

CARBON NEUTRALITY – HOW INDICES CAN SUPPORT THE TRANSITION

ACHIEVING THE PARIS AGREEMENT

Objectives of the agreement



Long-term temperature goal

- Limiting global temperature increase to well below 2° C, while pursuing efforts to limit the increase to 1.5°C



Global peaking and 'climate neutrality'

- Reach global peaking of greenhouse gas emissions (GHGs) as soon as possible
- Balance between anthropogenic emissions by sources and removals by sinks of GHGs



Mitigation

- Binding commitments by all Parties
- Communicate and maintain a nationally determined contribution (NDC)



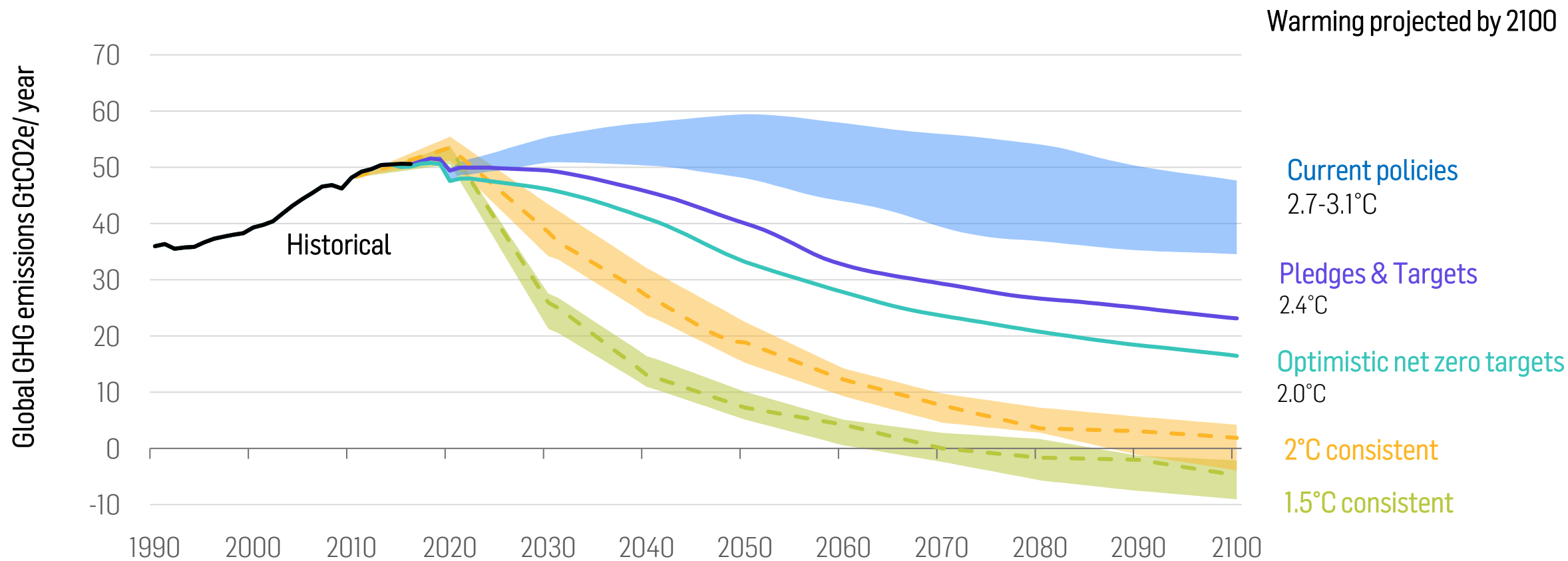
Adaptation

- Enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change



TIME FOR ACTION

Current ambitions are insufficient to achieve the Paris Targets



Source: Solactive, Climate Action Tracker (2021). As of May 2021.



