Creditreform Corporate Issuer / Issue Rating

Schneider Electric SE (Group)

Creditreform Rating
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Rating object	Rating information	
Schneider Electric SE	Corporate Issuer Rating: **A- / stable**	Type: Initial rating Unsolicited
	LT LC Senior Unsecured Issues: **A-**	Other: **n.r.**

Creditreform ID: 400981023
Incorporation: 1836 (original foundation)
(Main) Industry: electrical engineering
CEO: Jean-Pascal Tricoire

List of rating objects:
Long-term Corporate Issuer Rating: Schneider Electric (Group)
Long-term Local Currency Senior Unsecured Issues

Rating Date:	27/02/2019
Monitoring until:	Withdrawal of the rating
Publication:	12/03/2019
Rating methodology:	CRA “Corporate Issuer Ratings“ CRA “Non-financial Corporate Issue Ratings”
Rating history:	www.creditreform-rating.de

Content

Analysts

Elena Alexeenco
Lead-Analyst
e.alexeenco@creditreform-rating.de

Rudger van Mook
Co-Analyst
r.vanmook@creditreform-rating.de

Neuss, Germany

Abstract

Company

Schneider Electric SE (hereinafter also referred to as “Schneider Electric”, “the Company”, “the Group”), headquartered in Rueil-Malmaison, is a multinational electrical engineering corporation that specialises in energy management and industrial automation. The Company provides hard- and software solutions as well as services for renewable energies, utility management (including lighting, ventilation, elevators and alarm systems) and intelligent power supply, process automation, as well as cooling and safety systems in its principal markets buildings, data centres, infrastructure and industry. The Company’s origins go back to 1836 to the steel factories of Schneider-Creusot, which evolved into a diversified conglomerate after a range of mergers and acquisitions up to the second half of the 20thcentury. In the eighties and nineties, the Company refocused on the electricity business through divestment of steel and shipbuilding and through strategic acquisitions (Merlin Gerin, Square D, Lexel). At present, the Company employs 142,000 people in over 100 countries and has 200 plants and 90 distribution centres worldwide.

In 2017, the Company generated revenues of EUR 24,743 million (2016: EUR 24,459 million) and a profit of EUR 2,210 million (2016: EUR 1,811 million).

Rating result

The current rating of A- attests Schneider Electric SE a good level of creditworthiness, which represents a low default risk.

The rating result is based on the strong global market position of Schneider Electric, its good level of product diversification, its leading technological know-how, and overall positive prospects in the view of global market demand for electrification and enhancement of energy efficiency and digitization. The operational performance is stable with strong positive annual results and above-average profitability, with improved gross profit as a result of successful portfolio management and strengthening of services and software solutions. The financing structure and the liquidity position are solid and adequate in relation to the Company’s earnings performance.

On the other hand, the Company is vulnerable to the general economic situation and to possible downturns in overall investment levels. The Company’s active acquisition strategy induces revolving restructuring costs and costs of integration of acquired companies, which could offset the profitability improvements that have been achieved over the last years. Furthermore, it has to maintain a significant level of R&D to retain its leading technological position. The Company's progressive distribution policy as well as the recurring share buyout programs put pressure on its financials, although until now without any critical negative impact on the overall solid financials of the Group.

Outlook

The one-year outlook of the rating is stable. This outlook is based on our expectation of the Company's overall stable operative development, although growth rates in some regions (China, Europe) are likely to decelerate.

Rating-relevant factors

Table 1: Financials of Telecom Italia S.p.A. I Source: TIM's annual report 2017, standardized by CRA

Excerpts from the financial ratios analysis 2017

+ Slightly increased revenues
+ Solid EBITDA
+ Improved equity ratio
+ Decrease of net debt

- Increased capital lock-up period
- Increased trade-accounts-payable ratio
- Increased short-term capital lock-up
- Negative impact of one-off effects

Financial ratios' extract Basis: consolidated annual report as per 31/12 (IFRS)	CRA standardized figures[1]	
	2016	**2017**
Revenues	EUR 24,459 million	EUR 24,743 million
EBITDA	EUR 4,058 million	EUR 4,258 million
EBIT	EUR 3,225 million	EUR 3,472 million
EAT	EUR 1,750 million	EUR 2,150 million
Total assets	EUR 29,091 million	EUR 28,359 million
Equity ratio	31.8%	33.3%
Capital lock-up period	61.9 days	61.2 days
Short-term capital lock-up	20.6%	20.3%
Net debt / EBITDA adj.	4.1	3.8
Return on investment	7.6%	9.0%

