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Investing for a
world of change

25 years of 4Factor investing

February 2026

Preface

The 4Factor philosophy has guided our investing for twenty-five years. This milestone is a chance to reflect on what that experience has taught us and how it continues to inform our approach.

As a team, we review and refine our process constantly, but this looks across the full period to capture the lessons that have kept it relevant. The paper draws on the voices of the people who built and continue to develop 4Factor, reflecting on the decisions that define the investment approach and the challenges that have tested it. Their words are included throughout, because 4Factor has always been defined by its people and the 4Factor philosophy.

Allocators often ask how an investment process develops over time. This exercise sets out that evolution on a broader scale, showing how the philosophy has been tested and the process refined through changing markets. It is intended to give 4Factor clients the context they need to continue holding us accountable as stewards of their capital.

Finally, for us as a team, it's an important reminder that the best investment processes are always a work in progress.

Contributors

Jen Ford

Investment Director

Dan Hanbury

Portfolio Manager, Global Strategic

Archie Hart

Portfolio Manager, Emerging Market Equities

Niall Hartnett

Global Sector Specialist, Head of 4Factor Research

Wenchang Ma

Portfolio Manager, Asian and Chinese Equities

Edward Evers

Head of Global Consultants and OCIO

Mimi Ferrini

Co-CIO Ninety One

Richard Garland

Managing Director

Mark Breedon, Portfolio Manager,
Former Co-Head of 4Factor (2006-2023)

Kristin Milne

Regional Specialist

Jonathan Parker

Portfolio Manager, Global Equity

Rhynhardt Roodt

Portfolio Manager, Head of 4Factor, CIO Equities

Sophia Whitbread

Global Sector Specialist

Kevin Kong

Managing Director

Mark Samuelson

Managing Director

Philip Saunders

Director Investment Institute

James Hand, Founding member of 4Factor,
Former Co-Head of 4Factor (2004-2017)

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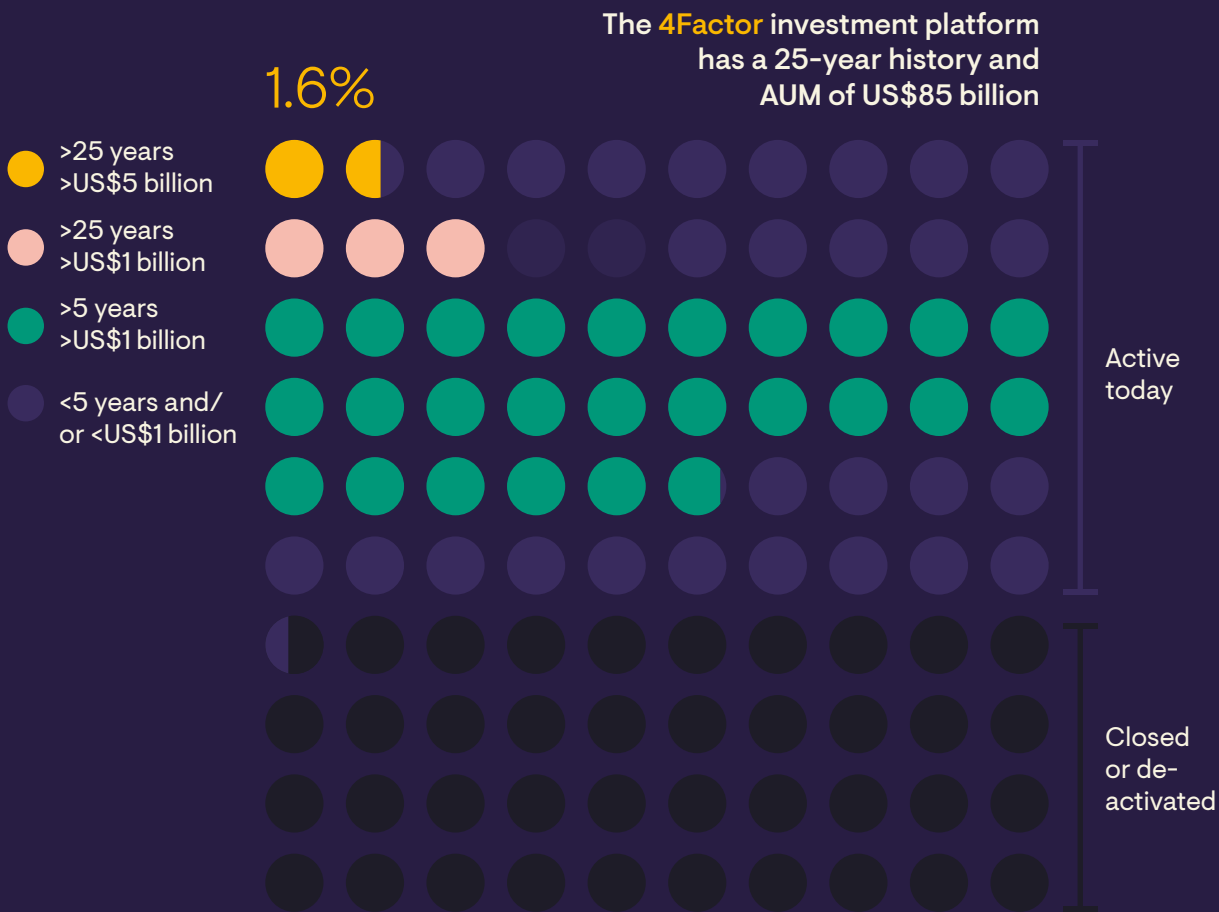


Introduction

How rare is 25 years?

