

Opinion on sustainability

Summary



<u>Preliminary note</u>: We assessed FS at its request in line with our methodology of unsolicited rating. This assessment results in an absolute score of 58/100. Since FS is not part of our listed issuers universe, this assessment does not result in a ranking against other listed companies. Therefore, the A1 Rating serves an indicative purpose only, meaning that the company's absolute score is superior to the ones obtained by listed companies within the 95th percentile of our universe. This position against the sector components should not be invoked for legal reporting or legal valuation purposes.

As of March 2021, FS ("Fueling Sustainability") obtains an A1 rating, based on an overall score of 58/100. FS displays a strong willingness and capacity to integrate ESG factors into its strategy, operations and risk management, with advanced results on managing risks related to human capital and legal security, and a more limited performance on those related to reputation and operational efficiency.

FS started its activities in 2017 in the Brazilian state of Mato Grosso. FS buys corn from Brazilian farmers to transform it into ethanol (used as agro-fuel) and related products, such as corn oil (which can be used in animal nutrition, to produce biodiesel, soap, paint and resin) and feed for cattle, pig, poultry and fish diets. FS also carries out energy cogeneration from biomass to meet its own energy needs and generates surplus energy, which is delivered to the Brazilian electrical network. As of early March 2021, the company ran two facilities (Lucas do Rio Verde and Sorriso) and had four additional facilities in the design stage.

ESG AND RISKS MANAGEMENT PERFORMANCE (../100)

Advanced performance on the social pillar

Moderate carbon footprint and robust energy

Convincing approach to address labour and

environmental standards in the supply chain





WEAKNESSES

- Corporate governance: Minor voting rights restrictions identified and less than one third of Board members are independent.
- Limited reporting on lobbying practices
- Minor part of activities (power generation from biomass) can be labelled as compliant with the UN 2030 Agenda.

KEY TAKEAWAYS

STRENGTHS

transition score

Impacts: FS' energy transition score is robust but only a limited part of activities is considered as compliant with the UN 2030 Agenda. KPIs demonstrating its social footprint (in terms of diversity, employment and health and safety) reveal stable to positive trends. A major part of revenues is invested in services likely to have a positive environmental or social impact (valorization of second crop corn into several products, each with a specific societal added value).

Risks: FS' ability to manage CSR risks appears relatively heterogeneous: the company displays advanced scores on the management of drivers that strongly impact human capital cohesion and legal security, while a robust (and still clearly above sector average) capacity to safeguard its reputation and operational efficiency is observed.

Management: The Group displays advanced measures to address most material CSR topics. Several related policies are supported by quantitative targets, but other commitments remain general. KPIs show positive trends on most issues, even if some important ones, such as GHG emissions, are not yet fully reported. No controversy affecting the Company has been discovered.



Impacts

VALUE CREATION AND SHARING

		Investments in services likely to have a positive environmental or social impact:
% of revenues invested in activities creating sustainable value [Major, Significant, Limited, None]	Major	 Extended activities: As of early 2021, FS has invested BRL 3bn (about EUR 444m) in two production sites. These investments allowed FS to reach an annual production capacity of 1.12 billion liters of ethanol. The Company plans to develop four additional sites for a cost of about BRL 2.4bn each, so a total of BRL 9.6bn (EUR 1.419bn). Compared to sales of BRL 1.379bn in 2019, this represents a major share. This will increase FS ethanol production from 1.4 billion liter to 4.8 billion liter. NB: as regards the argumentation of the positive or negative social and environmental impact of bio-ethanol produced by FS, please refer to the 'Impact of products and services' part on pp 3-5. In addition, investments are also planned in biomass production aimed at electricity generation, such as bamboo and eucalyptus. However, no figures have been disclosed by the Company on those parts. In 2020, FS also began assessing the feasibility of underground carbon capture and storage. With this project, FS states it would be able to produce a carbon negative gallon of ethanol (by sequestering greenhouse gases from the atmosphere). In February 2020, FS issued Agribusiness Receivables Certificates (CRA) made as a green bond (first transaction in the Brazilian capital market linked to sustainability goals). The BRL 210 million obtained by the CRA, due in 2023, was added to BRL 590 million that FS had access to in order to finance transactions and pay grain suppliers. In June 2020, FS issued a Real Estate Receivable Certificate (CRI) also classified as a green bond, for the amount of BRL 138.5 million. The CRI meets the guidelines and sets goals in accordance with the principles for raising funds in sustainability (ESG linked loan). Also in June 2020, an ESG-Linked loan of BRL 180 million from Santander Brazil was the first transaction of this type in BRL.
Share of investments in R&D [Major, Significant, Limited, None]	Unclear	Although FS sees itself as an innovative company, the Company does not disclose any R&D budget.
Ratio of executive compensation vs average employee salary [Increase, Stable, No Clear Trend, Decrease]	Decrease	The ratio of CEO compensation vs. average employee salary has decreased by 8% between 2019 and 2020. In the first two months of 2021, this ratio decreased again by 4.2% compared to 2020.
Transparency on tax payments [Major, Significant, Limited, None]	Major	 FS reports significantly on taxes paid: taxes paid in Brazil, from where the Company derives 98% of revenues and where all employees are located, explanation for significant differences between tax rate actually paid and expected tax rate.
Operations in offshore financial centres (OFC), including non- compliant OECD jurisdictions [No Operation in OFC, Justified Operations in OFC, Unjustified Operations in OFC]	No Operation in OFC	The Company does not operate in any location considered by the IMF as 'offshore financial centres' and/ or in jurisdictions considered by the OECD as not compliant enough on tax transparency rules.