General rating factors

+ Strong market position, geographical diversification, global presence
+ Strong and stable profitability and cash generation capacity
+ Solid liquidity position and funding situation
+ Good access to financial markets
+ Global demand for energy efficiency and increasing regulation in this field
+ State-of-the art use of technological achievements (IoT, Industry 4.0, convergence of information technology and operation technology)
+ Possibility of integrated cross-selling solutions
+ Increasing number of data centres

- Dependency on economic cycles and overall level of investments
- Highly competitive market, also through competitors from lower-cost countries
- Sensitivity to foreign exchange fluctuations
- Interest rate risks
- Exposure to regulatory risks
- Country risks
- Progressive dividend policy

Suggestion:

General Rating Factors summarize the key issues that – in the view of the analysts as per the date of the rating –have a significant or long-term impact on the rating, positive (+) as well as negative (-).

Current Rating Factors are the key factors that have, in addition to the Underlying Rating Factors, an impact on the current rating.

Prospective Rating Factors are factors and possible events that – in the view of the analysts as per the date of the rating – would most likely have a stabilizing or positive effect (+) and a weakening or negative effect (-) on future ratings, if they occurred. This is not a full list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

Current factors (rating 2018)

+ Business development in line with objectives
+ Optimisation of debt structure
+ Improvement of margin
+ Adequate liquidity reserves

[1] For analytical purposes, CRA adjusted the original values in the financial statements in the context of the financial ratio analysis.

- Restructuring costs and costs of integration of newly acquired companies partly offset the margin improvements
- Exceptional costs
- Significant negative currency impact in 2018
- Cash outflows for the share buyback program

Prospective rating factors

\+ Expected cash flows from acquisitions
\+ Further margin improvements
\+ Growth on the international markets

- Overall economic slowdowns
- Increasing competition
- Need to comply with increasingly stringent environmental regulatory requirements

Best-case scenario

Best case: A-

Worst case: BBB+

In our best-case scenario for one year, we assume a rating of A-. We assume that the Company's key financials will remain stable despite of the recurring restructuring costs and cash outflows for dividends and of the share buyout program.

Worst-case scenario

Note:
The scenarios are based on the in-formation available at the time of the rating. Within the forecast horizon, some circumstances could occur that would lead to a rating change out of the indicated range.

In our worst-case scenario for one year, we have assumed a rating of BBB+. This could be the case if the key financials deteriorate far more that we had expected following an increase in debt, significant cash outflows for the share buyout program or disbursements combined with weak operative results.

Business development and outlook

Schneider Electric recorded a strongly positive development in the financial year 2017, despite of the impact of expenses with non-recurring character, which negatively affected the Company's annual profit.

In the financial year 2017, total revenues increased by EUR 284 million, +1.2%, to EUR 24,743 million (2016: EUR 24,459 million), with +3.2% organic growth. EBIT amounted to EUR 3,472 million (2016: EUR 3,225 million) and EAT increased to EUR 2,210 million (2016: EUR 1,811). All the geographical regions had revenue growth in 2017: Asia Pacific by 6%, driven by China and India, Western Europe and North America by 2% and the rest of the world by 3%. According to Schneider Electric, the Company's good operational performance was a result of rapid implementation of price adjustments in regions with increasing raw material prices, good improvement in the margin of systems and efficient cost control along with an overall industrial productivity. In this way, the Company managed to improve its EBIT-margin by nearly 1.0%.

Both the Industrial Automation and Energy Management business divisions with their operating segments Low Voltage, Medium Voltage and Secure Power made positive contributions to the overall result and rose by +5.9% and +2.3% on a like-for-like basis respectively. The focus on energy efficiency in Western Europe and in Asia, as well as the strong growth in other regions supported by new product launches and commercial actions, were the main reasons for an increase in revenues by +3.3% (+4.4% on a like-for-like basis) to EUR 10,812 million (43% of total revenues) of the Low Voltage business. The Industrial Automation business recorded an increase in revenues of +6.0% (+5.9% on a like-for-like basis) to EUR 5,816 million (24% of the revenues) across all geographical regions, driven by strengthened industrial demand and channel initiatives. The Low Voltage business declined by -8.5% (-2.2% on a like-for-like basis), impacted by selectivity initiatives on projects and by the divestiture of DTN. The Secure Power business generated revenues of EUR 3,615 million (15% of total revenues), which represents an increase of +0.7% (+2.1% on a reported basis).

