Creditreform Corporate Issuer / Issue Rating

Fluvius System Operator CV

Creditreform Rating

Rating object	Rating information	
Fluvius System Operator CV	Corporate Issuer Rating: **A / stable**	Type: Update Solicited Public rating
Creditreform ID: 2000000589 Incorporation: 1 July 2018 Based in: Melle, Belgium Main (Industry): Utilities CEO: Frank Vanbrabant	LT LC Senior Unsecured Issues,: **A / stable**	Other: **n.r.**
Rating objects: Long-term Corporate Issuer Rating: Fluvius System Operator CV Long-term Local Currency (LT LC) Senior Unsecured Issues	Rating date: 16 August 2022 Monitoring until: withdrawal of the rating Rating methodology: CRA "Corporate Ratings" CRA "Non-Financial Corporate Issue Ratings" CRA "Government Related Companies" CRA "Rating Criteria and Definitions" Rating history: www.creditreform-rating.de	

Content

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Summary

Company

Fluvius System Operator CV (hereafter referred to as "the Company", "Fluvius" or "FSO")[1] is the Belgian operating entity of eleven Flemish intermunicipal infrastructure companies[2] (qualified as mission entrusted associations (MEA's) and governed by the Flemish Intermunicipal Cooperation Decree), which have regulated operations in the electricity, gas distribution and sewerage, and also owns distribution networks in the cable TV business sector. The Company was founded on 1 July 2018 through the merger of the former operating companies Eandis System Operator cv and Infrax cv.

As an operating entity of the intermunicipalities, FSO is responsible for the operation of the distribution networks for electricity and natural gas as well as other grid-related utilities (sewerage, public lighting, cable distribution and district heating), exercising all activities as data manager and heat manager, as well as providing other management services. As FSO operates on a cost-price basis on behalf of the intermunicipalities, which are the network owners, and given that they provide guarantees for the Company's debt obligations, we have considered the entire economic group to assess FSO's creditworthiness.

Fluvius employed 5,497 people and had a regulatory asset base (RAB) of EUR 10.2 billion as of the end of 2021. The Company manages 230,000 kilometers of utility networks, owning and operating 3.6 million access points for electricity, 2.3 million access points for gas, 0.6 million for sewerage, 1.1 million for cable TV, and 1.2 million for public lighting over an area covering the entire Flemish region (300 municipalities). In the full year 2021, Fluvius reached net revenues of EUR 3,038.3 million (2020: EUR 2,923.7 million) and operating profit of EUR 445.0 million (2020: EUR 542.6 million).

Rating result

With the present rating of A, Fluvius System Operator CV continues to have a high level of creditworthiness and lower risk of default. The rating is based mainly on relatively stable earnings and cash flow generation, along with a low business risk profile supported by the regulatory

[1] Fluvius System Operator cv and its consolidated subsidiaries: De Stroomlijn cv, Atrias cv, and Synductis cv.

[2] Gaselwest, Imewo, Intergem, Iveka, Iverlek, Sibelgas, Infrax West, PBE, Riobra, Fluvius-Limburg, and Fluvius-Antwerpen.

framework in its main business areas and by the strategic importance of the Group for the region of Flanders (Belgium).

As the MEA's that own FSO are wholly-owned by Flemish municipalities and given the significant importance of Fluvius' operations for the Flemish region, we assume a high probability that the local authorities would provide the Group with extraordinary support in the event of financial difficulties. This factor has a positive impact on the rating result according to our sub-methodology "government-related entities". Any change in Belgium's sovereign rating (CRA rating AA / negative as of 17 June 2022) could therefore also have an impact on FSO's corporate issuer rating.

The rating downgrade was driven by the combined effect of the more restrictive tariff methodology 2021-2024 and a more volatile macroeconomic environment, as evidenced by rapidly rising inflation and interest rates, which will potentially increase the mismatch between allowed income and the Company's operating and financing costs, exerting additional negative pressure on Fluvius' results in the short-term.

Outlook

The one-year rating outlook is stable based on our view that Fluvius' likely sequential reduction in earnings and cash flows during the current regulatory period and amid more volatile market conditions are already reflected in the A rating level. Fluvius maintained a conservative financial planning over time, thus we consider it unlikely that credit metrics will deteriorate more than previously estimated levels.

Reference:

The relevant rating factors (key drivers) mentioned in this section are predominantly based on internal analyses, evaluations of the rating process, the derived valuations of the analysts participating in the rating and, if applicable, other rating committee members. The fundamental external sources used, are specified in the section "Regulatory requirements" and "Rules on the presentation of credit ratings and rating outlooks".

