



THE DWS ESG ENGINE

Bespoke solutions for responsible investors



Introducing the
DWS ESG Engine:

**A powerful tool
for responsible
investing**

Investment is increasingly a matter of principle as well as profit. The recognition that humanity's long-term survival depends on a collective determination to work for the greater good is reshaping both the corporate sphere and the thinking of those who invest in it.

Reflecting a growing desire for success and sustainability to go hand-in-hand, we created the DWS ESG Engine.



The value of a 360° view

Many terms are used to describe responsible investment. They include “sustainable investing”, “socially responsible investing” and “ethical investing”. We use “ESG” – derived from “environmental”, “social” and “governance” – and apply it across all of these terms.

As a general rule, two basic motivations compel investors to consider ESG issues in determining the sectors, companies and projects in which they choose to invest. The first revolves around strictly ethical concerns. The second revolves around risk management. Our ESG Engine accommodates both.

An approach that takes into account multiple facets and multiple factors is essential to satisfying investors' individual requirements. It is also crucial to a strategy that seeks to make the most of investment opportunities. In developing the ESG Engine, we underpinned this philosophy by partnering with a range of leading external data providers offering a unique wealth of highly specialised experience.

Seeking maximum benefit from data

The providers whose data currently informs the ESG Engine's outputs include MSCI, Sustainalytics, ISS-oekom, ISS-Ethix, RepRisk, Trucost and SigWatch. The first three offer wide coverage of all ESG facets; the remainder specialise in more specific areas. In the interests of additional robustness, the key performance indicators with which they supply us are cross-checked against our own screening procedures and those of global pension funds and other financial institutions. In addition, data from non-governmental organisations (NGOs) can be taken into account when using the ESG Engine to assess potential investments in the non-corporate sphere.

The ability to process, integrate, combine and analyse multiple data sources is one of the ESG Engine's key strengths and differentiators. It allows us to derive maximum benefit from data covering more than 10,000 issuers. It gives us a highly exacting means of sifting the good from the bad. It provides a genuinely all-round view, greatly enhances dependability and substantially improves the likelihood of arriving at a bespoke solution tailored to an investor's unique needs.

This is because a variety of inputs paints a much richer and more reliable picture. It requires investment decisions to survive some form of rational discourse from the start and ensures that they are based on a 360° outlook. We can be confident that a would-be ESG investment deserves serious consideration if different providers with different data and different methodologies reach similar conclusions.

From exclusion to inclusion

The ESG Engine allows automated and bespoke screening for issues that clients might consider controversial or which bear ESG-related risks and/or opportunities. Screening can cover concerns such as sector involvement and norms compliance. Selections can also be informed by the analysis of ESG best-in-class ratings, climate impact issues and other factors. These techniques can be applied to corporates and sovereigns.

This process underlines our belief that the selection of ESG investments is best achieved by scrutinising positives as well as negatives. In other words, we aim to move from exclusion – based on involvement in controversial sectors, unacceptable business conduct and so on – to inclusion. We look for positives such as alignment with the UN's Sustainable Development Goals, green bonds, carbon footprint reduction and "impact investments" – investments that produce a measurable social or environmental impact alongside a financial return.

» ESG data is the cornerstone of our ESG analysis. Our research analysts incorporate material information from the ESG Engine in their assessment to evaluate the economic impact on their sector and companies. «

Petra Pflaum

CIO for Responsible Investments

We feel this truly holistic view allows us to make fully formed decisions and reflects the preferences of a growing number of responsible investors. With this in mind, we ensure that the data and ratings from the ESG Engine are available to all of DWS's investment professionals – that is, portfolio managers and research analysts – within traditional asset management (Active and Passive).



Screening: the route to responsibility

Responsible investing demands rigour. Genuinely bespoke, cutting-edge solutions are likely to emerge only as a result of an exhaustive and sophisticated process. The ESG Engine uses a multi-tiered screening approach to identify ESG investments that can satisfy any client's specific preferences and requirements.