The Group's performance was influenced by negative effects of restructuring costs (EUR 286 million, 2016: EUR 309 million) and of impairment losses on assets (EUR 92 million, 2016: EUR 87 million).

The restructuring was driven by efficiency and simplification initiatives associated with adjustments of the Group's structure and costs.

During 2017 and 2018, the Company completed the divestment of DTN and finalized the acquisition of Asco Power, a leading company in automatic transfer switches, as well as of IGE+ XAO, a leader in software for electrical installations, and took over the majority stake of AVEVA, a company that focuses on industrial software.

In the financial year 2018, Schneider Electric generated total revenues in the amount of EUR 25,720 million, an increase of 3.9% compared with the previous year (6.6% organic increase), an operating income of EUR 3,396 million (+5.8%) and an annual result of EUR 2,431 million (+10%), demonstrating once again a solid business performance. This was a result of positive development in both the core businesses Energy Management and Industrial Automation, which grew organically by 7% and 8% respectively, as well as across all the geographical regions, especially in Asia-Pacific, with strong demand for energy management in construction, industrial and infrastructure markets. The gross margin improved by 60 bps to 39.0%, which was a result of portfolio and organisational optimization and concentration on higher value-added business, such as of software and services..

For the period of the next three years until 2021, the Group strives to entrench its position as a provider of integrated solutions, and further improve its operating results through organic growth, portfolio optimization and increase of productivity, as well as through organisational optimization. In 2019 Schneider Electric expects an organic growth of revenues of 3% to 5% and a growth of EBITA margin up to +20 to +50 bps.

In June 2017 the Group announced the launching of its share buyback program, which amounted to around EUR 1 billion and had to be completed by June 2019. The objectives of this program include, among others, the reducing of share capital, the covering of stock purchase option plans for employees and management, as well as the fulfilling of obligations related to convertible securities. The Company completed this share buyback program ahead of schedule at the end of 2018 and initiated a new share buyback program with a volume of EUR 1.5 - 2.0 billion for the period of the next three years (2019-2021).

Schneider Electric's business is particularly sensitive to general economic developments. The trade dispute between USA and China, difficult Brexit negotiations, and the expected exit of the central banks from the extremely relaxed monetary policy put pressure on the generally positive forecasts for the global economy in 2019. On the other hand, the global energy transition trend with the movement to renewable energies and decarbonisation rely on further electrification. The trends of digitization and rising need for connectivity, the expected increase of energy consumption, and need for its efficiency create good overall framework conditions for Schneider Electric as a provider of integrated safety and efficiency solutions. The Company`s strategy is focused on development of its technological know-how in energy efficiency, digitization and automation for industrial as well as for private customers, using its EcoStrucxure platform, its complementary business model, multiple sales channels and global integrated supply chain. Considering the global trends, the Company's know-how and strong position in its relevant markets, as well as its sound financials and so far prudent acquisition policy, we believe that Schneider Electric will be able to implement its mid-term financial goals and to retain its leading position over the medium to long term.

Structural risks

The parent company of the Group is Schneider Electric SE, a European Company (Société européenne) incorporated in France and registered with the registrar of companies of Nanterre. The Company is headquartered in Rueil-Malmaison. The Company's shares are quoted on the Paris Stock Exchange and are included in the Euro Stoxx 50 stock market index.

Schneider Electric has 208 plants and 98 distribution centers around the world. The Company's consolidation scope comprises 561 companies, 546 of which are fully consolidated.

The main shareholder of Schneider Electric is Sun Life Financial, Inc. (5.9% of the share capital as of 31.12.2017) followed by BlackRock Inc. (5.5%). About 4.1% of the shares belong to the Company's employees and 6.6% represent treasury shares. The rest of the shares are in free float.

The Company's main governing body is the Board of Directors, currently consisting of 13 members. The members of the Board of Directors are elected by the shareholders and are appointed for 4-year-terms. The Executive Commitee, chaired by the Chairman and CEO, currently consists of 15 members and is called to support the operational management of the Group.