Reaching a 25-year track record is unusual in our industry. Very few strategies get there, and many don't make it past five years. Out of nearly 4,000 global equity strategies tracked by the industry's largest database, fewer than two percent can point to a 25-year history and ongoing relevance evidenced by at least US\$5 billion in assets under management.

Figure 1: The anatomy of longevity: the rarity scale

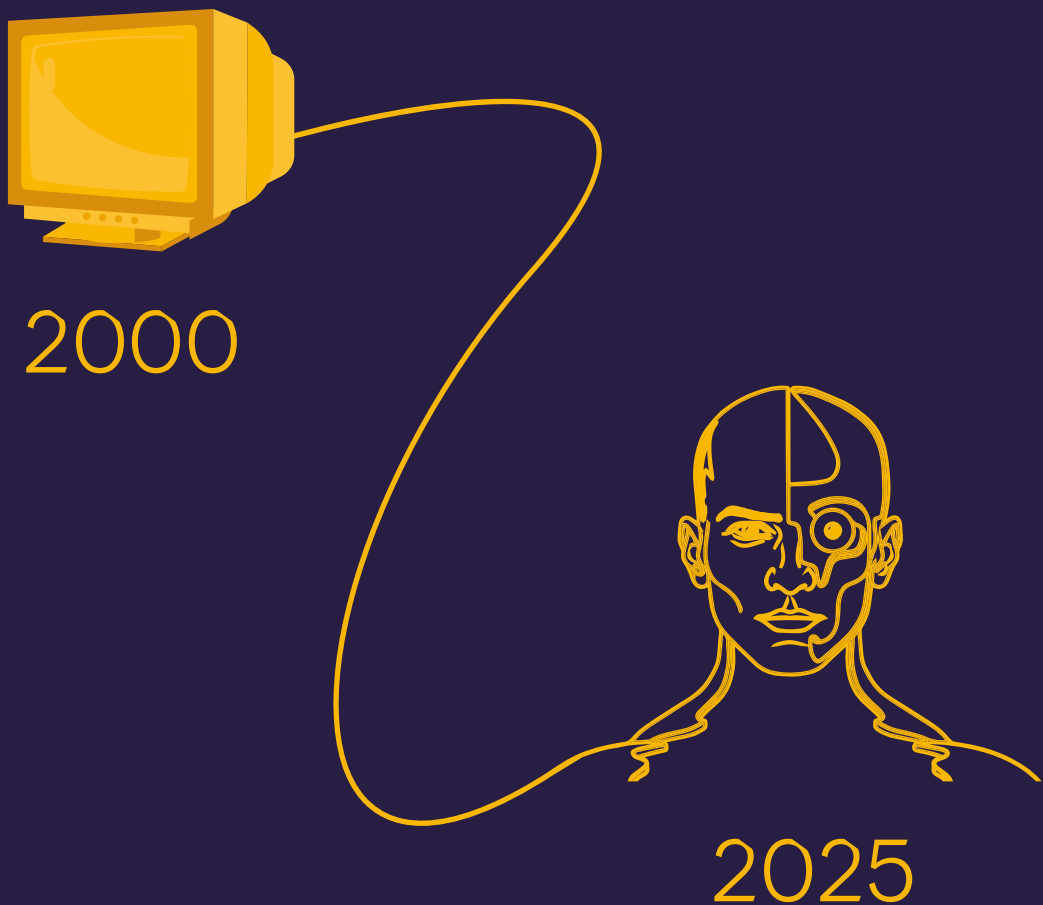


Source: Ninety One, Evestment as at 31 December 2025. Within the 1.6% of strategies that have reached >25 years and >US\$5 billion, 4Factor Global Equity launched in August 2000, reached its 25-year track record in August 2025 and has US\$26.9 billion in AUM. If AUM is not provided, the strategies were included based on track record.

In the 4Factor team, introspection is built into our process. Reaching this milestone allows us to apply that same discipline to our own history, to understand what has kept us relevant, where we have fallen short, and how we have adapted. We share those findings that offer valuable insights for investors.

Our philosophy, that markets are inefficient in persistent, human ways, has guided our approach since the beginning. Our firm and team culture have ensured that each generation of investors has strengthened the team for the next. Our process has evolved with discipline, from the original four-factor screen and global super-sector coverage to today's machine-learning alpha model and fundamental research clusters.

The lesson is not perfection, but the ability to learn quickly, refine our methods and adapt responsibly. That has kept 4Factor relevant across changing markets and well placed to do so in the years ahead.



Lesson 1

Philosophy matters

It is no surprise that today's industry looks very different from the one in which 4Factor began. At launch, an innovative factor-based screen countering behavioural biases, combined with analysts organised by global super-sector rather than geography, marked a clear departure from the prevailing industry approach. Approaches that are now familiar and widely adopted, such as factor investing, behavioural finance and smart beta, were either just gaining momentum in the mainstream or relatively unknown.