Corporate negative/exclusionary screening

As it is usually easier to agree on what might constitute a problem versus what constitutes excellence, negative/exclusionary screening is a popular strategy for responsible investing. By identifying and excluding companies excessively associated with sectors that do not meet a particular investor’s criteria, this method serves as a useful first step within the ESG Engine.

Broadly speaking, exclusions are made in line with the two motivations outlined earlier. In the case of the first, which revolves around strictly ethical concerns, an investor might deem a sector controversial – for example, because his or her faith does not permit involvement with the manufacture of weapons. In the case of the second, which revolves around risk management, an investor might believe a sector carries an unattractive degree of ESG risk – for example, because he or she fears a fossil-fuel provider may be left with stranded assets.

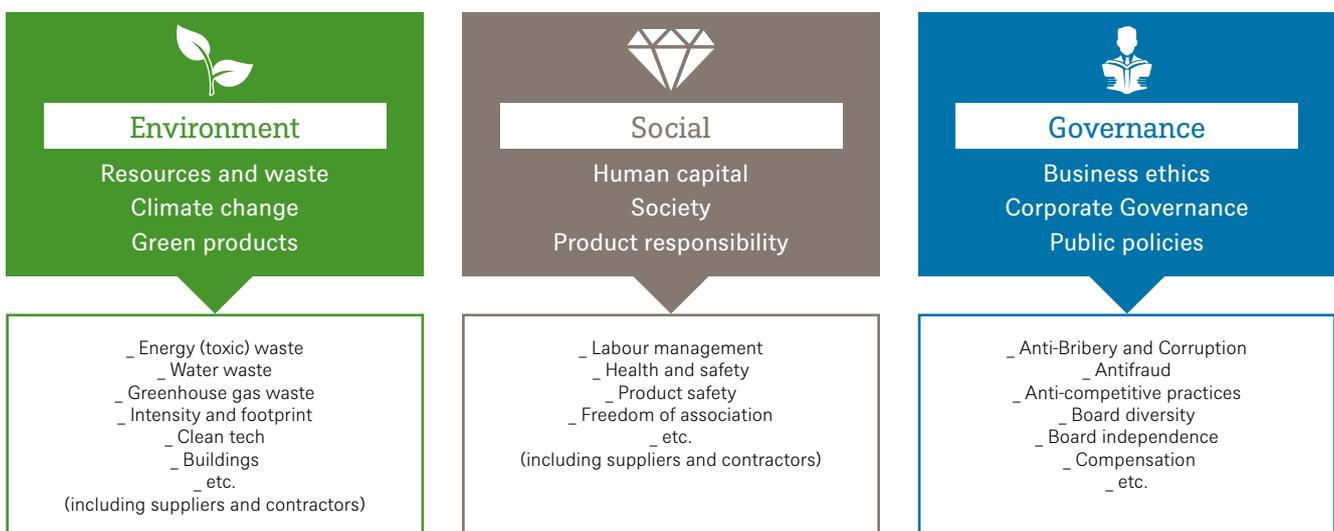
There are numerous sectors that are notably likely to fall into one of the above categories. Gambling, tobacco, alcohol, pornography, coal and armaments – especially with regard to the manufacture of anti-personnel mines, cluster munitions and nuclear weapons – are among the most obvious. A vital question is the extent to which an individual company might profit from these, and it is on this basis that the ESG Engine usually determines exclusions.

In most instances sector involvement is denoted by a rating, ranging from A to F, based on revenue share. A company obviously deriving zero revenue from a controversial or risky sector would earn a rating of A. Ratings of E and F, reflecting revenue shares of 10%–25% and >25% respectively, are liable to result in exclusions; a rating of D, representing a revenue share of 5%–10%, might also fail to pass muster. On the whole, ratings of A and B might be classified as “clear”; ratings of C and D might be classified as “caution”; and ratings of E and F might be classified as “red-flag”.

