



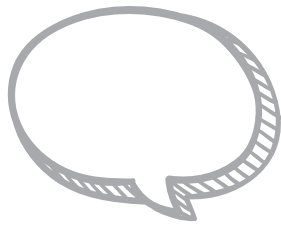
ANNUAL AND SUSTAINABILITY REPORT 2016



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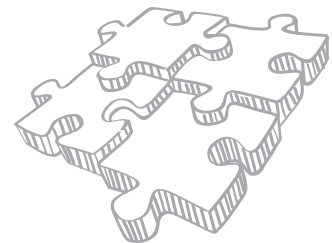
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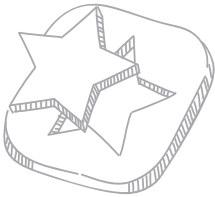
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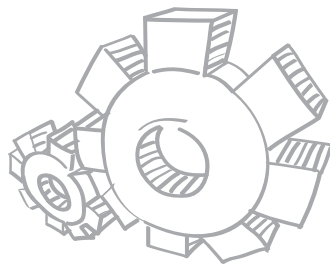
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GRI G4 CONTENT SUMMARY



ABOUT THIS REPORT

In this year's Annual and Sustainability Report, we will present the highlights from JBS S.A.'s global businesses from 2016 (between January 1 and December 31) with social, economic and environmental information on the strategies we have adopted, how our operations have progressed and the respective results from the six JBS business units (JBS Mercosul, Seara, JBS USA Beef, JBS USA Pork, JBS USA Poultry and JBS Europe). The report also describes the Company's various markets and its Corporate Governance practices, as well as risk and relationship management structures and a number of other issues. The report also discusses other relevant issues, such as the creation of JBS Foods International (JBSFI) - announced in December 2016. Based in the Netherlands, this subsidiary will consist of the Seara business in Brazil and all overseas businesses located in Europe, North America, Oceania and South America (not including Brazil). The Company intends to list its stock on the New York Stock Exchange (NYSE).

The global scope of the report – first adopted in 2015 – reflects the Company's position as one of the world's largest food companies. **GRI G4-17, G4-22, G4-28, G4-29, G4-30**

This is the seventh consecutive year that JBS S.A. is voluntarily reporting based on Global Reporting Initiative (GRI) guidelines and the third consecutive time it has chosen to present its report using the Essential Guidelines option in GRI G4. This methodology uses certain indicators to report company performance, regardless of sector or unit location, so the data can be compared over time and between different organizations. **GRI G4-32**

Some of the GRI performance indicators (environmental, social and economic) reported in this document do not yet include all of our global operations. As JBS has grown through a number of major acquisitions, these indicators are still being addressed by management and may therefore include certain monitoring methodology differences. These situations will be highlighted when this is the case. **GRI G4-22, G4-23**

Please send any comments, suggestions, questions or criticism to relatorio.anual@jbs.com.br. You can also reach us by contacting the Investor Relations area: site www.jbs.com.br/ri, telephone No. + 55 (11) 3144-4224 or the following email address: ri@jbs.com.br. **GRI G4-31**

MATERIALITY MATRIX **GRI G4-18**

In order to report information using the GRI G4 format, JBS S.A. has selected five issues that are of significant importance for both global sustainability of its businesses and for its principal stakeholders:

- Product Integrity
- Team Member Health and Safety
- Animal Welfare
- Water and its Management
- Climate Change

These issues were selected based on a multi-phase materiality analysis that included one-on-one interviews with JBS' main executives, as well as the views of JBS subject matter expert team members, suppliers, internal and external customers, government officials and civil society organizations. Stakeholders were selected based on high-level sustainability credentials and level of engagement in each particular stakeholder category. **GRI G4-24, G4-25, G4-26 and G4-27**

Therefore, the materiality matrices from each regional business were used by their respective Sustainability departments to identify the five issues listed above, which represent the common challenges the company faces across its global operations.

GRI INDICATORS

In order to define material aspects, certain GRI reporting indicators were selected and addressed by staff from several different areas of the global

company, who are responsible for the related activities.

These indicators are detailed in the **GRI G4 Content Summary**. [GRI G4-32](#)

MATERIAL ASPECT BOUNDARIES [GRI G4-19, G4-20, G4-21](#)

Material aspect	GRI-related material aspects	Impact inside JBS (business units)	Impact outside JBS (relationship markets)	Related GRI Indicators
Product Integrity	Supplier environmental assessment; Procurement practices; Supplier employment practices assessment; Forced labor; Supplier human rights assessment; Supplier Evaluation re. Impacts on Society; Customer health and safety; Consumer health and safety; Marketing communications	Includes all JBS business units (production and sales) located in more than 20 countries.	Internal market, suppliers, customers and consumers.	EN12, EN32, EN33, EN34; FP1; FP2; LA15; HR6, HR10, HR11; SO9, SO10; PR1, PR2; FP5, FP7; PR6
Team Member Health and Safety	Healthy food at accessible prices; Occupational health & safety	Includes all JBS business units (production and sales) located in more than 20 countries.	In-house, third parties and suppliers.	FP4; LA5, LA6, LA7, LA8
Animal Welfare	Animal Breeding and Genetics; Livestock breeding; Transport, Handling and Slaughter;	Includes all JBS business units (production and sales) located in more than 20 countries.	Environment, raw materials, internal market, suppliers, customers and consumers.	FP9; FP10, FP11, FP12; FP13
Water	Water	Includes all JBS business units (production and sales) located in more than 20 countries.	Environment, raw materials, internal market, suppliers, customers and consumers.	EN8, EN10
Climate Change	Economic performance; Emissions	Includes all JBS business units (production and sales) located in more than 20 countries.	Environment, raw materials, internal market, suppliers, customers and consumers.	EC2; EN3, EN6, EN15, EN16, EN17, EN18, EN19, EN23, EN25



MESSAGES FROM MANAGEMENT

GRI G4-1



EFFORTS FOCUSED ON VALUE GENERATION

We are pleased to present our results and JBS' biggest achievements in 2016.

This was a year when we reinforced our assertive strategy, focused on consolidating our recent acquisitions and concentrated our efforts on generating value through product and food solution offerings and increasing the recognition of our brands in their particular segments.

In 2016, we continued to diversify our production platform, which once again proved its value as a major competitive differential. With a strategic platform of global operations, we have the ability to source raw materials from many different regions around the world and we enjoy access to all consumer markets. With this strategy, we have also been able to mitigate volatilities associated with commodity cycles and trade and health barriers, among other issues. Alongside the other benefits we enjoy as a global company, these factors have helped us deliver solid and consistent results.

Looking at the company's performance by region, Brazil experienced an atypical situation in 2016 with the dollar appreciating against the Brazilian real, which affected exports. Furthermore, certain raw materials were scarce, particularly corn,

which also posed a challenge, but was offset by the company's performance in other markets.

For example, in the US, the cattle herd grew in the past year, substantially improving our results in the second half of the year. Our pork revenues grew significantly and we are now the world's second largest pork producer. In the poultry sector, we performed well throughout the year based on both domestic and international demand.

We are particularly satisfied with our European operations. Following the Moy Park acquisition in 2015, we have continued to generate synergies and identify opportunities we can leverage. In Australia, where we have a robust foundation, we have increased our market share and are readying ourselves to use Australia as a base to expand sales of processed products into Asia.

I would like to highlight the creation of JBS Foods International (JBSFI) as one of our milestones in 2016. This subsidiary will consist of our Seara business unit in Brazil and all other JBS global operations outside of Brazil. This is a natural process that clearly reflects our business model as well as our global position as one of the world's largest food companies. The next step in this process is listing JBS on the New York Stock Exchange. This is another strategic step towards generating value for the company and I am convinced that with this new structure, we will be able to realize the full potential of our operations, while generating value for our shareholders, team members and other stakeholders.



In line with these strategies, our sustainability programs have also progressed. In 2016, we launched the sustainable hamburger, which is made in Brazil according to strict social and environmental criteria. In Europe, Moy Park was consistently recognized for its food safety practices and, in North America, we methodically assessed our historical performance in critical sustainability areas to allow for the creation of 2020 goals, slated for release in 2017.

I am optimistic about our operational performance in 2017. In Brazil, input prices are returning to historical levels. In other South American countries, conditions are favorable for exports, mainly from Paraguay, where we opened a new plant in 2016 that is now equipped with the latest technologies and processes, strengthening our installed capacity in a fast-growing country with abundant supplies of raw materials.

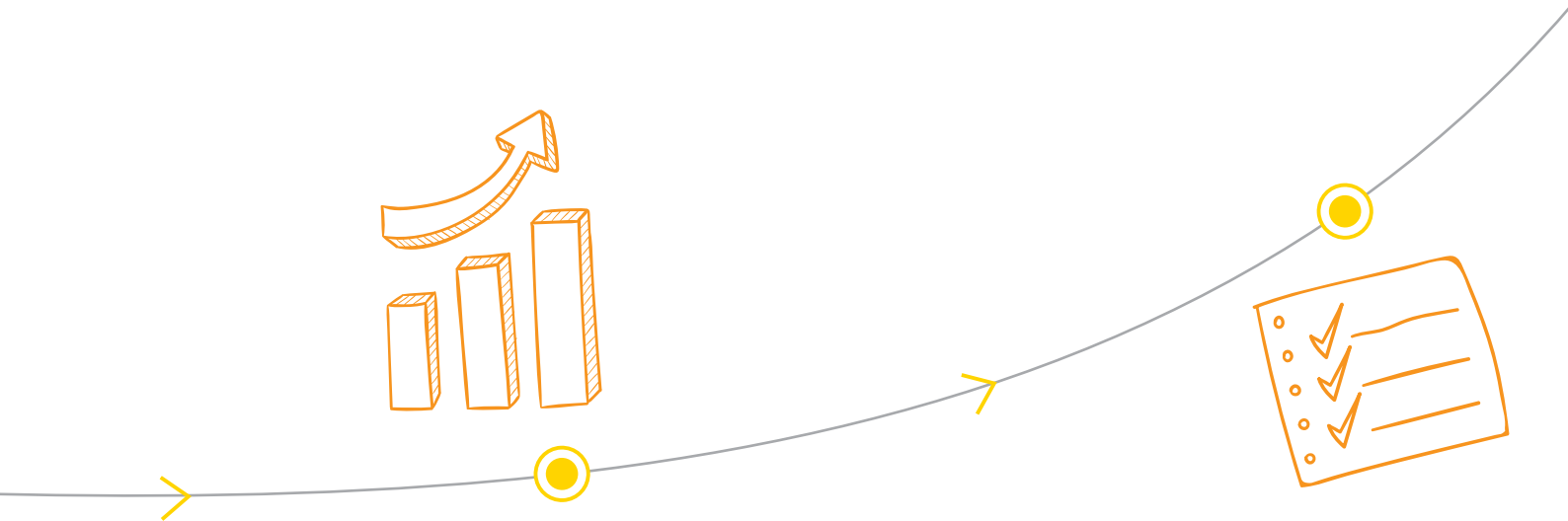
We will move ahead with a highly qualified team leading our businesses and focusing on our strategy. Diversification, with an emphasis on value-added products and high food safety and quality standards, backed by our operational excellence, have been fundamental in achieving our objectives.

Diversification, with an emphasis on value-added products and high food safety and quality standards, backed by our operational excellence, have been fundamental in achieving our objectives.

Today, we are more than 235,000 team members located across five different continents. I would like to thank each and every one of you for your effort and dedication to the company. I would also like to thank our partners, customers and suppliers, as well as our shareholders and investors, who have always supported and believed in our decisions and strategies.



Wesley Batista
Global CEO of JBS

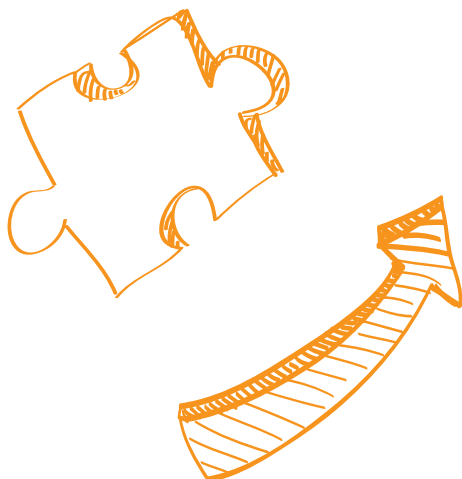


JBS FOODS INTERNATIONAL – BUILDING THE FUTURE

Global trends are supportive of our industry – population growth, rising purchasing power and larger urban populations have all continued to drive demand growth for animal protein. Additionally, consumers are increasingly focused on convenience, well-being and natural products, which has benefited the company and its brands.

JBS assets are located in the most competitive places in the world for protein production and our portfolio of businesses represents some of the foremost companies in their particular segments in terms of adhering to high operational and quality standards.

Another factor contributing to our success is management excellence. We have made several acquisitions in recent years that have created opportunities for improvement and we have been able to significantly improve internal benchmark indicators and our results.



JBS assets are located in the most competitive places in the world for protein production and our portfolio of businesses represents some of the foremost companies in their particular segments.

We have successfully been able to sell our diverse portfolio of products, which ranges from traditional to value-added products, to every type of market and consumer around the world. We have an incredible capability to develop and launch products through all our businesses in a great many locations. We have also begun exchanging technology and production know-how among our global platforms, which has helped us to increase our ability to innovate and expand our product mix.

The road ahead involves transforming JBSFI into a company of brands recognized for offering high value-added products.

We are confident in our ability to succeed because of the extraordinary team we have assembled and the way we strive for excellence in all we do. I have no doubt that an even brighter future lies ahead.



Gilberto Tomazoni
President of JBS Foods
International

BRANDS: OUR COMMITMENT TO CONSUMERS

In order to offer high-quality products that increase profitability for our investors, we have worked hard to enhance our brands by investing in innovation, our facilities, processes and leadership. These investments have led to improved product quality worldwide.

Exemplifying this strategy, Seara was Brazil's fastest growing food brand in 2016. It rose 12 positions to 15th in the ranking of the 50 most valuable companies in Brazil. Its brand preference tripled during the year with a marketing campaign that obtained the best recall and the company's products made their way into 3.7 million homes, with a 64% repeat purchase rate.

Since the acquisition of Seara in 2013, we have been able to transform the company into a strong brand associated with innovative, high-quality products, in line with our overall strategy: to consolidate JBS' position as a global food company supported by leading brands and value-added products.

We have also worked diligently in other markets to participate in existing and anticipate future consumer trends. For example, we remodeled and expanded our Primo portfolio in Australia, redesigned our product packaging in Saudi Arabia, and revisited the Swift brand in Argentina. Our signature effort of the year involved the launch of our new Seara Gourmet range in Brazil, which offers the highest quality products with exceptional flavors, providing a unique sensory experience with prime meats, special cuts and surprising seasoning and aromas. We also expanded the product portfolio of Friboi, Brazil's leading beef brand.

The food market is one of the largest and most dynamic in the world. Everyone is quick to innovate. This is why our approach to innovation is based on technologies and processes that reflect consumer demand and quantitative and qualitative research into consumer habits.

As a result, we have also innovated in the way we communicate with consumers across all media channels. In 2016, we launched two highly efficient communication channels in Brazil: the Meat Academy, which registered over 27 million visitors and 1.6 million registered users; and Today it's Chicken, creating a new image for this protein, which Brazilians usually think of as a basic commodity product.

Brands demonstrate a commitment to consumers because they promise consistent quality and innovation. We work to fulfill these expectations and meet consumer needs. We have an experienced team dedicated to bringing the best possible products to people's tables every day in every country where we operate. Additionally, brands build value for investors and companies with strong brands are more highly valued because they are more resilient to crises and commodity cycles. Our results show we are on the right track.



Tarek Farahat
Global President of
Marketing and Innovation

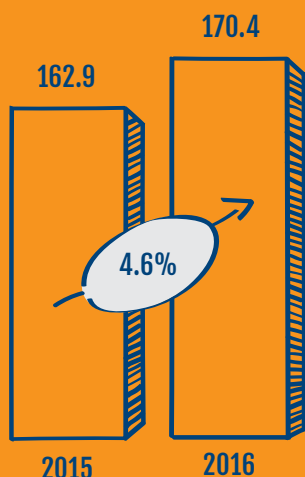


THIS YEAR'S HIGHLIGHTS

GRI G4-1



FINANCIAL



Net revenues in 2016 were

R\$ 170.4 BI

a R\$7.5 billion or 4.6% increase compared with 2015.



Gross profit was

R\$ 21.3 BI

5.7% down compared with 2015.

Cash flow totaled

R\$ 3.7 BI

from operational activities in 2016.

2016 EBITDA was

R\$ 11.3 BI

a 15.1% reduction compared with 2015.
Our EBITDA margin was 6.6%.

Free cash flow was

R\$ 128 MI

after investments of
R\$3.539 billion.



Net debt was

R\$ 46.9 BI

at the end of the fourth quarter, down R\$1.950 billion compared with 3Q16 and leverage fell from 4.32x in 3Q16 to 4.16x.

Net profit was

R\$ 376 MI

equivalent to a profit per share of R\$0.14.

MAIN INDICATORS

G4-DMA, G4-EN31

	2016	2015	2014	2013	2012
Economic/financial indicators – R\$ Millions					
Net Operating Revenue	170,380.5	162,914.5	120,469.7	92,902.8	75,696.7
Cost of products sold	-149,066.7	-140,324.2	-101,796.3	-81,056.1	-67,006.9
Gross Profit	21,313.8	22,590.3	18,673.4	11,846.7	8,689.8
Gross Margin %	12.5%	13.9%	15.5%	12.8%	11.5%
EBITDA	11,286.9	13,300.4	11,090.0	6,130.3	4,410.3
EBITDA Margin %	6.6%	8.2%	9.2%	6.6%	5.8%
Net profit	376.0	4,640.1	2,035.9	926.9	718.9
Net Margin (%)	0.2%	2.8%	1.7%	1.0%	0.9%
Investments	3,539.4	21,603.8	4,276.8	1,905.9	1,870.2
Net Debt	46,904.8	47,038.7	25,168.7	23,748.2	15,105.9
Operational cash flow	3,667.4	21,206.4	8,987.0	2,541.0	1,472.2
Free cash flow	128.0	-397.4	4,710.1	635.1	-398.04
Social and environmental indicators					
Number of employees	237,061	227,168	208,503	191,426	141,628
Total GHG emissions, by weight (tCO ₂ e) - scope 1	6,553,358.3	4,445,098.0	4,411,977.1	3,877,792.0	2,423,078.0
Total GHG emissions, by weight (tCO ₂ e) - scope 2	1,745,022.2	1,779,980.7	1,457,679.7	2,423,078.0	1,274,401.0
Volume of water consumed (thousand m ³)	187,537	161,027	N/A*	N/A*	N/A*
Investments in environmental management and improvements (R\$ millions)	855.2	716.6	N/A*	N/A*	N/A*

*In 2012, 2013 and 2014 these figures were only reported for our Brazilian operations. This information is available in our respective annual and sustainability reports.





BRANDS

JBS is the world's second largest food company, with an extensive product portfolio, focusing mainly on fresh and frozen beef, pork and poultry, as well as high value-added prepared and processed foodstuffs, backed by well-known brands sold in more than 150 countries.



PROFILE

JBS S/A is based in São Paulo, Brazil, and is the country's largest private sector non-financial company. JBS stock is traded on the B3 market, the new name adopted by the BM&FBovespa, and the company's ADRs are traded on the OTCQX over-the-counter market on the New York Stock Exchange. GRI G4-3, G4-5, G4-7

JBS is the world's second largest food company¹. JBS has an extensive product portfolio focusing mainly on fresh and frozen beef, pork and poultry as well as high value-added prepared and processed foodstuffs, backed by well-known brands sold in more than 150 countries. The company operates a global and diverse food production and distribution platform, with production facilities and commercial offices in more than 20 countries and more 235,000 employees. GRI G4-4, G4-6, G4-9

¹ Source: Bloomberg

The company has more 300,000 customers, made up of retail customers of various type and size, wholesale clubs and food service companies (restaurants, hotels, food service distributors and supplementary processing companies). GRI G4-8

JBS also has a New Business division, whose task is to extract value from the raw material byproducts of our animal protein processing and production businesses. This allows the company to operate in other sectors related to its core business, such as leather, biodiesel, collagen, soaps, glycerin and food casings. JBS also operates waste management, metal packaging and transportation businesses that generate synergies with its other businesses and serve external customers. GRI G4-4, G4-8



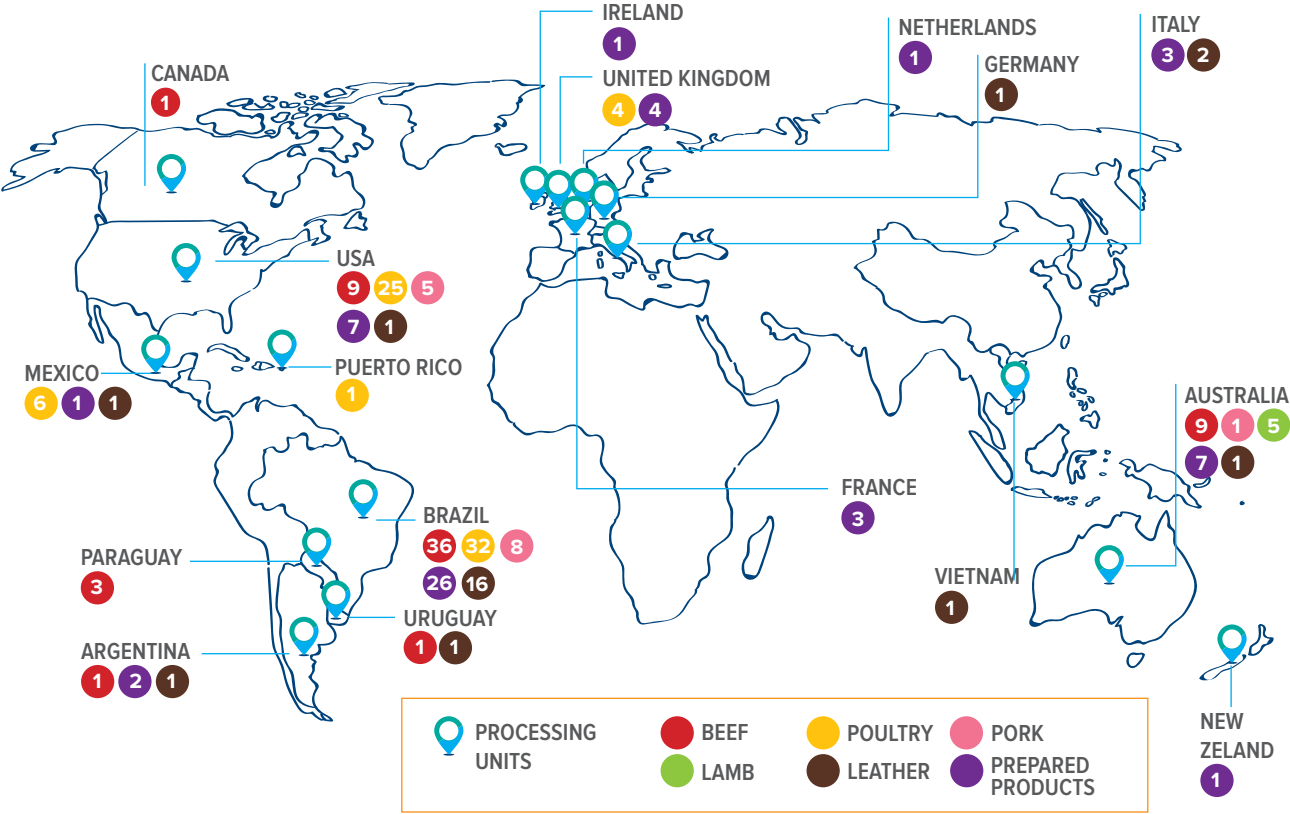
The company operates a global and diverse food production and distribution platform, with production facilities and commercial offices in more than 20 countries and more 235,000 employees.

