

Principal adverse impact statement

June 2023

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1. Summary

Invesco Asset Management Deutschland GmbH (3KKEJBV1JS71T2N3LP71), Invesco Investment Management Limited (549300FEA3DT84FOZ304), Invesco Management S.A. (549300VDSJEXPNC5A615) and Invesco Real Estate Management S.a.r.l. (222100CFY64ZMLZ0NW90) consider principal adverse impacts of their investment decisions on sustainability factors.

The present statement is the consolidated statement on principal adverse impacts on sustainability factors of Invesco Asset Management Deutschland GmbH, Invesco Management S.A., Invesco Investment Management Limited and Invesco Real Estate Management S.a.r.l. (collectively referred to herein as "Invesco Europe")

This statement on principal adverse impacts on sustainability factors covers the reference period from 1 January to 31 December 2022.

Invesco Europe considers principal adverse impacts on sustainability factors at an entity level by measuring, reviewing and monitoring aggregate principal adverse impact data (including all mandatory and two additional indicators as defined by the European Sustainable Finance Disclosure Regulation 2019/2088 (SFDR)) with a view to carrying out mitigating actions (such as engagement, proxy voting, position sizing and others) as required to avoid or reduce the principal adverse impacts identified. The measuring of principal adverse impacts is subject to the availability and quality of data.

2. Description of the principal adverse impacts on sustainability factors

During this reference period Invesco Europe has developed and implemented a policy to identify principal adverse impacts in our holdings and take actions to avoid or reduce such principal adverse impacts identified. We collect aggregated principal adverse impact data for the mandatory and selected additional indicators across all in-scope financial products using third-party providers (currently, Sustainalytics and ISS). Focusing on products that promote environmental or social characteristics, we assess the available data and flag the poorest performing issuers (determined in accordance with our internal thresholds) held in relation to each indicator and apply the following three-step consideration process:

- 1. Qualitative research Our environmental, social and governance team (ESG Team) carries out quantitative and qualitative research on the issuers in relation to the flagged principal adverse impact indicator and determine the extent to which the principal adverse indicator has not been met or has been effectively mitigated. The process allows the Investment Teams to subsequently challenge or verify the accuracy of the results before taking any mitigating actions.
- 2. Engagement actions Our Investment Teams or ESG Team carry out targeted engagement with the poorest performing issuers.
- 3. Position sizing/underweighting or other mitigating actions Our Investment Teams have discretion to adjust their position size, divest, or underweight issuers where engagement actions result in no improvement of the flagged principal adverse impact indicators over an appropriate period as relevant to the client base, provided that the strategy permits such action.

The Investment Teams work with the ESG Team to identify relevant key performance indicators (KPIs) to assess when considering whether an issuer is addressing a particular principal adverse impact. These KPIs do not need to be directly related to the flagged indicator but could consider the elements of a strategy the issuer needs to put in place to address a principal adverse impact holistically. For example, if a company is flagged against mandatory principal adverse impact 1, Scope 1, 2 and 3 greenhouse gas emissions (GHG), one might consider related KPIs, such as the percentage of capital expenditures in green solutions, or the percentage of long-term incentive plan linked to GHG targets. The approach as to which KPIs need to be tracked for each principal adverse impact is not prescriptive, allowing Investment Teams and the ESG Team the flexibility to determine the best approach for the relevant issuer.

Invesco Europe tailors the above approach accordingly depending on the context of specific types of asset classes/investment strategies (e.g., passive strategies which have investment objectives that do not allow the manager discretion to vary from the index constituents or private credit/direct lending asset classes for which principal adverse impacts data can only be obtained through a manual process rather than from third-party providers).

Invesco Europe also applies principal adverse impacts data with respect to financial products that include "sustainable investments" as part or all of their objective, to identify and exclude any prospective investee companies that do significant harm to any environmental or social objectives from the investable universe in line with Article 2(17) of SFDR. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.

Invesco Europe will continue to implement its policy, and in the coming years, when data is available to effectively assess the impact of our policy, determine appropriate additional actions to take or targets to set for subsequent reference periods.

