

23 December 2020 – Neuss, Germany

### Rating Action / Update:

**Creditreform Rating has confirmed the unsolicited corporate issuer ratings of Electricity Supply Board and ESB Finance DAC, as well as the unsolicited corporate issue ratings of the long-term local currency senior unsecured notes at A. The outlooks are revised from stable to negative.**

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Electricity Supply Board (hereafter also referred to as 'ESB' or 'the Company') is a statutory corporation established in 1927 under the Electricity (Supply) Act and is 95,7% owned by the government of the Republic of Ireland. The Company owns and operates electricity distribution and transmission networks in the Republic of Ireland ('ROI') and Northern Ireland ('NI'). It also generates and supplies electricity in Ireland (both ROI and NI) and Great Britain ('GB'). While electricity generation and supply are open to full competition, the electricity transmission and distribution are regulated monopolies in ROI, NI and GB. Additional services round off the range of the Company's services. These include the supply of gas, the use of the networks to carry fibre for telecommunications, and the development of a public infrastructure to charge electric vehicles.

The Group controls a power generation portfolio of 5,520 MW across the Integrated Single Electricity Market (I-SEM) and GB, with a further 338 MW under construction, and maintains networks in ROI and NI with a total length of more than 229,000 km. The Company's share in the market for power generation across Ireland (ROI and NI) amounts to 30%, while amounting to 34% and 42% on the respective electricity supply and system services market. The Company provides electricity to 1.4 million customers. In 2019, the Group – with a workforce of 7,974 employees – generated a total revenue of EUR 3,718 million (2018: EUR 3,433 million) and a profit after tax of EUR 338 million (2018: EUR 60 million).

### Current relevant factors for the rating

The following considerations were of specific relevance for the rating assessment:

- Strategic importance for Ireland
- Stable ownership with Irish Government as the majority shareholder. It may be assumed that extraordinary financial support would be provided by the government if necessary
- Transparent regulatory framework with guaranteed revenues and predictable cash flows for two-thirds of the business
- Improved operating results for fiscal year 2019
- High degree of internal financing capability in connection with solid liquidity reserves
- High capital intensity with ongoing significant investments in maintenance and the development of renewable energies
- Lower demand for electricity and one-off impairment on power generation assets as a result of the COVID-19 pandemic, significantly affecting net income in H1 2020
- Uncertainty with regard to PR5 determination for the period 2021-2025
- Uncertainties related to Brexit (e.g. financial, currency, tax risks)
- High degree of uncertainty as to the further course of the COVID-19 pandemic, and with it uncertainty regarding the further development of ESB's key ratios

Please note:

The scenarios are based on information available at the time of the rating. Within the forecast horizon, circumstances may occur that could lead to a change of the rating out of the indicated range.

**ESG-criteria:**

CRA generally considers ESG factors (environment, social and governance) within its rating decisions. In the case of ESB, we have not identified any ESG factor with significant influence.

In 2019 the Irish government published its climate protection plan. The government has set itself the goal of obtaining 70% of electricity consumption from renewable energies by 2030, increasing the total share of electric cars to 40%, installing 600,000 heat pumps, and generating no net emissions by 2050. As a result of this action plan, we expect increasing investments to meet the national targets of decarbonising electricity, expanding intelligent networks, electrical heating and transport. However, we believe the ESB is well-positioned to address the challenges associated with these objectives. Moreover, we think that ESB will play a central role in Irish climate and transport policy in the future. We therefore believe that the energy transition can be a key growth driver for the Company's performance in the long term. In this context, the business model is to be assessed as future-oriented.

A general valid description of Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here:

<https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/The%20Impact%20of%20ESG%20Factors%20on%20Credit%20Ratings.pdf>

## Rating result

The current rating attests ESB a highly satisfactory level of creditworthiness, which represents a low to medium default risk. The rating result is based on the strong profile of the financial ratios and a stable earnings capacity sufficient to cover the Company's investment and dividend payments, as well as adequate liquidity reserves. ESB has strategic importance for the region and is supported by a solid regulatory framework on both sides of the Irish border (in ROI and NI). Given the fact that the Republic of Ireland owns 95.7% of the Company's shares and based on our rating methodology for government-related companies, we assume that the Irish government would be willing to support the Group to meet any extraordinary financial shortfall. As a consequence, the rating of ESB is closely linked to the sovereign rating of the Republic of Ireland (CRA: **A+** / **stable** as of 23 November 2020).