Excerpts from the financial key figures analysis 2021:

+ Interim adjustments on methodology will mitigate declining earnings
+ Liquidity profile supported by committed credit facilities and recent refinancing initiatives

- Operating results declined by 18% in 2021
- Upcoming debt maturities will be refinanced at much higher costs
- Debt levels will likely continue increasing in the coming years

Relevant rating factors

Table 1: Financials I Source: Fluvius System Operator CV Annual report 2021, standardized by CRA

Fluvius System Operator CV **Selected key figures of the financial statement analysis** **Basis: Annual accounts and report of 31.12. (IFRS, etc.)**	**CRA standardized figures[3]**	
	2020	**2021**
Sales (billion EUR)	2,924	3,038
EBITDA (billion EUR)	1,033	972
EBIT (billion EUR)	543	445
EAT (billion EUR)	363	302
EAT after transfer (billion EUR)	363	302
Total assets (billion EUR)	14,630	15,046
Equity ratio (%)	42.40	41.92
Capital lock-up period (days)	44.43	42.51
Short-term capital lock-up (%)	59.24	55.85
Net total debt / EBITDA adj. (Factor)	7.82	8.36
Ratio of interest expenses to total debt (%)	2.22	1.94
Return on investment (%)	3.37	2.70

[3] 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 considers all balance sheet liabilities. Therefore, the key financial figures shown often deviate from the original values of the company.

General rating factors summarize the key issues that – according to the analysts as per the date of the rating – have a significant or long-term impact on the rating, whether positive (+) or negative (-).

General rating factors

+ Government-related company, 100% public shareholders
+ Strategic importance for Flanders as the largest multi-utility company and electricity and gas distribution coverage of all municipalities in the region.
+ Transparent and supportive regulatory framework
+ Low business risk profile as operations are mostly regulated and benefits from long-term agreements
+ Predictable earnings and cash flows
+ Debt taken by FSO is guaranteed by the MEAs

– Capital-intensive business, high fixed costs
– Limited upside potential given the revenue cap
– Ongoing investments required for normal operations as well as to foster the energy transition in Flanders

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

Current rating factors

+ Interim adjustments in the tariff methodology will likely mitigate the downward trend on Fluvius' operating earnings
+ Liquidity profile is supported by the fully available EUR 425 million committed credit facility and by the issuance of 10-year maturity bond in July 2022 to repay the EUR 500 million notes due in November 2022
+ For investments in the energy transition plan, Fluvius relies on relatively cheap loan facilities from the European Investment Bank (EIB)

– Operating income decreased by 18 % in 2021 on a year-over-year basis, as a result of the new tariff methodology 2021-2024
– Debt refinancing became more expensive, with coupons on bonds issued in July 2022 eight times higher than the weighted average coupons for bonds issued during 2020-2021
– Financial debt increased by nearly EUR 900 million during 2019-2021 (13% of current total financial debt), driving net total debt to EBITDA from 8.0 to 8.4 times in that period

Prospective rating factors are factors and possible events which – according to the analysts as of the date of the rating – would most likely have a stabilizing or positive effect (+) or a weakening or negative effect (-) on future ratings, if they occurred. This is not an exhaustive 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.

Prospective rating factors

+ Fluvius will not be directly affected by potential disruption to gas supply in Europa, given Belgium's well diversified sources and large import capacity, but sustained higher gas prices could result in an accelerated decline in gas consumption
+ Fluvius is expected to prudently adjust other outlays to accommodate higher capex in the coming years to preserve liquidity, but free cash flow generation will remain negative

– We expect that financial debt will further increase over the current regulatory period, with net total debt to EBITDA trending towards 9.5x by the end of 2024 compared to 8.4x in 2021.
– Despite additional mitigating factors, Fluvius forecasts operating results to decline sequentially in the coming years, with margins falling to historical lows

ESG factors are factors related to environment, social issues and, governance. For more information, please see the "Regulatory requirements". CRA generally takes ESG relevant factors into account, when assessing the rating object and discloses them when they have a significant influence on the creditworthiness of the rating object, leading to a change in the rating result or the outlook.

ESG-factors

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 factors with significant influence.

In our view, distribution network operators still face moderate environmental risks. However, worsening climate change has been exposing companies in this sector to increasingly intense natural events with the potential to damage energy infrastructure assets, as evidenced in the unprecedented flood that occurred in parts of Germany and Belgium in July 2021 and which severely affected a number of energy facilities in the region. Fluvius itself was not impacted by this event, however, in solidarity with victims of the flooding, provided some of its employees, expertise and equipment to support the affected residents and the grid operator in the neighbouring region.

