

Confidence  
must be earned

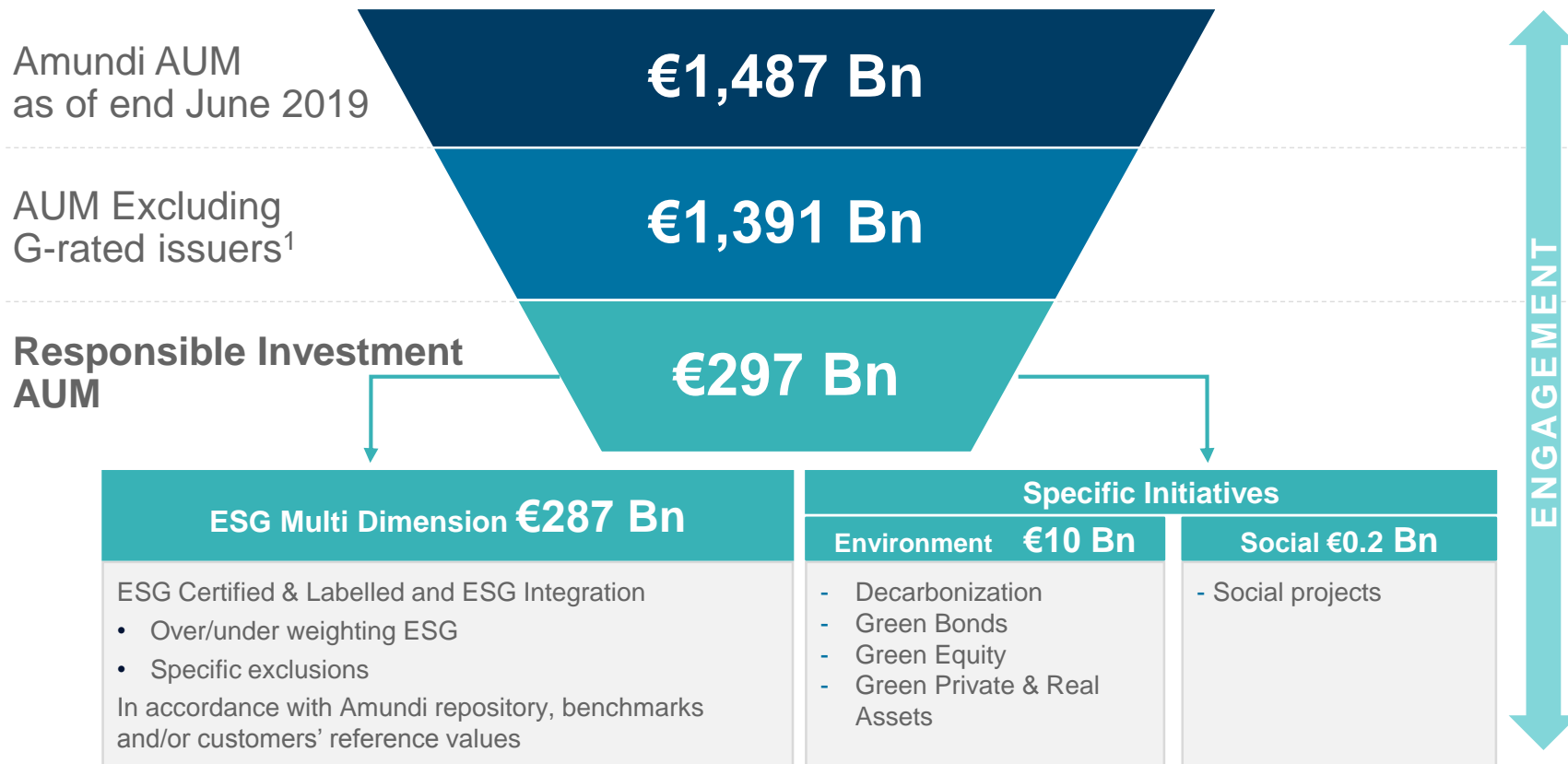
**Amundi**  
ASSET MANAGEMENT

Ottobre 2019

# Green finance: come decarbonizzare un portafoglio di un investitore previdenziale

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# Amundi's Responsible Investment approaches



Source: Amundi Group figures as of end June 2019.

