The Megatrends Series.

Communication marketing

JULY 2026

The environmental transition

Investing in a multi-decade growth engine

Introduction

The environmental transition tends to redefine our global economy. Climate-related risks are increasingly visible, both in physical impacts and in financial markets. At the same time, the pace and scale of the transition remain uneven across regions and sectors, reflecting differences in policy support, economic conditions and technological readiness.

In recent years, clean technologies have moved towards greater economic maturity and are now among the most cost-competitive options in many markets. Water technologies, industrial recycling systems and material-efficiency solutions are also progressing, as the availability of resources become a strategic consideration for both companies and governments.

CANDRIAM
BY NEW YORK LIFE INVESTMENT MANAGEMENT

Explore Close up

As environmental technologies mature, economic considerations are playing a growing role alongside policy in driving this transition. And the current energy crisis further highlights how our dependence on hydrocarbon fuels geopolitical instability, adding energy security and sovereignty as potential powerful drivers of the transition.

Within **Candriam's Thematic 2.0 framework,** the environmental transition remains a **key investment theme linked to structural developments** such as technological disruption, geopolitical realignment and evolving consumption patterns. It is associated with ongoing investments in areas including electrification, circularity and water and ecosystem management.

The environmental transition is accelerating

The environmental transition is no longer progressing at the slow and incremental pace that was once anticipated. It has evolved into a **broad economic transformation** redefining energy systems, industrial value chains and resource infrastructures. This acceleration is driven both by rapid technological advances, which are making impact solutions increasingly **scalable and competitive,** and by mounting structural environmental pressures.

Across all regions, environmental impacts have become more acute and economically consequential. Extreme weather events have increased in frequency and severity, with 2024 recorded as the warmest year globally and the first to exceed 1.5°C above pre-industrial levels on a full-year basis[1]. The consequences extend far beyond temperature records. According to a 2024 publication by researchers at the CICERO Center for International Climate Research, 70% of the global population is expected to face some form of extreme weather events over the next twenty years. Increased exposure to extreme weather events brings an **economic cost.** The World Economic Forum estimates that **up to a quarter of the EBITDA may be at risk for companies whose operations are vulnerable** to environment-related disruptions. Water scarcity, natural resources shortages and infrastructure fragility reinforce the statement that environmental stress directly influences economic performance and strategic decisions.

1 - Source: Copernicus Global Climate Report 2024

Policy tailwinds

Despite recent policy uncertainties in the United States, **most major economies have continued to articulate clearer long-term objectives** under the Paris Agreement framework; The European Union has a legally binding target to reduce net greenhouse gas emissions by at least 55% by 2030[2] . China has committed to peak its carbon dioxide (CO_2) emissions before 2030 and achieve carbon neutrality before 2060[3] while Brazil has pledged to end illegal deforestation by 2030[4].

Meeting these objectives, however, will require governments to significantly step up implementation efforts. The International Energy Agency (IEA) highlights that reaching a 1.5°C pathway demands **tripling global renewable-energy capacity and doubling annual improvements in energy efficiency** by 2030.

Although national approaches differ most regions continue to expand renewable-energy deployment, electrify transport systems and modernise grid infrastructure. China and other Asian markets are scaling solar, wind and hydro generation at unprecedented speed, while water infrastructure and waste-management investment is accelerating across emerging economies. Overall, the direction of travel points toward a progressive tightening of environmental frameworks and a continued reinforcement of long-term transition goals.

2 - Source: European Climate Law - Climate Action - European Commission
3 - Source: Carbon Peaking and Carbon Neutrality China's Plans and Solutions
4 - Source: COP29: Five key takeaways from Brazil's 2035 climate pledge - Carbon Brief

Economic drivers

Today, the **main driver** of this transition is not policy but **economics.** The cost of solar power has fallen by more than 90% over the past decade, while wind and battery costs have declined sharply as well. Industry forecasts suggest that the United States could add 500 GW of solar capacity by 2035[5].

