27 October 2020 – Neuss, Germany

Rating Action / Update:

Creditreform Rating has set the solicited corporate issuer rating of Fluvius System Operator CV to A+ / negative

Analysts

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Creditreform Rating (CRA) has affirmed the solicited corporate issuer rating of Fluvius System Operator CV, as well as the solicited corporate issue rating of the long-term local currency senior unsecured issues at A+ and has revised its outlook from "stable" to "negative". We also refer to the previous year's report dating from 26 July 2019, which contains further essential information regarding Fluvius System Operator CV.

Fluvius System Operator CV (hereinafter also 'the Company' or 'FSO') is the multi-utility network operator in Flanders, Belgium. The Company was founded on 1 July 2018 through the merger of the former operating companies Eandis System Operator CVBA and Infrax CVBA, and is responsible for the distribution of electricity, gas, sewerage, cable distribution and heat. FSO, its consolidated subsidiaries, and the Mission Entrusted Associations (MEA's) together form the Economic Group Fluvius (EGF - the Group). As of 31 December 2019 the Group manages 231,000 kilometers of utility networks and 7.5 million connections and operates in all 300 cities and municipalities in the Flemish Region (Belgium).

As our rating object Fluvius System Operator CV operates on a cost-price basis on behalf of the MEA's, which are the network owners, and given the fact that they provide guarantees for debt obligations of FSO, we have considered the Group as a whole in order to assess the creditworthiness of FSO.

Current relevant factors for the rating

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

+ Government-related company, 100% public shareholders

+ Strategic importance of the Group for the Flemish region as largest Flemish multi-utility, with electricity and gas coverage for the whole region

+ Solid financial position and good access to capital markets

+ Partially robust business model and short-term agile measures during the COVID-19 crisis

- Expected decline in revenues and cash-flows following the implementation of the tariff methodology 2021 – 2024 for gas and electricity markets by the VREG

- High net total debt / EBITDA

- Possible deterioration of the credit risk position following further indebtedness linked to necessary investments and debt refinancing

- Relatively high pay-out ratio

ESG-criteria:

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

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 A+ attests a high level of creditworthiness to FSO, representing a low default risk for the Company in comparison with the sector and the overall economy.

The Group operates in a regulated environment and disposes over a legally-based regional monopoly in a sector that provides essential services to the population. We therefore see the Group as having systemic relevance for the region of Flanders. Additionally, the MEA's are fully owned by Flemish municipalities. We therefore assume a high probability that the local authorities would offer extraordinary support to the Group should it find itself in financial difficulty. This factor has a positive effect on the rating result, according to our sub-methodology "government-related entities". Any change in the sovereign rating of Belgium (CRA rating AA / negative as of June 26, 2020) could therefore also have an impact on the corporate issuer rating for FSO.

The new regulatory framework for gas and electricity markets in Flanders for the period of 2021 – 2024 will be applied from January 1, 2021. The new tariff methodology will put negative pressure on the rating when it comes into effect next year, as it foresees a reduction in allowed income and cash-flow generation. This will increasingly force the Group to realize more operating efficiencies. At the same time, the accelerated roll-out of smart metering and additional investments, which are expected to increase, will put additional pressure on the Group's cash flows. Our expectation is that the Group's indebtedness will rise over time in order to enable it to finance its investments. This in turn raises the likelihood that key financial ratios will deteriorate in the future and will not be able to support an A+ rating.

Despite the tariff reduction, we continue to believe that the regulatory framework for the gas and electricity markets in Flanders remains largely supportive and sufficient for the Group to continue its operating activities.

Outlook

The one-year outlook of the rating is negative. This assessment is based on our expectation that the Group will experience a reduction in earnings and cash flows following the implementation of the new tariff methodology, thus putting pressure on the Group's cash flows. Furthermore, the expected increase in investments, partially due to the accelerated smart metering roll-out in combination with the reduced allowed income, will most likely lead to an increase in indebtedness. We expect that, over time, the financial metrics of the Group will deteriorate, necessitating a downgrade of the corporate issuer rating.

