

IMPACT REPORT

Real Assets

FUNDS AT A GLANCE



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GLOSSARY & SYMBOLS

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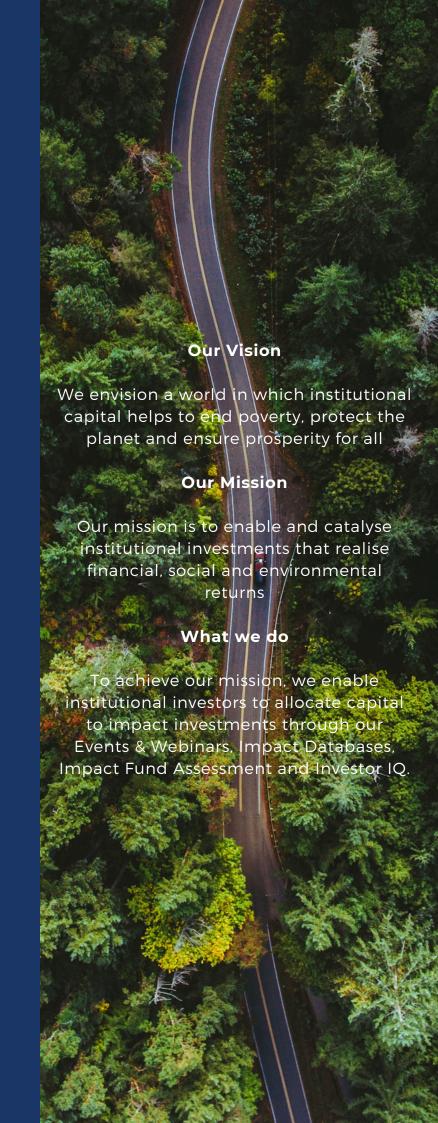
ABOUT PHENIX CAPITAL

CATALYSING INSTITUTIONAL CAPITAL TOWARDS THE SDGS

Phenix Capital Group is an impact investment consultant that enables institutional investors to make impact investments.

We assist asset owners and asset managers in aligning their investments with their values, financial objectives, and the Sustainable Development Goals.

www.phenixcapitalgroup.com



About impact database

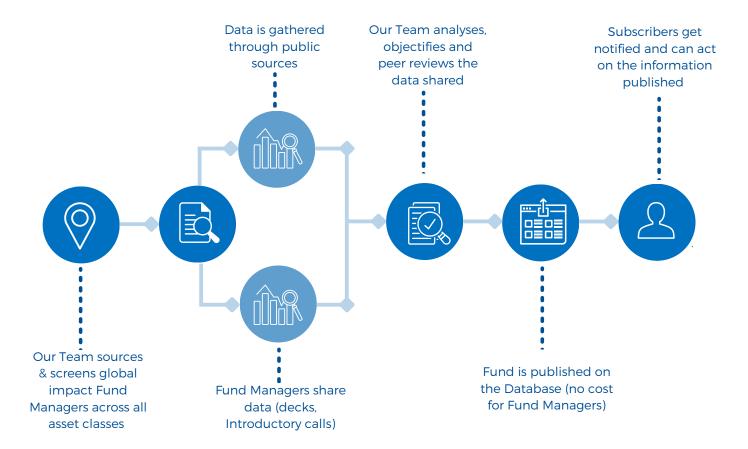
Phenix Capital's mission is to enable the allocation of capital from institutional investors towards social and environmental solutions while supporting the 2030 Sustainable Development Goals (SDGs). With the Impact Database, Phenix Capital aims to provide investors with access to and intelligence on the impact fund market opportunities available to them.

Three main variables have been central to construct, monitor and update the database: funds considered have an impact proposition, institutional scale, and target market-rate returns.

Impact Investing goes beyond negative screening and using Environmental, Social and Governance (ESG) integration to reduce harm or avoid risks, to generating intentional positive impact. Phenix Capital defines impact investing as **investing with the dual mandate of financial return and positive societal or environmental impacts**, with the notion of measuring the positive and negative impact of investments, ensuring both **intentionality and additionality** among these.

Phenix Capital's Impact Database features funds that align with this definition through their creation of solutions for global social and environmental issues, whilst prioritising financial returns. This category of impact investments can be referred to as **financial-first impact investments**.

FUND SOURCING PROCESS



Introduction

The world is changing at an unprecedented rate and megatrends such climate change, transition to net zero, digitalisation, aging demographics and urbanisation continue to provide a thematic investment framework that helps investors allocate to longer-term investment strategies.

These strategies typically also include real assets such as infrastructure, real estate and natural capital, the latter of which is covered by the farmland & cropland and timberland & forestry funds in the Phenix Capital Impact Fund database.

Tariffs and geopolitics have created a shroud of uncertainty globally, but there are higher valuations for real assets as interest rates stabilise and inflation continues to be on the high side. In a stagflationary environment many real asset investments, particularly in real estate and infrastructure (covered in the February edition that focused on Al Infrastructure), can offer inflation and downside protection.

In a recent study by <u>Aviva Investors</u>, 64% of institutional investors continue to cite diversification as a primary reason for allocating to real assets, with 60% seeing it as a key driver of their investments over the next two years. The tumultuous markets have reinforced the value of real assets as a source of uncorrelated returns.

The same survey suggested that almost 70% corporate defined contribution pension funds expect to increase allocations to real assets over the next two years, up from 51% a year earlier. In addition to diversification, real assets can provide stable and regular cashflows that match the long term liabilities of pension funds.

There is diversification within sub sectors too. Take infrastructure, which makes up 48% of the real asset funds, This includes transportation, social infrastructure such as public services and utilities that underpin everyday life, but now also include digital infrastructure and the move towards sustainable and renewable energy.



Real estate is the next biggest real asset sub sector in the database making up 25% of the funds. Given it is estimated that the real estate sector accounts for 40% of greenhouse gas (GHG) emissions globally, we will cover the greening of real estate in the Deep Dive. From an investment perspective, impact can be made in social real estate such as hospitals, health-care facilities, care homes, schools, nurseries, affordable homes and social housing.

The two natural capital solutions sectors in real assets include 15 forestry and timberland impact funds, and 12 farmland and cropland funds. There are two key global risks addressed when investing for impact in these two natural capital sectors: loss of biodiversity and food security, which were covered in <u>April 2024</u> and <u>April 2023</u>, respectively.