What we did back then was really innovative, having a really deep, impressive screen, quantitatively back tested. You just take it for granted now... but back then it wasn't. It was done by a few, but it was very atypical."

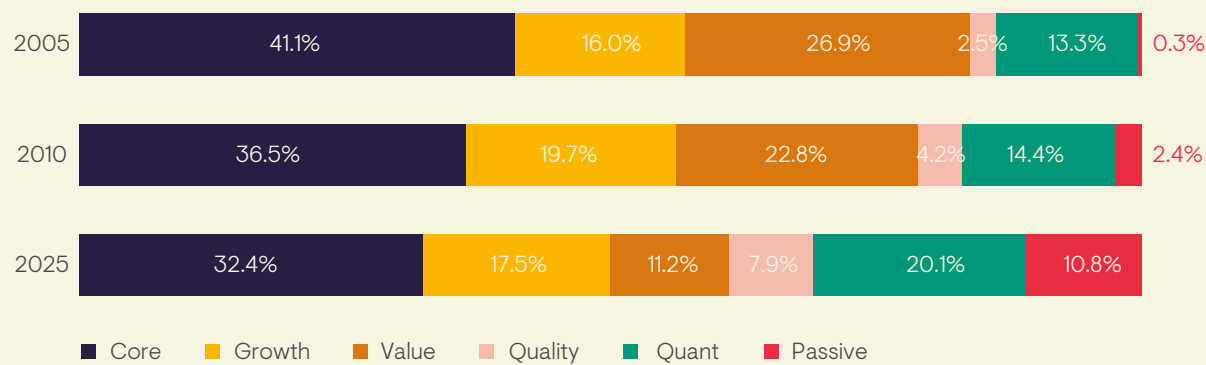
James Hand

Founding member of 4Factor,
former Co-Head of 4Factor (2004-2017)

The collapse of the dot-com bubble in 2001 also exposed the cyclical nature of equity allocations, which led several allocators to follow Fama-French’s academic work, treating style as a driver of returns. Growth and value managers began to be paired deliberately, and by the end of the decade, consultant frameworks and databases, such as eVestment, were incorporating style classifications. Blending styles became the default approach for many institutional portfolios.

This shift in the global equity universe from 2005 to 2025 reflects that broader evolution, particularly the growing influence of quantitative approaches. 4Factor has remained rooted in the core segment of active, fundamentally based investing, which accounted for more than 40% of global equity strategies in 2005. By 2025, core remains the largest category, but its share has fallen to just over 30%, as style-based and quantitative strategies have gained ground. With the sharp style rotations of the 2020s, demand has recently shifted back to core managers able to deliver consistent, repeatable alpha across market environments.

Figure 2: Evolution of the global equities universe since 2005



Source: Evestment, Ninety One as at 30 September 2025. Prior to 2005, the data is less informative.

What has endured is 4Factor’s philosophy and core style-agnostic approach. Markets remain systematically inefficient in ways shaped by human behaviour. Biases such as overconfidence, herding, anchoring and short-termism push prices away from fundamentals, and these inefficiencies persist even as investors become more sophisticated or as data becomes richer. Empirical studies continue to find that improvements in information and analytics have a limited effect on the persistence of behavioural biases.¹ The challenge is not access to facts, but the way humans interpret and act on them.²

1. Cary Frydman & Colin F. Camerer, “The Psychology and Neuroscience of Financial Decision Making,” *Trends in Cognitive Sciences*, 20 (9), 661–675 (2016).
2. Nicholas Barberis, “Psychology-Based Models of Asset Prices and Trading Volume,” in *Handbook of Behavioral Economics*, Vol. 1 (Elsevier, 2018).

Even professional investors face deep-seated constraints, including the pull of crowd psychology, the discomfort of standing apart, the pressure of quarterly reporting, and the ever-present career risk of being wrong alone.³

From the outset, 4Factor has sought to capture these behavioural anomalies by combining the discipline of a quantitative screen, now the alpha model, with the forward-looking insight of human judgement. In our view this combination of systematic analysis and fundamental research remains the most effective way to unlock alpha.

The process captures inefficiencies through four factors that have proved persistent across time and markets: quality, value, operating performance and investor attention. Each reflects a different way in which behaviour interacts with fundamentals, whether investors overlook the strength of a business, misprice its value, underappreciate improving earnings, or follow shifting sentiment. This creates both an analytical edge, through research focused on marginal rates of change in business, and a behavioural edge, through the consistent application of a quantitative framework that reduces bias. As active, bottom-up stock pickers, we use this insight to build conviction company by company, allocating capital where that conviction is strongest.

Over time, our philosophy has been tested in many environments. 4Factor has invested through eight market shocks, seven bull markets and seven bear markets, as well as eleven style rotations and eight shifts in sector leadership. This breadth of experience has reinforced the importance of balancing the discipline of the screen with the interpretive, forward-looking skill of analysts and portfolio managers. It is this combination of human and machine that has allowed 4Factor to apply a robust, repeatable process across very different market regimes.



