

# Global Challenges Index

Factbook



Version: March 23<sup>rd</sup>, 2020

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Summary



The Global Challenges Index represents an **innovation** in the field of sustainability indexes. It is the first to have succeeded in taking the guiding principle of sustainable development, often criticised for its abstract nature, and expressing it in concrete terms in seven practical fields for action. Defining key future issues makes sustainability understandable for the investor. The use of an absolute best-in-class approach, i.e. the definition of industry- and company-specific standards for the inclusion of companies in the Index, combined with the use of comprehensive exclusion criteria, means that the Global Challenges Index follows a particularly **consistent approach to sustainability**.

The deciding factor in the **selection of companies** for the Global Challenges Index is the extent to which they take an active stance as regards the major **global challenges**. Within the framework of a comprehensive analysis of political, economic and social target systems, seven global fields for action have been identified. Of particular significance in this context are the United Nations' Sustainable Development Goals, the European Union's sustainability strategy, the Global Environmental Outlook of the United Nations Environment Programme (UNEP) and the ten Principles of the UN Global Compact. Stringent exclusion criteria ensure that the Global Compact's principles are adhered to.

The seven fields for action comprise: combating the causes and consequences of **climate change**, securing adequate provision of **water**, managing **forests** sustainably, preserving **biodiversity**, dealing with **population development**, combating **poverty** and establishing **governance** structures. These challenges do not stand in isolation from one another, but are closely interdependent. Climate protection measures, for example, have a positive impact on the availability of water. Biodiversity and deforestation are also closely linked. This overall interdependence is particularly pertinent to the issue of poverty. Progress in the other fields for action always represents an important step toward combating poverty.

**Positive and exclusion criteria** are used to define the seven global fields for action in concrete terms and to create the basis for the selection of suitable companies for the Global Challenges Index. The theme of governance plays something of a special role here, as it does not so much describe an area of business, but rather defines the framework within which companies should act.

# Summary



The opportunities for **companies** to engage, within the scope of their **core business**, in activities in the individual fields for action vary in extent. On the one hand, current trends show that companies can make a key contribution to dealing with the causes and consequences of climate change and can thereby create active opportunities for company development. On the other hand, the immediate opportunities for action in other areas, in particular those of poverty and population development, are much more complex and less obvious. Nevertheless, the Index shows that here, too, activities pointing the way forward are already taking place.

Overall, the companies which will profit are those which tackle the global challenges actively. Companies can employ innovative strategic and operative measures actively to counter risks to the companies' success arising from developments in the seven fields for action and to open up opportunities for **company development**, e.g. by

- ensuring the long-term availability of resources, for example through sustainable forestry and fisheries management,
- reducing market-price risks, for example through increasing energy efficiency and ensuring access to raw materials,
- preserving competitiveness through technical innovation, for example in the area of renewable energies,
- opening up new markets, for example in the area of microfinance,
- maintaining and improving their social acceptance and reputation.

If companies do this in a way that is guided by the principles of sustainability while safeguarding high standards in the area of corporate governance, they will at the same time make a contribution toward meeting the global challenges. The **focal points for action** vary from industry to industry. While the automotive industry, for example, can contribute to climate protection by reducing fuel consumption, the main issues on the agenda in the food and beverages industry are those of water and biodiversity. Therefore, when the Index was drawn up, the possibilities for action in the individual industries were analysed with regard to the global challenges. The resulting Industry grid forms an important basis for identifying suitable companies for the Index universe.

Furthermore, the 17 Sustainable Development Goals agreed upon by the UN in 2015 as the successor to the Millennium Development Goals will also be integrated into the selection process. Here, it will be evaluated to what extent the products and services of the companies help to meet or hinder the meeting of these goals.

# Summary



The **Global Challenges Index** is compiled in two stages. In the **first stage**, ISS ESG uses its Corporate Responsibility Rating to check the conformance to social and environmental standards of the companies which form part of the ISS ESG universe. Only companies which meet the stringent requirements are given “prime” status. The companies with the best Corporate Responsibility Rating in their industry qualify for the Index under this absolute best-in-class approach. As part of the Rating, ISS ESG checks if the companies offer products and services that help to meet or hinder the meeting of the Sustainable Development Goals. In addition, all the companies are analysed to see whether they contravene the defined exclusion criteria. Companies which do are not accepted into the Index. This first stage sees the number of companies which are potentially suitable for the Index reduced from approx. 6,000 to around 400.

In a **second stage**, out of the Solactive GBS Developed Markets All Cap Index ISS ESG identifies those companies which have made substantial contributions to meeting the global challenges and in doing so have opened up for themselves the opportunities described. A financial analysis ensures that the selected companies also satisfy the minimum requirements in terms of market capitalisation.

An independent **advisory board** advises Börse Hannover and ISS ESG on developing the concept, on defining the positive and exclusion criteria and on identifying suitable securities.

The Index is composed of **50 companies**. We aim for a mix of globally active large companies, as well as small and medium-sized companies which contribute to sustainable development primarily through their product and service range. The companies are weighted according to market capitalisation, and the potentials can have a share of around 10% of the total market capitalisation of the Index. Individual securities can have a weighting of max. 10% of the Index. Geographically, the Index focuses on companies from Europe and the G7 countries.

ISS ESG monitors the universe constantly. The composition of the Index is reviewed end of March and September each year. Companies which no longer satisfy the defined requirements will be replaced at these times.

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Global Challenges: Facts



## Climate Change

- The IPCC forecasts a rise in the average global temperature of between 1.8 and 4.0 degrees Celsius by 2100, if no measures are taken.
- The Stern Report forecasts a significant increase in the costs of climate change: by the middle of this century, annual losses will amount to at least 5% of global GDP, currently reckoned to stand at around US\$ 2,200 billion.

## Water

- Drinking water is a scarce resource: only one per cent of the world's water reserves is available as drinking water.
- According to UN estimates, 1.1 billion people have no access to clean drinking water.
- Illnesses caused by polluted water cost the lives of around 6,000 children every day.

## Deforestation

- The rate of global deforestation stands at 13 million hectares per annum, principally due to conversion into agricultural land (FAO, 2005).
- 36% of all forests are primeval forests - 6 million hectares are destroyed or converted annually (FAO, 2005). Every year, between 0.5 and 1% of the tropical rainforest is lost.

## Biodiversity

- According to the red list of threatened species published by the World Conservation Union (IUCN) in 2006, around 15,500 species worldwide are threatened with extinction, including 23% of all mammals, 12% of birds and 31% of amphibians.
- The total number of species fell by 40% between 1970 and 2000.

## Poverty

- Worldwide, around 1.2 billion people live in extreme poverty. According to the World Bank's definition, these are people who have less than one dollar per day available to them.
- Closely linked to this are poor preventive medicine, high infant mortality and illiteracy.

## Population Development

- Every minute, more than 150 people are born, principally in developing countries and NICs. The UN forecasts that over the next four decades almost three billion more people will be added to the world's current population of around 6.4 billion.
- The industrialised countries face the threat of an ageing population. According to UN forecasts, by the year 2050 8 million Germans will be over 80 years old.



# Overview: Selection Criteria



## Positive criteria for selecting companies

<b>Climate Change</b>	Contributions to dealing with the causes and consequences of climate change
<b>Water</b>	Contributions to the supply, processing and distribution of water
<b>Deforestation</b>	Contributions to the sustainable management of forests and forestry products (wood, paper)
<b>Biodiversity</b>	Contributions to the protection and preservation of species diversity
<b>Population development</b>	Contributions to dealing with demographic change and/or population explosion
<b>Poverty</b>	Contributions to reducing vulnerability, supporting economic independence and improving education and access to information
<b>Governance</b>	Contributions to preventing corruption and bribery and to improving corporate governance in the economy

# Overview: Selection Criteria



Exclusion criteria	
<b>Geschäftsfelder</b>	Nuclear power
	Manufacture of GMOs, Pesticides, Chlorinated Hydrocarbons
	Military
	Fossil Fuels
	Tobacco
	Pornography
	Alcohol
	Animal testing (Tests beyond legal requirements)
	Gambling
<b>Geschäftspraktiken</b>	Kontroverses Umweltverhalten, z. B. Übernutzung oder Verschmutzung von Gewässern, Umweltkontaminationen
	Menschenrechts- und Arbeitsrechtskontroversen
	Kontroversen in den Bereichen Korruption und Bilanzierung

# Criteria: Climate Change



## Positive criteria

Selection of companies that make active and substantial contributions to dealing with the causes and consequences of climate change:

- Combating the causes by significantly reducing the emission of greenhouse gases e.g. through energy- and fuel-saving products, contributing to increasing energy efficiency and providing energy from renewable sources;
- Dealing with the consequences of climate change, e.g. in the areas of insurance cover, property and flood protection.

## Exclusion criteria

### Fossil Fuels

- The production of oil is more than 0.5% of the global production or generates more than 5% of the companies' sales
- Refining (for the production of differentiated fuels) and / or the burning of oil (for energy production, including heat and power) is more than 5% of sales
- The production of brown coal and / or hard coal is more than 0.5% of global production or more than 5% of the company's sales
- Treatment (for thermal use) or coal burning (for energy production, including heat and power) is more than 5% of sales
- The sales of hydraulic fracturing ("fracking") and of oil sands are more than 0 %

# Criteria: Water



## Positive criteria

Selection of companies that make active and substantial contributions to the supply, processing and distribution of water, e.g. waste water purification, water treatment and distribution.

## Exclusion criteria

### Controversial Environmental Practices

#### Definition:

Cases involving gross disregard by a company of environmental legislation or generally recognised minimum environmental standards/codes of behaviour constitute a negative criterion. These include, for example, large-scale projects (e.g. pipelines, mines, power stations, dams) which have a particularly deleterious impact on ecosystems in the region concerned. A differentiation is made between those immediately causing the impact (e.g. operators of controversial projects), suppliers/subcontractors (especially those which have no long-term involvement in the controversial action/project) and financiers (e.g. banks which provide capital for relevant projects through project financing).

#### The following will be excluded:

- Companies immediately causing the impact
- Suppliers/subcontractors
- Financiers

# Criteria: Deforestation



## Positive criteria

Selection of companies that make active and substantial contributions to the sustainable management of forests and forestry products (wood, paper) e.g. through FSC certification or the use of recycled material in the production of paper and cardboard.

## Exclusion criteria

### Controversial Environmental Practices

#### Definition:

Cases involving gross disregard by a company of environmental legislation or generally recognised minimum environmental standards/codes of behaviour constitute a negative criterion. These include, for example, large-scale projects (e.g. pipelines, mines, power stations, dams) which have a particularly deleterious impact on ecosystems in the region concerned. A differentiation is made between those immediately causing the impact (e.g. operators of controversial projects), suppliers/subcontractors (especially those which have no long-term involvement in the controversial action/project) and financiers (e.g. banks which provide capital for relevant projects through project financing).

#### The following will be excluded:

- Companies immediately causing the impact
- Suppliers/subcontractors
- Financiers

# Criteria: Biodiversity (I)



## Positive criteria

Selection of companies that make active and substantial contributions to the protection and preservation of biodiversity and ecosystem services.