According to the IEA, the United States is entering a period of **sustained electricity-demand growth** after two decades of near stagnation. Electrification of transport, heating and industry, combined with the rapid expansion of data-centre infrastructure, is projected to push U.S. electricity consumption markedly higher through the 2030s. The IEA expects electricity demand from data centres, AI and digital infrastructure in the U.S. to more than double by 2030, while overall national electricity demand is set to accelerate significantly compared with the growth rates observed since the early 2000s. Together, these trends signal the **beginning of a long-term cycle of rising power consumption** and grid investment needs.

Globally, data centres already account for 1-2% of electricity demand, and several industry analyses project that their share could double by 2030. This shift creates a powerful incentive for first movers and strengthens the economic foundation of the transition.

While not always the primary driver of corporate strategy in the short term, environmental performance remains a structurally relevant factor influencing cost efficiency, risk management and long-term competitiveness.

Profit from action

Corporate behaviour reflects this new reality. Whereas environmental initiatives were once viewed as cost centres, they are increasingly treated as sources of operational improvement, resilience and competitive differentiation. Companies adopting energy-efficient processes, circular models or water-saving technologies reduce input costs, moderate supply-chain risks and improve continuity. In many industries, **environmental performance remains strategically relevant** as customers, regulators, financiers and insurers differentiate between leaders and laggards, even as companies balance this with other investment priorities such as digitalisation. This shift creates a powerful incentive for first movers and strengthens the economic foundation of the transition.

5 - Source: US solar industry to add 502 GW (DC) of capacity in next decade – pv magazine International

This strategic shift is increasingly **supported by empirical evidence.** Recent academic research suggest that environmental action can enhance rather than constrain financial performance.

- A 2024 study by the World Economic Forum showed that adaptation and resilience investments can generate **returns of up to $19 per $1 invested in avoided losses.**[6]

- A separate global study of 2,768 companies across 36 countries found that firms reducing greenhouse-gas emissions achieved higher returns on assets and equity, with the strongest improvements in carbon-intensive sectors.[7]

- In addition, evidence from a large survey of over 13,000 firms, including manufacturing companies, shows that **circular-economy practices** — such as resource efficiency, material recovery and waste reduction — are **associated with higher profitability and operating margins.**[8]

Together, these findings indicate that environmental leadership may / tends to increasingly align with strategic and financial leadership, potentially supporting resilience, cost efficiency and long-term value creation for certain firms.

6 - Source :Why companies must adopt climate resilience in a warming world | World Economic Forum, June 2025
7 - Source ; Ibishova, B., Misund, B., & Tveterås, R. (2024). Driving green: Financial benefits of carbon emission reduction in companies
8 - Source EIB Investment Report 2025/2026: Capitalising on Europe's strengths

What this means for investors

These structural growth engines are reshaping capital allocation patterns across the global economy. For investors, the environmental transition is not about short-term policy cycles or narrow impact niches, but about positioning portfolios for **a prolonged phase of structural investment and value creation.**