The Group focuses on two main businesses: Energy Management, which comprises the sub-divisions Medium Voltage, Low Voltage and Secure Power, and Industrial Automation, each of them managing its own R&D as well as marketing and sales departments in 11 international geographical zones. Group-wide services such as Strategy, Finance, Human Resources, IT Systems, and Global Marketing are provided centrally by the Global Function business unit. According to Schneider Electric, the Company's sites and products meet the applicable quality, environmental, energy efficiency and health & safety standards, and have achieved relevant certification.

The Medium Voltage business provides technical and software solutions for integrated management, protection and control of electrical networks on the level of the energy transition. Along with established products such as switchgear, transformers and electrical network protection, and automation products, the medium voltage business includes IoT reaching power products as well as distribution management, operation management and pipeline management software.

The Low Voltage business includes a wide range of products and solutions for the end markets such as products for protection, power-monitoring and control, building management hardware and software, power meters, and cable management systems as well as renewable energy conversion and connection equipment and electric vehicle charging infrastructure. The Company designed its own platform branded EcoStruXure, which enables the widespread deployment of IoT for low and medium voltage architecture in all the Group's end markets.

The Secure Power business focuses on critical power products and solutions for data centers and other applications where power continuity and quality is essential.

The business division Industrial Automation includes Process, Hybrid and Discrete Automation, and provides products and solutions for the automation and control of machines, manufacturing plants and industrial sites, including software for design, operation and maintenance of the industrial processes.

The Group offers its products and solutions in four major relevant markets: non-residential and residential buildings, utilities and infrastructure, industry and machine manufacturers, and data centres and networks.

The Company reports its financial statements in accordance with IFRS and has to comply with high legislative, regulatory and corporate governance standards. According to publicly available information regarding corporate governance and compliance measures, we assume sufficiently developed structures with regard to risk management, accounting and controlling, as well as other administrative and operational functional areas, and do not see any core risks in connection with the Company's structure.

Business risks

The Group's activities are particularly vulnerable to the economic growth cycles and general level of investments in different countries, although its geographical diversification enables Schneider Electric to compensate slowdowns in certain markets. Around 42% of the Group's sales are generated in emerging countries. Furthermore, Schneider Electric is exposed to economic, legal and political risks in the countries in which it operates.

Significant risks are associated with the competitive market environment. In addition to established market players, Schneider Electric has to cope with increased competition from emerging markets. Schneider Electric's leading market position could be negatively affected by price erosion and cost pressure as well as by the processes of industry consolidation. The same trends could also be significant for Group's suppliers.

The general market trends such as electrification and focus on energy efficiency, digitization with the rising need for connectivity (IoT), and of customer's integration into complex software-based solutions create business opportunities for Schneider Electric. On the other hand, these trends imply investment pressure and an adequate level of R&D, especially acceleration of convergence of Operational Technology and Information Technology to maintain the Group's leadership position.

The Company faces a range of risks associated with the need to comply with increasingly stringent environmental regulations in the countries in which it operates. The Group is exposed to fluctuations in energy and raw material prices, in particular steel, copper, aluminum, and plastics. In order to manage its exposure to fluctuations in interest rates, exchange rates and metal prices, the Group uses financial instruments.

As far as we can assess, the Company operates well-developed and continually evolving internal control and risk management systems supported by many years of experience in the industry, which are in line with current market and regulatory requirements and help to prevent and to manage the Group's business risks.

Overall, we assess the business risk profile of the Company as moderate. The Company operates in a fast-moving market which requires ongoing investment in research and development, and has to cope with increasing competition, pricing pressure and possible downturns in the economy. These threats are partially offset due the Company's geographical and product diversification, its prudent acquisition policy and the implementation of measures focused on cost structure streamlining.

Financial risks

For the purposes of its financial ratio analysis, Creditreform Rating AG (CRA) adjusted the original values in the financial statements. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from the equity by 50%, suggesting a certain recoverability of the goodwill.

The Company has a stable and well-balanced asset and capital structure, which is confirmed by the relatively good standardized equity ratio of 33.32% and a solid asset coverage ratio of 108.03% as of 31.12.2017.

As of 31.12.2017, Schneider Electric's total financial debt amounted to EUR 7.341 million, with EUR 5.650 million non-current and EUR 1,691 million current liabilities. The net financial debt accounted for EUR 4.296 million, corresponding to 1.07x of its reported EBITDA in the financial year 2017, and underpins its solid financial position. The Net Total Liabilities / EBITDA is considerably higher, amounting to 3.9x, especially because of the relatively high amount of provisions, including pension obligations of EUR 1.8 billion, and of operating payables of EUR 4.1 billion.