## Exclusion criteria

### Controversial Environmental Practices

#### Definition:

Cases involving gross disregard by a company of environmental legislation or generally recognised minimum environmental standards/codes of behaviour constitute a negative criterion. These include, for example, large-scale projects (e.g. pipelines, mines, power stations, dams) which have a particularly deleterious impact on ecosystems in the region concerned. A differentiation is made between those immediately causing the impact (e.g. operators of controversial projects), suppliers/subcontractors (especially those which have no long-term involvement in the controversial action/project) and financiers (e.g. banks which provide capital for relevant projects through project financing).

#### The following will be excluded:

- Companies immediately causing the impact
- Suppliers/subcontractors
- Financiers

# Criteria: Biodiversity (II)

## Exclusion criteria

### Pesticides

**Definition:**

The production of pesticides which are classified by WHO as "extremely or highly hazardous" constitutes a negative criterion.

**The following will be excluded:**

- Producers (>5% proportion of turnover)

### Chlorinated Hydrocarbons

**Definition:**

The production of PVC, as well as substantial activity in the field of chlorine chemistry, constitute a negative criterion.

**The following will be excluded:**

- Producers (>5% proportion of turnover)

### Genetic engineering in agriculture

**Definition:**

Genetically modified plants and animals constitute negative criteria with focus on producers (i.e. the companies which undertake the modification of the genetic material and produce the corresponding seed or animals).

**The following will be excluded:**

- Producers of GMOs (>0% proportion of turnover)

# Criteria: Population Development



## Positive criteria

Selection of companies that make active and substantial contributions to dealing with demographic change and/or population development in newly industrialising and developing countries, in particular through access to education, medicine and medical care, especially in relation to HIV/AIDS.

In view of demographic trends in numerous industrialised countries, the emphasis is on products and services which provide for the needs of an ageing population, e.g. age-appropriate housing, medical and care provision.



# Criteria: Poverty (I)



## Positive criteria

Selection of companies that make active and substantial contributions to combating poverty worldwide. The focus is on measures which through empowerment improve people's capacity to overcome poverty by their own efforts. These include, in particular, measures contributing to delivering education and access to information, reducing vulnerability (e.g. through microinsurance), supporting economic independence (e.g. fair trade, microcredit) and combating corruption.

## Exclusion criteria

### Labour rights

#### Definition:

Where there is a serious breach of at least one of the four basic principles of the ILO Declaration on Fundamental Principles and Rights at Work (freedom of association and assembly, forced labour, child labour and discrimination), this constitutes a negative criterion. Negative criteria also apply where minimum employment standards (e.g. in the areas of health and safety, remuneration, working hours) are systematically circumvented, even where these do not relate directly to the four ILO conventions (see above). A differentiation is made according to whether minimum standards are breached by the company itself or by suppliers/subcontractors.

#### The following will be excluded:

- Companies which themselves or their suppliers or sub-contractors violate the principles in the areas of freedom of association and assembly, forced labour or discrimination

# Criteria: Poverty (II)

## Exclusion criteria

### Child labour

#### Definition:

Any child labour which is not expressly permitted by the ILO (depending on e.g. age of child, employment conditions, hours worked and accompanying education offered) constitutes a negative criterion. For labour to be classified as child labour it must as a rule be permanent and systematic.

#### The following will be excluded:

- Companies which themselves or their suppliers or subcontractors violate the principles in the area of child labour

### Human rights

#### Definition:

Negative criteria include gross violations of internationally recognised principles such as the UN Universal Declaration of Human Rights, insofar as these do not apply exclusively to governmental obligations and are not already covered by the ILO Declaration on Fundamental Principles and Rights at Work (see rights at work). These include in particular actions in which a grave threat to the health/lives of employees, the population, customers etc. is consciously accepted; slavery; grievous physical violence towards employees or third parties as well as the commissioning or active support of such violence; actions which grossly violate the rights of self-determination of employees or third parties; actions which grossly disregard cultural rights of self-determination or cultural worth.

#### The following will be excluded:

- Companies which themselves or their suppliers or subcontractors violate the principles in the area of human rights

# Criteria: Corporate Governance



## Positive criteria

Selection of companies that make an active contribution to combating corruption and bribery in the economy and have implemented core elements of a compliance management system (CMS). These include in particular a relevant code of conduct, the appointment of a compliance officer, guidelines for the selection of suppliers and the acceptance of gifts, internal company communications and training and ongoing monitoring of compliance with the relevant regulations.

## Exclusion criteria

### Controversial environmental practices

#### Definition:

Cases where a company seriously disregards legal requirements or generally recognised codes of good behaviour constitute a negative criterion.

#### The following will be excluded:

- Companies which have committed violations in the areas of corruption and accounting fraud

# Further Exclusion Criteria



## Nuclear energy

### Definition:

Various aspects of the value chain in the nuclear energy field constitute negative criteria. A differentiation is made between, in particular, the production and distribution of nuclear energy, but also the mining of uranium and the assembly of key components for nuclear power stations. "Dual-use products", as they are known, are not taken into account.

### The following will be excluded:

- Producers of
- nuclear power (upward of >0% proportion of turnover)
  - uranium (upward of >0% proportion of turnover)
  - key components of nuclear power stations (upward of >0% proportion of turnover)

## Military

### Definition:

Armaments which have been specially developed for military applications constitute a negative criterion. This does not include "dual-use products". A differentiation is made between producers and distributors. Among armaments, differentiation is also made between weapons (systems) (e.g. rifles, tanks, fighter jets), weapons outlawed by the Rome Statute of the International Criminal Court (e.g. weapons of mass destruction, land mines) and other armaments (e.g. radar installations, military transport vehicles).

### The following will be excluded:

- Producers of
- weapons (systems) (upward of >0% proportion of turnover)
  - outlawed weapons (upward of >0% proportion of turnover)
  - other armaments (upward of >0% proportion of turnover)

# Further Exclusion Criteria



## Fossil Fuels

### Definition:

Various aspects of the value chain of fossil fuels coal and oil are tracked. A distinction is made between the extraction and use / processing of coal and crude oil. Operators of power plants that burn coal or oil, and operators of refineries are considered to be users / conditioners.

### The following will be excluded:

- Oil production is more than 0.5% of global production or generates more than 5% of the company's sales
- Refining (for the production of differentiated fuels) and / or the burning of petroleum (for the generation of energy, including heat and drives) accounts for more than 5% of sales
- The mining of lignite and / or hard coal is more than 0.5% of the global funding or makes up more than 5% of the company's sales Processing (for thermal use) or burning coal (for energy, including heat and drives) accounts for more than 5% of sales
- Hydraulic fracturing ("fracking") and the extraction of fossil fuels from oil sands is excluded from > 0% of sales

# Further Exclusion Criteria



## Tobacco

### Definition:

This factor identifies companies who may have involvement in the issue area through specific products, services, or sector characteristics.

This includes projects in development stage or reportedly plan to produce, distribute, retail, license, or supply tobacco-related products.

### The following will be excluded:

Producers and Trader of

- End products (upward of >0% proportion of turnover)
- Components/Accessories (upward of >0% proportion of turnover)

## Pornography

### Definition:

This factor identifies companies who may have involvement in the issue area through specific products, services, or sector characteristics.

This includes potential development projects or reported plans to produce, distribute, retail, license or supply pornography-related products.

### The following will be excluded:

Producers and Trader of

- Pornography (upward of >0% proportion of turnover)

# Further Exclusion Criteria



## Alcohol

### Definition:

This factor identifies companies who may have involvement in the issue area through specific products, services, or sector characteristic

### The following will be excluded:

Producers and Trader of

- Beer/Wine (upward of >0% proportion of turnover)
- High-proof beverages/Foodstuffs (upward of >0% proportion of turnover)

## Tierversuche

### Definition:

This factor identifies companies engaged in animal testing on any of the following: Pharmaceutical, and Non-Pharmaceutical.

### The following will be excluded:

Tests beyond legal requirements

## Glücksspiel

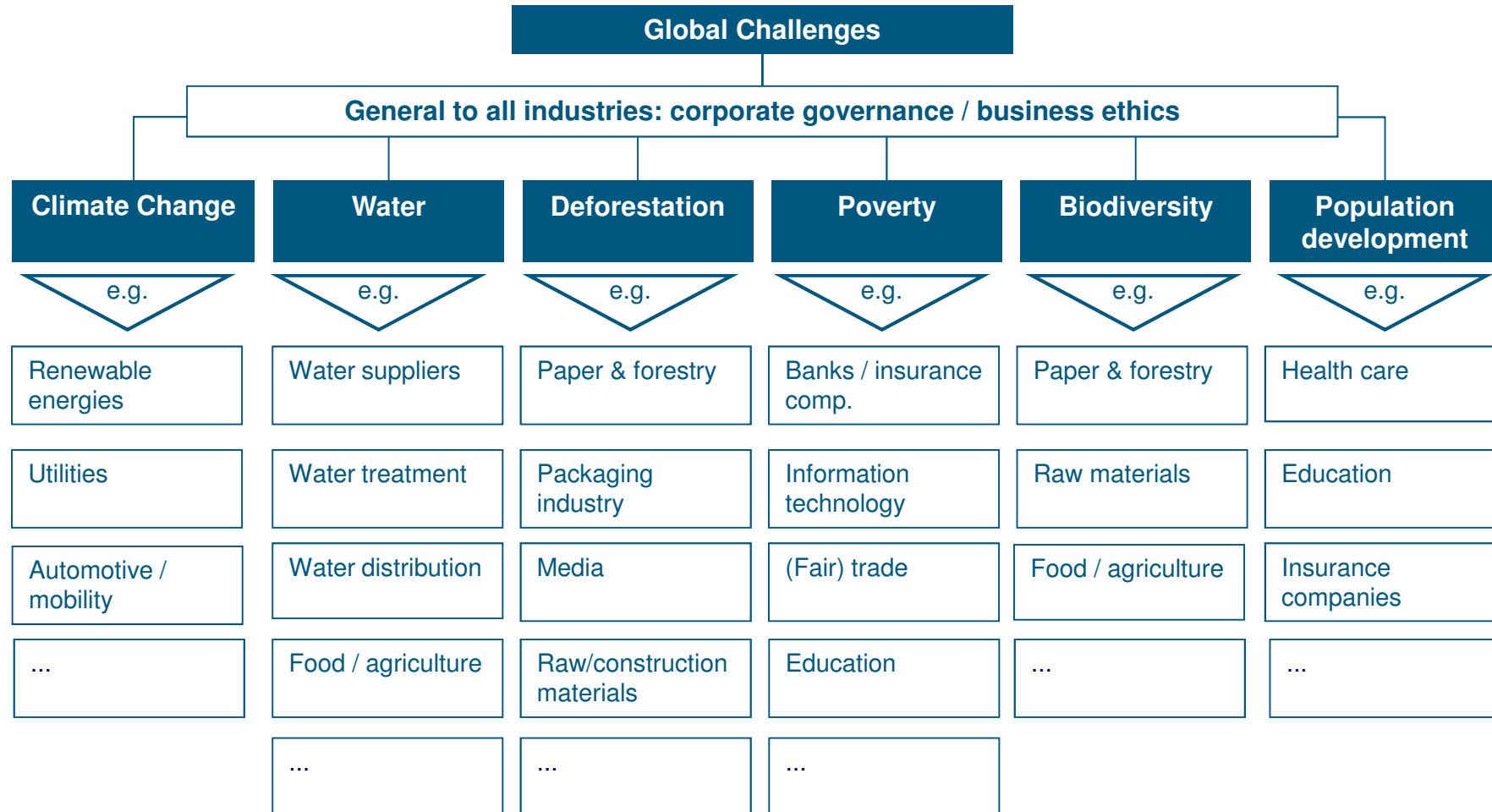
### Definition:

This factor identifies companies who may have involvement in wagering of money on a game or event such as sports, cards or dice games, gaming machines and lotteries through specific products, services, or sector characteristics.