1. Controversial Weapons, UNGlobal compact breaches and significant coal consumers and producers (details in appendix)

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## Amundi works with a number of institutional investors to improve the sustainability of their portfolios

### **Public pension fund: French Reserve Pension Fund (FRR) and AP4**

Amundi developed the MSCI Low Carbon Leaders index together with MSCI and on behalf of the FRR and AP4

### **Supranational entity: The World Bank Group – The International Finance Corporation (IFC)**

Amundi launched the World's largest ESG Green bond fund with the IFC and acts as a first loss guarantor

### **Sovereign entity: European Investment Bank (EIB)**

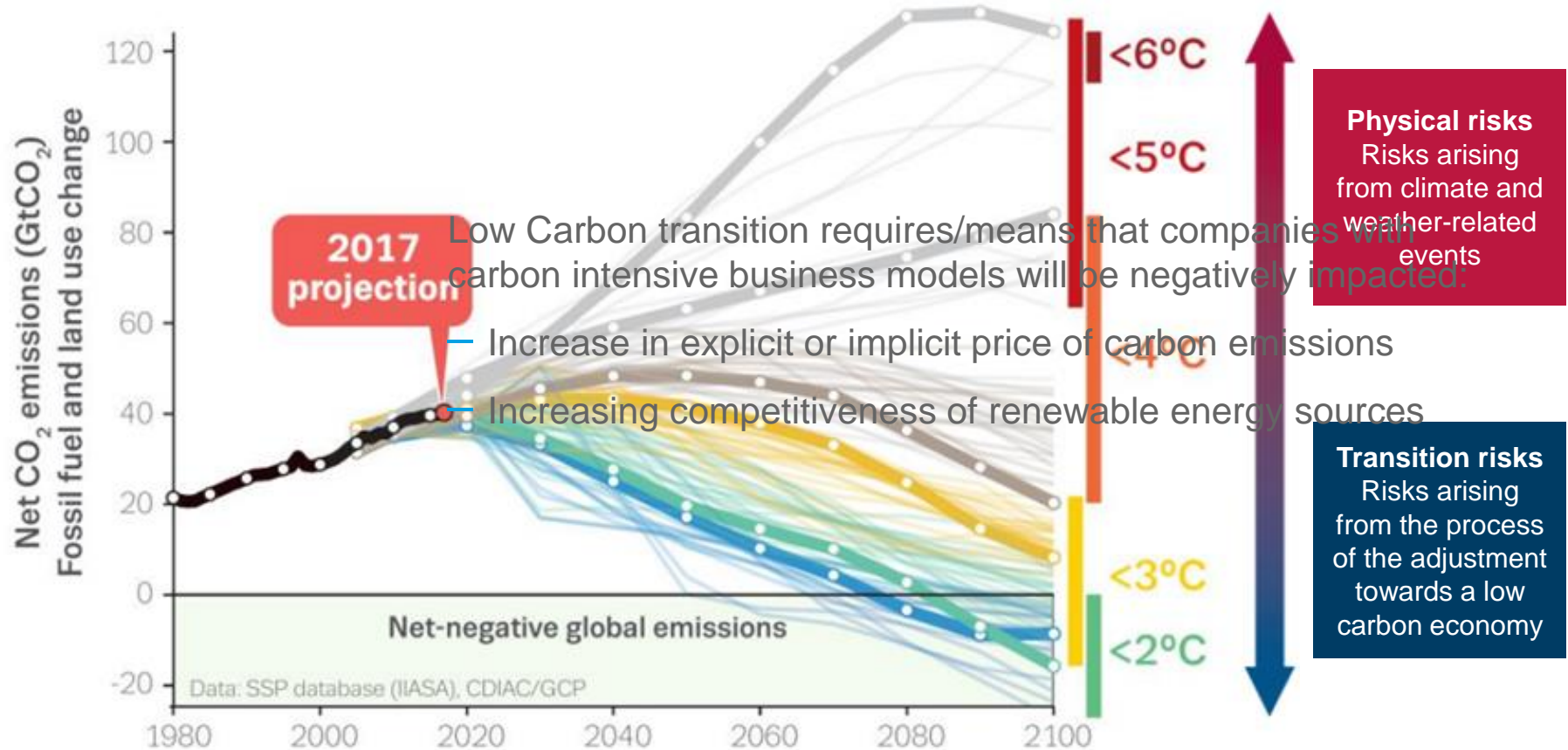
Amundi launched the Green Credit Continuum (GRECO) with the EIB to expanding green finance to new instruments and beneficiaries

### **Supranational entity: Asia Infrastructure Investment Bank (AIIB)**

Developing the climate bond market in AIIB's member countries in order to increase financial flow for sustainable infrastructure in emerging markets

