Procedure Document on ESG Methods, Data Sources and Data Processing

March 2024

DWS | Investors for a new now

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1 / Purpose and Scope of Application

This Procedure Document on ESG Methods, Data Sources and Data Processing ("Procedure Document") aims at providing further information on the DWS ESG Engine, ESG methods as well as data and addresses certain regulatory disclosure requirements.

It applies to all retail investment funds or sub-funds thereof ("Fund or Funds") reporting under Article 8 or Article 9 of Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector, as amended ("SFDR"), for which the respective website disclosure document as required by Article 10 SFDR includes an explicit reference to this Procedure Document.

Depending on the specific ESG investment strategy of the Funds, certain sections in this document may entirely not apply or apply only to a limited extent, for example with regards to ESG methodologies and ESG filters, sustainability assessments or principal adverse impacts. For various reasons, such as a focus on a specific ESG/sustainability strategy or for historical reasons, certain Funds may apply other and/or further ESG/sustainability related methodologies. Therefore, investors are advised to consult the pre-contractual disclosure made for the respective Fund in accordance with Annex II or, respectively Annex III of Commission Delegated Regulation (EU) 2022/1288 supplementing the SFDR ("Pre-Contractual Disclosure") that includes a description of the binding ESG investment strategy with the applied ESG and/or sustainability methodologies for each Fund.

References to "DWS" shall include DWS group entities acting as Financial Market Participant under SFDR and generally involved in the management of the Funds as described in the respective Prospectuses of the Funds, namely DWS Investment S.A, DWS Investment GmbH and if applicable further sub-delegated managers. Whereas the primary responsibility for the DWS ESG Engine and ESG Data outlined in this Document lies with DWS Investment GmbH.

2 / DWS ESG Engine

2.1 ESG data inputs and main ESG dimensions

The DWS ESG assessment methodology is based on a comprehensive set of methodologies and policies based on regulatory standards and voluntary commitments. The DWS ESG Engine forms part of the DWS ESG assessment methodology of the Funds. The DWS ESG Engine, which is a proprietary software tool, is the centrepiece in the process to integrate ESG into the investment decisions for all Funds in scope. It is a multi-source ESG data aggregation, structuring and processing device, which allows a consolidated and qualified ESG analysis, based on the ESG inputs from several ESG data providers, public sources and/or DWS internal assessments and research.

The DWS ESG Engine is used for the following main dimensions: (i) DWS policies, (ii) controversial sectors (excl. climate aspects), (iii) climate-related assessments, (iv) general ESG assessments, and (v) regulatory metrics such as good governance assessment or, 'sustainable investments' as defined in Article 2(17) SFDR (sustainability assessment).

Table 1: ESG data inputs and main ESG dimensions

ESG data input, e.g.

- MSCI ESG
- ISS-ESG
- Morningstar Sustainalytics
- S&P Trucost
- ESG Book

Main ESG dimensions and key metrics

- **DWS policies** (e.g. CW Policy, Coal Policy)
- **Controversial sectors (excl. climate)** (e.g. tobacco, defense...)
- **Climate-related assessments** (e.g. fossil fuels...)
- **General ESG assessments** (e.g. ESG Quality Assessment, Freedom House...)
- **Regulatory metrics** (e.g. PAIIs, Good Governance...)

The ESG assessment approach depends on the ESG metric under consideration, ranging from quantitative revenue thresholds up to proprietary DWS ESG assessments, generally coded into a letter scheme of "A" to "F", with "A" being the best assessment possible and "F" being the worst possible assessment, with the latter normally resulting in an exclusion from the eligible investable universe.

The DWS ESG Engine aggregates, structures and processes ESG data, based on predefined DWS ESG methodologies to meet internal as well as external requirements, e.g. as defined by DWS investment policies and Pre-Contractual Disclosures.

2.1.1. ESG data sources and prioritizing ESG data vendors

DWS uses leading external ESG data specialists. The multi-vendor approach allows DWS to select the most relevant data provider and data points for each ESG metric under consideration. The relevance of the ESG data is assessed in terms of coverage (to limit data gaps), reliability and quality/robustness by using ESG signals and sub-signals explicitly required as per DWS policies and relevant in the context of the target investments. For example, if DWS considers the carbon emission data set from one data provider as superior to another data vendor, due to data superior coverage and consistency of methodology for different scopes of carbon emission, DWS will prioritize this vendor in the setup of metrics that rely on carbon emission data.