### The following will be excluded:

- Particularly controversial forms of gambling (upward of >0% proportion of turnover)
- Other forms of gambling (upward of >0% proportion of turnover)

# Search Grid: Industries





# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Advisory Board



## Functions

Börse Hannover and ISS ESG are assisted in the conceptual planning and compilation of the Index by an independent advisory board of experts. The advisory board has the following functions, in particular:

- advising on the development of the concept for the Global Challenges Index
- advising on the development and monitoring of the criteria on which the Index is based
- advising on the selection of suitable companies for the Global Challenges Index

The competencies and functions of the advisory board are regulated by statute.

## Composition

The advisory board comprises the following persons:

- **Dr. Bernd Balkenhol** (Professor of Micro-Finance at the Geneva School of Economics and Management (GSEM), Head of the Social Finance Department at the International Labor Organization (ILO))
- **Dr. Wolfgang Gehra** (Professor at the University of Applied Sciences Munich)
- **Walter Hirche** (Member of the board of the German Commission for UNESCO, Member of the German Council for Sustainable Development)
- **Matthias Kopp** (Head of Sustainable Finance at WWF Germany)
- **Wolf Martin Waldow** (Member of the High Consistory of the Evangelical Lutheran Church of Hanover-Germany)
- **Berenieke Wiener** (Head of CSR and Sustainable Finance, Director at Evangelische Bank eG)

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Selection of Companies



**Solactive GBS Developed Markets All Cap Index & ISS ESG Universum : approx. 6,000 companies**

**Stage 1:**  
Selection of companies which have achieved prime status under ISS ESG's best-in-class approach and which satisfy the defined exclusion criteria

Prime status: ESG Corporate Rating regarding the company's conformance to social, governance and environmental standards as well as a check of the products/services in light of the Sustainable Development Goals. ISS ESG awards "prime" status only to those companies which satisfy the stringent requirements.

Exclusion criteria: nuclear power; production of GMOs, pesticides, chlorinated hydrocarbons; controversial business practices / corporate governance; environmental violations; violations of human rights and labour standards; military; fossil fuels; Tobacco; Alcohol; Animal Testing; Pornography; Gambling

**Universe: approx. 400 companies**

**Stage 2:**  
Selection of companies which within the scope of their core business make an active and substantial contribution to dealing with the global challenges and have a minimum capitalisation value of at least €100 million.

**Global Challenges Index: 50 companies**

# Selection Process: Stage 1



## Stage 1 - filter 1: ESG Corporate Rating → prime universe

Only companies that have achieved “prime” status in the ESG Corporate Rating will be selected for the Index. To receive this status, companies must be among the best in their industry as regards their social, governance and environmental performance. At the same time, the companies must satisfy the industry-specific standards set out by ISS ESG in the social and environmental spheres. It is therefore not sufficient “merely” to be relatively better than the other companies in a particular industry; companies must also be best-in-class according to absolute benchmarks. In order to measure to what extent the companies contribute to meeting the Sustainable Development Goals, their products and services are evaluated through a detailed assessment framework.

## Stage 1 - filter 2: exclusion criteria

All companies which achieve prime status in the ESG Corporate Rating will then be additionally reviewed in relation to all the exclusion criteria defined for the Index. Here, it is a question not just of involvement in particular areas of business (nuclear power, pesticides, chlorine chemistry, genetic engineering in agriculture, armaments) but also of violations in the areas of the environment, human rights and labour rights as well as corruption and accounting fraud. Companies which violate one or more of the exclusion criteria will not be included in the Index.

### Advisory board

An independent **advisory board** advises Börse Hannover and ISS ESG on the development of the concept and the definition of positive and exclusion criteria for the Global Challenges Index

# Overview: Positive Criteria



## Social & Governance Rating

### Employees & Suppliers

- Employees, incl.
- freedom of association
  - workplace safety
  - health protection & occupational safety
  - equal rights
  - ...
- Suppliers, incl.
- supplier standards
  - monitoring of suppliers

### Society & Product Responsibility

- Society, incl.
- human rights
  - donations to political parties
  - taxes and subsidies
  - stakeholder dialogue
  - Product responsibility, incl.
  - Assessment of products and services with regard to their impact on the achievement of the SDGs
  - industry-specific aspects

### Corp. Gov. & Business Ethics

- Corporate governance, incl.
- independence of management bodies
  - shareholder rights
  - management remuneration
  - shareholder structure
  - ...
- Business ethics, incl.
- code of conduct
  - anti-corruption measures

## Environmental Rating

### Environmental Management

- corporate guiding principles
- environmental management system
- environmental reporting
- system of environmental performance indicators
- climate change
- ...

### Products & Services

- Industry-specific definition of environment-related requirements in terms of the design of products and services, e.g.
- Assessment of products and services with regard to their impact on the achievement of the SDGs

### Eco-Efficiency

- Industry-specific definition of environmental performance indicators, which are collected and evaluated, e.g.
- energy consumption
  - greenhouse gas emissions
  - water consumption
  - waste volumes
  - ...

# Rating Resultat and Prime Status



In the ESG Corporate Rating, companies are evaluated by ISS ESG in the six categories. In this process, environmental and social criteria are given different weightings, depending on the industry. The evaluation of the company-specific data is carried out exclusively by ISS ESG.

The final evaluation is made on a scale from A+ to D-, the rating scale being defined as follows:

- A = The company is performing outstandingly well
- B = The company's actions are largely progressive
- C = The company has taken basic measures
- D = The company shows little commitment

• For each industry, individual standards are defined, which have to be achieved in order for prime status to be awarded.

• The current accuracy of the information underpinning the rating and of the overall evaluation is achieved through regular updating.



# Selection Process: Stage 2



## Stage 2 : prime universe / ➔ Global Challenges Index

From the total number of companies which both achieve prime status and satisfy the exclusion criteria, ISS ESG selects those companies which have made substantial and forward-looking contributions toward dealing with the global challenges in one or more fields for action. This selection is based on a comprehensive analysis of the individual industries' options for action with regard to the global challenges.

All companies selected by ISS ESG undergo a financial analysis. As part of this, a check is made of compliance with the minimum requirements in terms of market capitalization (min. 100 million euros). Deviations from these minimum requirements are permitted only in the case of justified exceptions, for example where it can be expected that a defined threshold will be exceeded within a foreseeable time period.

The securities are then weighted according to market capitalization. Here, a double 10% rule is applied:

- The weighting of individual securities in the Index is limited to 10%.
- The proportion of potentials as a share of the overall market capitalization of the Global Challenges Index should lie at around 10%.



# Rebalancing



## Cyclical Rebalancing

The composition of the Index is reviewed regularly by mid-March and mid-September each year. Securities which no longer satisfy the defined requirements within the scope of the ESG Corporate Rating and those that will with a high probability and likelihood no longer fulfil the requirements in the near future (e.g. due to ongoing mergers) are replaced on these occasions.

## Extraordinary Rebalancing

If a company represented in the Global Challenges Index is unexpectedly delisted between two scheduled adjustment dates, the Global Challenges Index is adjusted as timely as possible.

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Overview



**The Index is composed of large corporations (large caps) and small, innovative companies (potentials)**

From the total number of companies which both achieve prime status and satisfy the exclusion criteria, ISS ESG selects those companies which have made substantial and forward-looking contributions toward dealing with the global challenges in one or more fields for action.

## Large caps

Highly capitalized companies, which within the scope of their core business make an active, substantial and forward-looking contribution to dealing with the global challenges.

## Potentials

Small and medium-sized companies whose products and services are particularly conducive to sustainable development.

Our goal is to increase the number of potentials up to a proportion of around 10% of the overall market capitalization of the Index.

# Index Members



## Global Challenges Index: 50 companies

Advanced Micro Devices (AMD)  
Atlas Copco  
Aurubis  
Autodesk  
Aviva  
Benesse Group  
Berkeley  
BillerudKorsnäs  
Biomerieux  
Canadian National Railway  
Coloplast  
CSX Corporation  
Dassault Systèmes  
Enagas  
Energy Recovery  
FirstGroup  
First Solar  
Geberit  
Hain Celestial  
Hannover Rück SE  
Henkel  
Herman Miller  
Intel  
Interface  
Kingfisher  
Konica Minolta

Kurita Water Industries  
Lenzing  
Nordex  
Ormat Technologies  
Ørsted  
Pearson  
Pennon Group  
Renault  
REC Silicon  
Ricoh  
Rockwool International  
Shimano  
Siemens Gamesa Renewable Energy  
Signify  
SKF  
SNAM  
Sonova Holding AG  
Steelcase  
STMicroelectronics  
SunPower  
Swiss Re  
Tarkett  
Union Pacific  
Xerox

You will find detailed profiles of the Index companies at the end.

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

Some important questions and answers relating to the Global Challenges Index are compiled below.

## Overview:

1. Who developed the Global Challenges Index?
2. What differentiates the Global Challenges Index from other sustainability indexes?
3. Why were these particular seven fields for action singled out?
4. Can companies make a contribution to dealing with the global challenges?
5. How are companies selected for the Global Challenges Index?
6. What exclusion criteria are used?
7. What experience does ISS ESG have in the area of sustainable investment?
8. What is ISS ESG “prime status”?
9. What role does the independent advisory board play?

# FAQ (I)



## 1. Who developed the Global Challenges Index?

The Global Challenges Index was initiated by the Hanover Stock Exchange. The Hanover Stock Exchange is an innovative market place, through which a wide range of securities can be simple and conveniently traded. All services and information are consistently geared towards the needs of the investors. Issuers and listed companies will find here competent partners on financial market issues. In 1999, the Hanover Stock Exchange became part of a strong partnership. Börsen AG since then is parent and supporting organization of the stock exchanges in Hamburg and Hannover. In this stock exchanges are listed more than 10,000 securities. More than 150 trading participants - including domestic and foreign banks and financial services companies - take advantage of the services of the two exchanges.

The Hanover stock exchange commissioned **ISS ESG** to develop the concept for the Global Challenges Index and to compile the Index universe. ISS ESG is an independent sustainability rating agency specialising in the evaluation of companies and countries on the basis of social, environmental and ethical criteria. ISS ESG will monitor the companies listed in the Index with regard to their sustainability-related performance and potential violations of the specified exclusion criteria.

# FAQ (II)



## 2. What differentiates the Global Challenges Index from other sustainability indexes?

The Global Challenges Index is principally distinguished by the following features:

- Thematic focus: the focus on seven specific themes – climate change, water, deforestation, biodiversity, population development, poverty and global governance – which are internationally recognized as global challenges in political, economic and social terms, takes the guiding principle of sustainable development, often criticised for its abstract nature, and renders it easier to understand.
- Use of an absolute best-in-class principle: companies which are included in the Index must satisfy high standards in terms of their social and environmental performance. Being the best company in a particular industry in relative terms is not sufficient for inclusion in the Index. Companies must also fulfil high sustainability standards according to absolute benchmarks. This is ensured by including only companies which have been awarded “prime” status by ISS ESG.
- Strict exclusion criteria: in addition to the exclusion of controversial areas of business (e.g. nuclear power, genetic engineering in agriculture and armaments), companies which in their business practices violate recognized standards in the areas of the environment, labour rights and human rights, as well as corporate governance, will also be excluded from the Index.
- Focus on companies that take positive action: companies included in the Index will be those which make an active contribution to bringing about positive change to risk scenarios in the seven fields for action and in doing so create opportunities for themselves.