An additional environmental risk for this sector is gas leakage along distribution pipelines, which could release a large amount of methane gas into the atmosphere, adding to global warming, jeopardizing individuals' health, and ultimately causing gas explosion accidents. In April 2021, Fluvius was held liable for an explosion that occurred in September 2019 and which brought three buildings to ruins and damaged several other houses, resulting in three people injured and one fatality. It is important to note that the Company denied involvement and responsibility in the event and appealed the Criminal Court's decision in the first instance, the result of which is still pending.

The transition to renewable energy will require a major restructuring of the sector, thereby increasing overall industry risk during the expansion of the grid networks and implementation of new technologies. Complexity of the grid networks will increase as new wind and solar power generation capacity is installed, with the energy system shifting from large-scale and centralized power plant generation to smaller-sized and more widely distributed energy facilities that are located closer to points of consumption. Another challenge to be addressed during this transition is the intermittent generation of wind and solar energy, since it cannot be easily stored and transported, and the stability of energy distribution can vary significantly according to the climate characteristics of each geographic region. All of this will require grid operators to raise investments significantly over the next few years, with the objective of not only expanding their network infrastructure, but also increasing digitization of operations and energy efficiency through new technologies.

Despite the expected challenging environment for the sector in the years ahead, we recognize a credible strategy pursued by Fluvius in order to manage these risks and increase the share of renewable energy in its grid networks. Fluvius' investment plans are entirely aligned with the climate objectives of Flemish municipalities and Flemish Region (Flemish Energy & Climate Plan), including projects to make buildings more energy-efficient, to develop smart grids (digital meters), switch to LED public lighting, expand and renew sewerage grids, and to increase connections to renewable energy generation capacity. In order to align its financial policy with its sustainability strategy, Fluvius has developed a Green Financing Framework, under which financing instruments issued are linked to the environmental objectives defined in the EU taxonomy.

We also acknowledge the Company's good practices regarding social and governance issues. A portion of the variable remuneration of executives is dependent on social goals regarding employee health and safety. The Company has also approved the Ethics Charter with principles of integrity and ethics that are to guide the conducts and decisions taken within Fluvius, and has created an effective Ethics Group to which employees can report any misconduct or infringement of this Charter. Additionally, Fluvius' board of directors and management team are strictly separated, with the audit committee reporting directly to the board of directors. On the other hand, it should also be viewed critically that none of its 20 board of directors' members are independent according to article 7:87 of the Companies Associations Code and Fluvius' disclosure of non-financial information is still evolving. We recognize Fluvius' efforts to restructure its ESG reporting and we will continue to monitor these developments. While ESG disclosure is prepared using GRI standards, we see further possibilities for increasing transparency, especially in the environmental area.

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.

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. The prospect for an upgrade in the one-year period is currently low due to the expected decline in the Group's earnings as a result of the adjusted tariff methodology 2021-2024 and the increase in investments exacerbating negative free cash flow generation. In this scenario, we also factored in the adverse effects of increased market volatility, which could exert additional negative pressure on Fluvius' results. We continue to incorporate the likely support from public authorities in Flanders, albeit with a certain delay as post tariff adjustments happen once a year.

Worst-case scenario: A-

In our worst-case scenario for one year, we assume a rating of A-. In this scenario, we assume a sharper deterioration of the Group's operating earnings following the lower allowed return in the new tariff methodology and worsening macroeconomic volatility, with inflation and interest rates remaining sustainably high over the current and the next regulatory periods. This, in combination with higher investment needs, might lead to a higher-than-anticipated deterioration of the financial metrics, thus making a downgrade necessary. Moreover, a downgrade of Belgium's sovereign rating could also prompt a downgrade in Fluvius' ratings.

Business development and outlook

Fluvius economic group achieved net revenues of EUR 3,038 million in 2021, remaining relatively flat compared to the previous year (2020: EUR 2,924 million), and operating income declined by 18% year-over-year (yoy) to EUR 445 million. This drop was largely driven by the introduction of the tariff methodology 2021-2024, which has a much more restrictive calculation of a DSO's allowed income, imposing higher savings and efficiency improvements, as well as lower remuneration of investments in its RAB. As countermeasures, Fluvius announced several initiatives to mitigate the adverse effect on overall results and cash flow generation, including stricter criteria for capex, EUR 150 million annual opex savings by 2024 and EUR 22 million advances from the Flemish energy regulator to support investments in smart meters. However, these measures did not fully offset the negative impact of the new tariff methodology, with reported operating margin declining to 12% in 2021 from 16% a year earlier and it is expected to moderately decline to 10% until the end of this tariff period.