GLOBAL PRODUCTION AND SALES PLATFORM

GRI G4-6, G4-8, G4-9

Exclusive Global Production and Sales Platform

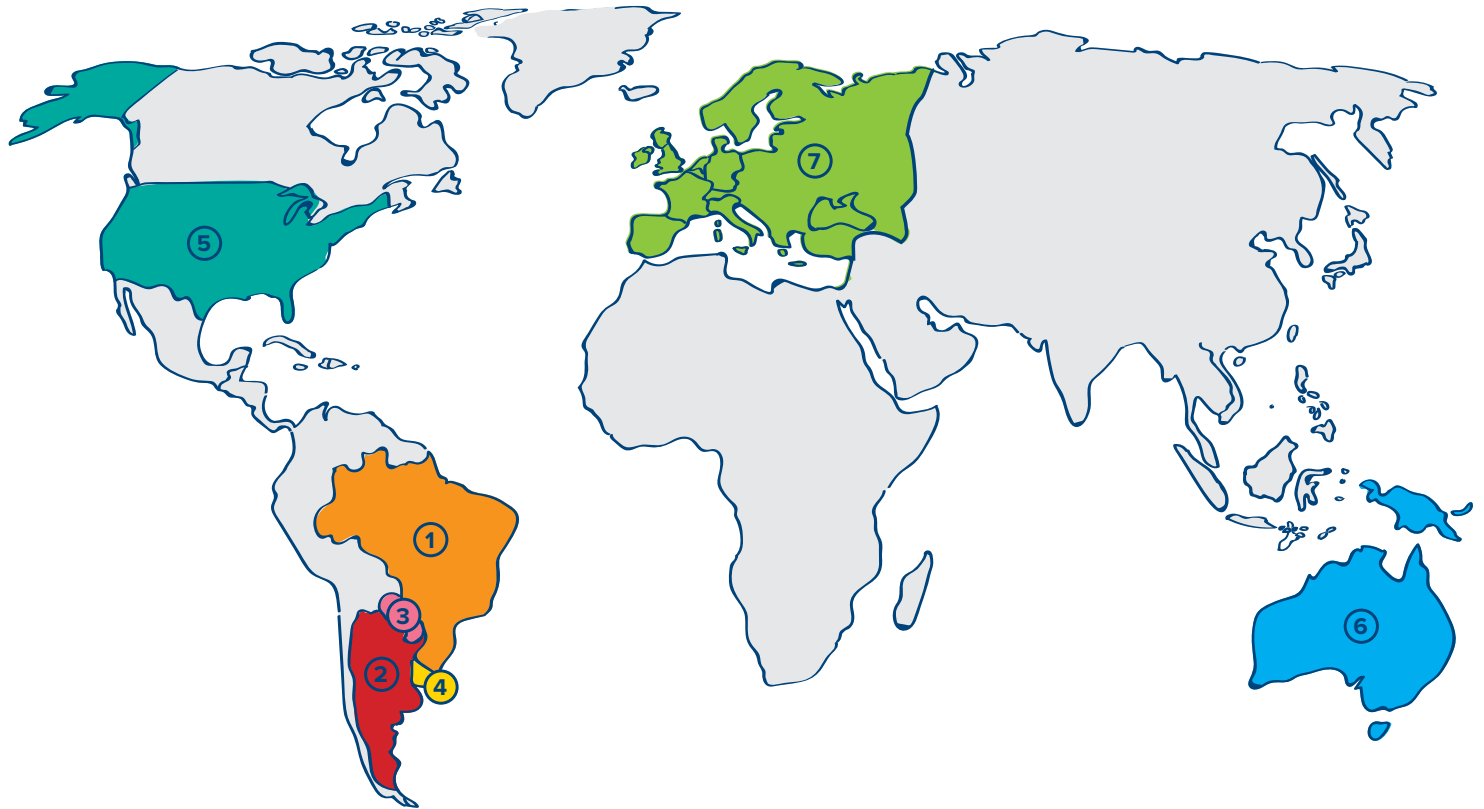
More than 300 production facilities and sales offices in over 20 countries



JBS: A GLOBAL FOOD COMPANY

PORTFOLIO

JBS' portfolio is made up of dozens of brands offering value-added, ready-to-eat, fresh and frozen products. GRI G4-4



1 BRAZIL



2 ARGENTINA



3 PARAGUAY



4 URUGUAY



5 USA



6 AUSTRALIA



7 EUROPE



INSTITUTIONAL AWARDS

Empresas Mais Award, from the O Estado de São Paulo newspaper (Brazil), which ranked JBS as one of the top 10 companies in Corporate Governance. The company also won this award in the Food and Beverage category.

Best in Agribusiness, which named JBS the winner in the Brazilian Beef Industry category. This was the 12th edition of the award organized by Globo Rural magazine.

1,000 Biggest and Best Companies by sector, from Isto É Dinheiro, which ranked JBS 4th. JBS was ranked 1st among the 20 largest companies and 6th in Corporate Governance.

Marketing Best Sustainability 2016, for its Brazilian “Trust from start to finish” ad campaign, highlighting sustainability in Friboi processes. These processes use the Cattle Supplier Farms Social and Environmental Monitoring System, which guarantees responsible sourcing. The award is organized by MadiaMundoMarketing and Editora Referência.

International Taste & Quality Institute (IQT), which awarded Black its highest ranking (three stars).

Best supplier of the year and best supplier of direct inputs, from Bob’s fast food chain.

Latin American Counsel Awards (JBS), in the Litigation Team of the Year category, organized by Lexology and International Law Office (ILO), with support from the Association of Corporate Counsel (ACC). This award recognizes the work done by corporate legal teams and attorneys who excel in their specific roles.

Companies that Communicate Best with Journalists in the “Meat Agribusiness” industry, for the sixth consecutive year. This award is organized by the Negócios da Comunicação magazine (Brazil) and voted on by a jury of journalists and corporate communication experts.

Lide Food Industry Award, in the Marketing and Communications Efficiency category. The Trophy for Top Supplier to National Hotels went to Friboi in the beef category. This award is organized by Revista Hotéis and recognizes top of mind hotel suppliers.

Ulster Business Top 100 Companies, recognition from the Ulster Business magazine that ranked Moy Park number 1 in Northern Ireland for the fifth consecutive year.

UK Food and Drink Companies, from the OC&C Top 150 index of Food and Drinks companies, ranking Moy Park among the 10 largest companies.

UK Meat & Poultry Processing Awards, from the Meat Trades Journal, highlighting Moy Park in three categories: ‘Processing Business of the Year’, ‘Retail Processor of the Year’ and ‘Product Developer of the Year’.

Food Manufacture Excellence Awards, from Food Manufacture magazine, with Moy Park winning the ‘Training Programme of the Year’ award

British Safety Council (BSC) – an international safety award awarded to Moy Park by the BSC.

STAKEHOLDER RELATIONSHIPS

GRI G4-DMA

The reputation of JBS and its brands is strengthened by its relationships with a wide variety of stakeholders, helping the company anticipate future trends and improve product quality. JBS provides various communication channels through which it builds robust and transparent relationships.

The company develops several communication initiatives focusing particularly on customers and consumers. Each US Beef, Pork and Chicken business offers a number of customer and consumer contact channels, including websites, email addresses and toll-free numbers, as well as social media profiles. Our companies use these channels to disclose product and food safety information, offer customer services directly to consumers and publish information on a wide range of relevant issues.

One initiative is the Beef University. This was created in 2016 and offers customers and consumers ongoing education about the beef industry, strengthening the company's

relationship with these audiences. The program includes academic and professional presentations at Colorado State University and visits to JBS production facilities and producer farms, among other activities.

In Brazil, the company implemented a project in 2016 to manage inquiries through its Complaints website, where consumers can report complaints and evaluate our Brazil-based companies. JBS brands have improved reaction times in order to offer a faster and more transparent customer service response and organized a number of consumer initiatives. For example, instead of reimbursing people, the company now offers customers a credit card credited with the value of their transaction. In 2016, Seara also improved customer service levels by 30% compared with the previous year.

All JBS business units have client and consumer communication channels. In Brazil, JBS Beef operates SAC 2.0, integrating an online, interactive channel alongside its traditional customer service system. The service is



available at <http://www.friboi.com.br>. The company also has an 0800 customer service line (0800 11 5057). In 2016, the number of complaints received through these channels fell 18% year on year.

Seara also offers a customer service system via an 0800 number (0800 47 2425), e-mail and social media channels. These channels received more than 3,000 monthly interactions in 2016.

Traceability

In the US, Mexico and Brazil, consumers are able to quickly and easily trace the source of products they purchase. The packaging for Friboi, Reserva Friboi, Maturatta Friboi, Angus Friboi, Do Chef Friboi and Black (JBS Beef Brazil) meat brands includes a QR Code that consumers can use to find out more about the farms making these products, including farm

name and location. Consumers simply scan the code using a smartphone or visit the www.confiancadesdeorigemjbs.com.br website, where they insert the manufacturing date and Federal Inspection Service (FIS) number. Products from the Pilgrim's (US chicken business) offer the FreshTrace™ mechanism. To find out where a product comes from, simply type in the code on a specific website².

GRI G4-DMA, GRI FP8

Examples of JBS relationship guidelines and channels

JBS' many global operations offer a range of communication and relationship opportunities for their various stakeholders. Some operations are allowed to manage their respective channels independently. Some examples include:

2 <http://www.pilgrims.com/products/fresh-trace.aspx>



AUDIENCE	CHANNELS
In-house	· Intranet, weekly newsletters, marketing, marketing emails and others
Customers	· Customer service and Ombudsman
Media	· Press relations
Government	· Public and Government Agency and Relationship Policy · Ethical Conduct Manual
Shareholders and investors	· IR areas in Brazil and the US · IR website · Quarterly results telephone conferences
Suppliers	· JBS Connection , etc.

COMMUNITIES

The scale and scope of JBS' operations inherently create social and economic impacts. Our goal is to ensure we have a positive impact in the communities in which we live and work. In many cities, the company's production facility represents the largest private sector employer. By generating direct and indirect jobs, the company plays an important role in local communities and helps develop local economies.

In parallel, the company also contributes to local communities through a number of wider social initiatives. In Brazil, it supports education and training courses for children, professional training courses for teenagers and adults, and training and social inclusion for people with special needs. JBS USA and Pilgrim's have a long history in the US, Mexico and Canada of supporting local communities and initiatives through financial or food donations, as well as encouraging volunteerism among JBS team members. All JBS USA production facilities have a Community Relations Committee that focuses on initiatives that support schools, universities, hospitals and organizations for children and teenagers. In 2016, some of these initiatives included the United Way, the American Cancer Society and the March of Dimes. Moy Park, in Europe, also contributes to the social, economic and environmental development of rural communities near its facilities through donations and in its support for a wide range of social initiatives.

Germinare Institute

JBS is the main sponsor of the Germinare Institute in Brazil, a business school for children and adolescents between 12 and 18 years of age in São Paulo, SP, Brazil. The Institute's main differential is its methodology, which has been approved by the Ministry of Education, supplementing the traditional Basic II and Middle School curricula with themes and activities that encourage students to develop an entrepreneurial outlook while teaching them about business management. The goal is to create future leaders by providing full-time, high-quality and free education. Germinare ranks 11th on the city of São Paulo schools ranking and is ranked as one of the top 100 schools nationwide, according to the National Middle School Exam (ENEM), which monitors learning achievement among students concluding middle school in Brazil. In 2016, the Institute had 528 enrolled students.

In many cities, the company's production facility represents the largest private sector employer. By generating direct and indirect jobs, the company plays an important role in local communities and helps develop local economies.



JBS is the main sponsor of the Germinare Institute in Brazil, a business school for children and adolescents between 12 and 18 years of age in São Paulo, SP, Brazil.

In Brazil, the company is involved in several efforts to promote recycling, including training for people who collect recyclable materials, as well as structural improvements and equipment donations to recycling cooperatives and associations.

Recycling industry training

In Brazil, the company is involved in several efforts to promote recycling, including training for people who collect recyclable materials, as well as structural improvements and equipment donations to recycling cooperatives and associations. Through these efforts, JBS helps develop a chain of business opportunities by supporting professional training throughout the recycling industry, which, in turn, reduces production costs by facilitating recycling of reusable materials and generates income. This produces a number of social, economic and environmental benefits in line with the National Solid Waste Policy. JBS supports recyclable material collector cooperatives in the states of São Paulo (in Penápolis, Bauru and Lençóis Paulista) and Paraná (in Maringá).

Special Chefs

JBS sponsors this project which supports social inclusion for youngsters with Down Syndrome through gastronomy and organizes free workshops with well-known chefs in São Paulo (Brazil). The main objective is to ensure that by learning recipes and how to use ingredients, participants will improve their independence, self-esteem and motor coordination. Friboi has sponsored Special Chefs since 2013 and also supplies products and promotes planned activities. The project celebrated its 10th anniversary in 2016 by organizing a number of events, such as including three hamburger recipes on Friboi food trucks. Around 800 guests attended the event.

In 2016, JBS received the Best Marketing award in the Social Action category for its sponsorship of the Special Chefs Institute.

Prince's Trust 'Team' Programme

Moy Park sponsors this intensive three-month programme which is specially designed to equip unemployed people with the skills and confidence to embark on a new career. The young people take part in the challenging course which includes team-building activities, collaborative project work in the local community as well as individual work placements. The participants also benefited from a CV, skills and interview workshop delivered by Moy Park, which also provided the young people with the opportunity to learn more about the inner workings of a successful business.

Young Enterprise NI

This initiative provides entrepreneurship training for primary school students and helps them understand business. Moy Park partners in this initiative and set a challenge in 2016: During a workshop where the youngsters are asked to develop business plans and test their marketing skills. Elsewhere, Moy Park team members volunteered for other school events to help increase students' understanding of business and entrepreneurship.

Farm Africa

Moy Park partners with the charity Farm Africa working to end hunger in eastern Africa, to help farmers become self-sufficient and grow themselves out of poverty. Throughout 2016, Moy Park team members organized events, ran marathons and arranged other sporting and cultural activities to raise funds towards the ambitious goal of raising £100,000 for the charity over three years.

INNOVATION

At JBS, innovation happens everywhere. Innovation is applied to consumers, which means the company monitors and predicts consumer habits and changes in behavior in order to detect trends. Innovation is also an aspect of many other activities, from new product launches to consumer communications, including product improvements or segmentation, changes to packaging or ingredients, and new commercial approaches.

The company also innovates throughout the value chain. It introduces new processes and technologies to engage suppliers and draw additional value from its raw materials by using them in other industries.

2016 HIGHLIGHTS

CONSUMER INNOVATION

- An exclusive innovation area was created at Primo Smallgoods (Australia).
- High value-added products were launched, such as Seara Gourmet, in Brazil, and Hans, in Australia.
- The first sustainable hamburger was made in Brazil in partnership with McDonald's, meeting a range of social and environmental criteria.
- The Friboi brand was restructured in Brazil to include a range of new products.
- In Brazil, the Seara logo and packaging were redesigned.
- The Seara Easy Roast product line presented new, ready-to-cook dishes such as chicken breast with vegetables, potatoes and carrots that can go directly into the oven from the freezer.



SEARA ACADEMY.

Innovation at Seara is driven by the Seara Academy. Based at JBS headquarters in São Paulo, the Academy is staffed by a multidisciplinary team of food engineers, pharmacists, nutritionists and chefs. They help develop new products, analyze current products and monitor how these products are perceived and accepted, using sensory and food analysis techniques. 159 assessments were carried out in 2016, 87 of them with consumer participation, involving proprietary products such as Hotdog Sausage, Pork Ham, Smoked Turkey Breast, Calabrese Sausage, Chickenitos and Lasagna Bolognese.

Moy Park received an award in the “Brand Innovation” category during the Henderson’s Wholesale Local Supplier Awards 2015/16.

- Exclusive Bolognese, Mushroom, which are unique on the market, and Spinach Cream Wholemeal Lasagnas were launched. Sources of fiber made with durum wheat semolina and wheat bran.
- New packaging was developed for value-added pork products in the USA, in order to market smaller portions and increase the range of options available to customers and consumers.

PRODUCTS TO ADDRESS NEW TRENDS

- **Chicken DaGranja (Brasil)** – uses chickens raised without antibiotics and fed a 100% vegetable diet. This product, which offers the option of a whole, frozen chicken or cuts, supports the growing consumer trend to improve their quality of life.
- **Chicken with Omega -3** – the UK’s first chicken that is also a source of omega 3. Developed by Moy Park in partnership with Devenish Nutrition, an animal nutrition specialist, it offers 10 product ranges.

Seara launches inspired by Moy Park products:

- **Chef Sauces** – inspired by the ‘Cook Love’ product
- **Assa + Fácil** – inspired by the ‘Roast in the Bag’ product
- **DaGranja Ready Meals** – inspired by a number of the company’s ready meals

Moy Park product launches

- **Moy Park Roast in the Bag**, a range of easy to cook roast chicken in innovative thermoformed packaging
- **Moy Park Chicken Sensations**, an exciting new addition to the Moy Park fresh breaded product line.

In 2016, the “**Roast in the Bag**” product received the following awards:

- GrowMakeEatDrink Awards, in the ‘Best Innovative Food & Drink Product’ category
- Grocer New Product Award, in the “Meats” category for Roast in the Bag ‘Extra Tasty’
- Winner at the UK Quality Food and Drink Awards Ready to Cook category for MP RIB Pork, Sage & Onion

- **O’Kane**, a range of Ready to Eat and Fresh and Frozen breaded chicken
- **Moy Park BBQ & Roast** range, oven and BBQ ready marinated chicken

INNOVATIVE CONSUMER INTERACTIONS

JBS launched two first-of-a-kind projects in Brazil to interact directly with consumers:

Meat Academy

This is a unique platform for consumer communications and relationships launched by JBS Beef in 2016. The platform, which generates a high level of brand exposure for Friboi, offers access to content on various cuts of beef and proper preparation techniques. This fully interactive platform operates in the same way as a social media website³ where each user creates their own profile and can browse anything of interest.

In 2016, this platform registered over 27 million visitors, 83,000 interactions and 1.6 million registered users. It was also widely reported by the media: 947 articles were published and 132 magazine ads, 116 editorials ads, 456 free-to-air TV sessions and 1,623 pay-TV insertions were created.

³ <http://academiadacarnefriboi.globo.com/inicio>

In its first year, the Meat Academy won the following awards:

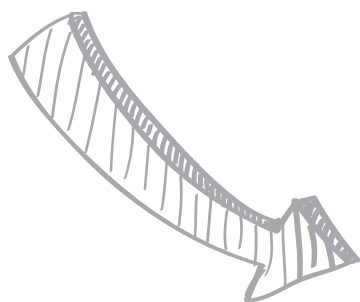
- EFFIE International, where it was top ranked in Results Communication
- ANATEC Brazil, where it won the silver medal in Segmented Media
- Aberje 2016, in the Consumer Communications and Relationship category. This is an award from the Brazilian Business Communications Association which recognized the Friboi Meat Academy platform for its work increasing people's knowledge and understanding of beef.

Today is Chicken Day

This is a digital platform⁴ launched by Seara offering a significant amount of information about how chicken is produced and used. The information ranges from sourcing to tips on how to prepare chicken and specialist recipes. It also explains production processes and product varieties. The platform offers consumers a new chicken experience. Chicken is Brazil's most popular protein, with approximately 78% of Brazilian homes consuming chicken two or three times a week.

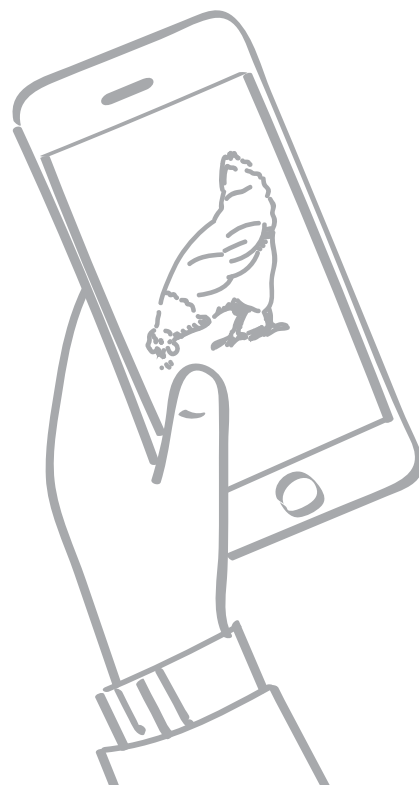
This is Brazil's largest online platform⁴ focused on chicken and in 2016 it registered more than 6 million interactions.