The following table 2 describes the main data providers currently used (as of the date of this document) for the different ESG/sustainability related topics and ESG filters:

Table 2: Five main data providers

ESG/Sustainability related topics	Data vendor
Involvement in sectors	ISS-ESG, MSCI ESG, S&P TruCost
Norm violations and controversy issues	ISS-ESG, MSCI ESG, Morningstar Sustainalytics
General ESG quality of corporates, sovereigns and/or funds	ISS-ESG, MSCI ESG, Morningstar Sustainalytics
Specific carbon and water data	ISS-ESG, MSCI ESG, S&P TruCost, ESG Book
Specific data on sustainable investments (SFDR Article 2(17))	ISS-ESG, MSCI ESG

Additional ESG data from Non-Governmental Organisations ("NGOs") or other parties may be sourced, either directly or via one of the aforementioned commercial ESG data providers, in particular from:
– Amnesty International – data on death penalty status (sovereign issuers),
– Freedom House data on civil liberties and political rights (sovereign issuers),
– Germanwatch – data on climate (sovereign issuers),
– PAX – data on incendiary weapons, in particular those with white phosphorus (corporate issuers),
– Refinitiv – data on target fund holdings,
– Science Based Target initiative ("SBTi") – data on corporate climate action,
– Transition Pathway Initiative ("TPI") – data on global climate transition initiatives (corporate issuers),
– Transparency International – data on corruption (sovereign issuers),
– World Bank – data on population and other statistics (sovereign issuers), and/or
– Urgewald – data on fossil fuel data (corporate issuers).

2.1.2. DWS internal research

Even though the DWS ESG Engine is mainly populated from external vendors data, DWS ESG Engine also includes ESG data from DWS' internal research that take into account factors beyond the processed data vendor information, such as an issuer's future expected ESG development, plausibility of the data with regard to past or future events, an issuer's willingness not only to engage in dialogues on ESG matters or corporate decisions, but also to commit to a path of improvement. DWS ESG research results are complementary data points to the DWS ESG Engine standard data sources.

The ESG assessments may be reviewed by the DWS's sustainability assessment validation council and in case of materially incorrect results the chairperson approves corrective assessment adjustments, especially as a result of current insights gained from engagements and company disclosure reviews. In addition, risks that may arise from the consequences of climate change or risks arising from the violation of internationally recognised guidelines are subject to special examination.

Further, ESG methodologies, especially where it concerns vendor and data selection as well as choice of calculations, are designed and implemented by the DWS ESG Engine Team and requested and approved by the chairpersons of the ESG methodology council. This council assembles specialists and stakeholder from various divisions and consults the chairs in their decision making.

2.1.3. Data processing and measures taken to support data quality

DWS exercises due care and diligence when selecting data for its ESG and sustainability related assessments. Data quality is supported by selecting several data vendors, as discrepancies can be identified at an early stage by comparing the data of the various vendors. Regular meetings with the ESG data providers are held to discuss issues and challenge cases when necessary.

The data vendors establish upstream controls to ensure quality of their processes and of the data that is being provided to DWS. DWS has set up processes to monitor the quality of the ESG assessments produced in the DWS ESG Engine from the inbound data. This concerns checks on availability and integrity of the data, as well as scrutiny towards cases where inbound data changes eligibility of assets under the sustainability criteria of the financial product.

The aforementioned ESG data is translated into ESG assessments and is quality controlled and validated by internal ESG teams and councils, where applicable. To that end, the DWS ESG Engine standardizes and aggregates data across various sources as indicated in section 2.1.1. “ESG data sources and prioritizing ESG data vendors”. The ESG assessments may be supplemented with information from the DWS internal research and assessment process as indicated in section 2.1.2. “DWS internal research”.

The DWS ESG Engine team has a so-called result validation procedure in place. All ESG data is collected at the beginning of the month for publishing within DWS’ internal systems by the ESG Engine at the beginning of the next month to allow for enough time to validate the updated ESG database (a reconfirmation cycle may apply as indicated in section 2.1.4. “Limitations to methodologies and data”). This result validation step is one of the core responsibilities of the ESG Engine team and comprises, among others, a migration review, e.g. if extraordinary high or low ESG assessment migrations (after processing data into ESG proprietary data) are observed from one update cycle to the other compared to previous months.

2.1.4. Limitations to methodologies and data

Although DWS has broad ESG data coverage through a multi-vendor approach and specialises on ESG data aggregation, processing and development of unique ESG methodologies through the DWS ESG Engine, the following limitations may apply:

- Limited data coverage for certain asset classes and investments: While DWS internal assessments may close the data gap through their own in-depth research and stringent review, the case-by-case review nature limits the number of issuers which can be reviewed.
- Outdated data: The DWS ESG Engine team uses the outputs from our data vendors, which might already be outdated, thoroughly reviews it to maintain the necessary quality controls and identifies data issues until a certain cut-off date, and then processes it into the DWS ESG Engine, which publishes the data only for a determined time period. Hence, there might be time lags until the up-dated data are considered for the respective investments.
- Structural data update issues: Typically, exposure to controversial weapons, exposure to controversial sectors or Freedom House status is static, i.e. the data and ESG assessments do not substantially change across time and if they change, the new data and ESG assessments stay constant for an extended period of time. DWS uses a reconfirmation cycle for the DWS ESG Quality Assessment, DWS Climate Transition Risk Assessment and DWS Norm Assessment. In order to ensure consistency and coherence of the environmental and social characteristics, a change in assessment will hence only become effective if it is reconfirmed within the reconfirmation period.

With respect to the limitations outlined above,

- the ‘outdated data’ limitation as well as the ‘structural data update issues’ explain why relevant data for the environmental or social characteristics promoted by the financial product become available with a time lag. Taking into account that ESG data have the tendency not to be of highest volatilty and that there is a trade-off between the time it takes to run processes to monitor the quality of the ESG assessments produced in the DWS ESG Engine and having the latest data made available, DWS deliberately decided to emphasize quality control over timeliness to identify and rectify inconsistencies or errors.