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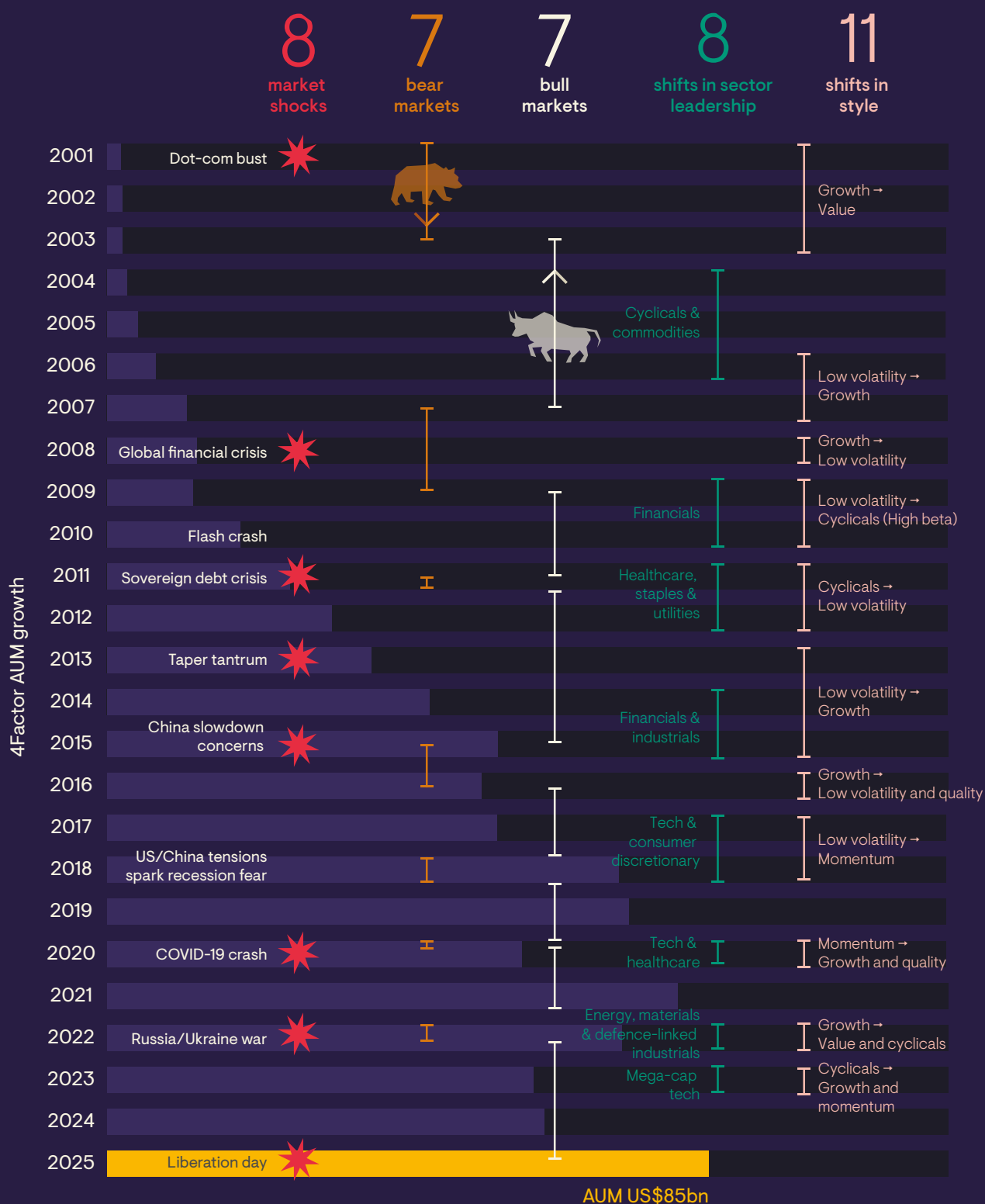
The philosophy gives you a framework that cuts through noise. It keeps you focused on what really drives returns, rather than getting caught up in what everyone else is chasing.”

Jonathan Parker

Portfolio Manager, Global Equity

3. Jean-Philippe Bouchaud, Philipp Krüger, Augustin Landier & David Thesmar, “Sticky Expectations and the Profitability Anomaly,” *Journal of Finance*, 74 (2): 639–674 (2019); Colin Camerer & George Loewenstein, “Behavioral Economics: Past, Present, and Future,” *AEA Papers & Proceedings* (2019); Andrei Shleifer & Robert Vishny, “The Limits of Arbitrage,” *Journal of Finance*, 52 (1): 35–55 (1997).

Figure 3: A consistent philosophy tested through several market regimes



Source: Ninety One as at 31 December 2025.

Lesson 2

Evolution is essential

Every investment process faces the same challenge: if it does not adapt, it will not survive. What works in one market regime can quickly lose relevance in another. Tools that once gave an edge are soon replicated or arbitrated away. Longevity depends not only on a strong philosophy but on the willingness to refine how that philosophy is applied.



Investment processes typically have a finite lifetime. If they are to succeed long-term, they need to evolve. That evolution needs to be supported, managed, and seen as important. It is imperative you move forward and embed improvement and evolution. You cannot stand still; you will become a dinosaur quickly in this business.”