SOCIAL & ENVIRONMENTAL IMPACTS

Environmental impacts

Vigeo Eiris considers FS' direct carbon footprint to be moderate and the company therefore receives a **grade A** (first on a four-level scale) in this regard. FS obtains an energy transition score of **58/100**, which is far above the average performance of the Food Emerging Market sector (17/100). This performance results from our assessment of FS' efforts to improve the energy efficiency of its production processes and its transportation of raw materials and products.



Trend of energy consumption linked to production [Decrease, Stable or No Clear Trend, Increase]	Decrease	Energy consumption, normalised to sales, has decreased by 45% between 2017 and 2019, down to 29 MWh/EUR million This is clearly lower than the sector average (which was close to 430 in 2019; 24 companies in the sector reported on this indicator).
Trend of GHG emissions linked to production [Decrease, Stable or No Clear Trend, Increase]	Decrease	FS does not have any GHG inventory. It will start it in 2021. However, according to the RenovaBio certification premises (a Brazilian biofuels certification program), the calculated Carbon Intensity for the industrial process of FS's Anhydrous and Hydrous Ethanol was 1.9 g CO2eq/MJ in 2018 and 1.85 in 2019. This represents a 2% decrease.

Social impacts:

Organic growth of employment [Positive, Stable, Undisclosed]	Positive	The total number of employees in the workforce has increased by 156% from 2017 to 2019, up to 589. Organic growth was the highest in 2019 (+115.8%). A slight decrease was noted in 2020 (-0.34%).
Projects leading to an increase in employment [Yes, No]	Yes	The Company estimates that 800 to 1,000 new direct jobs could be created with its investments in the four new planned corn transformation facilities, as well as a lot of indirect jobs within suppliers (although no quantified estimation has been disclosed in this respect).
Percentage and trends of women in management [Increase, Stable or Unclear, Decrease or Undisclosed]	Stable	The share of women in management positions has been stable between 2018 and 2019, close to 17%. There seems to be a slight increase in 2020 but figures do not cover the whole year. Previous data are not disclosed. This ratio is below the sector average of 27 % in 2019 (15 companies out of 46 in the sector communicated on this indicator).
Average number of training hours per employee [Increase, Stable or Unclear, Decrease or Undisclosed]	Unclear	The number of training hours per employee in 2019 was 5.66. This is lower than the sector average (16 in 2019; 19 companies in the sector reported on this indicator). Figures for former years are not available and figures for 2020 are still partial.
Employee turnover [Increase, Stable, Decrease or Undisclosed]	Decrease	The employee turnover rate has been reduced by 5.1 points between 2017 and 2019, down to 17.3%, which is however higher than the sector average of 10.3%; 16 companies in the sector reported on this indicator.
Accident frequency rate [Decrease, Stable or Unclear, Increase or Undisclosed]	Decrease	The total recordable injury frequency rate has decreased by 61% over the past three years, down to 0.47 per 200,000 hours worked in 2019. This is by far lower than the sector average, which was close to 0.96 in 2018; 7 companies in the sector reported on this indicator. Of note, the Lost-time injury frequency rate and the accident severity rate have been maintained at 0 over last 3 years.

IMPACTS OF PRODUCTS & SERVICES

FS is considered to have a minor percentage (below 10% of turnover) of services contributing to sustainable development as defined in the UN 2030 Agenda, through its steam and electricity production from renewable sources (biomass and agricultural by-products). This service contributes to Sustainable development goals N° 7 (Affordable & Clean Energy), N°9 (Industries, Innovation and Infrastructure), N°11 (Sustainable Cities and Communities), N°12 (Sustainable Consumption & Production), N°13 (Climate Action).

It has to be noted that agrofuels are not included in this percentage estimation by V.E through its Sustainable Goods & Services product, since it is derived from corn, which is a first-generation agrofuel, contrary to fuels produced from biomass waste (second generation) or from algae (third generation). In addition, producing cattle feed is not part of any SGS product/service V.E identifies within the Food & nutrition theme. However, according to FS, corn used to produce ethanol does not compete for land with other agricultural products since it is grown as a second crop on the same land (usually after a first soybean harvest) within the same crop year. Also, the crop rotation system (corn, soybean, cotton, etc.) increases biologic fixation of nitrogen which reduces the need for fertilizer.



In its reporting and through interviews of its managers, FS provides other arguments to explain that its activity is sustainable. Here below a synthesis of this argumentation, which is followed by some concerns that can be raised on the other hand.