From an investment point of view, impact investors interested in farmland and crops can invest in climate-smart agricultural practices and technologies that improve resilience, conserve natural resources, and reduce greenhouse gas emissions. Examples include agroforestry, precision farming, sustainable irrigation systems, and climate-resilient crop varieties.

Timberland and forestry investing involves the ownership or management of productive forest lands focused on biodiversity preservation, biological growth and sustainable timber sales. Timberland includes both the land and the timber of forests of tree species typically used in the forest products industry.

Population growth, food insecurity, urbanisation and increased energy usage in a world that needs to decarbonise, are among the mega trends that many of the real asset funds focus on.

Key Takeaways:

- 180% growth in No. of funds since 2015
- 56% real asset funds open to investment
- SDG7 top theme/goal targeted
- 72% funds focus on developed markets
- 48% funds focus on infrastructure
- 42% of the funds target Europe



Impact themes mapped against the SDGs



Phenix Capital Group has mapped the <u>SDGs against Impact Themes</u>, which are based on the most globally endorsed terms used by practitioners in the financial sector and what's used by generally accepted frameworks, to enable both fund managers and fund allocators to better understand how the SDGs and it's sub-goals translate into outcome-based investment areas - by the name that they are commonly known and referred to in the financial industry.

Mapped against the SDGs' sub-goals, our Impact Themes offer a comprehensive way for investors and fund managers in the financial industry to identify what social or environmental outcome is generated by an impact investment and its contribution to the Sustainable Development Goals.

The revamped impact themes are already available in our <u>Impact Database</u> for fund filtering, via the Fund Search function.

Real Assets Funds Data Overview

688

Real Assets Funds

316

Fund Managers with Real Assets Funds

280

Open for Investments
Real Assets Funds

177

Fund Managers with Open Real Assets Funds

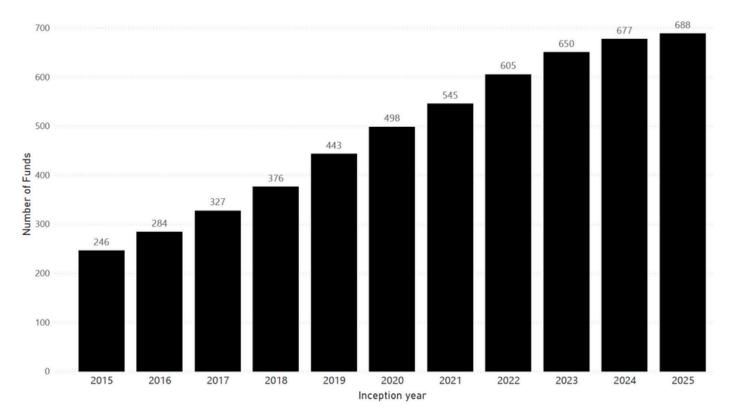
€222 bn

Total Capital Raised by Real Assets Funds

€173 bn

Total Target Size of Real Assets Funds

Cumulative Number of Real Assets Funds



*Funds without inception year data have been assigned the value from the reference year (2015)

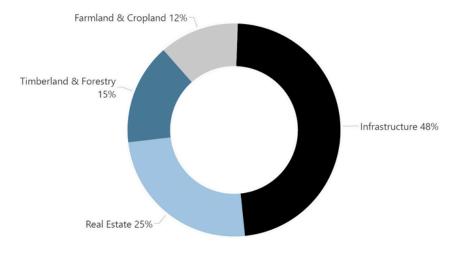
Within the Phenix Impact Fund Database, the real asset funds category, which includes infrastructure, real estate, farmland and cropland, and timberland and forestry funds, represent a growing opportunity set for investors particularly in the emerging markets. With rapid urbanisation in low and middle-income countries, private capital is a key component to development.

Real assets are an ideal asset class during periods of increasing or high inflation as they typically outperform financial assets during such times. That said, real assets have lower liquidity and often higher transaction fees than financial assets, as well as taking longer to sell. Real asset funds make up roughly a quarter of the total impact number of impact funds in the Phenix Database, growing by 1.62% in number between 2024 and 2025.

Over a five year period the real asset fund universe has grown from 498 to 688 funds, equivalent to a 38% growth rate, while over a 10 year period the universe, which started with 246 funds in 2015, has seen steady growth to achieve a cumulative growth rate of 180%. Of the 688 real asset funds, 280 are currently open for investment, equivalent to 40.7%. And of the 316 managers with real asset impact funds, 177 have funds open for investment, equivalent to 56%. In terms of assets raised since 2015, the real asset fund universe has raised €222 billion, while the target size of real asset funds is now €173 billion.

Nuveen is one of the largest managers of farmland assets globally and in the top 20 infrastructure funds with capabilities spanning real assets. Across the pillars of natural capital, infrastructure, and listed real assets, Nuveen's natural capital investments are land-focused aiming to advance best practices and help create sustainable production systems for food, fibre and timber, while its infrastructure platform invests in private infrastructure in sectors, including sustainable energy, digital, transportation and social infrastructure.

Distribution of Real Assets Funds by Sub-Asset Class



Infrastructure impact funds make up almost 50% of all the real asset funds in the Phenix Database, with real estate making up a quarter of the 688 funds. Farmland & Cropland and Timberland & Forestry, effectively a natural capital allocation, make up the remaining quarter of all real asset impact funds.

Despite farmland and crop land making up only 12% of the real asset funds, wealthy individuals, including billionaires such as Jeff Bezoz, Warren Buffet, Michael Bloomberg and Bill Gates, who is the <u>largest private US farmland owner</u>, are investing in farmland due to its stability, potential for consistent returns, and increasing global demand for food, which is projected to rise with population growth.

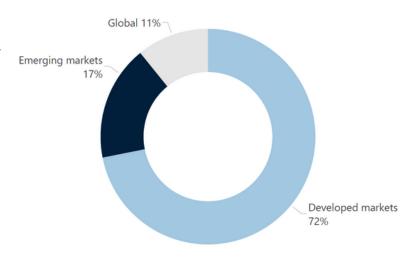
Almost three quarters of the real asset funds focus on the developed markets, which as will be explained later, are primarily in Europe and North America.

Emerging markets make up 17% of the real estate impact funds and of these Africa and South and Central America are the most popular regions, while global real asset funds make up 11% of the funds.