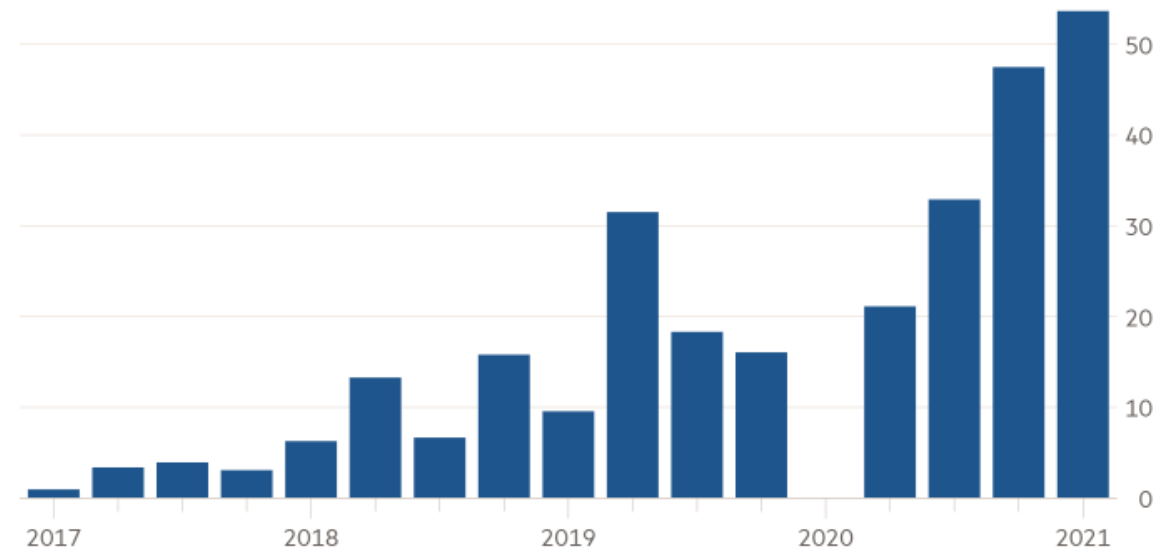
CLIMATE INDICES: A PART OF THE SOLUTION

Wide range of applications for different market participants

- > **Benchmarking:** Definition of the investment universe, policy benchmarks, financial & ESG performance
- > **Product Development:** Index replication through ETFs or other systematic products
 - > Growth in ESG ETFs is accelerating, where indices play the crucial role for the allocation decision

European ESG ETF quarterly inflows

% of overall European ETF inflows



Source: Solactive, FT; Q1 2020 data is zero due to net outflows from ETFs that quarter