- Widely distributed in Brazil, where the majority of vehicles are flex fuel, ethanol provides environmental gains relative to gasoline use. Burning biofuel in engines discharges less carbon when compared with fossil fuel emissions. In addition, the production cycle as a whole (in which CO2 is absorbed in grain production) may further lower reductions by 70%. The 100% corn ethanol produced in Brazil has environmental advantages over the production process in the United States and sugarcane ethanol produced in Brazil. Unlike the United States, the Mato Grosso climate enables a crop of corn and a crop of soybeans to be produced on the same acre each year. This increases agricultural productivity and avoids the need for clearing additional land. From an environmental perspective, corn ethanol also outranks biofuel produced from sugarcane – a process that has been used in Brazil since the 1970s. Sugarcane ethanol produces vinasse, a substance that requires special handling and has regulations for agricultural use. Finally, contrary to FS's facilities, sugarcane mills can only operate about eight months of the year, while sugarcane fields are being harvested.
- At FS, corn is fully utilized and generates other valuable products for agribusinesses. FS states its production process makes the best benefit from the corn plant, first by separating the fiber from the starch. The starch, which is of lower nutrition value, is transformed into ethanol. Then FS fully utilizes the rest of the corn to make additional products such as Dried Distillers Grains with Solubles (DDGSs) (940,000t annually) for animal nutrition. FS produces three types of animal feed that are rich in protein, fibers, and other essential nutrients for cattle, hogs, poultry, and fish. The DDGs can replace soybean meal with a more economical ration for cattlemen and livestock producers. The DDGs also enable more efficient confinement production of livestock, which will allow cattle to be raised with less pasture.
- Through biotechnologies and GMOs, FS participates in developing new seeds to reduce pesticide use by farmers and increase the use of biofertilizers. At the Sorriso facility, FS established a 20-hectare area available for the research and development of corn in Mato Grosso. At the location, hybrid seeds were planted with different populations and quantities of fertilizers. The purpose of the initiative is to support local farmers' search for maximum efficiency and productivity by identifying commercially viable technologies.
- In the 2019/2020 crop year, FS' power production totalled 162.1 thousand MWh, a 62% increase year over year. Of that total, approximately 29% was sold via agreements with electric companies. FS is developing new biomass sources (such as cottonseed and bamboo) that can be utilized in the Company's boilers. The new feedstocks have increased efficiency and reduced carbon footprint. In order to guarantee the required supply of biomass for plant operations, FS has established partnerships with local producers to encourage the plantation of eucalyptus forests and, in addition, it continues to search for new feasible options for biomass (rice husk and sugarcane bagasse) in the Company's high-pressure boilers. An initial agreement for biomass enables the investment of approximately BRL 100 million in the coming five years to plant 17 thousand hectares of eucalyptus. The Company states this strengthens its responsible purchasing practices, which include the funding for small properties and the acquisition of eucalyptus chips originated from areas already cultivated with proper planting techniques. The supplier assessment system makes monitoring these activities feasible and ensures sustainability in the acquisition of existing forests, according to the Company. In the 2019/2020 crop year FS established 3 thousand hectares of bamboo, a species that has a shorter growth cycle than eucalyptus and also delivers a high yield.
- In March 2020, FS was duly certified to join RenovaBio [the Brazilian Government National Policy on Biofuels] and issued decarbonization credits, known as CBIOs. FS received the best Environmental-Energy Efficiency Rating for anhydrous ethanol and the second-best for hydrous ethanol. FS states it is the sole certified producer of corn ethanol that utilizes primary data, tracking agricultural emissions from its grain suppliers. Eleven producers were involved in 2019/200, which accounted for 12.5% of FS' corn volume. Upon certification, the CBIOs FS issues may be registered and traded by authorized financial institutions. Purchasers of these securities include fuel distribution companies, that will have annual emission reduction targets in accordance with their share in the fossil fuel market.

In response to this argumentation, some areas of concern could however be found towards this business model:

- Encouraging plantations of eucalyptus or other exotic species to generate biomass energy can lead to a regression of native or more diversified forest, with a negative impact on local biodiversity, an issue that becomes more and more sensitive worldwide and often puts Brazil in the spotlight. In addition, favouring the extension of corn fields can worsen the degradation of natural ecosystems. The advanced score (66/100) obtained by the Company in the driver " Integration of environmental factors in the supply chain " and the almost robust one (49/100) in the driver "Protection of biodiversity" show however that FS has taken those important issues into account in its strategy. For instance, there are specific evaluation criteria for the purchase of corn and biomass. FS assesses, among other measures, whether the farms where it originates corn and biomass have deforestation detection measures. The Company checks if the suppliers are present on embargo lists by environmental agencies and if their areas coincide with embargo polygons defined by these agencies. Satellite images make it possible to detect deforestation and potential overlap with indigenous lands, quilombolas (Afro-Brazilian resident of quilombo settlements), or conservation units. In addition, FS also aims at enhancing conservation, preservation of biodiversity and its ecosystem services in the regions where it operates, especially in sensitive areas, such as the Amazon and Cerrado. In March 2021, FS issued its 2030 goals, which include a target to guarantee zero legal and illegal deforestation and no use of protected lands in 100% of its corn biomass purchases and animal feed sales. The Company also commits to track, monitor and encourage the recovery of degraded and or deforested areas and to source second crop corn only.
- Brazil is the second largest producer of GMO crops in the world, after the USA. According to the International Service for the Acquisition of Agri-biotech, of the 52.6 million hectares total area planted to soybeans, maize, and cotton in Brazil in 2017, 94% was biotech. Biotech maize remained the second important crop in Brazil in 2017, with an increased adoption rate of 88.9%. The 15.6 million hectares biotech maize in Brazil in 2017 was comprised of 3.3 million hectares insect resistant (IR), 0.65 million hectares herbicide tolerant (HT), and 11.7 million hectares IR/HT. Since FS uses transgenic corn grains in its ethanol production process (and does not have any separation of GM)



and conventional grain), it can be considered that the Company contributes to herbicide use expansion is agriculture, with its negative environmental and social impacts. This could harm the Company's reputation towards potential clients or investors in countries where GMO in agriculture represents a controversial activity. It has to be underlined however that FS supports R&D initiatives on optimizing agricultural inputs in its experimental area at its unit in Sorriso. In this area (40 hectares), there are experiments to cultivate corn and soybeans. The trials have been taking place since 2019. The Company carries out agronomic protocols that combine innovation, technological advancement, and acceptable management practices for the cultivation of corn and soybeans, aiming at better results, high productivity, and optimizing the use of agricultural inputs (fertilizers, seeds, chemicals). The Company also states it complies with the Brazilian legislation that regulates the information on product labels, therefore informing on the labels of its products that they are destined for animal feed.