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.

Best-case scenario: A+

In our best-case scenario for one year, we assume a rating of A+. In this scenario, the relevant key financial ratios remain constant despite the lower allowed returns in the newly implemented tariff methodology, due to realized operating efficiencies.

Worst-case scenario: A

In our worst-case scenario for one year, we assume a rating of A. In this scenario, we assume a deterioration of the Group's financials following the lower allowed return in the new tariff methodology. This, in combination with higher investment needs, might lead to a deterioration of the financial metrics, thus making a downgrade necessary.

Business development and outlook

During the 2019 business year, the Economic Group Fluvius achieved revenues amounting to EUR 2,992 million. The majority of these (93.6%) continued to be generated by remuneration for the distribution and transport of electricity and gas. The residual amount was generated by the direct sale of energy to households which had problems finding an energy provider (public service obligation) (1.9%), construction work for other parties (2.0%) and 2.5% by other sales for the wastewater management.

Table 1: Financials of Economic Group Fluvius I Source: Economic Group Fluvius, consolidated financial statements 2019, standardized by CRA

Economic Group Fluvius Selected key figures of the financial statement analysis Basis: Consolidated Financial Statements of 31.12. (IFRS, Group)	CRA standardized figures[1]	
	2018	2019
Sales (million EUR)	2,943.75	2,991.50
EBITDA (million EUR)	772.75	985.74
EBIT (million EUR)	396.53	517.11
EAT (million EUR)	190.91	330.92
EAT after transfer (million EUR)	190.91	330.92
Total assets (million EUR)	13,775.44	14,267.16
Equity ratio (%)	43.73	43.09
Capital lock-up period (days)	37.07	39.96
Short-term capital lock-up (%)	30.21	47.47
Net total debt / EBITDA adj. (factor)	9.17	7.99
Ratio of interest expenses to total debt (%)	2.45	2.57
Return on investment (%)	2.12	3.03

Gross profit decreased from EUR 1,591 million to EUR 1,510 million, which led to a gross profit margin of 50% in 2019 (2018: 54%). The main reasons for this development were the higher costs for transportation - which included the transmission cost of electricity invoiced by the

[1] 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.

Transmission System Operator (TSO – Elia) - and costs for the federal contribution (obligations for denuclearization, the reduction of emission of greenhouse gases, and costs relating to the regulation and control of the energy market). Despite the increased number of certificates purchased (6,268,725 in 2019 and 5,581,415 in 2018), costs for green electricity and CHP certificates fell from EUR 521 million to EUR 491 million in 2019. In contrast, the cost of services increased from EUR 409 million to EUR 463 million in 2019. Due to the merger with former ex-Infrax MEAs, which were included in the consolidation for 6 months in 2018 and for the full year in 2019, wage costs rose from EUR 442 million to EUR 590 million in 2019, and amortization/depreciation costs rose from EUR 407 million to EUR 450 million.

Table 2: The development of individual segments in 2019 I Source: Consolidated annual accounts of Economic Group Fluvius (Belgian GAAP, before consolidation adjustments; the acquisition of ex-Infrax-companies is processed according to the Belgian GAAP retrospectively to 1 January 2018, and contains the results over the 12 months)

Economic Group Fluvius, individual corporate divisions								
In million EUR	Electricity		Gas		Other		Eandis / Fluvius System Operator	
	2018	2019	2018	2019	2018	2019	2018	2019
Turnover	2,264	2,358	600	559	230	236	1,637	1,653
EAT	70	146	51	95	75	65	0	0
Total assets	7,301	7,043	3,828	3,821	2,209	2,705	4,749	5,156

The Group's EBIT normalized again in 2019, rising to EUR 517 million (2018: EUR 397 million) due to a non-recurring expense of EUR 267 million in 2018 following a decision by VREG to fully return the historical balances of manageable costs for the period 2010 – 2014 to the end consumers.

