Case Study

Staying invested in the transition: A practical approach to real economy decarbonisation with Ilmarinen

Produced by

Ilmarinen, Finland's leading private pension insurer managing €63B in assets, strives to secure sustainable pensions while integrating climate responsibility into its core operations.

A signatory of the Paris Aligned Asset Owners (PAAO) initiative, a member of IIGCC, and adherent to the TCFD framework, Ilmarinen has committed to aligning with the Paris Agreement by developing ambitious asset-class-specific climate roadmaps across listed direct and indirect equity, corporate bonds, domestic and international real estate.

Ilmarinen's climate roadmap and climate index development considerations

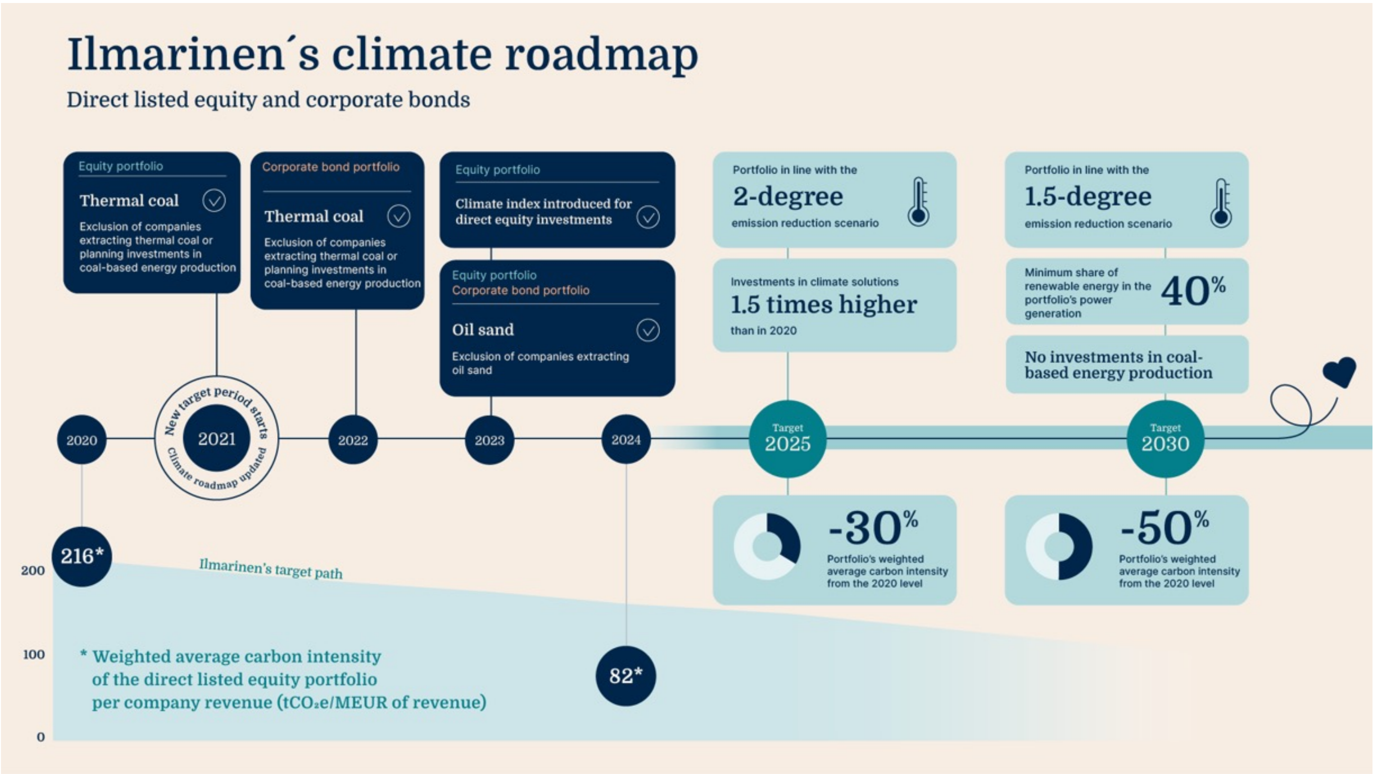
Achieving internal buy-in for a climate index

