SECOND PARTY OPINION (SPO)

Sustainability Quality of the Issuer and Green Financing Selection Criteria

Ardagh Group
23 February 2021

VERIFICATION PARAMETERS

| Types of instruments contemplated | Green bonds, Green loans, Green hybrids, Green private placements, Green project finance and any other financial instrument where the proceeds can be exclusively allocated to finance or re-finance in part or in full new and / or existing Eligible Green Projects and / or Assets |
| Relevant standards | ICMA Green Bond Principles, LMA Green Loan Principles |
| Scope of verification | Ardagh Group Green Financing Framework (as of 23.02.2021) |
| Lifecycle | Pre-issuance verification |
| Validity | As long as the Green Financing Framework does not change. |
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SCOPE OF WORK

Ardagh Group (“Ardagh” or “the issuer”) commissioned ISS ESG to assist with its Green Financing Program by assessing three core elements to determine the sustainability quality of the instrument:

1. Ardagh’s Green Financing Framework (February 2020 version) – benchmarked against the International Capital Market Association’s (ICMA) Green Bond Principles (GBPs) and the Loan Market Association’s (LMA) Green Loan Principles (GLPs).

2. The Green Financing portfolio – whether the Use of Proceeds categories contribute positively to the United Nations Sustainable Development Goal (SDG) and perform against ISS ESG’s issue-specific key performance indicators (KPIs) (See Annex 2).

3. The Green Financing programme’s link to Ardagh Group’s sustainability strategy – drawing on Ardagh Group’s overall sustainability profile and issuance-specific Use of Proceeds categories.
## ISS ESG ASSESSMENT SUMMARY

<table>
<thead>
<tr>
<th>SPO SECTION</th>
<th>SUMMARY</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part 1:</strong> Green Financing Programme’s link to issuer’s sustainability strategy</td>
<td>According to the ISS ESG Corporate Rating published on 25.05.2020, the issuer shows a high sustainability performance against industry peer group on key ESG issues faced by the Packaging sector. The issuer is rated 8th out of 40 companies within its sector. ISS ESG finds that Use of Proceeds financed through this Green Financing Framework are broadly consistent with the issuer’s sustainability strategy and to material ESG topics for the issuer’s industry. Most Use of Proceeds categories are appropriately linked to the issuer’s strategy and with material ESG topics for its sector. The rationale for issuing green bonds is clearly described by the issuer.</td>
<td>Consistent with issuer’s sustainability strategy</td>
</tr>
<tr>
<td><strong>Part 2:</strong> Alignment with GBPs and GLPs</td>
<td>The issuer has defined a formal concept for its Green Financing Programme regarding use of proceeds, processes for project evaluation and selection, management of proceeds and reporting. This concept is in line with the ICMA Green Bond Principles and LMA Green Loan Principles.</td>
<td>Positive</td>
</tr>
<tr>
<td><strong>Part 3:</strong> Sustainability quality of the Green Financing portfolio</td>
<td>The overall sustainability quality of the Green Financing portfolio in terms of sustainability benefits, risk avoidance and minimisation is good based upon the ISS ESG assessment. The Green Financing programme will (re-)finance eligible asset categories which include: circular economy adapted products, energy efficiency, green buildings, pollution prevention and control, and clean transportation. Those use of proceeds categories have a significant contribution to SDGs 7 ‘Affordable and clean energy’, 12 ‘responsible consumption and production’ and 13 ‘Climate action’. The environmental and social risks associated with those use of proceeds categories have been mostly appropriately managed.</td>
<td>Positive</td>
</tr>
</tbody>
</table>
ISS ESG SPO ASSESSMENT

PART I: GREEN FINANCING PROGRAMME LINK TO ARDAGH’S SUSTAINABILITY STRATEGY

A. ASSESSMENT OF ARDAGH GROUP’S ESG PERFORMANCE

The ISS ESG Corporate Rating provides material and forward-looking environmental, social and governance (ESG) data and performance assessments.

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>SECTOR</th>
<th>DECILE RANK</th>
<th>TRANSPARENCY LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARDAGH GROUP</td>
<td>PACKAGING</td>
<td>2</td>
<td>VERY HIGH</td>
</tr>
</tbody>
</table>

This means that the company currently shows a high sustainability performance against peers on key ESG issues faced by the Packaging sector and obtains a Decile Rank relative to industry group of 2, given that a decile rank of 1 indicates highest relative ESG performance out of 10.

**ESG performance**

As of 23.02.2021, this Rating places Ardgah Group 8th out of 40 companies rated by ISS ESG in the Packaging sector.