The main external financing sources of Schneider Electric are bonds and commercial papers as well as bank loans. The nominal repayment amount of the bonds has increased slightly to EUR 6,406 million (2017: EUR 6,375 million) as of 31 December 2018. During 2018, Schneider Electric repaid bonds for EUR 749 million and issued a new bond amounting to EUR 741 million. The majority of the bonds are part of the EMTN program with a total maximum outstanding amount of EUR 7,500 million and are traded on the Luxembourg stock exchange. The Company also has private placement bonds with a total amount of USD 800 million on the US market.

The Company's liquidity position is strong in our view, considering its cash and cash equivalent reserves of EUR 2,361 million as of 31.12.2018 and its confirmed credit lines of EUR 2,675 million, all of them unused and without financial covenants. Furthermore, the Company yearly generates operating cash flows of around EUR 2.9 billion (2018: EUR 2,872 million, 2017: EUR 2.841 million). These funds are more than sufficient to cover the Company`s current working capital needs, its capex, revolving restructuring and integration costs. Its progressive dividend policy with considerable annual disbursements (EUR 1.3 billion in 2018, EUR 1.2 billion in 2017), as well as its newly initiated further share buyback program of up to EUR 2.0 billion until 2021 should also be generally feasible in terms of the current business and funding situation.

Against the background of its international alignment, the Group is exposed to the risk of fluctuation of exchange rates, with the main exposure related to the US dollar and Chinese yuan. The negative impact of foreign exchange in 2018 amounted to EUR 1.0 billion on the level of revenues. The Group compensates these risks through reducing the sensitivity of earnings to exchange rates through hedging programs relating to receivables, payables and cash flows primarily by means of forward purchases and sales. The Company is vulnerable to changing interest rates in different countries. As of 31.12.2017, 88% of the Company's debt was fixed rate. The Company uses financial instruments to manage its exposure to fluctuations in interest rates, exchange rates and raw commodity prices.

We believe that the Company's financial risk profile is low. The reason for this is the strong earning power of the Company which allows the Company to deleverage relatively fast. We do not however, expect the Company to deleverage in the short- and medium term, taking into consideration the Comopany's dividend policy and its announced share buyback program. Additionally, the Company has a sound asset base, strong capital structure, and a good liquidity position.

Issue rating details

Issue rating

This issue rating is exclusively valid for the long-term senior unsecured issues denominated in Euro, issued by Schneider Electric SE or by its subsidiaries, 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. The total nominal value of the bonds issued cannot exceed EUR 7,500 million. Notes issued by subsidiaries of Schneider Electric SE according the substitution provision of the most resent Base prospectus from 26 November 2016 will be unconditionally and irrevocably guaranteed by Schneider Electric SE. The prospectus for the EMTN Programme also includes a negative pledge provision and a cross-default mechanism.

We have provided the EUR long-term local currency senior unsecured issues, issued by Schneider Electric SE or by its subsidiaries, with a rating of A-. This decision is based on the corporate rating of Schneider Electric Group. Other types of debt instruments or issues denominated in other currencies have not been rated by CRA.

Overview

Table 3: Summary of CRA Ratings I Source: CRA

Rating Object	Details Information	
	Date	Rating
Schneider Electric SE (issuer)	27/02/2019	A- / stable
Long-Term Local Currency Senior Unsecured Issues	27/02/2019	A-
Other	--	n.r.

Table 4: Overview of Schneider Electric's EMTN Programme I Source: Schneider Electirc, prospectus dated 26 November 2018

Issue Details			
Volume	EUR 7,500,000,000	Maturity	Depending on the respective bond
Issuer	Schneider Electic SE	Coupon	Depending on the respective bond
Arrangers	BNP Paribas	Currency	Depending on the respective bond
Credit Enhancement	none	ISIN	Depending on the respective bond

All future LT LC senior unsecured Notes that will be issued by Schneider Electric SE or its subsidiaries under the substitution provision under the current EMTN Programme, denominated in EUR 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, as well as 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.