- About its animal feed production, FS states that it enables more efficient confinement production of livestock, which will allow cattle to be raised with less pasture. Although reducing pastureland in Brazil or abroad can contribute to lowering land competition with forest and other natural areas, on the other hand, replacing cattle pasturing by feeding with corn may favour factory farming, in contrast with family farming. In addition to violation of animal welfare, human health risks and negative environmental impacts, intensive farming operations are accused of unfair competition with small farmers because they appear to contribute to overproduction that drives down prices. Besides some measures reported by FS to sustain corn and biomass producers, V.E has not found documented argumentation in the Company's reporting that would address those important questions in terms of sustainable business.

Risks

RISK FACTORS

FS' most material risk and opportunity factors relate to:

- Board of Directors
- Fundamental human and labour rights
- Reorganisation
- Protection of biodiversity
- Environmental strategy and impact of transportation
- Integration of social and environmental factors in the supply chain

Our analysis reveals that FS addresses these challenges in a relatively comprehensive way.

Board of Directors

The composition of the Board of Directors (including the diversity, separation of roles between the Board Chairman and the CEO, independence and competency level of its members), as well as its functioning rules (including board members' training and performance evaluation, the frequency of their elections, etc.) could impact the company's ability to exercise control over the management and foster its long terms competitiveness and profitability as well as shareholders' and other stakeholders' interests.

V.E positively notes that, within the new S.A. entity, the roles of CEO and Chairman are separated, and no executive member sits on the Board. In addition, Board members are elected at least every three years, the attendance rate is above 90%, and some of the relevant CSR issues are discussed at Board level. However, the share of independent Board members stands at 29%, and its diversity is limited since only one women is present within the 7 members of the Board. In addition, no specific committee is in charge of director nomination, which might raise concerns, and no training seems to be provided to board members. These elements lower our assurance on the Board's ability to exercise effective control over the top-management.

Fundamental human and labour rights

The Food sector is exposed to several human right issues. Land acquisitions, property rights and land grabbing have become key political issues in many emerging economies. Once land is acquired, steps are often taken to ensure that these valuable assets are secured, by private security agents, who might commit violations of community rights. Finally, a responsible company active in Brazil is expected to prevent any action which may affect indigenous populations through the dispossessing of their lands, territories, or resources. Also, Brazil is included in the list of countries with restrictive legislation based on 2018 ITUC Global Rights Index, which may undermine the respect of freedom of association and the right to collective bargaining.



FS displays robust to advanced performance in the respect of fundamental human and labour rights, and our assurance is strengthened by the absence of controversies in these regards. Annually, all practices of people management and human rights guarantees are confirmed by the Union, including guarantees established in collective labour agreements. FS also guarantees internal infrastructure for the Union and meetings of union representatives with employees in the company's locations, whenever requested by the Union. FS also guarantees to the employees who act as union leaders a dispensation to participate in meetings, assemblies, and training whenever requested by labour entities. The respect of union rights has been confirmed to V.E by employee representatives. In terms of fundamental human rights, FS commits to prevent complicity in human rights violations, prevent cruel, inhuman, or degrading treatment caused by private security agents and to respect the rights of indigenous people. Measures in place to back such commitments remain however limited. Measures such as risk mapping, internal or external audits, consultation with stakeholders and human right capacity building for local communities would be welcome.

Reorganisation

Even if FS is a young company in significant development, with an impressive organic growth since its launch, it is not sheltered from unplanned event such as the Covid-19 pandemic, which severely reduced the world's economic activity and pushed the Company to temporally reduce its headcounts by 30 persons in April and May 2020. In case of restructuring, companies are expected to minimize the number of lay-off and to assist laid-off employees in order to mitigate social and economic impacts linked to dismissals or geographical changes in their workplace, to avoid internal social unrest and to keep the personnel motivated.

FS' commitment in terms of reorganisation is not disclosed publicly and it remains quite vague, without reference to attempts to anticipate it minimize the number of laid-off employees. In addition, collective agreements with employee representative do not seem to cover restructuring. Measures in place to mitigate possible reorganisation are basic and mainly limited to financial compensation. No provision for internal mobility programs, retraining, reduction of labour time, or individualised follow-up of employees seems to be in place so far; Fortunately, up to now, FS has been able to avoid permanent redundancies since, in December 2020, FS rehired employees and returned to the same number of jobs as before the pandemic. Together with the absence of reported controversies, this still enables the Company to obtain a robust score in this driver.

Environmental strategy and impact of transportation

In order to improve their environmental profile, companies are expected to define a comprehensive environmental strategy that includes management targets, training, maintenance and ongoing monitoring, as well as a review of performance levels. Environmental certifications such as ISO are considered advanced instruments that can be used to embed environmental strategy throughout the business. Besides, transportation is an inherent requirement because of the nature of the industry with large volumes of heavy raw materials and products, with important negative environmental impacts. Even if FS sources its main raw materials in regions close to its production plants, due to the remote location of such facilities, its products are distributed over longer distance, within such a spacious country as Brazil.

FS has two Sustainability policies that determine the guidelines for social and environmental issues. Both policies were approved in the last quarter of 2020 by the Sustainability Board and Management. The Company commits to the majority of its responsibilities in terms of environmental protection (including a general commitment on transportation) and has allocated significant resources to environmental management, such as internal audits and follow-up of progress of environmental performance against quantitative targets. This Environmental Management System is however not covered by external certification. More positive, FS has set up most of the relevant measures to reduce the environmental impacts related to the transport of its products, with rationalization of transport flows through the synergy between inbound and outbound flows, and the use of alternative to road transport. The percentage of ethanol transported by road has decreased from 100% in 2018 to 65% in 2020, thanks to an increase of the part transported by train, boat and even pipeline. Unfortunately, the calculated carbon intensity for the transport of FS's Anhydrous Ethanol has increased by 36% between 2018 and 2019.