⁴ <http://www.hojetemfrango.com.br/>



PROCESS AND TECHNOLOGY INNOVATION

- Transforming recyclable industrial and post-consumption waste into trash bags, leather transportation covers and bags in general.
- A platform for communicating directly with JBS beef cattle suppliers in Brazil, focusing on commercial education for livestock breeders.
- Solutions for energy efficiency and renewable energy generation, such as reusing waste or biomass from the cashew nut and babassu coconut.
- The Circle of Continuous Improvement (CMC) was developed by JBS Beef (Brazil) and encourages JBS team members to present innovative ideas to help improve work routines in their respective areas. The CMC initiative was developed for JBS production facility teams, who submitted 1,200 projects in 2016 - nearly five times as many as the previous year – looking at many issues, including safety, quality, costs, productivity and efficiency, and the environment. A winner is selected at each of the 36 beef facilities. In addition to receiving an award, the winning team member is also given the opportunity to present their project to the management team.



MAKING FULL USE OF RAW MATERIALS

Meat is the primary product we obtain from cattle, pork, sheep and chicken, but not the only one. These animals also provide raw materials for other value-added products. Fat, bone, blood, feathers, skin and intestines can all be used to make a wide variety of products, like shampoo, soap, glass, animal feed and fertilizer. They can also be used to produce drugs, clothing and accessories or as a renewable source of energy. Estimates show that **one bovine steer can generate raw material for 260 different industries.**

For example, beef tallow can be used to produce biodiesel or cleaning and hygiene products. Intestines are transformed into casings, which is the name used for the membrane used to wrap edible items like sausages. Skin is used to produce collagen. Internal organs, like the intestinal mucosa, bile and trachea can be used to make anti-coagulants as well as drugs to control

cholesterol, arthritis and arthrosis. Cattle or chicken manure generates biogas. By efficiently using every possible animal part, the company demonstrates its immense respect for each animal, reduces waste and minimizes its impact on the environment.

In Brazil, JBS has a specific business unit focusing on these products: JBS New Business⁵. Using cutting-edge technology and highly trained teams, the unit focuses on developing products and solutions that are used in-house and exported to more than 20 countries.

At our US operations, byproducts are also reused either to produce tallow and flours or as raw materials sold to other companies, such as animal feed manufacturers.

5 <http://jbs.com.br/novos-negocios-int/>

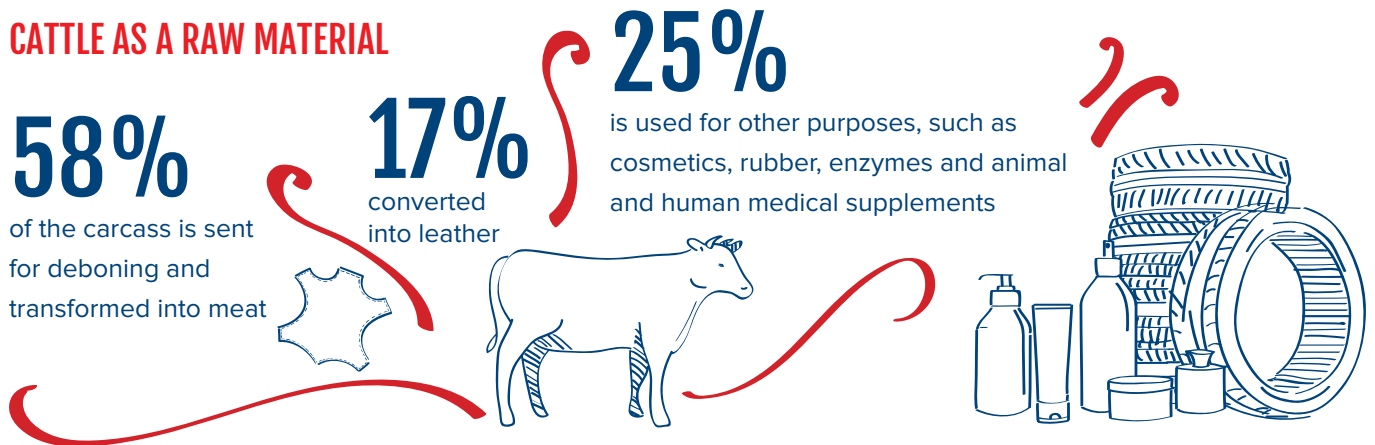
CATTLE AS A RAW MATERIAL

58%
of the carcass is sent for deboning and transformed into meat

17%
converted into leather

25%

is used for other purposes, such as cosmetics, rubber, enzymes and animal and human medical supplements



POULTRY AS A RAW MATERIAL

80%
of the bird is used as food

20%

is used for animal feed products, detergents, fertilizers and drugs, among other products.





MANAGEMENT

JBS S.A, a global food company, spans several companies and business units based in more than 20 countries.



JBS Foods International (JBSFI), a JBS S.A. subsidiary, consists of the company's following operations: Seara (Brazil), Moy Park (Europe), JBS Australia/New Zealand, JBS Uruguay, JBS Paraguay, JBS Argentina, JBS USA, Pilgrim's (USA and Mexico), JBS Canada, Rigamonti (Italy), trading operations, including Sampco (USA and

Canada), JBS Toledo (Belgium) and sales offices across all five continents.

In Brazil, the company's home base, the Beef, Leather and New Business operations are managed directly by **JBS S.A.**

GLOBAL MANAGEMENT STRUCTURE



Wesley Batista
Global CEO of JBS S.A.



Gilberto Tomazoni
President of JBS Foods International



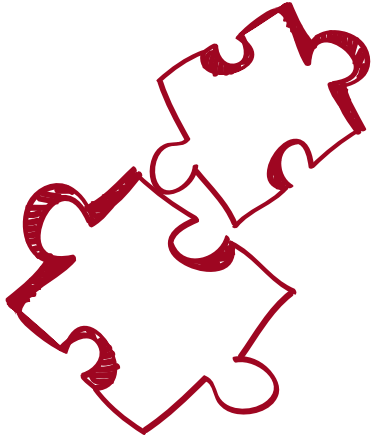
Tarek Farahat
Global President of Marketing and Innovation



Vincent Trius
Global President of New Projects



Russ Colaco
CFO of JBS Foods International



CORPORATE GOVERNANCE

JBS S.A. has implemented best Corporate Governance practices and is constantly refining these principles as part of its efforts to maintain an appropriate balance among the rights, powers, obligations and responsibilities allocated to management, the Board of Directors and shareholders. JBS stock is listed in Brazil on the B3 New Market - a listing segment for Brazilian companies with the best Corporate Governance practices - and voluntarily undertakes corporate governance commitments that extend beyond current legislative requirements.

GOVERNANCE STRUCTURE

GRI G4-34

The JBS S.A. Corporate Governance structure is built around two main bodies: the Board of Directors and Executive Board. The Board of Directors is the company's highest ranking governance body and includes members representing company shareholders and sets the company's main business objectives and targets on economic, social and environmental issues. The Board also rules on key matters and fulfills its role as described the company Bylaws.

The nine Board members are elected by the General Shareholders Assembly for a two-year term (and may be reelected). Two Board members are independent directors. A list of Board members and their respective qualifications are available on the JBS Investor Relations website⁶.

The Board of Directors is supported by the Audit Committee, which is responsible for monitoring management activities and reporting on company accounts, and five non-statutory

Committees that focus on Sustainability, Audits, Finance and Risk Management, Personnel Management and Related Parties Management, the latter created at the beginning of 2017. The company website⁶ provides additional information regarding the Audit Committee and each of the other Committees, including a list of their respective members.

EXECUTIVE BOARD

The Executive Board is responsible for managing and directing JBS' operations, and running the businesses in line with the Board of Director's strategic guidelines. The Board of Directors also appoints the Executive Board members, who serve three-year terms and may be reelected. The current Statutory Executive Board, whose term ends in 2019, has four members: A list of company executives and their respective qualifications are available on the JBS Investor Relations website⁶.

POLICIES

To assist management in operating the businesses, the Company addresses four main issues in its policies:

- Material Information Disclosure Policy
- Securities Trading Policy
- Dividends Policy
- Privacy Policy

A full version of each document is available on the Company website⁷.

⁶ www.jbs.com.br/ri

⁷ www.jbs.com.br/ri, in Corporate Information / Codes and Policies



STOCK MARKET LISTING GRI G4-DMA

JBS S/A stock is listed on the New Market B3 - the new name adopted by the BM&FBovespa - in Brazil, a listing segment for companies that have adopted more stringent Corporate Governance policies for listed companies. By listing on this market, JBS has voluntarily committed to stricter corporate governance than would usually be required under current legislation. Its stock is also traded in the US as Level 1 ADRs (American Depositary Receipts) on the OTCQX over-the-counter market on the New York Stock Exchange (NYSE).

At the end of 2016, JBS' market value was R\$32.6 billion. GRI G4-9

JBS stocks are also included in theoretical portfolios by the following BM&FBovespa indexes:

- Differentiated Corporate Governance Stock Index (IGC)
- Differentiated Tag Along Stock Index (ITAG)
- Brazil Index (IBrX)
- Brazil Index 50 (IBrX -50)

- Wider Brazil Index (IBrA)
- Carbon Efficiency Index (ICO2)
- BM&FBovespa Consumer index (ICON)
- BM&FBovespa Value Index (IVBX-2)
- Mid-Large Cap Index (MLCX)
- Trade Corporate Governance Index (IGCT)

JBS Foods International, a subsidiary of JBS S.A., which represents a number of the company's operations, is set to list its stock on the New York Stock Exchange. In December 2016, the company filed an IPO application with the US SEC (Securities and Exchange Commission). JBS S.A. will continue trading on the BM&FBovespa B3 in São Paulo.

As a listed company in the US, JBSFI will comply with relevant local legislation, such as the Sarbanes-Oxley Act (SOX). SOX, which came into force in 2002, sets rigorous financial reporting standards, mandates that companies assess their internal controls and includes other criteria. JBS instituted Project SOX in 2016 to adapt to these new rules. The Project is still in its initial phases, including the mapping of internal controls, and should be concluded by 2018.

RISK MANAGEMENT

All risks exposures in every area of the JBS S.A. business are managed by the Risk Management Department. Acting in accordance with the Financial and Commodities Risk Management Policy, this department helps operational areas to identify, assess, mitigate and monitor risks inherent to JBS' activities. This area employs specific systems and trained staff to measure, analyze and manage such risks.

These activities are monitored and supervised by the Risk Management Committee, which supports the Board of Directors. The Board of Directors is responsible for supervising and issuing new risk management solutions.

Risks are classified by category and predefined severity levels so that the company is able to assess existing scenarios, prioritize and implement the necessary corrective actions and support operational sustainability and business continuity.

All potential risk factors known to the Company are presented and detailed in sections 4 and 5 of the JBS S.A. Reference Form, available at <http://jbss.infoinvest.com.br/ptb/3563/52808.pdf>. Any social and environmental factors that have been identified as operational risks can also represent business opportunities, helping the company to improve efficiency and productivity, reduce costs, stand apart from its competitors and develop new businesses.

GRI G4-EC2, G4-DMA

CATEGORY	TYPES	DEFINITION	MITIGATION METHOD
Financial Risks	Market	Includes currency, interest rate and commodity price risks when price fluctuations could affect JBS businesses.	Exposure is mapped in real time and constantly managed by the Risk Management Department, which uses hedge instruments, including derivatives, provided they have been approved by the Board of Directors.
	Credit	This risk of default on accounts receivable from customers, financial investments and hedge contracts.	Accounts receivable: the portfolio is diluted and secure credit parameters are adopted (based on proportional limits, financial and operational indices and credit agency queries) to reduce risks. Financial transactions with financial institution counterparties: uses exposure limits defined by the Risk Management Committee and approved by the Board of Directors, based on classifications from ratings agencies.
	Liquidity	The possibility of imbalances appearing between negotiable assets and enforceable liabilities that could affect the company's ability to fulfill its future financial obligations.	The JBS capital management structure focuses on immediate, modified liquidity metrics - i.e. cash on hand and financial investments, divided by short-term debt - and working capital, to maintain natural leverage for the company and its subsidiaries.

CATEGORY	TYPES	DEFINITION	MITIGATION METHOD
Social and Environmental Risks	Raw Material Procurement	Exclusive to Brazil: The risk of purchasing raw materials from suppliers involved in deforestation of native forests, invasion of protected areas such as indigenous land or environmental conservation units, use of child or forced labor or products that could pose a risk to consumer health.	<p>Exclusive to Brazil: Cattle purchases: Notify the market of the social and environmental criteria adopted for cattle purchases and support for the use of best farming practices, as well as a system to monitor supplier farms located in the Legal Amazon using a geospatial system that can remotely identify non-conformities and bar raw material purchases from these suppliers.</p> <p>Pork and poultry: the company assures raw material quality via the company's producer integration system. Suppliers are visited periodically and their processes are audited to ensure production practices are in line with the company's criteria.</p> <p>Product quality: JBS has an area that focuses on all production processes, which are constantly audited by regulators and customers to export eligibility in all markets.</p>
	Climate Change	<p>Climate change may pose a risk to JBS operations as it uses resources like water, electricity (which is closely linked with rainfall levels in Brazil) and animal feed (which is dependent on agriculture) that are critical for its raw material production (cattle, poultry, pork and lamb) and therefore highly sensitive to climate change, which could have a negative impact on the company's businesses. Businesses could also be affected by new legislation and regulation in this area.</p> <p>Natural disasters like floods, droughts and major storms can affect supplier and company production unit infrastructures.</p>	<p>Monitoring the environmental impacts from its direct (production, logistics and shipping) operations and taking steps to reduce the impact on its operations and suppliers. Monitoring involves taking a global inventory of direct and indirect GHG emissions using the international GHG Protocol methodology. The results of the inventory are published annually on the CDP platform. JBS also monitors indicators representing the volume of electricity and water used by its operations in order to optimize production processes and gradually reduce consumption.</p> <p>To reduce the impact from its operations and create opportunities, the company has an annual plan to invest in environmental improvements that focuses on its use of natural resources, water and waste recycling and other issues.</p> <p>The company's global distribution footprint minimizes its exposure to climate change effects that could impact on raw material procurement, production and sales.</p>

ETHICS AND COMPLIANCE GRI G4-56, G4-DMA

The ethics and integrity principles that underpin all JBS businesses and operations are described in the **Ethics Manuals** published by each of our global operations. These documents are distributed to all JBS company employees and suppliers.

At each North American, European, Australian and South American JBS operation, these manuals are produced in accordance with local market regulations and operational requirements, describing how the company expects its employees and suppliers to conduct themselves during day-to-day operations. Training courses are available on ethics and corruption to ensure compliance with local legislation in every jurisdiction where JBS operates. GRI G4-S06

Each company also provides reporting channels for employees to report violations of the Code, with the option to do so anonymously.

For example, the company has an Open Door Policy in the US, encouraging employees to discuss any problems affecting their performance or the overall work environment

with their supervisors or the Human Resources (HR) area. The company also has a Direct Line for a Better Working Environment with a toll-free number employees can use to anonymously report any workplace concerns, unethical behavior or policy violations. Pilgrim's also has a toll free PrideLine for anonymous reporting. This outsourced service is a channel employees can use to safely and confidentially report any concerns, unethical behavior or policy violations.

In Brazil, the Code was revised in 2016 and now includes 12 guidelines describing appropriate conduct in areas such as safety, sustainability, corruption, money laundering and conflicts of interest, among others, in line with current best practices. The company also adopts policies and procedures governing ethical issues and company values, such as the **Government Agency and Government Official Relationship Policy**, which provides specific rules on employee interactions with government representatives, and the **Gift, Travel and Entertainment Policy**. Launched in 2016, this policy provides employees and suppliers with guidance on offering or receiving gifts. GRI G4-S04



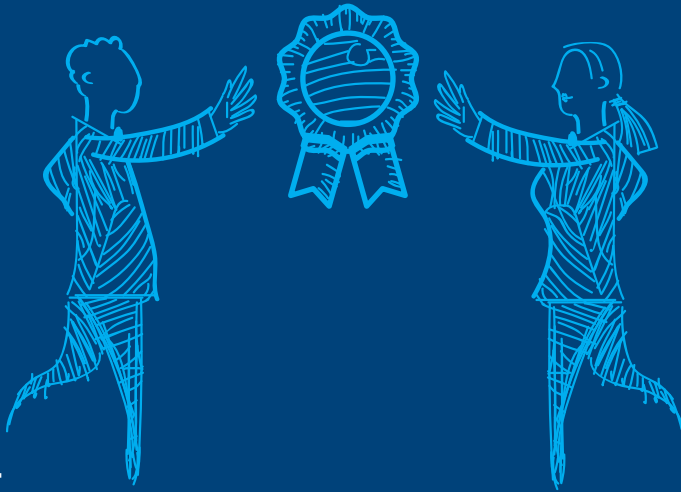


CULTURE

GRI G4-56

The Human Resources area at JBS organizes many initiatives that reinforce its values among its staff.





WHO WE ARE

People with the same attitudes, synergistic knowledge, a sense of urgency and a spirit of ownership



OUR PRIORITY

The common good

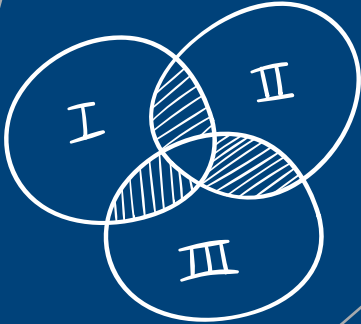
WHAT UNITES US

Trust



OUR DRIVERS

Our Culture, Our People,
Our Products and Our
Customers



OUR BELIEFS

- Focus on the details
- A hands-on approach
- Success is only achieved through hard work
- The right person in the right place
- Actions and behavior are more important than knowledge
- A leader must win their team members over
- Lead by example
- Focus on results
- Working with people who are better than us
- Believing makes the difference
- Quality products

OUR VALUES

Ownership, Determination,
Discipline, Availability,
Simplicity, Sincerity and
Humility



OUR MISSION

To be the best in all that we do,
completely focused on our business,
ensuring the best products and services
to our customers, a relationship of trust
with our suppliers, profitability for our
shareholders, and the opportunity of a
better future for all of our team members



The company also includes people from many different cultures and nations working as part of its team in Brazil.

The Human Resources area at JBS organizes many initiatives that reinforce its values among its staff. For example, Moy Park (Europe) created “Being the Best.” This is a continuous improvement program that translates these principles into something more tangible and builds engagement with employees. Seara (Brazil) held Cultural Events to promote experiences involving JBS values, mission and beliefs through meetings with management at recently acquired businesses and others facilities to reinforce these guidelines.

Cultural Events have also been organized in the US. JBS USA held its year-long JBS Cultural Experience. Around 5,000 JBS and Pilgrim’s employees attended events held in Colorado Springs, CO, Chicago, IL, Phoenix, AZ, Dallas, TX and many other locations across the US.

JBS USA, Pilgrim’s, JBS Canada and JBS Beef (Brazil) use the JBS Culture as the basis for employee Performance Assessments. The 360° methodology is used to diagnose and analyze professional attitudes and interpersonal relationships. In addition, the process can be used to reveal talent that could later assume management responsibilities within the company. The assessment results are used as a benchmark for future training and development programs.



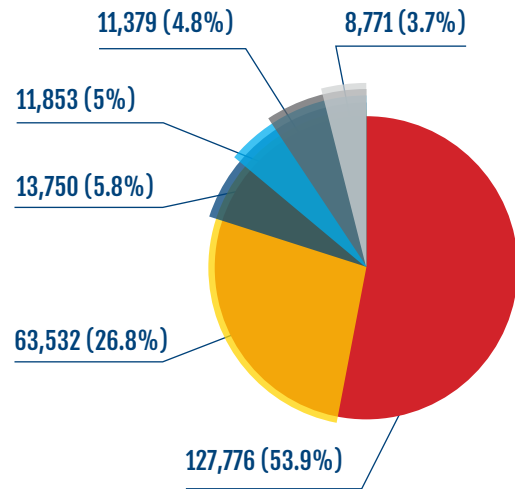
The Human Resources area at JBS organizes many initiatives that reinforce its values among its staff.

EMPLOYEE PROFILE

GRI G4-10

At the end of 2016, JBS had 237,061 team members worldwide, distributed as follows:

- Brazil
- Australia
- USA
- Mexico
- Europe
- Others



In Brazil, all 127,776 team members are covered by collective bargaining agreements. 98% have full-time contracts with the Company. [GRI G4-11](#)

The company supports diversity and inclusion to ensure equal conditions for all. For example, at JBS USA, women occupy 18% of executive positions. At Pilgrim's, women hold 15% of all executive posts. Both operations have team members of various nationalities and a wide range of languages are spoken every day at our Companies. This is why unlimited access to the Language Lines is available at each facility as part of our efforts to promote communication. The translation service is available in more than 200 languages and provides immediate access to clear communications at all our facilities.

The company also includes people from many different cultures and nations working as part of its team in Brazil. For example, the company's facilities in southern Brazil include foreign and indigenous team members as well as Haitian refugees. JBS also creates opportunities for the disabled. At the end of 2016, the company had 2,088 disabled team members. In 2016, Seara started a project in partnership with Senai (the National Industrial Learning Service) and the Office of the Public Prosecutor to increase its efforts in this area and attract potential disabled employees. The main initiatives include opportunity mapping, awareness at our factories and projects involving neighboring communities.



HUMAN RESOURCES MANAGEMENT

GRI G4-DMA, G4-LA11

Each JBS company approaches this issue independently. Although there are individual strategies based on each business's challenges and characteristics, the HR areas adhere to the JBS Culture.

All businesses comply with labor and human rights laws in their respective markets. No Group company permits or tolerates child labor, forced labor or degrading workplace conditions.