## Outlook

The one-year outlook for the rating is **negative** and is based on weak half-year results for 2020 which suggest a significant decline in earnings for the year as a whole. The reason for this is in particular the outbreak of the COVID-19 pandemic, which continues to develop dynamically and has significantly exacerbated the situation on the global energy market, as well as uncertainties with regard to Brexit. In addition, a lower allowed return on the regulated network business for the next period could weaken the Group's profitability.

**Best-case scenario: A**

In our best-case-scenario for one year, we assume a rating of A. In this scenario, we assume that the impact of the COVID-19 pandemic has only a limited influence on the relevant key figures

without unfavourable impact on the rating, due in part to the buffer achieved through operational improvement in 2019, as well as a rapid economic recovery in 2021 in the wake of successful government measures.

**Worst-case scenario: A-**

In our worst-case scenario for one year, we assume a rating of A-. In this scenario, as the COVID-19 pandemic progresses, we expect prolonged negative economic impacts that will slow or postpone the economic recovery. This is due, among other things, to lower electricity demand and higher bad debt losses with a lasting impact on the operational performance of ESB and its ability to reduce debt. In addition, the consequences of Brexit could also affect the Company's operational performance, as well as a negative development in the rating of the Republic of Ireland.

**Business development and outlook**

ESB is a leading Irish utility company in the field of power generation and electricity supply, and has a monopoly position as the owner of electricity distribution and transmission networks across ROI and NI. The Company is also licensed to operate the electricity distribution system in both countries through its dedicated subsidiaries, ESB Networks DAC (ROI) and NIE Networks (NI). Regulated electricity networks in Ireland accounted for over two-thirds of its earnings and assets under an established and transparent regulatory framework.

Table 1: Financials of ESB Group | Source: ESB Group annual report 2019, standardized by CRA

ESB Selected key figures of the financial statement analysis Basis: Consolidated Financial Statements of 31.12. (IRFS)	CRA standardized figures <sup>1</sup>	
	2018	2019
Sales (million EUR)	3,431.80	3,709.50
EBITDA (million EUR)	1,094.8	1,392.5
EBIT (million EUR)	315.40	586.30
EAT (million EUR)	60.20	337.80
EAT after transfer (million EUR)	62.10	341.90
Total assets (million EUR)	12,913.10	13,736.25
Equity ratio (%)	30.2	30.0
Capital lock-up period (days)	32.9	24.8
Short-term capital lock-up (%)	30.5	30.6
Net total debt / EBITDA adj. (factor)	7.1	6.6
Ratio of interest expenses to total debt (%)	2.5	1.9
Return on Investment (%)	2.2	3.8

<sup>1</sup> For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally-generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net total debt takes all balance sheet liabilities into account. Therefore, the key financial figures shown often deviate from the original values of the company.

In the financial year 2019, ESB achieved an increase in revenue by 8.1% to EUR 3,709.5 million (2018: EUR 3,431.8 million). This increase was mainly due to higher revenue in its Customer Solutions business due to increased volumes and higher unit prices, which arose from increased wholesale energy prices in 2018. As a result of improved energy margins from the thermal gas plant, lower operating costs and lower extraordinary expenses, while at the same time higher revenues in the Customer Solution division and foreign exchange, EBITDA rose by 27.2% to EUR 1,392.5 million (2018: EUR 1,094.8 million) and EBIT by 85.9% 586.3 million EUR (2018: EUR 315.4 million). The negative net financial result decreased from EUR 237.1 million to EUR 189.1 million in 2019. The main reason for this was the favourable refinancing of older expensive debt with new issuances. EAT increased by EUR 277.6 million in 2019 compared to 2018 and amounted to EUR 337.8 million (2018: EUR 60.20 million).