# Climate risk: Transition risk vs physical risk

Possible carbon emission pathways and climate-related risk factors – Source: Bank of England



# Reducing transition risk by reducing carbon footprint

## Polluting companies



Proxied by **CO<sub>2</sub> Emissions Intensity**

$$\frac{\text{Annual CO}_2 \text{ emissions}}{\text{Revenue}}$$

## Stranded Assets



Proxied by **CO<sub>2</sub> Reserves Intensity**

$$\frac{\text{Potential CO}_2 \text{ emissions from reserves}}{\text{Market capitalization}}$$

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## Data availability and quality has greatly improved over the past few years

- Globally agreed reporting standard: The Greenhouse Gas Protocol
  - Set the standard to measure and report emissions
  - Scope1, scope 2, scope 3 ...
- Many carbon data providers with relatively similar “core” emissions estimates: MSCI, CDP, Trucost ...
- Large coverage: MSCI ACWI (almost) completely covered
- Still, some challenges regarding:
  - Emissions from supply chain and products
  - Future emissions / companies commitment to better manage transition risk

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# Amundi and Low Carbon index management

- In 2014, Amundi co-developed together with MSCI, FRR and AP4, the [Low Carbon Leaders index series](#)
- In 2014 and 2015, Amundi launched a series of [Index funds and ETFs replicating the Low Carbon Leaders indices](#)
- Since inception on November 7th, 2014, to end of February 2019, while reducing carbon emissions and reserves by 50%:
  - MSCI World Low Carbon Leaders [has outperformed by 1.3%](#) with TE / MSCI World of 0.42%
  - MSCI Europe Low Carbon Leaders [has outperformed by 0.4%](#) with TE / MSCI Europe of 0.79%
- About [EUR 1bn AuM](#) in our two Index funds/ETFs with more potential flows ahead
- About EUR 5bn AuM in Low Carbon index strategies

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## Asset owners can combine Low Carbon & Indexing using two approaches:

Buy an Low Carbon index and have it replicated by an index manager

Open ended/dedicated index fund/segregated account

**For example:**

MSCI Climate Change  
S&P Carbon Efficient

Ask index manager to tilt a “standard “ index towards specific environmental outcome

Dedicated fund/segregated account

Voting & Engagement



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# A Comprehensive Equity and Bond SRI ETF Range

Equity SRI ETF Range		
Product Name		OGC <sup>1</sup>
<b>AMUNDI INDEX MSCI WORLD SRI UCITS ETF DR</b> ISIN: LU1861134382	Index fund available	0.18%
<b>AMUNDI INDEX MSCI USA SRI UCITS ETF DR</b> ISIN: LU1861136247	Index fund available	0.18%
<b>AMUNDI INDEX MSCI EUROPE SRI UCITS ETF DR</b> ISIN: LU1861137484	Index fund available	0.18%
<b>AMUNDI INDEX MSCI EMERGING MARKETS SRI UCITS ETF DR</b> ISIN: LU1861138961	Index fund available	0.25%
Corporate SRI ETF Range		
Product Name		OGC <sup>1</sup>
<b>AMUNDI INDEX US CORP SRI UCITS ETF DR</b> ISIN: LU1806495575	Index fund available	0.16%
<b>AMUNDI INDEX EURO AGG CORPORATE SRI UCITS ETF DR</b> ISIN: LU1437018168	Index fund available	0.16%
<b>AMUNDI INDEX EURO CORPORATE SRI 0-3 Y - UCITS ETF DR</b> ISIN: LU2037748774	Index fund available	0.12%
Low Carbon ETF Range		
Product Name		OGC <sup>1</sup>
<b>AMUNDI INDEX EQUITY GLOBAL LOW CARBON UCITS ETF DR – EUR</b> ISIN: LU1602144229	Index fund available	0.25%
<b>AMUNDI INDEX EQUITY GLOBAL LOW CARBON UCITS ETF DR – USD</b> ISIN: LU1602144492	Index fund available	0.25%

1. Ongoing charges - annual, all taxes included . The ongoing charges represent the charges taken from the fund over a year. When the fund has closed its accounts for the first time, the ongoing charges are estimated. The TER is a measure that compares the annual total management and operating costs (all taxes included) charged to a fund against the value of that fund's assets. For Amundi ETFs, the TER corresponds to the ongoing charges disclosed in each KIID. **Transaction cost and commissions** may occur when trading ETFs