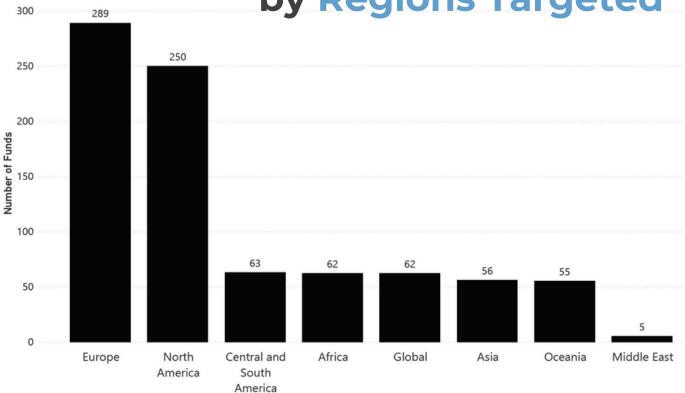
Thematically infrastructure investments in developed markets are likely to focus on energy security, grid resilience and infrastructure renewal as the energy transition gathers momentum. Net Zero impact investing funds were covered in May 2025, where the focus was Climate Finance, and March 2024, which looked at Counting the Cost of Carbon.

Investing energy generation, transmission, and distribution of electricity and gas could benefit from both regulation and capital, while digitisation could see investments in wireless communication and data centres. Al Infrastructure was covered in the February 2025 Infrastructure issue.

Distribution of Real Assets Funds by Market Targeted



Distribution of Real Assets Funds by Regions Targeted



*Data may overlap as funds can target several Regions.

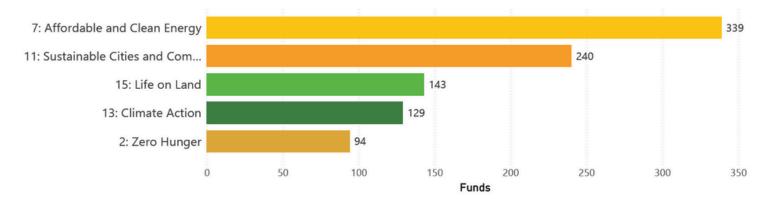
Digital infrastructure, renewable energy-related technology, such as battery storage, hydrogen or biogas, and the energy transition, along with infrastructure renewal and specialised real estate such as energy efficient buildings for smart cities, industry and data centres are the real asset opportunities funds with a developed market focus are honing in on. Energy security, grid resilience, and data are the core themes driving these investments.

Europe is the preferred region targeted by 289 real asset impact funds, followed by 250 that are focused on North America. Europe's attractiveness over the US part of the North American allocation is that for the energy transition, the European Union plans to implement what is effectively a roadmap for competitiveness and ownership that should lead to more concrete action on the path to decarbonisation. The USA on the other hand seems to be reducing its focus on sustainability and many of the plans outlined in the Inflation Reduction Act.

In the Phenix Impact Database, there are 63 and 62 funds focusing on real asset opportunities in Central and South America and Africa, respectively, with 62 funds taking on a global mandate. Asia and Oceana boast 56 and 55 real asset funds respectively. Rapid urbanisation in the emerging markets will drive the need for investment in housing and energy infrastructure, as well as new waste disposal systems.

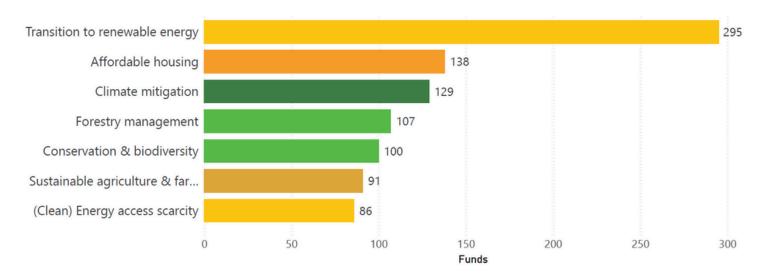
Although there are fewer real asset funds focusing on timberland and forestry, ecosystem restoration has potential and is currently undercapitalised. In this sector, however, the US is more developed than Europe. Right now, it is estimated that about 13% of the world's forests are eco-certified, primarily by the FSC or PEFC, indicating some level of sustainable management, so the potential to expand this is an investment opportunity. For farmland and cropland investing, there is an investment need to help farmers transition from industrial to regenerative farmland.

Top SDGs Targeted by Real Assets Funds



*Data may overlap as funds can target several SDGs.

Top Impact Themes Targeted by Real Assets Funds

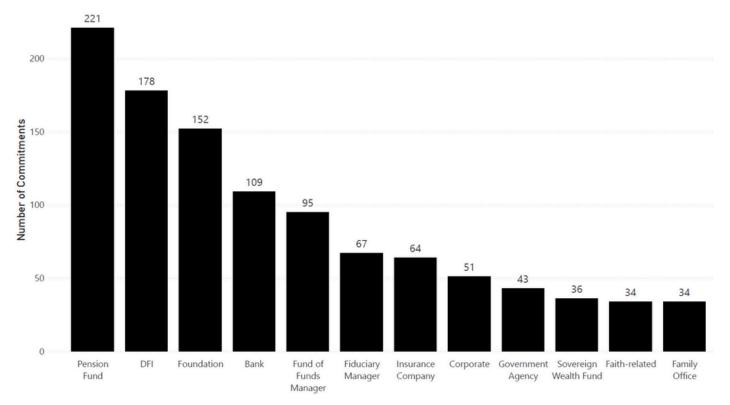


Given the heavy developed market focus of the real asset funds in the database, it is not surprising that in terms of Sustainable Development Goals (SDGs), Affordable & Clean Energy (SDG7) and Sustainable Cities & Communities (SDG11) are the top two SDG's favoured by impact funds, with 339 and 240, respectively, investing aligned to those SDGs.

These SDGs also mirror the themes targeted by real asset funds, namely Transition to Renewable Energy (295 funds) and Affordable Housing (138 funds). Climate and natural capital are also favoured themes by the funds: climate mitigation (129 funds), forestry management (107 funds), conservation and biodiversity (100 funds). This mirrors the SDGs targeted: Life on Land (SDG15), 143 funds; and Climate Action (SDG13), 129 funds.