## 3. Why were these particular seven fields for action singled out?

The selection of the seven fields for action – climate change, water, deforestation, biodiversity, population development, poverty and global governance – is based on a comprehensive analysis of political, economic and social target systems which are concerned with the global challenges facing mankind and the role of the economy in surmounting these challenges. Of particular significance in this context are the United Nations’ Millennium Development Goals, the European Union’s sustainability strategy, the Global Environmental Outlook of the United Nations Environment Programme (UNEP) and the ten Principles of the UN Global Compact. Seven of the challenges seen as particularly relevant were selected for the Index. Adherence to the principles of the Global Compact is guaranteed by the defined exclusion criteria.



# FAQ (III)



## 4. Can companies make a contribution to dealing with the global challenges?

The opportunities for companies, within the scope of their core business, to take action in the individual fields for action vary in their extent. While recent developments show that companies can make a huge contribution to dealing with the causes and consequences of climate change and thereby create opportunities for their corporate development, the immediate opportunities for action in other areas, in particular where poverty and population explosion are concerned, are more complex and less obvious. Nonetheless, the Index shows that here, too, forward-looking activities are already taking place.

One example of this is activity relating to combating poverty. Where the focus is on improving the capacity of people to overcome poverty by their own efforts, through empowerment, companies are required to use their competency and financial strength to make an active contribution. Relevant fields for action include measures to reduce people's vulnerability (e.g. through microinsurance), to support economic development (e.g. through fair trade or microcredits) and the improvement of education and access to information (e.g. by overcoming the digital divide).

Overall, the companies which will profit particularly in terms of their profitability and thus also the value of the company are those which tackle the global challenges proactively. Firstly, they will counter existing acute and/or potential risks to the company's success, and secondly, they will open up opportunities for company development, in particular by:

- ensuring the long-term availability of resources, for example through sustainable forestry and fisheries management,
- reducing market-price risks, for example through increasing energy efficiency and ensuring access to raw materials,
- preserving competitiveness through technical innovation, for example in the area of renewable energies,
- opening up new markets, for example in the area of microfinance,
- maintaining and improving their social acceptance and reputation.

# FAQ (IV)



## 5. How are companies selected for the Global Challenges Index?

The selection of companies is carried out in two steps:

1. In its **ESG Corporate Rating**, ISS ESG checks the companies' conformance to social and environmental standards. Only those companies which satisfy this absolute best-in-class approach and have been awarded "prime" status by ISS ESG are in principle qualified for the Index. The companies are also assessed regarding their compliance with the stringent exclusion criteria.
2. In a **second step**, ISS ESG identifies those companies which have made substantial contributions to surmounting the global challenges and in doing so have opened up for themselves the opportunities described. A financial analysis ensures that the selected companies also satisfy the minimum requirements in terms of market capitalisation.

An independent **advisory board** advises Börse Hannover and ISS ESG on developing the concept, on defining the positive and exclusion criteria and on identifying suitable securities.

## 6. What exclusion criteria are used?

In compiling the Index, strict exclusion criteria in three areas are taken into account:

1. Firstly, companies are excluded if they are active in areas of business which are seen as counterproductive for dealing with the global challenges. These include the following areas of business: fossil fuels, nuclear power, pesticides, chlorinated hydrocarbons, genetic engineering in agriculture and military.
2. Secondly, companies are excluded if they engage in controversial business practices which violate recognized environmental and human rights and employment standards. These include, for example, violations in the areas of freedom of association and assembly, forced labour, discrimination and child labour.
3. Finally, the behaviour of companies in the areas of corporate governance and business ethics is analysed. Companies with violations in the areas of corruption and accounting fraud will not be included in the Index.

These exclusion criteria also cover the requirements for companies set out in the UN Global Compact. All companies, in every case, will be checked for observance of all the exclusion criteria.

## 7. What experience does ISS ESG have in the area of sustainable investment?

ISS ESG is the responsible investment arm of Institutional Shareholder Services Inc., the world's leading provider of environmental, social, and governance solutions for asset owners, asset managers, hedge funds, and asset servicing providers. With more than 30 years of corporate governance expertise and 25 years of providing in-depth responsible investment research and analytics, ISS ESG has the unique understanding of the requirements of institutional investors. With its comprehensive offering of solutions, ISS ESG enables investors to develop and integrate responsible investing policies and practices, engage on responsible investment issues, and monitor portfolio company practices through screening solutions. It also provides climate data, analytics, and advisory services to help financial market participants understand, measure, and act on climate-related risks across all asset classes.

## 8. What is the “prime status” by ISS ESG?

Within the scope of its ESG Corporate Rating, ISS ESG evaluates companies' social and environmental performance. In the rating, prime status is awarded to those companies which satisfy the requirements defined by ISS ESG in collaboration with an independent rating committee. It is not sufficient here to be one of the best companies in an industry in relative terms; companies must also conform to absolute standards. ISS ESG describes this as an “absolute best-in-class approach”.

As the sustainability requirements and company-management prerequisites vary from industry to industry, both the evaluation criteria and the standards are defined independently for each industry. This means that in some industries a rating of C+ is sufficient to gain prime status, whereas in other industries it is necessary to achieve a B to qualify for inclusion in the prime universe. Overall, the evaluation scale by ISS ESG ranges from A+ to D-, and is defined as follows:

- A = The company is performing outstandingly well
- B = The company's actions are largely progressive
- C = The company has taken basic measures
- D = The company shows little commitment

# FAQ (VI)



## 9. What role does the independent advisory board play?

The independent advisory board advises Börse Hannover and ISS ESG on developing the concept, on defining positive and exclusion criteria and on identifying suitable securities. The competencies and functions of the advisory board are regulated by a statute. The following people are currently members of the board:

- Dr. Bernd Balkenhol** (Professor of Micro-Finance at the Geneva School of Economics and Management (GSEM), Head of the Social Finance Department at the International Labor Organization (ILO))
- Dr. Wolfgang Gehra** (Professor at the University of Applied Sciences Munich, member of the German Franciscan Province)
- Walter Hirche** (Member of the board of the German Commission for UNESCO, Member of the German Council for Sustainable Development)
- Matthias Kopp** (Head of Sustainable Finance at WWF Germany)
- Wolf Martin Waldow** (Member of the High Consistory of the Evangelical Lutheran Church of Hanover-Germany)
- Berenieke Wiener** (Head of CSR and Sustainable Finance, Director at Evangelische Bank eG)

# Agenda



1. Summary
2. Index Concept
3. Index Advisory Board
4. Index Design
5. Index Members
6. Index FAQ
7. Company Profiles

# Advanced Micro Devices



Industry: IT

ISIN: US0079031078

Country: US

## Company profile

Advanced Micro Devices, incorporated in 1969, is a semiconductor manufacturer with manufacturing facilities in the United States, Europe and Asia and sales offices throughout the world. The company designs, manufactures and markets industry-standard, digital integrated circuits that are used in various product applications, such as desktop and mobile personal computers, workstations, servers, communications equipment and automotive and consumer electronics.

## Strengths / weaknesses profile

- + reasonable strategy to facilitate transparency and responsible sourcing in controversial raw material supply chains
- + 100% of products compliant to European RoHS Directive
- + binding supplier standard regarding the implementation of an environmental management system
- + sound strategy to reduce the energy consumption of products and components
- no demonstrable approach to maximise material efficiency in products
- major staff redundancies in recent years without adequate social plans to reduce economic hardship for affected employees

## Reasons for inclusion in the Index

The US semiconductor manufacturer Advanced Micro Devices (AMD) strives to fight poverty. Within the „Public-Private Alliance for Responsible Minerals Trade”, the manufacturer tries to develop supply chain systems in the Congo which enable the purchase of raw materials without financing conflicting parties. Thereby the manufacturer wants to counteract the economic destabilisation of the region. Furthermore, the company has implemented measures to reduce their emissions.

Industry: machinery

ISIN: SE0006886750

Country: SE

## Company profile

Atlas Copco's principal activities are the manufacture and marketing of air and gas compressors, generators, and the provision of equipment rentals. The Group operates in four segments, including compressor technique, vacuum technique, industrial technique and power technique.

## Strengths / weaknesses profile

- + group-wide environmental management system implemented
- + comprehensive exclusion-list for hazardous and toxic substances
- + group-wide implementation of safety management systems and downward trend of accident rate
- + several measures to enhance the energy efficiency of products
- no detailed strategy on the reduction of material and raw material use per production unit
- no results published on detailed life cycle assessments of products

## Reasons for inclusion in the Index

Atlas Copco is one of the leading international producers of compressors and generators. Through numerous measures to reduce the energy and fuel consumption of its products, the company has made a substantial contribution to increasing energy efficiency in many sectors of industry.

Industry: metals & mining

ISIN: DE0006766504

Country: DE

## Company profile

Aurubis is the largest copper producer in Europe and the world leader in copper recycling. The Group has production sites in European countries and in the USA with a total of about 6,400 employees. NA produces copper cathodes from copper concentrates and through recycling raw materials. It sources both types of raw material on the global markets and does not own any copper mines.

## Strengths / weaknesses profile

- + application of advanced technology to promote the recycling of copper
- + very low average energy intensity of metals production processes
- + strategic approach to enhance the environmental footprint of products through comprehensive lifecycle assessments
- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- lack of transparency regarding supplier standards with regard to labour / health and safety issues
- high risk of human rights violations in the company's supply chain

## Reasons for inclusion in the Index

The exploration for and extraction of copper ores entail large-scale interventions in nature and the environment, and the transportation and processing of ores is highly energy-intensive. The use of secondary raw materials (scrap metal) conserves resources and spares the environment. Moreover, problematic copper-containing waste such as electrical and electronic scrap for example, can be safely and economically disposed of through recycling methods. As a leading copper recycler, Norddeutsche Affinerie therefore makes an important contribution to resource conservation.



# Autodesk



**Industry: software & IT services**

**ISIN: US0527691069**

**Country: US**

## Company profile

Autodesk is a design software and services company. The company operates in four operating segments: Platform Solutions and Emerging Business; Architecture, Engineering and Construction; Manufacturing and Media and Entertainment.

## Strengths / weaknesses profile

- + reasonable measures to ensure customer security
- + activities to improve the energy efficiency of data centres
- + large share of buildings that have received certifications for environmental design and management
- + reasonable measures to reduce the environmental impact of business travel
- decreasing energy efficiency in recent years
- only single elements of a business continuity management system in place

## Reasons for inclusion in the Index

Autodesk offers products/services with high environmental benefits, e.g. sustainable design solutions. It has a large share of buildings that have received certifications for environmental design and management.

Industry: insurance

ISIN: GB0002162385

Country: UK

## Company profile

Aviva's principal business activities are long-term savings, general insurance and fund management. Aviva is the biggest insurance group in the United Kingdom. It is one of the leading providers of life and pension products in Europe and is actively growing its long-term savings businesses in Asian markets, Australia and the United States.