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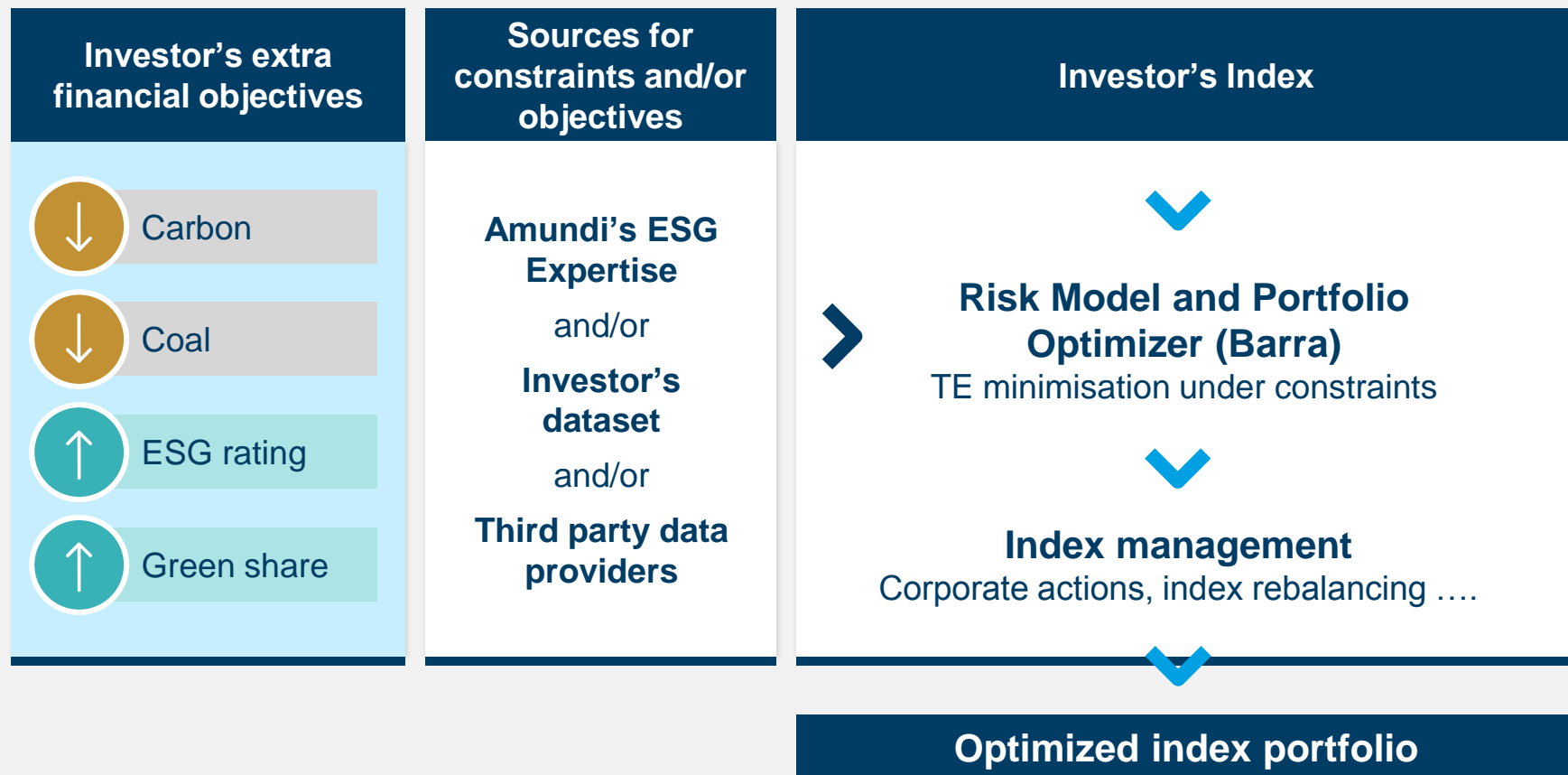
Dedicated fund/segregated account

