THE TOTAL PORTFOLIO APPROACH:
FROM PRINCIPLES TO PRACTICE

17 NOVEMBER 2026
15:30 – 17:30 hrs
PGGM, Zeist

CFA Society Netherlands

THE TOTAL PORTFOLIO APPROACH:
FROM PRINCIPLES TO PRACTICE

15:30 Welcome by **Geraldine Leegwater** (PGGM) and **Anne-Marie Munnik** (CFA Society Netherlands)

15:40 **Roger Urwin** – *Setting the Scene*

16:10 **Arjen Pasma** – *From Principles to Practice: The PGGM journey*

16:30 Panel with **Arjen Pasma** (PGGM), **Lindsey Matthews** (USS) and **David O'Sullivan** (Marsh)

17:25 Closing remarks

17:30 Networking drinks

CFA Society Netherlands

TPA: SETTING THE SCENE

ROGER URWIN





CFA Society Netherlands



Total Portfolio Approach: A Practical Guide

CFA Society Netherlands – 17 November 2026

Roger Urwin FSIP
– Global Head of Investment Content, WTW
- - Thinking Ahead Institute Co-Founder

The Total Portfolio Approach (TPA)
A Practical Guide for Navigating the Transition to TPA
Roger Urwin, FSIP and Genevieve Hayman, PhD
CFA Institute RPC

CFA Institute Research & Policy Center

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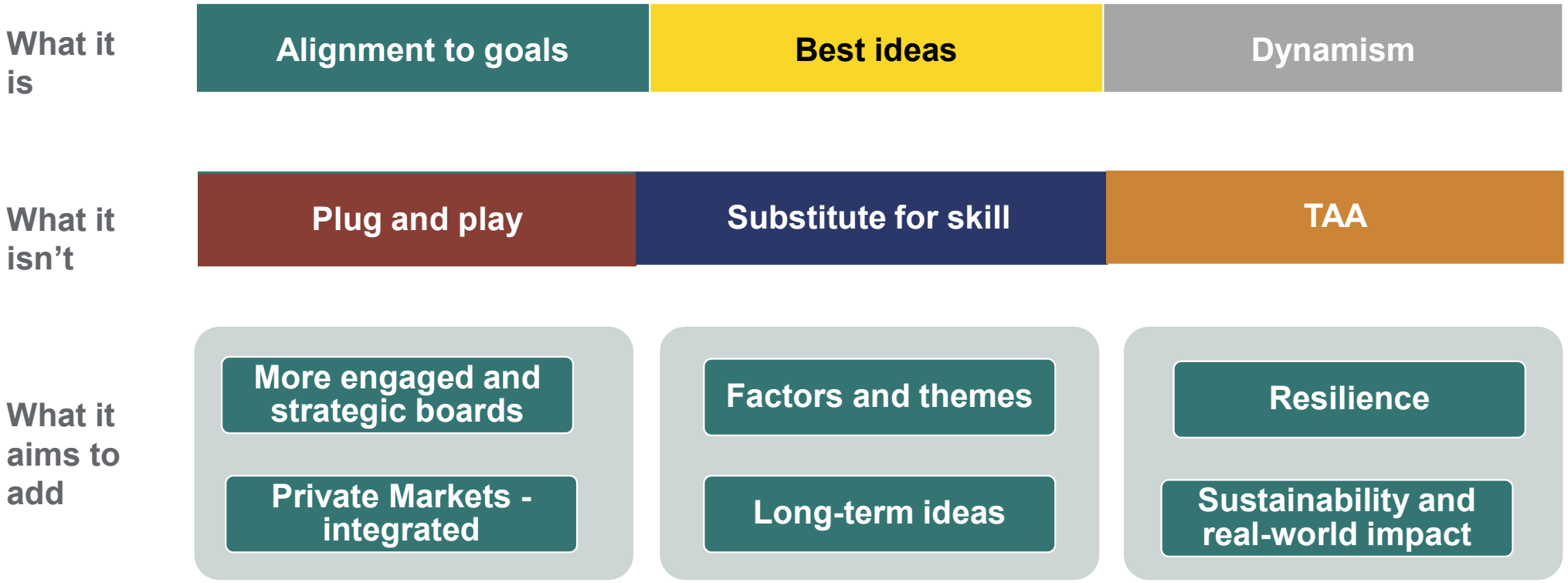
Total Portfolio Approach – What is it?

Solving for greater investment efficiency



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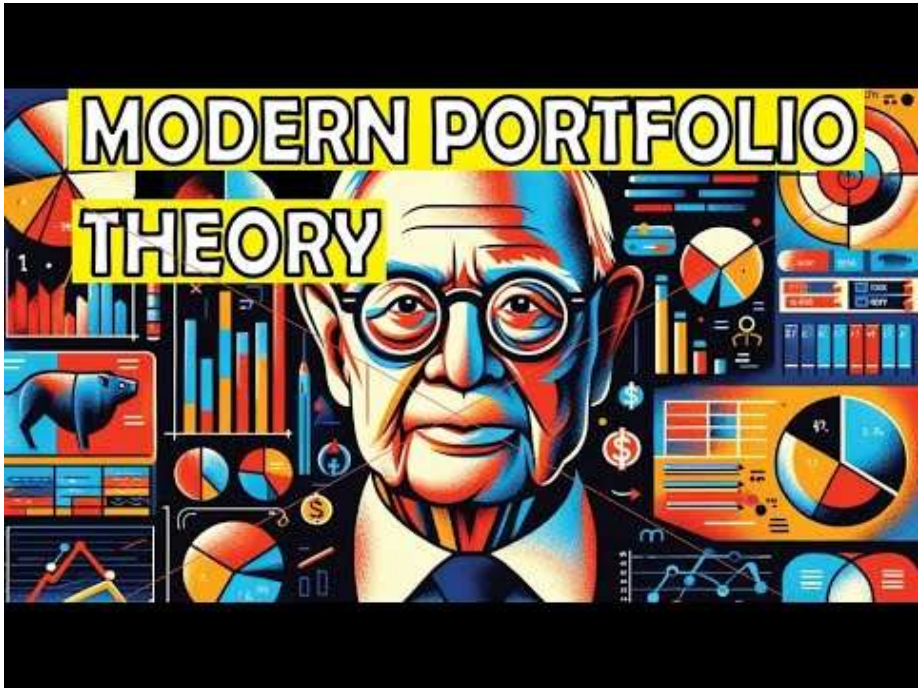
The story started with Harry Markowitz

Markowitz was the first Total Portfolio ‘geek’. He brought quantitative discipline to investing. But his legacy did not provide a scientific or evidence-based culture.