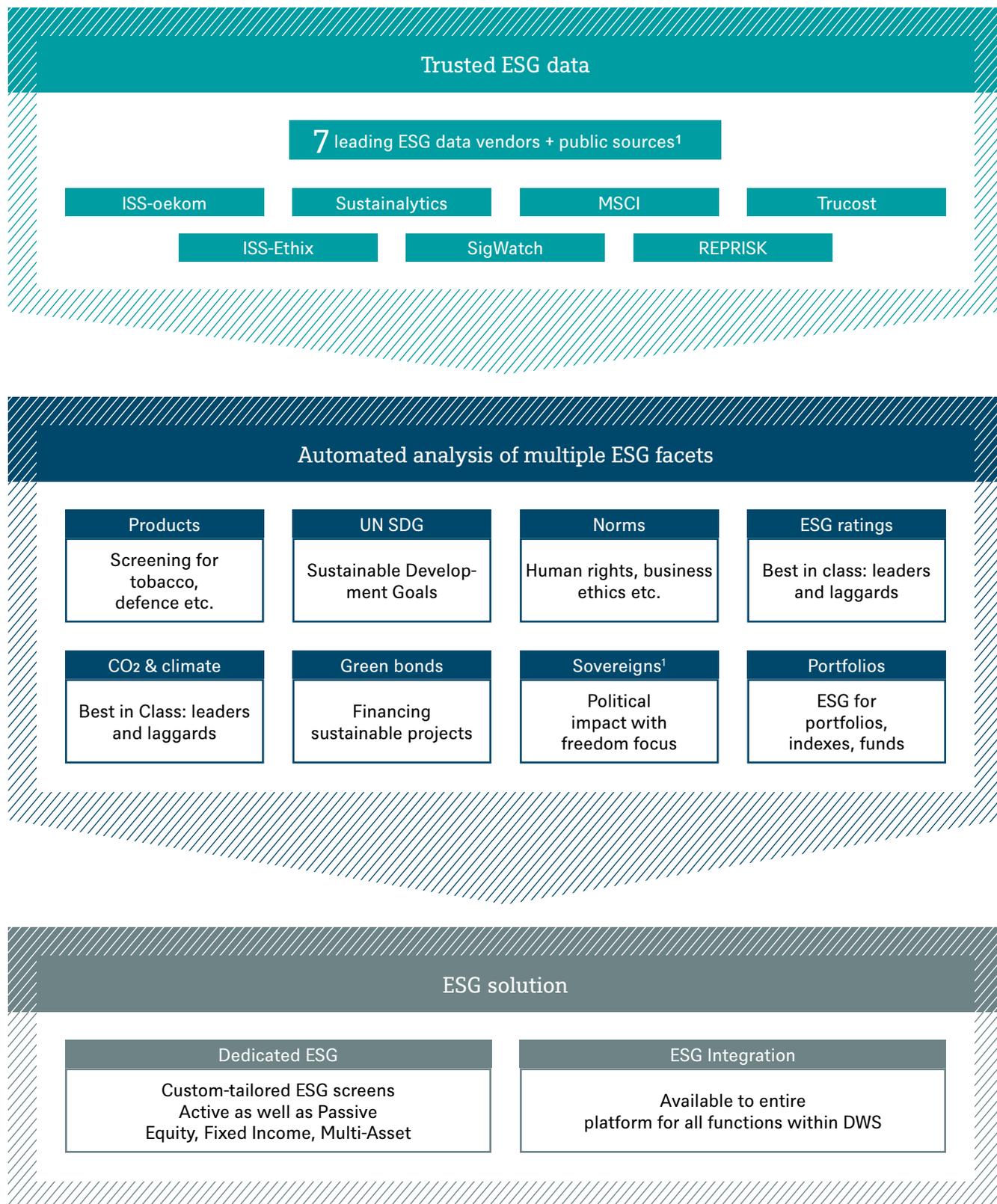
An exception to this approach is made in relation to controversial weapons. Here ratings are ascribed wholly on the basis of sector involvement rather than revenue share. A company that owns or is owned by a firm involved in the manufacture of such weapons would receive a rating of D; a company that supplies components for such weapons would receive a rating of E; and a company that produces such weapons itself would receive a rating of F.

Although it is more widely used than any other strategy for responsible investing, it is right to say that negative/exclusionary screening may prove insufficiently rigorous in some circumstances if employed in isolation. This is why, as mentioned earlier, we regard it only as a first step.