## Strengths / weaknesses profile

- + some insurance products with environmental benefit
- + integration of environmental and social aspects into shareholder advocacy activities
- + integration of environmental and social aspects into property and casualty insurance
- + implementation of a strategy for addressing climate change and related sector-specific risks
- no measures taken to ensure and monitor responsible sales practices
- only limited provision of insurance cover for high risk/disadvantaged groups

## Reasons for inclusion in the Index

Aviva is active in a number of areas connected with the global challenges, for example climate protection and poverty reduction. Of particular note is its involvement in the field of micro life insurance for families in India. Moreover, Aviva announced that it will sell the shares it holds in coal companies unless they prove they are making progress towards reducing their carbon footprint.

# Biomerieux



**Industry: Healthcare Equipment & Supplier**

**ISIN: FR0013280286**

**Country: FR**

## Company profile

BioMérieux is active in the field of in-vitro diagnostics for both clinical and industrial applications. The company is specialized in the diagnosis of infectious diseases. BioMérieux's molecular biology products offer sustainable value, especially as they are the basis for personalized treatment options (e.g. for cancer patients). The company is also active in the analysis of food, pharmaceuticals, and environmental samples to determine their microbiological quality.

## Strengths / weaknesses profile

- + numerous products with health benefits
- + comprehensive activities to promote access to healthcare equipment
- + reasonable recall management
- + comprehensive compliance framework to ensure fair marketing and business practices
- no substantial measures to extend useful product life
- no comprehensive strategy to avoid conflict minerals

## Reasons for inclusion in the Index

BioMérieux offers products that pave the way to personalized medicine and treatment options, and thus the company contributes toward global health objectives. The company also has a strong focus on helping to improve access to medicine in developing countries. BioMérieux tries to make diagnostic solutions easy to use, no matter what the situation of healthcare is like. For example, the company's "dry" HIV tests do not need a very specific healthcare infrastructure or healthcare professionals.

# Benesse Group



**Industry: education / nursing care**

**ISIN: JP3835620000**

**Country: JP**

## Company profile

Benesse Holdings is mainly active in education (approx. 66% of net sales in 2017) as well as child- and nursing care (24%). The company's educational product range targets different educational stages, from pre-school to primary and secondary education. The company's nursing and childcare segment includes, amongst others, the operation of nursing homes for the elderly, home help services, daycare and after-school childcare services.

## Strengths / weaknesses profile

- + large share of revenues derived from the provision of education and care services
- + integration of environmental aspects into the education business
- + signatory of the UN Global Compact
- lack of transparency on social aspects of company activities outside the home market

## Reasons for inclusion in the Index

Benesse Holdings' educational and childcare products and services have the potential to contribute to the achievement of the global sustainability objective of delivering education for all. In addition to that, the company's nursing care services enable elderly and impaired persons to better participate in daily life and therefore maintain a better state of physical, mental and social well-being.

# Berkeley Group



**Industry: construction**

**ISIN: GB00B02L3W35**

**Country: UK**

## Company profile

The Berkeley Group (Berkeley) is engaged in residential and commercial property development focusing on urban regeneration and mixed-use developments.

## Strengths / weaknesses profile

- + policy and reasonable measures to support the creation of sustainable communities
- + high proportion of buildings certified according to UK sustainable building standard
- + comprehensive guidelines and measures to consider energy and resource efficiency during planning and design as well as during construction
- + almost all developments constructed on brownfield sites in past three years
- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- decrease in resource efficiency in recent years, e.g. regarding energy and water consumption per net sales

## Reasons for inclusion in the Index

The company has published comprehensive guidelines and measures to consider energy and resource efficiency during planning and design as well as during construction. The company further puts a focus on the creation of sustainable communities by integrating aspect such as electric mobility and community facilities into its planning.

# BillerudKorsnäs



Industry: packaging

ISIN: SE0000862997

Country: SE

## Company profile

BillerudKorsnas AB offers primary fibre-based renewable packaging materials and packaging solutions used for consumer packaging and industrial purposes.

## Strengths / weaknesses profile

- + reasonable product safety management
- + comprehensive implementation of life cycle assessments
- + reasonable management with regard to sustainable sourcing of wood/fibre
- + implementation of a certified environmental management system at all major sites with significant environmental impact
- insufficient strategy to increase the recycled content in products
- no indication for a comprehensive management of substances of concern in products

## Reasons for inclusion in the Index

The products manufactured by BillerudKorsnas are based on the regenerative raw material, wood. The company only purchases wood / wood fibres from sources which have a recognised sustainability certification, such as FSC or PEFC, or which have been verified for compliance with the traceability criteria of these standards. The purchased wood also comes from countries with high legal standards: around 75 percent from Sweden, and the remainder from Norway, Finland and the Baltic States. All of its own production facilities are FSC- and PEFC-certified. In addition to this, the company uses externally certified declarations to inform its customers about relevant effects which its products have on the environment, and has introduced certified environment- and energy-management systems at many sites.

# Canadian National Railway



**Industry: transport & logistics**

**ISIN: CA1363751027**

**Country: CA**

## Company profile

Canadian National Railway Company (CN), directly and through its subsidiaries, is engaged in the rail and related transportation business. CN's freight revenues are derived from the movement of a diversified portfolio of goods, including petroleum and chemicals, grain and fertilisers, coal, metals and minerals, forest products, intermodal, and automotive.

## Strengths / weaknesses profile

- + mainly active in environmentally sound rail transport
- + reasonable guidelines/measures to ensure safe handling and transport of hazardous goods
- + comprehensive measures to reduce fuel consumption
- + various measures to promote intermodal transport
- no data on the development of the freight load factor in the last years
- several train derailments in recent years

## Reasons for inclusion in the Index

CN operates freight transport services in North America, and in doing so makes a contribution to reducing CO2 emissions resulting from freight transport.

# Coloplast



**Industry: health care equipment & supplies**

**ISIN: DK0010309657**

**Country: DK**

## Company profile

Coloplast's principal activities are the manufacturing and marketing of medical and health care products. The Company operates through five product segments: Ostomy Care, Continence Care, Wound Care, Skin Care and Urology Care.

## Strengths / weaknesses profile

- + commitment to phase out phthalates
- + systematic approach to incorporate product life cycle assessments in the development of new products
- + reasonable measures to check compliance of key suppliers with labour and health and safety standards
- + good measures for the integration of safety and usability aspects into product design
- no significant activities to reduce the environmental impact of single use products (e.g. design for reuse, recyclable components)
- no initiatives to reduce substances of concern in production

## Reasons for inclusion in the Index

Coloplast develops and markets medical products in the areas of ostomy care, wound care, urology and continence care, which are of growing significance, especially in an ageing society. The company is also actively involved in working to improve the health care structure in selected developing and newly industrialized countries, for example through specialist nurse training in stoma care. In recent years the company has greatly improved its transparency, and its particular strength is the breadth of its understanding of sustainability compared with other companies in the industry.



# CSX Corporation



**Industry: transport & logistics**

**ISIN: US1264081035**

**Country: US**

## Company profile

CSX Corporation, based in Florida, USA, is one of the leading transport companies in the US. The company provides rail and intermodal transport services. CSX operates one of the largest rail networks in the eastern US.

## Strengths / weaknesses profile

- + mainly active in environmentally sound rail transport
- + various measures to reduce fuel/energy consumption
- + decreasing NOx and SOx emissions and fuel intensities in recent years
- + comprehensive initiatives regarding intermodal transport
- no evident measures to reduce noise emissions from rail transport
- no evident initiatives towards the use of renewable/alternative fuels and propulsion systems within the fleet

## Reasons for inclusion in the Index

The company transports freight in North America, both exclusively by rail and also intermodally by rail and truck, and in so doing makes a contribution to reducing freight-traffic-related CO2 emissions.

# Dassault Systèmes



**Industry: software & IT services**

**ISIN: FR0000130650**

**Country: FR**

## Company profile

Dassault Systèmes develops software solutions in the areas of product lifecycle analyses and 3D animation for CAD, CAM and CAE applications.

## Strengths / weaknesses profile

- + information security management system certified to an international standard for cloud-based services
- + high ratio of women in management positions
- + significant proportion of company buildings certified to a sustainable building standard
- + reasonable measures to reduce resource and energy use in office facilities
- no evidence of work-life balance options
- no clear approach regarding the accessibility of products and services for customers with disabilities/special needs

## Reasons for inclusion in the Index

Dassault is one of the world's leading suppliers of environmental accounting software and thus makes an important contribution to the recording and evaluation of product- and production-related environmental effects in many industries.

Industry: oil, gas & consumable fuels

ISIN: ES0130960018

Country: ES

## Company profile

Enagas is a Spain-based company engaged in the transportation, storage and regasification of natural gas.

## Strengths / weaknesses profile

- + detailed corporate guidelines covering important areas of social responsibility, human rights, suppliers, and health and safety
- + reasonable measures taken to ensure pipeline integrity and facility safety
- + comprehensive anti-corruption guidelines and procedures
- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- + inclusion of sustainability criteria into the performance evaluation of executive board members
- involvement in pipeline project (Trans Adriatic Pipeline) criticised for involuntary resettlement and inadequate compensation

## Reasons for inclusion in the Index

Enagas has implemented comprehensive and binding supplier/contractor standards regarding labour issues and include sustainability criteria into the performance evaluation of executive board members.

# Energy Recovery



**Industry: water efficiency & treatment**

**ISIN: US29270J1007**

**Country: US**

## Company profile

US-based Energy Recovery, Inc. (ERI) is a developer and manufacturer of highly efficient energy recovery devices utilised in the water desalination industry. The Company operates primarily in the sea water reverse osmosis ("SWRO") segment of the industry, which uses pressure to drive sea water through filtering membranes to produce fresh water. The company's PX Pressure Exchanger is a rotary-type ceramic pressure exchanger with only one moving part that recovers energy from the waste stream of SWRO systems at up to 98% efficiency. The device reduces energy consumption by up to 60% compared to reverse osmosis plants without energy recovery.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of water technology. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

Energy Recovery has developed a technology which increases the energy efficiency of sea water reverse osmosis substantially.

**Industry: transport & logistics**

**ISIN: GB0003452173**

**Country: GB**

## Company profile

FirstGroup is one of the leading transport operators in the United Kingdom and North America. The company transports more approximately 2 billion passengers every year and has five operating divisions: First Student, First Transit, Greyhound, First Bus and First Rail.

## Strengths / weaknesses profile

- + exclusively active in environmentally friendly bus and rail transport
- + comprehensive transport safety management system for transport operations and several measures to ensure crew and passenger safety
- + several measures to reduce fuel consumption within the fleet
- + several projects regarding the use of renewable/alternative fuels in the fleet
- low share of road vehicles with low emissions (NOx, particulate matter)
- no disclosure of several relevant fleet emissions (e.g. NOx, SOx and PM) and fuel use and/or suitable normalisation factors for recent years

## Reasons for inclusion in the Index

The company is a provider of environmentally sound public transport. First Student is the provider of student transportation in the United States and Canada (yellow school buses). Greyhound is the provider of scheduled intercity bus transportation services in the United States and Canada.