In 2022 we expect a much more challenging environment as rapidly rising inflation, now at its highest level in several decades in Europe, will likely increase the mismatch between the allowed revenues from the new tariff methodology and the Company's operating costs, exerting additional negative pressure on Fluvius' results in the short-term. This becomes even more critical due to the high investment needs in the coming years in order to execute Fluvius' energy transition plan, coupled with the need to refinance around EUR 1.3 billion debt maturities over the 2022-2024 period at a much higher cost than in previous years. Additionally, currently high energy price levels and macroeconomic conditions can also push energy suppliers into financial distress, increasing the risk for Fluvius of overdue payments or customer's default, and ultimately forcing it to step in as a 'supplier of last resort'. In this scenario, however, all extra costs related to the public service offering obligation would be compensated in subsequent periods, but would adversely affect Fluvius' results within the current year.

Additional measures will take effect from 2022 onwards and can contribute to offset the expected downward trend on Fluvius' overall results, including an interim update in the methodology to compensate earlier for the extraordinary hike in inflation. These adjustments usually occur once a year, but the current inflation of nearly 9% compares very unfavourably to the normality of 0-2% seen in the last years. Additionally, starting in January 2023, the tariff will be charged based on use of capacity rather than consumed volumes, supporting Fluvius to cut costs and preserve earnings, and dividend payments will be significantly reduced until the end of 2024.

Concerning the risk of gas shortages in Europe, Fluvius is not directly affected since only roughly 6% of Belgium's gas supply comes from Russia and the country benefits from an extensive gas import capacity that covers three times its entire consumption needs. If the gas scarcity intensifies, however, there might be a coordinated effort among European countries with even stricter targets to reduce gas consumption and prices will continue to soar. Over the longer term, this could potentially accelerate the transition to other energy sources (e.g. heat pumps), thus resulting in greater idleness of gas infrastructure assets. Fluvius' gas segment represent around 40% of current operating income and, since beginning of 2022, gas consumption has decreased by approximately 12%. According to the management, this drop in volume was driven by the drastic price-hike since the fall of 2021. If gas prices remain sustainably high and if combined with a relatively fast execution of the smart metering project, we believe gas volumes could drop further. Currently, approximately 28% of residential consumers benefit from digital meters; the target is to reach 80% by the end of 2024.

In order to reach the Paris 2050 climate goals, as well as the European climate goals, a deep and swift transformation of the entire energy sector will be necessary. Quick decarbonization of energy sources and the transition from fossil-fuel combustion processes to the use of electrified processes will pose challenges as well as opportunities to all players within the energy system.

Fluvius has recognized these changes, recently publishing an investment plan, which lays out the Company's core assumptions concerning relevant aspects of the energy transformation as well as the steps Fluvius intends to take in order to best prepare for the energy transition in Flanders. This investment plan thereby also serves as support for Fluvius to contribute to Flemish as well as European climate and energy transition plans.

Under the investment plan, Fluvius plans to invest EUR 4 billion until 2032 – in addition to the Company's regular investments, of which EUR 3 billion are aimed at strengthening the low-voltage distribution network, with the upgrade or expansion of 40 % of its low voltage cables. The remainder of the investments will be attributed to the high-voltage distribution network, for which Fluvius expects to upgrade 13 % of its high-voltage distribution cables in order to foster higher electricity demands.

An important factor within the investment plan is the assumption of a widespread electrification of passenger and light transport vehicles over the next fifteen years. Fluvius expects the greatest effect on peak electricity draws to result from the switch from internal combustion engines to electric vehicles and the subsequent need to charge those vehicles. In order to limit grid investments – which mostly depend on peak consumption – Fluvius stresses that it is vital to avoid charging the majority of vehicles at the same time. The introduction of the new tariff for customers, which prices peak consumption rather than overall consumption, could help flatten the curve of electricity consumption.

Fluvius held a public consultation on its investment plan and will update it annually, incorporating possible changes in the underlying assumptions. As a group of DSO's, Fluvius plays a central role in the energy transition and with its investment plan will contribute to regional and global climate goals. These investments, on one hand, could exceed the values previously estimated by the Company due to the current strong inflationary environment, but financing risks are mitigated by low cost credit lines specifically aimed at energy transition.