The 94 funds targeting Zero Hunger (SDG2) are likely to be investing in the theme of sustainable agriculture and farming, which as a a theme has 91 real impact funds. <u>Food security in 2025</u> is facing alarming highs, with reports indicating more than 295 million people faced acute food insecurity in 53 countries in 2024, driven by conflict, climate change, and economic shocks.

Investor Commitments to Real Assets Funds by Investor Type



*For clarity, this chart only displays the top Investor Types. Other Types are not represented.

**Data may overlap as investors can belong to several Types.

This graph shows the number of commitments per investor type. It does not represent the number of individual investor per type. For example, pension funds have collectively committed to 221 real asset funds, but one pension fund may have committed to 10 real asset funds. One of the reasons, pension funds are likely to be prolific investors in real asset impact funds is that they typically generate long-term returns, matching pension funds' long-term liabilities.

According to Aviva Investors' <u>Real Asset Study 2024</u> of 500 institutional investors across Asia, Europe and North America, representing a combined \$3.8 trillion in assets, 64% cited diversification as a primary reason for allocating to real assets, with 60% seeing it as a key driver of their investments over the next two years.

The whipsaw performance of markets in 2022 and much of 2023 likely reinforced the value of real assets as a source of uncorrelated returns in portfolios. Meanwhile inflation protection is expected to dip in importance, while 50% cited it as a key driver of investment, 43% said it would be important over the next two years. Cashflow matching is also set to fall in importance, with only 15% of respondents citing it as a key driver in two years, compared with 28.2% who see it as important today.

Half of the investors polled hold up to 10% of their portfolios in real assets and a third hold 10% to to 20%. North American investors tend to have higher allocations, with almost a quarter holding 20% or more of their portfolios in real assets. Development Finance Institutions have invested in 178 real asset impact funds, more than likely to have an emerging market bias. Globally, 64% expect to increase their allocations over the next two years, with investors in APAC most likely to add to their portfolios.

Interview







Emanuel EftimiuHead of ESG
Amundi Alpha Associates



Sandrine Lafon-CeyralChief Responsible Officer
Amundi ARA



Viviane TingPartner and Head of CIO
Office
Amundi Alpha Associates

Emanuel is Head of ESG and is responsible for all ESGrelated matters of Amundi Alpha Associates' funds-offunds and investment programs for private equity, private debt, infrastructure. Emanuel joined Alpha Associates in November 2011 from UK financial publishing house Incisive Media, where he was heading up the data and research team of Unquote" and held the acting editorin-chief position.

Emanuel holds a Bachelor of Arts (B.A.) in business studies from Guildhall University, London.

Sandrine is Chief Responsible Officer at Amundi Alternative & Real Assets (ARA), where she oversees the SRI strategy and policy across all asset classes including real estate. private infrastructure, debt. private equity, social impact, and funds-of-funds. She was previously Deputy Head of Investment and Asset Management at Amundi Real Estate. Sandrine began her career in 1995 at CDC before joining AEW Europe, and in 2007 moved to Amundi, where she initially managed real estate assets and SRI monitoring before taking charge of ESG for ARA in

Sandrine is a graduate of the University of Humberside, where she earned a Bachelor's degree in European Business, and of KEDGE Business School's FRP International programme. She also holds a Mastère 2 in Wealth and Real Estate Management and is a Member of the Royal Institution of Chartered Surveyors (MRICS). In addition, she is a founding member and Board Secretary of the Observatoire de l'Immobilier Durable (OID), a French non-profit established in 2012 to advance sustainability in the real estate sector.

Viviane is a Partner, Head of the CIO's office, and a member of the Private Equity, Infrastructure, and Private Debt Investment Committees at Amundi Alpha Associates. She has 16 years experience both alternative and traditional asset management. Viviane began her career in hedge fund selection at CAAM in Chicago, London, and Hong Kong before becoming a multi-strategy hedge fund manager in Paris. In 2011, she Amundi's joined equity platform as an investment specialist and later an equity analyst, and in 2018 moved to the multi-manager team at Amundi Alternative & Real Assets

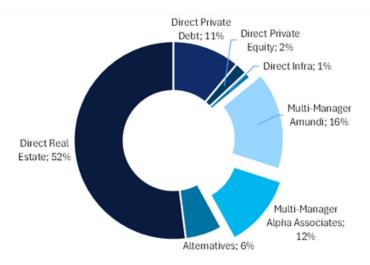
Viviane holds a Magistère in Economics and Finance from Université Paris 1 Panthéon-Sorbonne, a selective fiveyear programme equivalent to a Master's degree. She also holds an MBA from INSEAD, is a CFA charterholder, and is Co-Chair of the LPs Club at France Invest.

Interview





From spinning out from Swiss Life in 2004, to joining forces with Amundi in 2024, Alpha Associates continues its environmental, social and governance (ESG)-fuelled trajectory in the private space. Managing markets equity, private debt, infrastructure and now also real estate funds of funds and bespoke management accounts, the combined Amundi Alpha Associates group of 70 professionals—50 at the headquarters in Zurich and 20 in Paris is positioned to expand its reach from a well-established European base to a truly global institutional audience.



Source: Amundi Alpha Associates

Responsible investment lies at the heart of Amundi Alternative & Real Assets' (ARA) vision and strategic commitments. In a rapidly changing world, as ESG matters are reshaping the way the firm invests, Amundi ARA's mission is to harness the power of alternative and real assets to support sustainable transitions and deliver long-term value to its investors and to society.

In this article, we discuss the firm's evolution to becoming a €20+ billion global multimanager private markets platform, how responsible investment shapes the investment process, and plans for the future.



How has Amundi Alpha Associates evolved into today's multi-manager platform?

Alpha Associates originated as a specialist private markets firm, focused on delivering tailored managed accounts and multi-manager fund solutions to a predominantly DACH-based institutional client base. "Historically, in Zurich we offered dedicated strategies across private equity, private debt, and infrastructure, and more recently have expanded our capabilities into private equity impact," says Petra Salesny, Chief Commercial Officer at Amundi Alpha Associates. Over time, this foundation has been reinforced with a disciplined investment process and an increasingly diversified offering, positioning the firm to serve clients with its depth of expertise and a broad, integrated approach to private markets.

From its inception, Alpha Associates has served an exclusively institutional client base, with pension funds representing the majority of commitments, complemented by insurance companies and family offices. Having established itself in its core markets of Germany, Austria and Switzerland ("DACH"), the firm was well positioned for the next stage of growth. "We have always had a strong presence in the DACH region and had built relationships with most investors likely to be interested in our strategies," says Salesny.