Climate change is reshaping living conditions and business models worldwide. To ensure institutional investors benefit from this shift and adapt to a low-carbon economy, the climate strategy needs to be integrated across the entire portfolio. While satellite investments in specific climate themes are beneficial, they struggle to offset the drag from the broader portfolio's climate risks and CO^2 emissions.

A solution would be to steer the aggregate portfolio exposures by using climate-considerate performance benchmark indices. By selecting companies best prepared for the transition from each peer group for the performance benchmarks, the aggregate exposures in the investment portfolio end up well-diversified and robust to potential climate data challenges. Peer group comparisons are easy to communicate, and they facilitate discussions when portfolio managers meet with company management.

In 2020, well-diversified climate benchmark indices aligned with Ilmarinen's climate objectives were not present. Ilmarinen worked with MSCI and the Singapore Stock Exchange to develop the Climate Action approach to meet key development criteria. Ilmarinen changed the majority of performance benchmarks to Climate Action indices at the beginning of 2023. By deciding to make the change public, the best-scoring peer group criteria were met with interest from invested companies.

Currently the majority of Ilmarinen listed equity investments of 22 B€ are benchmarked against MSCI Climate Action indices. Roughly 6.2 B€ of that amount is invested in Climate Action tracking ETFs in US, Europe, Japan and Asia ex Japan.



Source: [Ilmarinen annual report 2024.]

Ilmarinen's key selection criteria for the climate index

1. **Fiduciary Duty:**
Ensure portfolio remains broadly diversified across sectors.
Select indicators relevant to value creation (balancing risks and opportunities) while financing the low-carbon transition.

2. **Climate Performance:**
Drive portfolio decarbonisation while assessing companies' transition readiness relative to peers.

3. **Data Robustness:**
Address evolving data (sector, regional disparities).
Allow for methodology to adjust scope 3 emissions and EU CSRD data as it becomes available.

4. **Simplicity in Communication:**
Simplicity of index ranking construction was favored due to transparency and clarity.
Internal stakeholders: clarity for organisational alignment and commitment.
External ecosystem: transparent and clear for stewardship efforts. The index methodology for the security selection uses the transparent framework to enable engagement with the companies to improve their climate disclosures, target setting and capital allocation, thus contributing to the transition to a low carbon economy.

MSCI climate action – drive the transition[1]

The MSCI Climate Action Index is designed to identify companies well-positioned for the transition to a low-carbon economy while maintaining balanced sector exposures. It follows a "Drive the Transition" approach, using a bottom-up index construction method to select companies actively reducing emissions relative to their peers across all sectors – including fossil fuel-reliant sectors like energy, materials, and utilities, – rather than setting explicit index-level targets.

Index construction

The index selects 50% of companies per GICS sector from the parent index, ensuring diversification while prioritising companies that are better prepared compared to peers in terms of climate transition readiness, including those that are:

- **Low emitters within their representative sectors**, or
- **High emitters that have taken concrete actions to mitigate transition risks through target setting**, have superior climate risk management, or high revenue from green businesses.

Conversely, it excludes low-emission stocks with poor climate-risk management and high emitters lacking credible mitigation actions or concrete transition steps. The methodology strongly incentivises companies to disclose their emissions and targets, as emission disclosure increases the likelihood that the company will receive favourable assessment through emission-reduction targets and climate-risk management. Stocks are weighted by market capitalisation to maintain broad market representation.

Climate metrics: Risk and opportunities

Exhibit 2 outlines the set of metrics used by the index to evaluate a company's readiness to manage climate transition risks. These metrics are chosen for their simplicity, objectivity, and transparency.