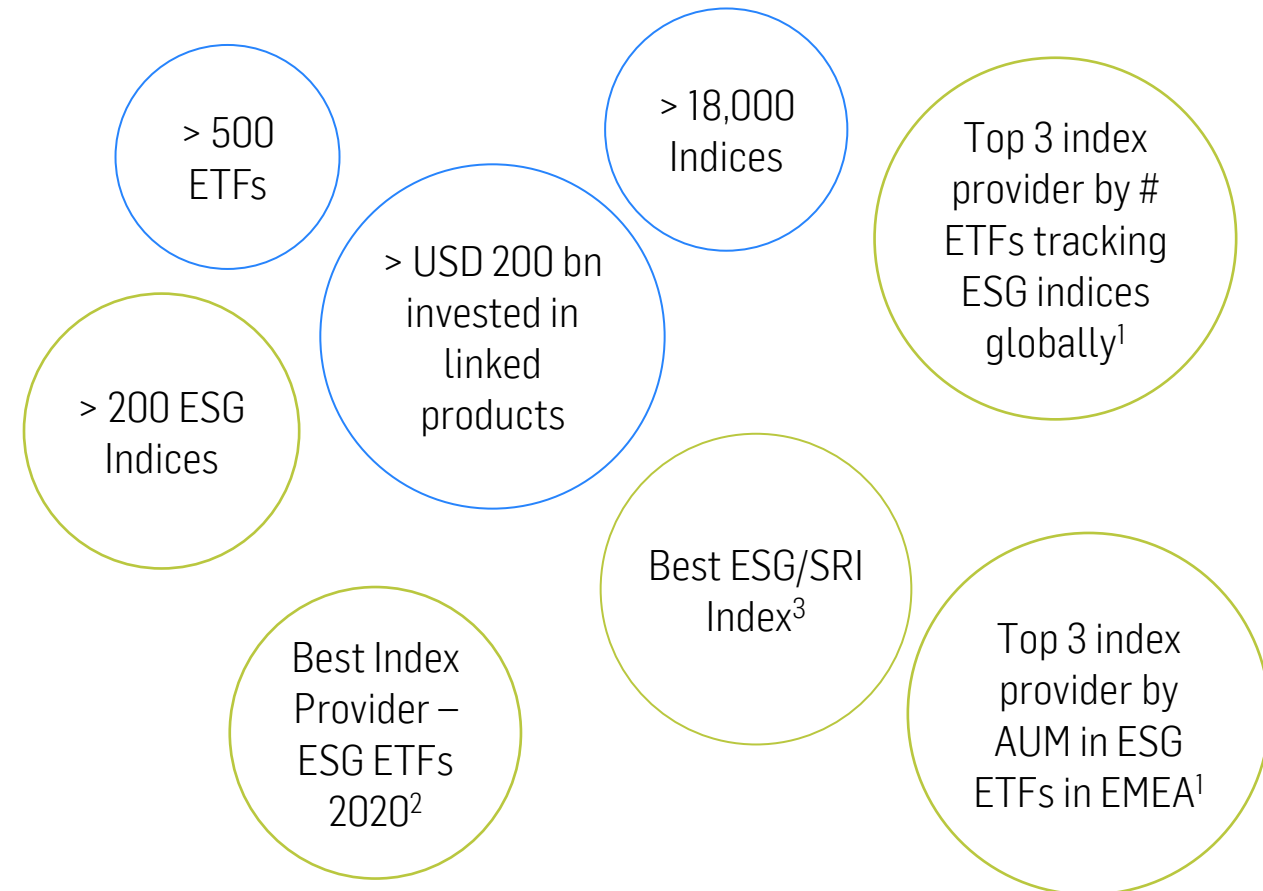
SOLACTIVE AG - GERMAN INDEX ENGINEERING

Key Facts

- > **Solactive is a Germany-based index** provider operating globally and growing at a fast pace.
- > Since 2007, we have been developing **tailor-made and multi-asset class index solutions** for ETFs and other index-linked investment products at competitive prices.
- > Currently present in Frankfurt, Dresden, Berlin, Toronto and Hong Kong to provide 24/6 coverage.
- > Our philosophy of **creating customized solutions** shows its strength especially in **sustainable investment solutions**



Solactive in Numbers

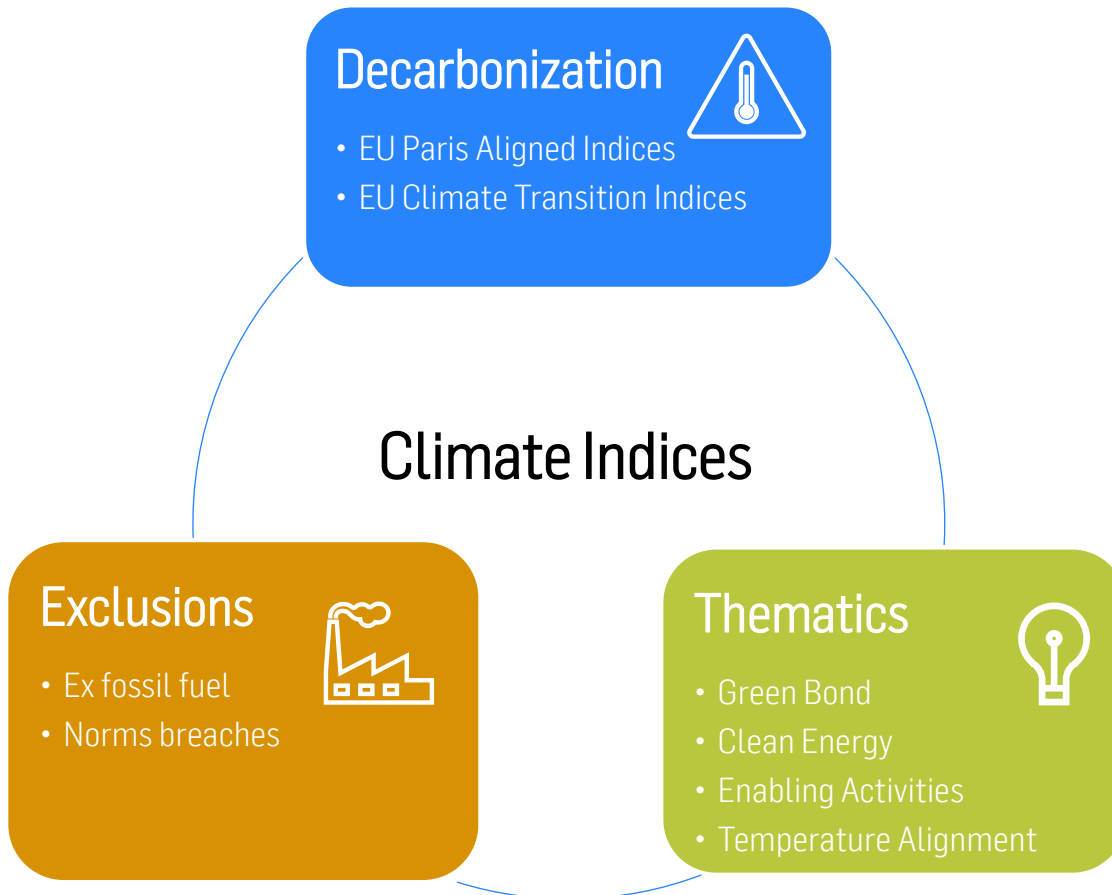


¹ Source: TrackInsight Global ETF Survey 2020; ² ETF Express US Awards 2020; ³ Sustainable & ESG Investment Awards 2019/ Investment Week.