Amundi's multi-boutique model provides the flexibility to preserve the distinct identity and investment philosophy of each business line. Following the acquisition, Alpha Associates' founders (Peter Derendinger, Petra Salesny, and Petr Rojicek) retained their roles and managerial responsibilities in Zurich and remain actively engaged in the leadership of the newly established private markets business line. The existing 50-person Zurich team was integrated with a 20-person counterpart in Paris, with all colleagues having access to Amundi's global resources and a network of more than 3,000 colleagues worldwide.



What is the investment ethos and how does responsible investing frame the firm's vision?

From an investment perspective, Amundi Alpha Associates seeks to deliver top quartile performance by building a portfolio centred around leading mid-cap managers. "We favour managers with the expertise and operational capability to execute complex strategies, particularly those aligned with long-term secular trends such as infrastructure, technology, or healthcare," says Viviane Ting, Partner and Head of the CIO's office, Amundi Alpha Associates.

In partnering with these managers, Amundi Alpha Associates also pursues co-investments and select secondary opportunities where they create additional value. With a proven, rigorous selection process, the aim is to achieve attractive risk-adjusted returns, which is proven by the firm's track record.

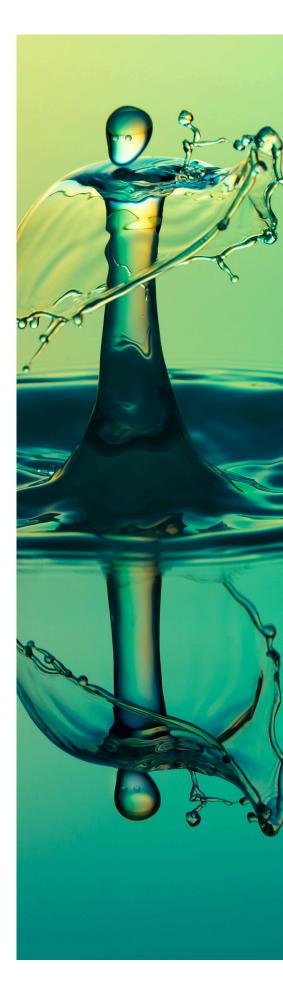
The company uses proprietary software tools SIROS, ALTO, and Indicate, and comprehensive databases to support tailor-made portfolio construction, investment planning, detailed portfolio analysis, effective risk management, and transparent reporting.

That said, responsible investment has been a founding pillar of Amundi dating back to the Group's inception in 2010. Believing that companies and financial actors have a responsibility to address today's major challenges, the company as a whole takes an active role as a facilitator in the evolution of society towards a more sustainable development model.

At Amundi Alpha Associates, ESG is not treated as a niche topic reserved for experts. While the investment team draws on the expertise and guidance of the dedicated ESG team, the company ensures that the process is effective and impactful by making sure the investment team is fully aligned with the ESG framework and processes, and participates in manager engagement and holding them accountable for ESG outcomes.

"In our early days, when the team was smaller, the ESG process was managed entirely by the investment team themselves. Today, with our expanded resources, we are able to be at the forefront of ESG expertise, evolving regulations, and reporting standards. Regular training further enhances the investment team's knowledge of key ESG topics such as carbon footprint, biodiversity, and other emerging themes," says Emanuel Eftimiu, Head of ESG at Amundi Alpha Associates.

"Our ESG process begins at the due diligence stage, assessing both the management company and its investment vehicles," explains Eftimiu. "At the firm level, evaluate factors such as carbon footprint management, diversity policies, and governance structures. We then extend this assessment to the fund itself and its underlying portfolio companies. Even if a manager demonstrates strong credentials, we identify potential concerns in case a fund does not meet our baseline ESG thresholds - for example, we like to see a minimum of 20% female representation on the investment team, with a plan to increase it to 30%.



"In such cases, we work collaboratively with the manager to establish a clear, actionable roadmap for improvement. It's worth mentioning that we are not speaking about diversity 'quotas' here, or hiring token women just for the sake of improving a ratio. Rather, we see diverse and equitable teams as a natural outcome of management companies that demonstrate strong governance and embed sound social practices into their organisational culture," adds Eftimiu.



Source: Amundi Alpha Associates

As a responsible asset manager, Amundi integrates ESG factors and considerations into the firm's investment decisions, processes, asset selection and management practices throughout the holding period of all investments. "Our conviction has always been that ESG integration is fundamental to sound investment practice," says Eftimiu. "But we aim to go further – setting the standard for what responsible investing can look like and how it can deliver compelling returns. That same standard applies internally as an employer, where we hold ourselves accountable to the principles we expect of others".

The group is further dedicated to supporting sustainable transitions through an ambitious engagement policy and sustainable investment strategies, with a strong focus on the development of impact funds. This way, Amundi ARA's management team aims to create strong long-term value for all stakeholders, as well as enact positive change for society. "We invest exclusively with General Partners (GPs) that meet our in-house ESG scoring criteria," says Ting.

What are Amundi ARA's three key responsible investing channels?

The Amundi ARA Platform implements its commitment to responsible investment through three key channels. The first is climate action. "The fight against climate change is no longer a matter of debate. It is a shared responsibility that will shape the world for decades to come," says Ting. As a committed responsible investor, Amundi ARA develops solutions that address today's climate challenges, including financing the energy transition and investing in initiatives aimed at mitigating or adapting to climate change.

The second channel is enhanced transparency. "We believe that building trust with our clients and investors requires clear demonstrations of our commitment to sustainable investment. To this end, we strive to provide detailed reports that quantify the impact of our actions and investments," adds Ting. Transparency in responsible investment is essential, as progress can only be achieved through measurable and accountable actions.

The third channel is stakeholder alignment. "We hold ourselves, our portfolio funds and companies, and our various partners to high standards, encouraging collaboration amongst all players within our ecosystem, including suppliers, tenants, property managers, shareholders, and issuers," says Ting. "By building a robust framework for sustainable investment and asset management, we can trace and showcase our commitment to progress. Our approach is grounded in dialogue, active listening, and respect for all our stakeholders, representing the core values that distinguish our support for our companies on a path of progress towards environmental and social transitions," adds Ting.

Why is it important to integrate ESG factors into the investment process?