At the end of 2019 the Group showed an adequate capital structure with an adjusted equity ratio of 43.09% (2018: 44.39%). The net total debt / EBITDA adj. of 7.99 (2018: 9.17) improved slightly due to the improved EBITDA adj. and the slightly reduced indebtedness of the Group, as evidenced by the leverage ratio, which improved to 2.30 (2018: 2.63).

Table 3: The development of business of Economic Group Fluvius I Source: Economic Group Fluvius, condensed consolidated interim 30 June 2020

Economic Group Fluvius				
In million EUR	H1 2019	H1 2020	Δ	Δ %
Sales	1,540.4	1,443.3	-97.1	-6,3
EBIT	232.6	297.1	+64.5	27,7
EAT	140.8	181.4	+40.6	28,8

In the first half year of 2020, revenues decreased by 6.3% to EUR 1,540.4 million in comparison with H1 2019, reflecting the standardization of the invoicing system of ex-Eandis and ex-Infrax. This decline in revenue will be compensated for in the annual recalculation of the tariffs. The cost of trade goods increased by 3.4% to EUR 687 million. The reason for this was the increase in the cost of green and cogeneration certificates. However, all other costs such as the costs for the transmission network fee, the purchase of electricity and gas for social customers, and for services and expenses for employee benefits showed a slight decrease. In addition, income from the recoveries and regularizations for transfers of EUR 35.4 million (H1 2019: expenses of EUR 72.5 million) was generated. As a result, the operating margin improved from 13.1% to 17.1%. Due to an improvement of EUR 18.6 million in the net financial result, EAT was enhanced by 28.8% in the reporting period, and amounted to EUR 181.4 million.

The impact of the COVID-19 pandemic had a relatively minor impact on the Group, resulting primarily in a slightly lower distribution of electricity and gas due to lower consumption, especially by industrial consumers, and to a lesser extent by residential consumers. This lost income can be recovered in subsequent tariff periods.

Liquidity at the end of June 2020 was sufficient: as of 30.06.2020 the Group disposed over cash and cash equivalents of EUR 49.6 million and cash facilities with an aggregate amount of EUR 425 million and a commercial paper program of EUR 500 million. Of this amount, EUR 68 million and EUR 500 million respectively were drawn as of 30 June 2020.

At the end of June 2020, the Flemish government decided to accelerate the digital smart metering roll-out. In the initial scenario, the roll-out was planned over a 15-year period until 2033. The new scenario foresees an accelerated roll-out of the digital metering project and aims for completion by mid-2029, with 80% of all digital meters to be installed by 2024. The complete costs for the initial metering project was budgeted at EUR 2.379,1 million EUR, which will now be spread out over a shorter period, increasing investments in this project per year. As of June 2020, EGF already installed 331,972 meters.

Another major investment plan is the switch to LED for public lighting. This project has been budgeted at EUR 926 million and will require the Group to change all municipal public lighting to LED by 2030. The start of this project is 2020 and represents 1.2 million lighting points in total.

On 13 August 2020 the VREG published the new tariff methodology for a new regulatory period. This new regulatory period sets out the framework for the allowed income from the distribution of electricity and gas in Flanders for the period between 2021 and 2024. The new methodology differs in a couple of key aspects from the prior regulatory period; in particular, the lower capital cost allowance, the reduction in allowance based on operational costs following the merger between Eandis System Operator CV and Infrax CV, and the introduction of the frontier shift into the methodology, will have an adverse impact on the allowed income for Fluvius.

The capital cost allowance is based on the weighted average cost of capital (WACC) that is used for the financing of its regulatory activities. This remuneration is based on the regulatory asset base (RAB), which was valued at EUR 9.99 billion including revaluation surpluses as of 31.12.2019. The WACC is determined by benchmarking values over recent years, as financing conditions change over time. The new pre-tax cost of equity has been determined at 5.44%, and the pre-tax cost of indebtedness has been set at 2.14%. As the VREG assumes a gearing ratio of 40% equity and 60%, indebtedness, the pre-tax WACC for the period of 2021–2024 is set at 3.5%. This is a significant reduction in comparison to the pre-tax WACC in 2019, which stood at 4.8%.