Table: Description of the principal adverse impacts on sustainability factors

Adverse sustainab	ility indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Climate and o	ther environment-relate	d indicators				
Greenhouse gas emissions	1. GHG emissions	Scope 1 GHG emissions	4,083,891.01 tCO ₂ e			Corporate-level Activities:
gas emissions	s	Scope 2 GHG emissions	1,181,158.89 tCO ₂ e			Invesco Europe is a supporter and discloser to the Task Force on Climate-Related
		Scope 3 GHG emissions	87,608,090.24 tCO ₂ e			Financial Disclosures (TCFD). In 2022, we published our third Climate Change report.
		Total GHG emissions	92,873,140.14 tCO ₂ e			• Invesco Europe is a signatory to the Net Zero Asset Manager's initiative. In April 2022,
	2. Carbon footprint	Carbon footprint	1,870.20 tCO ₂ e per Eur Million invested			at the firm level, Invesco disclosed its assets under management (AUM) commitment of USD 195billion to be managed in line with net zero.
	3. GHG intensity of investee companies	GHG intensity of investee companies	1,087.67 tCO ₂ e per Eur Million revenue			Research and Engagement: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce GHG emissions in
	4. Exposure to companies active in the fossil fuel sector	Share of investments in companies active in the fossil fuel sector	2.34% weight of the funds			high emitters in our investment portfolios include research, corporate engagement, or, where aligned with the investment objective, exclusion from portfolios.
	5. Share of non- renewable energy consumption and production	Share of non-renewable energy consumption and non-renewable energy production of investee	Consumption: 62.77 % of non renewable energy Production: 25.92 % of no renewable energy	% of context of specific types of asset classes/investment strategies. For a context of specific types of asset classes/investment strategies. For a context of specific types of asset classes/investment strategies. For a context of specific types of asset classes/investment strategies.	 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered GHG principal adverse impacts primarily through a set of exclusion criteria or by reducing the weighting of relevant companies. 	
		companies from non- renewable energy sources compared to renewable energy sources, expressed as a percentage of total energy sources				For certain products, we have expanded our issuer due diligence questionnaires to include additional quantitative principal adverse impact metrics based on the Annex 1 indicators. We have begun dialogue with management where feasible to encourage provision of relevant data. For some asset classes, the quantitative data coverage is currently limited, but we will continue to encourage issuers to provide relevant metrics. We expect data provision rates to improve over time as issuers are
	6. Energy consumption intensity per high impact climate sector	Energy consumption in GWh per million EUR of revenue of investee companies, per high	 Agriculture, Forestry & Fishing: 6.22 GWH/Mil Eur Revenue Construction: 69.11 GWH/ 			increasingly required to report ESG data. We will continue to review the situation and seek the most relevant data points available for the principal adverse impacts of our portfolios.
		impact climate sector	Mil Eur Revenue • Electricity, Gas, Steam & Air Conditioning Supply: 35.72 GWH/Mil Eur Revenue • Manufacturing: 996.14 GWH/Mil Eur Revenue			 Exclusions: For certain products that promote environmental/social characteristics, Invesco Europe has exclusion frameworks (varying by product), which may cover the exclusion of activities with highly negative climate impacts (e.g., thermal coal and unconventional oil and gas) in line with the investment objective of such products. Certain funds and segregated mandates may apply additional or different ESG exclusion criteria.
			 Mining & Quarrying: 3.72 GWH/Mil Eur Revenue Real Estate Activities: 0.53 GWH/Mil Eur Revenue Transportation & Storage: 1.86 GWH/Mil Eur Revenue Water Supply, Sewerage, 	objective, Invesco Europe assess significant harm' (DNSH) to any e flagged issuers are excluded fror objective. There is an exception f investment as their objective. Fo	 For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm. 	
	Waste Management & Remediation Activities: 1.07 GWH/Mil Eur Revenue Wholesale & Retail Trade & Repair of Motor Vehicles & Motorcycles: 1.16 GWH/Mil Eur Revenue			Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.		