Structural risk

Fluvius System Operator CV was created in July 2018 through the merger of Eandis System Operator cvba and its peer Infrax cvba, forming a new multi-utility network operator. Currently, Fluvius operates in all 300 Flemish municipalities. From a legal point of view, Infrax was absorbed into Eandis' organizational structure, with Eandis System Operator cvba subsequently changing its name to Fluvius System Operator cvba. The Fluvius Economic Group is composed of the eleven inter-municipal companies, Fluvius System Operator CV and its subsidiaries: De Stroomlijn cvba, Atrias cvba, and Synductis cvba.

All of the 11 intermunicipal companies of the Economic Group Fluvius are fully-owned by the Flemish municipalities and have the status of mission entrusted associations (MEAs), as stipulated in the provisions of the Flemish Decree on local Government. According to this, a MEA is an intermunicipal legal entity, which the participating municipalities have entrusted with the management of certain public utilities. Ten of Fluvius' MEAs are recognized by the Flemish energy regulatory authority VREG as system operators for electricity and/or gas (Distribution System Operator or DSO), and need to be appointed for a renewable term of 12 years. The license for electricity was renewed in 2014, and for gas in 2015. The statutory aim of Fluvius' MEAs is furthermore the treatment and purification of sewerage, as well as carrying out peripheral activities such as public lighting and district heating.

The activities of Fluvius are assigned to the MEAs as follows:

• Electricity and gas distribution: 10 intermunicipal DSOs, entire Flemish region, regulated by the Flemish Regulator of the Electricity and Gas Market (VREG)

• Sewerage system: 4 MEAs, 27% of Flanders territory (86 municipalities), regulated by the Flemish Environment Agency (VMM)

• Cable network infrastructure business: 4 MEAs, 30% of Flanders territory (103 municipalities), supervised by the Belgian Institute for Postal Services and Telecommunications (BIPT) and by the Flemish Regulator for the Media (VRM). All infrastructure assets in this segment will be transferred to the new entity NetCo, in which Fluvius' will hold one-third financial share and Telenet will operate commercial services on these assets with the remaining two-third stake.

The MEAs are managed centrally by their operating company Fluvius System Operator CV, a limited liability partnership under Belgian law. The role of Fluvius System Operator CV consists in the operation of the distribution networks for electricity and natural gas; the development, exploitation, use, and maintenance of other grid-related utilities (sewerage, public lighting, cable distribution and district heating); activities as data manager and heat manager; managing strategic participations and the access register; metering data reading; providing energy services, management services, and other services. The Company carries out its operational activities on a cost price basis without charging any commercial margin to the MEAs. The grid assets themselves remain in the ownership of the MEAs, which are also the holders of the electricity and gas distribution system operator licenses granted by VREG.

The main managing bodies of FSO are the Board of Directors (composed of 20 members), the Management Committee (composed of 10 members) and headed by the CEO. Further institutions are the Strategic Committee, which is composed of the representatives of the MEAs, the Audit Committee, and the HR Committee. The MEAs have their own boards of directors, which are responsible for their corporate matters and for relations with the local authorities.

Given the systemic relevance of the Group as the owner of the entire Flemish networks and the close ties with the Flemish municipalities, we do not see any major risk associated with organizational structure. The Group benefits from a transparent and effective regulatory framework, ensuring the stability and predictability of the energy system, and it we assume continued support from the Flemish public authorities for the completion of projects related to energy transition.

Business risk

The Economic Group Fluvius (EGF) is the largest utility group in Flanders and is systemically important for the cities and municipalities in which it operates. The Group's energy activities are organized as a regional natural monopoly, with each of the eleven intermunicipal MEAs holding exclusive operating rights for the area covered by its network through licenses. End customers and SMEs cannot choose their DSO.

Almost all of Fluvius' business is subject to regulation. For the distribution of electricity and gas, the Group operates according to the guidelines established in the Energy Decree, with VREG as the supervisory authority. Its sewerage business is regulated by the Flemish Environmental Agency (Vlaamse Milieumaatschappij – VMM), which acts as a regulator on both the tariffs of the collection and transport, based on the Flemish Drinking Water Decree. The Company's cable infrastructure business is supervised by the BIPT (Belgian Institute for Postal Services and Telecommunications) and the VRM (Flemish Regulator for the Media). Fluvius charges fees for the transport of electricity from the Transmission System Operator (TSO) Elia, or for sewerage at tariffs set by the regulating authorities. DSOs' annual investment plans have to be ratified by VREG. The main business risks for Fluvius are therefore regulatory risks.