Mark Breedon

Former Co-Head of 4Factor, 2006-2023

2000s

Building balance between process and judgement

The first phase of 4Factor's evolution was about embedding structure while ensuring space for human interpretation and putting the emphasis on fundamental research. The equal-weighted scorecard ranked companies consistently across quality, value, operating performance and investor attention, which has always philosophically aligned with how we assess companies fundamentally. Analysts interrogated the numbers and portfolio managers debated how evidence translated into positions. This balance between quantitative signals and human accountability became the foundation of 4Factor and set the template for future refinements.



“Doing something systematic that arbitrated behavioural errors was potentially very attractive. The alpha opportunity from doing that was pronounced, and being early gave us an edge.”

Philip Saunders
Director, Investment Institute



Figure 4: The 4Factor book recorded the academic grounding behind the process

The 4Factor book was written to formalise the intellectual foundations of the investment approach and to test its principles rigorously. At the time, behavioural finance and factor investing were gaining broader recognition, and the team sought to connect practical experience with academic research. The book explained how market inefficiencies arise from recurring human behaviours and demonstrated, through quantitative testing, that these patterns could be identified and applied systematically. It was intended not as marketing, but as a guide to research and decision-making, designed to challenge assumptions and give clients confidence that the process was grounded in evidence rather than opinion.

Source: Ninety One.

● 2010s

Global expansion and process refinement

This period was defined by a broadening scope and deepening research discipline.

The adoption of MSCI All Country World indices recognised the growing weight of emerging markets and extended the investment universe. The launch of our dedicated Emerging Market Equities business was a pivotal step, extending the 4Factor approach into new markets where behavioural inefficiencies were often more pronounced and opportunities less researched. From there, we established dedicated China strategies and a permanent 4Factor presence in Hong Kong, giving the team closer proximity to companies and policymakers. We were early to the China opportunity and spent considerable time helping investors understand its growing importance within global and regional portfolios, something we continue to do today. These developments enhanced the process across geographies, strengthening the team's ability to assess businesses globally with greater consistency and depth, capitalising on emerging leaders and new sources of growth.

4Factor had become a large, multi-strategy capability operating across regions and time zones. Managing that scale required focus to ensure the process remained connected and agile. The same philosophy had to operate across different market structures and investment teams, demanding rigorous communication and discipline to keep research coherent and decision-making aligned.

At the same time, competitive pressures intensified. Factor investing and smart beta products became widespread, making once-differentiated signals easier to replicate. Passive investing reshaped global equity flows, and market leadership narrowed to a small group of dominant companies. The systematic foundations that had once made 4Factor distinctive were now visible across the industry, and the team recognised that to remain relevant, evolution was essential.

To stay ahead, the team began to adapt. Attention turned to how behavioural inefficiencies could be captured more dynamically, including research into non-linear relationships between fundamentals and sentiment that traditional linear models could not fully explain. This work strengthened the interaction between systematic analysis and fundamental insight, laying the foundation for the machine-learning developments that would follow.



“

We were too focused on incremental change when the world was changing a lot. We needed to be **bolder**.”

Rhynhardt Roodt

Portfolio Manager, Head of 4Factor, CIO Equities

2020s

Modernising tools and sharpening debate

The most recent phase is marked by significant enhancements across many parts of the process. In 2021, the quantitative engine evolved into what is now known as the alpha model, incorporating machine learning techniques to use a much broader set of sub-metrics and account for the complex interactions within large datasets. Its role is idea generation and focusing research where it can have the greatest efficacy, guiding the team toward the most relevant opportunities. Proprietary visualisation tools such as portfolioViz made outputs more accessible to the investment team, while the characteristics tool improved interpretability by showing which features were driving a stock's ranking. Together, these enhancements have sharpened debate and strengthened the link between fundamental research and systematic signals.



The evolution of our research process has been about sharpening focus and improving consistency. We've built a framework that brings discipline and comparability to how we analyse companies, but still leaves space for insight and debate, that's what keeps the research alive."

Niall Hartnett

Global Sector Specialist and Head of 4Factor Research

Research clusters were established to bring analysts and portfolio managers together in structured forums organised around sectors that share similar business models and end-market dynamics. Managing this structure is a team of sector and regional specialists whose depth of domain knowledge is central to the 4Factor process. Their expertise in business models, competitive dynamics and local market characteristics strengthens the quality of debate and the research that informs every investment decision. As artificial intelligence erodes the value of simple informational advantage, this analytical edge becomes increasingly essential. The combination of domain expertise and a consistent research framework helps the team distinguish meaningful signals from noise and identify stock-specific opportunities across global and regional markets.

We enhanced the tools supporting our portfolio construction process, developing a proprietary platform that provides richer analytical insight into how portfolios are built and managed. Its purpose is to help portfolio managers maximise exposure to high-conviction ideas while managing unintended risks such as factor, country or sector concentrations. The tool integrates alpha model signals, analyst conviction ranks, sustainability inputs and key risk and liquidity metrics, enabling managers to test trades and rebalances within mandate constraints. They can analyse marginal impacts on exposures, diversification and tracking error, ensuring active risk remains primarily stock-specific and style-balanced. Built internally, the framework is flexible and adaptable. It supports clear, evidence-based decisions while maintaining the fundamentally driven, bottom-up nature of 4Factor's investment approach.