Adverse sustaina	ability indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Biodiversity	7. Activities negatively affecting biodiversity-sensitive areas	Share of investments in investee companies with sites/operations located in or near to biodiversity-sensitive areas where activities of those investee companies negatively affect those areas	0.68% weight of the funds			Corporate-level activities: • In March 2022, Invesco Europe became a Forum Member for the Taskforce on Nature-related Financial Disclosures (TNFD). This has allowed us the opportunity to give feedback on the draft frameworks while understanding how we will be able to apply this framework upon its completion. Additionally, Invesco has become a member of TNFD's Consultation Group contributing alongside multiple financial institutions to provide input into the usability of the framework. This initiative has kick-started our exploration into biodiversity data and further incorporating it into our investment and research processes.
						 Research and Engagement With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce activities negatively affecting biodiversity-sensitive areas in our investment portfolios include research, corporate engagement, or exclusion from portfolios where aligned with the investment objective.
						 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered the biodiversity principal adverse impact through a set of exclusion criteria or by reducing the weighting of relevant companies.
						For certain products we have expanded our issuer due diligence questionnaires to include additional quantitative principal adverse impact metrics based on the Annex 1 indicators. We have begun dialogue with management where feasible to encourage provision of relevant data. For some asset classes, the quantitative data coverage is currently limited, but we will continue to encourage issuers to provide relevant metrics. We expect data provision rates to improve over time as issuers are increasingly required to report ESG data. We will continue to review the situation and seek the most relevant data points available for the principal adverse impacts of our portfolios.
						 Exclusions: For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
						Actions planned for the next reference period: • Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