Financial ratios analysis

Table 6: Financial ratios of Schneider Electric SE (Group) I Source: Schneider Electric SE, standardized by CRA

Asset Structure	2014	2015	2016	2017
Fixed asset intensity (%)	54.29	53.97	54.84	52.32
Asset turnover	--	0.90	0.83	0.86
Asset coverage ratio (%)	81.16	103.27	102.28	108.03
Liquid funds to total assets (%)	9.02	10.16	9.71	10.85
Capital Structure				
Equity ratio (%)	32.33	32.87	31.83	33.32
Short-term-debt ratio (%)	38.21	33.83	34.53	35.32
Long-term-debt ratio (%)	11.73	22.87	24.26	23.21
Capital lock-up period (in days)	60.09	58.70	61.87	61.19
Trade-accounts-payable ratio (%)	13.97	14.31	14.25	14.63
Short-term capital lock-up (%)	24.66	18.55	20.61	20.32
Gearing	1.81	1.73	1.84	1.68
Leverage	--	3.07	3.09	3.07
Financial Stability				
Cash flow margin (%)	--	13.16	13.62	11.26
Cash flow ROI (%)	--	11.71	11.45	9.83
Debt / EBITDA adj.	5.00	5.76	4.85	4.55
Net Debt / EBITDA adj.	4.33	4.88	4.16	3.81
ROCE (%)	24.02	18.28	24.17	25.85
Debt repayment period	--	10.29	6.61	7.25
Profitability				
Gross profit margin (%)	100.00	100.00	100.00	100.00
EBIT interest coverage	6.49	5.46	7.18	8.77
EBITDA interest coverage	8.41	8.64	9.43	11.22
Ratio of personnel costs to total costs (%)	0.00	0.00	0.00	0.00
Ratio of material costs to total costs (%)	0.00	0.00	0.00	0.00
Return on investment (%)	8.53	6.43	7.63	9.01
Return on equity (%)	--	15.54	18.97	23.63
Net profit margin (%)	8.26	5.64	7.40	8.93
Interest burden (%)	86.10	87.59	88.56	91.88
Operating margin (%)	12.32	9.47	13.19	14.03
Liquidity				
Cash ratio (%)	23.59	29.61	27.83	30.40
Quick ratio (%)	92.68	106.07	102.16	106.59
Current ratio (%)	119.63	136.04	130.79	134.98

Appendix

Rating history

Corporate issuer rating of Schneider Electric SE

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	27/02/2019	12/03/2019	Withdrawal of the rating	A- / stable

Rating of LT LC senior unsecured issues of Schneider Electric SE

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	27/02/2019	12/03/2019	Withdrawal of the rating	A-

Regulatory requirements

The present rating is an unsolicited rating. Creditreform Rating AG was not commissioned by the Issuer with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The quantitative analysis is primarily based on the last annual report of the Issuer, the basis prospectuses and on press releases of the company. The information and documents meet the requirements and are in accordance with the published Creditreform Rating AG's rating methodology.

The rating was conducted on the basis of Creditreform Rating's "Corporate Issue Ratings" methodology and the "Corporate Issuer Rating" methodology. A complete description of Creditreform Rating's rating methodologies is published on the following internet page: www.creditreform-rating.de.

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodology. A complete description of Creditreform Rating's rating methodologies and Creditreform's basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Elena Alexeenco (e.alexeenco@creditreform-rating.de) and Rudger van Mook (r.vanmook@creditreform-rating.de), both located in Neuss, Germany. A management meeting did not take place.

The rating was presented to the rating committee on 27 Februar 2019. 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 CRA removes the rating and sets it to non-rated (n.r.).

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

Please note:

This report exists in an English version only. This is the only binding version.

Conflict of interests

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, CRA 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, CRA has used following substantially material sources:

Corporate Issuer rating:

1. Annual report
2. Website
3. Internet research

Corporate Issue rating:

1. Issuer corporate rating incl. information used for the Issuer corporate 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 CRA website. Furthermore, CRA 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' 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 'Basic Data' information card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified cred-it 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's default rates are available in the credit rating methodologies disclosed on the website.

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Creditreform Rating AG

Contact information

Creditreform Rating AG
Hellersbergstraße 11
D-41460 Neuss
Germany

Phone +49 (0) 2131 / 109-626
Fax +49 (0) 2131 / 109-627

Email info@creditreform-rating.de
www.creditreform-rating.de

CEO: Dr. Michael Munsch

Chairman of the Board: Prof. Dr. Helmut Rödl
HR Neuss B 10522