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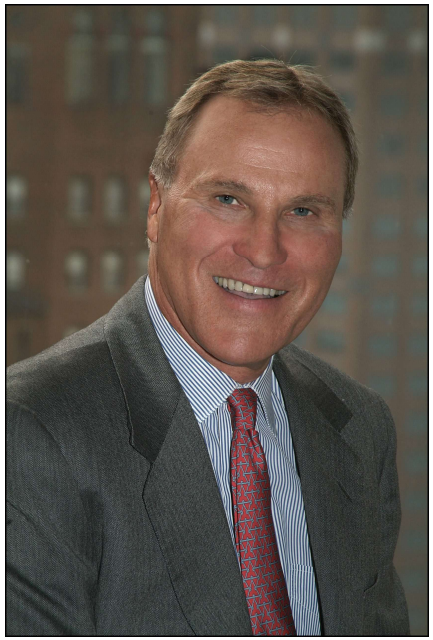
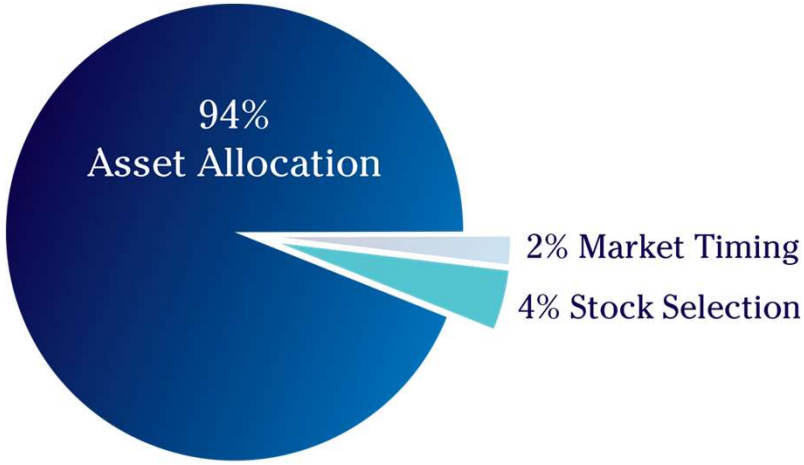
Gary Brinson was the catalyst for SAA

The Brinson legacy was to prove how asset allocation was critical to investor outcomes. And this work led to the SAA surge via the influence of the consultants





Source:
"Determinants of Portfolio Performance"
Brinson, Hood and Beebower
Financial Analysts Journal
July/August 1986

- *"Asset allocation is the primary determinant of a portfolio's return variability, with security selection and market timing (together, active management) playing minor roles"*
  BHB - 1986
- *"About three-quarters of a typical fund's variation in returns comes from market movement, with the remainder split roughly evenly between the specific asset allocation and active management"*
  Larrabee - 2012

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The SAA plus alpha paradigm prospered

The SAA evolved with Capital Market Assumptions (CMAs) maturing. Some definite limitations to that process. But investors were mostly preoccupied with the alpha.

The SAA process heavily reliant on a linear model with stable correlation



- Mean variance optimisation based on CMAs
- Assumption fidelity varies
- 10 Year horizon – assumed linearity
- Stability in allocations, not in outcomes

The alpha process heavily reliant on 'skill' that was statistically difficult to validate

Fundamental Law of Active Management

- **Universal goal for an active manager is to maximize "information ratio", *IR*, of the fund**

$$IR = IC \times \sqrt{BR} \times TC$$

Where,

- **IC is information co-efficient ~ skill, best ideas**
- **BR is the breadth of exposures ~ breadth, dynamism**
- **TC is the transmission co-efficient – efficiency, alignment to goals**

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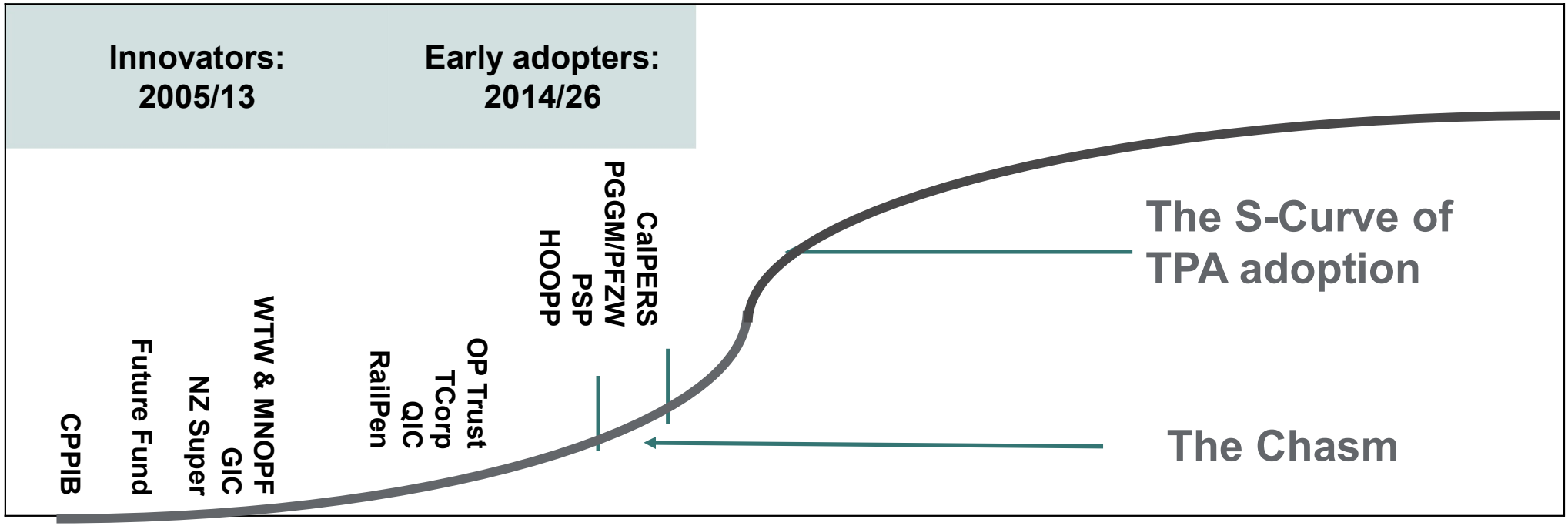
But then some TPA funds appeared

And TPA crossed ‘the chasm’ in 2025. It bridged the gap between early adopters and mainstream acceptance.