Voting & Engagement

# A wide range of criteria to meet all needs and constraints

Ethics	ESG ratings	Environmental profile
<b>Ethical exclusions</b> <ul style="list-style-type: none"><li>– Tobacco</li><li>– Alcohol</li><li>– Weapons</li><li>– GMO</li><li>– Pornography</li><li>– Gambling</li><li>– Fur</li><li>– Nuclear</li></ul>	<b>Exclusion of worst rated stocks</b>	<b>Carbon Footprint</b>
	<b>ESG Score improvement</b>	<b>Coal</b>
	<b>Focus on specific ESG criteria</b>	<b>Green Techs</b>
	<b>Open platform</b> <ul style="list-style-type: none"><li>– Amundi ESG score</li><li>– or clients' providers</li></ul>	<b>Transition Risk</b>
		<b>Physical Risk</b>
<b>ESG providers</b>		
<b>General scope</b>		<b>Specific scope</b>
		Controversies, Carbon, Controversial weapons
<b>Combination of criteria &amp; strong flexibility</b>		

# Optimized replication in practice



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# Case studies: Equity

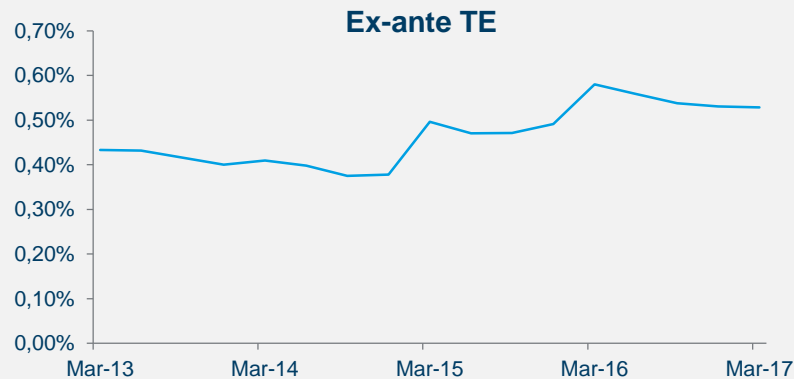
# Investors are looking for advanced ESG customization

Multiple constraints can be implemented with moderate impact on TE

## Constraints

Client's investment Universe	Constraints #1	+ Constraint #2	+ Constraint #3	+ Constraint #4
MSCI World	Exclusion of controversial weapons and tobacco producers	Improvement of MSCI ESG score by 1.5 point	Improvement of the <i>MSCI Labor Management</i> and <i>Health &amp; Safety</i> score by 10%	Reduction of the Carbon Emissions by 20%

## Results



in EUR	Index	Optimized portfolio
Annualized return	13.06%	13.82%
Volatility	14.35%	14.38%
Tracking Error	-	0.48%
Information Ratio	-	1.59
Max DD	-20.49%	-20.08%
Sharpe ratio	0.91	0.96

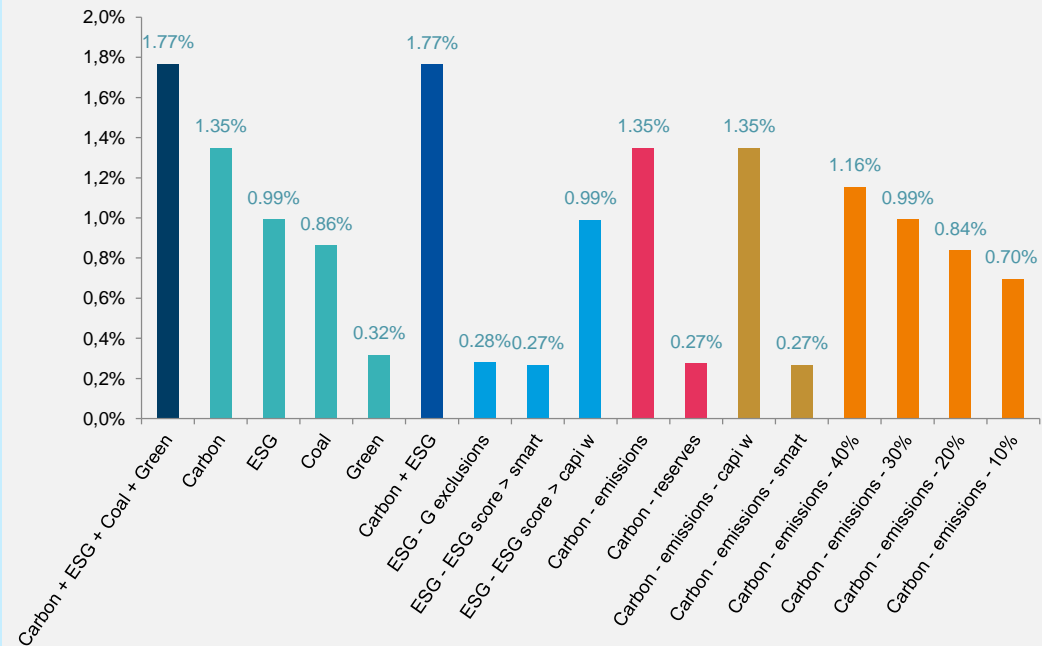
Source: Amundi AM, Data as of October 2018. Past performance is no guarantee of future results and this chart includes simulated historical performance.  
For illustrative purpose only.