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Adverse sustainability indicator		Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Water	8. Emissions to water	Tonnes of emissions to water generated by investee companies per million EUR invested, expressed as a weighted average	5.76 tonnes of emissions per million EUR Invested			Research and Engagement: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to reduce tonnes of emissions to water generated by investee companies per million EUR invested, expressed as a weighted average, our investment portfolios include research, corporate engagement, or exclusion from a portfolio where aligned with the investment objective.
						 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered the emissions to water principal adverse impact primarily through a set of exclusion criteria or by reducing the weighting of relevant companies.
						• For certain products we have expanded our issuer due diligence questionnaires to include additional quantitative principal adverse impact metrics based on the Annex 1 indicators. We have begun dialogue with management where feasible to encourage provision of relevant data. For some asset classes, the quantitative data coverage is currently limited, but we will continue to encourage issuers to provide relevant metrics. We expect data provision rates to improve over time as issuers are increasingly required to report ESG data. We will continue to review the situation and seek the most relevant data points available for the principal adverse impacts of our portfolios.
						 Exclusions: For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
						 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse susta	inability indicator	Metric	Impact 2022 Impact Exp		Explanation	Actions taken, and actions planned and targets set for the next reference period
Auverse susta	mability indicator	Metric	impact 2022	[year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Waste	9. Hazardous waste and radioactive waste	Tonnes of hazardous waste and radioactive	18.54 tonnes of hazardous waste			Corporate-level activities: • Invesco is a member of the Investor Mining and Tailings Safety initiative.
	ratio	waste generated by investee companies per million EUR invested, expressed as a weighted average	per million EUR invested			 Research and Engagement: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to reduce tonnes of hazardous waste and radioactive waste generated by investee companies per million EUR invested, expressed as a weighted average in our investment portfolios include research, corporate engagement, or exclusion from portfolios where aligned with the investment objective.
						 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered the waste principal adverse impact primarily through a set of exclusion criteria or by reducing the weighting of relevant companies.
						 For certain products we have expanded our issuer due diligence questionnaires to include additional quantitative principal adverse impact metrics based on the Annex 1 indicators. We have begun dialogue with management where feasible to encourage provision of relevant data. For some asset classes, the quantitative data coverage is currently limited, but we will continue to encourage issuers to provide relevant metrics. We expect data provision rates to improve over time as issuers are increasingly required to report ESG data. We will continue to review the situation and seek the most relevant data points available for the principal adverse impacts of our portfolios.
						 Exclusions: For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
						Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse sustain	ability indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Indicators fo	or social and employee, res	pect for human rights, anti-	corruption and anti-bribery n	natters		
Social and employee matters	10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises	Share of investments in investee companies that have been involved in violations of the UNGC principles or OECD Guidelines for Multinational Enterprises	0.07% weight of the funds			Research and Engagement: With a particular focus on holdings in products that promote environmental/ social characteristics, actions taken by Invesco Europe to avoid or reduce investee companies' poor performance against social and employee matters principal adverse impact indicators in our investment portfolios include research, corporate engagement, or exclusion from portfolios where aligned with the investment objective. Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for
	11. Lack of processes and compliance mechanisms to monitor compliance	Share of investments in investee companies without policies to monitor compliance with	2.91% weight of the funds			passive products that promote environmental/social characteristics, Invesco Europe considered the social principal adverse impacts primarily through a set of exclusion criteria or by reducing the weighting of relevant companies.
	with UN Global Compact principles and OECD Guidelines for Multinational Enterprises	the UNGC principles or OECD Guidelines for Multinational Enterprises or grievance /complaints handling mechanisms to address violations of the UNGC principles or OECD Guidelines for Multinational Enterprises				 For certain products we have expanded our issuer due diligence questionnaires to include additional quantitative principal adverse impact metrics based on the Annex 1 indicators. We have begun dialogue with management where feasible to encourage provision of relevant data. For some asset classes, the quantitative data coverage is currently limited, but we will continue to encourage issuers to provide relevant metrics. We expect data provision rates to improve over time as issuers are increasingly required to report ESG data. We will continue to review the situation and seek the most relevant data points available for the principal adverse impacts of our portfolios.
	12. Unadjusted gender pay gap	Average unadjusted gender pay gap of investee companies	22.53% (Difference in earnings of female and ma as a % of male earnings)	le		 Exclusions: For certain products that promote environmental/social characteristics, Invesco Europe has exclusion frameworks (varying by product), which may cover the exclusion of companies if they are assessed as being in violation of any of the UN
13. Board gender diversity Average ratio of female to male board members in investee companies, expressed as a percentage of all board members 14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons) Share of investments in investee companies involved in the manufacture or selling of controversial weapons biological weapons) Average ratio of gas. 33.10% female to male Board members 0.00% weight of the funds in volved in the manufacture or selling of controversial weapons		Global Compact's principles or deriving revenue from controversial weapons, including companies involved in the manufacture of nuclear warheads or whole nuclear missiles outside of the NPT (Non-Proliferation Treaty).				
	Invesco Europe's controversial weapons policy covers the firm's Luxembourg domiciled Invesco Funds SICAV and Invesco Zodiac Funds ranges and the UK Investment Company with Variable Capital (ICVC) domiciled fund range.					
	controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and	apons in investee companies nines, involved in the s, manufacture or selling of ns and controversial weapons				 For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
						 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse sustainability indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Indicators applicable to investment	s in sovereign and supranation	als	,		
Environmental 15. GHG intensity	GHG intensity of investee countries	0.31 Kilo Tons/Million EUR GDP			Research and Engagement: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce GHG intensity of investee countries in our investment portfolios include research, corporate engagement, or exclusion from portfolios where aligned with the investment objective.
					 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered the GHG intensity principal adverse impact primarily through a set of exclusion criteria or by reducing the weighting of relevant companies.
					 Exclusions: For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, any flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
					 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse sustainability indicator		Metric	Impact 2022	Impact [year n-1]	Actions taken, and actions planned and targets set for the next reference period
Social	16. Investee countries subject to social violations	Number of investee countries subject to social violations (absolute number and relative number divided by all investee countries), as	3 countries, 16.36% of total investee countries		Research and Engagement: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce investee countries subject to social violations in our investment portfolios include research, corporate engagement, or exclusion from portfolios where aligned with the investment objective.
		referred to in international treaties and conventions, United Nations principles and, where applicable, national law			 Invesco Europe tailors its approach to principal adverse impact assessment to the context of specific types of asset classes/investment strategies. For example, for passive products that promote environmental/social characteristics, Invesco Europe considered the investee countries subject to social violations principal adverse impac primarily through a set of exclusion criteria or by reducing the weighting of relevant companies.
					 Exclusions: For certain products that promote environmental/social characteristics, Invesco Europe has an exclusion framework, which covers the exclusion of sanctioned investments. At Invesco Europe we continuously monitor any applicable sanctions, including those imposed by the United Nations, United States of America, the European Union and the United Kingdom. These sanctions may preclude investments in the securities of various governments/regimes/entities and as such will be included in our compliance guidelines and workflows designed to ensure compliance with suc sanctions. The wording of international sanctions is something that we pay particular attention to as there are occasions where sanctions can exist in limited form, for example allowing investments in the secondary market.
					 For financial products that include "sustainable investments" as part or all of their objective, Invesco Europe assesses whether prospective investee companies 'do no significant harm' (DNSH) to any environmental or social objectives. In this context, an flagged issuers are excluded from such products that have a sustainable investment objective. There is an exception for passive strategies that have sustainable investment as their objective. For these funds the index construction process identifies and excludes companies that may do significant harm.
					Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse sustain	ability indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
Indicators a	pplicable to investments i	n real estate assets				
Fossil fuels	17. Exposure to fossil fuels through real estate assets	Share of investments in real estate assets involved in the extraction, storage, transport or manufacture of fossil fuels	0%			 Data Collection: In 2022, data collection methods were established for certain Invesco Europe portfolios to populate tools such as dedicated ESG data management platforms and Carbon Risk Real Estate Monitor ("CRREM") for the measurement of energy, water, and waste consumption for monitoring.
						 Portfolios managed by Invesco Real Estate Management S.a.r.l. did not have any exposure to assets involved in the extraction, storage, transport or manufacture of fossil fuels
						 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.
Energy	18. Exposure to	Share of investments in	67%			Data Collection and actions taken:
efficiency	energy-inefficient real estate assets					 In 2022, data collection methods were established for certain Invesco Europe portfolios to populate tools such as dedicated ESG data management platforms and CRREM for the measurement of energy, water, and waste consumption for monitoring
						• Energy audits have been deployed in 2022 for certain assets in portfolios to identify action plans to improve energy efficiency and implement in asset business plans.
						 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.
Additional in	ndicators					
Emissions	4. Investments in companies without carbon emission reduction initiatives	Share of investments in investee companies without carbon emission reduction initiatives aimed at aligning with the Paris Agreement.	2.41% weight of the funds			 Data Collection and actions taken: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce investments in companies without carbon emission reduction initiatives in our investment portfolios include reviewing data during the qualitative review process and when appropriate also considering the principal adverse impact indicator through research and engagement.
						 Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.