TPA worked best with bigger internal teams that had confidence in their skills and sought greater directional focus and delegation

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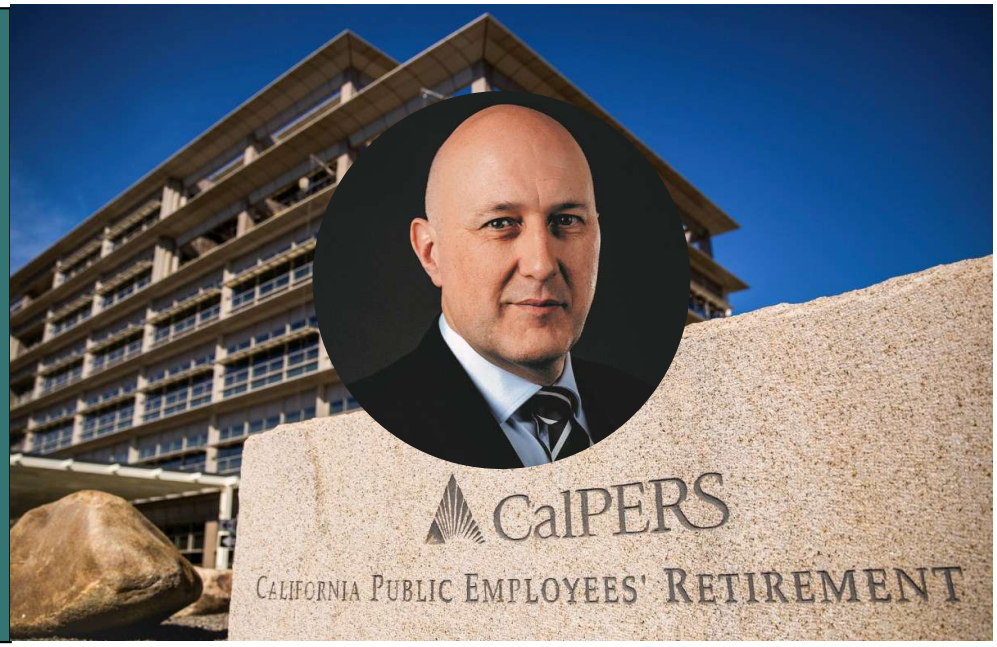
CalPERS hit the TPA trail in 2025

And CalPERS is a very visible model

- Gilmore and his team recommended a **75% equity / 25% bonds** reference portfolio replacing the current system of **11 asset-class benchmarks**, increasing clarity, transparency, and accountability
- A **400 bps active risk limit**.
- Maintaining the **6.8% discount rate**
- Indicated that TPA expected to produce **0.5 to 0.6% pa** more than SAA



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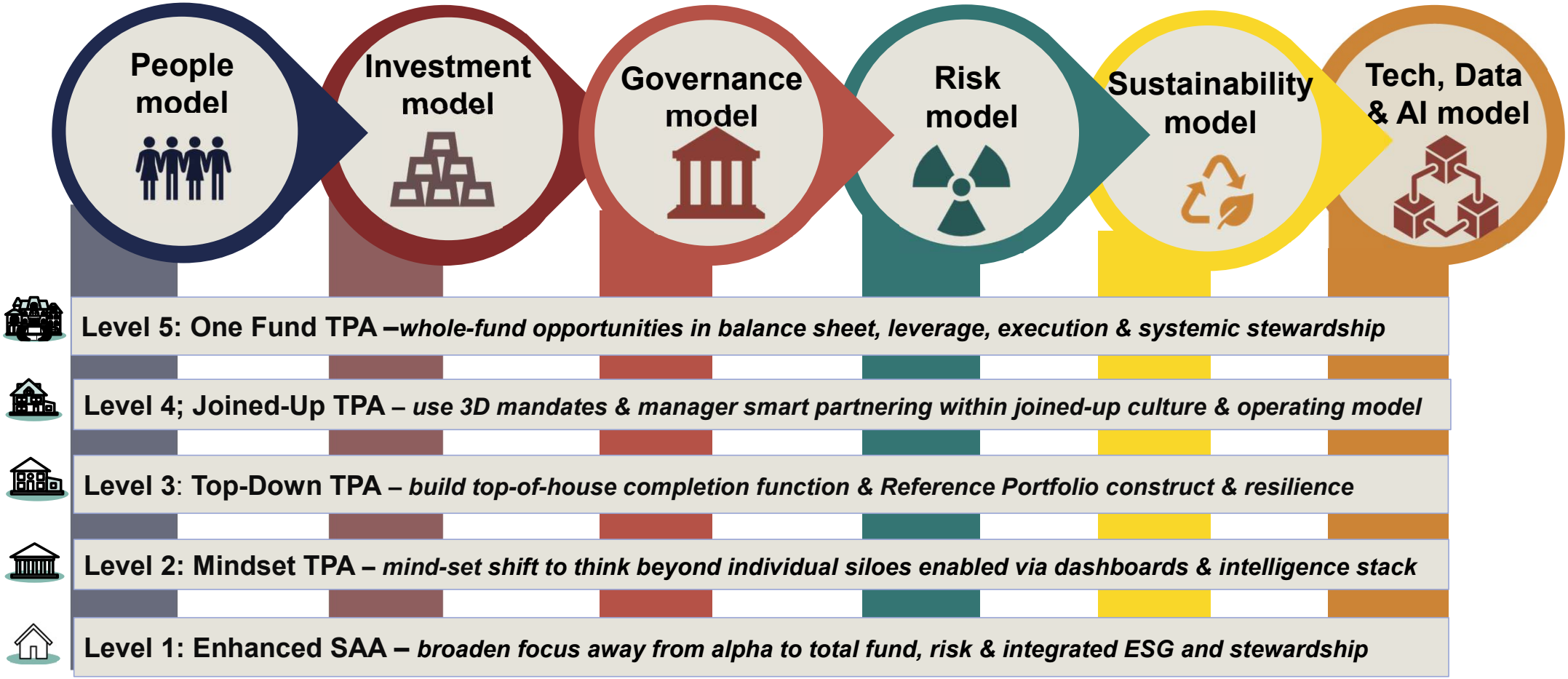
TPA standardised and codified. The pillars and levels.



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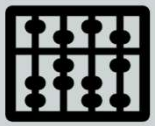
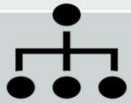
TPA standardised and codified. The four big steps.