Sustainability has been more deeply embedded, with ESG features integrated directly into the alpha model and a fundamental playbook for prioritising company engagements based on materiality and potential influence. Using the 4Factor sustainability framework, analysts focus on identifying the issues most material to each company's long-term resilience and value creation. This approach ensures that sustainability analysis is applied consistently across the investment universe and is integral to the four-factor framework rather than an overlay.

Embedded refinement

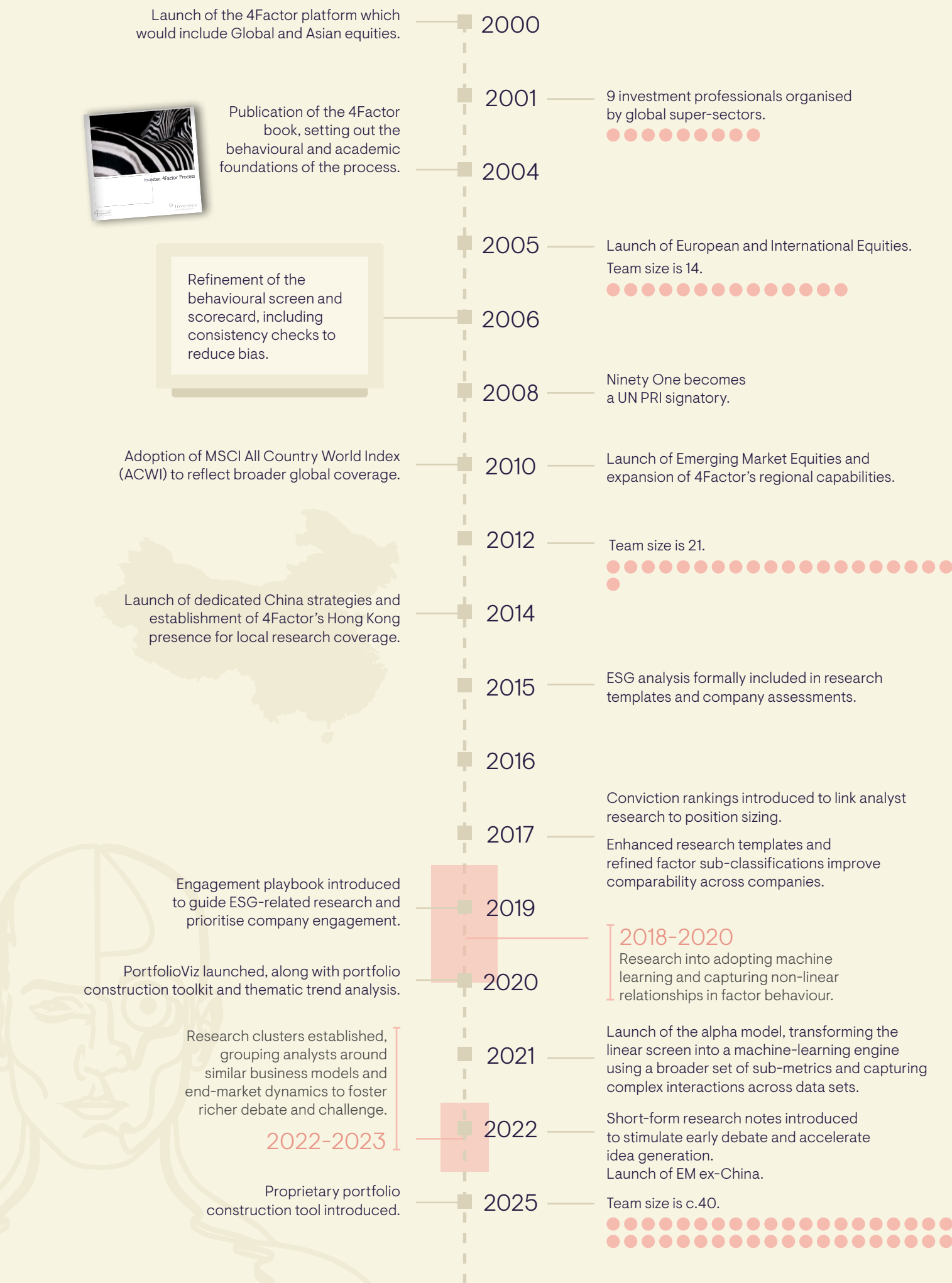
The history of 4Factor demonstrates that refinement is not a series of one-off upgrades, but rather something built into the process itself. Each phase has added new tools, structures and disciplines, embedding change into the daily practice of research and portfolio construction. That mindset is now reinforced by the alpha model, whose machine-learning techniques are inherently adaptive, designed to improve as new data and conditions emerge. In this way, evolution is not external to 4Factor but part of its architecture, ensuring the process continues to move forward.



The process has evolved considerably since I joined, especially with the alpha model and machine learning becoming part of how we work. That shift brought new possibilities and a layer of complexity, but also a real focus on keeping things clear and usable, so that fundamental and quantitative research push in the same direction.”

Kristin Milne,
Regional Specialist

Figure 5: Evolution in action ensuring 4Factor retains its edge



Lesson 3

Culture carries continuity

Culture has always bound 4Factor together. It is not about a single leader but about habits that are demanding, evidence-first and shared. Over time, these habits have created a language of their own.