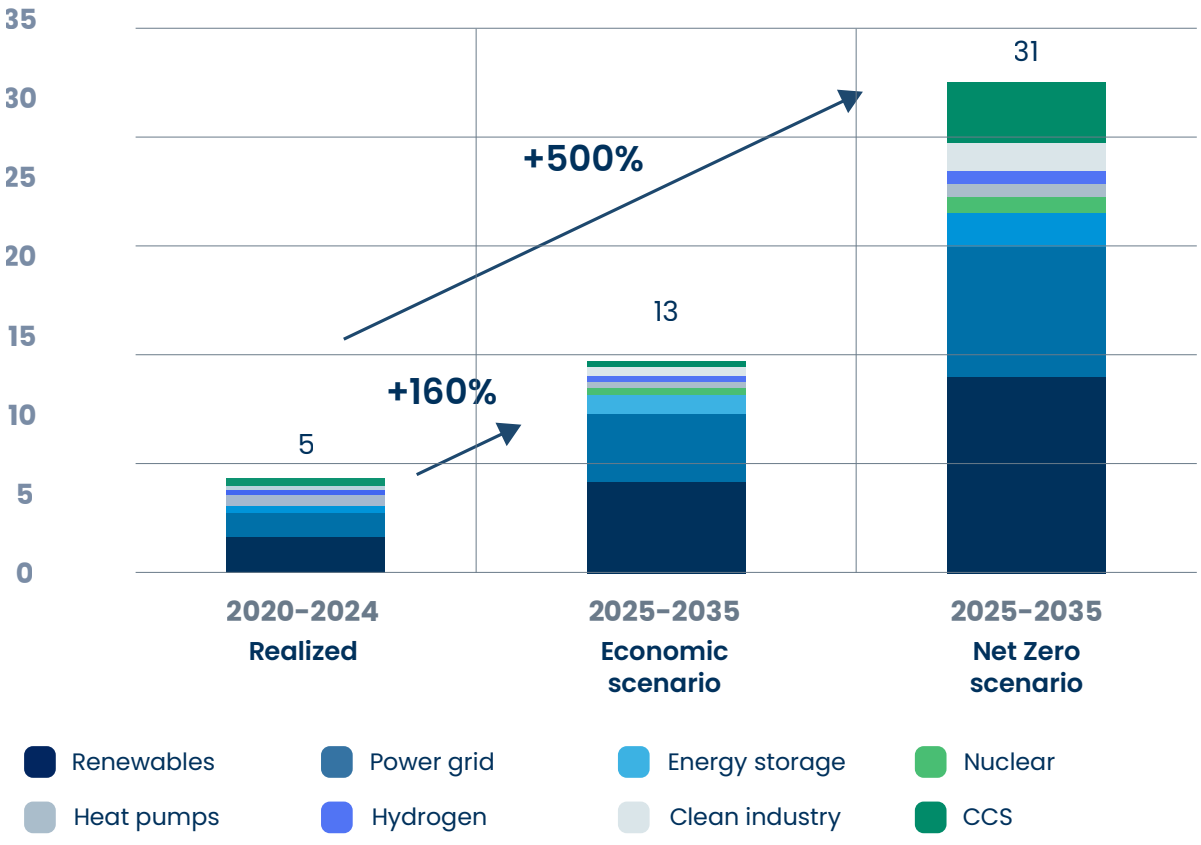
> **"Up to $19 potential return of companies' adaptation and resilience investments for every $ invested."**
> **– World Economic Forum**

The return of the capex supercycle

After years of capital discipline and underinvestment, the global economy is entering a new capex cycle, driven by the need to modernise energy systems, industrial assets and resource infrastructure.

As shown in the graph, $5tn in global investment has already been deployed into the energy transition. Going forward, as environmental transition solutions become cheaper, economics alone justify the expected increase of up to $13tn of investment. For a net-zero pathway, $31tn of investments would be required, highlighting a substantial and persistent capex gap that must be filled over the coming decades.

Estimated global investment in energy transition ($ Tn)



Source: International Energy Agency, World Energy Outlook 2025

So, unlike previous investment booms, this cycle is:

- **Broader**: spanning energy, industry, materials, utilities and technology.
- **Longer dated**: anchored in physical infrastructure with multi-decade lifespans.
- **More resilient**: increasingly justified by economics rather than subsidies alone.
- Decarbonisation, circularity and water security all require sustained capital deployment, benefiting companies with strong balance sheets, technological leadership and exposure to long-duration growth drivers.

A multi-layered opportunity set

Within Candriam's Thematic 2.0 framework, the environmental transition expresses itself through a layered opportunity set, spanning different stages of maturity, capital intensity and return profiles. Rather than concentrating value in a single segment, the transition redistributes economic materiality across the value chain, creating multiple entry-points for investors.