The facets of E, S and G



How we build ESG solutions with our DWS ESG engine



¹The DWS ESG sovereign rating is derived from data that includes the Freedom House 2018 freedom scores, available at freedomhouse.org

Corporate norms-based screening

Assessing sector involvement is comparatively straightforward. Investigating potentially questionable business conduct – sometimes known simply as “controversies” – by using norms-based screening can be rather more challenging.

One reason why this is so is the disparity in the number of issues identified by different providers of ESG data. Several of the specialists whose inputs are used by the ESG Engine carry out norm compliance checks, but it is by no means inevitable that they will come to identical conclusions. This once again underlines the benefits of a multi-provider model: rather than relying on a single signal, we are able to seek confirmation and even reconfirmation of failures to meet international norms.

These norms are in the main guided by principles detailed in the United Nations Global Compact, an initiative that encourages businesses worldwide to adopt sustainable and socially responsible practices and to report on their implementation. Other important norms have been established by the likes of the International Labour Organisation, a UN special agency that promotes social justice and labour rights.

Drawing on the above, norm compliance checks focus on concerns such as human rights abuses, child/forced labour, health and safety, environmental impact and issues around business ethics. The latter might include bribery, market manipulation, fraud and corruption.

The ESG Engine accounts for any violation reported by at least two different data providers. As with the sector tests discussed earlier, a grade from A to F is awarded to each would-be investment and carries the same implications.

This manner of screening is also in keeping with the two motivations described previously. In the case of the first, revolving around strictly ethical concerns, an investor might deem a stock controversial – for example, because he or she does not wish to profit from a company that exploits its workers. In the case of the second, revolving around risk management, an investor might be wary of some kind of ESG risk – for example, because the threat of market manipulation could negatively affect a company through penalties and/or legal fees.

Corporate positive/best-in-class screening

There is no doubt that sector and norms tests are extremely useful. They represent important steps in the process of selecting ESG investments. Yet it might be argued that they are purely “single issue” in nature, that they are intended to produce only a negative outcome – that is, an exclusion – and that other considerations should be taken into account if a genuinely holistic view is to be developed.

Negative/exclusionary screening serves as a useful first step within the ESG Engine.

We believe such arguments are justified. Remember that the process of responsible investing should be as multi-faceted as possible – and that means it should involve a search for positives as well as negatives. This is why the ESG Engine also uses a best-in-class approach alongside the strategies already discussed.

Here the first goal is to assess companies on a wide array of factors. There may be hundreds of these. Such “indicators”, as they are also known in this context, are broadly grouped into environmental, social and governance considerations and cover everything from waste policies to human capital, from board diversity to freedom of association, from clean-tech commitment to carbon footprint.

Again drawing on the expertise of multiple ESG data providers and the 360° perspective that such an array of inputs is able to deliver, the ESG Engine produces aggregate rankings and derives from these our proprietary SynRatings.

The principal objective of SynRatings – whose name comes from the Old Greek word **συν**, meaning “together” – is to reveal the true ESG leaders and the true ESG laggards by peer group, as identified by the combined and continuous assessments of a number of leaders in the field of ESG evaluation. This underlines our conviction that choosing ESG investments is more than a single-issue proposition and should focus on positives as well as negatives.

SynRatings are based on SynScores, which range from zero (worst in peer group) to 100 (best in peer group). These scores are used to award grades, again spanning A to F,

with A encompassing the top octile and F the bottom octile. The true ESG leaders have a SynRating of A, while the true ESG laggards have a SynRating of F.

Portfolio construction can thus be shaped in different ways. In line with a “best-in-class” philosophy, an investor might wish to focus exclusively on those investments with SynRatings of A and B; alternatively, an investor might prefer to avoid investments with SynRatings of E and F. Companies that earn one of the bottom two ratings are generally not included under any circumstances.