Adverse sustainab	oility indicator	Metric	Impact 2022	Impact [year n-1]	Explanation	Actions taken, and actions planned and targets set for the next reference period
GHG emissions reported in tCO ₂ e	18. Scope 1/2/3 and Total GHG emissions generated by real estate assets.	GHG emissions Total GHG emissions rated by real	• Scope 1 GHG: 3,580 tCO ₂ e • Scope 2 GHG: 28,421 tCO ₂ e			Data Collection and actions taken: In 2022, data collection methods were established for certain Invesco Europe portfolios to populate tools such as dedicated ESG data management platforms and CRREM for the measurement of energy, water, and waste consumption for monitoring.
			• Scope 3 GHG: 31,684 tCO ₂ e			• Energy audits have been deployed in 2022 for certain assets in portfolios to identify action plans to improve energy efficiency and implement in asset business plans.
			• Total emissions: 63,686 tCO ₂ e			Actions planned for the next reference period: Invesco Europe will continue to implement its principal adverse impact policy during the next reference period. In the coming years, when data is available to effectively assess the impact of our policy, we will consider and determine any appropriate additional actions to take or targets to set to continue to reduce principal adverse impacts for subsequent reference periods.
Human rights	9. Lack of human rights policy	Share of investments in entities without a human rights policy	0.90% Weight of fund			Data Collection and actions taken: With a particular focus on holdings in products that promote environmental/social characteristics, actions taken by Invesco Europe to avoid or reduce investments in in entities without a human rights policy in our investment portfolios include reviewing data during the qualitative review process and when appropriate also considering the principal adverse impact indicator through research and engagement.