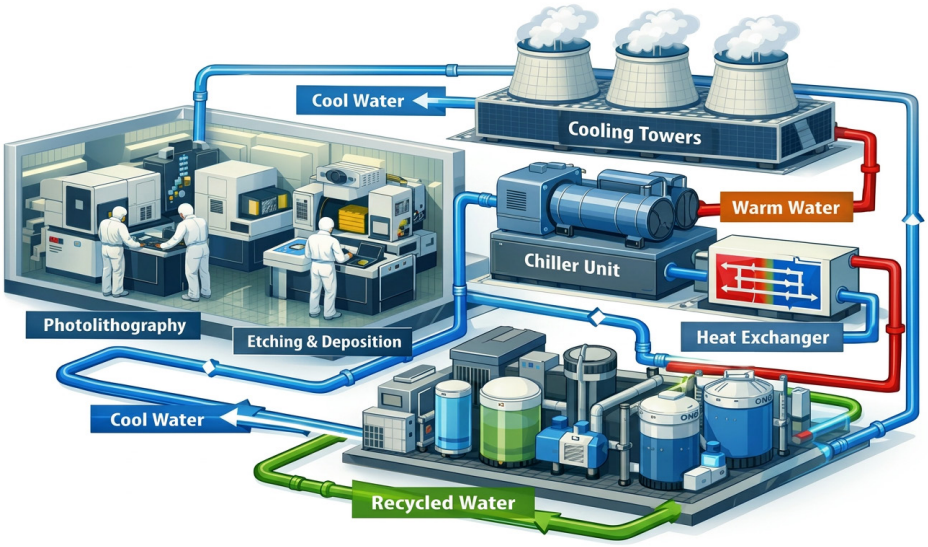
Enablers represent the most direct exposure to the scaling phase of the transition. These companies provide the **critical components, equipment and services** that allow decarbonisation, circularity and water solutions to be deployed at scale. They are closely linked to sub-trends such as electrification, energy and resource autonomy, industrial automation and digitalisation. **Enablers typically benefit from accelerating capital expenditure,** long replacement cycles and high switching costs, translating structural demand into visible revenue growth.

Investment opportunities include manufacturers of grid and transmission equipment, suppliers of power electronics and semiconductors enabling electrification, producers of industrial machinery used in recycling and material recovery, and providers of sensors, software and control systems that optimise energy and water efficiency across industrial and infrastructure assets.

Efficiency leaders sit at a more advanced stage of the transition, where environmental pressure becomes a source of operational leverage rather than disruption. These companies operate within established industries but **materially improve their resource productivity by lowering energy, material or water intensity**. They align the environmental transition with sub-trends such as smart industry, circular economy and sustainable consumption. For investors, efficiency leaders offer **exposure through margin expansion,** reduced input volatility and improving returns on capital, often with less sensitivity to policy cycles.

Investment opportunities include industrial companies benefiting from process optimisation and electrification, materials producers reducing reliance on virgin inputs, and water-intensive industries implementing reuse, recycling and closed-loop water systems.

How cooling and water systems support semiconductor manufacturing



System integrators reflect the maturation of the transition, because environmental challenges increasingly require coordinated, system-level solutions. As electrification, circularity and water management converge, value accrues to companies capable of designing, building and operating complex infrastructure over long time horizons. These businesses are typically exposed to sub-trends such as infrastructure modernisation, urbanisation, climate adaptation and energy security, and often benefit from long-term contracts or regulated frameworks.

Investment opportunities may include operators of power and distribution networks, providers of environmental and waste services, engineering and infrastructure firms managing large-scale energy or water projects, and companies delivering integrated solutions across energy, water and industrial systems with high earnings visibility.

We believe that this multi-layered structure allows us to construct **diversified exposure to the environmental transition across different stages of the cycle**, balancing growth-driven opportunities with more defensive, cash-generative profiles. It also reinforces the importance of active selection: while environmental relevance defines the opportunity set, long-term value creation ultimately depends on competitive positioning, execution capability and disciplined capital allocation.

Structural growth engines from the transition

The environmental transition is not a single, linear investment theme. It is a systemic transformation of how the global economy produces, consumes and allocates resources. At its core are several structural growth engines that are redrawing industrial value chains and investment flows across regions and sectors.