# Tracking-error attribution is not straightforward for advanced exclusions

Improvement of ESG & environmental footprint of Pacific ex Japan ex Korea Smart Beta index

Metrics	Constraints
Emission intensity	-50%
Reserves intensity	-50%
ESG	E, F and G exclusion
Coal	- 80%
Green Share	+ 50%

## Average ex ante Tracking Error



Source: Amundi AM, Data as of Dec 2016. Past performance is no guarantee of future results and this chart includes simulated historical performance. For illustrative purpose only.

CW: Cap-weighted Index  
SB: Smart Beta Index



# Case study: Decarbonization of MSCI World ESG Universal

## MSCI ESG Rating – MSCI World ESG Universal (“PTF”) vs MSCI World (“REF”)

MSCI - ESG Average Ratings				
	PTF	REF	PTF-REF	PTF/REF
% Rated / Total	99.55 %	99.85 %	-0.30 %	1.00
MSCI - ESG Score c.	6.698	5.935	0.763	1.1
MSCI - E Score c.	6.329	6.13	0.199	1.0
MSCI - S Score c.	5.077	4.748	0.329	1.0
MSCI - G Score c.	5.737	5.498	0.239	1.0

### ESG Rating: Explicitly addressed

ESG Rating of MSCI World ESG Universal is significantly higher than ESG Rating of MSCI World:

6.7 vs 5.9

## Carbon footprint – MSCI World ESG Universal (“PTF”) vs MSCI World (“REF”)

TruCost - Carbon Average Ratings			
	PTF	REF	PT
% Rated / Total	98.61 %	98.36 %	
TruCost - Carbon Emissions (Scope : 1+2) c. - MtCO2	5.91	6.59	
TruCost - Carbon Emissions(Scope: 1+2+3) c. - MtCo2	0.15	10.33	
TruCost - Carbon Emissions Intensity (Scope : 1+2) c. -	179.47	184.26	
TruCost - Carbon Emissions Intensity(Scope: 1+2+3) c.	241.02	244.06	
% Rateable / Total	99.60 %	100.00 %	
TruCost - Carbon Reserve c. - MtCO2	137.95	198.00	
TruCost - Carbon Reserve Intensity c. - MtCo2/M.USD I	0.0016	0.0021	