THE JOURNEY TO CARBON NEUTRALITY

Financing the transition across asset classes



Climate indices as core allocations as well as thematic investment

- > Steer capital to enabling/ mitigation technologies
- > Holistically consider climate risks & opportunities across asset classes
- > Provide funding to reach the Paris targets



FUND THE TRANSITION TO REACH THE PARIS AGREEMENTS

IPCC 1.5 climate scenario

Mitigation of current and future climate risks

Exclusions

Reduce ESG Risks

- Breaching norms
- Harming EU environmental objective
- Tobacco / Controversial weapons

Reduce exposure to brown revenues

- Coal
- Fossil fuels
- Electric power from fossil fuel source

Decarbonization

Absolute Reduction

-7% GHG intensity year-over year

Emission intensity: GHG/ EVIC

Relative Reduction

-50% GHG intensity vs. parent index

Emission intensity: GHG/ EVIC

Stay invested in high impact sectors

Exposure to High Climate Impact Sectors ≥ exposure in the Benchmark

Setting incentives

Promote companies with Science Based Targets

& 7% decarbonization in the past

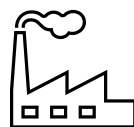
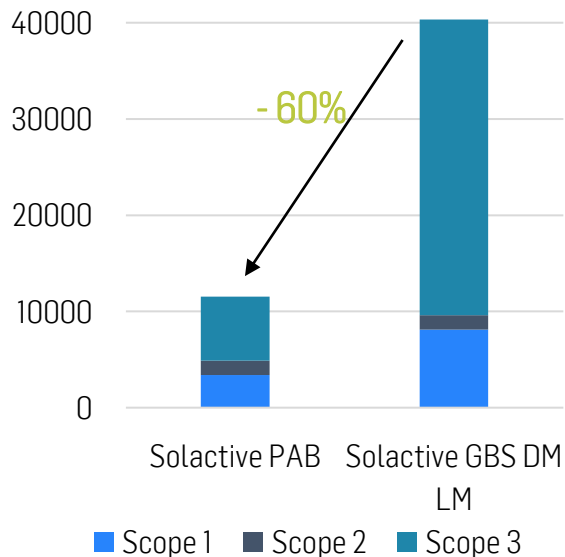
Solactive ISS ESG Paris-Aligned Benchmark Indices

MEASURABLE IMPROVEMENT OF CLIMATE METRICS...

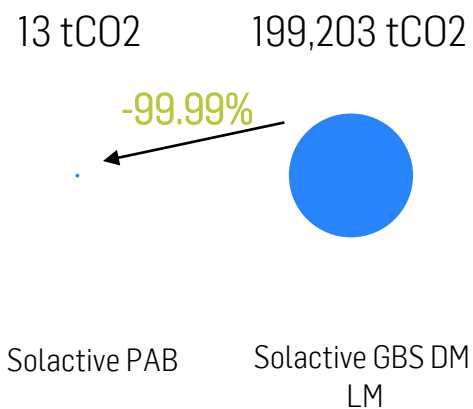
Reduced Transition Risks Measures & Promotion of Green-to-Brown Ratio



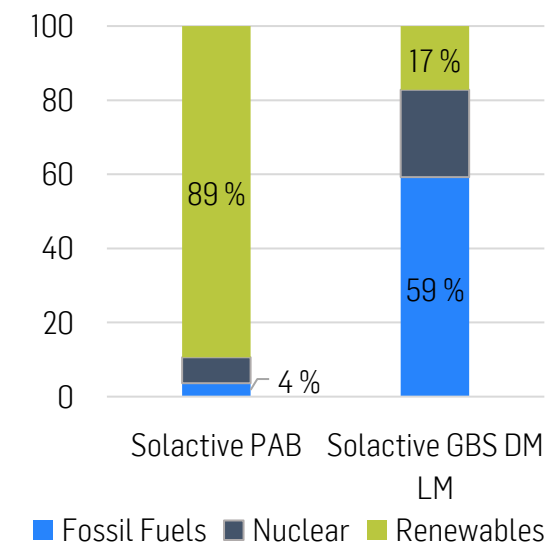
Emissions Exposure (tCO₂e)