These engines are mutually reinforcing. Decarbonisation increases demand for electrification, electrification intensifies pressure on materials and water systems, and resource constraints accelerate the move toward circular models. Together, they form the backbone of a multi-decade investment cycle - embedded across **Candriam's Thematic 2.0 framework** - rather than confined to a standalone "green" allocation.

The backbone: decarbonisation & electrification

Decarbonisation remains the central pillar of the environmental transition, but its investment implications extend far beyond renewable energy generation alone. What is unfolding is **a full electrification of end-uses,** encompassing transport, buildings, industrial processes and digital infrastructure.

The economics of this shift have changed fundamentally. Renewable power is now, in many regions, the lowest-cost source of new electricity, while advances in batteries, power electronics and grid technologies allow for higher penetration rates and improved system resilience. As electricity demand re-accelerates after decades of stagnation, the transition increasingly resembles an **infrastructure-led growth cycle** rather than a policy-dependent substitution effect.

For investors, this is associated with developments across several segments:

- **Power generation and storage,** including renewables, flexible backup and long-duration storage.
- **Transmission and distribution,** where ageing grids must be reinforced, digitised and expanded.
- **Electrification enablers**, such as power semiconductors, cables, transformers and energy-efficiency technologies.

Importantly, value creation is not limited to pure-play climate solutions. Industrial companies, utilities and technology providers that enable higher system efficiency or reliability are increasingly positioned at the centre of this transformation.

Circularity & resource productivity

While decarbonisation addresses emissions, **circularity addresses the physical limits of the linear economic model.** Rising material consumption, critical-metal dependencies and waste accumulation are now recognised as strategic economic risks, particularly in a more fragmented and geopolitically constrained world.

Global circularity has declined in recent years, even as consumption continues to rise, highlighting the scale of the opportunity rather than its maturity. Moving from a "take-make-dispose" model toward one that emphasises **reuse, repair, recycling** and **resource efficiency** requires significant capital investment, innovation and operational redesign.

From an investment perspective, circularity may create structural growth across several dimensions:

- Waste collection, sorting and recycling, supported by automation, AI and improved material recovery.
- Advanced materials and packaging, enabling lower material intensity and higher recycled content.
- Industrial efficiency solutions, reducing input costs and exposure to volatile commodity markets.

Crucially, circular business models often **combine environmental benefit with economic resilience.** Companies that reduce dependence on virgin materials or improve product longevity tend to enjoy more stable margins, lower regulatory risk and stronger competitive positioning over time.

Water security and ecosystem resilience

Water scarcity is increasingly emerging as a binding constraint on economic growth, particularly as climate change, urbanisation and industrial demand converge. Less than 1% of global water resources is readily available for human use[9], while demand continues to rise across agriculture, industry and cities.

Unlike energy, water has historically suffered from chronic underinvestment. Ageing infrastructure, high leakage rates and insufficient treatment capacity are now colliding with stricter quality standards and rising physical risks such as droughts and floods. The result is a structural investment gap that must be addressed over decades.

Investment opportunities span:

- **Water infrastructure**, including treatment, transport, leakage reduction and smart networks
- **Industrial water solutions**, enabling reuse, recycling and closed-loop systems in water-intensive sectors.
- **Adaptation and resilience,** from flood protection to ecosystem restoration.

Water solutions often sit at the intersection of environmental and economic necessity. For many industries, including semiconductors, chemicals and food production, **access to reliable and affordable water is becoming a strategic prerequisite for growth,** reinforcing the long-term relevance of this theme.

Together, these structural growth engines are no longer abstract trends. They are driving a structural shift in capital allocation at scale and setting the direction for long-term value creation across the global economy.

