

5. ESRS E-5. Resource Use and Circular Economy

As part of its commitment to sustainability, the ACS Group integrates efficient resource use and circular economy as key elements in its management model. ACS prioritises the optimisation of the resources used in its activities, minimising the associated environmental impacts and promoting practices that encourage the durability, recyclability and reuse of materials.

The circular economy is positioned as an essential pillar within the ACS Group's strategy for the long-term sustainability of the infrastructures and services it offers, contributing to reducing waste, the preservation of natural resources and the generation of added value throughout the value chain. This approach allows the ACS Group not only to meet its stakeholder expectations, but also to strengthen its resilience and competitiveness in the face of current environmental and regulatory challenges.

5.1. Management of Impacts, Risks and Opportunities

5.1.1. *ESRS 2 – IRO 1 Description of the process to identify and assess material impacts, risks, dependencies and opportunities*

All the information concerning IRO-1 related to this topic is provided in section [0.2.3. SBM-3: Material Impacts, Risks and Opportunities and their interaction with strategy and business model](#).

5.1.2. *E5-1 Policies related to resource use and circular economy*

To carry out its strategy, the ACS Group has various policies aimed at the efficient use of resources and the promotion of the circular economy, described in section [0.5.1. MDR - P: Policies adopted to manage material sustainability matters](#), through which material IROs are managed.

5.1.3. *E5-2 Actions and resources related to resource use and circular economy*

The Group considers its supply chain to be one of the most critical elements of its business model. Implementing specific measures throughout the value chain, combined with working closely with its suppliers, lets it strengthen its control over and traceability of the materials and services it procures, reduce Scope 3 emissions (category 3.1), offer its customers more circular solutions, and progressively increase the use of sustainable materials in its projects.

ACS has various actions and resources to manage the material IROs identified throughout its value chain and in its own operations in relation to resource use and the circular economy. The actions described below are linked to the targets of the 2025 Sustainability Master Plan and are carried out on an ongoing basis, as they are currently being implemented in projects being performed by the ACS Group.

Analysis of the life cycle of projects

Link to policies	Environmental Policy.
Scope of the action	The entire value chain.
Progress on the actions	By 2025, the ACS Group had carried out a life cycle analysis on 260 projects since 2019 (including Thiess and Dornan).

Description of the action:

One of the commitments laid out in the 2025 Sustainability Master Plan was to promote the optimisation of resources by encouraging the durability of construction materials. To this end, the various ACS Group companies are promoting the performance of life cycle analysis (LCAs) in infrastructure and building

projects to improve efficiency in terms of the materials used and to improve their useful lives. The life cycle analyses achieve:

- **Reduced emissions and improved energy efficiency:** LCAs reveal the potential to reduce energy consumption and, at the same time, promote the incorporation of energy-efficient and more durable materials and technologies into building projects.
- **Optimising resource efficiency:** by using LCAs, the ACS Group can document the flow and use of environmentally responsible materials and thereby reduce its consumption of primary resources. This supports its strategic goal of resource efficiency and the incorporation of higher rates of recycled raw materials into the design process.
- **Efficient waste management and promotion of recycling:** LCAs identify the potential for waste reduction, both in quantity and hazardousness, thus supporting waste management across the waste hierarchy, a key priority for the ACS Group. The principles of the circular economy require that waste must be completely avoided in the long term.

Digitalisation of processes to optimise the resources used

Link to policies	General Sustainability Policy.
Scope of the action	The entire value chain
Progress on the action	The ACS Group continues to drive the digitalisation of its processes through the use of tools such as BIM and digital material passports, which enable improved project planning of projects, optimised use of resources and more efficient management of materials throughout the project lifecycle (including Thies and Dornan).

Description of the action

Digitalisation is changing the way in which projects are planned, built and managed, and is a key action among those that the ACS Group carries out to improve its resource efficiency and minimise its environmental impact, both through its own operations and its value chain.