Potential Future Emissions



Power Generation Exposure
in %

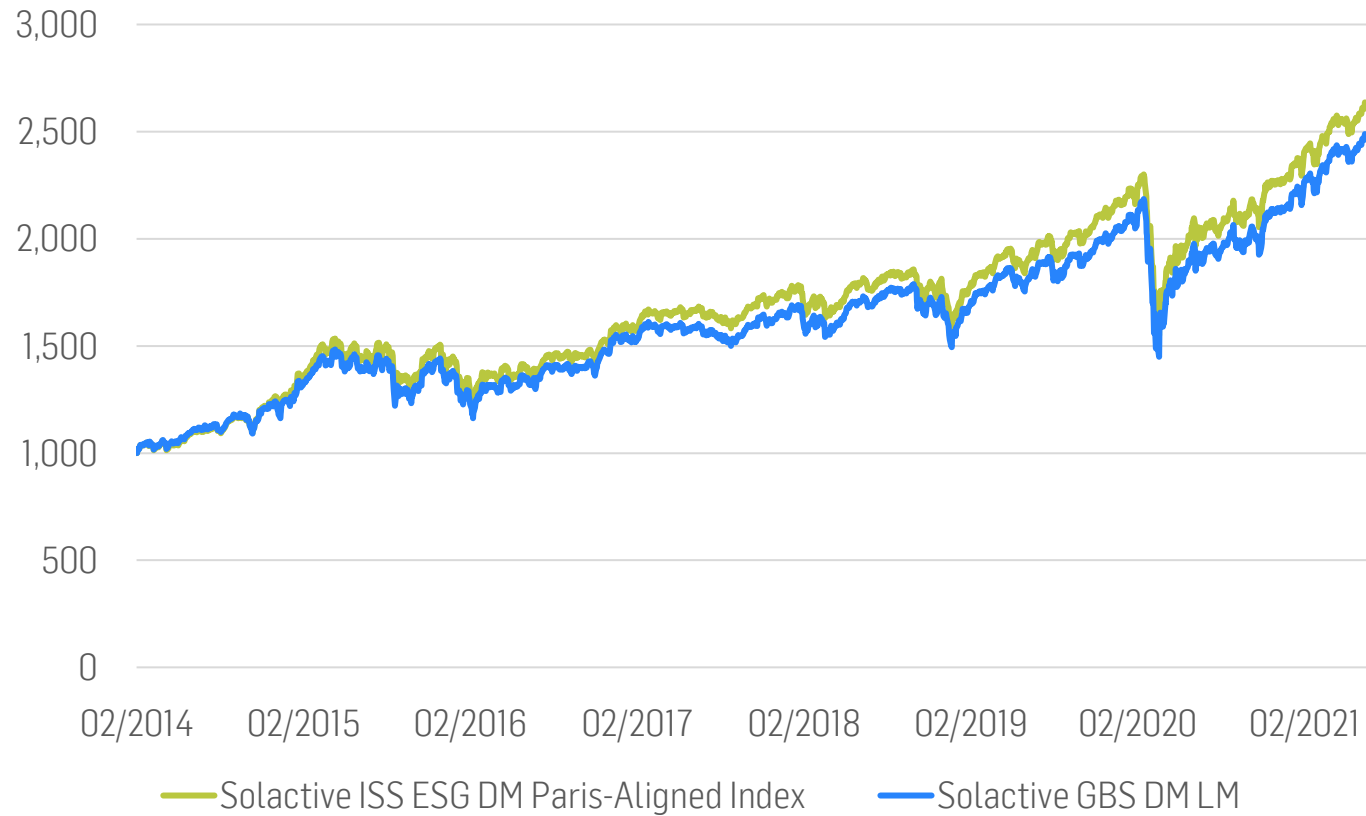


Source: Solactive, ISS ESG. As of June 2021. Potential Future Emissions measured by based on fossil fuel reserves owned by companies in the index. Solactive PAB = Solactive ISS ESG Developed Market Paris-Aligned Index, Solactive GBS DM LM = Solactive GBS Developed Markets Large Mid Cap Index