A unified letter-grading/rating scheme

	Involvement in controversial sectors	Involvement in controversial weapons	Norm compliance issues / controversies	DWS ESG Ratings “SynRatings”	DWS SDG Ratings
	Revenues from controversial sector ¹	Nuclear weapons, cluster munitions, anti-personal mines, etc.	Reconfirmed UN global compact ⁵ issues	Cross-vendor consensus assessment in peer group	Contributing to the UN Sustainable Development Goals
A	non-involvement	Confirmed non-involvement	Confirmed no issues	True leader in ESG (≥ 87.5 SynPoints)	True SDG leader (≥ 87.5 SDG Points)
B	Minor involvement	Alleged	Minor severity	ESG leader (75 – 87.5 SynPoints)	SDG leader (75 – 87.5 SDG Points)
C	1% – 5%	Dual purpose	Moderate severity	ESG upper midfield (50 – 75 SynPoints)	SDG upper midfield (50 – 75 SDG Points)
D	5% – 10%	Owning ² / Owned ³	Serious severity	ESG lower midfield (25 – 50 SynPoints)	SDG lower midfield (25 – 50 SDG Points)
E	10% – 25%	Component ⁴ producer	High severity	ESG laggard (12.5 – 25 SynPoints)	Low SDG contribution (12.5 – 25 SDG Points)
F	≥25%	Weapon producer	Highest severity / global compact violation ⁶	True laggard in ESG (0 – 12.5 SynPoints)	No SDG contribution (0 – 12.5 SDG Points)
M	No involvement reported	No involvement reported	No issue reported	No ESG rating coverage	No SDG rating coverage
X	Not applicable / out of scope				

Boxes/Ratings in dark grey are usually avoided in ESG- / SDG-focused investments. Light greyed boxes are taken with scrutiny, and accumulation limits usually apply.

¹ Revenue share thresholds as per standard scheme. Sub-granularity available. Thresholds can be individually set.

² Owning more than 20% equity in a company involved in grades E or F.

³ Being more than 50%-owned by a company involved in grades E or F.

⁴ Single purpose key component.

⁵ Includes ILO controversies. Can be tailored to include corporate governance issues.

⁶ An “F” rating F can be considered a reconfirmed violation of the United Nations Global Compact rule framework for corporate behaviour.

Positive thinking

The move from exclusion to inclusion has been central to our continued development of the ESG Engine's capabilities. Recent enhancements have facilitated the assessment of how companies contribute to the UN's Sustainable Development Goals, the evaluation of green bonds and the identification of opportunities that less sophisticated approaches might easily overlook.

Sustainable Development Goals

The United Nations' Sustainable Development Goals (SDGs) represent a universal call to end poverty, protect our planet and ensure that peace and prosperity are available to all. They include worldwide objectives such as zero hunger, affordable and clean energy and sustainable cities and communities.

The ESG Engine guides investment choices by seeking to identify private companies that contribute to this genuinely global initiative through their products or services. This represents a powerful illustration of an ESG selection process that looks for positive reasons to include rather than negative reasons to exclude.

Green bonds

Green bonds are bond issuances tied to ESG-themed projects. In the past most sought to benefit the environment – hence the use of the word “green” – but more recently the term has come to encompass “social” projects (which improve society), “blue” projects (which protect marine resources) and other issuances that support sustainability.

The ESG Engine assesses if such issuances' claims to sustainability hold true. It obtains external due diligence information on whether

a project constitutes a genuine ESG undertaking and complies with the International Capital Market Association's Green Bond Principles, which guide considerations such as transparency, disclosure, reporting and the management of proceeds. Again, the aim is to find compelling reasons to include.

From brown to green: risks and opportunities

There are several reasons why “brown” assets – for example, coal – might no longer be regarded as attractive investments. Pollution concerns and the related risk of stranded assets are often uppermost in investors' considerations. Yet “brown” companies that embrace the need to move towards a greener future can represent significant opportunities.

The ESG Engine seeks to identify the companies that are making this move. It uses its carbon ratings, which are based on MSCI's carbon beta ratings, to spot ESG-critical schemes within businesses that might otherwise score unimpressively in this regard. Using data from Trucost and MSCI, it also evaluates a company's carbon footprint. Such an approach further emphasises how combining negative and positive screening can identify longer-term investment opportunities that negative screening alone would very probably overlook.