– Regarding 'Limited data coverage for certain asset classes and investments' DWS takes a conservative approach when it comes to missing data for direct investments: Issuers, for which no full data coverage is obtained across all material ESG dimensions, are not considered to be aligned with the promoted environmental and social characteristics or the sustainable investment objective. This ensures that limited data coverage for certain asset classes and investments does not negatively affect environmental and social characteristics promoted by a product.

Overall, DWS implemented stringent quality controls to ensure the environmental and social characteristics promoted by a financial product are documented by most recent and relevant data points, as available.

2.1.5. Estimated data

DWS uses data from multiple data vendors, public sources and/or DWS internal assessments and research in order to perform a consolidated and qualified ESG assessment.

In these ESG and sustainability assessments, DWS uses publicly reported data as well as estimated data, if no adequate primary data is available. The instances in which DWS uses estimates are for example the following:
– Estimates from data vendors (based on data coming from investee companies or other sources).
– DWS in-house estimates, for instance in the case of missing data for green bonds, where information is conceptually unavailable (e.g. carbon intensity at bond level), gap-fill mechanisms are applied to derive appropriate values based on a peer group comparison within the same industries that are leading in managing their climate and transition risks.
– In the case of group structures, the data of the parent company can be passed on to subsidiaries of the group in the case of missing data on subsidiary level.

Based on current understanding of the regulatory guidelines on estimates, DWS classifies all data that is not publicly reported by investee companies under (regulatory) reporting requirements as estimated data. This also includes all data received from data vendors, if the data vendor does not provide a qualified disclosure on coverage of estimated data. Therefore, up to 100% of the data used may be reported as estimated data.

2.2. DWS ESG Engine Methodologies

2.2.1. Evaluation schemes

The DWS ESG Engine derives ESG assessments for each ESG metric under consideration. These ESG assessments include, among others, the percentage share of revenues earned within a specific controversial sector, the degree of involvement in controversial weapons or proprietary DWS ESG assessments like DWS Norm Assessment or Climate and DWS Transition Risk Assessment. Details on the general ESG assessment methodology for key proprietary DWS ESG assessments as well as examples of DWS ESG Engine assessments applied in DWS' standard ESG filters are outlined in more detail in the following.

2.2.2. General letter code for key DWS ESG assessments

The following table 3 provides an overview of three key DWS ESG assessments, that are in particular used for the Funds reporting under Article 8 SFDR.

Table 3: Three key DWS ESG assessments

Criteria	DWS Norm Assessment	DWS ESG Quality Assessment	DWS Climate and Transition Risk Assessment
Measurement	Reconfirmed norm controversies (e.g., UN global compact)	Cross vendor consensus ESG quality assessment in peer group	Risks from the change towards a low-carbon and water scarce economy
A	Confirmed no issues	True leader in ESG	Low risk
B	Violations of lesser degree	ESG leader	
C		ESG upper midfield	Medium risk
D		ESG lower midfield	
E	High severity or re-assessed highest severity	ESG laggard	High risk
F	Highest severity	True laggard in ESG	Significant risk
M	No issue reported	No coverage	No coverage
X	Not applicable/out of scope		

The interpretation of the “A” to “F” letter code depends on the ESG metric under consideration:

DWS ESG Quality Assessment

The DWS ESG Quality Assessment distinguishes between companies and sovereign issuers. For companies, the DWS ESG Quality Assessment allows for a peer group comparison based on cross-vendor consensus on the overall ESG assessment (best-in-class approach), for example concerning the handling of environmental changes, product safety, employee management or corporate ethics. The peer group is made up of companies in the same industry sector. For companies, the main purpose of the “A” to “F” letter scheme is to provide a generalized and forward looking ESG quality ranking on company level: which company is positioned better, which company is exposed to more unmanaged future ESG business risks etc. compared to other companies. Companies that are assessed as true leaders in ESG receive the best letter assessment of “A”, while true laggards receive the worst possible assessment of “F”.

For sovereign issuers, the DWS ESG Quality Assessment assesses a country based on numerous ESG criteria. Indicators for environmental aspects are, for example, handling of climate change, natural resources and vulnerability to disasters; indicators for social aspects include the attitude to child labour, equality and prevailing social conditions; and indicators for good governance are, for example, the political system, the existence of institutions and the rule of law. In addition, the DWS ESG Quality Assessment explicitly considers the civil and democratic liberties of a country.
Sovereign issuers that are assessed as true leaders in ESG receive the best letter assessment of “A”, while true laggards receive the worst possible assessment of “F”.

DWS Norm Assessment

The DWS Norm Assessment evaluates the behaviour of companies, for example, within the framework of the principles of the UN Global Compact, the standards of the International Labour Organization, and behaviour within generally accepted international standards and principles. The DWS Norm Assessment examines, for example, human rights violations, violations of workers' rights, child or forced labour, adverse environmental impacts, and business ethics. The assessment considers violations of the aforementioned international standards. These are assessed using data from ESG data providers and/or other available information, such as the expected future developments of these violations as well as the willingness of the company to begin a dialogue on related business decisions.