The Companies offer competitive salaries and merit-based compensation schemes to reward employees for their specific contributions to the Company's results. Employees also receive benefits, such as health plans and life insurance, according to the policies each Group company implements.

All units respect our employees' right to join unions or social organizations. For example, at JBS USA, 58% of employees working in the US, and 70% based in Mexico, were covered by collective bargaining agreements.

Personnel training is also commonplace at Company business units. Seara (Brazil) has 63,000 team members and invested R\$6 million to provide more than 100,000 training hours per facility throughout the year.

Personnel training and HR compliance were also a major area at JBS Beef (Brazil), with events organized to ensure issue-specific regulatory and legal compliance.

In 2016, JBS USA organized 119,800 thousand training hours on Leadership, split among eight programs: 1) Summit, 2) JBS Way of Leading, 3) People First, 4) Elective Learnings, 5) Leadership Fundamentals, 6) JBS Trainee Program, 7) External Trainee program, and 8) the Intern Program.

During 2016, Moy Park continued their strategic skills development program. This included various training and learning initiatives for the entire work force, leadership and management training and refresher courses for technical and operational skills, underpinned by a new Learning Management System (LMS). The team also developed a new first line management program for operations to support the team in achieving their continuous improvement targets.



In 2016, 149 training courses were organized on relevant business issues throughout the year. 65 groups of supervisors, or 1,700 participants, and 41 managers and coordinators as well as 588 employees took the course.

The initiatives implemented by the Company's Human Resources area in 2016 include:

- **Leadership Academy.** This initiative is for management staff whose performance assessments show a particular contribution to results and behavior. Initially targeting positions from coordinator level upwards, the program now includes supervisors as well. 149 training courses were organized on relevant business issues throughout the year. 65 groups of supervisors, or 1,700 participants, and 41 managers and coordinators as well as 588 employees took the course.
- **Seara University.** This is a distance learning platform available to approximately 7,000 Seara employees in Brazil, including

administrative and technical staff as well as management. The platform offers various career development tracks and looks at operational and administrative activities.

- **Supervision project.** This tool was developed by staff at JBS Beef (Brazil). 650 production supervisors undergo individual assessments identifying areas for improvement.
- **In-house Talent.** This is a Brazilian initiative to train employees to become future supervisors. The program initially focused on Beef and Seara, but was extended to Leather and New Business in 2016. The training process takes between six to eight months and addresses leadership matters as well as technical issues and routine management. 70 supervisors were trained in 2016 and another 27 are still in the course. **JBS USA** also has an In-house Talent Program. The six-month training course includes rotating visits to its operations, leadership skills development and mentoring. 82 employees were involved in the initiative in 2016.



This program was created in Brazil to train employment lawyers and focuses on attorneys who have graduated within the previous two years.

- **External Talent.** With 70 new positions created at JBS Beef (Brazil) in 2016, this program replaces the intern program. After spending a year working alongside a manager, the trainee will be in a position to take up technical or leadership positions.
- **Quality Academy.** This is a development program for Quality personnel at Seara (Brazil).
- **Labor Lawyer.** This program was created in Brazil to train employment lawyers and focuses on attorneys who have graduated within the previous two years. The program involves a 90-day training course at JBS headquarters in São Paulo. 12 attorneys out of the 1,620 who enrolled in the program concluded the course and are now working in various regions around the country.
- **Trainee.** This program was developed in Brazil focusing on the production area. Recent engineering graduates who show potential are selected to join JBS. The goal is to create leaders capable of managing processes and teams at our facilities and take on strategic positions. More than 20,000 people enrolled

for the program in 2016. 26 trainees are involved in the current program, which ends in mid-2017. Seara also continued its trainee program in 2016. The program lasts a year and focuses on the production area.

JBS USA has a similar initiative, developing future leaders as part of a program where people rotate through the company's US, Canadian and Mexican operations over an eighteen month period. The program attracted 1,000 candidates in 2016. 65 joined the initiative. 85% of trainees went on to work for the company.

- **Valued Youth.** This is an initiative that was created to keep Brazilian university students better informed about JBS. It includes a platform the JBS at Uni program, (jovensdevalorjbs.com.br) that had 9,416 registered users in 2016. The platform offers presentations at universities regarding JBS values. In 2016, 34 presentations and visits to universities involving 3,300 students were conducted. The initiative also includes the JBS Values' Immersion, a project that selects



students who wish to find out more about the company following a social media competition. More than 1,200 students enrolled for the program and 20 were selected to visit JBS headquarters in São Paulo. The initiative also has a Facebook profile, which has published more than 3,000 posts and has approximately 37,000 followers.

- **JBS Trainee Program.** This program is available in the United States and Mexico. It lasts ten weeks over the summer and challenges university students with a range of practical learning experiences and significant projects that provide valuable workplace experience. The program also helps to identify future team members for Pilgrim's. 146 trainees took part in 2016. More than 70% remained with the organization at the program's conclusion.
- **JBS Leadership Warehouse Program.** This program was launched by JBS USA in 2016 and consists of five different leadership programs for different profiles. The program is for leaders with high potential, mid-level managers, production supervisors and recently promoted or hired managers.
- **Graduate Management Trainee Programme.** This award winning Moy Park program is for the next generation of leaders and focuses on recent graduates. It covers several areas of the company to help participants' communications and interpersonal skills as well as their commercial and financial awareness. Participants also receive guidance from top management executives.

JBS Beef (Brazil) has also revised its meritocracy program at its Brazilian operations. The new program provides the specific characteristics for merit-based decisions and rewards. The company also created a succession plan, discussing training for people selected as successors for management, director and CEO positions.



The program is for leaders with high potential, mid-level managers, production supervisors and recently promoted or hired managers.



OPERATIONS

As a global food company, JBS' businesses aim to diversify the company's position in three areas: brand and product portfolio, segments and markets.



BUSINESS STRATEGY

As a global food company, JBS' businesses aim to diversify the company's position in three areas: brand and product portfolio, segments and markets.

Brand and product portfolios. Our portfolio offers a wide range of options including fresh, frozen and value-added products, as well as ready-to-eat meals, sold under recognized brands that are leaders in their respective markets.

Segments. Proteins and high value-added products.

Markets. The company's operations, production facilities and sales offices are distributed across five continents. This geographical distribution minimizes our exposure to local business, economic, political and sanitary risks.

GLOBAL LEADER



- 1ST The world's largest beef producer
- 1ST The world's largest leather processing company
- 1ST The world's largest chicken producer
- 1ST The world's largest producer of cattle from feedlots
- 2ND The world's second largest pork producer
- 2ND The world's second largest lamb producer

OPERATIONAL STRUCTURE

JBS is the **world's second largest food company and largest beef producer**. JBS is capable of processing **84,000 head of cattle per day**, with production units in the world's **major cattle markets**: Brazil, Paraguay, Uruguay, Argentina, the US, Canada and Australia. This global footprint allows JBS to serve consumer markets around the globe.

JBS is also a global leader in leather processing, with plants in Brazil, Uruguay, Vietnam, China, Mexico, Italy and Germany.

JBS is also the **world's largest chicken processor**. Its operations in Brazil, the US, Puerto Rico, UK, and Mexico process 14.3 million birds a day. At each of these locations, the Company produces processed and fresh products to serve local and export markets.

JBS Australia is also a leading lamb producer. JBS is currently the world's second largest pork producer. The company can process 111,200 hogs a day at its 14 plants in Brazil, Australia and the US, supplying local and export markets.

JBS is also a **global leader in leather processing**, with plants in Brazil, Uruguay, Vietnam, China, Mexico, Italy and Germany. The company also develops new business based on byproducts extracted from the animal protein we process and the resulting recyclable waste. JBS is also a global leader in all these areas. For example, JBS is a leading global supplier of beef collagen and the world's largest producer of biodiesel using beef tallow.

In 2016, the company's businesses were divided into six units: Seara, JBS Mercosul, JBS USA Beef, JBS USA Pork, JBS USA Chicken (Pilgrim's Pride) and JBS Europe.



SEARA

The Seara business unit includes the company's poultry, pork and processed, packaged and frozen foods segments supplying Brazil and more than 140 export markets. In 2016, Seara processed 1.3 billion birds – around one quarter of global output – and 5.3 million hogs.

Seara is one of Brazil's 50 **most valuable corporations**⁸. Last year, it rose 12 positions in the ranking to 15th place. It also registered the highest growth in penetration of Brazilian homes⁹ and is ranked 2nd in this category¹⁰.

Its strategy involves developing higher value-added products and improving quality, excellence and productivity, while strengthening relationships with customers and suppliers. In 2016, it launched more **than 100 new products**, particularly the Seara Gourmet range for the specialist gastronomy segment. It is also constantly swapping experiences and sharing knowledge with Moy Park, importing packaging technology and adapting European dishes for the Brazilian market. Inspired by Moy Park products, in 2016 Seara launched Chef Sauces and Easy Roast products, based on Moy Park's Cook Love and Roast in the Bag offerings. The DaGranja Ready to Eat Dishes are also inspired by other Moy Park products.

8 According to rankings published by IstoÉ Dinheiro magazine

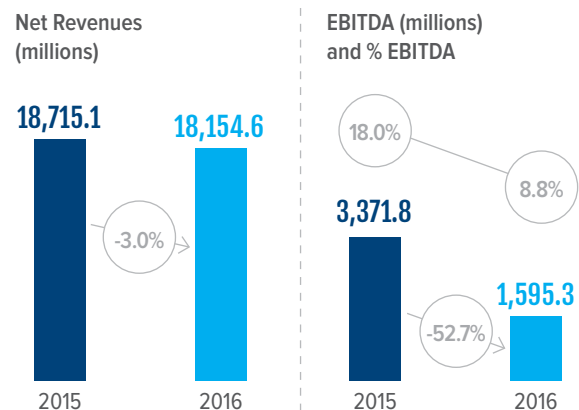
9 Source: Kantar WorldPanel Brand Foodprint 2016

10 Source: Millroad Brown

Seara is one of Brazil's 50 most valuable corporations. Last year, it rose 12 positions in the ranking to 15th place.

Seara's efforts throughout 2016 produced significant results: it continued to grow market share, with a customer base rising from 127,000 to 149,000 clients, improved service levels and conquered a greater share of important niche markets, such as ready-to-eat meals. In 2016, Seara reported revenues of R\$18.2 billion, a 3.0% decline compared with 2015. EBITDA was R\$1.595 billion, down 52.7% compared with 2015, with an EBITDA margin of 8.8%, mainly as a result of rising grain prices, which increased pressure on feed costs throughout the year.

Seara (R\$)



60 years of history

In 2016, Seara celebrated its 60th anniversary. To commemorate, Seara decided to redesign its logo and packaging. As part of the new design, the sun used on the logo is now larger, symbolizing the company's expansion, the brand's maturity and output, market share and consumer preference growth. Orange is now the predominant color on Seara packaging, which is always accompanied by a different colored stripe for each type of protein or product flavor.

The Seara website¹¹ was also updated to make browsing easier.

China and Singapore

China has become one of Seara's biggest markets. When China opened up to Brazilian exports, the company saw a significant rise in chicken and pork sales compared with 2015.

Seara has a wide range of products available on the Chinese market adapted to local consumer needs. The first exported chicken cuts were chicken feet and wings, which can now be found in Chinese restaurants and homes in major urban centers like Beijing, Shanghai and Guanzu, and in the food service sector. China later opened its door to other products such as legs and thighs, as well as wings classified by weight. Seara also increased chicken and pork exports to Singapore.

¹¹ <http://www.seara.com.br/>

Social Food Truck

In 2016, Seara introduced the Social Food Truck, which has been on the streets of São Paulo since the end of 2014, to Rio de Janeiro. This pioneering project, the first Social Food Truck in the world, encourages people to share or post their food truck meals on social media. At each stop, consumers select one of the dishes made using Seara products and if they want to try it, all they need to do is visit the Food Truck and share their visit on social media. Six million people have shared their meals in São Paulo and Rio since the initiative was launched. The Social Food Truck received **an award from Marketing Best**, considered a benchmark in Brazilian marketing for organizations looking to "certify" successful strategies.

Global Accounts

Seara's positive results – in terms of both product quality as well as portfolio diversification and operational scope – means it has become an increasingly important partner to global customers such as McDonald's, Burger King, Subway, Outback, KFC, Wendy's, and others.

SEARA INFO - BRAZIL



117,000

tons of products
processed each month

Around

149,000

points of sale served
throughout Brazil

5.7 MILLION

birds/day
processing capacity

14

distribution centers

Exports to

+100

countries

60

production facilities

JBS MERCOSUL

JBS Mercosul is responsible for beef, leather and related business (JBS New Business) operations in Mercosul countries. The company is capable of processing 40,200 head of cattle per month, at its Brazilian operations (which account for 86% of volume), Argentina (5%), Paraguay (7%) and Uruguay (2%).

The geographic diversity of its operations helps JBS Mercosul drive operational synergies across the business unit and reduce climate risks, and offset adversities in one market with output from another. The company also processes various types of cattle, as cattle characteristics differ from country to country. Genetic diversity of cattle provides JBS Mercosul the opportunity to expand the range of quality meats available to its customers.

JBS Mercosul represents 16.5% of JBS' total revenues. In 2016, it posted R\$28.2 billion in net revenues, 1.5% lower than the previous year. 2016 EBITDA was R\$1.7 billion with an EBITDA margin of 6.0%.

With a strong focus on exports – around 40% of sales at the foreign customers – JBS Mercosul's operations were affected by exchange rates in 2016. **GRI G4-13**

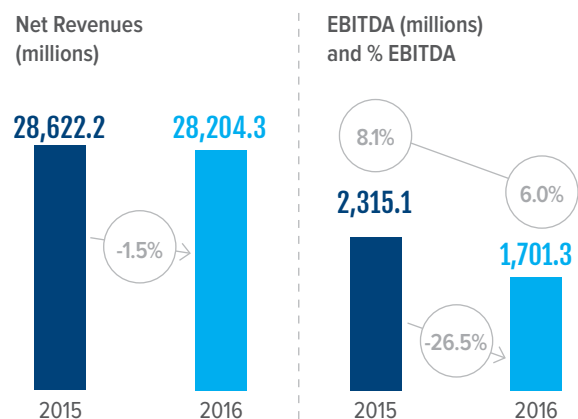
This business area also benefited when the US market decided to allow imports of fresh Brazilian beef. JBS already has a US customer and distribution base. This created an opportunity to sell fresh beef to end consumers and explore niche markets, such as grass fed cattle (cattle fed

a natural diet that does not include animal feed or milled cereals). Export approval from the US importantly supports JBS exports to other major markets like South Korea, Indonesia, Japan, Mexico and Canada. The opening of a new beef production facility in Belen, its third in Paraguay, resulted in additional operational capacity that will also help improve the company's performance in 2017.

JBS Mercosul had a number of achievements in 2016. It fulfilled the Hilton Quota (the volume of high quality beef allowed and specified by the European Union for countries exporting this type of product), leveraged opportunities to access the US fresh beef market and expanded its business in Chile.

The company also imported products from its foreign business units. In 2016, it imported around 20,000 tons of beef, lamb, fish and vegetables. This helped to meet domestic demand, increase customer loyalty and boost competitiveness.

JBS Mercosul (R\$)



FRIBOI – BRAND RESTRUCTURING AND NEW PORTFOLIO GRI G4-13

Friboi, the industry leader and preferred brand for everyday Brazilian recipes, is the biggest JBS Mercosul brand and the number 1 meat brand in Brazil. In 2016, Friboi restructured its brand to include new products and now also serves consumers looking for higher quality cuts of meat and the food service sector:

- **Reserva Friboi** – selected meets with different cuts
- **Maturatta Friboi** – recommended exclusively for barbecuing
- **Do Chef Friboi** – high quality meats for the Food Service market
- **Angus Friboi** – incredibly tender cuts, certified by the Angus Association

These changes are part of efforts to build a stronger relationship with new consumers and increase loyalty among existing fans of the brand, offering a wide range of choice and increasing buying options and opportunities with a wide range of products in different price ranges.

GROWTH OF VALUE-ADDED PRODUCTS WITH TOP GRADE BUTCHER

The value-added product category took on an increasingly important role in the Brazilian beef chain in 2016. This was a positive development for JBS, which achieved significant results through its Top Grade Butcher channel. The Top Grade Butcher program is a special sales channel that builds loyalty among retail customers through its solutions for supermarket butchers. When a client chooses to exclusively sell JBS products, in exchange, they receive management support, which guarantees the correct inventory volumes at fair prices, helping them avoid losses and improve business results. The initiative already includes 600 stores operated by around 130 supermarket chains in 20 Brazilian states.

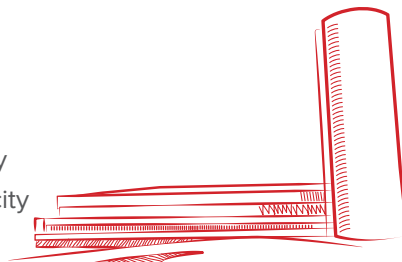
Last year, this sales channel saw volumes rise 10% compared with the previous year, leveraging the extensive JBS portfolio of trademarks with cuts from the Friboi, Reserva Friboi, Do Chef Friboi, Maturatta Friboi, Angus Friboi and Black brands.

INFO - BRAZIL

approximately

34,600

head of cattle/day processing capacity



36

meatpacking plants located in Brazil's main cattle producing regions

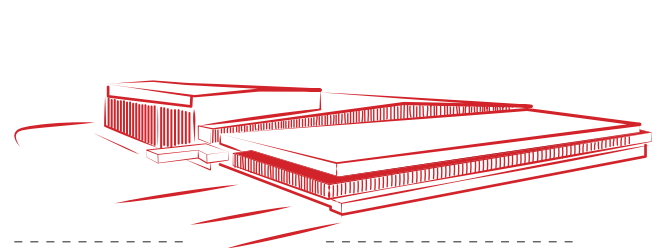
30

distribution centers

11

laboratories

INFO - PARAGUAY

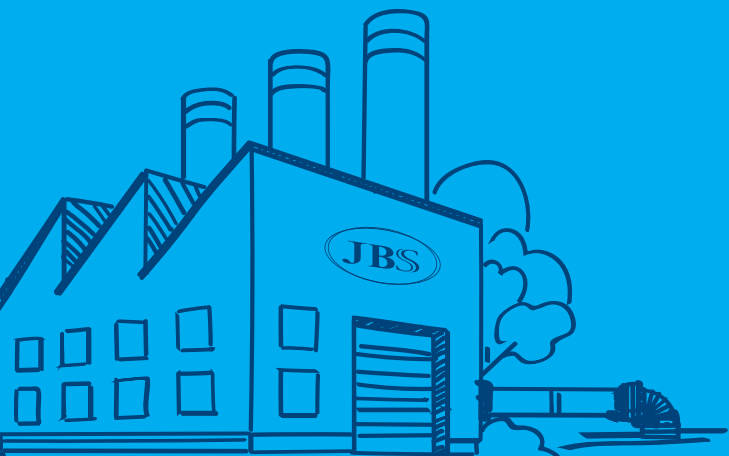


3,000

head of cattle/day processing capacity mainly for export

3 PLANTS

Asunción
San Ant3nio
Bel3n



NEW FACTORY GRI G4-13

JBS opened a new meatpacking plant in Paraguay, the company's first greenfield operation. Based in Belén, in the Department of Concepción, 400 km from Asunción, the capital city, JBS invested US\$80 million to bring the latest technologies and processes, as well as the best operational and animal welfare practices in the world. The facility is capable of processing up to 1,200 head of cattle a day, which represents up to 300 tons of meat, and will create around 1,200 direct and 4,000 indirect jobs.

The company is Paraguay's largest beef producer and can process up to 3,000 head of cattle a day. In addition to Belén, JBS has two additional beef processing units in Paraguay (Assunción and San Antónío) serving the domestic market, but focusing mainly on exports. 85% of their output is exported to Chile, Russia, Vietnam, Hong Kong, Brazil, the Middle East and Europe.

ARGENTINA

- **Beef processing activities are concentrated at the Rosario facility**, in Santa Fé, and the company also has a distribution center located in Buenos Aires.
- The company has invested around US\$40 million to increase production capacity in Argentina (at the Santa Fé unit).
- Capacity to process approximately **2,000 head of cattle per day**.
- **Focusing on the local market:** 65% of output is sold domestically.
- The main export destinations are China, Chile, Europe and Israel.
- In 2016, the company was recognized as the largest meatpacking industry exporter by the Ministries of Production and Foreign Affairs.
- Efforts to open up new markets like the USA, rebuild cattle herds, return Argentinian meat to prominence in foreign markets and improvements in productivity and operational efficiency will help consolidate the company's leadership in Argentina. GRI G4-13

URUGUAY

- One processing unit in Canelones.
- **Daily capacity to process 900 head of cattle** supplying the domestic and export markets.

JBS LEATHER

JBS is the world's largest producer of wet blue, semi-finished and finished leather. It has 21 units located across three continents, in Brazil, Argentina, Uruguay, Vietnam, China, Mexico, Italy and Germany.

It serves a wide range of global markets with products for the automotive, furniture, artifact and footwear industries worldwide. As part of its strategy to increase its share of the US furniture market, in 2016 the company opened a showroom in High Point, North Carolina. The 350 m² facility will be a permanent customer support structure and will be an important platform for promoting products during the four annual US industry fairs.

Leather production synergies with other JBS group companies gives the company preferred access to raw materials through facilities located near some of the world's largest commercial herds. The company exercises a high level of control over all processes and employs a robust traceability system from the time cattle are loaded at farms, through leather removal at meatpacking plants, up to final product delivery, which is a major differential compared with any other leather supplier.

JBS NEW BUSINESS

JBS New Business is responsible for operations that are directly and indirectly linked to JBS' core business. The company transforms vaded-value products, generating value for the company and developing more sustainable production methods. With 10 fully independent business units, the company has 12 manufacturing facilities and 49 sales offices.

Largest global leather supplier to the automotive, furniture, footwear and artifacts industries.



JBS Environmental – JBS Environmental develops industrial waste solutions for products such as plastic, wood and metal. It manages, treats and correctly disposes of recyclable waste without harming the environment.