The digitalisation solutions developed by the ACS Group encompass various areas and are in many cases specific to the projects and services developed. In the field of the circular economy, the most significant actions are:

- **Building Information Modelling (BIM):** BIM is a collaborative working methodology based on 3D models that provides everyone involved in construction with the views and tools they need to carry out each phase in the most efficient way. This methodology offers its full potential when its features are exploited in real time, and when data can be captured in an automated, or at least partially automated, manner. Through this method, a "Digital Twin" can be created, which is nothing more than processing the BIM model dynamically—can provide valuable information to improve production processes, such as up-to-date data on resources during construction (facilitating control over personnel, material and machinery), an up-to-date cost forecast based on the detailed actual development as the work progresses, etc. This allows simulation and forward planning of all stages of the process, from design and construction to operation, maintenance and eventual dismantling (and reuse). In particular, with regard to maintenance, having accurate information on all the materials used allows maintenance and repairs to be carried out in a more targeted and efficient manner.
- **Use of digital material passports,** which are digital documents that provide quantitative information on the environmental impact of a product throughout its life cycle. This promotes the efficient reuse of resources and the transition towards a circular economy model, covering all phases of the life of the project from design to dismantling and end of life, applying circular business practices related to the use and management of materials through system efficiency actions. In addition, digital material passports enable sustainable solutions to be communicated transparently to customers. In

this way, greater resource efficiency is achieved in the use of technological and biological materials through the application of circular design.

For example, in 2025, Hochtief digitally registered key construction materials in 257 active projects, representing a year-on-year increase of 67 projects (35%) compared with the previous year.

Encouraging the active engagement of supply chain actors, prioritising suppliers that are more sustainable

Link to policies	Sustainable Procurement Policy.
Scope of the action	Phase before and own operations
Progress on the actions	In 2025, 99% of significant suppliers were assessed on ESG criteria, and 100% of significant suppliers were assessed over the lifetime of the Sustainability Master Plan (excluding Thiess and Dornan)

Description of the action

The ACS Group's responsible supply chain management model begins with the process of approving suppliers and subcontractors, in which their compliance with the fundamental criteria established by the ACS Group to form part of its supply chain is assessed.

This approval and assessment considers both technical/economic and ESG factors and will prioritise, where conditions are comparable and equivalent circumstances are present, procurement from significant suppliers and contractors that are able to demonstrate concrete decarbonisation targets. This involves actions to maximise value in the application of circular business practices.

Promoting the use of recycled and recyclable materials

Link to policies	Environmental policy.
Scope of the action	Phase before and own operations.
Progress on the actions	The average proportion of recycled materials used in 2025 was 20.44% (including Thiess and Dornan).

Description of the action

The ACS Group actively promotes using recycled and recyclable materials in its projects, in line with the principles of the circular economy and reducing environmental impact. Through this initiative, the Group encourages the use of recycled and/or certified construction materials, contributing to a more efficient management of resources and minimising waste generation.

As part of its commitment to sustainability, ACS offers its customers specific choices of materials with a lower environmental footprint in the selection process. In this way, the Group not only encourages the reuse and recycling of materials within its activity, but also raises awareness and works together with its customers and suppliers to promote more sustainable construction practices.

Promotion of sustainable solutions for customers and eco-friendly techniques in construction proposals

Link to policies	Environmental policy
Scope of the action	Own and downstream operations.
Progress on the action	In projects where the ACS Group is involved in the early design and planning stages, it encourages the incorporation of circular design principles and the use of more sustainable materials, promoting construction solutions that favour resource efficiency and waste reduction (including Thies and Dornan).

Description of the action

The ACS Group actively promotes the integration of sustainable solutions and ecological techniques in its construction projects, contributing to the transition towards a more efficient and environmentally-friendly model. Where the Group is involved in the design and early planning phases, it takes a proactive approach to recommend its customers implement circular practices that will optimise resource use and reduce the environmental impact.

The proposed measures include installing removable roofs, building modular and prefabricated buildings, and using materials with a high rate of recyclability. These solutions not only favour the reuse and minimisation of waste, but can also generate significant reductions in construction and operating costs, improving the efficiency of projects throughout their life cycle.

Fostering the circular economy through waste management actions, both in own operations and along the value chain

Link to policies	Environmental Policy.
Scope of the action	The entire value chain
Progress on the actions	In 2025, the ACS Group achieved the recovery of 86.8% of the 14,313,024 tons of waste generated by its infrastructure and services projects (including Thies and Dornan).