The data presented in the above table are calculated using information provided by a third-party data vendor. The accuracy, completeness, and relevance of the calculated data are contingent upon the accuracy and completeness of the data provided by this third-party vendor. The numbers reported represent our best effort to provide the most accurate calculations in light of the data available. However, there are no warranties or representations, express or implied, regarding the completeness, accuracy, or suitability of this data for any particular purpose.

Methodologies for selecting additional indicators for principal adverse impacts on sustainability factors

Invesco has selected the following additional climate and other environmental related principal adverse impact indicators to consider:

• Emissions: Investments in companies without carbon emission reduction initiatives – Share of investments in investee companies without carbon emission reduction initiatives aimed at aligning with the Paris Agreement. Invesco has selected this additional indicator because cutting global emissions is essential to limit the worst impacts of global warming. Investments in companies that do not have a carbon emission reduction initiative or targets could present a significant negative impact on investment strategies that seek to minimize the environmental impacts of climate change. This optional indicator has significant overlap with the mandatory principal adverse impacts and selected proxies allowing Invesco to utilise existing datapoints to monitor companies and not only relying on a company's policy. The current approach is to check to see if a company which performs poorly on the emissions related mandatory principal adverse impact metrics have a set policy, and how robust that policy is. This is done during the review / qualitative principal adverse impact process. In doing this we can assess if the company is aware of the emissions challenges that they are facing relative to other companies in a particular region / industry and if the company is in the process of taking remedial action to reduce these negative impacts. As with many policies, the presence of a policy without adequate controls and / or monitoring of performance does not guarantee positive results. This is why a policy review is only taken into account where there is additional information regarding the companies performance relative to the sector / region.

For its real estate products, Invesco has selected:

• GHG emissions reported in tCO₂e – Scope 1/2/3 and Total GHG emissions generated by real estate assets. Real estate assets with a significant negative impact may be exposed to reduced investment value and liquidity, increased capital investment requirements and obsolescence risk. Assets may face increasing pressure from key stakeholder groups (e.g., investors, tenants, service providers, customers etc.) to reduce GHG emissions, and may also be subject to increasing regulatory requirements and obligations, which may introduce financial penalties, carbon pricing mechanisms and/or taxes, hence why Invesco determined the GHG emissions indicator to be the most relevant for monitoring. Note that availability of GHG emission data is subject to variances in data coverage due to lease agreement structures.

Invesco has selected the following additional social and employee, respect for human rights, anti-corrution and anti-bribery matters related principal adverse impact indicator to consider:

• Human rights - Lack of human rights policy - Share of investments in entities without a human rights policy. Without the implementation of certain safeguards there is a potential for a company's operations to violate individuals' human rights which could represent a significant operations and / reputation risk to the company. This additional principal adverse impact indicator has significant overlap with the mandatory principal adverse impact indicators and selected proxies allowing Invesco to utilise existing datapoints to monitor companies and not only relying on a company's policy. The current approach is to check to see if a company which performs poorly on one or more of the "Social and Employee, Respect for Human Rights, Corruption and Anti-Bribery Matters" mandatory principal adverse impact metrics have a set policy related to human rights, and how robust that policy is. This is done during the review / qualitative research stage of principal adverse impact process. In doing this we can assess if the company is aware of social / human rights related challenges that they are facing relative to other companies in a particular region / industry and if the company is in the process of taking remedial action to reduce these negative impacts. As with many policies, the presence of a policy without adequate controls and / or monitoring of performance does not guarantee positive results. Therefore, a policy review is only taken into account where there is additional information regarding the company's performance relative to the sector / region. Enhancements to the reliance on existing mandatory principal adverse impact and proxies can be made during Invesco's first recalculation of flagged issuers.