Key Challenges faced by companies in terms of sustainability management in this sector are displayed in the chart on the right, as well as the issuer’s performance against those key challenges in comparison to the average industry peers’ performance.
**Sustainability Opportunities**

Ardagh is a producer of metal and glass packaging. More than half of the net sales is generated with the production of metal packaging, the rest from glass. Yet, the largest raw material use is attributed to the use of cullet for the company's glass production. The company’s product portfolio includes a marginal share of returnable glass packaging products, which contributes to the solution of global challenges such as resource scarcity. Ardagh could further shift its product offering in a more sustainable direction by offering more sustainable packaging solutions as well as integrating recycling aspects into its product portfolio (e.g., improved recyclability, a strategy to increase the recycled content or recycling rates of its products). In this context, the company uses a high recycled content in its glass packaging division, but this only represents a small share of the company's operations. Through its membership in relevant industry associations as well as own recycling facilities, the company has made reasonable efforts to increase the recycling rate of its products on a group-wide level.

**Sustainability Risks**

In order to address social risks related to its business, Ardagh has implemented a food safety management system but only at single production sites. Thus, it remains unclear whether there are comparable measures at other sites.

In the environmental sphere, Ardagh has implemented a certified environmental management system at the majority of its production sites, and addresses issues related to environmental management in its supply chain on a general level. The company also has a comprehensive climate change strategy in place. Besides, Ardagh has taken adequate actions to increase material efficiency of its products as well as in its production processes. Regarding substances of concerns, the company has implemented measures to reduce the use of VOCs. Yet, there is no evidence of actions taken to control harmful substances from glass production sites. Furthermore, the company does not seem to disclose its life cycle assessment results of its products.

**Governance opinion**

ARD Holdings S.A. is the major shareholder of Ardagh (92% of share capital, as at December 31, 2019). With regard to the company's governance structure, Ardagh exhibits substantial deficiencies. In this context, the chairman of the board (Paul Coulson, as at April 29, 2019) is not independent, and only the minority of the board members are independent. There are audit, remuneration and nomination committees in place. The majority of members of the audit committee are independent. Less than half of members of the remuneration committee are independent, and no members of the nomination committee are independent. The company does not disclose its remuneration policy for executives. Therefore, it cannot be ascertained whether important elements for sustainable value creation such as long-term incentive components are integrated into the remuneration of the company's executive management team.

Regarding the company's governance of sustainability, there is no evidence that a committee dealing with sustainability issues has been set up,[2] and it remains unclear whether ESG targets are integrated into the remuneration of the company's executive management team. In contrast to its governance structure, the company demonstrates a convincing approach with regard to the topic of business

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[2] Since the publication of the Ardagh Group SA’s ESG Corporate Rating, the company has created a Board Sustainability Committee, in charge of the Project Selection and Evaluation under its Green Financing Framework among other responsibilities.
ethics. In this context, Ardagh has set up a comprehensive code of conduct covering business ethics-related topics such as corruption and insider dealings. The company has also implemented some measures such as trainings, confidential reporting channel and whistleblower protection to assure compliance with the code.

**Sustainability impact of products and services portfolio**

Using a proprietary methodology, ISS ESG assessed the contribution of Ardagh Group’s current products and services portfolio to the Sustainable Development Goals defined by the United Nations (UN SDGs). This analysis is limited to evaluation of final product characteristics and does not include practices along Ardagh Group’s production process.

<table>
<thead>
<tr>
<th>PRODUCT/SERVICES PORTFOLIO</th>
<th>ASSOCIATED PERCENTAGE OF REVENUE</th>
<th>DIRECTION OF IMPACT</th>
<th>UN SDGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returnable glass packaging products</td>
<td>5%</td>
<td>CONTRIBUTION</td>
<td><img src="12_ELECTRICAL_COMMUNICATIONS.png" alt="12 ELECTRICAL COMMUNICATIONS" /></td>
</tr>
<tr>
<td>Others</td>
<td>N/A</td>
<td>NO NET IMPACT</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Breaches of international norms and ESG controversies**

The company is not facing any controversy.

**B. CONSISTENCY OF GREEN BOND WITH ARDAHG GROUP’S SUSTAINABILITY STRATEGY**

**Key sustainability objectives and priorities defined by the issuer**

Ardagh revised its sustainability strategy in 2020, focusing on minimizing the impact of its operations and products on the environment, promoting healthy, safe and inclusive workplaces and contributing positively to the communities in which it operates. In pursuit of its environmental objective, Ardagh Group seeks to promote recycling, enhance its product design and improve its production processes.

Ardagh’s main business consists in the production of aluminum and glass packaging – both materials which are infinitely recyclable. Ardagh is committed to promote, together with relevant industry associations, recycling rates in the regions where it operates. Moreover, Ardagh already uses significant amounts of recycled input materials in its products and seeks to increase these even further, albeit no specific target has been defined in this regard. Besides its recycling efforts, Ardagh also continuously aims to reduce the material and resource usage in the production of its packaging solutions through light-weighting of its metal beverage cans and glass containers. Moreover, Ardagh’s efforts to reduce the environmental impact of its operations are underpinned by the company’s 2025 sustainability targets (all targets compared to 2016 base line):

- Reduce CO₂ emissions by 17%
- Reduce NOₓ emissions by 17% (glass)
• Reduce VOC emissions by 4% (metal)
• Increase facility related waste recycling by 10%
• Reduce process water consumption by 9%

As of 2020, Ardagh has committed to setting a science-based greenhouse gas emission reduction target in line with the reductions required to limit the global temperature increase to 1.5°C compared to pre-industrial levels.