The key parameter of DWS’ Norm Assessment is the mapping of the evaluated behaviour of a company against a series of international norms as outlined above to the letter scheme of “A” to “F” with “A” representing the highest score in case of confirmed “no issues” and “F” representing issues of highest severity. Companies with the worst DWS Norm Assessment score (i.e., a letter score of “F”) are excluded as an investment.

The SFDR requires financial products reporting under Article 8 or Article 9 SFDR to ensure that companies in which the investments are made follow good governance practices. The assessment of the good governance practices of the investee companies is based on the DWS Norm Assessment.

DWS Climate and Transition Risk Assessment

The DWS Climate and Transition Risk Assessment evaluates issuers in the context of climate change and environmental changes, for example with respect to greenhouse gas reduction and water conservation. Issuers that contribute less to climate change and other negative environmental changes or are less exposed to these risks compared to the reference universe, receive better assessments, with “A” being the best, indicating low climate and transition risk and “F” being the worst, indicating significant climate and transition risk.

The assessments resulting in a “F”, i.e. the worst possible assessments, normally lead to an exclusion of the investment from the eligible investable universe.

2.3. Other DWS ESG assessments

2.3.1. Controversial sectors

DWS generally assesses the exposure to controversial sectors based on the revenue share, that a company derives from the specific controversial sector. Depending on the Fund’s specific ESG filter, different areas of controversial sectors are excluded and different revenue thresholds for the specific controversial sectors are applied. Controversial sectors include military defense, civil handguns or ammunition, tobacco, gambling, adult entertainment, palm oil, nuclear power, crude oil, thermal coal, unconventional and conventional crude oil and natural gas, among others.

A special case in the assessment of a company’s exposure to a controversial sector is the identification of coal expansion plans, such as additional coal mining, coal production or coal usage, based on an internal identification methodology.

2.3.2. Controversial weapons

DWS differentiates the exposure to controversial weapons into six categories: 1) confirmed non-involvement, 2) remote, alleged or ceased involvement, 3) dual purpose involvement, 4) owning or being owned by a controversial weapon manufacturer or component manufacturer, 5) being a key component manufacturer, and 6) being a key weapon manufacturer. Depending on the Fund’s specific ESG filter, different areas of controversial weapons and different levels of involvements are excluded. For example, the DWS ESG Investment Standard excludes 4)-6).

Controversial weapons as defined by DWS Controversial Weapons Policy (“DWS CW Policy") include anti-personnel mines, cluster munition as well as biological and chemical weapons. For Funds disclosing under Article 8 SFDR the definition is extended by nuclear weapons and depleted uranium weapons or uranium munitions. Funds applying the DWS ESG Investment Standard also consider incendiary weapons, including those with white phosphorus, in that category.

2.3.3. Freedom House status

Freedom House is an international non-governmental organization that classifies countries by their degree of political freedom and civil liberties and groups them on to three categories: 1) free countries, 2) partly free countries, and 3) not free countries. Depending on the product specific ESG filter, Freedom House status may be explicitly included and if included, usually excludes issuers deemed as “not free”.

2.3.4. UN Global Compact Assessment

In addition to the DWS Norm Assessment, companies can also be specifically assessed on the UN Global Compacts and grouped as either 1) “pass”, 2) “watch list”, or 3) “fail”. Depending on the product specific ESG filter, the UN Global Compact Assessment may be explicitly included and if included, usually excludes issuers deemed as “fail”, i.e. companies directly involved in one or more very severe, unresolved controversies related to the principles of the UN Global Compact.

3 / DWS ESG Filters

3.1. DWS ESG filters and SFDR disclosure

Relevant ESG assessments, exclusions and turnover or threshold-based limitations depend on the promoted environmental and/or social characteristics of a Fund, i.e. the Fund's investment strategy as per the Pre-Contractual Disclosure. Depending on the product design, a wide range of ESG assessments and different ESG thresholds are applied across our Funds.

Currently, DWS defines in principle three sets of ESG minimum requirements for European-domiciled actively managed mutual funds depending on a fund's SFDR disclosure or the fund's naming convention. Funds disclosing only under Article 6 SFDR apply at least exclusions based on DWS policies. European-domiciled actively managed mutual funds reporting under Article 8 SFDR, including the Funds in scope of this Procedure Document, apply minimum exclusions based on one of two ESG filters: the "DWS Basic Exclusions" filter as a basic approach to incorporating certain exclusions in the investment policy or the "DWS ESG Investment Standard" filter for Funds which enhances the exclusions compared to the "DWS Basic Exclusions" filter.

Several activities are excluded from most products, not only the ESG products. As such, companies not compliant with DWS policies (DWS Coal Policy and DWS CCW Policy) are excluded as an investment. Table 4 below shows different dimensions of ESG and their consideration in the respective ESG filter. In general, the number of ESG criteria applied to a product increases while the corresponding thresholds become stricter if the product promotes more environmental and/or social characteristics depending on the ESG ambitions of the product. Investors shall consult the Pre-Contractual Disclosure of the relevant Fund to know which DWS ESG filter is applied.