The DWS ESG Engine in a sovereign setting

All of these strategies can also be applied in a sovereign setting. The flexibility of the ESG Engine means that similar screening approaches can be used to gauge would-be responsible investments in around 200 sovereign nations.

In these instances, crucially, norms-based tests are carried out at a sovereign level. Using freely available data gathered by NGOs such as Freedom House, they might assess compliance on issues such as human rights, corruption, child/forced labour, possession of nuclear weapons, use of the death penalty, commitment to the Kyoto Protocol and the prevalence of democracy/autocracy.

Sovereigns, like companies, can be tested on a variety of factors.

A key point here is that sovereigns, like companies, can be tested on a variety of factors. In addition, again as with companies, the interrelations of these factors can be analysed to produce positive as well as negative outcomes – that is, to identify best-in-class propositions as well as to exclude those investments that fail to survive initial scrutiny.

SovSynRatings and the importance of freedom

One issue to which the ESG Engine accords particular weight when judging the ESG credentials of a sovereign nation is freedom. We have adopted a strong stance with regard to what might be called “political impact investing”, acknowledging the vast body of evidence from the political sciences in support of free societies and the broader benefits they tend to bring.

Our position in this respect mirrors the work of Indian economist and philosopher Amartya Sen, winner of the 1998 Nobel Prize for Economic Sciences. Sen argues that economic development stems from an interlinked series of freedoms: political freedom, freedom of opportunity and freedom from abject poverty. In essence, we share Sen's belief that freedom is not only the end or target of societal development but means to achieve this end as well.

The ESG Engine analyses assessments of freedom and other considerations to produce our proprietary SovSynRatings. Like their SynRatings counterparts, these aim to identify the true ESG leaders and the true ESG laggards – in this case on a sovereign basis for both emerging and developed markets. The ultimate goal, as with the process used for the corporate sphere, is to devise bespoke solutions that meet investors' specific wishes and needs.

ESG and the wider investment universe

We believe a holistic view is essential when analysing and selecting ESG investments – and a truly holistic view can be gained only by evaluating the investment universe as comprehensively as possible.

This means assessing the ESG credentials of third-party vehicles such as funds, indices, ETFs and all portfolios for which we can use ESG vendor data. For this task, the ESG Engine implements a common standard of its various rating methodologies.

In every instance it awards a score ranging from 0 to 100 and assigns a rating according to a standardised mapping scheme. The interpretation is always that issuers rated E or F are non-ESG-compliant; that issuers rated D qualify for the lower mid-range; and that issuers rated A, B or C are ESG-compliant, with C representing the upper mid-range and A and B considered top-tier. The methodology takes into account all available data, especially all ESG-positive indications.

Global reach, global responsibility

DWS has fully integrated the ESG Engine into its portfolio management system and research architecture globally. This gives all of our portfolio managers and research analysts access to a 360° assessment of issuers and investees.



Seamless access to the ESG Engine's data and ratings continues to significantly increase our incorporation of ESG considerations into investment decisions. In tandem, our CIO for Responsible Investments works hand-in-hand with our portfolio managers and research analysts to help them integrate this information into their processes.

We continue to enhance the ESG Engine's capabilities and to make them key to our day-to-day operations. With our global footprint, we believe that the ESG Engine helps us – and our clients – to make a difference.

» Our key priorities for ESG integration on the business side are to improve ESG content, to enhance the functionalities we have within our investment platform and to train our people. In continuing to develop the ESG Engine, we are always looking to empower our business professionals to fully measure ESG attributes and make informed investment decisions. «

Susana Peñarrubia

Head of ESG Integration – Active

Conclusion

There is very good reason to expect the scale and sophistication of ESG investing to continue to grow during the years ahead. We believe the unparalleled degree of coverage and flexibility that the DWS ESG Engine permits is vital to delivering the bespoke, cutting-edge solutions that more and more of today's responsible investors want, need and deserve.

For more information visit us on
<https://dws.com/solutions/esg/esg-engine/>

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