Rationale for issuance

Ardagh Group instituted its Green Financing Framework in 2021 with the aim of financing its environmental initiatives. The primary objective is to reduce the company’s carbon footprint as well as to invest in initiatives which enable Ardagh to play a key role in the transition to a low carbon, circular and sustainable economy. Green financing instruments to be used include Green bonds, Green loans, Green hybrids, Green private placements, Green project finance and any other financial instrument where the proceeds can be exclusively allocated to finance or re-finance in part or in full new and/ or existing Eligible Green Projects and/ or Assets as defined in Ardagh Group’s Green Financing Framework.

Through its Green Financing Framework Ardagh Group aims to address various key environmental challenges faced by the packaging industry. These include the conservation of resources in production and limiting the environmental impact of production processes.

Contribution of Use of Proceeds categories to sustainability objectives and priorities

ISS ESG mapped the Use of Proceeds categories financed under this Green Financing Framework with the sustainability objectives defined by the issuer, and with the key ESG industry challenges as defined in the ISS ESG Corporate Rating methodology for packaging. From this mapping, ISS ESG derived a level of contribution to the strategy of each Use of Proceeds categories.

<table>
<thead>
<tr>
<th>USE OF PROCEEDS CATEGORY</th>
<th>SUSTAINABILITY OBJECTIVES FOR THE ISSUER</th>
<th>KEY ESG INDUSTRY CHALLENGES</th>
<th>CONTRIBUTION</th>
</tr>
</thead>
</table>
| Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes | • Minimize the impact of products and operations on the environment  
• Promote recycling of packaging products  
• Enhance product design | • Resource-conserving production  
• Responsible sourcing of raw materials | Contribution to a material objective |
<p>| Energy Efficiency | • Minimize the impact of operations on the environment | • Environmental impacts of production | Contribution to a material objective |</p>
<table>
<thead>
<tr>
<th><strong>Renewable Energy</strong></th>
<th>• Minimize the impact of operations on the environment</th>
<th>• Environmental impacts of production</th>
<th>Contribution to a material objective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Buildings</strong></td>
<td>• Minimize the impact of operations on the environment</td>
<td></td>
<td>Contribution to a non-material objective</td>
</tr>
<tr>
<td><strong>Pollution Prevention and Control</strong></td>
<td>• Minimize the impact of operations on the environment</td>
<td>• Environmental impacts of production</td>
<td>Contribution to a material objective</td>
</tr>
<tr>
<td><strong>Sustainable Water and Wastewater Management</strong></td>
<td>• Minimize the impact of operations on the environment</td>
<td>• Environmental impacts of production</td>
<td>Contribution to a material objective</td>
</tr>
<tr>
<td><strong>Clean Transportation</strong></td>
<td>• Minimize the impact of operations on the environment</td>
<td>• Environmental impacts of production</td>
<td>Contribution to a material objective</td>
</tr>
</tbody>
</table>

**Opinion:** ISS ESG finds that Use of Proceeds financed through this Green Financing Framework are consistent with the issuer’s sustainability strategy and, for most, material ESG topics for the issuer’s industry. Most Use of Proceeds categories are appropriately linked to the issuer’s strategy and with material ESG topics for its sector. The rationale for issuing green bonds is clearly described by the issuer.
PART II: ALIGNMENT WITH ICMA GREEN BOND PRINCIPLES AND LMA GREEN LOAN PRINCIPLES

1. Use of Proceeds

An amount equivalent to the net proceeds from Ardagh’s Green Financing Instruments will be used to finance or refinance, in whole or in part, existing and/or future Eligible Projects that meet the Eligibility Criteria as defined below and are financed by Ardagh through operating and capital expenditure.

A) Eligible Green Projects

<table>
<thead>
<tr>
<th>ELIGIBLE GREEN PROJECT CATEGORY</th>
<th>ELIGIBILITY CRITERIA</th>
</tr>
</thead>
</table>
| Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes | Expenditures related to manufacturing of sustainable packaging such as
• Procurement of recycled aluminum to support increased recycling and use of recycled content in the manufacturing of beverage cans
• Procurement of low carbon primary aluminum which meets the threshold requirements as stated in the Technical annex to the TEG final report on the EU taxonomy
• Capital investments to facilitate the light weighting of Beverage cans |
| Energy Efficiency | Expenditures related to energy efficiency projects including equipment, systems, operational improvements and maintenance. Examples include:
• Expenditures to improve and maintain energy efficiency, such as investments on lighting upgrades, smart devices to optimize energy consumption |
| Renewable Energy | Expenditures related to the construction, development, acquisition, maintenance, and operation of renewable energy including solar, wind, geothermal and hydropower with direct life cycle emissions of less than 100 gCO₂e/kWh, declining to 0 g CO₂e/kWh by 2050 declining to net-0gCO₂e/kWh by 2050 as stated in the Technical annex to the TEG final report on the EU taxonomy. Examples include:
• On-site (manufacturing and distribution centers) renewable energy projects such as solar rooftop panels.
• On-site generation or Power Purchase Agreements (“PPAs”), Virtual Power Purchase Agreements (“VPPAs”), and any other investments that provides for the procurement of renewable energy through a long-term contract (at least ten years) aligned with the GHG Protocol |