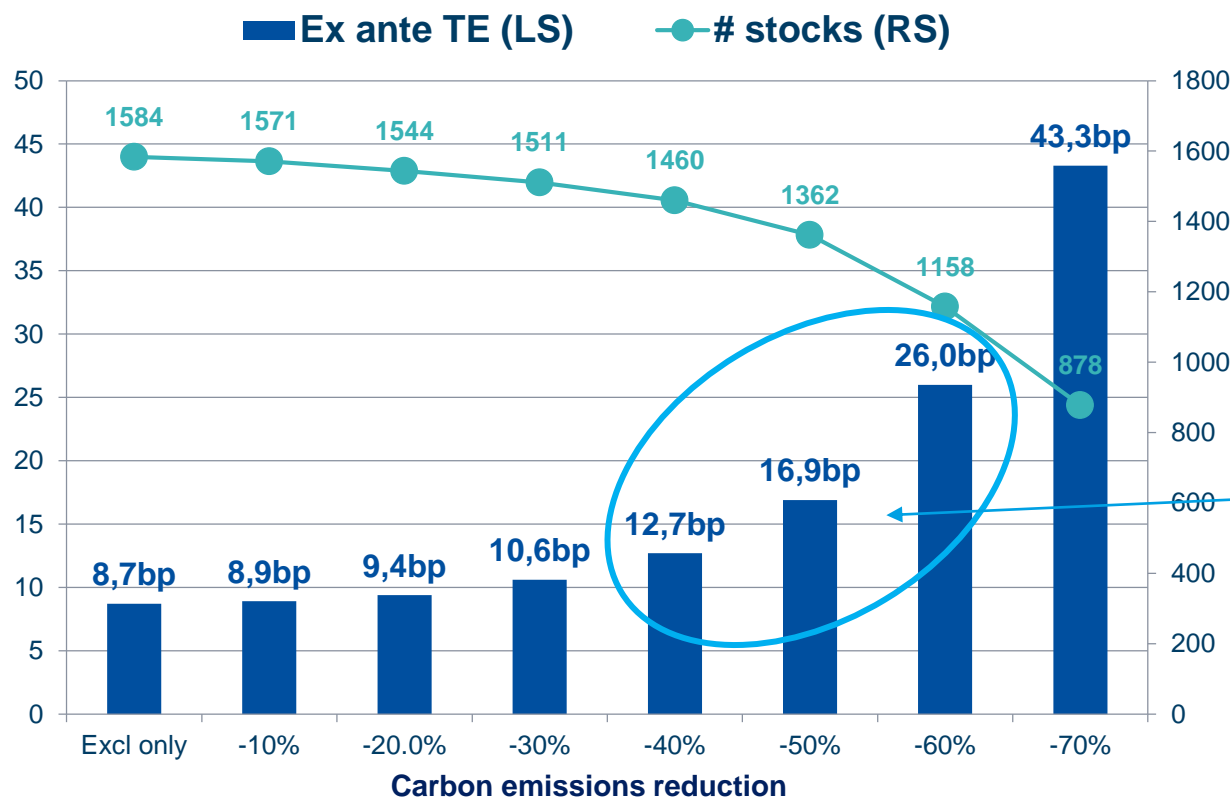
MSCI - Carbon Average Ratings		
	PTF	REF
% Rated / Total	99.25 %	99.40 %
MSCI - Carbon Emissions (Scope : 1+2) c. - tCO2	5.25	5.06
MSCI - Carbon Emissions Intensity (Scope 1+2) c. - tCO2/I	183.77	191.45
% Rateable / Total	99.60 %	100.00 %
MSCI - Carbon Reserve c. - M.tCO2	139.10	198.10
MSCI - Carbon Reserve Intensity c. - M.tCO2/M.USD	0.0016	0.0021

### Carbon footprint: Not addressed

Carbon footprint of MSCI World ESG Universal is very similar to Carbon footprint of MSCI World, regardless of the provider

Source: Amundi, MSCI, Trucost, August 2019

# MSCI World ESG Universal carbon emission intensity can be significantly improved



A modest ex-ante tracking-error budget could lead to significant carbon emissions reductions

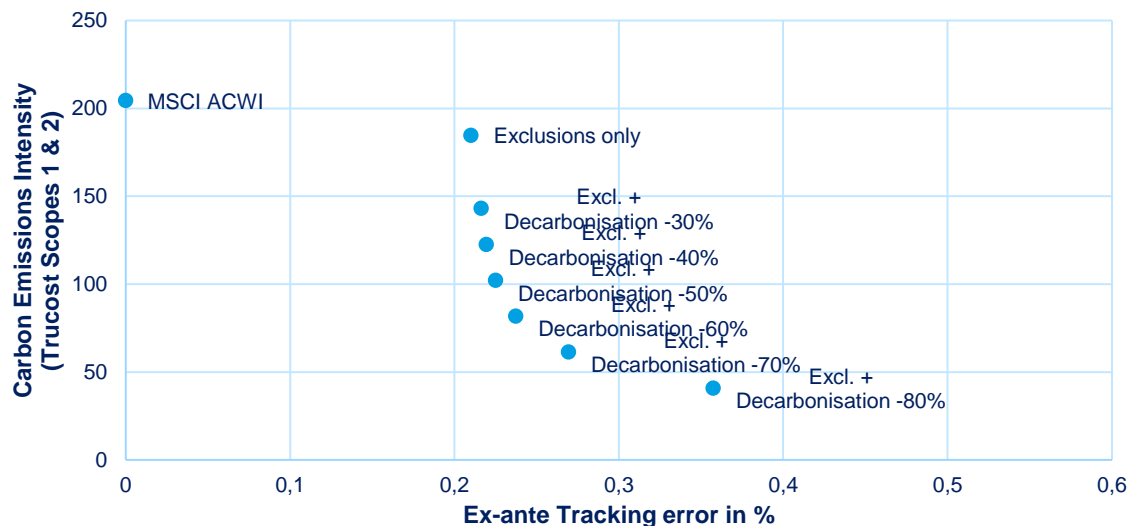
The optimization also excludes tobacco producers