Phrases like “don’t fight two factors at once” or “evidence before conviction” capture lessons that shape daily behaviour. They are reminders that when valuation is stretched and revisions turn down, it is a clear signal to sell rather than rationalise; that every idea must pass the same objective entrance exam before it deserves attention; that weak cases should be cut early, before they absorb capital and time. This shared vocabulary keeps decision-making consistent, making it clear how ideas are judged and debated even as people and tools evolve.

Ritual reinforces this language. When the model refreshes, analysts present their ideas against the four factors in open debate. Arguments are challenged, assumptions are tested, and evidence is scrutinised. It is rarely comfortable, but the discomfort is deliberate and valuable. Challenge forces better decisions, sharper thinking and ultimately better outcomes for clients. It shortens the distance between new facts and new positions, ensuring that capital moves in line with the evidence. Not everyone thrives in this environment, but those who do become 4Factor investors in the truest sense: anchored by the same philosophy, open to challenge and willing to change their minds.



The process shows us what a better portfolio could look like, and that is challenging. It forces us to confront our own ideas, stay disciplined and remain open-minded, especially when markets are in crisis.”

Dan Hanbury

Portfolio Manager, Global Strategic



“

It takes a couple of years before you really start to find your feet. You are learning the process and the 4Factor way of thinking about stocks. But once you get it, it becomes second nature.”

Sophia Whitbread,
Global Sector Specialist

The effect is that people who join 4Factor become steeped in its way of thinking. Analysts quickly learn that this is not a star-manager culture, but one built on process, discipline, and accountability. Over time, the team has carried forward its knowledge and style of decision-making, ensuring the process feels familiar even as faces change.



“

Don't compromise on cultural fit. We back tomorrow's heroes. People who join 4Factor learn to rise to its standards and become part of something bigger than themselves.”

Mimi Ferrini,
Co-CIO Ninety One

Ready for the next 25 years

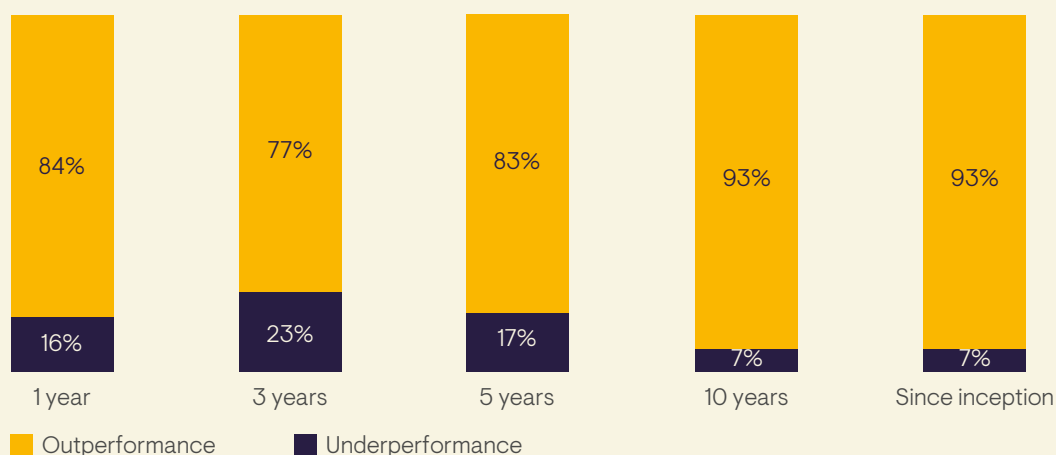
Reaching 25 years is not a destination but a reminder of responsibility. 4Factor has only endured because clients across the world have chosen to place their trust in us. For that, we are deeply grateful. Longevity in investing is never built alone. It depends on the support of clients who demand discipline, accountability and resilience from their managers.

A defining feature of the 4Factor platform has been its ability to tailor solutions to support a wide range of client objectives, especially as those objectives evolve. Enabled by a disciplined investment framework and well-established investment infrastructure, the team can incorporate a range of client requirements without compromising process integrity, diluting the opportunity set, or losing focus on bottom-up stock selection.

Around 50% of segregated assets across 4Factor strategies are managed under various mandate-specific requirements, for clients ranging from sovereign wealth funds to superannuation schemes. In practice, this involves designing portfolios that reflect individual constraints and objectives, including ESG policies and exclusions, country, regional, sector or stock-level limits, customised benchmarks, and differentiated risk tolerances.

The process is as robust today as it has ever been, but humility is essential. Even with a framework that has guided decisions through bubbles and crises, there is no certainty about the future. What we can say is that 93% of client assets have outperformed since the inception of those assets, evidence not of perfection but of a philosophy applied consistently and carefully over time.

Figure 6: 4Factor capability — AUM-weighted out/underperformance



Past performance does not predict future returns; losses may be made.

Source: Ninety One as at 31 December 2025. Performance is gross of fees (returns will be reduced by management fees and other expenses incurred), income is reinvested, in USD. 4Factor capability performance is calculated as the sum of the total market values for individual portfolios that have positive active returns on a gross basis expressed as a percentage of total AUM. Outperformance is reported on the basis of current AUM and therefore does not include terminated funds. Total AUM excludes double-counting of pooled products. Benchmarks used as specified in client mandates or fund prospectuses. For all periods shown, market values are as at the period end date. For further information on how our 4Factor funds and strategies have performed, please see the performance section of our website: www.ninetyone.com.