3 Technical annex to the TEG final report on the EU Taxonomy page 172
4 Technical annex to the TEG final report on the EU Taxonomy page 212
### Green Buildings
Expenditures related to investments in the construction and maintenance of buildings and plants that are environmentally responsible and resource efficient throughout the building’s life-cycle. Examples include:
- Investment in new or existing buildings that meet a minimum green building certification of “BREEAM Very Good” or “LEED Gold” or equivalent,
- Investments in new or existing commercial buildings that are in the top 15% in the region\(^5\) in terms of carbon intensity (kg CO\(_2\)/m sq) and show continued improvement during the term of the bond towards net zero carbon in 2050.

### Pollution Prevention and Control
Expenditures related to the production, construction, maintenance, operation, improvements and infrastructure of zero waste facilities and industrial and post-consumption waste management processes, including:
- Collection and recycling facilities, sorting centers and equipment for post-consumption aluminum materials
- Eliminating or significantly mitigating environmental pollutants in water, air, and soil using biological, physical and chemical methods

### Sustainable Water and Wastewater Management
Expenditures related to water efficiency projects, such as efficiency in water used at our plants, installation of new efficient water-related equipment, water replenishment, wastewater management and water treatment.

### Clean Transportation
Investment and expenditures related to zero and low carbon vehicles such as:
- Vehicles with zero tailpipe emissions, such as electric cars
- Low carbon vehicles with tailpipe emissions intensity of max 50g CO\(_2\)/km until 2025. From 2026 onwards only vehicles with emission intensity of 0g CO\(_2\)/km are eligible
- Investments in infrastructure such as charging stations to support the use of zero-carbon and low-carbon vehicles.

In the case of refinancing existing Eligible Projects, investments and expenditures which have been made within the 36-month period preceding the date of issuance of a Green Financing Instrument shall be considered for inclusion as Eligible Green Projects.

### B) Exclusions
For the avoidance of doubt, financing related to the following activities are excluded from the financing by Ardagh’s Green Financing Instruments:
- Fossil fuel energy
- Nuclear energy
- Gambling
- Tobacco
- Alcohol
- Weapons

\(^5\) Region would be at minimum City level and may extend to a broader region (for e.g. state) where appropriate.
Opinion: ISS ESG considers the Use of Proceeds description provided by Ardagh Group’s Green Financing Framework as aligned with the ICMA Green Bond Principles and the LMA Green Loan Principles. Ardagh Group’s Green Financing Framework not only lists and describes eligible project categories but also explicitly excludes harmful project categories. Ardagh also defines the lookback period for potential re-financing of projects.

2. Process for Project Evaluation and Selection

Ardagh’s Board Sustainability Committee will be responsible for governing the selection and monitoring of the Eligible Projects against the Eligibility Criteria stated within Ardagh’s Green Financing Framework.

The Board Sustainability Committee includes the Chief Operations Officer, the Chief Financial Officer, the CEO of the Metal Beverage business and the Chief Sustainability Officer. The Committee may call upon other relevant individuals from the business as well.

Recommendations from the different Project Teams for Green Projects will be brought quarterly to the Board Sustainability Committee.

All Green Projects put forward by the Project teams are screened through Ardagh’s capital expenditure approval process and need to meet Ardagh’ Sustainability Policies and Procedures, which include Ardagh’s Environmental Policy, Environmental and Control Standards, Code of Conduct, Corporate and Social Responsibility (CSR) Policy, BSafe Implementation (which focuses on health and safety of employees) and supply chain risk assessments.

The Committee will screen and assess that the Green Projects put forward by the Project Teams to check they meet the eligibility and exclusion criteria laid out in section “1. Use of Proceeds”, the committee will also check for any environmental or social controversies associated with the project. If any controversies are identified the Committee will conduct a further review to determine if the project will be financed by Ardagh’s Green Financing Instruments.

The Board Sustainability Committee will annually review the list of Eligible Green Projects against the eligibility and exclusionary criteria described in the framework as well as Ardagh’s Sustainability Policies and Procedures. If a project no longer meets the eligibility criteria set forth in this framework or Ardagh’s Sustainability practices, the project will be removed from the register and replaced as soon as substitute has been identified.

Opinion: ISS ESG considers the Process for Project Evaluation and Selection description provided by Ardagh Group’s Green Financing Framework as aligned with the ICMA Green Bond Principles and the LMA Green Loan Principles. Ardagh’s Green Financing Framework defines project category-specific eligibility criteria and the process for project selection is clearly laid out. Ardagh further commits to review all selected projects annually and remove any projects which no longer meet the eligibility criteria. Yet, there are no procedures to ensure a transparent communication in case potential controversies are discovered.
3. Management of Proceeds

The net proceeds or an amount equal to the net proceeds of any Green Financing Instrument raised under this Framework will be allocated by Ardagh to finance or refinance Eligible Green Projects, as per the eligibility criteria and project selection process outlined above. Such allocation will be reflected in Ardagh’s internal records by the use of a Green Financing Register.