Ticking off these steps is critical to maturing the TPA factors. Each is a destination in its own right

	The four big steps	
	**TPA mindset and culture.**	**Adopting a one-fund and one-organisation mind-set in which the culture and incentives are fully aligned to total portfolio goals**
	**Dashboard-driven system of measurement (360 degree metrics)**	**To check-in on progress and adapt the portfolio to any relevant new thinking, circumstances or investment conditions.**
	**Board-owned reference portfolio**	**Typically expressed as a simple equity - bond mix that encodes risk appetite and the fund's total cost of capital rather than serving as a benchmark**
	**Top-of-house total portfolio management function**	**A CIO/CTPO role and function doing overlays, rebalancing, liquidity management, and balance-sheet actions within agreed guardrails**
		*** CTPO ~ Chief Total Portfolio Officer**

	The full list of steps
Enhanced SAA Level 1	1. TPA mindset and culture– TP goals ahead of benchmarks 2. Team KPIs – tracking team results vs goals 3. Multiple comparators – multi-faceted progress data 4. ESG integration -- sustainability across whole fund
Mind-Set TPA Level 2	5. Dashboards – PQD/KRIs. Real-time consolidated data 6. Dynamism – high activity & conviction investing style 7. Illiquidity management – total portfolio vulnerability 8. Delegation – board and IC positioning in decisions matrix
Top-Down TPA Level 3	9. Top-of-house function – overlays, balance sheet, TP risk 10. Reference Portfolio – expression of risk in lean portfolio 11. Three-body construct – alignment of RP, SP and TP 12. Resilience - left-tail and drawdown strategies & measurements
Joined-Up TPA Level 4	13. 3D mandates – widened to encompass multiple goals 14. Thematic investing – further diversification and edge 15. Smart partnering – engaging with outside managers 16. Money-weighted factors – strategic portfolio timing/tilting
One-Fund TPA Level 5	17. Consolidation – reap economies of scale and scope 18. Explicit gearing – use of risk parity methods 19. Sustainability real-world impact – integrating 3D investing 20. Risk 2.0 – extending Risk 1.0 model to improve resilience

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Successful TPA transitions

01 Risks in the transition

- **Cultural Resistance:**
  - Undermining how well TPA can be embedded
- **Ineffective Implementation:**
  - Failure to properly address governance, data, liquidity, and alignment
- **Market Conditions:**
  - Vulnerable to the optics of the transition and its bandwidth

02 Challenges in the transition

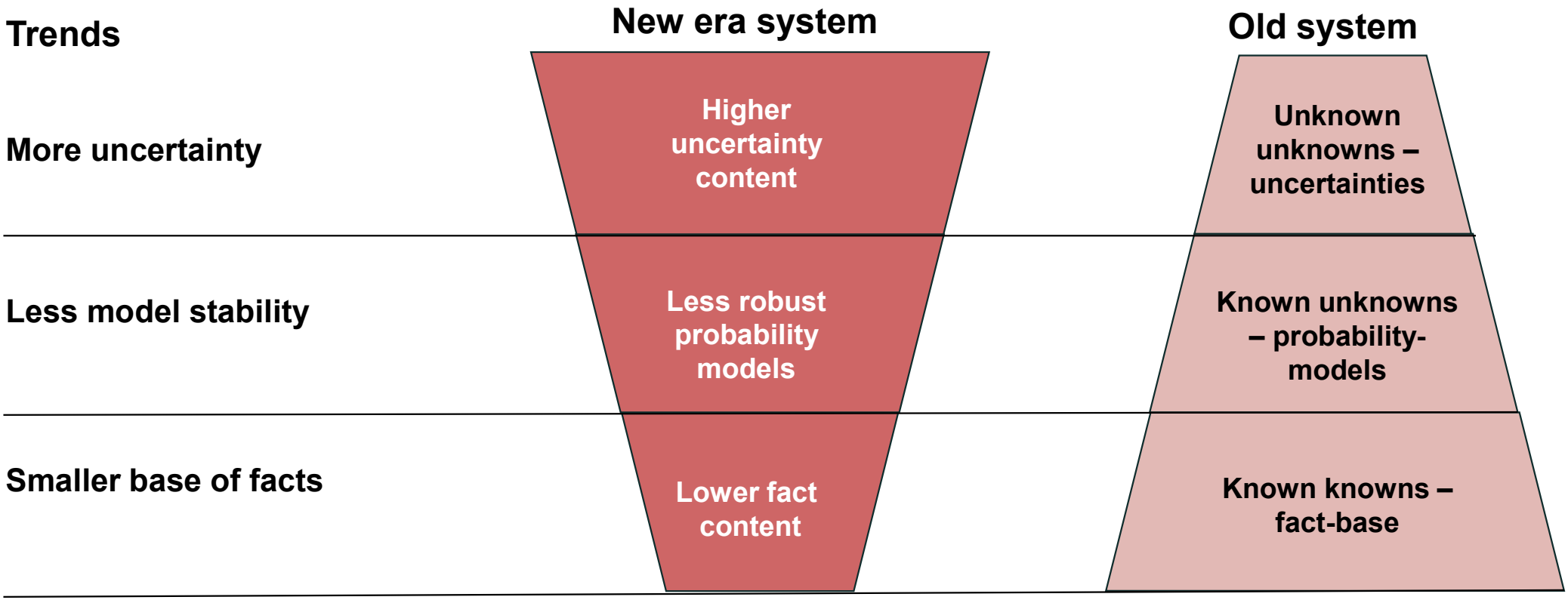
- **Leadership Coalitions:**
  - Building strong alliances across the organisation
- **Letting Go of the Past:**
  - Overcoming status quo bias, adapting and innovating
- **Systems Leadership:**
  - Inspiring a sense of being part of a larger change with wider all-round benefits

03 Success with the transition

- **Governance/ Delegations**
  - Diligent oversight. Clearer ownership and accountability
- **Management Delivery Reset**
  - Extend CIO-ship/ Introduce CTPO-ship
- **Beliefs Level-set**
  - Deepened embedding and better joined-up and executed competition for capital

Why now for TPA? Decision-making under uncertainty

Uncertainty rising along with complexity and ambiguity. The great acceleration, the perils of systemic risk and the challenges of regime change. And latterly rises in geopolitical risks



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TPA and DC. Challenging the DC ‘gap’ from savings to pensions