Description of the action

The waste hierarchy is a priority in the ACS Group's resource management and circular economy strategy. Given the high use of materials and generation of waste in the construction and infrastructure sector, ACS promotes sustainable solutions to move toward a circular economy and reduce environmental impacts:

- **Prevent:** Designs based on circular economy principles and accurate material forecasting, including modular construction, elimination of composite materials, and reuse of existing structures, to minimise waste and dependence on primary resources.
- **Reuse:** Incorporation of disassembly and reuse options from design, using digital tools such as BIM and constant monitoring of waste volumes to optimise reuse in line with the waste management order.
- **Recycle:** Continuously increasing recycling rates by using recyclable materials in construction and recovering key materials such as cement, asphalt and steel.
- **Eliminate:** Reduction of hazardous waste through employee training, use of more sustainable materials, and rigorous control of disposal processes.

5.2. Metrics and Targets

5.2.1. E5-3 Targets related to resource use and circular economy

The targets set by the ACS Group go beyond the legal requirements imposed by the countries in which it operates, reflecting the organisation's firm commitment to sustainability. Likewise, in relation to waste disposal, ACS requires adherence to the legal thresholds defined in each region, thus reaffirming its environmental responsibility and regulatory compliance.

The priority targets in relation to this topic are as follows. For all the targets, the objective is defined on a consolidated basis for the entire ACS Group (excluding Thiess and Dornan as they were not in the scope of consolidation when the targets were set) and the link in the value chain affected is Own Operations.

Maintain a rate of waste (hazardous and non-hazardous) destined for reuse / recycling / recovery of 80%

Link to policies	Environmental policy
Target level to be achieved	The target is relative, as it is to maintain a recovery rate of at least 80%.
Baseline value and year	The base year is 2019, which had a waste for recovery rate of 77.8%. The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. This rate continues to rise steadily, starting at 77.8% in 2019 and continuing to rise to 87.0% in 2025, exceeding the initially defined target.
Type and hierarchy	The target is related to waste management, specifically the preparations for reusing, recycling and otherwise repurposing the waste generated by the ACS Group's business model.

Progressively minimise the non-hazardous waste sent to landfills

Link to policies	Environmental policy
Target level to be achieved	The target is absolute, as it is to reduce the non-hazardous waste sent to landfills.
Baseline value and year	The baseline year is 2019, with a rate of 21.2% of non-hazardous waste sent to landfills. The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. This percentage is decreasing, as the target was hit in previous years and was 11.3% in 2025
Type and hierarchy	The target is related to waste management, specifically the disposal of the waste generated by the ACS Group's business model.

Achieve 45% of Infrastructure sales in sustainably certified projects by 2025 or equivalent requirements

Link to policies	Environmental Policy and General Sustainability Policy
Scope	The target is defined on a consolidated basis for the entire ACS Group (excluding Thiess due to its recent entry into the scope of consolidation) and the link in the value chain affected is Own Operations.
Baseline value and year	The benchmark year is 2019, with 34.38% sales of sustainably certified projects. The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. In 2025, 45.8% of the infrastructure sales were in sustainably certified projects or equivalent requirements.
Type and hierarchy	The target is related to waste management, specifically the prevention of the waste generated by the ACS Group's business model.

Progressively increasing the rate of recycled building materials

Link to policies	Environmental Policy and General Sustainability Policy
Scope	The target is defined on a consolidated basis for the entire ACS Group (excluding Thiess due to its recent entry into the scope of consolidation) and the link in the value chain affected is Own Operations.
Baseline value and year	The base year is 2019 with a baseline value of 15.35%. The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. The percentage of recycled materials in 2025 was 20.44%. This figure has been calculated from the total tonnes of materials divided by the total amount of recycled materials used during the reporting year.
Type and hierarchy	The target is related to preventing and recycling waste, specifically to preventing and recycling the waste generated by the ACS Group's business model.

Assessing 100% of significant direct suppliers in terms of sustainability during the period of the Master Plan

Link to policies	Environmental Policy and the General Sustainability Policy
Target level to be achieved	The target is absolute, as it is to increase the number of significant suppliers assessed in terms of sustainability to 100% by 2025.
Baseline value and year	The baseline year is 2019, with 93% of suppliers assessed (only those deemed critical in terms of operational relevance at that time were included). The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. In 2025, 100% of significant suppliers were assessed
Type and hierarchy	The target is related to preventing and recycling waste, specifically to preventing and recycling the waste generated in the Pre-Operations Phase of the ACS Group's value chain.