Additionally, the new tariff methodology also foresees a gradual reduction of the WACC for revaluation surpluses on the balance sheet. The WACC of 3.5% will apply in 2021 but will then be reduced annually by $1/8^{th}$ from 2022 onwards. This will cause a further gradual reduction of income from the revaluation surpluses. The revaluation surpluses on the balance sheet were approximately EUR 1.2 billion at the end of 2019.

The reduction in allowance based on the historical costs follows the merger between Eandis System Operator CV and Infrax CV. The merger between the two entities created the basis for improved operational cost efficiency due to synergy and scaling effects. The merger is expected to yield recurring savings of EUR 109 million per year in total. The VREG holds that these savings should not go to the shareholders of the DSO's, but rather to the communities in which they operate. The regulator has therefore already reduced the allowance by EUR 17 million for electricity distribution and EUR 8.5 million for gas distribution according to the current methodology in 2019 and 2020. The residual amount of EUR 83.5 million will be saved through the allowances during the next methodology period 2021–2024. The exact reductions in allowance based on historical costs are shown in table 4.

Table 4: The correction on historical costs, according to the new tariff methodology 2021 – 2024 in response to the expected cost savings resulting from the merger of ESO and Infrax. I Source: VREG - tariff methodology for distribution of electricity and gas during the regulatory period 2021 - 2024

Correction on historical costs according to the new tariff methodology 2021 - 2024		
in thousands EUR	**Electricity**	**Gas**
2021	14,000	6,875
2022 - 2024	42,000	20,625

Moreover, the VREG introduced a new tariff mechanism called the "frontier shift". This mechanism represents a productivity change that every company within the sector should be able to realize. This was researched by Oxera Consulting LLP. This new mechanism only applies to DSO's in the gas sector, as research has shown that cost savings already implemented includes an efficiency improvement mechanism. The net frontier shift for the distribution of gas is set at 0.4% per year. This means that the endogenous income for gas distribution will be reduced annually by 0.4%.

We continue to believe that the regulatory framework as laid out by the VREG for the period 2021- 2024 will be sufficient for the Group to execute its operational activities. However, the new tariff methodology will put negative pressure on the corporate issuer rating of Fluvius System Operator CV. This is mainly because the 1.3% reduction in WACC, the reduction in the allowance for operational cost, and other factors mentioned above will reduce the Group's allowed income and cash-flow generation and will force more operating efficiencies. This factor, in combination with the expected increase in investments, will put further pressure on the Group's financials. We expect that FEG's financial metrics will deteriorate over time due to the lowered allowed income and increase in investments.

Issue rating

Issue rating details

The rating objects of this issue rating are exclusively the long-term senior unsecured issues, denominated in euros, issued by Fluvius System Operator CV (ex-Eandis and ex-Infrax) and 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 bonds issued by ex-Eandis, which have been issued within the framework of a Euro Medium Term Note Programme ("EMTN Programme") - of which the latest base prospectus is dated 25 November 2014 - benefit from a guarantee on a several but not joint basis by the following

DSOs: Gaselwest, Fluvius Antwerpen, Imewo, Intergem, Iveka, Iverlek and Sibelgas. The current EMTN Programme of ex-Eandis amounts to a maximum EUR 5 bn. The issue proceeds are used to finance general corporate purposes of the issuer, and, in most cases, consists in the financing of the guarantors' investment programmes (capex) as approved by the regulator. The Notes issued under the EMTN Programme benefit from a negative pledge provision and cross-default mechanism. A redemption at the option of the noteholders may be possible if a put option is specified in the final terms of the Note.

The bonds issued by ex-Eandis, which have been the object of separate bond issuance documentation, also benefit from the several but not joint guarantee from the ex-Eandis DSOs. The issue proceeds serve to finance the investment programme of the Group, the working capital of the regular operations of the Group or to refinance other bonds.

