's solutions = tomorrow's problems	We hear what we want to hear and disregard the rest	All of us are smarter than any one of us
Most investments involve j-curves (e.g. patient capital)	Cost and value, cause & effect are rarely close in time, space, provenance	Performativity can work short-run, but can't outrun authenticity	Looking good means feeling good	Going above and beyond produces imbalances e.g. Whack-a-mole	Overconfidence is loud and unshakeable but confidence is quiet and assured	If you've had a hand in it, you'll have your heart in it
Most successful innovations have s-curve growth (e.g. net zero investing)	Managing through process beats managing through measurement	What is claimed is going on is not the same as what is really going on	In a tragedy of the commons free riders are paid well	There are simple, quick wrong answers to most problems	You can't solve wicked problems using innocent thinking	The power of both/and thinking
Systems don't go in straight lines or in one direction. They are curved and reflexive	In a complex system there are always places to hide from accountability	A complex system has influences and correlations not causes and effects	Reason is the slave of passion. Feelings first, socialising second, thinking third	Power these days is harder to use and easier to lose	Out of great power come great opportunities and great excesses	Some interventions can make a real power of difference e.g. Streisand effect
<i>Complicate to understand, simplify to act. Models simplify the world into usable bits</i>	<i>The bird in the hand is worth two in the bush</i>	<i>We measure what we do because we can. We can measure more than what we do</i>	<i>Quantifications need qualifications</i>	<i>The devil is always in the details</i>	<i>To drive effective change reduce the frictions rather than adding to the fuel</i>	<i>There is power in having skin in the game</i>

*See the [Hemingway 'six-word story'](#): 'Hemingways' summarise the issues in a memorable meme-like six words (or similar numbers)

Book list and resources



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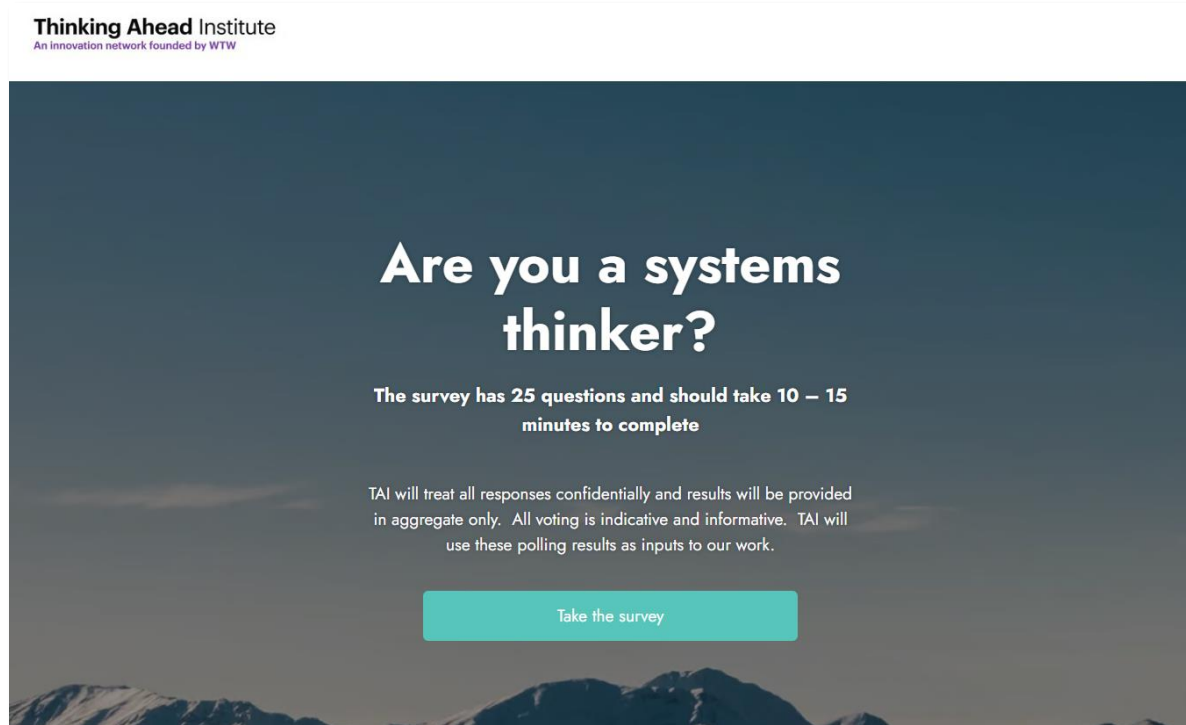
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