Table 4: ESG dimensions considered in the relevant SFDR related screening criteria

ESG dimension	SFDR Article 6	SFDR Article 8 DWS Basic Exclusions	SFDR Article 8 DWS ESG Investment Standard
DWS policies	✓	✓	✓
Controversial sectors (excl. climate)		✓	✓✓
Climate-related assessments		✓	✓✓
DWS ESG Quality assessment			✓
Freedom House status		✓	✓
Regulatory metrics		✓	✓✓

Legend: ✓ indicates a consideration, whereas ✓✓ indicates a stronger consideration in the respective ESG filter

As indicated in section 1. "Purpose and Scope of Application", certain Funds may, however, apply other and/or further ESG filters/methodologies for various reasons, such as a focus on a specific ESG/sustainability strategy or for legacy reasons.

3.2. DWS ESG filters for Funds reporting under Article 8 SFDR

As indicated, Funds reporting under Article 8 SFDR apply in principle minimum exclusions based on one of two DWS ESG filters: the "DWS Basic Exclusions" and the "DWS ESG Investment Standard".

3.2.1. DWS Basic Exclusions

The DWS Basic Exclusions defines the minimum approach for Funds reporting under Article 8 SFDR. It incorporates the DWS Coal Policy and the DWS CCW Policy, exclusions on controversial sectors (excl. climate), climate-related assessments, Freedom House Status and the DWS Norm Assessment to ensure good governance. Further information on the DWS Basic Exclusions can be retrieved in the following table 5.

Table 5: DWS Basic Exclusions

	DWS ESG Assessment methodology / exclusion criteria	DWS Basic Exclusions (transparent pursuant to Article 8 of the Regulation (EU) 2019/2088) Assessment or revenue threshold
DWS policies	DWS Coal Policy (coal mining and power generation from coal ≥ 25% revenue; coal expansion plans)	Non-compliant
	DWS CW Policy (cluster munition, anti-personnel mines, bio. & chem. weapons)	Non-compliant
Controversial sectors (excl. climate)	Controversial weapons beyond DWS CW Policy (depleted uranium weapons, nuclear weapons)	No involvement
	Manufacturing of products and/or provision of services in the defense industry	≥ 10%
	Manufacturing and/or distribution of civil handguns or ammunition	≥ 5%
	Manufacturing of tobacco products	≥ 5%
Climate-related assessments	Mining of oil sand	≥ 5%
	DWS Climate and Transition Risk Assessment (corporates & sovereigns)	No F
General ESG assessment	Freedom House Status (sovereigns)	No “Not free”
Regulatory metric	Good Governance Assessment measured by DWS Norm Assessment (corporates)	No F / M

3.2.2. DWS ESG Investment Standard

The DWS ESG Investment Standard filter enhances the exclusions in comparison to the DWS Basic Exclusions filter. Regarding controversial weapons, it also excludes incendiary bombs based on white phosphorus. Further sectors are deemed to be controversial and strict criteria apply especially on conventional and unconventional fossil fuel exposure. In addition, the overall ESG quality of an issuer is incorporated through the DWS ESG Quality Assessment. Good governance is ensured by the DWS Norm Assessment. Further information on the DWS ESG Investment Standard can be retrieved in the following table 6.

Table 6: DWS ESG Investment Standard

		DWS ESG Investment Standard (transparent pursuant to Article 8 of the Regulation (EU) 2019/2088)
	DWS ESG Assessment methodology / exclusion criteria	**Assessment or revenue threshold**
DWS policies	DWS Coal Policy (coal mining and power generation from coal ≥ 25% revenue; coal expansion plans)	Non-compliant
	DWS CW Policy (cluster munition, anti-personnel mines, bio. & chem. weapons)	Non-compliant
Controversial sectors (excl. climate)	Controversial weapons beyond DWS CW Policy (depleted uranium weapons, nuclear weapons, incendiary bombs containing white phosphorus)	No involvement
	Manufacturing of products and/or provision of services in the defense industry	≥ 5%
	Manufacturing and/or distribution of civil handguns or ammunition	≥ 5%
	Manufacturing of palm oil	≥ 5%
	Manufacturing of tobacco products	≥ 5%
	Manufacturing of adult entertainment	≥ 5%
	Manufacturing of products in and/or provision of services for the gambling industry	≥ 5%
	Nuclear power generation and/or uranium mining and/or uranium enrichment	≥ 5%
Climate-related assessments	Coal mining	≥ 1%
	Power generation from coal	≥ 10%
	Extraction of crude oil	≥ 10%
	Unconventional extr. of crude oil and/or natural gas (incl. oil sand, oil shale/shale gas, arctic drilling)	> 0%
	Mining and exploration of and services in connection with oil sand and oil shale	≥ 10%
	Coal mining and oil extraction	≥ 10%
	Power generation from and other use of fossil fuels (excl. natural gas)	≥ 10%
	DWS Climate and Transition Risk Assessment (corporates & sovereigns)	No F
General ESG assessments	DWS ESG Quality Assessment (corporates & sovereigns)	No F
	Freedom House Status (sovereigns)	No "Not free"
	UN Global Compact Assessment (corporates)	No "Fail"
Regulatory metric	Good Governance Assessment measured by DWS Norm Assessment (corporates)	No F / M

If an issuer's or asset's ESG assessment in one ESG assessment approach is worse compared to the pre-defined thresholds outlined above, the sub-fund is not allowed to invest in the respective asset, even if this issuer or asset would in general be eligible according to the other ESG assessment approaches.