The bonds issued by ex-Infrax have been issued within the framework of a Euro Medium Term Note Programme ("EMTN Programme"), of which the latest base prospectus is dated 16 October 2014. A first tranche of EUR 250 million was issued in 2013 (duration 10 years) and a second tranche of EUR 250 million was issued in 2014 (duration 15 years). All notes issued under the EMTN Programme are guaranteed on a several, proportionate and joint basis by Fluvius Limburg and on a several and proportionate but not joint basis by Infrax West, Fluvius Antwerpen, PBE and Riobra. The issue proceeds are used to finance working capital requirements and the investment expenditure of the issuer and the guarantors. The Notes issued under the EMTN Programme benefit from a negative pledge provision as well as cross-acceleration and cross-default mechanisms. A change of control put right has been specified in the final term of each outstanding note (BE0002448232 and BE0002478536). As Infrax was dissolved within the framework of the merger and its assets and liabilities transferred to the merged entity Fluvius, the conditions 9(f) and 9(h) of the "event of default" of the base prospectus of the EMTN-Programme of Infrax (dated 16 October 2014) were applicable. This means that the merger constituted an event of default and the bondholders could request an early redemption of the bonds. This early redemption was waived by the bondholders during a meeting of bondholders on 2 May 2018. Furthermore, the bondholders consented during the meeting to various amendments to the conditions under the EMTN-Programme in light of the merger of Infrax with Eandis.

Result Corporate Issue Rating

We assign a rating of A+ (negative) to the long-term local currency senior unsecured debt securities issued by Fluvius System Operator CV. The decision is derived from the corporate issuer rating and its outlook. We did not derive any unfavorable change in the current bonds' documentation due to the transfer of the outstanding bonds into Fluvius, as the current outstanding ex-Eandis bonds remain guaranteed by ex-Eandis guarantors and the current outstanding ex-Infrax bonds remain guaranteed by ex-Infrax guarantors. After the merger of Imea, Iveg and Integan into Fluvius-Antwerpen, the latter took over the guarantee of Imea in the ex-Eandis bonds and the guarantee of Iveg in the ex-Infrax bonds proportionally. Similarly, Fluvius-Limburg as a legal successor assumed the guarantee for the ex-Infrax bonds, formerly provided by Inter-energa, Inter-aqua and Inter-media, after their merger.

Any change in the guarantee structure could generally have an impact on the rating of the LT LC senior unsecured issues of Fluvius.

The following tables give overviews of the ratings attributed by CRA as well as of the current EMTN Programmes of ex-Eandis and ex-Infrax.

Overview

Table 5: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
Fluvius System Operator CV	27.10.2020	A+ / negative
LT LC senior unsecured issues of Fluvius System Operator CV	27.10.2020	A+ / negative
Other	--	n.r.

Table 6: Overview of 2014 EMTN Programme of ex-Eandis I Source: Eandis System Operator CV, prospectus dated 25 November 2014

Overview 2014 EMTN Programme			
Volume	EUR 5,000,000,000	Maturity	Depending on the respective Notes
Issuer	Eandis System Operator CV	Coupon	Depending on the respective Notes
Arranger	Belfius Bank and HSBC	Currency	Depending on the respective Notes
Credit enhancement	Guarantee on a several but not joint basis by Gasel-west, Fluvius Antwerpen, Imewo, Intergem, Iveka, Iverlek and Sibelgas	ISIN	Depending on the respective Notes

Table 7: Overview of 2014 EMTN Programme of ex-Infrax I Source: Infrax CV, prospectus dated 16 October 2014

Overview 2014 EMTN Programme			
Volume	EUR 500,000,000	Maturity	Depending on the respective Notes
Issuer	Infrax CV	Coupon	Depending on the respective Notes
Arranger	BNP Paribas	Currency	Depending on the respective Notes
Credit enhancement	Guarantee on a several, proportionate and joint basis by Infrax Limburg and on a several and proportionate but not joint basis by Infrax West, Fluvius Antwerpen, PBE and Riobra	ISIN	Depending on the respective Notes

Under the current issuance conditions, all future LT LC senior unsecured bonds, denominated in euro and included in the list of ECB-eligible marketable assets, which will be issued by Fluvius System Operator CV, will, until further notice, receive the same ratings as the current outstanding LT LC senior unsecured bonds. Other types of debt instruments of the issuer have not been rated by CRA so far. The current ratings and information can be seen on the website of Creditreform Rating AG.