At the end of 2019, ESB showed an appropriate capital structure and slightly improved financial strength. On the balance sheet date for 2019, ESB had a sufficient analytical equity ratio of 30.0% (2018: 30.2%). Despite a higher net total debt of EUR 9,492.5 million (2018: EUR 8,782.9 million), total net debt/EBITDA adj. improved in 2019 from 7.1 to 6.6 due to the increase in EBITDA adj. The EBITDA interest coverage ratio has increased by 2.7 from 4.8 to 7.5, which means that the Group is able to generate sufficient operating resources to service its debt.

In 2019, ESB made EUR 1,242 million in capital expenditure, with approx. 60% of this invested in both network businesses within the framework of agreed regulated capital programmes. In addition, ESB invested EUR 340 million in projects to generate renewable energy. The Company's strong cash generation capacity, with sales of around EUR 3.7 billion and EBITDA of over EUR 1.4 billion, is enough to cover the Company's high investment requirements and government-agreed dividends of 40% adjusted profits after tax to be paid.

While the 2019 financial year was characterized by growth, there was a trend reversal in the first half of 2020, with the effects of the COVID-19 pandemic resulting in a decrease in electricity demand and capital work programmes. This has primarily caused a reduction in payroll capitalization and thus an increase in wage costs in the profit and loss account, as well as lower revenue due to an overall lower electricity demand, of which the latter was partially offset by an increase in regulated tariffs.

In addition, in the period up to June 2020, GB's forecasted thermal energy margins and captured spreads into the future also decreased, which led to an impairment charge of EUR 177 million on the Carrington gas power field power plant in Great Britain during the reporting period. In this context, the Group recorded a sharp 75.5% decline in EBIT, thereby achieving a negative EAT of EUR 66 million in the first half of 2020 (see Table 2).

Table 2: The development of business of ESB Group I Source: Interim financial report H1 2020, reported information

ESB				
In million EUR	H1 2019	H1 2020	Δ	Δ %
Sales	1,895	1,850	-45	-2.4
EBITDA	664	604	-60	-9,0
EBIT	294	72	-222	-75.5
EBT	154	-62	-216	-
EAT	132	-66	-198	-

We believe, however, that the Group benefits from a stable liquidity position. The main business of ESB as an owner of the Irish electricity networks ensures reliable, highly predictable and stable cash flows from a strictly regulated business. These cash flows are supported by income from power generation and retail, with a widely diversified customer portfolio. ESB has good relationships with the banking sector and disposes of sufficient credit facilities that can be used either for investments or to cover any current liquidity needs. As of 30 June 2020, the Group had cash and cash equivalents of EUR 310.6 million and a revolving credit facility of EUR 1.4 billion at its disposal. Of this amount, EUR 1.3 billion had not been drawn as of 30 June 2020.

Ireland's current regulatory period for the electricity sector (PR4) ends on 31 December 2020. RP5 starts on 1 January 2021 and will last for five years. According to the CEPA report on the updated estimates for PR5 as of 10 December 2020, the CRU (Commission for Regulation of Utilities) proposed an area for the allowed return (or WACC) on a pre-tax basis of 2.7-4.4% (currently 4.95%). A significant reduction in WACC could have a negative impact on the Company's profitability, thus putting ESB's corporate rating under pressure; however, we assume that the regulatory framework set by CRU for the period 2021-2025 will be sufficient for the Company to carry out its operational activities.

The impact of the COVID-19 pandemic has remained relatively limited, as two-thirds of the revenue is generated from regulated activities, thus providing stable and predictable cash flow generation. Although ESB's grid revenues are directly related to electricity consumption, and Irish electricity demand declined by around 15% year over year during the lock-up period, we believe the effects of the decline in demand are short-term in nature and manageable due to the Company's robust financial base. In addition, the Company took many proactive measures during the COVID-19 crisis to keep the country running smoothly and to ensure energy security. Demand recovered by early July 2020 after the economy had opened up again; however, in the wake of the worsening pandemic situation due to the second large infection wave, Ireland introduced a second lockdown at the end of October which could again impair operational performance. Furthermore, it is not foreseeable how long the COVID-19 pandemic will persist and what further consequences will follow.