Ardagh intends to allocate the net proceeds or an amount equal to the net proceeds of a Green Financing Instrument to finance or refinance Eligible Green Projects within three years from the date of issuance of the applicable Green Financing Instrument. Any portion of the net proceeds or an amount equal to the net proceeds of a Green Financing Instrument that has not been allocated to Eligible Green Projects will be managed in accordance with Ardagh’s standard liquidity management practices.

**Opinion:** ISS ESG finds that Management of Proceeds proposed by Ardagh Group is aligned with the ICMA Green Bond Principles and the LMA Green Loan Principles.

4. Reporting

Ardagh commits to publishing an allocation and impact report not later than 180 days after the close of our fiscal year commencing with the fiscal year end December 31, 2021 and annually thereafter until full allocation of the proceeds of any Green Financing Instrument issued under this framework.

**Allocation Reporting**

Ardagh will provide information on the allocation of the net proceeds of its Green Financing Instruments on its website. The information will contain at least the following details:

- a) Net proceeds of outstanding Green Financial Instruments
- b) Amount of net proceeds allocated to Eligible Project Categories as defined in the Use of Proceeds section of this Framework
- c) Subject to confidentiality considerations a list of the Eligible Green Projects financed through Ardagh’ Green Financing Instruments, including a description of the projects, allocated amounts
- d) The proportional allocation of proceeds between existing projects (refinancing) and new projects
- e) The remaining balance of unallocated proceeds, if any.

**Impact Reporting**

Ardagh will provide impact reporting at the level of each Eligible Project Category and which may include the following estimated Impact Reporting Metrics:

Impact reporting metrics

**Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes**

- Recycled aluminium content used
- Low Carbon aluminium used
-
Energy Efficiency
- % reduction in electricity usage in our operations saved (MWh saved)
- % reduction in GHG emissions

Renewable Energy
- Renewable energy used
- % reduction in GHG emissions

Green buildings
- Investment in Green buildings
- % energy saving vs benchmark of other Ardagh plants

Pollution Prevention and Control
- % of product waste which is recycled
- % reduction in pollutants

Sustainable Water and Wastewater management
- % improvement in water use efficiency

Clean Transportation
- GHG emissions avoided
- # of zero-carbon and / or low carbon vehicles
- # of electric vehicle charging points installed

Opinion: ISS ESG finds that the reporting proposed by Ardagh Group is aligned with the ICMA Green Bond Principles and the LMA Green Loan Principles. Ardagh Group commits to report not only on the allocation of proceeds, but also on the impact of financed projects, using category specific KPIs.

External review
Ardagh’s Green Financing Framework is supported by the following external reviews:

a) Second Party Opinion ("SPO")
Ardagh has retained ISS Corporate Solutions to provide a Second Party opinion on Ardagh’s Green Financing Framework, to confirm alignment with the ICMA 2018 Green Bond Principles and the LMA 2020 Green Loan Principles.

b) Post Issuance external verification on reporting
Ardagh will request on an annual basis, starting one year after issuance when the first allocation report is published and until full allocation of the net proceeds, an assurance report on the allocation of the Green Financing Instrument proceeds to eligible projects, provided by its external auditor.

Opinion: ISS ESG considers the External Review proposed by Ardagh Group aligned with the ICMA Green Bond Principles and the LMA Green Loan Principles as Ardagh Group seeks an external review both pre- and post-issuance.
PART III: SUSTAINABILITY QUALITY OF THE ISSUANCE

A. CONTRIBUTION OF THE GREEN FINANCING FRAMEWORK TO THE UN SDGs

Based on the assessment of the sustainability quality of the Green Financing Framework and using a proprietary methodology, ISS ESG assessed the contribution of the Ardagh Group’s Green Financing Framework to the Sustainable Development Goals defined by the United Nations (UN SDGs).

This assessment is displayed on 5-point scale (see Annex 2 for methodology):

<table>
<thead>
<tr>
<th>Significant Obstruction</th>
<th>Limited Obstruction</th>
<th>No Net Impact</th>
<th>Limited Contribution</th>
<th>Significant Contribution</th>
</tr>
</thead>
</table>

Each of the Green Financing Framework’s Use of Proceeds categories has been assessed for its contribution to, or obstruction of, the SDGs:

<table>
<thead>
<tr>
<th>USE OF PROCEEDS</th>
<th>CONTRIBUTION OR OBSTRUCTION</th>
<th>SUSTAINABLE DEVELOPMENT GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes recycled aluminium</td>
<td>Significant contribution</td>
<td>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</td>
</tr>
<tr>
<td>Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes low carbon primary aluminium</td>
<td>Significant contribution</td>
<td>13 CLIMATE ACTION</td>
</tr>
<tr>
<td>Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes lightweight aluminium cans</td>
<td>Limited contribution</td>
<td>13 CLIMATE ACTION</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>Significant contribution</td>
<td>7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION</td>
</tr>
<tr>
<td>Renewable Energy wind, solar, geothermal</td>
<td>Significant contribution</td>
<td>7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION</td>
</tr>
<tr>
<td>Renewable Energy hydropower</td>
<td>Limited contribution</td>
<td>7 AFFORDABLE AND CLEAN ENERGY, 13 CLIMATE ACTION</td>
</tr>
</tbody>
</table>

*The assessment for some Use of Proceeds categories (Eco-Efficient and/or Circular Economy Adapted Products, Production Technologies and Processes; Pollution Prevention and Control; Green Buildings; Clean Transportation) differs from the ISS ESG SDG Solutions Assessment (SDGA) proprietary methodology designed to assess the impact of an issuer’s product and service portfolio on the SDGs.

The insight on the project level in the scope of the current SPO allows to take into account more granular information on the project level, including with regard to standards from the EU Taxonomy Technical Annex (March 2020). For projects to be financed under the Use of Proceeds category which have been found to comply with the Technical Screening Criteria defined by the EU Taxonomy Technical Annex, a significant contribution to climate change mitigation by the projects is attested.
### Green Buildings

**BREAM or LEED certified**

- **Significant contribution**

**Meeting high energy efficiency requirements defined in the framework**

- **Limited contribution**

### Pollution Prevention and Control

**Recycling & waste management**

- **Significant contribution**

**Elimination of pollutants**

- **Limited contribution**

### Sustainable Water and Wastewater Management

- **Significant contribution**

### Clean Transportation

- **Significant contribution**

<table>
<thead>
<tr>
<th>Significant contribution</th>
<th>Limited contribution</th>
</tr>
</thead>
</table>

### B. MANAGEMENT OF ENVIRONMENTAL AND SOCIAL RISKS ASSOCIATED WITH THE GREEN FINANCING FRAMEWORK

The table below presents the findings of an ISS ESG assessment of the asset types to be (re-) financed against ISS ESG KPIs.

#### ASSESSMENT AGAINST ISS ESG KPI

**Biodiversity**

- Under its Green Financing Framework, Ardagh Group will finance projects in various countries, including the EU where reasonable standards apply with respect to biodiversity-sensitive areas. However, there is no policy to avoid biodiversity-sensitive areas also for projects outside the EU.

- All facilities are subject to Environmental Site Assessment or Environmental Impact Assessment at planning stage.

- Over 90% of facilities have an ISO 14001 compliant environmental management system in place, with the remaining facilities in the process of establishing such management systems.
### Pollution prevention and waste management

- ✓ A group-wide policy with the aim of preventing waste generation, maximizing recycling and ensuring responsible waste storage, handling and disposal is in place.
- ✓ A group-wide policy with the aim of ensuring the proper handling of hazardous waste and pollution prevention is in place.

### Labor and health & safety

- ✓ Ardagh Group commits to uphold labor rights standards (e.g. ILO core conventions) across all of its operations.
- ✓ A group-wide policy on health & safety standards, including on-site contractors, is in place.

### Green buildings only: Dialogue with local communities

- ○ Ardagh Group commits to conducting a dialogue with local communities only if this is required by planning permissions or environmental permits.

### Green buildings only: Safety of building users

- ✓ Ardagh Group has implementation of an appropriate health and safety management system for all its operations and covering 100% of its employees.

### Green buildings only: Water use minimization

- ✓ A group-wide water use reduction target and a corresponding management system are in place.
- ○ However, no information is available on how water use minimization is implemented in buildings (e.g., use of water-efficient appliances, greywater systems).
DISCLAIMER

1. Validity of the SPO: As long as the Green Financing Framework does not change.

2. ISS ESG uses a scientifically based rating concept to analyse and evaluate the environmental and social performance of companies and countries. In doing so, we adhere to the highest quality standards which are customary in responsibility research worldwide. In addition, we create a Second Party Opinion (SPO) on bonds based on data from the issuer.

3. We would, however, point out that we do not warrant that the information presented in this SPO is complete, accurate or up to date. Any liability on the part of ISS ESG in connection with the use of these SPO, the information provided in them and the use thereof shall be excluded. In particular, we point out that the verification of the compliance with the selection criteria is based solely on random samples and documents submitted by the issuer.

4. All statements of opinion and value judgements given by us do not in any way constitute purchase or investment recommendations. In particular, the SPO is no assessment of the economic profitability and credit worthiness of a bond but refers exclusively to the social and environmental criteria mentioned above.

5. We would point out that this SPO, in particular the images, text and graphics contained therein, and the layout and company logo of ISS ESG and ISS-ESG are protected under copyright and trademark law. Any use thereof shall require the express prior written consent of ISS. Use shall be deemed to refer in particular to the copying or duplication of the SPO wholly or in part, the distribution of the SPO, either free of charge or against payment, or the exploitation of this SPO in any other conceivable manner.