Appendix

Rating history

The rating history is available under:

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

Table 8: Corporate issuer Rating of Fluvius System Operator CV | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	04.11.2016	11.11.2016	18.01.2017	A+ / stable
Update	18.01.2017	19.01.2017	24.04.2017	A+ / stable
Update	24.04.2017	25.04.2017	17.01.2018	A+ / stable
Update	17.01.2018	19.01.2018	26.07.2019	A+ / stable
Update	26.07.2019	02.08.2019	27.10.2020	A+ / stable
Update	27.10.2020	30.10.2020	Withdrawal of the rating	A+ / negative

Table 9: LT LC Senior Unsecured issues issued by Fluvius System Operator cv | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	05.10.2018	15.10.2018	26.07.2019	A+ / stable
Update	26.07.2019	02.08.2019	27.10.2020	A+ / stable
Update	27.10.2020	30.10.2020	Withdrawal of the rating	A+ / negative

Regulatory requirements

After having prepared an unsolicited corporate issuer rating of Eandis System Operator CVBA (since 1 April 2019 Fluvius System Operator CV) on 4 November 2016, the management of the Company commissioned Creditreform Rating AG with the preparation of a corporate issuer/issue rating[2] rating (solicited rating) and monitoring of the company on 7 December 2016 (standing order).

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 participated in the creation of the rating as follows:

Solicited Corporate Issuer / Issue Rating	
With rated entity or related third party participation	Yes
With access to internal documents	Yes
With access to management	Yes

[2] 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.

A conference call with the Company took place on 22 October 2020 within the framework of the rating process.

In addition to the documents from the previous years and the monitoring during the year, the Company provided the following information as part of the update.

List of documents

Accounting and controlling

- Consolidated financial statements IFRS Economic Group Fluvius as of 31 December 2019
- Consolidated financial statements IFRS Fluvius System Operator Group as of 31 December 2019
- Annual report Fluvius 2019
- Condensed consolidated interim IFRS Economic Group Fluvius as of 30 June 2020
- Condensed consolidated interim IFRS Fluvius System Operator Group of 30 June 2020
- Forecast financial statements
- Information on green certificates, Investment plans

Finance

- Eandis EMTN-programme prospectus dated 25 November 2014
- Infrax EMTN-programme prospectus dated 16 October 2014 Group Debenture
- Eandis System Operator CVBA prospectus dated 2 June 2017
- Final terms of the outstanding notes
- Minutes of the meetings of bondholders and other information

Additional documents

- Investor presentation dated October 2020
- Press releases
- Correspondence

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	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
Government-related Companies	1.0	19.04.2017	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
Non-financial Corporate Issue Ratings	1.0	October 2016	https://creditreform-rating.de/en/about-us/regulatory-requirements.html?file=files/content/downloads/Ex-

			ternes%20Rating/Regulatorische%20Anforder-ungen/EN/Ratingmethodiken%20EN/Rating%20Methodology%20Non-Financial%20Corpo-rate%20Issue%20Ratings.pdf
Rating Criteria and Definitions	1.3	January 2018	https://creditreform-rating.de/en/about-us/regulatory-require-ments.html?file=files/content/downloads/Ex-ternes%20Rating/Regulatorische%20Anforder-ungen/EN/Ratingmethodiken%20EN/CRAG%20Rating%20Criteria%20and%20Definitions.pdf

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
Rudger van Mook	Analyst	R.vanMook@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

The rating was presented to the rating committee on 27 October 2020. The company examined the rating report prior to publication and was given at least one full working day to appeal the rating committee's decision and to provide additional information. The rating decision was not amended following this examination.

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%20Anforder-ungen/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.

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