JBS Biodiesel – The world's largest vertically-integrated producer of biodiesel using beef tallow. In 2016, having concluded refurbishment of the Campo Verde (MT) factory, it produced 210,000 L of biodiesel. It also operates a plant in Lins (SP). In 2016, it also started using cooking oil to produce biodiesel.

As a result of Law 3834/2015, which set a timetable for increasing the mandatory proportion of biodiesel included in fossil diesel, biodiesel demand has been rising in Brazil. Today, fossil diesel currently contains 7% biodiesel per liter, however the ratio will gradually rise to 10% over the next two years, helping to reduce Brazil's dependency on imported fossil diesel while benefiting the environment by increasing the market share for renewable energy sources in Brazil.

JBS is a pioneer in the production of beef collagen in Brazil and is currently the world's largest collagen manufacturer. It has been certified to serve the global food industry, guaranteeing the quality and safety of products such as powdered and fiber collagen, both of which are used in food products.

The Biodiesel unit also supports family farming via the Social Fuel Seal. Since 2007, when the company joined the program, more than 7.5 million bags of soybeans have been purchased from over 4,600 families. In 2016, the Social Fuel Seal Was extended to include cattle breeders.

JBS Natural Casings – This unit produces and markets animal-based casings for the cold meats segment, including products such as salami and sausages. With two factories in Brazil and one in Paraguay, this company is the world's largest casings producer. With its range of premium products, the company is internationally recognized for its quality, supply capabilities and traceability. 90% of all output is exported, mainly to Europe. Some products are for non-food uses, such as musical instruments and surgical sutures.

Novaprom Food Ingredients – Novaprom pioneered production of beef collagen in Brazil and is currently the world's largest collagen manufacturer. It has been certified to serve the global food industry, guaranteeing the quality and safety of products such as powdered and fiber collagen, both of which are used in food products. The business unit also offers innovative solutions for the hygiene and cleaning, cosmetics and pharmaceutical industries. In 2016, it produced 5.2 tons of collagen and other ingredients at its Guaiçara (SP) unit. In addition to serving domestic customers, Novaprom also exports to the Americas, Asia, Africa, Oceania and Europe.

JBS Metal Packaging – JBS is one of Brazil's five largest manufacturers of metal cans. The business unit supplies cans to package products requiring protection against physical, chemical and biological interference, including both food products and a range of aerosols for a wide range of sectors. It has one of the most modern production lines in the world and has already adopted environmental regulations that will only take effect in 2020, based on climate agreements signed with the European Union. In 2016, it increased output and diversified its portfolio to serve clients outside the food industry. As a result, the company also won an award in the Differentiated Aerosol Application category during the 4th Steel Packaging Awards, organized by ABEACO (the Brazilian Association of Steel Packaging). Capable of producing more than 700 million cans annually, the company has two factories in the interior of São Paulo, at Lins and Barretos, where it produces robust and high-quality packaging made from 100% recyclable steel.

JBS Personal Hygiene and Cleaning – The largest soap bar and detergent producer in the B2B segment, this unit is a mass producer of animal, vegetable and glycerin-based soaps and detergents. It operates high capacity soap bar and detergent production lines and manufactures products for some of Brazil's largest personal hygiene and cleaning companies. Its products are sold to more than 50 companies nationwide and exported to customers in Nigeria, Cape Verde, Angola, Cuba, Argentina, Peru, Colombia, Paraguay, Venezuela and Uruguay. The company received the annual "Suppliers' Recognition" award from Johnson & Johnson in the "Quality and Cost Management Services" category.

JBS Trading – The JBS Trading business unit sells raw materials to the food, hygiene, cleaning and biodiesel industries. It manages a large range of products, including vegetable oils, animal fats and chemicals. It is responsible for selling 35% of the tallow produced in Brazil and in 2016, it imported and exported around 70,000 tons of products.

JBS Transports – The Transports business unit manages JBS’ Brazilian truck fleet. It is one of the largest road haulers of live animals, dairy products, leather, dry cargoes, containers, etc. Transports serves the entire country, particularly the Mid-West, Southeast, South and North regions, providing logistics services to a variety of industries and integrity for JBS and its partner companies. It has 35 branches throughout the country and its entire fleet is tracked by satellite.

TRP Pre-Owned Trucks – TRP purchases brand new trucks and sells pre-owned trucks and trailers. It handles around 2,000 vehicles a year.

JBS USA

JBS USA is responsible for the company’s North American and Australian operations. The Company is a major force in both markets, where it has always been one of the top two players. In each of these regions, its businesses are separated based on the type of protein produced: Beef, Pork and Poultry.

JBS USA Beef

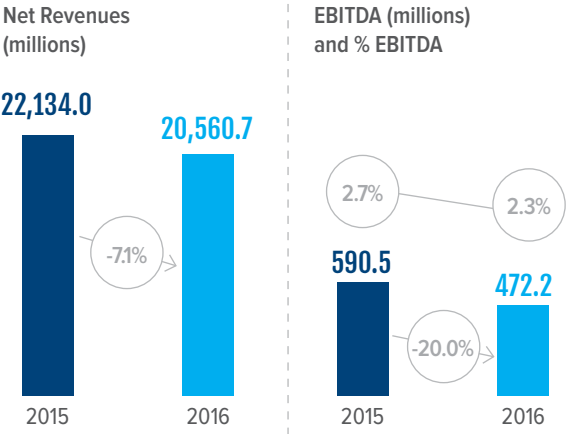
JBS USA beef includes the beef production operations in the US, Canada and Australia. The business unit focuses on quality and operational efficiency as it pursues a strategy to further expand offerings of prime, higher value-added and ready-to-eat products.

As such, it is constantly investing in modernizing units, such as in Hyrum, UT, which started expanded operations in March 2016 after a more than US\$70 million investment in the facility. In addition, the company invested US\$225 million in new distribution centers at beef production facilities in Cactus, TX, Grand Island, NE, Marshalltown, IA, Plainwell, MI and Tolleson, AZ.

In 2016, US cattle availability improved. A lengthy, 4-5 year cycle of herd rebuilding came to an end and cattle availability is now starting to increase. This helped reduce live cattle costs in the second half of the year and, alongside rising domestic and foreign demand, as well as the company’s focus on operational efficiency, helped margins. Additionally, the US economy continued to recover in 2016 and helped drive down unemployment, benefiting JBS’ local operations.

The unit posted net revenues of US\$20.560 billion, compared with US\$22.134 billion in 2015. EBITDA was US\$472.2 million, a decline of 20% compared with the preceding year largely due to challenging conditions in the first half of the year, which were offset by good performance in the second semester. The EBITDA margin was 2.3%.

JBS USA Beef (US\$)



INFO - USA BEEF

29,000

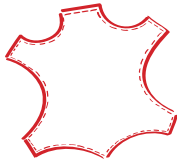
head of cattle/day
processing capacity

9

production facilities
in the US, 1 facility in
Canada

1

tanning
unit



12

feedlot units
marketing

more than

19,200

team members

1,8 MILLION

cattle per year

JBS Australia

JBS USA Beef also includes our Australian businesses, where the company has beef and lamb operations and owns Primo Smallgoods, the leading maker of ham, sausage and bacon in Australia and New Zealand.

INFO - AUSTRALIA

10,200

head of cattle/day
processing capacity

23,800

lambs/day
processing capacity

more than

8,000

team members

5

feedlots

9

cattle
production
facilities

1

pork
production unit

5

lamb
production
facilities

Primo has more than 50 years of experience and is the only company in either country to own and operate meatpacking plants, processing units, distribution centers and retail stores. The company has a wide-ranging portfolio of high value-added products created through research and development investments.

In 2016, our Australian operations faced a herd rebuilding cycle, which negatively affected business performance. A significant number of female cattle were held back throughout the country, which affected the number of adult animals available for slaughter. Production, and consequently exports, suffered. Despite this, the company performed well due to recent investments and diverse operations, producing beef and lamb, as well as ready-to-eat, high value-added products. The company's production units are also well distributed and it has a wide product range. These factors, alongside rising prices and results-oriented management helped the company maintain positive operating margins.

The issues that arose in 2016 were short term, cyclical factors. However, the weather is expected to improve in 2017, which will benefit pastures and we should see performance return to the levels seen in previous years.

JBS USA Beef also includes our Australian businesses, where the company has beef and lamb operations and owns Primo Smallgoods, the leading maker of ham, sausage and bacon in Australia and New Zealand.

JBS USA Pork

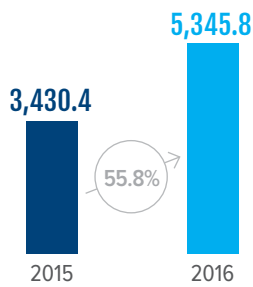
JBS USA Pork processes, prepares, packages and supplies fresh, processed and value-added pork products to customers in 26 countries, across five continents. It is the world's second largest pork producer.

Business unit performance benefited from rising pork demand in China, a strategic country that represents 50% of global pork consumption.

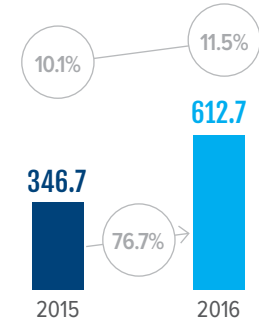
In 2016, the company recorded US\$5.435 billion in net revenues, up 55.8% year on year. EBITDA was US\$612.7 million, 76.7% higher than in 2015, with an EBITDA margin of 11.5%.

JBS USA Pork (US\$)

Net Revenues (millions)



EBITDA (millions) and % EBITDA



INFO - JBS USA PORK

90,000

hogs/day
processing capacity

5

pork production
facilities

2

consumer ready
production facilities

5

animal feed plants

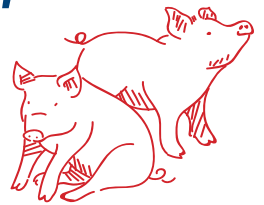
more than

11,000

team members

170,000

sows in
own units



JBS USA Chicken (PPC)

The Pilgrim's Pride Corporation (PPC) is responsible for producing and processing chicken and also sells and distributes fresh and frozen products, with prepared and ready-to-eat options. There are also segmented products based on bird size.



INFO - JBS USA Chicken (PPC)

2nd

largest chicken producer in Mexico and the US

25

US production facilities

5

ready-to-eat meal production facilities in the US

6

production facilities in Mexico

7.8 MILLION

birds/day processing capacity

39

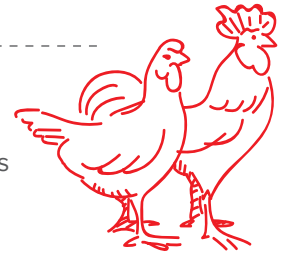
incubation units in Mexico, the US and Puerto Rico

+37,000

team members

39

feedmills



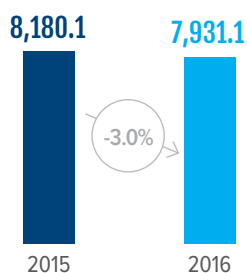
In 2016, PPC performed well on the back of strong domestic and export demand, benefiting from ample supplies of inputs (including corn and soybeans), which is likely to continue. However, this year's results were impacted by a change in the product mix and investments in PPC's production units, reducing output volumes and increasing costs. The company recorded net revenues of US\$7.931 billion, down 3.0% compared with 2015. EBITDA was US\$899.2 million, 25.9% lower than 2015, with an EBITDA margin of 11.3%.

Despite the short-term impacts, PPC believes that these changes will generate more consistent results and larger margins. It also intends to focus the business model on diversifying its product portfolio into higher value-added products and sales channels, strengthening its relationship with key customers.

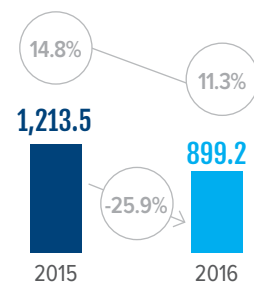
In 2016, PPC also acquired the GNP Company for US\$350 million. The transaction was approved by regulators in 2017.

JBS USA Chicken - PPC (US\$)

Net Revenues (millions)



EBITDA (millions) and % EBITDA



JBS EUROPE

JBS Europe includes the businesses managed by Moy Park Holdings Europe Ltd., which JBS acquired in September 2015, and Rigamonti, the leading producer of Bresaola, based in Italy. Moy Park is the largest private sector business in Northern Ireland and a leading poultry producer in Europe. Although better known for its poultry business, Moy Park is a major beef and vegetarian product company, making items like spring rolls and onion rings, as well as desserts like donuts and apple pies - a full range of starters, mains and desserts.

The company is also strong in the private label segment, producing products for some of the region's largest retail chains.

Moy Park supplies branded and own label chicken products to leading retailers and foodservice providers throughout the UK, Ireland and Europe and is the industry leading manufacturer of organic, free-range and higher welfare chicken and turkey. The company constantly strives to accompany consumer trends and develops products to meet customer and consumer expectations.

Rigamonti, which JBS acquired in 2010, is based in Montagna, Valtellina. It is the leading producer of Bresola and exports to more than 20 countries. JBS Europe's strategy, alongside its significant capacity to innovate, focuses on delivering high-quality products and exceeding customer expectations. This strategy has helped to grow sales and produce consistent results. In 2016, the company reported net revenues of £1.437 billion, down 0.3% compared with 2015. EBITDA was £131.9 million, an increase of 13.5% compared with the previous year, with an EBITDA margin of 9.2%, compared with 8.1% in 2015. Leveraging its significant capacity to innovate, in 2016, Moy Park continued its strategy of offering high quality and value added products which, alongside customer partnerships and operational synergies, has produced improving results.

INFO - MOY PARK

13

processing and industrialization units in England, Ireland, France and Holland, as well as Northern Ireland.

+12,000

team members



760,000

birds/day processing capacity

Produces around

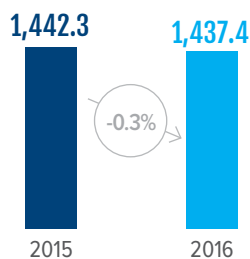
200,000

tonnes of added value products annually

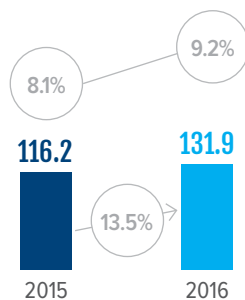


JBS Europa - Moy Park (£ - Pounds Sterling)

Net Revenues (millions)



EBITDA (millions) and % EBITDA





FINANCIAL PERFORMANCE



ECONOMIC SCENARIO

GLOBAL ECONOMY

The World Economic Situation and Prospects 2016 report, published by the United Nations, indicates the global economy grew just 2.2% in 2016, its lowest rate since 2009. The report says this performance reflects low levels of investment, a drop in global trade and productivity and higher debt levels. Additionally, low commodity prices and geopolitical conflicts and tensions have affected a number of regions.

UNITED STATES

According to the Bureau of Economic Analysis, US GDP increased 1.6% in 2016, which is less than the 2.6% growth reported in 2015. This growth reflects positive contributions from personal spending, residential investment, municipal, state and federal government expenditure as well as exports, all of which were partially offset by the negative contribution from private investment inventories and non-residential investment.

Looking specifically at the US beef industry, the USDA Cattle Report signals an increase in the US cattle herd for the third consecutive year, attributed to significant returns for cattle breeders in 2014 and 2015, as well as good pasture conditions. Rising slaughter figures and

slightly heavier carcasses resulted in a 6% rise in beef output. The USDA believes growth will continue into 2017. It is forecasting a 3% rise in beef output, as animals housed in feedlots between the end of 2016 and first half of 2017 have already been sold.

The chicken market also faced a period of recovery after US exports were embargoed. This, alongside grain prices being held down at below US\$4.00 a bushel, reduced industry profitability in 2016.

However, pork prices were 18% higher year on year at the end of 2016, on the back of increased demand and output restrictions. Exports also rose 4.5%, particularly to China, where sales were up 17.7% on 2015. In 2017, the USDA expects pork exports to increase an additional 4%.

BRAZIL

The Brazilian economy shrank further in 2016, according to the Brazilian Statistical and Geographical Institute (IBGE), with GDP falling 3.6% after losing 3.8% the previous year. Also, according to the IBGE, inflation fell to 6.29%, its lowest rate since 2013. Food and beverage prices rose 8.62% in 2016 compared with 12.9% in 2015.



It was a challenging year for the beef industry. The sector has been reducing slaughter capacity in recent years as a result of shrinking animal supplies. However, the price per arroba remained stable between R\$150 and R\$160 throughout the year, putting pressure on producer costs. Furthermore, the economic crisis, high inflation and unemployment figures affected domestic consumption. This, alongside the BRL's depreciation against the dollar and weakening exports, mainly from oil-producing countries, negatively impacted industry profits. The outlook for 2017 is better. On the supply side, we expect to see animal supplies improve as the number of female animals held back reduces. Additionally, the number of animals in feedlots fell in 2016 because of high grain prices and these animals will come to market

in 2017, reducing producer cost pressures. On the demand side, domestic consumption should remain flat compared with last year. We expect exports to improve following the US agreement on fresh beef exports.

Chicken output, 13.5 million tons in 2016, was stable compared year on year, according to figures from the Brazilian Association of Chick Producers (APINCO) and the Avisite website. Exports rose 1.9% to 4.0 million tons, generating US\$5.9 billion in revenues, 4.5% down compared with 2015, as the Brazilian real appreciated against the dollar. The outlook for Brazil's 2017 chicken exports should improve because Brazil has not been affected by bird flu, unlike other major chicken consumer and producer markets, such as Europe and Asia.

2016 FINANCIAL AND ECONOMIC PERFORMANCE

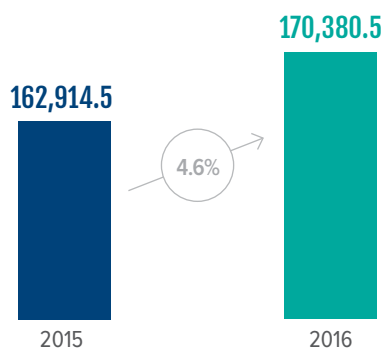
NET REVENUES

Consolidated Net Revenues of R\$170.380 billion, up 4.6% – or R\$7.466 billion – compared with 2015.

The US Beef operation represented 41.8% of annual revenues. As a group, JBS' US operations represented 68.9% of total revenues.

In terms of global sales, each of its respective domestic markets represented 73% and exports accounted for 27% of sales.

Consolidated Net Revenues (R\$ millions)



Business Unit contribution to Net Revenue in 2016

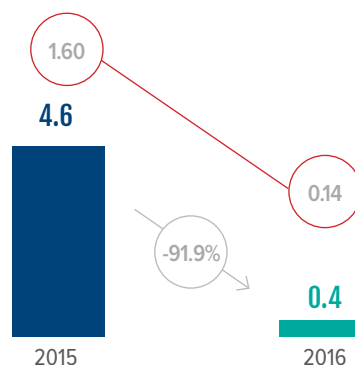
Business unit	%
JBS USA Beef	41.8%
JBS USA Pork	10.9%
JBS USA Chicken	16.2%
JBS Mercosul	16.5%
Seara	10.6%
JBS Europe	4.0%

GROSS PROFIT

Net profit was R\$376.0 million, equivalent to a profit per share of R\$0.14.

Net Profit (R\$ billion)

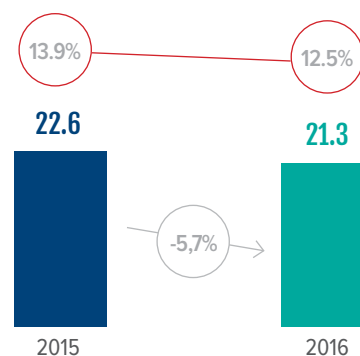
— Earnings per Share



Gross profit was R\$21.3 billion, 5.7% down compared with 2015. Our gross margin decreased from 13.9% in 2015 to 12.5% in 2016.

Gross Profit (R\$ billion)

— Gross Margin (%)



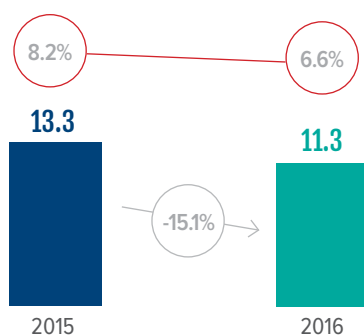
EBITDA

EBITDA was R\$11.3 billion, 15.1% lower than 2015, representing an EBITDA margin of 6.6%.



EBITDA (R\$ billions)

— EBITDA Margin (%)



EBITDA BY BUSINESS UNIT IN 2016 (SHARE %)

Business unit	%
JBS USA Beef	13.4%
JBS USA Pork	19.5%
JBS USA Chicken	29.9%
JBS Mercosul	16.1%
Seara	15.1%
JBS Europe	5.9%

R\$ million	2016	2015	Δ%
Net profit for the fiscal year (including minority stake)	707.5	5,128.6	-86.2%
Net Financial Income	6,311.3	1,300.6	385.3%
Income tax and social contribution – current and deferred	(271.1)	2,750.0	–
Depreciation and amortization	4,500.6	3,692.8	21.9%
Equity accounting result	(17.5)	(58.9)	-70.3%
Restructuring, reorganization and indemnities	56.1	487.2	-88.5%
(=) Adjusted EBITDA	11,286.9	13,300.4	-15.1%

CASH FLOW

- Operational cash flow was R\$3.667 billion
- Free cash flow was R\$128.0 million after investments of R\$3.539 billion.

DEBT

At the end of the fourth quarter, net debt totaled R\$46.904 billion, down R\$1.950 billion compared with the Q3 and leveraging stood at 4.16x.