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ANNEX 1: ISS ESG Corporate Rating Methodology

The following pages contain a description of the ISS ESG Corporate Rating Methodology, applied to Ardagh’s Corporate Rating used a source of information in section 1 of this report.
Methodology - Overview

The ESG Corporate Rating methodology was originally developed by Institutional Shareholder Services Germany (formerly oekom research) and has been consistently updated for more than 25 years.

ESG Corporate Rating - The ESG Corporate Rating universe, which is currently expanding from more than 8,000 corporate issuers to a targeted 10,000 issuers in 2020, covers important national and international indices as well as additional companies from sectors with direct links to sustainability and the most important bond issuers that are not publicly listed companies.

The assessment of a company's social & governance and environmental performance is based on approximately 100 environmental, social and governance indicators per sector, selected from a pool of 800+ proprietary indicators. All indicators are evaluated independently based on clearly defined performance expectations and the results are aggregated, taking into account each indicator's and each topic's materiality-oriented weight, to yield an overall score (rating). If no relevant or up-to-date company information with regard to a certain indicator is available, and no assumptions can be made based on predefined standards and expertise, e.g. known and already classified country standards, the indicator is assessed with a D-.

In order to obtain a comprehensive and balanced picture of each company, our analysts assess relevant information reported or directly provided by the company as well as information from reputable independent sources. In addition, our analysts actively seek a dialogue with the assessed companies during the rating process and companies are regularly given the opportunity to comment on the results and provide additional information.

Analyst Opinion - Qualitative summary and explanation of the central rating results in three dimensions:
(1) Opportunities - assessment of the quality and the current and future share of sales of a company's products and services, which positively or negatively contribute to the management of principal sustainability challenges.
(2) Risks - summary assessment of how proactively and successfully the company addresses specific sustainability challenges found in its business activity and value chain, thus reducing its individual risks, in particular regarding its sector's key issues.
(3) Governance - overview of the company's governance structures and measures as well as of the quality and efficacy of policies regarding its ethical business conduct.

Norm-Based Research - Severity Indicator - The assessment of companies' sustainability performance in the ESG Corporate Rating is informed by a systematic and comprehensive evaluation of companies' ability to prevent and mitigate ESG controversies. ISS ESG conducts research and analysis on corporate involvement in verified or alleged failures to respect recognized standards for responsible business conduct through Norm-Based Research.

Norm-Based Research is based on authoritative standards for responsible business conduct such as the UN Global Compact, the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles for Business and Human Rights and the Sustainable Development Goals.

As a stress-test of corporate disclosure, Norm-Based Research assesses the following:
- Companies' ability to address grievances and remediate negative impacts
- Degree of verification of allegations and claims
- Severity of impact on people and the environment, and systematic or systemic nature of malpractices
 Severity of impact is categorized as Potential, Moderate, Severe, Very severe. This informs the ESG Corporate Rating.

Decile Rank - The Decile Rank indicates in which decile (tenth part of total) the individual Corporate Rating ranks within its industry from 1 (best – company's rating is in the first decile within its industry) to 10 (lowest – company's rating is in the tenth decile within its industry). The Decile Rank is determined based on the underlying numerical score of the rating. If the total number of companies within an industry cannot be evenly divided by ten, the surplus company ratings are distributed from the top (1 decile) to the bottom. If there are Corporate Ratings with identical absolute scores that span a division in decile ranks, all ratings with an equal decile score are classified in the higher decile, resulting in a smaller number of Corporate Ratings in the decile below.

Distribution of Ratings - Overview of the distribution of the ratings of all companies from the respective industry that are included in the ESG Corporate Rating universe (company portrayed in this report: dark blue).
Ardagh Group SA

Methodology - Overview

Industry Classification - The social and environmental impacts of industries differ. Therefore, based on its relevance, each industry analyzed is classified in a Sustainability Matrix. Depending on this classification, the two dimensions of the ESG Corporate Rating, the Social Rating and the Environmental Rating, are weighted and the sector-specific minimum requirements for the ISS ESG Prime Status (Prime threshold) are defined (absolute best-in-class approach).

Industry Leaders - List (in alphabetical order) of the top three companies in an industry from the ESG Corporate Rating universe at the time of generation of this report.

Key Issue Performance - Overview of the company’s performance with regard to the key social and environmental issues in the industry, compared to the industry average.

Performance Score - The ESG Performance Score allows for cross-industry comparisons using a standardized best-in-class threshold that is valid across all industries. It is the numerical representation of the alphabetic ratings (D- to A+) on a scale of 0 to 100 with 50 representing the prime threshold. All companies with values greater than 50 are Prime, while companies with values less than 50 are Not Prime. As a result, intervals are of varying size depending on the original industry-specific prime thresholds.

Rating History - Development of the company’s rating over time and comparison to the average rating in the industry.

Rating Scale - Companies are rated on a twelve-point scale from A+ to D-:
A+: the company shows excellent performance.
D-: the company shows poor performance (or fails to demonstrate any commitment to appropriately address the topic).