Exhibit 2: Breaking down selected climate metrics [2]

Climate metric	Metric type	Calculation	Purpose
Carbon-emissions intensity	Risk	Carbon emissions per USD 1 million of a company's enterprise value including cash (EVIC).	As a proxy for a company's transition risks.
Emission-reduction targets	Risk	A company's emission-reduction targets are independently approved as science-based targets and are aligned with the goal of keeping global warming at or below 2°C, or the company demonstrates a strong track record of emission reduction over the last three years.	Emission-reduction commitments by way of setting comprehensive and quantitative targets is key to managing and mitigating transition risks.
Climate risk management	Risk & opportunity	Aggregate management score of select key issues from the environmental (E) pillar of the MSCI ESG Ratings methodology.	Assess a company's forward-looking commitments to manage climate-related risks and opportunities by way of corporate strategy, initiatives, and governance to manage relevant climate key issues.
Green-business revenue	Opportunity	Measures a company's revenue generated from products or services related to various clean-tech themes.	Exposure to transition opportunities may mitigate transition risk exposure.

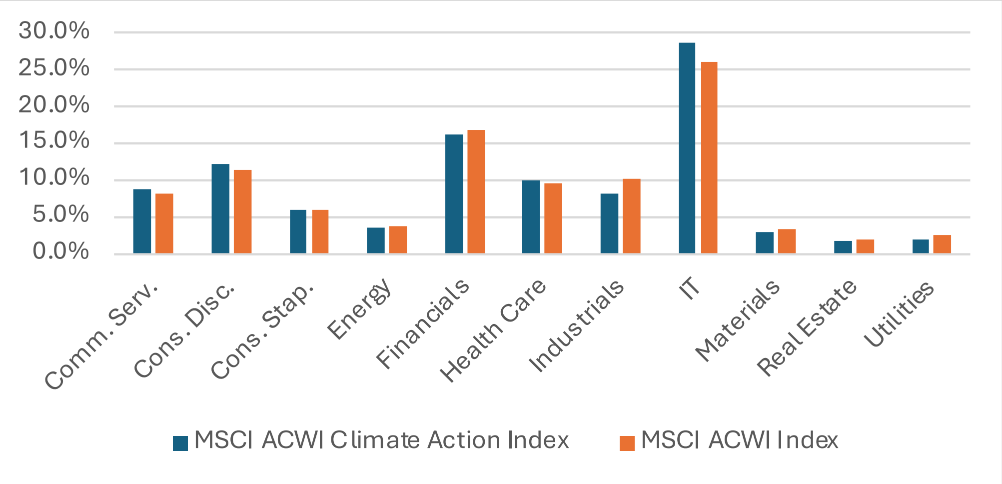
[1] Source: Climate Action Indexes | MSCI Indexes and MSCI Climate Action Indexes Methodology.

[2] Source: Understanding- the MSCI Climate Action Indexes.

Index metrics analysis

This index investment approach allows investor to participate in the transition by financing reduced emissions of companies as opposed to divestment. It is a balanced assessment of company net zero target setting, actions and climate risk management. This ensures that investors maintain sector allocations similar to those of the broader parent index.

Exhibit 3: Sector weights for the MSCI ACWI vs. the MSCI ACWI Climate Action Index (as of December 2024)



MSCI ACWI Climate Action Index maintains substantial exposure — measured as index weight — to all the Global Industry Classification Standard (GICS®) sectors and limits active-weight sector differences to less than +/-5%.

Exhibit 4 (to the right) shows that in a simulated back test from November 2018 to Dec 2024 that both the MSCI ACWI Climate Action and MSCI USA Climate Action Indexes demonstrated risk and return characteristics similar to their respective parent indexes. Both indexes also exhibit a significant carbon intensity reduction relative to their parent indexes — while maintaining balanced sector exposures — by overweighting companies that have committed to the low-carbon transition through setting targets and managing risks and opportunities.