...WHILE MAINTAINING BENCHMARK CHARACTERISTICS

Alternative, climate-aware beta allocation

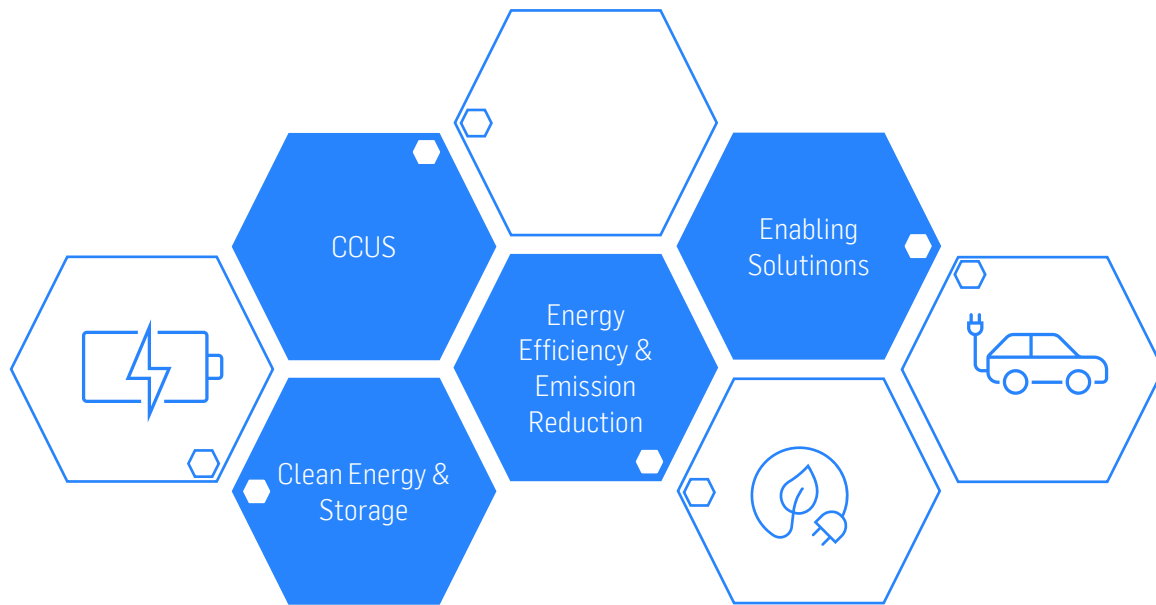


- > Broadly diversified across sectors, countries, and single issuers
- > Outperformance of the parent index by ~1 % p.a.
- > Similar volatility level, but reduced drawdowns
- > Low tracking errors

WHAT ROLE CAN THEMATIC INDICES PLAY?

Invest in transformation relevant activities & sectors

How indices can be constructed?



Thematic Equity Allocations help providing capital to transformation necessary industries and technologies

- Specialized ESG data vendors
- ARTIS® - a proprietary software tool to identify thematic exposures
- Via Industry indices

Green Bond indices are an effective tool to assure that the funds are steered into climate friendly solutions

PROVIDING FINANCING VIA GREEN BONDS

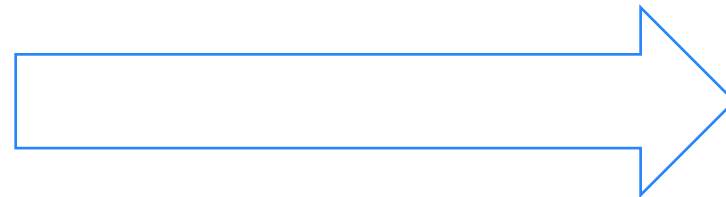
Green Bonds: A Bridge to the UN's Sustainable Development Goals

Targets: *

Climate Change
Adaptation

Climate Change
Mitigation

CBI Taxonomy
eligibility check



- “Use-of Proceeds” methodology
- Provide funding to crucial sectors:
 1. Energy
 2. Green building
 3. Clean transport

Green Bond Index





ACHIEVING CARBON NEUTRALITY REQUIRES ACTION

- > **On the way to carbon neutrality, actions are required** to achieve this ambitious goal and limit global warming
- > **Climate indices** can play an important role in the transition to **greening investments and steering capital towards low carbon solution**
- > By taking climate risks and opportunities into account, **diversified climate indices** can serve as **new policy benchmarks in portfolios**
- > Allocation via **thematic climate indices** provide **necessary capital for transitioning activities**
- > With our **long-standing experience** in the construction of ESG indices and strong ESG data partners, **we help clients to create their customized climate solution**

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