R\$ million	12/31/2016	9/30/2016	Var.%
Gross Debt	56,260.4	56,162.4	0.2%
(+) Short Term	18,148.8	17,556.8	3.4
(+) Long term	38,111.6	38,605.7	-1.3%
(-) Cash and equivalents	9,355.6	7,307.2	28.0%
Net Debt	46.904,8	48.855,2	-4,0%
Leveraging:	4,16x	4,32x	

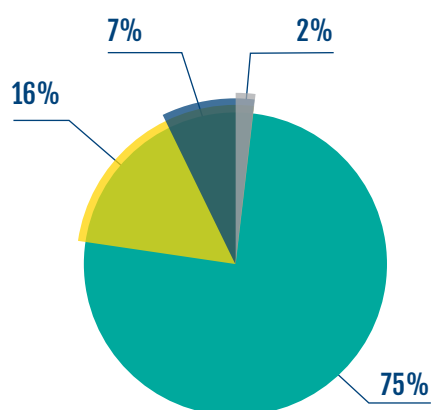
- The company held R\$9.355 billion in cash and equivalents at the end of the fiscal year.
- JBS USA held US\$1.670 billion in revolving and guaranteed lines of credit, equivalent to R\$5.442 billion (based on the end-of-quarter exchange rate).

DEBT PROFILE

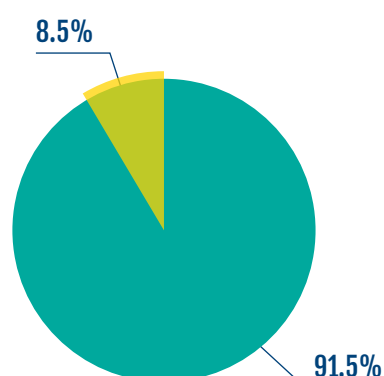
- Short-term debt represented 32% of total debt in 4Q16. Of this, 75% is backed by exports (trade finance) from Brazilian units.

91.5% of consolidated debt was US dollar denominated at the end of the fiscal period, at an average cost of 5.32% per annum. Debt in R\$ represents 8.5% of consolidated debt at an average cost of 14.02% per annum.

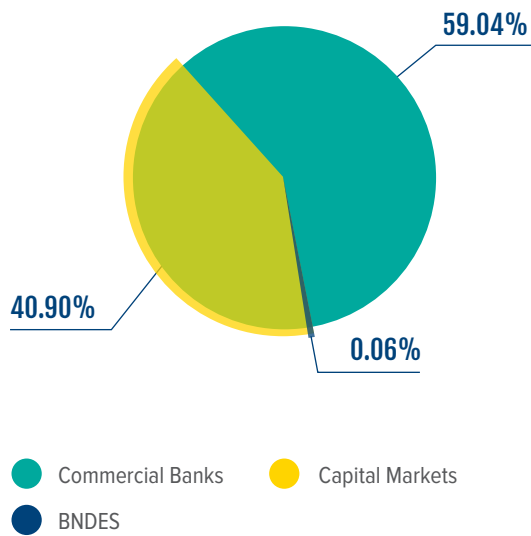
ST debt by type



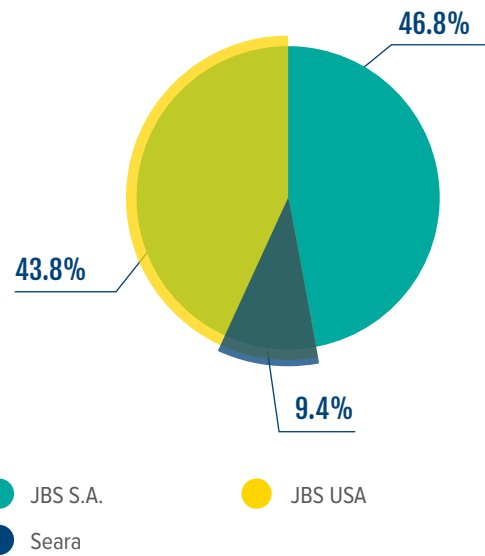
By currency



By source



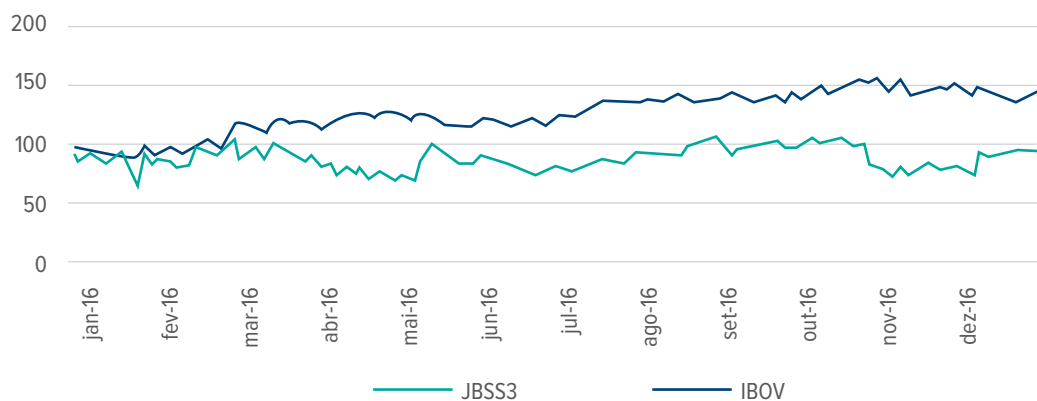
By company



FINANCIAL MARKETS

JBS stock was trading at R\$11.40 at the end of the final BM&FBovespa session of 2016. On the same day, the company had a market value of R\$32.568 billion.

JBS (JBSS3) Star performance compared with the Ibovespa



SHAREHOLDER AND INVESTOR RELATIONS

JBS has a specific shareholder and investor relations area which you can contact by writing to ri@jbs.com.br or calling +55 (11) 3144-4224.

Market disclosures are available from our website, www.jbs.com.br/ri.



SUSTAINABILITY

At JBS, sustainability is embedded within the various stages of the value chain – from the time we source raw materials, to the ultimate disposal of post-consumption product packaging.



INTRODUCTION

JBS' objective is to provide its clients and consumers with high-quality, sustainable products and services. At JBS, sustainability is embedded within the various stages of the value chain – from the time we source raw materials, to the ultimate disposal of post-consumption product packaging.

Sustainability at JBS is carried out through countless initiatives that involve a wide range of stakeholders, including suppliers, JBS team members, business partners, customers and civil society. Our sustainability efforts seek to create value by both reducing current and future environmental impacts and promoting success and development opportunities in the communities where we live and work.

JBS is a global company, which means its strategies reflect the challenges, realities, opportunities and regulations in each of the markets in which it operates. Given our global footprint, sustainability at JBS is professionally managed by regional sustainability departments located in Brazil (with responsibilities for all South American operations), the US (North American and Australian operations) and Northern Ireland (European operations). Each department is

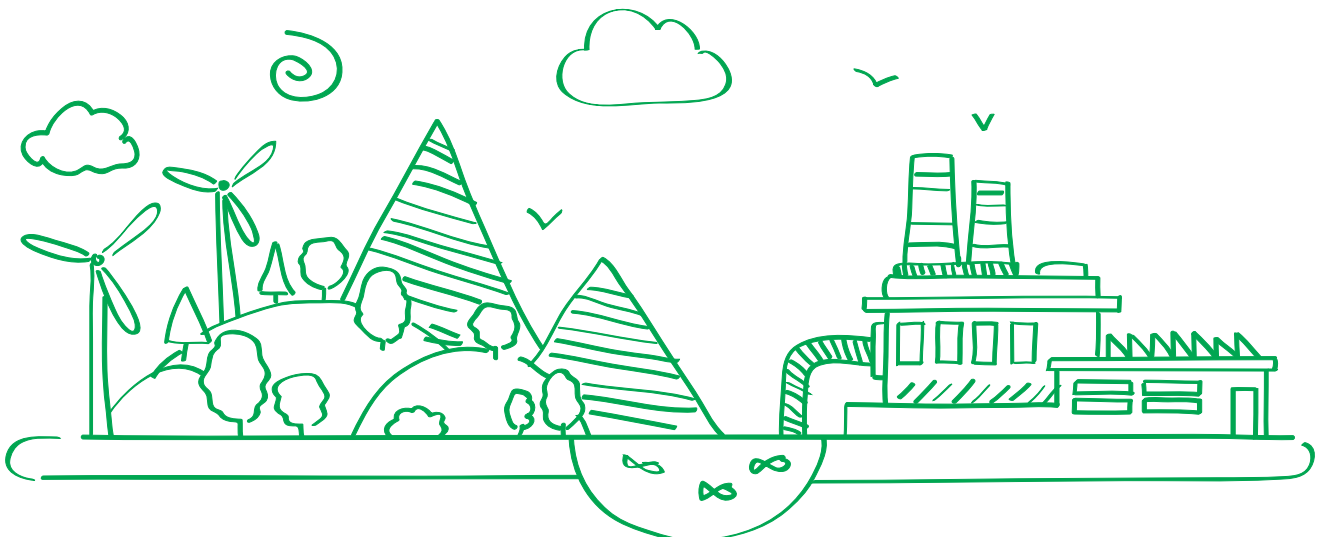
responsible for identifying relevant sustainability opportunities and developing the necessary action plans to enhance the sustainability of their respective operations. The company has also created a Sustainability Committee, reporting to the JBS S.A. Board of Directors.

However, although each of these departments act independently, our sustainability strategies target global goals. In order to implement a common approach that drives management practice synergies, JBS has identified five material and strategic issues that are critical to the success of the business and highly relevant to the company's global stakeholders. **GRI G4-18**

GLOBAL MATERIAL ISSUES **GRI G4-19**

- Team member health and safety
- Animal Welfare
- Water
- Product Integrity
- Climate change

Throughout 2016, many of the sustainability actions we have taken have been focused on, but not limited to, providing solutions to challenges and opportunities in these material issue areas.



TEAM MEMBER HEALTH AND SAFETY

GRI G4-DMA

Occupational Health and Safety are essential issues for team member well-being and can impact the quality of products and services. To ensure all JBS operations around the world are safe environments, each JBS facility employs team member mapping, analysis, monitoring and control processes that promote the safety and wellbeing of our team members. The company also takes steps to continuously improve industrial routines, which includes offering the best possible working conditions, personal protection equipment, safe machinery and facilities, ergonomic programs and quality-of-life initiatives. **Through actions such as these, JBS is constantly working to eliminate workplace accidents.** GRI G4-LA7

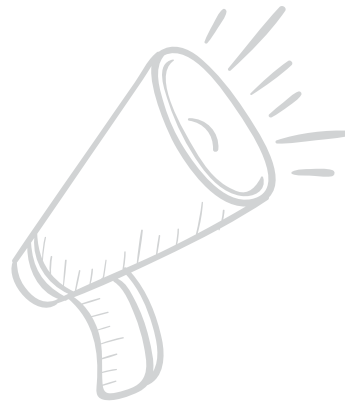
There are specific and independent structures in place at each of our global businesses to address occupational health and safety issues. The company decided to decentralize these activities to be able to address local regulatory requirements and appropriately address local challenges. In Brazil, for example, health and safety activities must comply with Regulatory Standards (RS) published by the Ministry of Work. In the US, the company adopts best industry management practices and guidelines, in line with recommendations from institutions including the North American Meat Institute, the National Chicken Council and the National Pork Producers Association, among others.

Our occupational health and safety management initiatives have had positive results for JBS.

For the second consecutive year, Moy Park (Europe) was recognized by the Royal Society for the Prevention of the Accidents (RoSPA) Food and Drink Health and Safety Award.

These awards have existed for almost 60 years and they are widely recognized as the “Oscars” for health and safety throughout the UK industry. The company was also awarded a gold medal in the Fleet Safety category. Following implementation of the best practices adopted by Moy Park, its plants have registered more than 1 million accident free hours. **For example, the Anwick plant in England has now gone more than 3 million hours since its last accident.**

In addition to this award, **in 2016 Moy Park also received the International Safety Award from the British Safety Council for the fourth time.**



MAIN ACTIVITIES IN 2016

BRAZIL

At its Brazilian operations, JBS has invested **R\$ 87.7 million to upgrade its facilities and purchase state-of-the-art equipment.** The company also organized educational safety campaigns for team members and provided safety training courses. Throughout the year, emphasis was placed on hand care, safe hygiene and traffic security, among a number of other issues.

JBS has 166 agreements and other arrangements addressing employee health and safety issues. This represents 89% of all agreements and arrangements for the year.

GRI LA-8

R\$ 87.7 MILLION

to upgrade its facilities and purchase state-of-the-art equipment.

166
agreements

and other arrangements addressing employee health and safety issues.

JBS has a Self-Management Health and Safety Program (PSSAG) underpinning the initiatives implemented at its operations, which was reformulated in 2016. The PSSAG now includes 35 procedures that standardize internal processes, programs and occupational health and safety legislation. The program offers guidance on six issues: Labor, Machinery, Workplace Environment, Methods, Health and Metrics. These procedures are aligned with the relevant regulatory standards for each of these topics. The PSSAG will be reviewed again in 2017, this time to include all JBS businesses in South America.

The Health and Safety Committees, which exist at all plants, are made up of individuals elected by plant team members. Committee members also sit on our In-House Accident Prevention Commissions (CIPAs) and are responsible for implementing the PSSAG as part of our day-to-

JBS has a Self-Management Health and Safety Program (PSSAG)

underpinning the initiatives implemented at its operations, which was reformulated in 2016. The PSSAG now includes 35 procedures that standardize internal processes, programs and occupational health and safety legislation.

day operations. 135 CIPAs were created in Brazil in 2016, involving 766 JBS team members.

GRI G4-LA5

In order to continuously improve our health and safety practices, JBS facilities are inspected by a multidisciplinary group of team members and consultants, including safety engineers, ergonomic specialists and lawyers. A corrective actions report is produced for each facility after each visit. The facility manager is then responsible for implementing the recommendations for improvement.

Each JBS facility's performance is in turn evaluated by Occupational Health and Safety indicators that are monitored daily and analyzed periodically by the Corporate Safety Committee, a management body. In 2016, this committee kicked off a number of efforts to

improve practices at all operations. Working in partnership with DuPont, the consultancy company, the Unit Safety Culture Diagnosis process was implemented at 15 facilities from four of JBS' Brazilian Business Units. Operational teams also took the Safety Perception Survey. The information these activities produced will be used to outline Health and Safety strategies that the company intends to develop throughout 2017.

The Occupational Health and Safety Specialized Service (SESMT), which monitors these issues at all JBS businesses in Brazil, has also been reformulated. It now includes a specific Occupational Health area. The SESMT reports to the Executive Human Resources Department and receives ongoing support from the Compliance Department, which monitors deployment of Regulatory Standards.

135 CIPAs

(In-House Accident Prevention Commissions) were created in Brazil, involving

766 team members.

Unit Safety Culture Diagnosis

process was implemented at 15 facilities from four of JBS' Brazilian Business Units.

The Occupational Health and Safety Specialized Service (SESMT), which monitors these issues at all JBS businesses in Brazil, has also been reformulated.

NORTH AMERICA AND AUSTRALIA

JBS operations in North America and Australia address occupational health and safety issues through the JBS Health and Safety Program. The program is based on a culture of engagement and prevention, whereby risks are identified and corrective actions are taken before incidents occur. The program focuses on team training and education and complies with the U.S. Labor Department's, Occupational Safety and Health Administration (OSHA) standards.

Specific annual safety targets are established for each business unit and for the entire company to guarantee continuous improvement. Safety indicators are continuously monitored and management teams receive daily, weekly and monthly reports, allowing leadership to quickly take actions that can positively impact health and safety.

In 2016, JBS USA included additional key or preventive performance indicators (KPI's) in line with the three-year plan to identify and reduce potential risks it identified in 2015. This initiative includes an in-depth analysis of all policies and programs related to walking surfaces, protection against falls and electrical safety, among various other issues. For example, a specific inspection program was created to improve machinery protections and more than 99% of the opportunities identified have been favorably resolved.

Each facility in every business unit (beef, pork, Pilgrim's, Five Rivers) also has a safety committee made up of local facility team members. These local team members help identify risks and priorities relevant to their facility. JBS USA and Pilgrim's also have Occupational Health Medical Services teams, staffed by experts who support ongoing improvement in our practices. These teams also support specific programs at each individual facility to reduce team member exposure to issues such as ergonomic problems caused by repetitive movement or incorrect posture.

Each plant undergoes three different annual audits focusing on safety management systems, fleet safety and occupational health. Pilgrim's production facilities carry out daily safety assessments and have also adopted the DuPont Behavior Based Observation (BBS) process. As part of this process, each supervisor carries out at least five weekly safety assessments at their respective facility.

In 2016, 13 JBS USA and Pilgrim's facilities were recognized under the North American Meat Institute's (NAMI), Worker Safety Recognition Award Program. NAMI is a US-based trade association that serves as the preeminent source of information, education, and services that enable meat and poultry companies to nourish people around the world with safe, nutritious, and sustainable protein. When judging these awards, NAMI evaluates the company's current performance as well as deployment of effective health and safety programs. 900 (or 60%) out of a possible 1,500 points can be achieved from the results analyzed by the NAMI National Safety Council team. JBS and Pilgrim's award winners include:

Beef:

- Omaha, NE – Award of Honor

Pork:

- Worthington, MN – Award of Merit
- Beardstown, IL – Award of Merit
- Marshalltown, IA – Award of Merit
- Louisville, KY – Award of Commendation

Pilgrim's:

- Canton, GA – Award of Commendation
- Chattanooga, TN – Award of Commendation
- DeQueen, AR – Award of Merit
- East Plant, Mount Pleasant, TX – Award of Honor
- Elberton, GA – Award of Commendation
- Marshville, NC – Award of Honor
- Natchitoches, LA – Award of Merit
- Prepared Foods Plant, Mt. Pleasant, TX – Award of Merit

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Occupational Safety and Health Administration (OSHA).

Each plant undergoes **three different annual audits** focusing on **safety management systems, fleet safety and occupational health.**

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Worker Safety Recognition Award Program.

EUROPE

Health and safety are part and parcel of Moy Park's business decisions. The company involves the workforce in its decisions and encourages management engagement in order to identify and manage risks as well as analyze performance. The company has adopted a specific policy, in line with other risk management policies, in order to protect both team members and third parties.

This is such an important issue that the Executive Board has included it on its work agenda, creating a subcommittee that meets quarterly to supervise, monitor and support a robust and effective safety management structure.

Moy Park has a Safety Index which is tailored for each local operation and used to monitor safety performance. This indicator has improved every year: from 11.5 in 2012, to 1.17 in 2016. The target is zero accidents.

Moy Park has adopted a specific policy, in line with other

risk management policies, in order to protect both team members and third parties.

Moy Park has a

Safety Index,

which is tailored for each local operation and used to monitor safety performance.





Occupational Health and Safety are essential issues for team member well-being and can impact the quality of products and services.

OCCUPATIONAL HEALTH AND SAFETY

GLOBAL PERFORMANCE¹

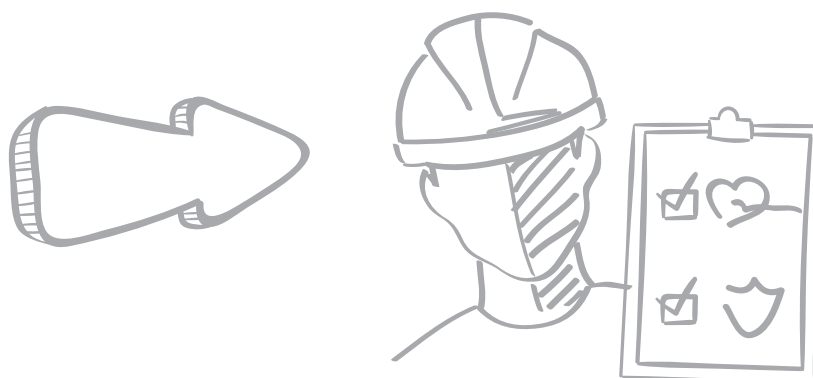
GRI G4-LA6, G4-LA7

		South America	North America				Europe
		Brazil ²	USA	Pilgrim's	Australia	Canada	Moy Park
Accidents	Lost time	791	286	146	296	26	40
	Without lost time	1,897	1,606	668	635	296	90
	Number of total accidents	2,688	1,892	814	931	322	130
Injuries (frequency rate)	Lost time	3.58	0.86	0.49	15.80	1.19	3.62
	Without lost time (recordable rate)	8.58	Does not track	Does not track	Does not track	Does not track	8.15
	All injury frequency rate	12.15	5.71	2.75	49.60	Does not track	11.77
Days lost	Due to accidents	64,347 ²	5,136	2,426	Does not track	648	506
	Rate of days lost (severity rate)	289 ²	15.49	8.20	Does not track	29.79	45.83
Dart Rate	Days away, restricted or job transfer rate	Does not track ³	3.62	1.67	Does not track	Does not track	4.58
Fatalities	Typical accidents	1	0	0	0	0	0
	Commuting accidents	5	Does not track	Does not track	0	Does not track	0
	Total	6	0	0	0	0	0

1 The indicators of each business/region are calculated according to specific formulas according to each country legislation in place.

2 JBS Beef, JBS Leather, Seara and JBS Related Business.

3 Not applicable in Brazil.



ANIMAL WELFARE

GRI G4-DMA, GRI FP9, GRI FP10 E GRI FP11

Offering high-quality products means taking assertive action on animal welfare, a material area critical to the company's sustainability approach. All JBS global operations prioritize animal welfare through professional procedures, key performance indicators, targets, internal and third-party audits and team member training courses.

All actions taken at the company's various operations – in South America, Europe, North America and Australia – are based on policies or principles that are consistent with the universally recognized "Five Freedoms," published in 1965 to describe the right to welfare of animals under human control:

1. Freedom from fear or distress;
2. Freedom from hunger or thirst;
3. Freedom from discomfort;
4. Freedom from pain, injury or disease; and
5. Freedom to express normal behavior.

Best practices in animal welfare are an important part of our culture and closely linked to JBS' success. Work routines at all JBS global operations prioritize animal welfare and include production techniques and policies that comply with humane slaughter principles. This approach ensures that animals are treated with respect, properly stunned prior to the slaughter, and slaughtered humanely. At all meatpacking facilities, JBS has adopted technical, and where appropriate, religious approaches, to comply with stringent animal handling and humane slaughter principles.

As a global company, JBS sells its products to consumers on all five continents. In order to adhere to the varying strict quality standards in different markets, the company implements animal welfare standards that comply with the international standards that ensure access to every global market and meet customer expectations.