# First Solar



**Industry: Renewable Energy & Energy Efficiency**

**ISIN: US3364331070**

**Country: US**

## Company profile

First Solar designs, manufactures and delivers solar modules and systems for residential, commercial and utility-scale power plant customers. The company is specialised in the production of Cadmium Telluride (CdTe) solar modules.

## Strengths / weaknesses profile

- + entire revenues derived from the development and manufacturing of thin film solar modules
- + detailed information regarding life cycle assessments of products
- + reasonable strategy to reduction energy consumption of production processes
- + comprehensive strategy to promote the recycling of products
- + comprehensive code of conduct covering important aspects of business ethics
- increasing accident rate in recent years

## Reasons for inclusion in the Index

The company's products and services contribute significantly to the expansion of renewable energy sources and the transition towards a more sustainable energy system. In addition to their contribution to mitigating climate change, the company's solar modules are used for the promotion of renewable energy sources in emerging markets.

**Industry: construction materials**

**ISIN: CH0030170408**

**Country: CH**

## Company profile

Geberit Group is the European market leader for sanitary technology applications. The company's range of products comprises six product lines in the two product areas of Sanitary Systems and Piping Systems. All of the company's products are exclusively sold through wholesalers to plumbers and planners. In addition, the company trains plumbers, sanitary engineers and architects in Geberit systems and software tools.

## Strengths / weaknesses profile

- + clear focus on environmental benefits of products via life cycle assessments and eco-design
- + comprehensive product safety management
- + comprehensive measures to maximise energy and material efficiency in products and production processes
- + increasing resource efficiency and decreasing emission intensity in recent years
- + group-wide implementation of safety management systems and downward trend of accident rate

## Reasons for inclusion in the Index

Geberit consistently focuses on water conservation and sustainable water management solutions in product development and modification. All products are systematically examined and optimised in terms of water-saving potential throughout the entire product life cycle in order to reduce water consumption during the utilisation phase.

# Hain Celestial



**Industry: food & beverages**

**ISIN: US4052171000**

**Country: US**

## Company profile

Hain Celestial Group is a US-based specialty foods company. Its product range includes kosher, natural and organic food and beverages, as well as natural and organic body care and cleaning products. Hain owns subsidiaries in Belgium and Germany.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for the recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of organic and natural food products.

Since Potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less developed.

## Reasons for inclusion in the Index

Hain Celestial generates a significant share of its revenues through the production and sale of organic food. It also has implemented comprehensive measures regarding the reduction of packaging materials.



# Hannover Rück SE



Industry: insurance

ISIN: DE0008402215

Country: DE

## Company profile

Hannover Rueck SE (Hannover Re) is a Germany-based global reinsurance company. It operates through two business groups: Property and Casualty reinsurance and Life and Health reinsurance. Property and Casualty reinsurance provides treaty and facultative reinsurance solutions as well as structured reinsurance and Insurance-Linked Securities. Its specialty lines include marine business (including energy), aviation business, credit and surety and political risks as well as the UK, Ireland and London market. Life and Health reinsurance offers financial solutions (clients financing for new business, financial solutions to improve the solvency ratio and/or capital base of the client) as well as Risk solutions (Mortality, Longevity and Morbidity) and reinsurance services.

## Strengths / weaknesses profile

- + reasonable offers to provide insurance coverage for low-income groups
- + consideration of several environmental and social exclusion criteria in the company's own investment portfolio
- + research and product development in crucial areas of social and environmental relevance
- + comprehensive code of conduct covering important aspects of business ethics
- no comprehensive integration of social and environmental aspects into the reinsurance business
- so far no comprehensive consideration of environmental and social best-in-class criteria in the company's investment portfolio

## Reasons for inclusion in the Index

ISS ESG rates Hannover Rück favourably due to its insurance portfolio for low-income groups of the population, the integration of environmental and social formal conditions (defined exclusion criteria) into its equity investments, and research and development in the areas of climate change, resource scarcity and demographic change.

Industry: household & personal products

ISIN: DE0006048432

Country: DE

## Company profile

Henkel KGaA is one of the world's oldest manufacturers of chemical-based branded products. Its activities are divided between three strategic business areas: laundry and home care; beauty and personal care and Adhesives Technologies. The company's brand names include Persil, Dial, Teroson, Pritt, Pattex, Pril, Loctite and Schwarzkopf.

## Strengths / weaknesses profile

- + comprehensive safety assessment of ingredients and products
- + reasonable customer support and protection
- + good strategies to reduce the use of animal testing
- + clear strategy for the sourcing of sustainable palm oil and/or its derivatives
- + comprehensive life cycle assessment of products
- limited disclosure of key materials used in products, including exact amounts

## Reasons for inclusion in the Index

For many years, Henkel has shown a wide-ranging commitment to sustainability, particularly in the area of resource efficiency. This is demonstrated, specifically in the areas of energy and water, through both continuous improvement of production processes and the development of water- and energy-saving detergents and cleaning agents. Furthermore, the company is actively committed to constantly increasing the proportion of regenerative raw materials in its products, e.g. detergents or adhesives, and to promoting the sustainable production of such raw materials.

# Herman Miller



**Industry: furniture & fittings**

**ISIN: US6005441000**

**Country: US**

## Company profile

Herman Miller researches, designs, manufactures and distributes interior furnishings for use in various environments, including office, healthcare, educational and residential settings.

## Strengths / weaknesses profile

- + comprehensive strategy to ensure ergonomic design
- + comprehensive procedures to ensure product safety
- + significant proportion of products certified to industry specific sustainability standard
- + reasonable measures to reduce substances of concern in production processes
- no data on the use of recycled materials in products
- no indication of a group-wide and binding policy on animal welfare with regards to leather and wool

## Reasons for inclusion in the Index

The major impact of the furniture industry on global challenges lies in its consumption of renewable (wood) and non-renewable (metal, plastic) resources. Herman Miller is facing up to this challenge by setting itself the goal of achieving a zero environmental footprint by the year 2020 in all its operations. Measures which it has adopted to this end include the use of “design for the environment” principles and the “cradle-to-cradle” certification of products. Furthermore a significant part of the used wood-based raw materials were FSC-certified. In addition, the company is involved in the area of environmentally-friendly construction.

Industry: IT

ISIN: US4581401001

Country: US

## Company profile

Intel corporation (Intel) is one of the leading semiconductor chip maker companies. The company develops advanced integrated digital technology products, primarily integrated circuits, for industries, such as computing and communications. Intel designs and manufactures computing and communications components, such as microprocessors, chipsets, motherboards, and wireless and wired connectivity products, as well as platforms that incorporate these components. The company's reportable operating segments are PC Client group (PCCG) and Data Centre group (DCG).

## Strengths / weaknesses profile

- + member of the Responsible Business Alliance (formerly Electronic Industry Citizenship Coalition)
- + comprehensive supply chain management with respect to labour rights, working conditions and environment
- + reasonable strategy to facilitate transparency and responsible sourcing in controversial raw material supply chains
- + good strategy to reduce the energy consumption of products and components
- no comprehensive strategy to reduce substances of concern in production
- no demonstrable approach to maximise material efficiency in products and production processes

## Reasons for inclusion in the Index

Intel, the world-leading manufacturer of microprocessors, supports the fight against poverty in several ways. When purchasing raw materials, the manufacturer consciously places its focus on crisis regions, such as the Congo, in order to avoid destabilising the regions even more. The company operates extensive audit systems to minimise the risk of potentially financing violent conflicts. Furthermore Intel demonstrates a strong performance in corruption prevention by comprehensive Compliance actions.

# Interface



**Industry: furniture & fittings**

**ISIN: US4586653044**

**Country: US**

## Company profile

Interface produces modular carpet and applies production technologies to reduce waste and reclaim used carpet, allowing post-consumer material such as nylon to be recycled into new products. Besides used carpet, Interface also recovers and recycles old fishing nets that would otherwise pollute oceans and coastal areas.

## Strengths / weaknesses profile

- + comprehensive strategy to increase the use of environmentally preferable materials
- + reasonable use of environmental assessment tools in product design
- + reasonable monitoring regarding substances of concern in products
- + decreasing greenhouse gas emission, waste, water and energy intensities in production in recent years
- inadequate supply chain management with respect to labour rights and working conditions
- no indication of a comprehensive strategy to eliminate hazardous substances from wastewater streams

## Reasons for inclusion in the Index

The percentage of recycled and bio-based materials in the production of the carpets has increased in recent years and stood at 58% of total raw material use in 2016. Further environmental opportunities arise through products certified to sector-specific sustainability standards which contribute to the creation of sustainable buildings in general.

# Kingfisher



**Industry: retail**

**ISIN: GB0033195214**

**Country: UK**

## Company profile

Kingfisher is an international home improvement retailer offering home improvement products through a network of retail sites, located mainly in the United Kingdom, Europe and Asia. The company principally operates through its main retail brands B&Q, Castorama, Brico Depot, Screwfix and Koçtaş.

## Strengths / weaknesses profile

- + comprehensive measures to promote products that provide an added value regarding ecological or social aspects
- + comprehensive policy and measures to ensure the sustainable sourcing of wood
- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- + increase in resource efficiency in recent years, e.g. regarding energy consumption per sales area
- no evidence of comprehensive policies and measures to minimise the environmental impact of the textiles supply chain (e.g. regarding water consumption, use of hazardous substances)
- inadequate policies and measures regarding the take-back and management of recycling impacts of electronic devices and appliances

## Reasons for inclusion in the Index

In recent years, DIY stores have been widely criticised for selling timber from unknown sources. Where the origins of timber are unclear, there is a risk that it has been logged illegally. In many countries, this practice threatens forest stocks and thus also biodiversity. Kingfisher has set itself the goal that by 2020 it will be obtaining 100 per cent of its timber from recycled materials or from forests certified according to sustainability criteria. In 2016/17, this was already the case for 96% of all timber sold by Kingfisher. Of this, 54% came from FSC (Forest Stewardship Council) certified forests (compared to 49% in 2015/16).

# Konica Minolta



**Industry: electronic devices & appliances**

**ISIN: JP330060008**

**Country: JP**

## Company profile

Konica Minolta Holdings is a Japan-based holding company. The company operates four business segments through its subsidiaries and associated companies. The information equipment segment manufactures and sells multifunction printers (MFPs), printers and related materials. This segment also provides solution services. The optics segment manufactures and sells optical devices and electronic materials. The healthcare segment manufactures and sells health care equipment and materials. The other segment is engaged in the measurement equipment and industrial inject related businesses.

## Strengths / weaknesses profile

- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- + good strategy to increase material efficiency of products
- + 100% of products compliant with the requirements of the European RoHS Directive
- + high standards regarding air emissions of printers and copying machines
- only limited information on service options to extend the useful life of products
- no information on measures taken to reduce the digital divide or to enhance the technology transfer

## Reasons for inclusion in the Index

Konica Minolta sets clear goals regarding the improvement of its product related energy efficiency. Almost all printer and copy systems meet the current criteria of the „Energy Star“, the highest energy efficiency award in the US. Furthermore, the company has implemented extensive measures to reduce their product emissions. Konica Minolta’s comprehensive climate protection strategy also takes into consideration the emissions of suppliers.

# Kurita Water Industries



Industry: water treatment

ISIN: JP327000007

Country: JP

## Company profile

Kurita Water Industries' principal activities are the manufacture of water treatment equipment. The Japanese Group operates in the following two business segments: Water Treatment Chemicals Division and Water Treatment Facilities Division.