Promoting life cycle analysis in infrastructure and building projects, exceeding 200 analysed projects in 2025

Link to policies	Environmental Policy and the General Sustainability Policy
Target level to be achieved	The objective is absolute, as it is to achieve over 200 projects with a life cycle analysis by 2025.
Baseline value and year	The base year is 2019, with 9 projects with life cycle analysis carried out. The 2019 baseline was considered excluding the part of the Industrial Services Division sold in December 2021, and Thiess as "Operationally Equivalent" after 50% of it was sold in December 2020, and without including Dornan as it was not in the consolidation perimeter.
Performance	The target is monitored annually in terms sustainability versus its base year. In 2025, 260 life cycle analyses were carried out.
Type and hierarchy	The target is related to waste prevention, specifically the prevention of the waste generated in the ACS Group's own operations.

5.2.2. E5-4 Resource inflows

Resource inflows are considered to be all materials employed during the reporting period and used by the ACS Group in the provision of its products and services to customers.

The consumption of materials in the ACS Group varies according to the sector to which the operations are performed, and it is adapted to the specific needs of each business area.

- **Turner, Cimic and Engineering and construction:** The Group's construction companies work on a wide range of infrastructures, including buildings, roads, bridges and tunnels. The materials required for these activities are sourced from suppliers upstream in the Group's value chain. In operations with services provided to mining, no procurement of raw materials is required. The main resources used are fuel for the equipment and water. These resources are reported in specific chapters: ESRS E1 - Climate Change, with regard to fuel consumption, and ESRS E3 - Water, with regard to water use. The main materials used fall into two categories:
 - **Biological materials:** Wood is the most widely used biological material in construction. Whenever the characteristics of the project and the customer's specifications allow, priority is given to using certified wood from sustainable sources or recycled wood.
 - **Technical materials:** The predominant materials are steel, concrete, glass, aggregates, asphalt and cement. The Group encourages the procurement of sustainably certified and recycled materials, as well as the reuse of the materials generated during the construction phase itself, such as the aggregates obtained from excavations.
- **Other:** In service-related activities, material consumption is significantly lower. Raw materials are not purchased, but rather the products necessary to render the services purchased by the customer. For example, in cleaning services, the main input is the cleaning products required to fulfil the assigned tasks.

In compiling the data on materials consumption presented in the attached table, the ACS Group uses information available from the companies' purchasing and procurement management systems, which let it identify the quantities of materials purchased for the projects. Where the information cannot be obtained through direct methods, estimation methods are applied based on the project's procurement costs and average prices of the materials used, which makes it possible to estimate the quantities consumed and monitor resource usage.

2025					
Material	Typology	Total weight (t)	Percentage of certified sustainable material (%)	Weight of material with reused or recycled origin (t)	Percentage of material with reused or recycled origin (%)
Wood	Biological	215,989	8.8%	10,896	5.0%
Steel	Technical	810,795	n.d.	478,322	59.0%
Concrete	Technical	29,295,279	n.d.	6,797,246	23.2%
Glass	Technical	16,597	n.d.	2,431	14.6%
Aggregates	Technical	9,106,818	n.d.	385,829	4.2%
Asphalt	Technical	3,124,460	n.d.	916,066	29.3%
Cement	Technical	374,935	n.d.	186,919	49.9%

2024 (1)					
Material	Typology	Total weight (t)	Percentage of certified sustainable material (%)	Weight of material with reused or recycled origin (t)	Percentage of material with reused or recycled origin (%)
Wood	Biological	153,750	1.8%	8,956	5.8%
Steel	Technical	741,594	n.d.	496,362	66.9%
Concrete	Technical	29,957,357	n.d.	6,930,608	23.1%
Glass	Technical	19,454	n.d.	2,295	11.8%
Aggregates	Technical	7,797,405	n.d.	387,346	5.0%
Asphalt	Technical	3,034,827	n.d.	843,422	27.8%
Cement	Technical	402,900	n.d.	120,212	29.8%

(1) The 2024 data has been recalculated as a result of improvements in the quality and consistency of the reported information.

5.2.3. E5-5 Resource outflows

ACS offers the market a wide range of services. While providing these services does not generate a tangible product for the customer, they may result in the generation of waste.

The ACS Group's activities that generate the most material waste correspond mainly to the Turner, Cimic, Engineering and Construction and Other segments.