Taking on the design challenge in DC decumulation

- Intertemporal or through-time risk is one of the additional factors that TPA addresses in ways not handled in the SAA system.
- The through-time challenge is to optimize the return and risk mix over time using a lifecycle-specific time-varying set of risk-graded strategies
- In a DC context, member outcomes depend critically on how risk and return evolve over the full lifecycle of the DC members
- TPA adjusted to a money-weighted objective and calibrated to the member’s capital size, stage-specific objectives and risk capacity
- Through-time TPA addresses and adapts to intertemporal risk in addition to cross-sectional risk.
- The opportunities in DC post retirement are significant in balancing decreasing risk appetite, consumption preference, longevity risks



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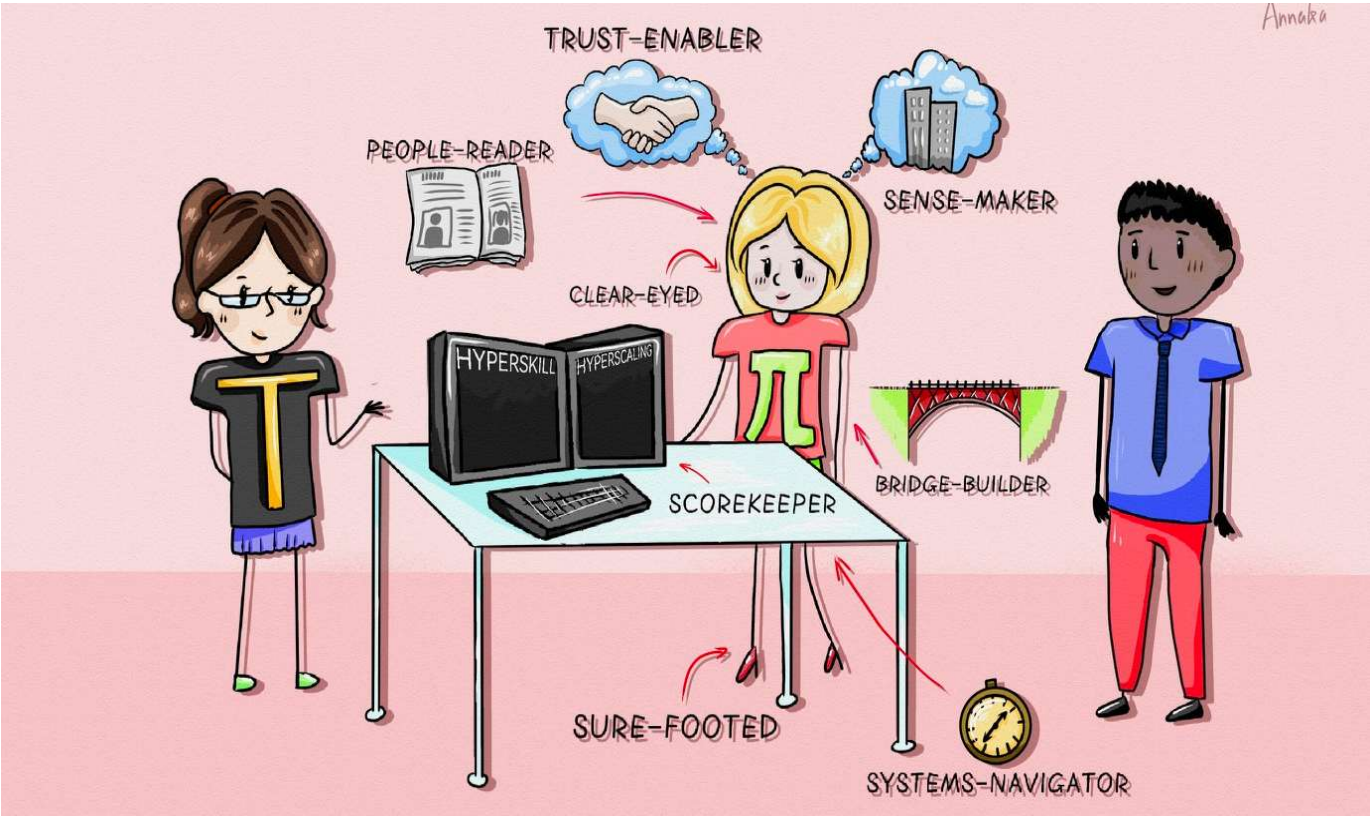
TPA and the 2.0 Professional. Needing to adapt

The investment professional of the future. **T-shaped. Or Pi-shaped**



From Portfolio Manager	▪ *Smart. independent* ▪ *Following linear thinking*
To Steward	▪ *Fiduciary. Proportionate judgement. Orchestrates*
Sense-maker	▪ *Zooming-out & zooming-in. Foresight*
Systems-navigator	▪ *Situational fluency* ▪ *Model-rich*
T-shaped professionals	▪ *Deep verticals in domain knowledge with strong horizontals*
Pi-shaped professionals	▪ *Building connections between investment & technology, data, AI*

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“WISDOM”

‘What I Should Do On Monday’.



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Acknowledgements

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

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Co-founder of the Thinking Ahead Institute /
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Roger Urwin is WTW's Global Head of Investment Content, a role he assumed after acting as the Global Head of the investment practice from 1995 to 2008. Roger joined WTW to start the firm's investment consulting practice and under his leadership the practice grew to a global team of over 600.

Roger's current role includes work for some of the firm's major investment clients around the world and thought leadership within the Thinking Ahead Institute. He is the author of a number of papers on SAA & TPA, asset allocation policy, manager selection, sustainability and governance. He is **an** advisor to the Research and Policy Centre of the CFA Institute and a. **Member of the CFA Institute RPC Advisory Council.**

Roger has worked on strategic issues for some of the largest and most complex asset owners globally. He has led significant engagements with over 40 of the largest asset owners in the world on areas of their governance and investment model.

He was the recipient of the CFA Institute Inspirational Leader Award in 2022 for professional excellence and thought leadership. He is a Fellow of the Institute of Actuaries, Fellow of the Society of Investment Professionals, and has a Maths degree and Applied Statistics Masters both from Oxford University

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TPA: FROM PRINCIPLES TO PRACTICE

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CFA Society Netherlands

Total Portfolio Approach at PGGM

November 2026

Arjen Pasma

Let's Change the Future



Outline

01 From TPA to TPM at PGGM

02 TPM mandate and risk steering

03 TPA and System-level investing: 3D investing and Impact

PGGM

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PGGM

Total Portfolio Approach (TPA)

THE DECISION

How does an investment improve PFZW's total portfolio outcome?