3. Description of policies to identify and prioritise principal adverse impacts on sustainability factors

Invesco Europe's policy on consideration of principal adverse impacts of its investment decisions on sustainabilty factors was approved by the boards of Invesco Asset Management Deutschland GmbH, Invesco Management S.A., Invesco Investment Management Limited and Invesco Real Estate Management S.a.r.l. in December and November 2022.

The policy is implemented by our Global Environmental, Social and Governance (ESG) team (the ESG Team) and relevant investment teams. It is reviewed when necessary, and at least annually, by Invesco's ESG Regulatory Change committee and updated as needed to ensure that it remains current and in line with Invesco Europe's activities, its operating structure, strategic plans, and applicable regulatory changes.

Methodologies for selecting our additional indicators are set out in the section entitled "Methodologies for selecting additional indicators for principal adverse impacts on sustainability factors" above.

Underpinning Invesco Europe's process of considering principal adverse impacts is the flexibility for Investment Teams and the ESG Team to challenge and verify the third-party principal adverse impacts data it receives by conducting their own proprietary qualitative analysis. This approach recognises the reality of the challenges of obtaining reliable data in the ESG space and is in line with our regulatory obligation to make best efforts to fill any data gaps.

Our principal adverse impacts consideration process addresses data gaps by:

- Engaging with investee companies;
- Carrying out additional qualitative research and analysis;
- · Leveraging third party data providers; and
- Making reasonable assumptions using proxies where available.

Invesco Europe keeps under review the quality of principal adverse impact data and data gaps. We have set up an ESG Research Data Committee to track and maintain the quality of principal adverse impact data and processes for managing gaps.

4. Engagement policies

As active managers and good stewards, Invesco Europe considers engagement with investee companies as a powerful and effective tool to promote long-term sustainable value creation for the benefit of our clients.

In our role as stewards of our clients' investments, we regard our stewardship activities, including engagement and the exercise of proxy voting rights, as an essential component of our fiduciary duty to maximize long-term shareholder value.

Pursuant to Article 3g of the Shareholder Rights Directive II 2017/828 (SRD II), Invesco Europe is required to publicly disclose its engagement policy. Invesco EMEA Engagement Policy (Engagement Policy) can be found here.

SRD II and the European Fund and Asset Management Association Stewardship Code also require Invesco Europe to publish an annual report on implementation of its Engagement Policy, including a general description of voting behaviour, an explanation of the most significant votes and the use of proxy voting advisors. Invesco Europe publicly discloses proxy votes monthly in compliance with the UK Stewardship Code and discloses an annual report on implementation of its engagement policies, significant votes including vote rationales for the European Shareholder Rights Directive annually here.

Invesco Europe's approach to engagement is one of centralised support from the ESG Team coupled with decentralised decision-making by the Investment Teams.

5. References to international standards

Invesco joined the Net Zero Asset Managers initiative (NZAMI) in 2021. As an NZAMI signatory, Invesco is committed to supporting the global goal of achieving net zero GHG emissions by 2050. This is in line with the Paris Agreement's ideal of restricting global warming to 1.5°C.

For the AUM committed to be managed in line with net zero, the interim target of 50% lower carbon footprint as measured by tCO₂/\$ invested by 2030 versus 2019 is based on the Intergovernmental Panel on Climate Change pathway S1/P2 (47% reduction based on 2010 baseline) to have a better than 66% chance of staying under 1.5°C with limited or no overshoot. Invesco's minimum safeguards across its range of products that promote environmental/social characteristics also excludes issuers that are not compliant with the UN Global Compact principles and prohibits sanctioned investments imposed by the United Nations, United States of America, the European Union, and the United Kingdom.

Certain Invesco Europe Investment Centers screen issuers against certain international standards including the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights.

For financial products in relation to which 'sustainable investments' form a part of or the whole of their objective, Invesco Europe screens the following international standard to ensure that issuers "do no significant harm" to other environmental or social objectives:

- OECD Guidelines for Multinational Enterprises;
- UN Guiding Principles on Business and Human Rights;
- Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work (and principles and rights set out in the eight fundamental conventions identified in it);
- International Bill of Human Rights: and
- United Nations defined Sustainable Development Goals.

6. Historical comparison

N/A