Exhibit 4: The MSCI ACWI Climate Action and MSCI USA Climate Action Indexes vs. their respective benchmarks

Key Metrics [1]	MSCI ACWI Index	MSCI ACWI Climate Action Index	MSCI USA Index	MSCI USA Climate Action Index
Total Return [3] (%)	11.7	12.7	15.2	15.9
Total Risk (%)	17.0	17.0	18.1	18.0
Tracking error (%)		1.4		1.5
Sharpe Ratio	0.54	0.60	0.70	0.74
Number of Constituents [4]	2,906	1,442	622	311
Turnover [5] (%)	3.0	10.7	2.5	14.7
Climate Metrics [2]	**MSCI ACWI Index**	**MSCI ACWI Climate Action Index**	**MSCI USA Index**	**MSCI USA Climate Action Index**
Carbon Emissions Intensity (t CO2/$M EVIC)	325	200	214	162
Companies with approved Science Based Targets initiative targets	43.8	50.3	45.1	52.6
Companies with a credible track record	2.1	2.2	1.7	2,2
Companies in the best quartile of MSCI's Climate Risk Management Score	43.0	50.9	40.0	48.3
Green business revenue (%)	8.8	9.9	11.1	11.2
Top three emitting sectors (%)	9.8	8.6	7.5	7.7

Source: MSCI

[1] Key metrics calculated from Nov. 30, 2018, to Dec 31, 2024.

[2] Data as of Dec 31, 2024

[3] Gross returns annualized in USD

[4] Defined as the weighted average MSCI Climate Risk Management Score in the MSCI Climate Action Indexes methodology. Represents the aggregate index weight of companies in %.

[5] Represents the aggregate index weight of companies in %.

Net Zero Investment Framework (NZIF) index mapping

The following table illustrates the parallels between the MSCI Climate Action Index criteria and NZIF 2.0. Although the index was not explicitly constructed using NZIF criteria, the mapping demonstrates its ability to maintain broad market representation while favouring companies committed to transition efforts and driving real economy decarbonisation – a core principle of NZIF.

Exhibit 5. MSCI Climate Action Index and NZIF Criteria Mapping[1]

Core NZIF criteria	IIGCC Definition	MSCI index objectives/criteria relevant to the NZIF criteria	Metrics used by the index	Historic/ Forward Looking
Ambition	A long term 2050 goal consistent with achieving global net zero.	Identify companies that are better positioned relative to peers in terms of climate transition.	Intensity Score, Targets, Green Business Revenue, Climate Risk Management	Both
Targets	Short- and medium-term science-based targets to reduce GHG emissions.	The Intensity Score is lowered by two quartiles (from here on, referred to as "upgraded") for all securities that either have an approved science-based targets (SBTi) or are assessed to have Credible Track Record.	Targets: Approved SBTs, Credible Track Record	Both
Disclosure	Disclosure of operational scope 1, 2 and material scope 3 emissions.	The Credible Track Record component, in measuring the credibility of the track record requires reported Scope 1 and 2 emissions to be considered.	Targets: Credible Track Record	H
Decarbonisation plan*	A quantified set of measures exists to achieve short- and medium-term science-based targets by reducing GHGs and increasing green revenues, when relevant.	* The Intensity Score is upgraded by two quartiles for all securities that either have an approved science-based targets (SBTi) or are assessed to have Credible Track Record. * The Intensity Score is upgraded by one quartile for any securities in the fourth quartile based on sector-relative Green Business Revenue.	Intensity Score, Green Business Revenue	H
Capital allocation alignment*	A clear demonstration that capital expenditures are consistent with achieving net zero by 2050.	n/a		
Emissions performance	Current absolute or emissions intensity is at least equal to a relevant net zero pathway.	Intensity Score - Each security is assigned to a quartile based on its sector relative Scope 1+2+3 Greenhouse Gas (GHG) Intensity. The securities are then assigned a final assessment by adjusting the initial Intensity based on each security's contribution to climate transition (i.e., Targets, Green Business Revenue and Climate Risk Management).	Intensity Score	H
***Additional alignment criteria that a company/issuer within a high impact material sector needs to meet.**				
Below are the additional criteria to be incorporated where feasible.				
Climate governance	Clear oversight of net zero transition planning and executive remuneration linked to delivering targets and transition.	The Intensity Score is upgraded by one quartile for securities assessed as belonging to the highest quartile based on sector-relative Climate Risk Management Weighted Average Score.	Climate Risk Management	H