In addition to the economic consequences of the Corona crisis, uncertainties associated with Brexit also pose a major challenge for the Company. Even after months of negotiations, the UK and European Union finally agreed upon a deal on 24 December 2020 that will define their future relationship. However, it must be reviewed and approved by both the European and UK parliaments. In light of the ongoing uncertainty, ESB has taken extensive precautions to cope with a disorderly Brexit and to manage financial and business risks.

Despite strict regulatory requirements, persistent intense competition, and the challenging global market situation due to the COVID-19 pandemic, we believe ESB to be well-positioned in the Irish market. With a strong financial profile, good access to the capital markets, and a well-established market position, ESB has good chances of successfully confronting the obstacles to energy policy change and the challenging market conditions, notwithstanding possible subdued operational performance. However, most of the Group's revenues are derived from strictly regulated business activities generating reliable, predictable, and stable cash flows, so that we can still expect possible effects to be limited. Given the systemic national importance of the Company, we consider extremely negative adjustments to the tariff system to be rather unlikely.

## Issue rating

### Issuer rating of ESB Finance DAC

ESB Finance DAC (“the Issuer”) is a wholly owned direct subsidiary of ESB, which was incorporated in Ireland on 26 January 2010 under the company number 480184. The Issuer’s principal business activity is to act as a general financing vehicle for the Group. It conducts fundraising activities in order to lend their proceeds or make them otherwise available to other members of the Group. As a wholly-owned subsidiary of ESB, the Issuer is dependent on the performance of the Group and the ability of its members to generate sufficient income to satisfy its payment obligations to other capital market participants. The Issuer’s financial statements are fully consolidated in the financial statements of the Group. For these reasons, we derive the rating of ESB Finance DAC from the unsolicited corporate issuer rating of ESB, **A** with **negative** outlook.

### Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in euro, issued by ESB Finance DAC, which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The Notes have been issued within the framework of the EMTN Programme, initiated by ESB in 2010. Following the prospectus as of 10 July 2020, the issues are unconditionally and irrevocably guaranteed by ESB. The current EMTN Programme has a maximum volume of EUR 5 billion. The Notes issued under the EMTN Programme benefit from a negative pledge provision and a cross-default mechanism. The terms of the EMTN Programme also provide noteholders with the option of redeeming their Notes prematurely in the event of a change of control.

We have provided the EUR debt securities, issued by ESB Finance DAC, with a rating of A. The decision is primarily based on the corporate rating of the ESB Group and takes into account the specific credit enhancement of the issue, namely the irrevocable and unconditional guarantee from ESB. Other types of debt instruments or issues denominated in other currencies have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

### Overview

Table 3: Overview of CRA Ratings | Source: CRA

Rating Category	Details	
	Date	Rating
Electricity Supply Board (Issuer)	23.12.2020	A / negative
ESB Finance DAC (Issuer)	23.12.2020	A / negative
Long-Term Local Currency (LC) Senior Unsecured Issues	23.12.2020	A / negative
Other	--	n.r.

Table 4: Overview of 2020 Euro Medium Term Note Programme | Source: Base Prospectus dated 10.07.2020

Overview of 2020 EMTN Programme			
Volume	EUR 5,000,000,000	Maturity	Depending on respective bond
Issuer	ESB ESB Finance DAC	Coupon	Depending on respective bond
Arranger	NatWest Markets	Currency	Depending on respective bond
Credit Enhancement	Guaranteed by ESB	ISIN	Depending on respective bond

All future LT LC senior unsecured Notes issued by ESB or ESB Finance DAC and that have similar conditions to the current EMTN programme, denominated in euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured Notes issued under the EMTN programme. Notes issued under the programme in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

## Appendix

### Rating history

The rating history is available under:

<https://www.creditreform-rating.de/en/ratings/published-ratings.html>

Table 3: Corporate issuer rating of Electricity Supply Board | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial Rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

Table 4: Corporate issuer rating of ESB Finance DAC | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

Table 5: LT LC senior unsecured issues by ESB Finance DAC | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	01.10.2018	31.10.2018	Withdrawal of the rating	A / stable

### Regulatory requirements

The rating<sup>2</sup> was not endorsed by Creditreform Rating AG (Article 4 (3) of the CRA-Regulation).