TRADITIONAL SAA

Starts with policy asset-class weights. Measures each sleeve against its benchmark.

TOTAL PORTFOLIO APPROACH

Starts with fund goals and risk capacity. Compares opportunities by their contribution to return, risk and sustainability.

SYSTEM-LEVEL INVESTING

TPA can include a system-level lens: systemic risks shape whole-fund outcomes, while allocation and stewardship can help address them.

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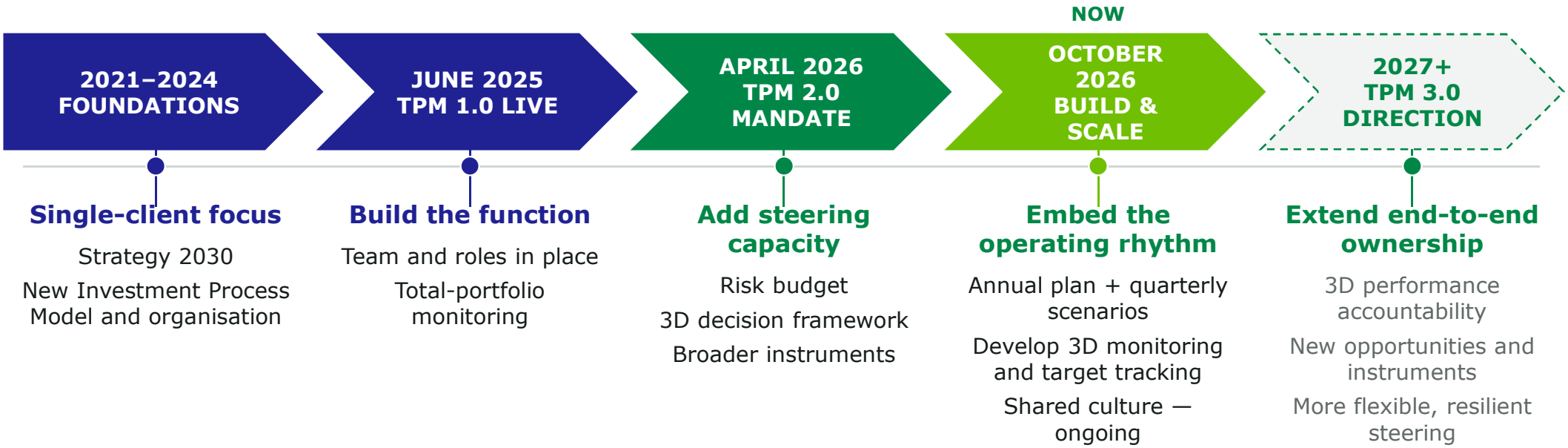
The TPA journey: from launch to active portfolio steering



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TPA and TPM at PGGM

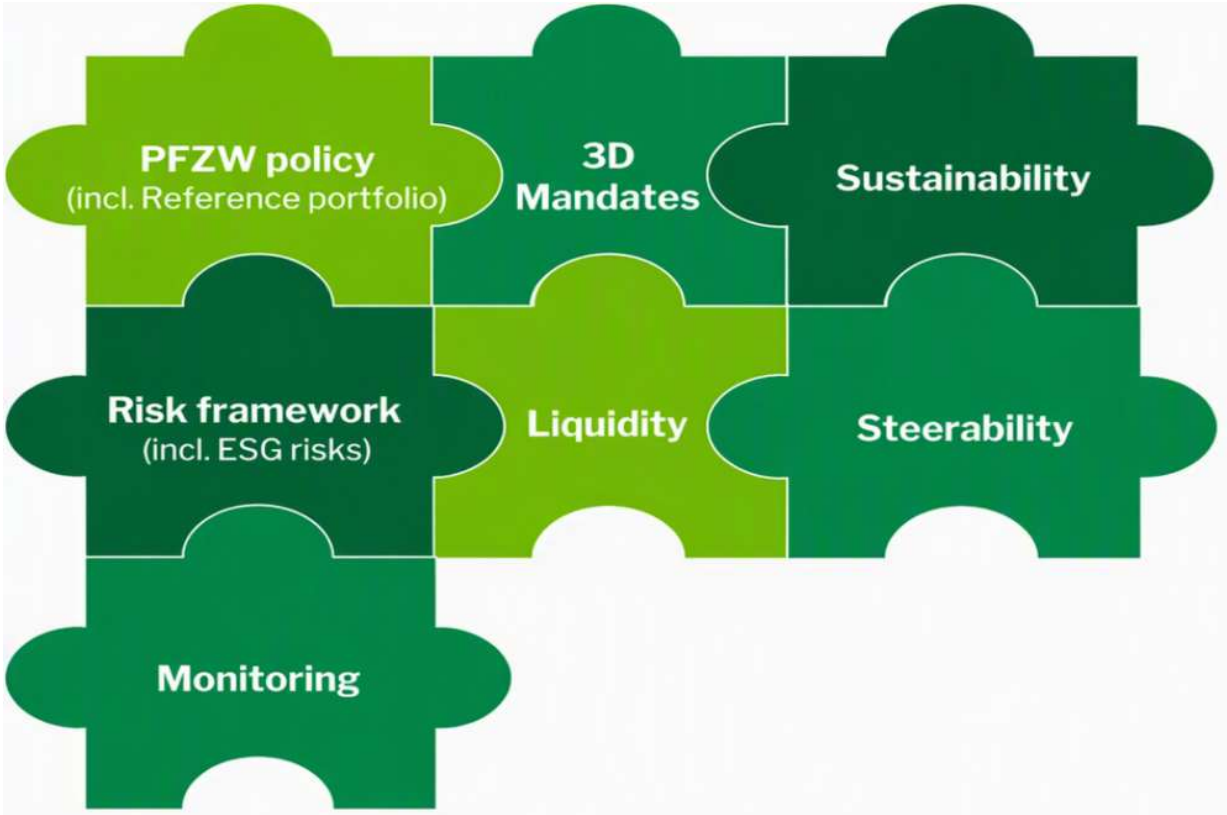
TPA: INVESTMENT APPROACH

Judge choices by their contribution to PFZW's total 3D portfolio goals.

TPM: PGGM PORTFOLIO FUNCTION

Steer the total portfolio within PFZW's risk limits and approved cost budget.

TPM applies TPA through allocation, mandates and stewardship.