Protection of biodiversity

The most significant environmental impact of agri-industry occurs at the farming stage and is related to intensive agriculture techniques. Agricultural activities can cause land degradation and natural habitat destruction. Environmental NGOs stress the devastating impacts of biofuels on biodiversity. Indeed, the production of 1st generation biofuels implies intensive agricultural practices (e.g. the high application of fertilizers and pesticides, habitat fragmentation, water abstraction) and thus has potentially far-reaching environmental impacts. For these reasons, companies involved in 1st generation biofuel production like FS are expected to implement sustainable practices in the development of these new non-food products (appropriate use of Life Cycle Assessments, certification for sustainable biofuels, incentives for producers to follow best practices, etc.). Finally, there are serious concerns among consumers and farmers surrounding the unexpected commercial and environmental implications of GM crops



intermingling with non-GM crops. For reasons mentioned above (p 3-5), a company whose agri-business is located in Brazil is particularly exposed to such risks.

FS demonstrates a limited (almost robust) performance with respect to biodiversity protection. The Company's commitment covers the main impacts of its activities, i.e. to track, monitor and encourage the recovery of degraded and or deforested areas and to source second crop corn only, which is grown in the same planting area as soybean in a crop rotation system, avoiding the opening of new areas for agriculture. FS also aims at enhancing conservation of biodiversity and its ecosystem services in the regions where it operates, especially in sensitive areas, such as the Amazon and Cerrado. In March 2021, FS issued its 2030 goals, which include a target to guarantee zero legal and illegal deforestation and no use of protected lands in 100% of its corn biomass purchases and animal feed sales. Measures in place to implement these commitments are more limited. The Company supports R&D initiatives to minimize the use of agricultural inputs, and 100% of the corn purchased by FS comes from second crop cultivation using the no-till method (planting on residual post-harvest straw), which brings benefits against soil erosion (among others). FS assesses, among other measures, whether the farms where it originates corn and biomass have deforestation detection measures. The company has however not allocated significant resources to prevent cross contamination due to the use of GMOs in agriculture. Promotion of organic farming, measures to prevent fragmentation of habitats (e.g. limited size of fields), resort to international certification schemes or training employee on biodiversity guidelines do not appear to be implemented so far. Finally, even if no controversy has been discovered against the Company on attempts to biodiversity, FS has not put in place any indicator monitoring to ensure that its policy and measures generates positive results.

Integration of environmental and social standards in the supply chain

Companies of the food sector rely on a large number of suppliers. Production of such commodities is often run by small-scale farms where temporary or seasonal work, weak remuneration, subcontracting, immigrant workers and child labour have been observed. Furthermore, as farms are spread over wide geographical areas, trade union organisation is less favourable. Agriculture is also a sector particularly exposed to health and safety issues, reflecting high rates of accident due to the handling of dangerous substances and painful working positions. Besides, the strongest environmental impacts of agri-business occur at the cultivation stage: agriculture indeed accounts for a large part of GHG emissions generated along the food chain. Corn origination and the acquisition of biomass from producers located close to the production facilities are essential features for FS. In 2020, FS partnered with 427 corn suppliers and 30 biomass suppliers.

FS' integration of environmental and social factors in the supply chain appears advanced. The policy 'Social and Environmental Responsibility in the Supply and Sales Chain' establishes commitments and how rules and monitoring of socio-environmental compliance should be applied to suppliers of corn and biomass and animal feed clients. Supply contracts have specific clauses that prohibit degrading work practices, including child labour and slave labour. In addition, FS' Suppliers Code of Conduct is under reformulation in order to make it available on the Company's website. The Company has implemented advanced means to implement its commitments, such as training employees involved in purchasing, risk assessment, integration of social and environmental clauses in contracts, and clear procedure on how to treat non-conformities. When necessary, FS states it carries out on the spot audits, but these do not appear to be done by a third party. It is also worth noting a best practice withing the sector: while the Company does not face any allegation in this respect, FS discloses in its public reporting the number of suppliers evaluated, the share of non-conformities discovered, and addressed by corrective measures.

RISK MANAGEMENT

FS' risk management system appears comprehensive and covers the corporate's most material CSR risks. Risk Management is conducted by Internal Control and Audit department in close collaboration with Legal and Compliance department.

Corporate-wide risk mapping is conducted once a year by Internal Control and Audit Department, which provides a taxonomy of risks, to main business line risk owners and requires them to assess their exposure. Some CSR risks are integrated to this mapping such as supply chain due diligence on social and environment factors, human rights, business ethics, health and safety. At present, the corporate risk mapping primarily focuses on financial, operational, and legal risks arising from biomass purchase, sales of ethanol, sales of DDGGs, procurement, and logistics.

FS Lstd plans to enlarge the scope of corporate risk mapping by convening subject matter experts and building closer cooperation with Ethics Committee, Legal and Compliance, Sustainability and Development. The company has mentioned that this plan will be carried out in consultation with the newly formed Audit Committee for FS SA.



- Internal Control and Audit Department annually updates the CSR risk materiality matrix. The ultimate weight of the materiality is decided by the stakeholder groups, based on the subject matter, depending on their potential impact and their likelihood of occurrence. CSR risks identified in this framework include human rights, deforestation, corruption, tax compliance and supply chain issues. One Shareholder Representative actively participates in all steps of the risk management process and is one of the core members to be notified when identified risks require escalation to relevant stakeholders
- Internal controls and external audits of risk management process is in place: Internal Control and Audit department is responsible for prioritising keys risks to company's objective and strategy and integrating and identifying key controls to develop risk mitigation plans in main business lines. In addition:
 - A confidential channel, independently operated by a third party, is available with confidentiality guaranteed to all employees and subcontractors to report on issues related to anti-corruption, human rights, human resources, business ethics, non-discrimination, health and safety, and any other areas of concerns.
- Reporting on risk management is done annually, and sphere headed by the subject matter responsibles, such as Internal Control and Audit department, Legal and Compliance department, and Sustainability and Development department. Each of these departments has a direct reporting line to CEO and Executive Members. In parallel, a Sustainability Committee, composed by the company directors, reports on CSR issues on a monthly basis to the Board. In the absence of Risk Committee, it is the Ethics Committee that reports to the Board on deficiencies and risks that require urgent intervention and remediation. The Audit Committee of FS SA is envisaged to have direct reporting line on issues related to risk management.