"ESG cannot be considered as a sole question of risk," says Sandrine Lafon-Ceyral, Chief Responsible Officer, Amundi ARA, whose ESG career started in real estate asset management in 2010 upon the implementation of new French regulations for sustainability in real estate. She plays an active role within industry associations for sustainability.

Three years ago, real estate was combined with private equity, private debt, infrastructure and multi manager solutions, so the application of sustainability grew across the larger pool of real asset classes at Amundi. "In a world undergoing profound transformation, where climate, social and economic challenges are intertwined, finance has an important role to play in facilitating the transition to a more sustainable economy. This is part of our fiduciary duty towards our clients," notes Lafon-Ceyral.

"ESG is at the heart of our strategic decisions and that's why we have put together a dedicated team of ESG specialists that works closely with the investment teams at the heart of strategic decisions. The ESG Team is composed of 11 professionals, each being dedicated to a specific asset class. They are involved from the very beginning in the selection of a deal through a qualitative and quantitative analysis and through the lifetime of the investment by an active and concrete listening and dialogue with invested companies and finds. Non-financial analysis is at the heart of our approach," explains Lafon-Ceyral.

Amundi Alpha Associates uses an internal rating tool based on quantitative and qualitative analysis that allows it to give each investment a rating of A to G, where A is the best, and depending on the rating, it may elect not to invest. The tool also considers reputational and exclusion risks from the start. The ESG team is involved alongside the investment team through the whole life cycle of the product, especially with respect to the engagement strategy in order to encourage companies to improve their ESG practices and engage in a decarbonisation pathway.

For private equity, in particular, Amundi Alpha Associates likes to support its funds and underlying companies to define credible and tailor-made ESG roadmaps that are consistent with their operational reality and #the firm's ESG ambitions. "We consider that it is through engagement with our invested companies and frequent dialogue that we can really advance standards and define realistic and ambitious investment trajectories that drive the development of the companies over the long term," says Lafon-Ceyral, adding, "It may then be source of new business opportunities or developments".

"ESG CANNOT BE CONSIDERED AS A SOLE QUESTION OF RISK," SAYS SANDRINE LAFON-CEYRAL, CHIEF RESPONSIBLE OFFICER, AMUNDI ARA,"

What are the biggest challenges in investing in private assets with an impact mindset?

Alpha Associates has had longstanding investments in the impact space, but it really started building a portfolio around impact five years ago through its traditional mandates in private equity. "Initially, this was not easy, as impact investments were not widely perceived as a high-performing asset class, and there was limited market knowledge in this area. Today, however, we don't believe it should be necessary to classify impact as a separate asset class; every manager should understand and seek to make impact behind each investment," says Ting.

Eftimiu highlights that meaningful impact leaves no room for 'greenwashing' or 'impact-washing.' "We expect impact to be strong, clearly defined, and measurable," she says. "This is why we seek to disclose our initiatives and KPIs in a way that is both transparent and meaningful for our investors. While ESG discourse can be heavy with technical jargon, our goal is to provide reporting that is accessible, in plain language, yet rigorous enough to give investors concrete, comparable data on the outcomes of their investments," Eftimiu adds.

"Before you start, you need to clearly define the type of impact you are looking to achieve. You need to have a clear vision of what type of impact you want to build with your portfolio - whether it is social, environmental, or a mixture of specific SDG criteria," says Ting, adding, "Finally, you need a robust approach to measuring those outcomes. In today's complex, modern world, it's crucial to understand what will truly drive changes and the consequences of inaction".

Amundi Alpha Associates seeks the best managers who can deliver meaningful impact while also meeting performance expectations. "We have the same level of return requirements for impact investments and non-impact investments," notes Ting. To be successful and sustainable, an impact strategy must have the same toolkit as any top-tier investment approach: passionate and experienced investment professionals, strong alignment of interest, deep sector expertise, and the ability to deploy active buy-and-build strategies that add real value to the management teams of portfolio companies.

"Because track records in impact investing are still relatively immature, our conviction often starts with the quality and integrity of the people we partner with. It is also common for carried interest to be tied to achieving specific impact KPIs, but this only works when an independent impact committee ensures that KPIs are well-defined, relevant, and ambitious enough," says Ting.

Eftimiu notes that while demand for responsible investment is growing, the market dynamics vary across strategies. "At present, most of our newly launched products are classified as Article 8," he explains. "Despite genuine investor interest, Article 9 impact strategies can be a more difficult proposition – there remains a perception that pursuing measurable impact may come at the expense of financial returns." He points out that impact investing, in its current form, is still relatively young, only about a decade old, with widespread adoption emerging in the past five years, whereas traditional private equity has a proven track record spanning more than three decades.

"For impact investing to succeed, it must deliver both measurable outcomes and competitive returns," Eftimiu continues. "Part of our role is to help investors see that ESG integration can, in fact, enhance long-term performance. Companies with robust governance and sustainable business practices are less likely to encounter regulatory, operational, or reputational setbacks – factors that directly support stronger financial results".

Looking at the world now, how can private markets be a catalyst for change, and what does the future hold?

"Private markets have the advantage to be a direct line with investments, allowing investment professionals to speak directly to the company's management and to encourage them to improve and to help them to define credible and ambitious ESG roadmaps. This direct line to investment also allows for direct impact on strategy and room for taking ESG into consideration and defining concrete decarbonisation pathway," says Lafon-Ceyral.

Eftimiu observes that shifting political attitudes toward climate and environmental policy have created headwinds for investing with certain North American managers. "We are encountering resistance, even from managers who actively track ESG metrics but are restricted from disclosing results," he explains. "Some still undertake diversity training or similar initiatives, but cannot communicate about them publicly, as 'greenhushing' is an emerging trend in responsible investing".

Looking ahead, Petra Salesny describes an ambitious growth trajectory. "There is effectively no ceiling on our expansion. With the additional resources now available to us, we can scale our team, broaden our client base, and support significantly more investors than before. In the past, headcount and resources constrained our capacity – today, that limitation is gone".



About Amundi Alpha Associates

Amundi Alternative & Real Assets (ARA) is a leading player in private markets asset management, with €69 billion in assets under management across real and alternative assets, 340 professionals, and eight investment hubs (Paris, London, Milan, Luxembourg, Barcelona, Madrid, Dublin and Zurich). As an investor of the real economy, Amundi ARA leverages its expertise on behalf of both retail and institutional investors to develop optimal and innovative solutions.