## Strengths / weaknesses profile

- + high portion of environmentally beneficial products and services
- + group-wide implementation of safety management systems
- + reasonable code of conduct covering important aspects of business ethics
- + some measures related to product and customer responsibility
- + environmental management system implemented for Japanese operations
- public disclosure on social and environmental issues almost exclusively for Japanese operations

## Reasons for inclusion in the Index

Kurita is one of the world's largest suppliers of products and services in the field of water treatment. The company has implemented a group-wide environmental management system.



# Lenzing



**Industry: textiles & apparel**

**ISIN: AT0000644505**

**Country: AT**

## Company profile

The Austrian textiles company, Lenzing, manufactures predominantly wood-based cellulose fibres which have a better net impact on the environment than conventional cotton or chemical fibres. This was the conclusion of the life-cycle analysis of the University of Utrecht which compared Lenzing's fibres (Viscose, Modal, TENCEL) with cotton, polyester and polypropylene fibres. The positive findings for the Lenzing fibre TENCEL is also confirmed by an environmental benchmark for fibres of the European not-for-profit organisation, Made-By, which takes the following parameters into account: greenhouse gas (GHG) emissions, toxicity, and energy, water and land usage. TENCEL scored just as well as organic cotton and recycled polyester.

## Strengths / weaknesses profile

- + good policy and measures to manage sustainable sourcing of wood/fibre
- + comprehensive strategy to increase the use of environmentally preferable materials as a supplier for the textile industry
- + wide-ranging certifications and management systems to ensure product safety
- + chlorine-free bleaching at its pulp mills
- no evidence of greenhouse gas emission reduction targets
- no clear and comprehensive approach to assess and manage water use and water-related risks

## Reasons for inclusion in the Index

Lenzing AG manufactures textile fibers and pulp raw materials. The fibers are primarily used by the clothing industry and to manufacture non-woven fabrics, technical textiles, furniture textiles, curtains, and towels. The Company also produces chemicals, paper, films, plastics, and synthetic fibers and provides production plant engineering and related manufacturing machinery.

**Industry: renewable energies**

**ISIN: DE000A0D6554**

**Country: DE**

## Company profile

Nordex AG develops and produces wind power plants, predominantly in the megawatt class. Its services include the development and engineering of large wind power plants as well as the production of control systems, electrical equipment and rotor blades for wind power plants. As a service provider, Nordex also offers the planning and installation of wind park systems.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of renewable energies. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

Nordex is one of the largest suppliers of wind energy in Germany, the country which currently has the world's largest installed capacity in the area of wind power.

# Ormat Technologies



**Industry: renewable energies**

**ISIN: US6866881021**

**Country: US**

## Company profile

The US company Ormat Technologies is principally active in the geothermal field. The company develops, owns and operates geothermal power plants and waste heat power plants. The company is the largest producer of geoenergy in the US and is also active in other countries including Israel, Kenya and Nicaragua.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of renewable energies. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

Ormat is heavily involved in the geothermal field and is the world leader in this type of technology. The company has introduced a certified environmental management system at all its sites.

Industry: Utilities/Electric Utilities

ISIN: DK0060094928

Country: DK

## Company profile

Ørsted's main lines of business include the generation and distribution of electricity and heat. However, the company is in the process of divesting its power distribution segment (transaction expected to be completed in the first half of 2020). In 2019, Ørsted generated the largest energy share from renewable sources (wind power 55%, biomass 31%). The remainder was derived from natural gas (5%) and coal (9%). The share of renewables in energy generation has exhibited a marked increase in recent years and is expected to reach 99% by 2025.

## Strengths / weaknesses profile

- + clear strategy shift towards a more sustainable product portfolio
- + progressive climate strategy that includes ambitious greenhouse gas emission reduction targets
- + adequate measures taken to mitigate environmental impacts of power plants
- + very high average efficiency of thermal power plants
- + clear strategy to integrate renewable energy sources into the grid, e.g. through the roll-out of smart meters
- only limited efforts demonstrated to inform residents about safety risks related to power plants and electricity networks

## Reasons for inclusion in the Index

Given the company's current low carbon intensity of energy generation and its clear transformation strategy towards a pure renewable energy company, Ørsted makes a significant contribution to the fight against climate change and the transition towards a more sustainable energy system.

**Industry: media**

**ISIN: GB0006776081**

**Country: GB**

## Company profile

The company offers educational content such as courseware and virtual classes (48% of revenues in 2016), assessment services to measure learner progress (30%), and further services for educational institutions, governments and individual learners (22%). Its product range targets different educational stages, from primary and secondary school to higher and professional education.

## Strengths / weaknesses profile

- + high share of revenues generated with the provision of educational products and services
- + reasonable policy and measures regarding sustainable paper sourcing
- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- + group-wide implementation of health and safety management systems including reasonable measures to prevent and alleviate mental health problems
- major staff redundancies in recent years without demonstrating adequate social plans to reduce economic hardship for affected employees
- only basic standards on responsible marketing

## Reasons for inclusion in the Index

GCX criteria: Combating poverty (with education). Pearson's products and services have the potential to contribute to the achievement of the global sustainability objective of delivering education for all. The company has taken some steps to make its products more affordable and accessible for disadvantaged groups worldwide, but could still further increase its positive contribution by developing a more comprehensive strategy.

# Pennon Group



**Industry: utilities**

**ISIN: GB00B18V8630**

**Country: GB**

## Company profile

Pennon Group is engaged in water and wastewater treatment as well as waste disposal. Furthermore, the company produces electricity on the basis of renewable energies, landfill gas and waste incineration.

## Strengths / weaknesses profile

- + comprehensive programmes to support socially disadvantaged customers and customers with payment problems
- + various incentives offered to customers to encourage water conservation and waste reduction
- + adequate management framework to ensure sustainable water withdrawal
- + group-wide implementation of health and safety standards and management systems
- no evidence on the company's approach to ensure the quality of treated waste water
- repeatedly fined for water pollution in recent years

## Reasons for inclusion in the Index

The company has taken reasonable measures to ensure sustainable water withdrawal and has implemented adequate programmes to support socially disadvantaged customers and customers with payment problems. Furthermore, the company has implemented a comprehensive strategy to promote recycling of waste components.

**Industry: automobile**

**ISIN: FR0000131906**

**Country: FR**

## Company profile

Renault develops and builds cars and pick-ups under the brand names Renault, Renault Samsung Motors (South Korea) and Dacia (Rumania). The company also holds shares in AB Volvo and Nissan.

## Strengths / weaknesses profile

- + good measures to ensure compliance of key suppliers with environmental and social standards
- + clear commitment to optimise the energy efficiency of products
- + reasonable low fleet fuel consumption
- + implementation of life cycle assessments
- no evidence for a leading management of electronic security issues
- no detailed information on the issue of data protection

## Reasons for inclusion in the Index

With 109.5g CO<sub>2</sub>/km in 2016, Renault has one of the lowest fleet emissions in the EU. Thus, the company reduces risks resulting from regulatory emission limits. At the same time, Renault contributes to the reduction of traffic-related CO<sub>2</sub>-emissions.

# REC Silicon



**Industry: renewable energies**

**ISIN: NO0010112675**

**Country: NO**

## Company profile

REC Silicon is a US-based producer of advanced silicon materials, delivering high-purity polysilicon and silane gas to the solar and electronics industries. REC Silicon produces solar grade polysilicon and electronic grade polysilicon and silicon gas. These products are raw materials for the international solar and electronic industries for end-products such as solar panels, smart devices, flat panel displays, laptops, and even hybrid electric vehicles.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of renewable energy. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

REC Silicon is one of the world's largest producers of polysilicon for the photovoltaic industry.



Industry: IT

ISIN: JP3973400009

Country: JP

## Company profile

Ricoh Company (Ricoh) together with its consolidated subsidiaries (Ricoh Group) is a worldwide supplier and manufacturer of office automation equipment. The group's products include copiers, multifunctional and other printers, fax machines, personal computers, optical disc drives and media, and related supplies and services, as well as digital cameras and advanced electronic devices.

## Strengths / weaknesses profile

- + almost all products fulfil the Energy Star requirements
- + detailed design guidelines on longevity, recyclability and repairability
- + majority of copying machines and printers meet strict emission standards
- + increasing amount of e-waste collected for recycling and reuse in recent years
- inadequate supply chain management with respect to environmental issues
- no information on measures to support recycling systems in developing countries

## Reasons for inclusion in the Index

Ricoh, the Japanese manufacturer of office automation equipment, shows great commitment regarding the improvement of its device-related energy efficiency. The company has clear quantitative goals and reports on its progress on a regular basis. Almost all products fulfil the "Energy Star" requirements and a majority of copying machines and printers meet strict emissions standards, such as the "Blauer Engel" standard. Furthermore the manufacturer pursues a comprehensive climate protection strategy, which also covers the emissions of suppliers.

# Rockwool International



**Industry: construction materials**

**ISIN: DK0010219153**

**Country: DK**

## Company profile

Rockwool International is engaged in the manufacture and marketing of stone wool insulation to buildings and to power plants, petrochemical industries and other process industries. The company's operations are divided into two business segments: Insulation and Systems. The Insulation segment provides energy-saving and fire safe insulation, primarily for the buildings and for the industrial, marine and offshore sector. The Systems segment provides products such as acoustic ceilings solutions, decorative board material made of basalt rock, root zone management solutions, vibration insulation and noise control solutions and engineered fibres, as well as strategic consultancy focused on improving energy efficiency and sustainability in buildings and their environment.

## Strengths / weaknesses profile

- + clear focus on social and environmental benefits of products via life cycle assessments and diverse fields of application
- + comprehensive measures to maximise material efficiency and to facilitate take-back and recycling of products
- + clear greenhouse gas emissions reduction targets based on measures to increase energy efficiency
- + comprehensive strategy to assess and manage water use and water-related risks
- no indication of measures to increase transport efficiency
- insufficient measures to check compliance with the supplier standard regarding an environmental management system

## Reasons for inclusion in the Index

With its main product, the insulant stone wool which accounts for around 75 percent of its sales, Danish insulant maker, Rockwool International, makes an important contribution to the energy efficiency of buildings. The energetic optimisation of buildings is regarded as one of the most significant and cost-efficient levers for combating climate change. The company also pays attention to energy efficiency in its production processes and the proximity of its production facilities to the raw material deposits. Moreover, 25 percent of the raw materials it uses are recycled materials.

# Shimano



**Industry: sustainable transportation**

**ISIN: JP335800002**

**Country: JP**

## Company profile

The Japanese company Shimano was founded in 1921. Today it is one of the world's leading producers of cycle components (including brakes and gears). For some products in this segment, its global market share stands at over 80%. In addition, the company produces, among other things, angling accessories, golf equipment and snowboards, which together generate around 20% of its turnover.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of transport. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

Compared with motorized vehicles, bicycles are a significantly more environmentally sustainable means of transportation. Shimano is the world's leading supplier in this sector, from which it earns the bulk of its turnover.

# Siemens Gamesa Ren. Energy



**Industry: renewable Energy & EEE**

**ISIN: ES0143416115**

**Country: ES**

## Company profile

Siemens Gamesa Renewable Energy is exclusively involved in the development, manufacturing and servicing of wind turbines for both onshore and offshore power generation.