In the field of construction, the waste generated comes directly from the same materials used as inputs, as there are no transformations that alter their composition. On the other hand, in the mining sector, the main waste produced is slag from the extractive activities.

The ACS Group implements responsible and efficient management of the waste generated during the various phases of its projects, both in the engineering and construction stages. This approach is aligned with the waste hierarchy, which establishes an order of priorities in waste management: (a) prevention; (b) preparation for reuse; (c) recycling; (d) recovery, including energy recovery; and (e) disposal. Following this hierarchy, the Group prioritises the prevention and reuse of materials whenever feasible, encourages the recycling of the waste generated, and promotes its recovery rather than disposal, driving sustainable management that minimises the environmental impact. It promotes these actions in its projects, reducing not only the waste load in landfills but also the emissions from transport.

Depending on the nature and hazardousness of the waste, it is subjected to different treatment processes, while ensuring compliance with environmental legislation and standards. The Group's priority approach is to maximise the recyclability and recovery of waste as opposed to its disposal, promoting management that favours sustainability and the circular economy.

To compile the data presented in the table below, the Group carried out an exhaustive control of the weighing of the waste generated, classifying it by type into hazardous or non-hazardous waste. In addition, the final destination of the waste is specified, differentiating between waste that has been recovered (and the type of recovery applied) and waste that has been sent to disposal processes. This methodology ensures rigorous and transparent monitoring of the waste generated by the Group's activities. On the other hand, the products developed by the ACS Group consist of infrastructures of various types, designed under principles of circularity that promote their durability and recyclability at the end of their useful life, after they are dismantled.

The total waste during the reporting year is shown in the table below:

	2024 (1) (2)	2025
Non-Hazardous waste (t) (3)	15,425,008	14,051,887
Hazardous waste (t) (4)	168,343	261,137
Total waste (t)	15,593,351	14,313,024

(1) In 2024, 8 months of Thiess are included following its full integration in May 2024.

(2) The 2024 data has been recalculated as a result of improvements in the quality and consistency of the reported information.

(3) The decrease in non-hazardous waste in 2025 is primarily due to the completion of large infrastructure projects at CIMIC and changes in HOCHTIEF's reporting perimeter.

(4) The increase in hazardous waste in 2025 is primarily due to CIMIC projects that involved the management of pre-existing contaminated soils and structures.

	2024 (1) (2)	2025
Recycled waste (not for disposal) (t)	13,441,359	12,426,142
Recycled waste (not for disposal) (%)	86.2%	86.8%
Non-Recycled waste (for disposal) (t)	2,151,992	1,886,881
Non-Recycled waste (for disposal) (%)	13.8%	13.2%

(1) In 2024, 8 months of Thiess are included following its full integration in May 2024.

(2) The 2024 data has been recalculated as a result of improvements in the quality and consistency of the reported information.

ACS Group Waste breakdown by operations

	2024 (1) (2)	2025
Hazardous waste (t)	168,343	261,137
Waste not for disposal per operation	41,027	47,995
Percentage of waste not for disposal per operation (%)	24.4%	18.4%
Reuse	8,397	43,754
Recycling	31,919	3,715
Incineration with energy recovery	527	180
Other recovery operations	183	346
Waste for disposal per operation	127,316	213,142
Percentage of waste for disposal per operation (%)	75.6%	81.6%
Incineration without energy recovery	60	18
Landfill	121,271	207,860
Other disposal operations	5,984	5,263
Non-Hazardous waste (t)	15,425,008	14,051,887
Waste not for disposal per operation	13,400,333	12,378,147
Percentage of waste not for disposal per operation (%)	86.9%	88.1%
Reuse	2,914,279	3,793,759
Recycling	9,396,958	7,294,501
Incineration with energy recovery	8,690	5,732
Other recovery operations	1,080,405	1,284,155
Waste for disposal per operation	2,024,676	1,673,740
Percentage of waste for disposal per operation (%)	13.1%	11.9%
Incineration without energy recovery	1,582	1,039
Landfill	1,987,377	1,613,884
Other disposal operations	35,717	58,816

(1) In 2024, 8 months of Thies are included following its full integration in May 2024. The total impact on waste from the integration of Thies is 29,233 tonnes.

(2) The 2024 data has been recalculated as a result of improvements in the quality and consistency of the reported information.