4 / PAII Consideration

Funds disclosing under Article 8 SFDR consider certain principal adverse impact indicators ("PAIIs") of Annex I of Commission Delegated Regulation (EU) 2022/1288 supplementing the SFDR ("Commission Delegated Regulation"). The PAII consideration is predominantly covered/monitored through the exclusions applied by the respective DWS ESG filter. The following table 7 provides an overview of the considered PAIIs for each DWS ESG filter. Depending on the ESG focus of the investment strategy, certain Funds may consider further PAIIs. Investors shall consult the Prospectus of the relevant Fund to know which DWS ESG filter and corresponding PAIIs are applied.

Table 7: PAII consideration

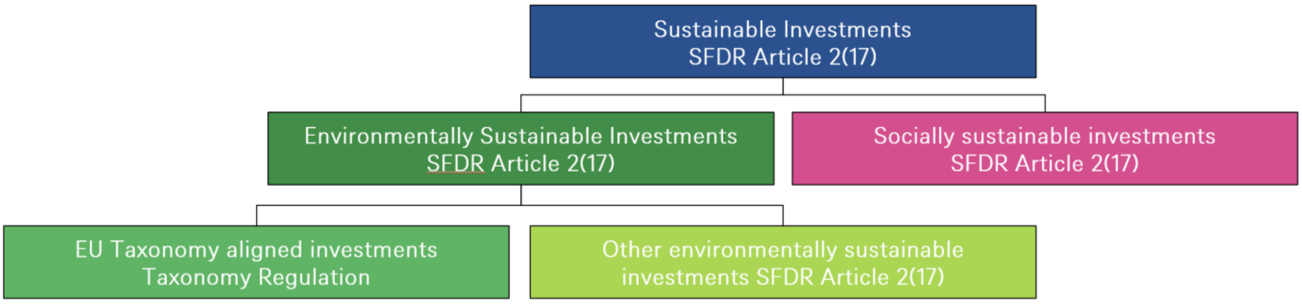
PAII	PAII description	DWS Basic Exclusions	DWS ESG Investment Standard	Reasoning for PAII consideration
PAII 1	GHG emissions		✓	**DWS ESG Investment Standard** excludes companies based on deriving: a) ≥ 1% coal mining b) ≥ 10 coal power generation c) ≥ 10% extraction of crude oil d) > 0% unconventional extraction of crude oil and/or natural gas e) ≥ 10% mining and exploration of and services in connection with oil sand & oil shale f) DWS coal policy (coal share of revenue ≥25% and/or company is a coal developer) g) ≥ 10% coal mining and oil extraction h) ≥ 10% power generation from and other use of fossil fuels (excluding natural gas) In addition, companies being identified as coal developer or having a DWS Climate and Transition Assessment of F
PAII 2	Carbon footprint		✓	
PAII 3	GHG intensity of investee companies		✓	
PAII 4	Exposure to companies active in the fossil fuel sector	✓	✓	**DWS Basic Exclusions** excludes companies based on: a) DWS coal policy (coal share of revenue ≥25% and/or company is a coal developer) b) deriving ≥5% revenue with Oil sands. c) Having a DWS Climate and Transition Assessment of F **DWS ESG Investment Standard's** fossil fuel sector exclusions are even more strict compared to BE, e.g. coal mining (≥1%), coal processing (≥10%), Oil Production (≥10%) or Fracking (≥0%)
PAII 10	Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	✓	✓	UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises are part of DWS Norm Assessment. **DWS Basic Exclusions** and **ESG Investment Standard** exclude companies with the worst DWS Norm Assessment F from the portfolio.
PAII 14	Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)	✓	✓	Companies are excluded if they are identified as manufacturers or manufacturers of key components of anti-personnel mines, cluster munitions, chemical weapons or biological weapons.
PAII 16	Investee countries subject to social violations	✓	✓	DWS excludes investments in sovereign issuers, if the sovereign's Freedom House Status is "Not Free". Freedom rates people's access to political rights and civil liberties.

For Article 8 SFDR Funds committing to a minimum share of sustainable investments as well as Article 9 SFDR Funds the PAIIs are taken into account for the sustainable investments as part of the "Do No Significant Harm" assessment ("DNSH-Assessment") in accordance with Article 2 (17) SFDR. For further details please refer to section 5.2. "Do No Significant Harm - Assessment" of this Procedure Document.

5 / Sustainable Investment SFDR Article 2(17)

Most Funds reporting under Article 8 SFDR consider a minimum share of sustainable investments according to Article 2(17) SFDR. While socially sustainable objectives are solely mentioned under Article 2(17) SFDR, there are two regulatory definitions for environmental sustainability: investments that are i) sustainable according to the definition provided by Article 3 of the Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment ("EU Taxonomy") or ii) that are not environmentally sustainable under the EU Taxonomy, but under Article 2(17) SFDR. The following table 8 summarizes how the overall share of sustainable investments pursuant to Article 2(17) SFDR can be broken down into the different contributions.