The MEAs are required to make efficient long-term investments that ensure a secure, affordable and reliable energy supply to the population. Business risks are linked to ageing assets and increasing requirements for transparency and efficiency in capex and opex. The energy transition is costly, as the balance between power generation and demand will be more challenging to manage than with conventional energy generation systems, given that an increase in demand for electricity will meet a further decentralization of energy systems and the intermittent characteristic of wind and solar power generation. DSOs are increasing investments considerably to ensure safety and reliability of its grids network amid energy transition.

Through the merger and the multi-utility-approach (several utility services comprised within one entity) the Group created a basis for increased operational and cost efficiency due to the expected savings in operating costs and capital expenditure based on better coordination in terms of planning construction and maintenance measures, as well as on scale effects. The Group expects recurring annual savings of least €110 million per year by 2022 through the merger. These efficiency gains and cost savings will finally be passed on via the distribution network charges to end customers.

The Group is obligated to buy certificates for green energy offered by producers of renewable energy at a fixed price. These are resold to the market, however, at a lower price and with a time lag, which results in additional costs for the Group. Costs for green energy and cogeneration certificates amounted to EUR 480.2 million in 2021 (EUR 524.3 million in 2020).

Overall, we assess the Company as having a low business risk profile, as it is systemically important and benefits from a supportive regulatory framework from the VREG and other public authorities in Flanders. Risks are related to general changes in the regulatory system and tariff methodology, following possible fundamental changes of the relevant legislation in Belgium. Modifications to the tariff system could have a temporary negative impact on the Group's financials, as evidenced by the introduction of the new methodology valid for 2021-2024.

Financial risk

For analytical purposes, CRA adjusted the original values in the financial statements in the context of financial ratio analysis. Given that Fluvius System Operator CV and its three subsidiaries operate on a cost price basis and therefore do not make any profit or loss, CRA based its analysis on the consolidated annual accounts of the Economic Group Fluvius.

We factor in the close links with the Flemish public authorities into the assessment of Fluvius' financial profile, given the strategic importance of its service for the region and its indirect full ownership by Flemish municipalities, which imply high degree of willingness to support the company in times of crisis. In our view, however, Fluvius' balance sheet structure will most likely face a moderate deterioration in the coming years due not only to the likely increase in debt levels amid the expansion and upgrade of its grids, but also due to the increase in the cost of debt with the refinancing of EUR 1.3 billion financial obligations due in 2022-2024. In July 2022, Fluvius issued EUR 500 million new notes at a 4% coupon rate, which is eight times higher than the weighted average interest on bonds issued in 2020-2021. The proceeds will be used to repay the EUR 500 million notes due in November 2022.

Over the last few years, Fluvius' indebtedness has increased significantly, together with its regulatory asset base, which, coupled with weaker operating results, has led to a more leveraged capital structure. Accordingly, the Company's' financial debt has increased by nearly EUR 900 million since 2019, amounting to EUR 7.2 billion at the end of 2021, with reported net finance debt / EBITDA increasing from 6.7 to 7.8 times in the period. Nevertheless, we assess Fluvius' balance sheet structure as adequate, with the maintenance of equity ratio above 40% historically also being a relevant factor for the Company's high rating level. According to CRA's methodology, Fluvius' leverage (measured by Net total liabilities / adj. EBITDA) deteriorated by 0.4x over the last three years, standing at 8.4x at the end of 2021, and should further worsen in the coming years, approaching 9.5-10.0x by the end of tariff methodology 2021-2024. We also expect the adjusted interest coverage ratio to weaken, gradually approaching 2.0x from 2.6x in 2021.

Fluvius' debt structure is largely composed of bond issues (roughly 75% of total debt) and the remainder are bank loans. At the end of 2021, outstanding bond issuances amounted to EUR 5,090 million, of which EUR 4,443 are part of the EMTN Programme. In November 2020, Fluvius issued a new base prospectus with a volume of EUR 5 billion, under which four new issuances totalling EUR 1,700 million have already been issued during 2021-2022. All bond notes are traded on the Luxembourg and Euronext Brussels stock exchanges, and are guaranteed by the eleven MEAs on a non-joint and non-inclusive basis, limited to each MEA's proportional share in the capital of Fluvius System Operator CV. The next bond repayments are foreseen for November 2022 in the amount of EUR 500 million and for October 2023 for a total amount of EUR 750 million.

Additionally, Fluvius also relies on loan facilities from the European Investment Bank (EIB) that will run from 2021 to 2024 and will be used to fund the investments that foster the energy transition (e.g. smart meters, upgrade of grid network, connections of charging infrastructure for public transportation). So far, several tranches have been granted to Fluvius for a total amount of EUR 775 million, of which EUR 350 million has been drawn down at a very low cost and with maturity in 5-7 years.