In April 2024, Amundi acquired Alpha Associates, a boutique asset manager offering private markets multi-manager investment solutions. Founded in 2004, Alpha Associates is a Zurich-based, founder-led specialist in private markets multi-manager solutions, which brings differentiating funds-of-funds capabilities in private debt, infrastructure, and private equity to over 100 institutional investors, notably pension funds and insurance companies, with a strong footprint in Switzerland, Germany, and Austria

These capabilities have been combined with the existing private markets multi-manager set-up of Amundi: a dedicated Paris-based team with over 20 years of experience, managing assets on behalf of institutional clients, mainly in France, Italy and Spain. As part of the transaction, Amundi's and Alpha Associates' multi-manager activities in private markets were combined into a new business line, Amundi Alpha Associates, which serves as the multi-manager business of Amundi ARA.







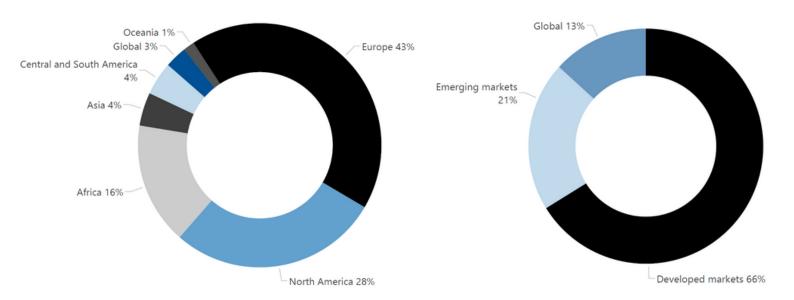


Deep Dive: Green Buildings

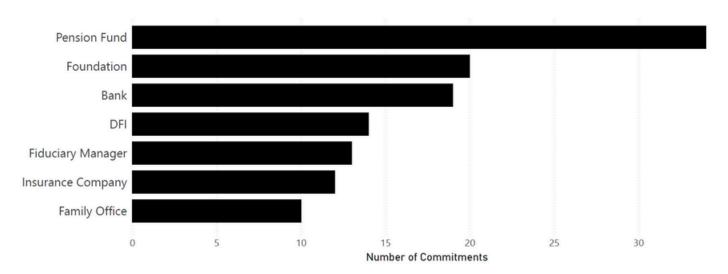
Geography of Funds Targeting Sustainable Cities ...

...by Region

...by Market



Investor Commitments to Funds Targeting the Subthemes Sustainable Cities, Green Buildings and Social Infrastructure

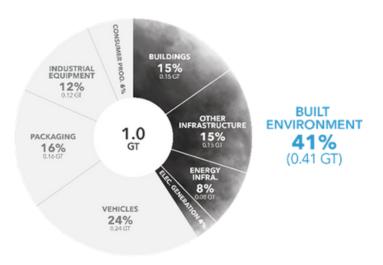


*For clarity, this chart only displays the top Investor Types. Other Types are not represented.

**Data may overlap as investors can belong to several Types.

The United Nations predicts there will be <u>9.7 billion people by 2050</u> and that by then two out of three people, <u>equivalent to 2.5 billion</u>, will live in cities. Moreover, the global energy demand is projected to grow between <u>11% and 18% by 2050</u>, driven by growing populations and a strengthening middle class in the emerging economies, making it unlikely the world will hit <u>net zero targets by 2050</u>. Cities are estimated to account for 70% of global greenhouse gas emissions with major contributors including transportation and buildings.

ALUMINUM ANNUAL GLOBAL CO₂ EMISSIONS Direct & Indirect Energy & Process Emissions



Architecture 2030. All Rights Reserved.
Analysis & Aggregation by Architecture 2030 using data sources from IEA & Statista.
Note: pie charts are percents of total and are not comparable in scale.

The built environment is responsible for about 42% of annual global CO2 emissions. Of those total emissions, building operations are responsible for approximately 27% annually, while the embodied carbon of just four building and infrastructure materials – cement, iron, steel, and aluminium – are responsible for an additional 15% annually, according to *Architecture* 2023.

Embodied carbon represents the with carbon emissions associated making building infrastructure or products and construction, from raw material extraction to manufacturing, transportation, and end of life disposal or recycling.

It is anticipated that embodied carbon will be responsible for the majority of the carbon emissions associated with global new building and infrastructure between now and 2030. The built environment and real estate play a vital role in advancing many of the Sustainable Development Goals (SDGs), not just SDG11: Sustainable Cities & Communities.

When it comes to SDG11, 43% of those interested in it have a European focus, and overall, 66% have a developed market focus. With real estate making up 25% of the real asset funds, we take a closer look at what makes up the construction of green buildings, and how to reduce embodied emissions before construction.





What is a green building?

Green building refers to both a structure and the application of processes that are environmentally responsible and resource-efficient throughout a building's life-cycle: from planning to design, construction, operation, maintenance, renovation, and demolition. There are several elements that need to be considered when creating a green building, many of which will touch on other SDG. For example, making a building energy efficient by using smart technology and IoT sensors as well as powered where possible with renewable energy such as solar panels, also covers SDG7: Affordable and clean energy.

To minimise the environmental impact (and reduce energy bills) of heating, green buildings can have integrated energy-efficient heating, ventilation, and air conditioning (HVAC) systems, prioritise renewable energy sources such as solar power, and incorporate passive design strategies to reduce heating demand such as advanced insulation, high-efficiency windows, optimal building orientation, solar shading, and the use of heat pumps to draw heat from the earth.

By choosing sustainable materials, reducing waste and implementing effective waste management systems, green buildings can significantly reduce their environmental footprint and support SDG 12: Responsible consumption and production. In a bid to reduce the embodied carbon of a building, the University of the Built Environment has come up with 16 eco-friendly materials that can act as alternatives to traditional materials such as timber, virgin plastics and concrete. These include bamboo and mass timber, recycled steel, plastic, rubber and glass and cork. Green cement alone can lower cement production's carbon emissions that account for 8% of global CO2.

Water Efficiency

Although the surface of the planet is approximately 70% water, less than 1% of the water on the planet is available for human consumption and use, making water a finite resource. It is predicted that by 2030 there will be a 40% gap between global water supply and demand, with buildings and construction estimated to be responsible for around 15% of the freshwater use, according to the World Green Building Council. Water and waste management efficiency is at the heart of achieving SDG6: Clean Water & Sanitation.