[1] Mapping provided by MSCI based on the MSCI Climate Action Index methodology. Capital Allocation, a core criterion for high-impact issuers, is not included in the mapping as few companies report CAPEX in a way that allows for the consistent assessment at scale.

Index-level engagement incentives for corporate transition

Index design incentivises companies to disclose emissions and targets, increasing the likelihood of favourable assessments (and inclusion in the index) based on emission-reduction targets and climate-risk management. The index also allows investors to discover companies that are candidates for dialogue intended to spur action. **The MSCI Climate Engagement Toolkit** can be utilised as a resource to engage as part of a next zero strategy. These metrics can serve as a starting point for investors seeking to identify outliers and measure progress in a universe of thousands of companies.

Ilmarinen uses active ownership as a key part of the investment process. It has identified priority companies across its investment portfolio, focusing on those in high-impact sectors and high emitters that lack sufficient climate targets. Ilmarinen's active ownership encompasses a range of tools, including collaborative and bilateral dialogue, participation in nomination committees, and voting at general meetings. In the case of indirect ownership (as is the case with allocation to MSCI Climate Action ETFs), where external fund managers are responsible for active ownership, Ilmarinen regularly asks about the implementation of active ownership, either in writing or in meetings. This approach ensures that sustainability-related risks and opportunities are addressed systematically, supporting long-term financial performance and driving real-world decarbonisation efforts.

Disclaimer

The information contained herein (the "Information") may not be reproduced or redisseminated in whole or in part without prior written permission from MSCI ESG Research. The Information may not be used to verify or correct other data, to create any derivative works, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. MSCI ESG Research is provided by MSCI Inc.'s subsidiary, MSCI ESG Research LLC, a Registered Investment Adviser under the Investment Advisers Act of 1940. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information is intended to constitute a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. MSCI ESG and climate ratings, research and data are produced by MSCI ESG Research LLC, a subsidiary of MSCI Inc. MSCI ESG Indexes, Analytics and Real Estate are products of MSCI Inc. that utilize information from MSCI ESG Research LLC. MSCI Indexes are administered by MSCI Limited (UK) and MSCI Deutschland GmbH . The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, AN "INFORMATION PROVIDER") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH INFORMATION PROVIDER HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE INFORMATION PROVIDERS HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited. Privacy notice: For information about how MSCI collects and uses personal data, please refer to our Privacy Notice at https://www.msci.com/privacy-pledge.

Please note that the issuers mentioned in MSCI ESG Research materials sometimes have commercial relationships with MSCI ESG Research and/or MSCI Inc. (collectively, "MSCI") and that these relationships create potential conflicts of interest. In some cases, the issuers or their affiliates purchase research or other products or services from one or more MSCI affiliates. In other cases, MSCI ESG Research rates financial products such as mutual funds or ETFs that are managed by MSCI's clients or their affiliates, or are based on MSCI Inc. Indexes. In addition, constituents in MSCI Inc. equity indexes include companies that subscribe to MSCI products or services. In some cases, MSCI clients pay fees based in whole or part on the assets they manage. MSCI ESG Research has taken a number of steps to mitigate potential conflicts of interest and safeguard the integrity and independence of its research and ratings. More information about these conflict mitigation measures is available in our Form ADV, available at https://adviserinfo.sec.gov/firm/summary/169222.

Produced by

IIGCC