With regard to its liquidity profile, Fluvius maintains its policy of holding a minimum amount of cash holdings, but relies on a EUR 425 million fully available committed credit facility. The liquidity buffer is relatively low if put into perspective with the EUR 1.2 billion debt amount maturing in 2022 as of December 2021, but we do not believe the company will have any refinancing issues and will continue to be supported by the MEAs and ultimately by the region of Flanders. Higher investments coupled with deteriorating operating conditions could result in sequential negative free cash flow generation in the coming years, but we believe Fluvius will prudently adjust other outlays to preserve its liquidity position.

Issue rating

Issue rating details

The rating objects of this issue rating are exclusively the long-term senior unsecured Notes, 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 of EUR 5bn. The issue proceeds are used to finance general corporate purposes of the issuer, and, in most cases, consist 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" in 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.

The bonds issued by Fluvius System Operator CV have been issued within the foundation of the new Euro Medium Term Note Programme, the base prospectus of which was dated 9 November 2021. The current EMTN programme amounts to a maximum EUR 5 billion. The notes issued within the framework of the EMTN programme constitute direct, unconditional, unsubordinated and unsecured obligations, and rank pari passu and rateably, without any preference among themselves, and all other current and future direct, unconditional, unsubordinated and unsecured obligations. The Notes are guaranteed by the 11 intermunicipal utility companies that form a part of the Economic Group Fluvius. The guarantee is given on a separate and not on a joint basis. These 11 Guarantors are Fluvius Antwerpen, Fluvius Limburg, Fluvius West, Gaselwest, Imewo, Intergem, Iveka, Iverlek, PBE, Riobra and Sibelgas. The guarantee constitutes an unconditional and irrevocable guarantee of due payment of all debt within this programme (Capital and Interest). The Notes issued under the EMTN programme benefit from a negative pledge provision and cross-default mechanism.

Result corporate issue rating

We assign a rating of A / stable 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 unfavourable 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 an overview of the ratings assigned by CRA, as well as of the current EMTN Programmes of Fluvius, ex-Eandis and ex-Infrax.

Overview

Table 2: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
Fluvius System Operator CV (Issuer)	16.08.2022	A / stable
Long-term Local Currency (LC) Senior Unsecured Issues	16.08.2022	A / stable
Other	--	n.r.

Table 3: Overview of 2014 EMTN Programme of ex-Eandis I Source: Eandis System Operator CV, prospectus dated 25 November 2014

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

Table 4: Overview of 2014 EMTN Programme of ex-Infrax I Source: Infrax CV, prospectus dated 16 October 2014

Overview of 2014 EMTN Programme			
Volume	EUR 500,000,000	Maturity	Depending on respective bond
Issuer / Guarantor	Infrax CV	Coupon	Depending on respective bond
Arranger	BNP Paribas	Currency	Depending on respective bond
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 respective bond

Table 5: Overview of 2021 EMTN Programme of Fluvius I Source: Fluvius System Operator CV, Base Prospectus dated 9 November 2021

Overview of 2021 EMTN Programme			
Volume	EUR 5,000,000,000	Maturity	Depending on respective bond
Issuer / Guarantor	Fluvius System Operator CV	Coupon	Depending on respective bond
Arranger	Belfius Bank and BNP Paribas Fortis	Currency	Depending on respective bond
Credit enhancement	Guaranteed on a several but not joint basis by Fluvius Antwerpen, Fluvius Limburg, Fluvius West, Gaselwest, Imewo, Intergem, Iveka, Iverlek, PBE, Riobra and Sibelgas	ISIN	Depending on respective bond

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.

Financial ratio analysis

Table 6: Financial key ratios |Source: Economic Group Fluvius Annual Report 2021, structured by CRA