With regards to green buildings water efficiency involves reducing overall water use through strategies like low-flow fixtures, leak detection and monitoring, rainwater harvesting, reusing greywater from sinks and showers for toilet flushing and irrigation, and smart landscaping that includes using native plants, implementing smart irrigation systems, integrating advanced metering, and aiming for net-zero water status.

With a growing focus on responsible urban planning, affordable housing, and green spaces, pension funds are the biggest allocators to SDG 11: Sustainable cities and communities looking at the sub themes of sustainable cities, green buildings and social infrastructure.

Initiatives like transit-oriented developments and mixed-use communities also tackle congestion while enhancing air quality and accessibility, fostering healthier, more connected cities.

While most of the 'greening' of buildings will be in tweaks to what exists, alternatives to the 'concrete jungle' exist as highlighted by <u>edie and Springwise</u> for World Green Building Week 2022, highlight SDG9: Industry, Innovation and Infrastructure. Examples include a high-rise in Melbourne that will be able to power itself using solar energy via a façade made up of 1,182 solar panels in addition to solar cells on the roof.

Or engineered wood-based buildings, made by gluing together layers of solid-awn lumber. An example of this will be a Swiss project named Rocket&Tigerli near Zurich that aims to be the world's tallest timber residential building once it is completed in 2026.

Meanwhile China is boasting the completion of its very first vertical forest complex, located in the city of Huanggang, China. The complex covers an area of 4.54 hectares and includes five towers, two of which were designed as a vertical forest. The towers combine open and closed balconies planted with 404 trees, 4,620 shrubs, and 2,408 square metres of perennial grass, flowers, and climbing plants aiming to create a 'transitional space between nature and the human living environment'.

Green roofs and vegetation on walls are becoming popular as they improve a building's thermal insulation, reducing energy consumption related to heating or air conditioning.

In addition, this can contribute to reducing noise pollution, improving indoor air quality, harvesting rainwater, protecting biodiversity, and enhancing the overall well-being of building occupants. Greening buildings also mitigates the urban heat island effect of dark coloured urban environments.





There are several types of green surfaces: green facades that cover building surfaces with climbing or creeping plants installed using trellises, grids, cable systems, prefabricated panels, or modular systems; extensive green roofs that are lightweight, shallow installations made of low maintenance succulents and grasses; intensive green roofs have thicker, heavier and higher maintenance installations allowing a variety of plants, including trees, shrubs, and vegetable gardens; and balconies and terraces created using planters, containers, or vertical planting systems.

All of these endeavours not only support SDG11 and the associated SDGs highlighted but also contribute to SDG 13: Climate action. As mentioned earlier, buildings are a major source of carbon emissions, the sector can reduce its impact by prioritising energy-efficient designs, low-emission materials, and retrofitting existing properties to meet modern standards. Certifications like LEED and BREEAM encourage sustainable practices and help real estate organisations set ambitious climate targets.

What is interesting to note, however, is that in Europe's property market, higher capital costs have shifted the focus of investors and developers from mitigation – reducing buildings' carbon emissions – to adaptation, which involves making properties more resilient in the face of a changing climate.

Maybe the newest innovation is the answer. Auke Bleij, CEO of the <u>Dutch startup Respyre</u>, and his team of Dutch engineers have created moss bricks. The startup developed VertiScape™, a biologically active brick with a porous surface and mineral blend that encourages native moss growth, turning buildings into self-sustaining vertical ecosystems that purify the air, absorb carbon dioxide, and regulate building temperatures. Right now, Eindhoven has entire residential buildings clad in green.

PHENIX IMPACT FUND ASSESSMENT

Phenix Impact Fund Assessment is a proprietary framework developed in close consultation with institutional asset owners and industry leaders, for the purpose of assessing the robustness of a fund's impact proposition.

On 6 themes and 45 criteria, it examines to what extent the policies, procedures and human resources are in place to deliver the impact that a fund aims to create.

ASSESSING THE ROBUSTNESS OF IMPACT FUND PROPOSITIONS

Uncover strengths and weaknesses

Adopt industry best practices

Prepare for institutional impact due diligence



Glossary & Symbols

Committed capital: Amount committed in a fund vehicle by its limited partners / investors.

Developed markets: We include Europe (excl. Eastern Europe), North America, Asia Pacific (Singapore, Japan, and South Korea only), Oceania (New Zealand, Australia) Middle East and Africa (Israel only).

Direct lending: A specialised form of private debt, in which loans are made to middle-market companies. It is the private debt strategy with lower risk, achieved by using collateral.

Emerging markets: We include Latin and Central America, Asia Pacific (excl. Singapore, Japan, South Korea), Middle East and Africa (excl. Israel) Europe (Eastern Europe only).

Fund managers: Organisation managing commingled, pooled and customised vehicles invested by institutional asset owners. Also called General Partner or GP.

Global: Funds that have an investment geographic scope encompassing both developed and emerging markets.

Impact investing: Investments with the dual mandate of financial return and positive societal or environmental impacts, with the notion of measuring the positive and negative impact of investments, ensuring both intentionality and additionality among these.

Institutional asset owners: Outsourced CIOs, pension funds, insurance companies, family offices, sovereign wealth funds, endowments, foundations, banks, fiduciary managers, discretionary investment consultants. Also called Limited Partner or LP.

Market targeted: Markets fund managers target for their investments: We include Global, Developed markets, Emerging markets.

Mezzanine: A specialised form of financing in which loans are subordinated to banks, with no collateral. It is the most equity-like form of private debt.

Microcredit: A common form of microfinance, characterised by small loans to individuals or small companies.

Private debt: Debt instruments to companies: direct lending, mezzanine, microfinance strategies.

Public debt: Publicly traded fixed income securities: investment grade or high yield, focused on green bonds and municipal and community infrastructure and affordable housing issuers.

Regions targeted: Regions fund managers target for their investments: We include Asia Pacific (East Asia, Central Asia, South Asia, South East Asia), Europe (Western Europe, Eastern Europe), Global, Latin and Central America, Middle East and Africa (East Africa, Middle East, Northern Africa, West Africa, Southern Africa), North America. Oceania.

Target fund size: Amount the fund manager is targeting when raising capital.

Vintage: Year where the fund manager first calls capital from investors.

Full glossary: www.phenixcapitalgroup.com/impact-investing-glossary

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