Overview of the range of scores achieved in the industry (light blue) and indication of the grade of the company evaluated in this report (dark blue).

Sources of Information - A selection of sources used for this report is illustrated in the annex.

Status & Prime Threshold - Companies are categorized as Prime if they achieve/exceed the sustainability performance requirements (Prime threshold) defined by ISS ESG for a specific industry (absolute best-in-class approach) in the ESG Corporate Rating. Prime companies are sustainability leaders in their industry and are better positioned to cope with material ESG challenges and risks, as well as to seize opportunities, than their Not Prime peers. The financial materiality of the Prime Status has been confirmed by performance studies, showing a continuous outperformance of the Prime portfolio when compared to conventional indices over more than 14 years.

Transparency Level - The Transparency Level indicates the company’s materiality-adjusted disclosure level regarding the environmental and social performance indicators defined in the ESG Corporate Rating. It takes into consideration whether the company has disclosed relevant information regarding a specific indicator, either in its public ESG disclosures or as part of the rating feedback process, as well as the indicator's materiality reflected in its absolute weight in the rating. The calculated percentage is classified in five transparency levels following the scale below.
0% - < 20%: very low
20% - < 40%: low
40% - < 60%: medium
60% - < 80%: high
80% - 100%: very high

For example, if a company discloses information for indicators with a cumulated absolute weight in the rating of 23 percent, then its Transparency Level is "low". A company’s failure to disclose, or lack of transparency, will impact a company’s ESG performance rating negatively.
ANNEX 2: Methodology

ISS ESG Green KPIs
The ISS ESG Green Bond KPIs serves as a structure for evaluating the sustainability quality – i.e. the social and environmental added value – of the use of proceeds of Ardagh’s Green Financing Framework.

It comprises firstly the definition of the use of proceeds category offering added social and/or environmental value, and secondly the specific sustainability criteria by means of which this added value and therefore the sustainability performance of the assets can be clearly identified and described.

The sustainability criteria are complemented by specific indicators, which enable quantitative measurement of the sustainability performance of the assets and which can also be used for reporting. If a majority of assets fulfill the requirement of an indicator, this indicator is then assessed positively. Those indicators may be tailor-made to capture the context-specific environmental and social risks.

To review the KPIs used in this SPO, please contact Federico Pezzolato (details below) who will send them directly to you.

Asset evaluation methodology
ISS ESG evaluates whether the assets included in the asset pool match the eligible project category and criteria listed in the Green Bond KPIs.

All percentages refer to the amount of assets within one category (e.g. wind power). Additionally, the assessment “no or limited information is available” either indicates that no information was made available to ISS ESG or that the information provided did not fulfil the requirements of the ISS ESG Green Bond KPIs.

The evaluation was carried out using information and documents provided to ISS ESG on a confidential basis by Ardagh (e.g. Due Diligence Reports). Further, national legislation and standards, depending on the asset location, were drawn on to complement the information provided by the issuer.

Assessment of the contribution and association to the SDG
The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method, ISS ESG identifies the extent to which Ardagh’s Green Financing Framework contributes to related SDGs.
ANNEX 3: Quality management processes

SCOPE
Ardagh commissioned ISS ESG to compile a Green Financing SPO. The Second Party Opinion process includes verifying whether the Green Financing Framework aligns with the ICMA Green Bond Principles and LMA Green Loan Principles and to assess the sustainability credentials of its Green Financing Instruments, as well as the issuer’s sustainability strategy.

CRITERIA
Relevant Standards for this Second Party Opinion
- ICMA Green Bond Principles
- LMA Green Loan Principles
- ISS ESG risks management KPIs

ISSUER’S RESPONSIBILITY
Ardagh’s responsibility was to provide information and documentation on:
- Framework
- Sustainability policies and documentation
- Documentation of ESG risks management at the asset level

ISS ESG’s VERIFICATION PROCESS
ISS ESG is one of the world’s leading independent environmental, social and governance (ESG) research, analysis and rating houses. The company has been actively involved in the sustainable capital markets for over 25 years. Since 2014, ISS ESG has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

ISS ESG has conducted this independent Second Party Opinion of the Green Financing Instruments to be issued by Ardagh based on ISS ESG methodology and in line with the ICMA Green Bond Principles and LMA Green Loan Principles.

The engagement with Ardagh took place in February 2021.

ISS ESG’s BUSINESS PRACTICES
ISS has conducted this verification in strict compliance with the ISS Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behaviour and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.
About ISS ESG SPO

ISS ESG is one of the world’s leading rating agencies in the field of sustainable investment. The agency analyses companies and countries regarding their environmental and social performance.

As part of our Sustainable (Green & Social) Bond Services, we provide support for companies and institutions issuing sustainable bonds, advise them on the selection of categories of projects to be financed and help them to define ambitious criteria.

We assess alignment with external principles (e.g. the ICMA Green / Social Bond Principles), analyse the sustainability quality of the assets and review the sustainability performance of the issuer themselves. Following these three steps, we draw up an independent SPO so that investors are as well informed as possible about the quality of the bond / loan from a sustainability perspective.


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