9 -Source: UNESCO, World Water Development Report

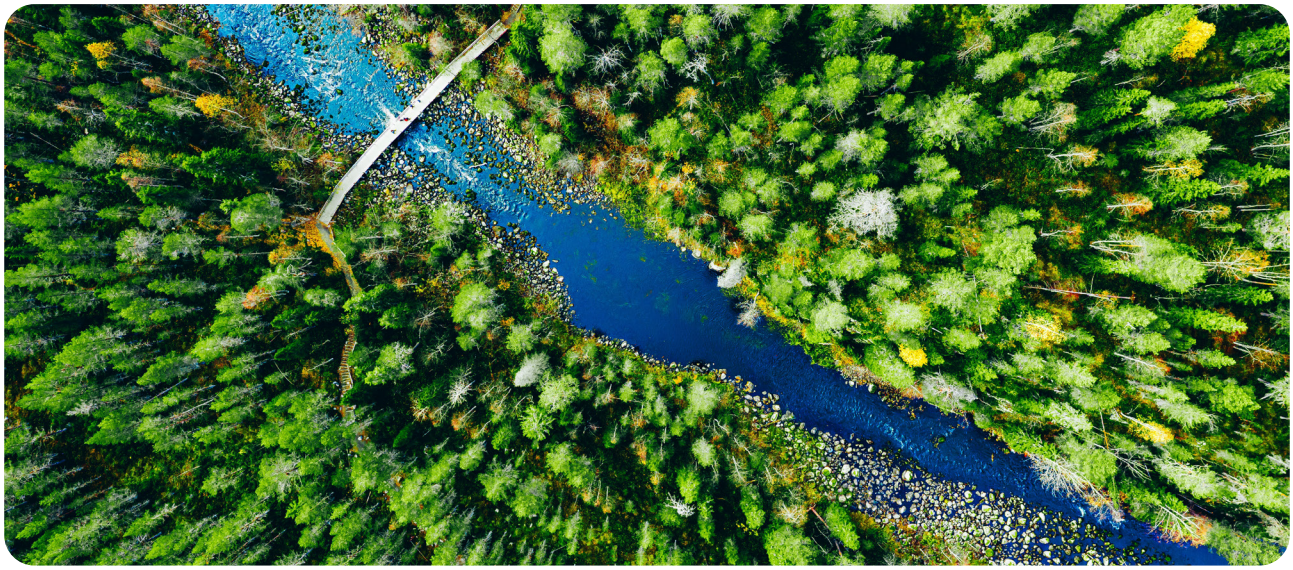
Candriam - embedded across thematics

Within Candriam's Thematic 2.0 framework, the environmental transition is not an isolated theme. It intersects with:

- **Disruptive technologies**, such as AI-enabled grids, automation and digital resource management.
- **Geopolitical fragmentation**, through energy security, reshoring and critical-materials strategies.
- **Socio-demographic dynamics,** including urbanisation, food security and health outcomes.

This embedded nature strengthens the investment case. It means environmental solutions are increasingly core drivers of economic value, not peripheral considerations.

For long-term investors, allocating to the environmental transition is therefore less about thematic tilts and more about aligning portfolios with the structural evolution of the global economy. To learn more about how Candriam's thematic equity strategies can help capture these long-term opportunities, explore our thematic equity offering,



Key messages

The environmental transition is a megatrend structurally changing how economies grow, how resources are allocated and where long-term value will be created. It is increasingly driven by economics rather than policy alone.

- **Decarbonisation and electrification anchor the transition.** Clean power, electrified end-uses and grid modernisation are driving sustained, infrastructure-led growth.
- **Circularity is emerging as an important lever for resource efficiency**. Reuse, recycling and material productivity improve resilience, margins and competitiveness although adoption remains uneven across sectors and regions.
- **Water security becomes an economic constraint.** Scarcity and underinvestment are accelerating long-term investment in water infrastructure and efficiency.
- **The transition enters a capex-driven phase.** Trillions will be invested, with economics leading, geopolitics supporting and net-zero ambitions amplifying the scale.

Candriam aims to help investors capture the opportunities of the environmental transition, leveraging decades of experience in thematic and sustainable investing, a robust **Thematic 2.0 framework,** and deep expertise across climate, circular economy and water solutions.

Disclaimer