REPUTATION

REPUTATION (/100)	52
Labour standards in the supply chain	62
Fundamental human rights	58
Social and economic development	56
Executive remuneration	54
Water	51
Biodiversity	49
Shareholders	32

OPERATIONAL EFFICIENCY

OPERATIONS (/100)	50
Environmental standards in the supply chain	66
Audit & Internal Controls	61
Energy	59
Supplier relations	57
Water	51
Audit & Internal Controls	58
Biodiversity	49
Environmental Strategy	49
Board of Directors	40
Responsible Lobbying	40
Atmospheric emissions	32



HUMAN CAPITAL

HUMAN CAPITAL (/100)	74
Fundamental labour rights	93
Social Dialogue	85
Health and safety	75
Career management	74
Non-discrimination and diversity	62
Reorganisation	53

LEGAL SECURITY

LEGAL SECURITY (/10	0) 63
Corruption	68
Product safety	65
Anti-competitive practices	55

Weak: from 0 to 29

Limited: from 30 to 49

Robust: from 50 to 59

Advanced: from 60 to 100

Management

INTEGRATION OF ESG FACTORS INTO CORPORATE GOVERNANCE

Most factors under review demonstrate FS robust willingness and capacity to integrate ESG factors into its governance structure and decisionmaking processes.

- At board level, the Sustainability and Ethics committee oversees major CSR risks such as energy use and related emissions, environmental and social factors in supply chain, deforestation, labour rights, mobility and career development. The Board approves the Group's CSR strategy and reviews its implementation monthly, when it receives updates provided by the Sustainability Committee. One Board members engages in CSR initiatives, through participations to the Ethos Institute Board, an organization embraces Earth Charter and CSR in Brazil, WRI Brazil, Sitawl, an organisation specialised in the analysis of social and environmental performance of companies and financial institutions, and the Enterprises & LGBT Rights Forum. The Board discussed the following CSR topics: Climate Bond Initiatives certification, CARB certification (carbon emission intensity calculation), Carbon Capture and Storage project, commitments to reduce CO2, water, deforestation, health and safety issues such as ensuring a secure environment for employees during the pandemic period.
- At management level, the CSR Director/EVP of Sustainability reports directly to CEO. The General management reviews the CSR strategy and related risks and opportunities. The Sustainability team entails five employees and is responsible for proposing sustainability ambition across Business Units, as well as across the value and supply chain of the company. In the sustainability team, one employee is in charge of managing stakeholders' relationships and promote collaborations with government bodies, institutions, NGOs and members of local community.



- The Responsible Commitments committee, chaired by CEO, validates the Group's CSR commitment, and oversees groupwide CSR projects and issues likely to impact the Group's reputation. Heads of Legal and Compliance, Internal Control and Audit, and CSR and Environment are involved in the process since they review energy use and emission, biodiversity, deforestation, socio-economic activities, sustainable relationships with suppliers and climate risks and validates related action plans.
- CSR risks are covered by the **internal controls system**, which entails comprehensive risk mitigation processes (these are analyzed in the "risk management" part on p 7 of this document).
- For the moment, FS' CSR strategy and objectives are communicated to shareholders via the third-party reviewed Sustainability Report only. Nonetheless, the company states that FS S.A, the future listed entity, plans to release a prospectus and conduct road shows to actively communicate on its CSR activities to investors and interested parties.
- Executive remuneration appears to integrate several CSR components. In 2020, all three performance conditions of the FS' variable remuneration were linked to CSR objectives:
 - Company Goals (40%) included accident rate, Net Promotor Score (NPS) from employees and suppliers, and socioenvironmental policy,
 - Department Goals (30%) covers KPIs on projects related to reduce carbon emissions,
 - 360° review encompassed social dialogue.



ESG MATERIALITY AND PERFORMANCE MATRIX

ENVIRONMENT

Strengths	Weaknesses
FS reports diverse measures on the rational use of water, aiming at its management and conscious use, covering water used as an ingredient, water used for production and water saving in agricultural practices. In addition to operational benefits, this may foster the group's reputation in saving such natural resource and guarantee its licence to operate.	V.E observed a limited reporting in 'Atmospheric emissions', with a quite general commitment and limited implementation measures (mainly monitoring and end-of-pipe measures). Although FS does perform analysis of other parameters of atmospheric emission such as CO, NOx, SOx and particulates, a reporting of CO2 emissions by the fermentation processes would be an area of improvement for the Company.



The ethanol and animal nutrition production process is supported by steam generation and electric energy cogeneration from biomass – eucalyptus chips and other renewable sources. In addition, the Company's energy consumption, normalised to sales, has decreased by 45% between 2017 and 2019. This reinforces the Company's low dependence on fossil fuels.

The company has set up several relevant measures to reduce its environmental impacts related to the transport of its products. In addition, the percentage of ethanol transportation by road had decreased from 2018 to 2020, while the percentage by train and boat has increased. Because of its contribution to climate change, transportation is increasingly under the scrutiny from NGOs and public authorities so that companies that mitigate such impacts better mitigate reputation risks and are able to improve their operational efficiency by, among others, reducing their reliance on fossil fuels. None of the company's sites have a certified environmental management system. Having an externally certified EMS could provide a better assurance on the Company's ability to manage environmental impacts of the Company's industrial processes.