Table 8: Sustainable investments SFDR Article 2(17)



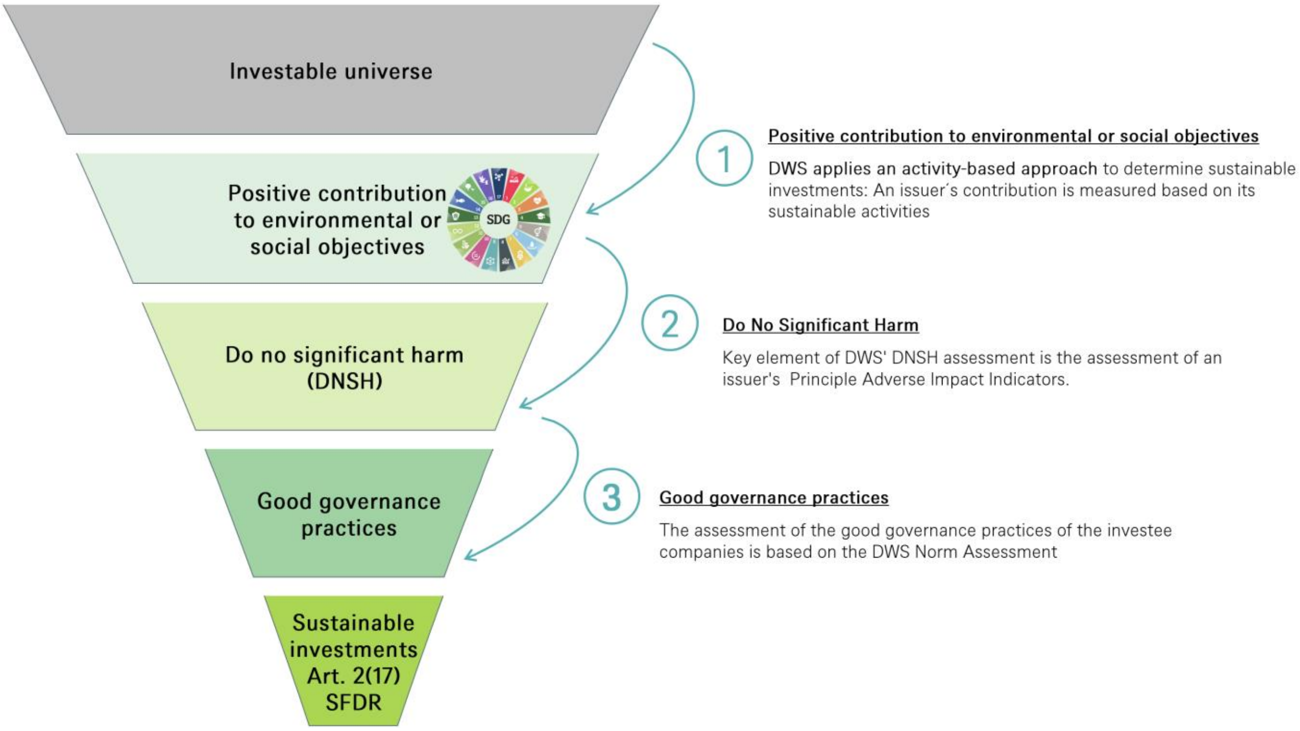
DWS has developed a dedicated DWS Regulatory Sustainability Framework for determining whether an economic activity of a target investment can be considered as sustainable pursuant to Article 2(17) SFDR. It uses data from several data providers, public sources and/or internal assessments based on a defined assessment and classification methodology to determine whether an economic activity is sustainable.

The DWS Regulatory Sustainability Framework is based on the methodology as described in table 9. An economic activity can only be considered as sustainable pursuant to Article 2(17) SFDR, if it passes all three steps consecutively, i.e. (1) the economic activity makes a positive contribution to one or more environmental or social objectives (2) the issuer passes the DNSH-Assessment and (3) the company follows good governance practices. If this is not the case, 0% of the issuer's contributions are considered sustainable under Article 2(17) SFDR.

The share of sustainable investments in the portfolio as defined in Article 2(17) SFDR is calculated in proportion to the economic activities of the issuers that qualify as sustainable (activity-based approach).

Notwithstanding the preceding, in the case of use-of-proceeds bonds that qualify as sustainable investment, the value of the entire bond is counted towards the share of sustainable investments, if the issuer passes the DNSH-Assessment and the company applies good governance practices.

Table 9: DWS Regulatory Sustainability Framework



The three main steps are outlined in more detail in the following.

5.1. Step 1: Positive Contribution to environmental or social objectives

The first step in identifying if an economic activity can be considered as sustainable pursuant to Article 2(17) SFDR is to identify a company's activities that pose a (significant) contribution to one or more social or environmental objectives.