The present rating is, in the regulatory sense, an unsolicited rating that is public. The analysis was carried out on a voluntary basis by Creditreform Rating AG, which was not commissioned by the Issuer or any other third party to prepare the present rating.

The rating is based on the analysis of published information and on internal evaluation methods for the assessment of companies and issues. The rating object was informed of the intention of creating or updating an unsolicited rating before the rating was determined.

The rating object participated in the creation of the rating as follows:

With Rated Entity or Related Third Party Participation	No
With access to Internal Documents	No
With Access to Management	No

The rating was conducted based on the following information.

List of documents
<b>Accounting and controlling</b> <ul style="list-style-type: none"> <li>ESB Annual Results and Accounts 2019</li> <li>ESB Interim Results 2020</li> <li>ESB Investor Presentation September 2020</li> <li>ESB Debt Investor and Business Update January 2020</li> <li>ESB Sustainability Report 2019</li> </ul>
<b>Finance</b> <ul style="list-style-type: none"> <li>ESB EMTN Base Prospectus dated 10 July 2020</li> <li>Final Terms of the Outstanding Notes</li> <li>ESB – Third Supplemental Trust Deed 2020</li> </ul>
<b>Additional documents</b> <ul style="list-style-type: none"> <li>Press releases</li> </ul>

A management meeting did not take place within the framework of the rating process.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies.

The rating was conducted based on the following rating methodologies and the basic document.

Rating methodology	Version number	Date	Website
Corporate Ratings	2.3	29.05.2019	<a href="https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Corporate%20Ratings.pdf">https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Corporate%20Ratings.pdf</a>

<sup>2</sup> In these regulatory requirements the term "rating" is used in relation to all ratings issued by Creditreform Rating AG in connection to this report. This may concern several companies and their various issues.

Government-related Companies	1.0	19.04.2017	<a href="https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Government-Related%20Companies.pdf">https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Government-Related%20Companies.pdf</a>
Non-financial Corporate Issue Ratings	1.0	October 2016	<a href="https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Non-Financial%20Corporate%20Issue%20Ratings.pdf">https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Non-Financial%20Corporate%20Issue%20Ratings.pdf</a>
Rating Criteria and Definitions	1.3	January 2018	<a href="https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/CRAG%20Rating%20Criteria%20and%20Definitions.pdf">https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/CRAG%20Rating%20Criteria%20and%20Definitions.pdf</a>

The documents contain a description of the rating categories and a definition of default.

The rating was carried out by the following analysts:

Name	Function	Mail-Address
Natallia Berthold	Lead analyst	N.Berthold@creditreform-rating.de
Christina Sauerwein	Analyst	C.Sauerwein@creditreform-rating.de

The rating was approved by the following person (person approving credit ratings, PAC):

Name	Function	Mail-Address
Christian Konieczny	PAC	C.Konieczny@creditreform-rating.de

On December 2020, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the Company on 23 December 2020. There has not been a subsequent change to the rating.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring, if crucial assessment parameters change.

In 2011, Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on this registration, Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

#### ESG-factors

You can find out whether ESG factors were relevant to the rating in the upper section of this rating report "Relevant rating factors".

A general valid description for Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found here:

<https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Externes%20Rating/Regulatorische%20Anforderungen/EN/Ratingmethodiken%20EN/The%20Impact%20of%20ESG%20Factors%20on%20Credit%20Ratings.pdf>

#### Conflicts of interest

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

In the event of providing ancillary services to the rated entity, Creditreform Rating AG will disclose all ancillary services in the credit rating report.

#### Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our "Rating Committee Policy", all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, Creditreform Rating AG has used following substantially material sources:

##### Corporate issuer rating:

1. Annual report
2. Website
3. Internet research

##### Corporate issue rating:

1. Corporate issuer rating incl. information used for the corporate issuer rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the Creditreform Rating AG website. Furthermore, Creditreform Rating AG considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The Basic Data Information Card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the Basic Data Information Card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>

An explanatory statement of the meaning of Creditreform Rating AG's default rates are available in the credit rating methodologies disclosed on the website.

### Disclaimer

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