FS uses transgenic corn grains in its ethanol production process and does not have any separation of GM and conventional. This could negatively impact the Company's reputation towards potential clients or investors in countries where GMO in agriculture represents a controversial activity.

SOCIAL

Strengths	Weaknesses
Advanced commitments and measures to ensure the respect of fundamental labour rights appear to be in place, reinforced by strong social dialogue. FS also displays very high performance in 'Career management and promotion of employability' and in 'Health and safety conditions'. This may foster talent attraction and retention, which seems to be one of the main challenges faced by FS, i.e. the high employee turnover, linked to production sites located in remote areas.	A more formalised commitment to minimising the number of lay-offs by anticipating reorganisations and to negotiate with employee representatives in case of downturn of economic activities, like the one that occurred in 2020 due to the Covid-19 pandemic situation, would be a plus for a company that have some difficulties to attract and retain employees in remote locations.
FS has set up several relevant measures to address labour standards in its supply chain. In addition, FS publicly discloses quantitative data on the outcome of its corn and biomass supplier evaluation and has formalized action plans jointly with suppliers when standards were not met. This can be considered as a best practice in a sector where involvement of companies in activities that violate social rights within their supply chain may tarnish a company's brand names and represents an important reputational risk.	

GOVERNANCE

Strengths	Weaknesses
Relevant policies (with quantitative goals) and advanced measures to prevent corruption, including risk assessment of company vulnerability and a system to ensure that employees are made personally responsible, may protect the company's reputation and legal security in a sector where companies might be involved in corruption practices with authorities for obtaining license to operate	FS S.A.'s Board entails less than 30% of independent members and, although the Company has a nomination policy, there is no Nomination Committee within the Board. Increasing the Board's level of independence could strengthen stakeholder's confidence in the company's ability to exercise an efficient control on top management.
and in a country with high corruption perception index by Transparency International.	Besides a communication in the public reporting, the CSR strategy does not seem to be presented to shareholders. Implementing a dedicated CSR committee at board level and putting CSR issues at the
The newly set-up Audit Committee of the Board of Directors of FS S.A. has two of its three members who are considered independent and even one who, in addition to audit experience, participates in various external CSR initiatives. This committee appears to have a	agenda of shareholders' meeting, would demonstrate the group's willingness to integrate sustainability at the highest level of its organisation.
comprehensive role and there is a confidential reporting system in place for accounting issues. This may help this control body to effectively oversee the internal control system and therefore prevent potential non-compliance and fraud.	Executive remuneration is disclosed, but on a collective rather than on an individual basis. In addition, the Remuneration Committee is not part of the Board, but it is composed of executives only. This may weaken stakeholders' confidence in the alignment of executives' and shareholders 'interests.



FS has an Institutional Relations Policy that provides for the rules to be followed by all employees and their representatives in their interactions with other companies, as well as governmental bodies and public official. However, measures in place to implement this policy appear limited and the Company does not publicly report its lobbying budget. A more exhaustive reporting on how the company ensures honest and transparent lobbying practices would reinforce our assurance on how FS protects its reputation, in a sector framed by numerous regulatory provisions.

DETAILED EXPOSURE TO CONTROVERSIES

ESG Issues	Number of companies facing associated cases within the sector	Company exposure	Company reactivity
Customer Safety	4	No	N/A
Supplier relations	2	No	N/A
Environmental standards in the supply chain	6	No	N/A
Social standards in the supply chain	7	No	N/A
Prevention of corruption	4	No	N/A
Anti-competitive practices	2	No	N/A
Responsible Lobbying	0	No	N/A
Respect for human rights standards and prevention of violations	5	No	N/A
Fundamental labour rights	1	No	N/A
Non-discrimination and diversity	1	No	N/A
Environmental strategy	0	No	N/A
Biodiversity	5	No	N/A
Water	0	No	N/A
Energy	0	No	N/A
Management of atmospheric emissions	3	No	N/A
Transportation	0	No	N/A
Social and economic development	5	No	N/A
Board of Directors	0	No	N/A
Audit & internal controls	5	No	N/A
Shareholders	0	No	N/A
Executive remuneration	0	No	N/A
Social Dialogue	0	No	N/A
Reorganisation	1	No	N/A
Career management	0	No	N/A
Health and safety	3	No	N/A

No controversy affecting FS has been detected in media browsed by V.E, which strengthens our assurance on the company's ability to manage its relationships with stakeholders.



Methodology

Corporate Rating Scale

Vigeo Eiris' consolidated rating scale ranges from A1+ to D3-.

The consolidated rating translates the overall and relative ESG performance of an issuer according to 2 elements:

- Quartile performance and position within this quartile;
- Position in relation to its' peers.



First dimension: positions the issuer's overall ESG performance within Vigeo Eiris' research universe, on a 12-level scale:

- The letter (A, B, C or D) positions the issuer's ESG score within one of the four quartiles of Vigeo Eiris' overall research universe
- The **number** (1, 2 or 3) positions the issuer's ESG score in relation to its' peers within the same quartile.

Second dimension: the + or - symbol positions the issuer's domain performance in relation to its' regional sector peers.

Definition of Strategic Assets

Each sustainability criterion of our rating framework affects issuers' non-material strategic assets with a different intensity. Vigeo Eiris has categorised these non-material assets into 4 classes: reputation, human capital cohesion, operational efficiency and legal security. The intensity of each sustainability driver on each asset class translates into a weight from 0 to 3.

Vigeo Eiris postulates that a correlation exists between an issuer's level of commitment towards each of the sustainability criteria analysed and its ability to protect and develop these 4 classes of strategic assets.