Asset structure	2018	2019	2020	2021
Fixed asset intensity (%)	93.01	94.75	97.18	97.69
Asset turnover	0.29	0.24	0.23	0.24
Asset coverage ratio (%)	74.74	72.14	69.80	73.62
Liquid funds to total assets	0.27	0.45	0.21	0.59
Capital structure				
Equity ratio (%)	43.73	43.09	42.40	41.92
Short-term debt ratio (%)	8.97	12.61	14.60	13.96
Long-term debt ratio (%)	25.79	25.26	25.43	30.00
Capital lock-up period (in days)	37.07	39.96	44.43	42.51
Trade-accounts payable ratio (%)	2.17	2.30	2.43	2.35
Short-term capital lock-up (%)	30.21	47.47	59.24	55.85
Gearing	1.28	1.31	1.35	1.37
Leverage	2.64	2.30	2.34	2.37
Financial stability				
Cash flow margin (%)	22.86	21.53	20.49	11.14
Cash flow ROI (%)	29.19	28.37	28.48	12.90
Total debt / EBITDA adj.	9.22	8.06	7.85	8.45
Net total debt / EBITDA adj.	9.17	7.99	7.82	8.36
ROCE (%)	3.84	4.36	4.57	3.78
Total debt repayment period	3.54	6.77	7.16	12.01
Profitability				
Gross profit margin (%)	54.03	50.46	51.14	52.72
EBIT interest coverage	2.09	2.48	2.90	2.63
EBITDA interest coverage	4.08	4.73	5.52	5.74
Ratio of personnel costs to total costs (%)	13.59	17.41	18.48	17.08
Ratio of material costs to total costs (%)	51.06	55.44	55.39	55.57
Cost income ratio (%)	97.18	96.12	96.38	103.78
Ratio of interest expenses to total debt (%)	2.45	2.57	2.22	1.94
Return on investment (%)	2.12	3.03	3.37	2.70
Return on equity (%)	4.43	5.44	5.87	4.83
Net profit margin (%)	5.87	9.77	10.82	8.38
Operating margin (%)	12.20	15.26	16.19	12.34
Liquidity				
Cash ratio (%)	1.76	3.59	1.47	4.25
Quick ratio (%)	32.86	5.19	-11.82	-16.46
Current ratio (%)	77.90	41.64	19.32	16.53

Appendix

Rating history

The rating history is available under www.creditreform-rating.de.

Table 7: Corporate Issuer Rating of Fluvius System Operator CV (former Eandis System Operator cvba)

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	04.11.2016	www.creditreform-rating.de	18.01.2017	A+ / stable

Table 8: LT LC Senior Unsecured Issues issued by Fluvius System Operator CV

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	05.10.2018	www.creditreform-rating.de	26.07.2019	A+ / stable

Regulatory requirements

The rating[4] was not endorsed by Creditreform Rating AG (Article 4 (3) of the CRA-Regulation).

The present rating is, in the regulatory sense, a solicited rating, that is public. Creditreform Rating AG was mandated on 21.09.2018 by Fluvius System Operator CV to conduct a corporate issuer/issue rating and monitoring of the company.

The rating is based on the analysis of quantitative and qualitative factors as well as the assessment of industry-relevant factors. The quantitative analysis refers to the consolidated financial statements for the years 2018 to 2021.

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

A management online meeting did take place on 9.08.2022 with Koenraad Schelkens within the framework of the rating process.

[4] 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.

The rating was conducted based on the following information:

List of documents
Accounting and controlling
▪ Consolidated financial statements IFRS Economic Group Fluvius as of 31 December 2021 ▪ Consolidated financial statements IFRS Fluvius System Operator Group as of 31 December 2021 ▪ Fluvius' Annual Report 2021 ▪ Fluvius' financial planning 2022-2025 ▪ Fluvius investment plans
Finance
▪ Eandis EMTN-programme prospectus dated 25 November 2014 ▪ Infrax EMTN-programme prospectus dated 16 October 2014 ▪ Fluvius System Operator CV EMTN-programme prospectus dated 9 November 2021 ▪ Final terms of the outstanding notes
Additional documents
▪ Investor presentation dated May 2022 ▪ Press releases ▪ Fluvius Corporate Social Responsibility Charter

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
Corporate Ratings	2.4	01.07.2022
Government-related Companies	1.0	19.04.2017
Non-financial Corporate Issue Ratings	1.0	October 2016
Rating Criteria and Definitions	1.3	January 2018

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
Sabrina Mascher de Lima	Lead-analyst	S.Mascher@creditreform-rating.de
Esra Höffgen	Analyst	E.Höffgen@creditreform-rating.de

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

Name	Function	Mail-Address
Philipp Beckmann	PAC	P.Beckmann@creditreform-rating.de

On 16 August 2022, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 16 August 2022. 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 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.

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, Creditreform Rating AG will disclose all ancillary services in the credit rating report at this point:

No ancillary services in the regulatory sense were carried out for this rating object.

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:

<u>Corporate issuer rating:</u>

1. Annual report
2. Website
3. Internet research

<u>Corporate issue rating:</u>

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.

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

Creditreform Rating

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