TPA takes different forms across global investors

Illustrative design spectrum



Policy asset-class weights
Sleeve benchmarks

PGGM

SAA-based reference and bandwidths
TPM steering within risk guardrails
Explicit 3D objectives

Reference portfolio or risk appetite
Scope for cross-portfolio decisions
Governance and sustainability emphasis

PGGM combines an SAA-based reference with total-portfolio steering and explicit 3D objectives.

Adapted from WTW 2024/2025 and CFA Institute 2026. Illustrative design comparison, not a current peer ranking.

Let's Change the Future

PGGM

TPA at PGGM: governance and risk

PFZW sets the ambition. PGGM separates fund steering from mandate execution.

Policy – set by Board (PFZW)

- Legal risk appetite in *regulatory model*, sets **reference portfolio** with *allocation* ranges for risky assets and hedge.

Strategy – set by Board IC (advised by PGGM)

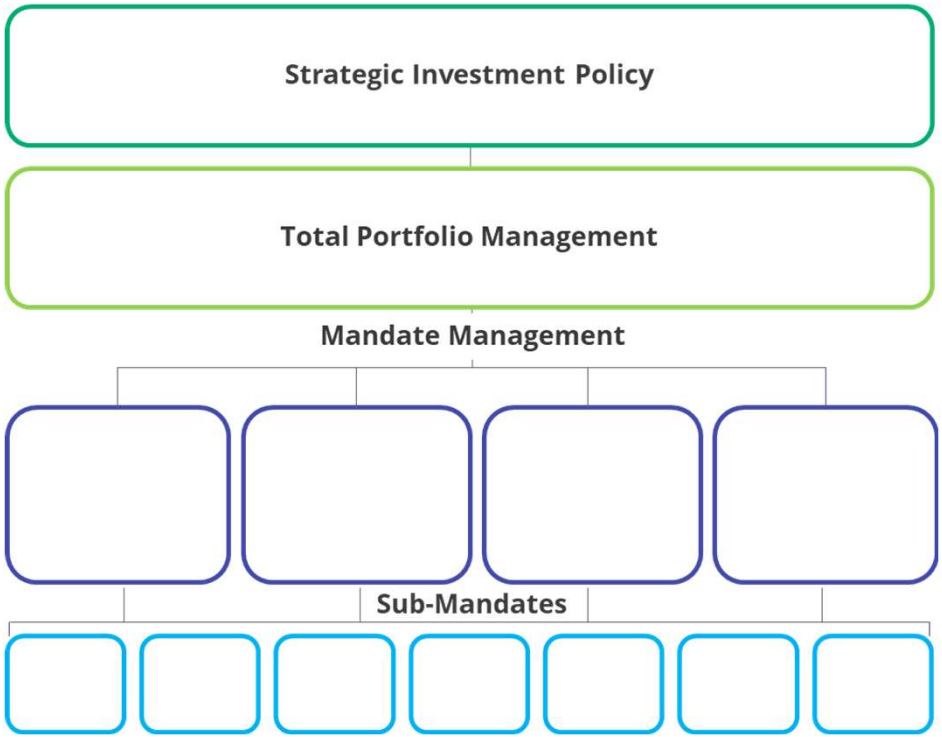
- **Policy portfolio** constructed in *strategic model* setting benchmark and *risk budget* and *limits* for fund management.

Implementation – Fund Management (PGGM)

- **Actual portfolio** managed in *portfolio management system*.

Making TPM work: decisions, collaboration and capabilities

ALM return and risk ambition, plus 3D sustainability goals



Decision rights

Higher-level assignments and clearer ownership

Multidisciplinary teams develop policy and mandates iteratively.

Shared measurement

Develop common 3D assessment and total-portfolio reporting

Build steering expertise, data, tools and collaboration

TPM links fund objectives to portfolio steering

KPIs

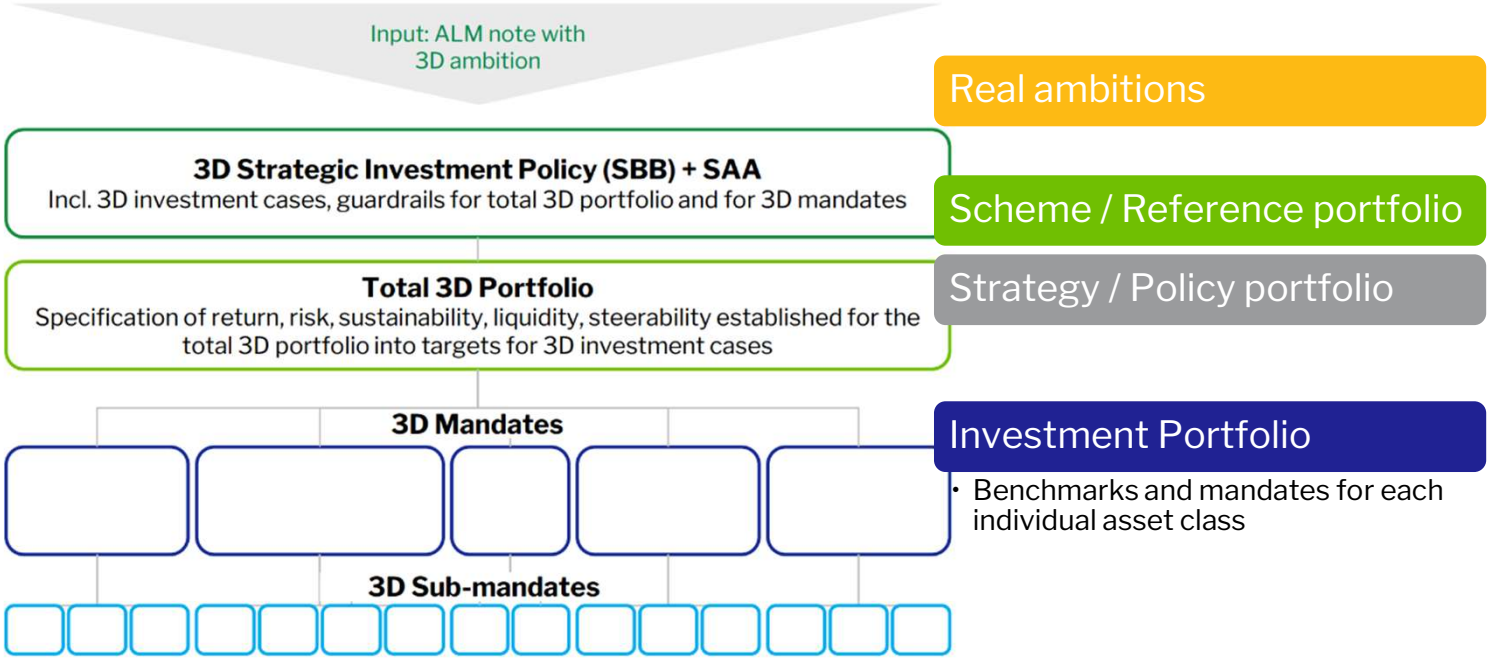
- **Return ≥ reference portfolio**
- **SDI ≥ 30%**
  Paris Aligning ≥ 35%
  CO2 reduction[1] ≥ 50%
  Impact goals on climate, health and biodiversity
- **Costs < 50 bp** (soft target)