Socially and Environmentally Sustainable Contributions under Article 2(17) SFDR (not EU Taxonomy aligned)

DWS uses contributions to the UN Sustainable Development Goals ("SDGs") to assess an investments' contribution to environmentally and/or socially sustainable objectives. The SDGs are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere. There are 17 distinctive SDG goals focusing on specific environmental and/or social areas. DWS assesses the SDG contribution of an investment by the issuer's share of revenues aligned with one or more environmental and/or social objectives underlying the UN SDGs.

Environmentally Sustainable Contributions under EU Taxonomy

An investment is environmentally sustainable under the EU Taxonomy, if the economic activity:

- contributes substantially to one of the six environmental objectives (climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, the transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystem);
- does not significantly harm any of the other five environmental objectives;
- the company complies with the Minimum Safeguards; and
- the so-called technical screening criteria established in accordance with the EU Taxonomy are complied with.

DWS uses data from external data vendors to determine a company's contribution under the EU Taxonomy.

5.2. Step 2: Do No Significant Harm - Assessment

The DNSH-Assessment is an integral part of the DWS Regulatory Sustainability Framework and evaluates whether a sustainable contribution identified in step 1 as outlined above, causes significant harm to other objectives. As part of the DNSH-Assessment, DWS systematically assesses the mandatory PAIIs on sustainability factors (dependent on relevance) from Table 1 and relevant indicators from Tables 2 and 3 of Annex I of the Commission Delegated Regulation. DWS has established quantitative and/or qualitative thresholds to assess significant harm associated with a respective PAII. The PAII-specific threshold depends on the characteristics of the PAII and can be broadly grouped into the following categories in table 10.

Table 10: PAII consideration in the DNSH-Assessment

PAII consideration in the DNSH-Assessment	Applied for PAII #
Absolute limit on PAII value	2[1], 3[1], 6[1], 12[1]
Absolute thresholds on elements of the PAII	4[1]
Consideration via a broader DWS ESG assessment	S14[3]
Combination limits	5[1], 7[1], 8[1], 9[1], 13[1], E13[2]
Compliance checks	10[1], 14[1]
Implicit consideration	1[1], 11[1]

Legend:
1) The definition of the PAIIs can be found in Table 1 of Annex I of the Commission Delegated Regulation (EU) 2022/1288 supplementing the Sustainable Finance Disclosure Regulation (SFDR)
2) The definition of the PAIIs E13 can be found in Table 2 of Annex I of the Commission Delegated Regulation (EU) 2022/1288 supplementing the Sustainable Finance Disclosure Regulation (SFDR)
3) The definition of the PAIIs S14 can be found in Table 3 of Annex I of the Commission Delegated Regulation (EU) 2022/1288 supplementing the Sustainable Finance Disclosure Regulation (SFDR)

The PAII consideration in the DNSH-Assessment is further described below:

- **Absolute limit on PAII value**: A company does not pass the DNSH-Assessment, if the issuer's PAII value exceeds a predefined threshold.
- **Absolute thresholds on elements of the PAII**: For example, coal, oil and gas are elements of fossil fuel exposure. Limits are set on a company's share of revenue regarding those elements instead of the overall fossil fuel exposure.
- **Consideration via a broader DWS ESG assessment**: Human rights controversies and incidents are part of DWS Norm Assessments. Consequently, DWS applies for the detection of significant harm associated with PAII S14 the same methodology and thresholds as outlined for the general DWS Norm Assessment in section 2.2.2. "General letter code for key DWS ESG assessments".
- **Combination limits**: Combine two different kinds of ESG assessments. For example, the worst possible value for PAII 5 "Share of non-renewable energy consumption and production" is 100%. However, since it makes a difference if a company with a low carbon intensity consumes 100% of its energy from non-renewable compared to a company with a high carbon intensity, DWS defines "significant harm" for PAII 5 as an issuer having a PAII 5 value of 100% and having a scope 1+2 carbon intensity above a pre-defined limit.
- **Compliance checks**: Issuers tested positive for exposure to the respective PAII are associated with significant harm.
- **Implicit consideration**: Implicit consideration: refers to PAIIs having no explicit thresholds but are deemed to be implicitly considered via other PAIIs already. For example, as PAII 1 rises with company size, DWS decided to consider PAII 1 implicit by the limit set on PAII 2 to control for company size.

Based on a defined sector-specific materiality/relevance assessment, certain PAIIs may not be considered as relevant for investments in certain industry sectors and hence may not be applied.

In case that the issuer does not pass the DNSH-Assessment outlined above, none of the sustainable contributions identified in step 1 can be considered sustainable.

5.3. Step 3: Good Governance Assessment

The last step in the assessment whether an economic activity can be considered as sustainable pursuant to Article 2(17) SFDR is to assess whether the companies in which investments are made apply good governance practices. The assessment of the good governance practices of the investee companies is based on the DWS Norm Assessment, as further detailed in the dedicated section 2.2.2. "General letter code for key DWS ESG assessments".

In case that the issuer does not pass the Good Governance Assessment outlined above, none of the sustainable contributions identified in step 1 and 2 can be considered sustainable.

6 / EU Taxonomy-aligned Investments

As of the date of the latest Pre-Contractual Disclosures of the Funds, DWS does not commit to any minimum share of sustainable investments in economic activities that qualify as environmentally sustainable under the EU Taxonomy due to limited reliable data availability in the market.