From the ESG scores obtained by an issuer on different sustainability criteria, we infer a level of risk mitigation of these strategic assets. This level is given a score which is calculated using the following formula:

- "R": Level of risk mitigation
- "Y": Asset under review (reputation, human capital cohesion, legal security, operational efficiency)
- "S": Sustainability criteria score for which the weight of the asset X is weighted at 3
- "W": Weight allocated to the asset under review within each sustainability driver

Ry= ∑(Sy x Wy)/ ∑ Wy

Risk Typology – The 4 main categories

Reputation	 Brand recognition, level and variation of brand image and organisation, its leaders and consulting shareholders Outbreak, persistence, reduction or elimination of rumours, allegations and controversies Licence to operate, degree of social acceptability (approval of the implementation and/ or extension of the company, receipt and maintenance of operational permits and licences from public authorities or ordering parties) Talent attraction Variation of levels of shareholder support and satisfaction
Human Capital Cohesion	 Stability of labour relations and social conflict mitigation Retention of skills and know how; skills development Attraction and mobilisation of core skills Company culture and values
Operational Efficiency	 Production cost management (work accidents, competencies, reducing energy consumption etc) Competitiveness of products and services (training, waste reduction, employee training and participation) Organisational and process effectiveness (audits and control mechanisms, environmental strategies etc)



	4. Innovation and preventing production and organisational process techniques from becoming obsolete; prevention of technological obsolescence5. Security and quality of supplies and revenues
Legal Security	1. Recourse and complaints, litigation, legal proceedings, trials and fines

Controversies

We continuously monitor controversies involving the social responsibility of the issuers we assess. We promptly disseminate our detailed opinion on the severity and possible consequences of the controversies in question. This service is designed to inform investors and asset managers about unexpected changes in issuers' risk profiles and enable them to make informed decisions.

We assess issuers' capacity to mitigate risks arising from allegations, media campaigns, lawsuits, or social movements related to environmental, social, ethical, supply chain, human rights and governance issues, which involve their products, services or behaviours. We provide an opinion on issuers' controversy risk mitigation based on the analysis of three systematic factors: the **severity** of the controversy regarding the social responsibility norms and standards applicable to the issuer and the rights and expectations of its stakeholders; the **frequency** of similar allegations involving the issuer; the issuer's **responsiveness** and its ability to take appropriate, corrective and preventive measures. Depending on their topic, controversies are categorised into 106 different themes.

This service provides access to our Controversy Journal, which is permanently available and categorises entries by social responsibility theme and factor, company, sector, and country. It also offers a "Warning List", identifying companies involved in the most critical controversies which, due to the frequency of allegations to which they are subject and/ or their weak level of responsiveness, require issuers to be more vigilant. The reference universe for Vigeo Eiris' controversy analysis is based on our exclusive Equitics© research. The Controversy Database is updated daily and involves correspondence with issuers.

Contribution to the UN Sustainable Development Goals

Vigeo Eiris measures issuers' level of contribution towards the Sustainable Development Goals (SDGs), set by the United Nations in 2015. As these 17 goals are interdependent, complementary and indivisible, Vigeo Eiris has developed an analytical framework, based on its generic reference framework, that companies can use to assess their level of commitment regarding their SDG responsibilities.

The sustainability criteria rated are categorised into 8 themes: Business Ethics, Governance, Wellbeing, Decent Work, Basic Needs, Clean Technology, Natural Resources and Development Tools. The analysis reviews and balances issuers' degree of contribution to the SDGs against their governance, operations, and the specific nature and footprint of their products and services. The assessment is based on the premise that contributing to the SDGs forms an integral part of issuers' social responsibility and must therefore be integrated into their frameworks of commitments, risk management, stakeholder dialogue and reporting.

Vigeo Eiris provides a final opinion on companies' overall level of contribution to the SDGs on a 5-level scale: very positive, positive, marginal, negative or very negative. The reference universe is based on Vigeo Eiris' Equitics© research and is updated at the same time as Equitics©.

Energy Transition Strategy score

By taking into account the size, sector of activity and nature of its products and services, we assess a company's willingness and capacity to adopt a clear, documented and measurable transformation strategy regarding its behaviour, products and services; with the objective of reducing its carbon footprint and creating sustainable value based on low-carbon activities that are in line with international climate objectives such as the 2 degrees policy.

Each issuer receives an Energy Transition Strategy score resulting from the analysis of criteria defining its responsibilities regarding the fight against climate change. These criteria stem from an authoritative framework of international norms and standards and consider the best practices that make up our Equitics© framework: green products, energy, atmospheric emissions, transportation, use and disposal of products, and societal impacts of products & services. The reference universe is based on Vigeo Eiris' Equitics© research and is updated at the same time as Equitics©.

Carbon Footprint

A company's carbon footprint is the total volume of Greenhouse Gas (GHG) emissions in tonnes of CO2 equivalent (Scope 1 + Scope 2) emitted by the issuer.

Emissions

- Scope 1 covers direct GHG emissions originating from sources that are owned or controlled by the issuer.
- Scope 2 covers indirect GHG emissions caused by the organisation's consumption of electricity, heat, cooling or steam purchased or brought into its reporting perimeter.
- Scope 3 covers other indirect emissions (not included in Scope 2) from the entire value chain, both upstream and downstream.



Data

The main source of GHG emissions data is Vigeo Eiris' own company research. When data is not available via these two processes, Vigeo Eiris estimates the Carbon Footprint of the company based on the size and the nature of the issuer's activities, using three main modeling processes: regression analysis, sector-specific factors and average sector emission ratios. The research on non-sovereign issuers is updated twice a year.

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