KRIs and limits

- **Reference portfolio with SAA target weights**
- **Risk budget: 0.9x - 1.1x reference portfolio risk**
- **Allocation bandwidths**
  - **1.5% between return-protection**
  - **20% of strategic weights for return-portfolio**

1.) 50% absolute CO2-reduction of scope 1 and 2 emissions of equities, credit, and real estate portfolios combined between 2019 and 2030

Risk management at each level

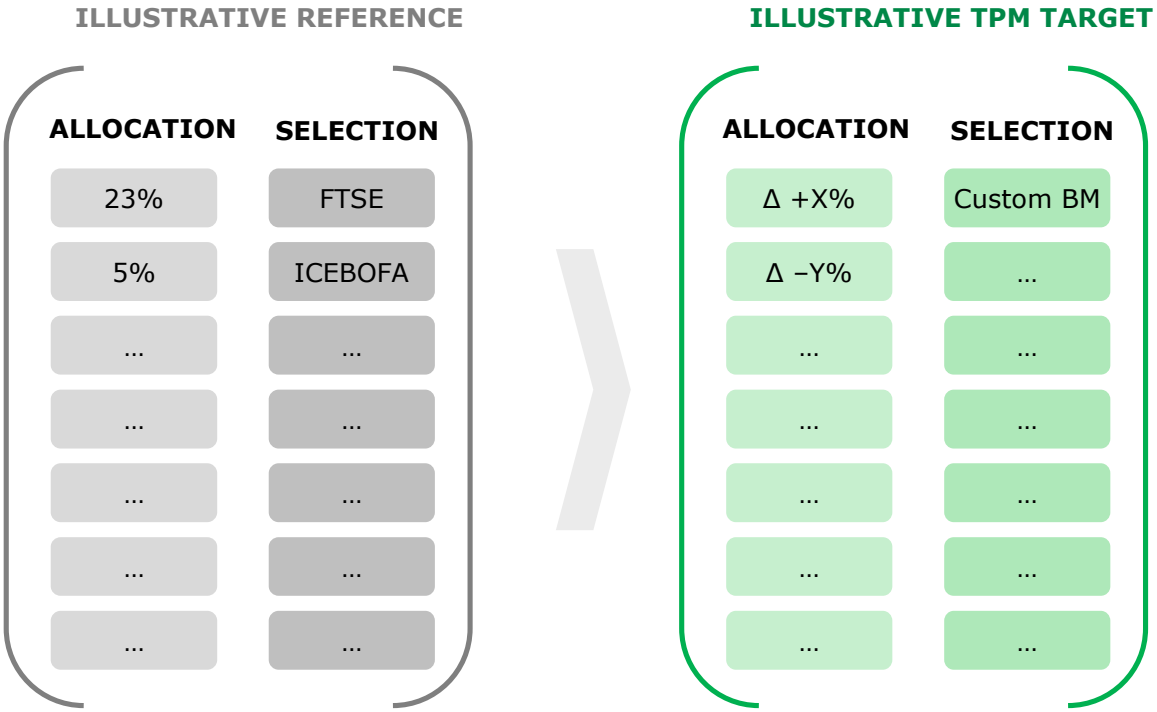


PFZW sets objectives and risk appetite.

TPM monitors the combined portfolio.

- Mandate monitoring identifies contributions and exceptions.
- Independent risk supports oversight and challenge.

TPM steers the 3D portfolio within its risk budget



ASSESS EACH PROPOSED CHANGE

- Expected return and sustainability contribution
- Total-portfolio risk and remaining risk capacity
- **Implementation constraints:**
  - **Liquidity and allocation bandwidths**
  - **Implementation costs**
- **CHOOSE THE COMBINED RESPONSE**
  - **Adjust allocations and mandate criteria**
  - **Serve fund objectives within the guardrails**

2030 Investment Strategy: three dimensions

- Within PFZW's investment approach, every investment decision balances return, risk and sustainability:

- **Return:** a net market return equal to or better than the market index.
- **Risk:** integrate ESG risks and traditional financial risks with the aim of reducing absolute long-term risk.
- **Sustainability:** an improved sustainability profile, alongside targeted and measurable impact investments. Not philanthropy, but also risk management.

- Every investment decision considers **all three dimensions**
- Every investment can be accounted for across three dimensions: **Know What You Own**
- We also strengthen the strategy through **stewardship**
- Policy is long-term; **consistency** is key



TPA connects systemic risks with portfolio decisions

Assess portfolio-wide systemic risks through scenarios. Connect allocation and stewardship to shared long-term objectives.

PFZW focuses its impact ambitions on three themes:

People & Health

Climate

Nature & Biodiversity



Track portfolio progress alongside evidence of real-world transition and impact.

Let's Change the Future

Q&A



LET'S INTRODUCE OUR PANELISTS

ARJEN PASMA



LINDSEY MATTHEWS



DAVID O'SULLIVAN



CFA Society Netherlands

THE TOTAL PORTFOLIO APPROACH:
FROM PRINCIPLES TO PRACTICE

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MASTERCLASS IN SAA, TPA AND INNOVATIVE INVESTMENT MODELS – 9 &10 February 2027 | VU Amsterdam

This two-day Masterclass equips experienced investment professionals with the tools to critically evaluate different approaches to institutional investing.

The six models covered:

Strategic Asset Allocation (SAA) · Endowment · Norway · Canadian · Total Portfolio Approach (TPA) · System-Level Investing (SLI)

Participants will:

- Compare the underlying assumptions, performance evidence and governance requirements.
- Explore why investment models gain or lose popularity and distinguish evidence-based decisions from investment trends.
- Assess how different models fit an organization's investment objectives, risk appetite and governance structure, and apply these insights through interactive discussions and a practical group case.

Interested? Contact andrej.antonijevic@cfasociety.nl

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