Interest in our 4Factor equity range is growing, reflecting both the breadth of our platform and the changing shape of markets. The dominance of US megacap stocks and the strong dollar may give way to a broader leadership, with Europe, Japan and emerging markets better placed than they were in the last decade. Dispersion is beginning to return. That creates an environment where stock-specific insight matters even more.



“

I'm actually pretty optimistic about active equity management. Markets are about people, and people are inherently random, individually and collectively. I don't think machines will ever fully understand that. There's a good future for active investing, but only if we remain hungry and keep improving.”

Archie Hart

Portfolio Manager, Emerging Market Equities

Regime change is something 4Factor has seen before. We have invested through the tech bubble, the global financial crisis, the rise of emerging markets and the recent period of narrow leadership. Through these shifts, our diversified, bottom-up, stock-specific approach has continued to generate good alpha. The process has also become more resilient at turning points, reflecting improvements in how signals are interpreted and how decisions are made.

Artificial intelligence is reshaping industries, and asset management is no exception. For 4Factor, this evolution feels natural. Machine learning is already embedded in the process, accelerating diagnostics and highlighting anomalies more quickly. What differentiates 4Factor is a long-standing culture that blends technology with human judgment. This mindset leaves us well placed for the changes AI will bring, and that balance will continue to guide how we evolve the process.



We are a team, and a business, designed to endure and adapt, driven by our people and the way we collaborate with each other. With this as our foundation, we can look ahead with real confidence”

Jen Ford,
Investment Director

While geopolitics, policy divergence and technology will shape opportunities in ways that cannot be predicted with certainty, 4Factor is built for this environment: demanding of evidence, open to challenge and willing to adapt. Our commitment is clear. We remain accountable to our clients and focused on delivering strong outcomes. The last 25 years have taught us to keep the philosophy constant, evolve the tools before they go stale and manage succession without losing stride. These lessons form the basis for the next chapter of 4Factor.



4Factor moves forward through the way the team continues to question, test and learn. Belief in the philosophy stays constant, while introspection and a culture of evidence-first debate sharpen how we apply it. That is what keeps us ready for what comes next.”

Wenchang Ma,
Portfolio Manager, Asian and Chinese Equities

General risks. The value of investments, and any income generated from them, can fall as well as rise. Where charges are taken from capital, this may constrain future growth. Past performance is not a reliable indicator of future results. If any currency differs from the investor's home currency, returns may increase or decrease as a result of currency fluctuations. Investment objectives and performance targets are subject to change and may not necessarily be achieved, losses may be made. Environmental, social or governance related risk events or factors, if they occur, could cause a negative impact on the value of investments.

Australia

Level 28 Suite 3, Chifley Tower
2 Chifley Square
Sydney, NSW 2000
Telephone: +61 2 9160 8400
australia@ninetyone.com

Botswana

Plot 64289, First floor
Tlokweng Road, Fairgrounds
Gaborone
PO Box 49
Botswana
Telephone: +267 318 0112
botswanaclientservice@ninetyone.com

Channel Islands

PO Box 250, St Peter Port
Guernsey, GY1 3QH
Telephone: +44 (0)1481 710 404
enquiries@ninetyone.com

Germany

Bockenheimer Landstraße 23
60325 Frankfurt am Main
Telephone: +49 (0)69 7158 5900
deutschland@ninetyone.com

Hong Kong

Suites 1201-1206, 12/F
One Pacific Place
88 Queensway, Admiralty
Telephone: +852 2861 6888
hongkong@ninetyone.com

Luxembourg

2-4, Avenue Marie-Thérèse
L-2132 Luxembourg
Telephone: +352 28 12 77 20
enquiries@ninetyone.com

Namibia

Am Weinberg Estate
Winterhoek Building
1st Floor, West Office
13 Jan Jonker Avenue
Windhoek
Telephone: +264 (61) 389 500
namibia@ninetyone.com

Netherlands

Johan de Wittlaan 7
2517 JR Den Haag
Netherlands
Telephone: +31 70 701 3652
enquiries@ninetyone.com

Singapore

138 Market Street
CapitaGreen #27-02
Singapore 048946
Telephone: +65 6653 5550
singapore@ninetyone.com

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www.ninetyone.com

Telephone calls may be recorded for training, monitoring and regulatory purposes and to confirm investors' instructions.
For more details please visit www.ninetyone.com/contactus

South Africa

36 Hans Strijdom Avenue
Foreshore, Cape Town 8001
Telephone: +27 (0)21 901 1000
enquiries@ninetyone.com

Sweden

Västra Trädgårdsgatan 15,
111 53 Stockholm
Telephone: +46 8 502 438 20
enquiries@ninetyone.com

Switzerland

Dufourstrasse 49
8008 Zurich
Telephone: +41 44 262 00 44
enquiries@ninetyone.com

United Kingdom

55 Gresham Street
London, EC2V 7EL
Telephone: +44 (0)20 3938 1900
enquiries@ninetyone.com

United States

Park Avenue Tower, 65 East 55th Street
New York, 10022
US Toll Free: +1 800 434 5623
usa@ninetyone.com

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