## Strengths / weaknesses profile

- + entire revenues derived from the manufacturing, installation, and servicing of wind power plants
- + implementation of a certified environmental management system at all major sites with significant environmental impact
- + broad implementation of a certified management system for occupational health and safety
- + detailed information regarding life cycle assessments of products
- + detailed sustainability reporting following GRI guidelines
- no details on enhancing the energy efficiency of products

## Reasons for inclusion in the Index

GCX criteria: Climate change. The company contributes significantly to the expansion of renewable energy sources and the transition towards a more sustainable energy system. Besides its role in fighting climate change, the company also promotes the access to renewable energy sources in developing countries.

**Industry: Electrical Equipment**

**ISIN: NL0011821392**

**Country: NL**

## Company profile

Signify N.V. (former “Philips Lighting”) offers lighting solutions for professional use (indoor and outdoor lights, lamps and lighting controls) and private use (fittings and light bulbs).

## Strengths / weaknesses profile

- + comprehensive measures to protect employees working with hazardous substances
- + clear commitment regarding due diligence and transparency on the use of conflict minerals
- + various substances of concern not covered by European RoHS legislation are banned
- + large share of products with environmental benefits
- + comprehensive policies and measures regarding basic labour rights such as freedom of association and non-discrimination for own staff and suppliers
- limited information on treatment and disposal of wastewater and hazardous air emissions

## Reasons for inclusion in the Index

The products contribute to overcome global challenges. Much of the overall revenue comes from LED-based products, which significantly outperform conventional lamp types in terms of efficiency, lower toxic potential, and lower global energy use and pollution. Energy efficient lighting helps tackle climate change, enabling new ways of food production and giving even remote communities access to light.

**Industry: machinery**

**ISIN: SE0000108227**

**Country: SE**

## Company profile

The SKF Group is a world-leading global supplier of products and services in the area of rolling bearings, seals, mechatronics and lubrication systems. The company has branches, factories and technology centres in over 130 countries.

## Strengths / weaknesses profile

- + various measures to reduce energy consumption of products
- + reasonable strategy to reduce material and raw material use per production unit
- + comprehensive measures and policies regarding product safety
- + group-wide implementation of health and safety as well as environmental management systems
- insufficient measures to increase transport efficiency
- very severe controversy in the area of antitrust in recent years

## Reasons for inclusion in the Index

As one of the world's largest producers of roller bearings, the company makes an important contribution to increasing energy efficiency and to cutting fuel and energy consumption in almost all sectors of industry through its many measures to optimize roller bearings. In addition, the company has significantly cut its own CO2 emissions in recent years.

Industry: oil & gas

ISIN: IT0003153415

Country: IT

## Company profile

Snam SpA is an integrated natural gas transportation and distribution company based in Italy.

## Strengths / weaknesses profile

- + reasonable measures taken to ensure pipeline integrity and safety management
- + comprehensive anti-corruption guidelines and procedures
- + appropriate measures implemented to enhance community awareness and outreach
- + decreasing emission and energy intensities in recent years
- involvement in pipeline project (Trans Adriatic Pipeline) criticised for involuntary resettlement and inadequate compensation
- increasing energy intensity of natural gas transportation operations

## Reasons for inclusion in the Index

Snam has a group-wide climate strategy in place. Further, the company has taken reasonable measures to ensure pipeline integrity and safety management. In the social domain, the company demonstrates a strong performance in key areas such as corruption prevention and community awareness and outreach.

# Sonova Holding AG



**Industry:** health care equipment & supplies

**ISIN:** CH0012549785

**Country:** CH

## Company profile

Sonova Holding is a Switzerland-based company that specialises in hearing systems and hearing implants. Its hearing instruments segment includes the companies that manufacture and sell hearing instruments and related products such as wireless communication systems. The hearing implants segment offers hearing implants and related products through Advanced Bionics, Unitron, Phonak and Adionova.

## Strengths / weaknesses profile

- + systematic approach to ensure product safety and usability
- + binding supplier standards with respect to labour rights, safety and environment
- + measures to incorporate product life cycle assessments in the development of new products
- + initiatives to enhance access to hearing aids in underserved countries
- no comprehensive strategy to avoid conflict minerals
- no group-wide detailed policy on responsible marketing and interactions with healthcare professionals

## Reasons for inclusion in the Index

Sonova's products make a decisive contribution towards improving and maintaining the living quality of people suffering from hearing loss. Sonova is also actively involved in helping people in need gain access to hearing aids in developing countries, e.g. through specialist staff training programmes, setting up hearing centres, and product donations.



# Steelcase



**Industry: Furniture & Fittings**

**ISIN: US8581552036**

**Country: US**

## Company profile

Steelcase manufactures office furniture and custom-made office solutions. It also offers consultancy services with regards to workspaces. Environmental opportunities arise primarily from the use of certified wood in the production of e.g. tables or storage solutions and from sustainability certificates of products.

## Strengths / weaknesses profile

- + comprehensive procedures to ensure product safety
- + comprehensive strategy to ensure ergonomic design
- + reasonable measures to reduce substances of concern in production processes
- + significant proportion of products certified to industry-specific sustainability standards
- no indication of a group-wide and binding policy on animal welfare with regards to leather and wool
- only general information on the use of wood sourced from certified sustainable forestry

## Reasons for inclusion in the Index

The company offers both products using wood certified to the FSC sustainable forestry label as well as products certified against sustainability labels common in the furniture industry such as cradle-to-cradle. Cradle-to-cradle is a certification scheme that considers the environmental impact along a product's entire lifecycle with a focus on end-of-use strategies. Based on figures from past years, it can be assumed that the majority of products by revenues is certified against sustainability standards.

# STMicroelectronics



Industry: IT

ISIN: NL0000226223

Country: NL

## Company profile

STMicroelectronics produces and supplies a large range of integrated semiconductor circuits and discrete semiconductor components. The company's products are used in the fields of computing, telecommunications, consumer goods and industry as well as in the automotive sector.

## Strengths / weaknesses profile

- + reasonable strategy to facilitate transparency and responsible sourcing in controversial raw material supply chains
- + company-wide restriction of hazardous substances beyond European RoHS regulations
- + sound strategy to reduce the energy consumption of products and components
- + reasonable approach to assess and manage water use and water-related risks
- increasing energy, greenhouse gas emission, water and hazardous waste intensity in recent years
- major staff redundancies in recent years without comprehensive social plans to reduce economic hardship for affected employees

## Reasons for inclusion in the Index

The multinational semiconductor company STMicroelectronics combats poverty by remunerating the staff with an amount higher than the minimum wage. STMicroelectronics has comprehensive controlling systems which enable the purchase of raw materials without financing conflicting parties, especially in the Congo. Furthermore, the company is member of the Responsible Minerals Initiative.

**Industry: renewable energies**

**ISIN: US8676521094**

**Country: US**

## Company profile

SunPower Corporation, with its head office in San Jose, California, develops, produces and distributes solar cells and solar modules which can be used in rooftop systems, power plants or off-grid applications. The company also manufactures optical devices for use in communications and medical technology.

## Strengths / weaknesses profile

The rating system by ISS ESG classifies this company as a Potential. A prerequisite for recognition as a Potential is that a significant proportion of turnover be earned from sustainable products and services, in this case in the area of renewable energies. Since potentials are generally small and medium-sized companies, their management structures for social and environmental issues are often less well developed.

## Reasons for inclusion in the Index

SunPower earns the bulk of its turnover from products and services in the area of solar technology. The company offers particularly efficient silicon-based solar cells, which have an outstandingly high degree of efficiency compared with the industry average.

**Industry:** insurance

**ISIN:** CH0126881561

**Country:** CH

## Company profile

Swiss Re is a wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer. Its global client base consists of insurance companies, mid-to-large-sized corporations and public sector clients. It has three operating business segments: Reinsurance, Corporate Solutions and Admin Re.

## Strengths / weaknesses profile

- + reasonable integration of environmental and social aspects into the company's investment portfolio
- + reasonable range of insurance programmes/initiatives for low-income groups
- + reasonable integration of environmental and social aspects into the property and casualty insurance business
- + research and product development in areas of social and/or environmental relevance
- no policy on responsible marketing and transparent contracts
- no substantial measures taken to ensure and monitor responsible sales practices

## Reasons for inclusion in the Index

Swiss Re has a reasonable range of insurance programmes/initiatives for low-income groups and regions especially regarding climate change risks, and has developed a framework for applying human rights, labour rights and environmental criteria to its (re)insurance business and own investments. Moreover, the company engages in research and product development regarding climate change, demographic change and food security in emerging countries.

Industry: furniture & fittings

ISIN: FR0004188670

Country: FR

## Company profile

Tarkett S.A., a flooring company, provides flooring and sports surface solutions to business and residential end- users worldwide.

## Strengths / weaknesses profile

- + coherent strategy to improve material efficiency of products and in production
- + comprehensive procedures to ensure product safety
- + reasonable targets and measures to reduce substances of concern in production processes
- + significant proportion of products certified to industry specific sustainability standard
- inadequate supply chain management with respect to labour rights and working conditions
- no indication of a group-wide and binding policy on animal welfare with regards to wool

## Reasons for inclusion in the Index

Tarkett contributes to overcoming global sustainability challenges. Certified products ensure sustainability standards in the value chain, certify buildings to sustainability standards, and support the achievement of global sustainability goals such as the Sustainable Development Goals.

# Union Pacific



**Industry: transport & logistics**

**ISIN: US9078181081**

**Country: US**

## Company profile

Union Pacific is one of America's leading transportation companies. Its principal operating company, Union Pacific Railroad, is the largest railroad in North America. It offers transportation services for agricultural products, lumber, paper, coal.

## Strengths / weaknesses profile

- + mainly active in environmentally sound rail transport
- + reasonable measures to reduce fuel/energy consumption
- + adequate guidelines/measures to ensure safe handling and transport of hazardous goods
- + comprehensive initiatives regarding intermodal transport
- no evident measures to reduce noise emissions from rail transport
- only few measures to prevent and mitigate adverse impacts of rail infrastructure on biodiversity

## Reasons for inclusion in the Index

The company operates rail-based freight transport services in North America and thereby makes a contribution to reducing CO<sub>2</sub> emissions caused by freight traffic.

Industry: IT

ISIN: US9841211033

Country: US

## Company profile

Xerox is a technology and services enterprise. The company develops, manufactures, markets, services and finances a range of document equipment, software, solutions and services. Xerox markets and supports document management systems, supplies and services through a variety of distribution channels worldwide. The company's products include high-end printing and publishing systems, digital multifunctional devices (MFDs), digital copiers, laser and solid ink printers, fax machines, document-management software and supplies.

## Strengths / weaknesses profile

- + group-wide implementation of a strategy for addressing climate change and related sector-specific risks
- + 100% of products compliant with European RoHS Directive
- + all new products fulfil the latest Energy Star requirements
- + comprehensive measures to reduce hazardous substances in production processes
- no measures to enable key suppliers to safeguard labour rights and working conditions
- only very limited information on procedures to check compliance with environmental supplier standards

## Reasons for inclusion in the Index

All recent products of the US printer and copying machine manufacturer Xerox fulfil the current requirements of "Energy Star". Furthermore, the company has a comprehensive climate protection strategy, which comprises clear goals and an action plan. Besides, Xerox has implemented extensive measures to reduce the use of hazardous substances including climate-damaging emissions.

# Disclaimer



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