Source: Amundi, Trucost, September 2019

# Results

ESG / Climate objectives Data providers		MSCI ACWI	Exclusions + Carbon Emissions Reduction - 30% / Improvement	
Improvement of ESG Score	Amundi ESG Score	0.01	0.09	+0.07
	MSCI ESG Score	5.73	5.83	+0.10
	Sustainalytics ESG Score	63.60	63.88	+0.28
Carbon Footprint Reduction	Trucost – Emissions Scope 1 & 2	204.44	143.11	-30%
# constituents	-	2844	2523	-321
Ex-ante TE	-	-	0.22%	

## Carbon Emissions reduction



Source: Amundi, MSCI, July 2019

## Dutch fiduciary asked to replicate the MSCI ACWI while:

1 - Reducing the carbon emissions intensity by 30%

2 - Excluding:

- controversial weapons manufacturers / critical component suppliers;
- global compact non-compliant companies;
- thermal coal related companies (mining / production / power generation);
- tar sands related companies;
- tobacco manufacturing companies.

3 - Upholding the MSCI ESG Score at the same level as the MSCI ACWI

# Multi-factor dedicated index fund with ESG score improvement

	Custom Index portfolio	MSCI ACWI
Number of stocks	1170	2755
MSCI ESG Score	7.0	5.6
Carbon emissions (tCO <sub>2</sub> e/\$M sales)	118	194
Ex-ante TE	0.4%	

Replicate a Multi Factor index equally invested in:

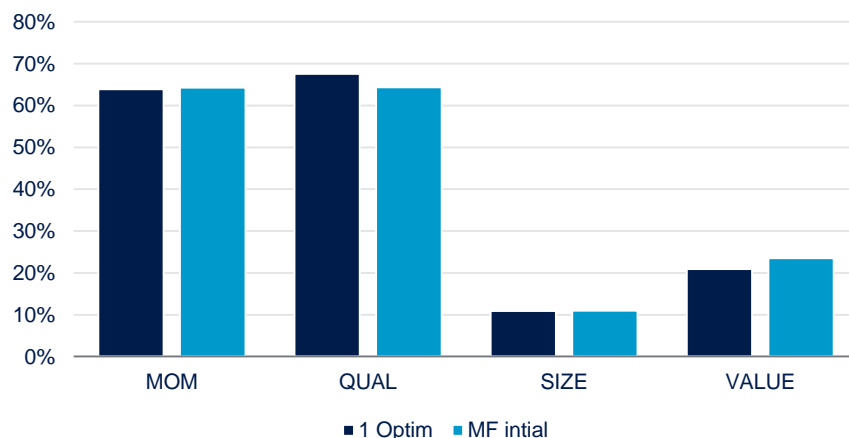
- MSCI ACWI Quality
- MSCI ACWI Momentum
- MSCI ACWI Size Tilt
- MSCI ACWI Enhanced Value

While:

- Maximizing MSCI ESG score
- Excluding: Controversial weapons + UNGC breaches
- Not overweighting companies in the worst quintiles in any of the four factor indices in terms of carbon emissions and MSCI ESG Score
- Respecting Sector/geographic constraints: +/- 1% relative to initial portfolio

Under a 0.40% ex-ante TE budget

Factors exposures



Source: Amundi, MSCI, July 2019

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## Conclusion: You should monitor and improve your portfolio's transition risk exposure!

- Two risks related to climate change:
  - Transition risk
  - Physical risk
- Monitoring transition risk is easy as data availability and quality is good
- Monitoring physical risk is a fast developing work in progress
- Investors can substantially improve the “transition profile” of their index portfolio (carbon footprint, green revenues ...) at a low tracking-error cost

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# Appendix

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# European Union Climate indices

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## EU Climate indices should be coming soon

- European Commission set up a Technical expert group on sustainable finance (TEG) to assist it in developing:
  - an EU classification system – the so-called EU taxonomy – to determine whether an economic activity is environmentally sustainable;
  - an EU Green Bond Standard;
  - **methodologies for EU climate benchmarks and disclosures for benchmarks**; and
  - guidance to improve corporate disclosure of climate-related information.
- On June 2019 the TEG published an interim report on Climate benchmarks
- Final version of the report expected by the end of September
- Following the publication of the final report, the Commission will develop a delegated act building on the TEG work



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## EU Climate indices should be coming soon

- 2 labels will be created Q1/Q2 2020, to be claimed by index provider
  1. EU Climate Transition benchmarks
  2. EU Paris-aligned benchmarks
- Conditions for label eligibility is not yet know
- At this stage no indication of regulatory constraints regarding these labels, but **strong demand should be expected**