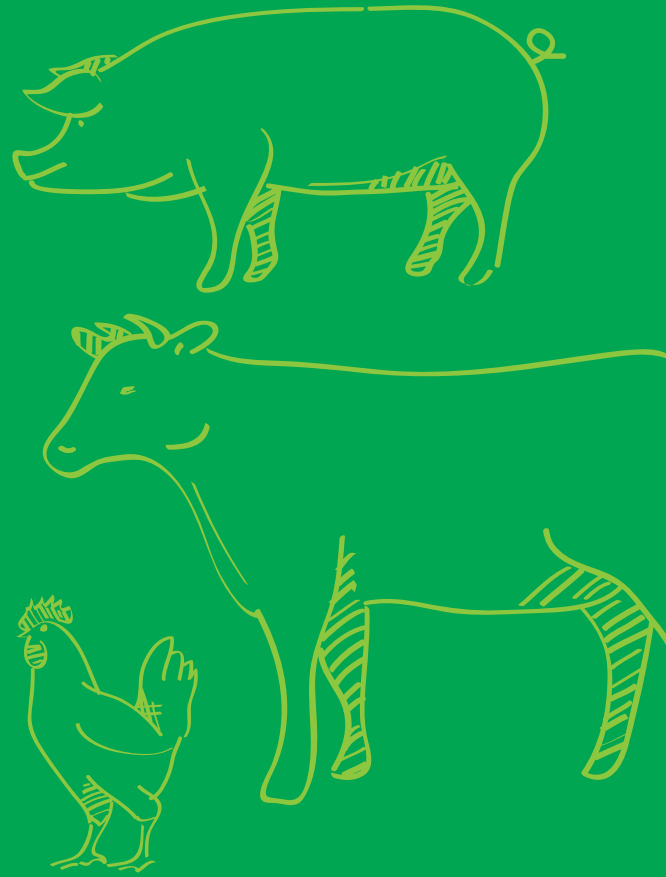
The company has multidisciplinary teams to manage animal welfare and constantly shares best practices across the global company to improve its performance and enhance the well-being of the animals under our care. To ensure that company practices and initiatives are adopted throughout the value chain, JBS focuses on three specific phases:

- Animal handling and transportation
- Slaughter

In 2016, all JBS facilities in every country emphasized training programs for both in-house and supplier teams, and conducted frequent internal animal welfare audits and third-party inspections. In addition, Dr. Temple Grandin, a globally-respected animal welfare expert and professor at Colorado State University, assists in the development and implementation of our animal welfare program.

JBS has implemented a range of animal welfare policies and programs, some of which are listed below:

- At Pilgrim's Pride Corporation, chicken producers comply with the animal care procedures and guidelines published by the National Chicken Council.
- At Moy Park, all our poultry farms are Red Tractor approved and our farms meet or exceed Red Tractor, Bord Bia or equivalent welfare standards. Farms are audited to this standard by independent and approved certification bodies, and Moy Park carries out an audit on biosecurity and animal welfare during every crop cycle.
- In Brazil, Seara and JBS Beef comply with specific internal animal welfare policies, in line with best practices and legislative requirements. All operations undergo frequent internal and third-party audits.
- In the U.S. and Canada, all JBS Five Rivers Cattle Feeding facilities participate in the National Cattlemen's Beef Association's (NCBA), Beef Quality Assurance (BQA) program are audited annually by the Texas Cattle Feeders Association (TCFA). BQA evaluates a range of issues including the facility management system, herd management, animal health and nutrition, and team training.

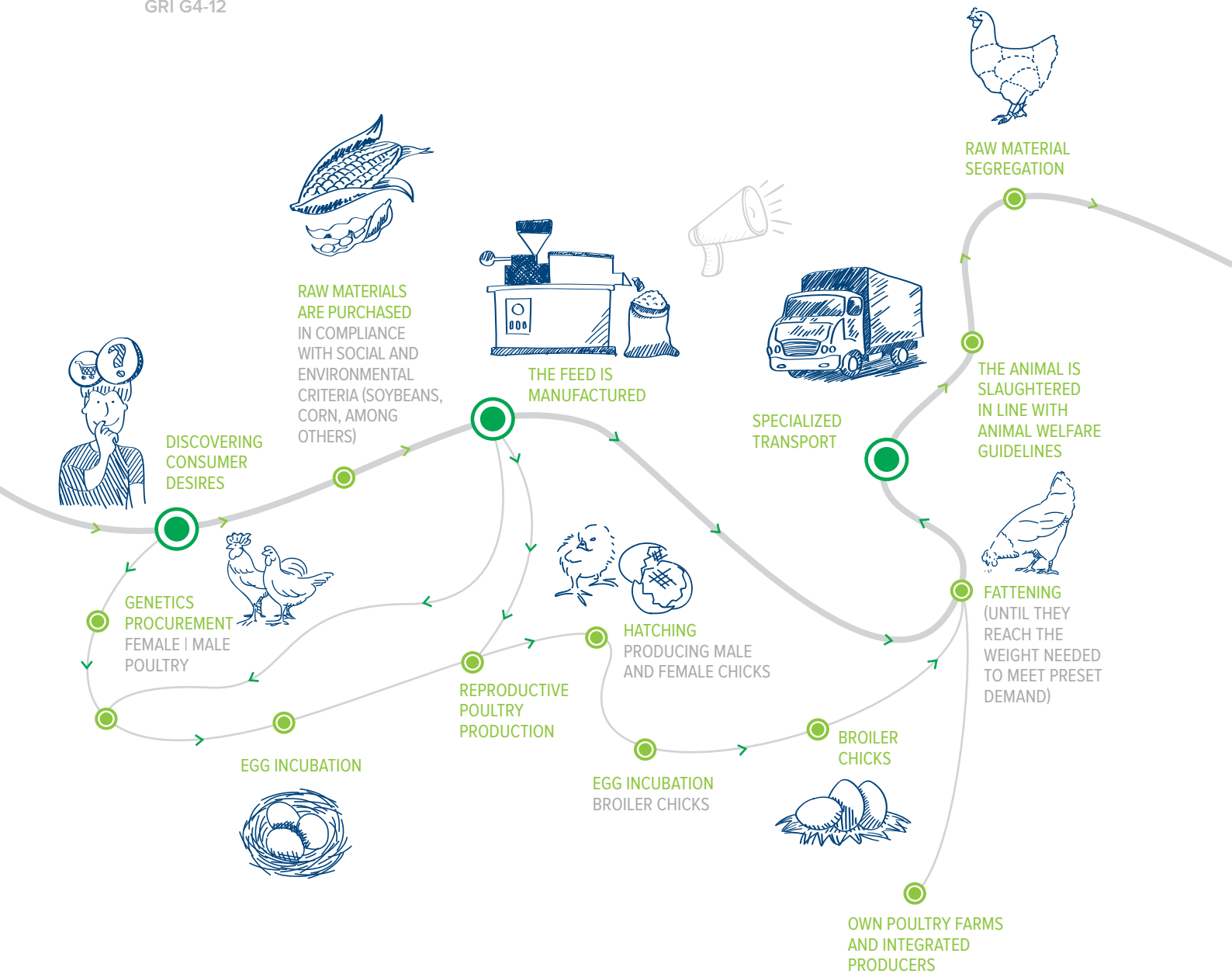


The Business Benchmark on Farm Animal Welfare (BBFAW), a global, annual report, has evaluated JBS since 2014, and the company has raised its score every year, now scoring above the industry average.

Developed by two international NGOs – World Animal Protection (WAP) and Compassion in World Farming (CIWF) – the annual study evaluates animal welfare practices and policies at 99 global food companies. See the survey www.bbfa.com/report

GLOBAL MATERIAL ISSUES VALUE CHAIN PROCESS – POULTRY

GRI G4-12



SEE BELOW TO FIND OUT WHEN MATERIAL ASPECTS ARE ADDRESSED THROUGHOUT THE VALUE CHAIN:

Responsible purchasing of raw materials

Food quality and safety

Animal welfare

Team member health and safety

Water

Climate change

JBS HAS PRODUCTION UNITS AND COMMERCIAL OFFICES IN MORE THAN 20 COUNTRIES.

FOOD PROCESSING
JBS PRODUCES READY-TO-EAT, FRESH, FROZEN, PORTIONED AND OTHER TYPES OF FOODS.

SPECIALIZED TRANSPORT



DISTRIBUTION CENTER



SPECIALIZED TRANSPORT



SPECIALIZED TRANSPORT



INTERNATIONAL MARKET

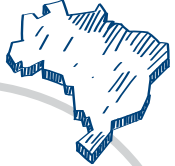
STRIVING FOR CUSTOMER SATISFACTION (B2B)



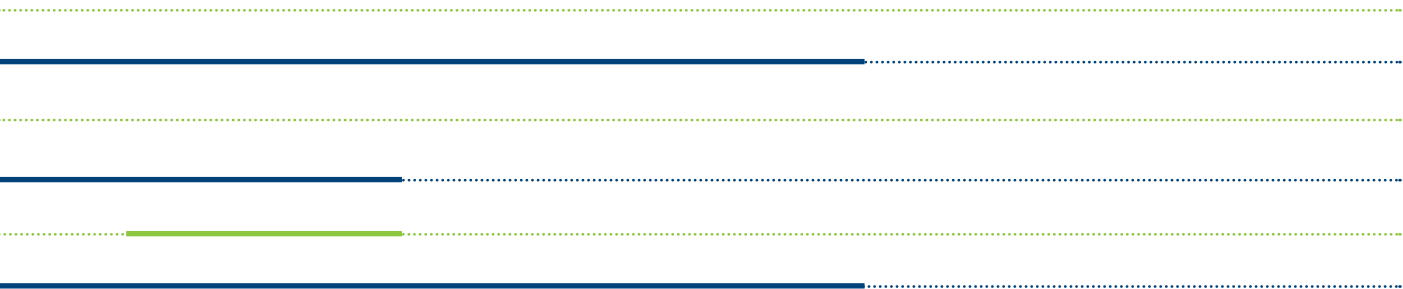
STRIVING FOR CONSUMER SATISFACTION (B2C)

JBS MARKETS ITS PRODUCTS IN MORE THAN 150 COUNTRIES.

LOCAL MARKET



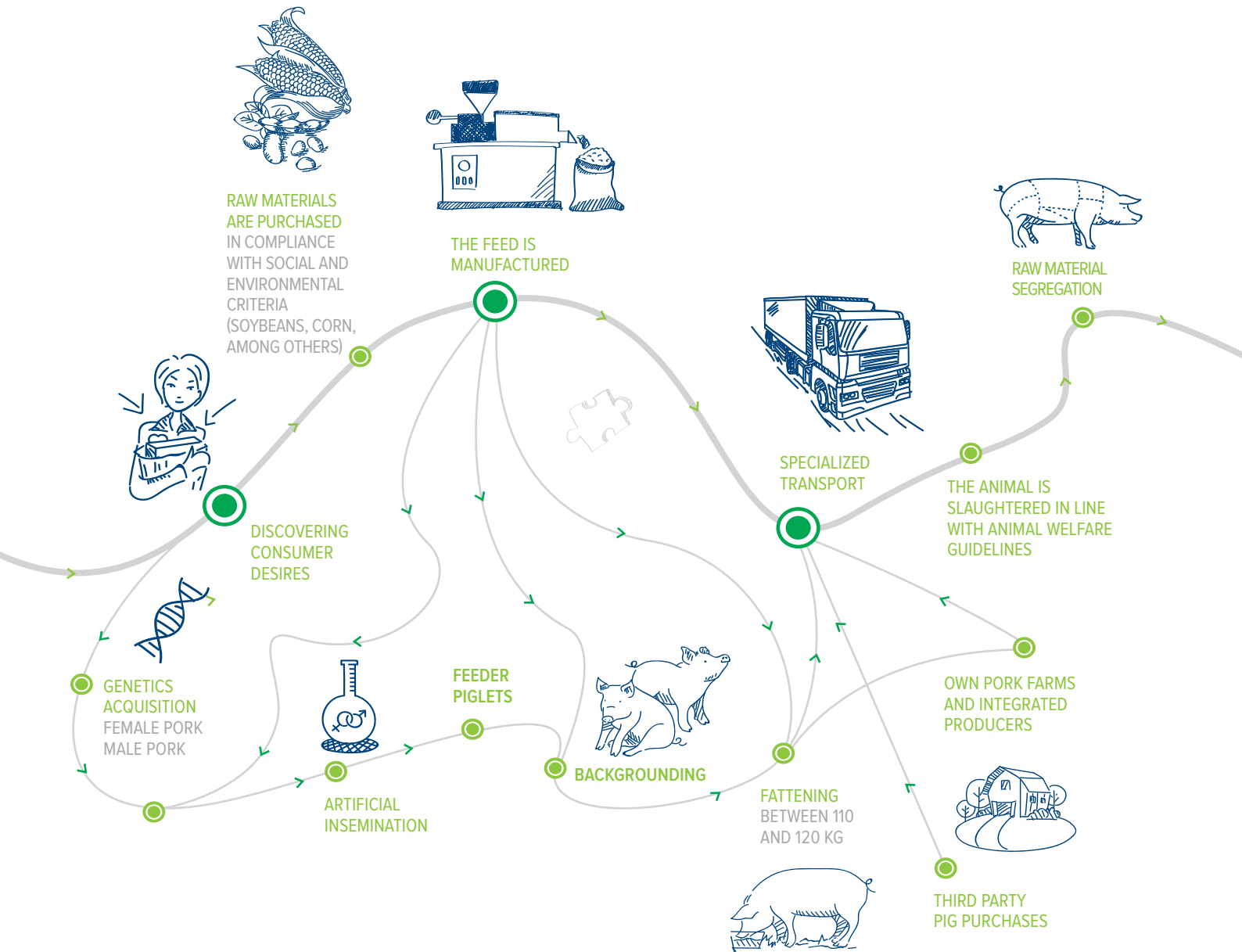
JBS ENVIRONMENTAL



GLOBAL MATERIAL ISSUES

VALUE CHAIN PROCESS – PORK

GRI G4-12



SEE BELOW TO FIND OUT WHEN MATERIAL ASPECTS ARE ADDRESSED THROUGHOUT THE VALUE CHAIN:

Responsible purchasing of raw materials

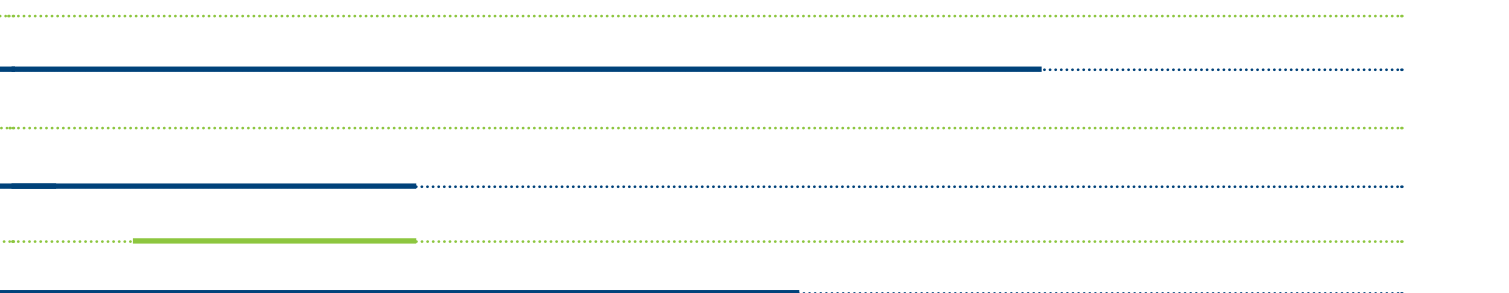
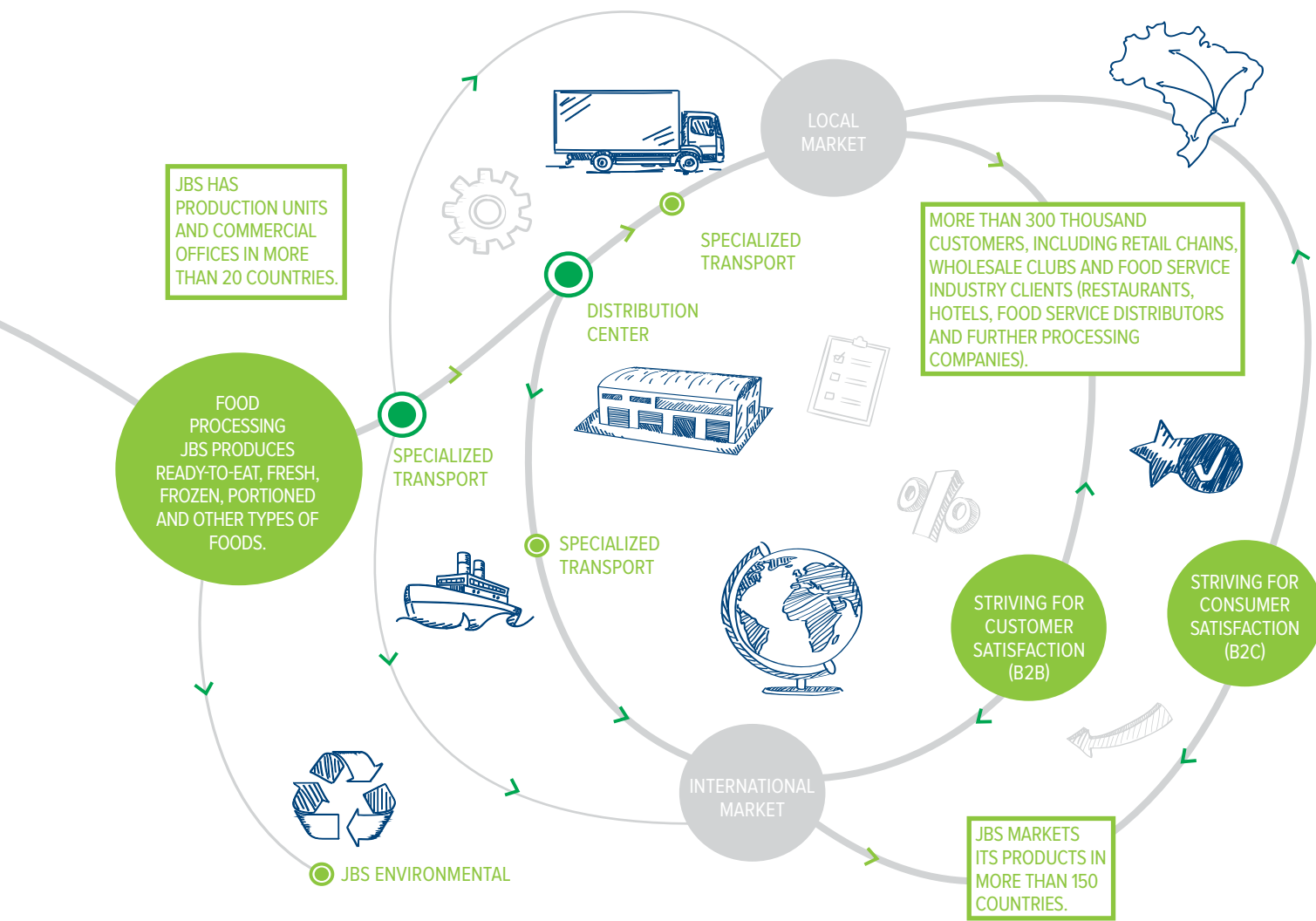
Food quality and safety

Animal welfare

Team member health and safety

Water

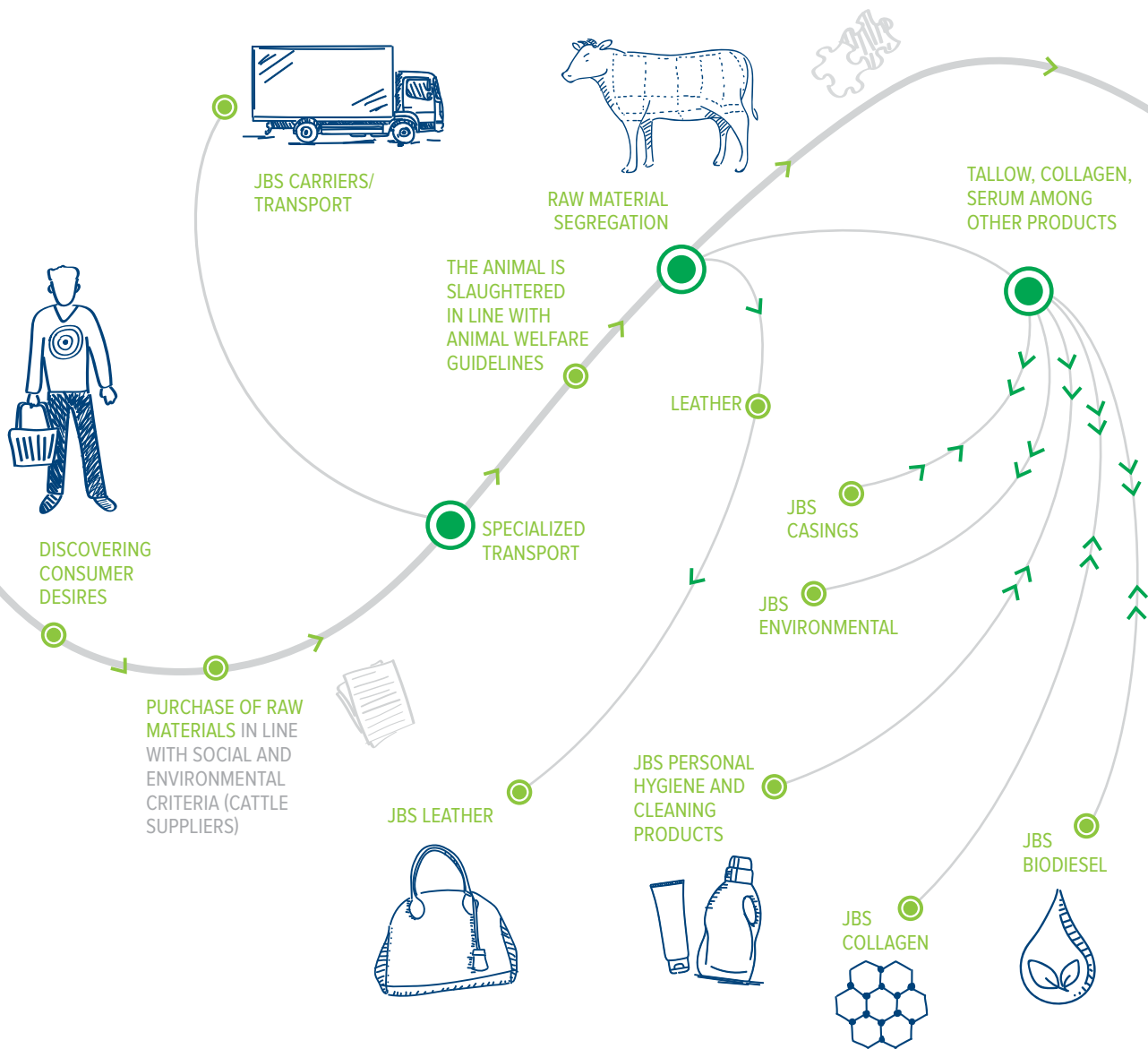
Climate change



GLOBAL MATERIAL ISSUES

VALUE CHAIN PROCESS – CATTLE

GRI G4-12



SEE BELOW TO FIND OUT WHEN MATERIAL ASPECTS ARE ADDRESSED THROUGHOUT THE VALUE CHAIN:

Responsible purchasing of raw materials

Food quality and safety

Animal welfare

Team member health and safety

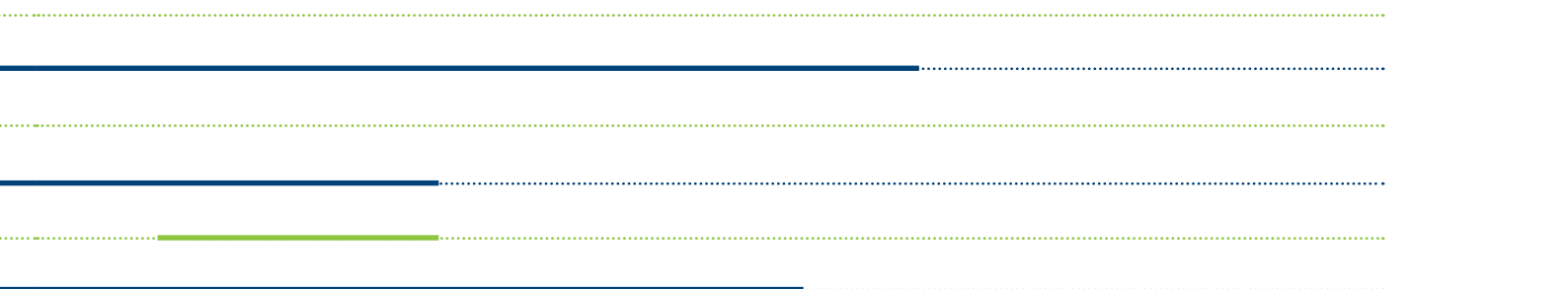
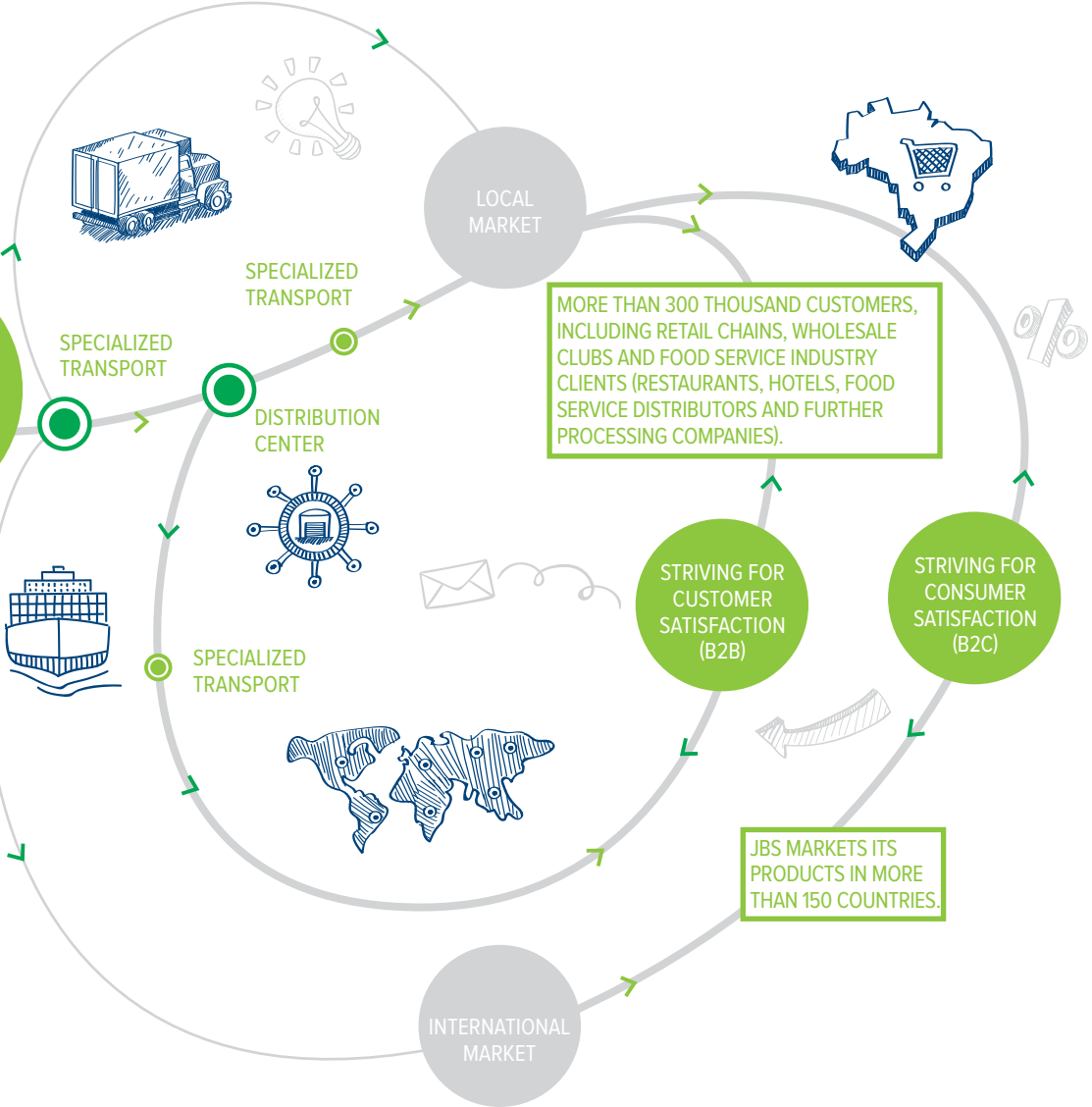
Water

Climate change

JBS HAS PRODUCTION UNITS AND COMMERCIAL OFFICES IN MORE THAN 20 COUNTRIES.

FOOD PROCESSING
JBS PRODUCES READY-TO-EAT, FRESH, FROZEN, PORTIONED AND OTHER TYPES OF FOODS.

JBS CAN MAKING

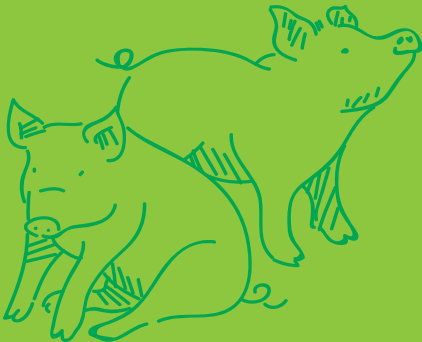


BEST PRACTICES IN THE PORK AND POULTRY VALUE CHAIN

ANIMAL TRANSPORTATION AND BREEDING

At Seara, pork and poultry transportation from the farm to processing facilities complies with the following practices:

- Transportation is only performed by trained teams to minimize animal stress, reduce injuries and guarantee adequate spacing during transportation.
- In order to reduce the time animals spend in transit, logistics planning teams identify the best routes, from starting points to final destinations.
- Maximum distances between farms and processing facilities are defined to minimize distress and maximize animal comfort.
- Transport routines are managed using indicators, such as cage density, weight during loading and mortality percentages, to guarantee appropriate practices are adopted.



Seara is a member of the 'Livestock Technical Committee', at Global GAP, which discusses global animal welfare parameters. GRI G4-16

Seara and Pilgrim's are responsible for producing and supplying all inputs used by producers, such as chicks, feed and medication, and provide all necessary technical support.

At both proprietary and integrated chicken farms supplying our global operations, JBS chickens are only fed natural ingredients. The feed mixture, including corn, soybeans and other grains, does not contain any type of growth hormone, as required by law in North America, South America and Europe.

For example, Seara and Pilgrim's are responsible for producing and supplying all inputs used by producers, such as chicks, feed and medication, and provide all necessary technical support.

All raw materials acquired by the Seara (chickens, hogs and turkeys) and Pilgrim's (chicken) are produced at our own (Seara) or partner farms (Seara and Pilgrim's integrated farms). This allows the company to monitor the entire animal breeding process in detail.

Using Technical Guidelines (TGs), Seara defines the criteria adopted by its more than 10,000 pork and poultry producers and compliance is monitored by on-site technical staff who frequently visit properties. In addition to the TG's, producers use checklists and other control forms providing animal welfare indicators that can be monitored and controlled on a periodic basis.

Indicators such as housing density, initial and final mortality percentages, nutritional levels, water quality controls, compliance with the five fundamental freedoms and environmental controls (temperature, humidity, ventilation, lighting and bedding quality) are all controlled by producers to guarantee animal welfare throughout the production process.



The Animal Welfare and Biosafety Manual was implemented in 2016 at all proprietary and integrated chicken farms at Seara, reinforcing the company's commitment in this area.

Furthermore, Seara and Pilgrim's implement its own projects or partners with universities to further improve its indicators. In 2016, the Seara implemented initiatives to improve aviary acclimatization, adapt infrastructure, standardize records and control documents, train incubator and farm teams, replace subcutaneous vaccination for breeder hens with egg vaccination and certify suppliers of "wood shavings" (the material used in aviary "beds," among other steps to improve animal welfare.

The Animal Welfare and Biosafety Manual was implemented in 2016 at all proprietary and integrated chicken farms at Seara, reinforcing the company's commitment in this area.

Seara has gradually reduced the amount of antibiotics used in production and is committed to making further progress in the years ahead.

In 2016, Seara produced a specific checklist that quality teams at processing facilities use to evaluate animal welfare indicators on a quarterly basis. This routine includes developing action plans to address any issues that may arise. The checklist was based on current legislation, recommendations from World Animal Protection (WAP), an animal welfare NGO, and customer requirements and certifications. Indicators such as transportation density and appropriate unloading conditions, ambience and waiting conditions, stunning efficiency, fasting times,

bleeding efficiency, poultry injuries and hog slipping/falls as well as transportation mortality records (with root cause studies when required) are all included on the checklist. Additionally, all poultry unit employees are trained by the World Animal Protection NGO (WAP). Training at pork units will be concluded in 2017.

To guarantee training efficiency and application of the questionnaires, two audits were carried out in 2016 at each meatpacking unit. Seara also receives frequent audits from domestic and foreign customers, who check sanitation, animal welfare, quality and other criteria during the verification process. At Pilgrim's, an annual animal welfare training course is provided for team members handling live poultry. Pilgrim's also conducts frequent facility inspections to ensure compliance with animal handling standards.

Moy Park's animal welfare programmes seek to guarantee the safety and humane treatment of birds through internal governance and regularly audited procedures. Moy Park remains committed to pioneering industry leading initiatives and setting the standards with higher welfare estate development and investment. Close relationships with farmers are particularly important. These relationships are supported by a team of technical agricultural experts advising on welfare and animal husbandry where Moy Park provides training and development to its farmers to ensure high standards and enhanced biosecurity are applied consistently.

Pilgrim's Pride Corporation animal welfare guidelines form the Pilgrim's Animal Welfare Program, which was developed by a special Corporate Committee. The program is revised annually to ensure poultry well-being is

NO
NO ANTIBIOTICS OR
ANTICOCIDIALS

100%
VEGETABLE
FEED

**INTERNATIONAL
ANIMAL
WELFARE
CERTIFICATION**

100%
TRACEABILITY
THROUGHOUT THE
PRODUCTION CHAIN

Seara
DaGranja
Coxinha da Asa

Seara
DaGranja
Filé de Peito

Best practices in animal welfare have allowed the company to create a range of differentiated products. One of these is Seara DaGranja, which uses chickens bred at exclusive farms using 100% vegetable feed and no antibiotics or anticoccidials, which is guaranteed by traceability throughout the production chain. This product also holds **international animal welfare certification**. Another standout project is the Frango Caipira, Nhô Bento, made using a special breed of free range chickens.

monitored and addressed at all stages of the production process, including hatching, growth, transportation and slaughter. The practices adopted are consistent with the National Chicken Council (NCC) Animal Welfare Guidelines and Audit Checklist¹². In Mexico, Pilgrim's production practices comply with the government's *Buenas Prácticas Pecuarias en la Producción de Pollo en Engorda*, program, which is published by the Secretariat for Agriculture, Livestock, Rule Development, Fishing and Food (SAGARPA) and the National Agriculture and Food Health, Safety and Quality Service (SENASICA).

At Pilgrim's, 90% of chicken farms provide climate control to maximize comfort and protect birds from poor weather and disease. In 2016, 48 audits covering all facilities were carried out to ensure compliance with the Animal Welfare Program and verify appropriate capture, handling and transportation procedures. In the US, Pilgrim's target is to achieve an audit score of 95% or higher at every facility. Internal audit results in 2016 resulted in grades ranging between 93% and 100%, with an average of 97%. External audit results in 2016 resulted in grades varying between 92% and 100%, with an average of 98%.

JBS Pork has adopted best industry practices for live pork production and pork processing, in line with Pork Quality Assurance Plus (PQA Plus), Transport Quality Assurance (TQA) and Common Swine Industry Audit (CSIA) guidelines. All JBS team members undergo training in best production practices and appropriate animal handling.

¹² <http://www.nationalchickencouncil.org/industry-issues/animal-welfare-for-broiler-chickens/>

Pilgrim's Pride Corporation animal welfare guidelines form the Pilgrim's Animal Welfare Program, which was developed by a special Corporate Committee.

Moy Park is committed to industry leading antibiotic stewardship. Moy Park's focus is on reducing the need for antibiotics by investing in its farms and practices, and together with its veterinary consultants and external academic experts, developing innovative animal health strategies to deliver the highest levels of animal welfare.

The company established an independent Antibiotics Stewardship Programme in 2011. This programme is shaped and delivered by a multi-disciplinary team made up of leading academics, veterinary experts and company specialists in the field of poultry production, animal health and welfare and R&D.

The physical and behavioural wellbeing of animals is affected by their ability to express their natural behaviour. Moy Park promotes this by providing natural light in our windowed houses along with perches and bales which deliver environmental enrichment. Moy Park's target is to have 100% of houses with windows and with natural light, where this is practical.



BEST PRACTICES IN THE BEEF VALUE CHAIN

ANIMAL TRANSPORTATION AND BREEDING

In 2016, a model truck was developed in Brazil offering more space and comfort for cattle during transportation. The innovative design provides more internal head height, internal dividers with rounded edges and a hydraulic elevator, for improved organization and cattle comfort during animal loading and unloading. The trucks – the first of their kind in Brazil – can carry around 54 animals, 12 more than previous vehicles, which represents a **28% rise in productivity**.

The new truck helps reduce the number of cattle injuries, which improves both carcass utilization and meat quality for consumers. Furthermore, increased vehicle occupancy rates **save 46,000 L of diesel fuel per month, reducing greenhouse gas emissions**.

As part of efforts to reduce cattle injuries, a pilot project for cattle transportation is underway in Lins (São Paulo), in partnership with the ETCO Group (Animal Ecology and Etiology Study and Research Group) of the Paulista State University (Unesp). The project is evaluating two-story designs with rubber coatings inside the vehicle as well as surveillance cameras and an onboard computer to monitor acceleration in curves and heavy braking. When the project finishes in 2017, the company expects to add these vehicles to the current fleet of around 50 special two-story trucks equipped with elevators.

JBS USA Carriers, the transportation business of JBS USA, is responsible for safely transporting more than 1.5 million cattle each year. Working alongside JBS Five Rivers,

As part of efforts to reduce cattle injuries, a pilot project for cattle transportation is underway in Lins (São Paulo), in partnership with the ETCO Group (Animal Ecology and Etiology Study and Research Group) of the Paulista State University (Unesp).

the company offers driver training on animal handling and safety. The training material is based on the Master Cattle Transporter Guide, which is part of the Meat Quality Assurance program from the National Cattlemen's Beef Association (NCBA), a well-known industry standard for truck driver training.

JBS USA's beef operations use the JBS Animal Welfare Index. This methodology is consistent with the Recommended Animal Handling Guidelines and Audit Guide American Meat Institute Foundation and includes both in-house and third-party audits. In 2016, JBS achieved a 97.91% grade, exceeding its 95% target.

Additionally, JBS USA processing facilities have voluntarily adopted the US Department of Agriculture's, Food Safety and Inspection Service Compliance Guide for a Systematic Approach to the Humane Handling of Livestock. The Guide promotes a uniform approach to humane handling and slaughter by organizing U.S. regulatory requirements into a logical approach, marked by attention to detail, regular implementation and tailoring a program to the operations of each facility. The systematic approach includes four elements:

1. Assess the ability of livestock handling and slaughter practices to minimize distress and injury to livestock.



In 2016, a model truck was developed in Brazil offering more space and comfort for cattle during transportation.

2. Design facilities and implement handling practices that minimize distress and injury to livestock.
3. Periodically evaluate facilities and handling methods to ensure that they continue to minimize distress and injury to livestock.
4. When necessary, modify facilities and handling methods to ensure that they continue to minimize distress and injury to livestock.

All JBS USA Five Rivers Cattle Feeding

feedyards, underwent third-party audits in 2016 and received 100% approval. These audits guarantee compliance with meat quality assurance guidelines from the National Cattlemen’s Beef Association.

In 2016, the Moy Park Beef Orleans unit, which supplies frozen hamburgers to McDonald’s, developed a special tool to evaluate animal welfare on farms. By 2018, all 1,500 beef supplier farms will be required to implement the tool.

Many of the the JBS Beef units in Brazil, started a “Rational Handling and Animal Welfare” training cycle at some of its farms in 2016. The training course reinforces guidance for farmhands on the importance of correct animal handling to avoid suffering and injury.

CATTLE SLAUGHTER

In Brazil, JBS is carrying out a study to improve the animal stunning procedure, the first stage in the slaughtering process. The study is being organized in partnership with ETCO Group (Animal Ecology and Etiology Study and Research Group) of the Paulista State University (Unesp) and Neville George Gregory and Troy John Gibson, professors

from the University of London, one of the world’s foremost specialists in cattle stunning. The project, which is scheduled to conclude in 2017, will provide a more efficient stunning procedure that enhances performance in our animal welfare program.

JBS Beef is also one of the only companies in Brazil that uses cameras to monitor animal welfare at all cattle processing facilities. This means the company is able to monitor the entire process from unloading to slaughter and increase engagement with staff responsible for animal handling.

In order to increase compliance with the JBS Beef animal welfare policy in 2016, JBS team members were asked to sign a normative ruling. This was backed by specific training courses at all facilities involving around 350 meatpacking team members.

At the JBS Paraguay facility, which opened in Belen in 2016, was implemented at corrals to increase animal comfort using a device called a restrainer, which is used to bring the animal to the first phase of the meatpacking process: stunning. This procedure not only reduces any stress the animal may suffer, it increases the processing speed per hour of production. Based on guidelines validated by Dr. Temple Grandin, the corral is shaped like a fishbone and the curved corridors make it easier to handle cattle. In 2016, the Quality Assurance corporate team visited all JBS Beef facilities, in Brazil, to guarantee efficient implementation of animal welfare practices. The visits included internal audits, corral and slaughter room employee and cattle truck driver training courses and adoption of humane animal handling documents, procedures and techniques.

WATER AND ITS MANAGEMENT

GRI G4-DMA

Water is one of the most important natural resources utilized in the JBS production value chain. Water availability and quality have a direct impact on our operations and our efficient use of this natural resource is critical for the promise of future generations.

Water and sustainable water management are cross-cutting issues that impact many of the material issues identified by the company, including product integrity. In order to engage the value chain in sustainable water management, JBS Brazil encourages the use of cisterns to capture and store rainwater at poultry farms run by integrated producer and to protect water

sources and native forests under the New Field Program, in the Amazon region. This program improves both water quality and availability for the animals and guarantees continuity in production and other natural processes.

Almost all water used by JBS operations worldwide is captured from surface sources, such as rivers, and underground sources, such as wells, or through public utility networks. Regardless of the source, all water is properly treated to ensure it meets the JBS quality standards necessary for our production processes. Rivers and wells (surface water) represented the largest number of water sources in 2016: 46.3%.

Total JBS water capture, by source, globally GRI G4-EN8

SOURCE	2016		2015		Variation %
	thousand m ³	%	thousand m ³	%	
Surface	86,747	46.26	47,898	30	81.1
Underground	69,538	37.08	54,963	34	26.5
Public supply	31,044	16.55	57,989	36	(46.5)
Rainwater	129	0.07	71	0.1	81.7
Other sources	79	0.04	106	0.1	(25.5)
Total water volume	187,537	100	161,027	100	16.5

Compared with 2015, there was an increase in reported water volumes. This was primarily due to more accurate and improved data collection capabilities compared with the previous year.

JBS was highlighted by the international Carbon Disclosure Project (CDP) as a top five company in Latin America for water management and water security in the Program Supply Chain.

THE JBS WATER CYCLE



CAPTURE

mainly from surface,
underground and public utility
sources



TREATMENT

before being used,
the water is treated to
guarantee quality

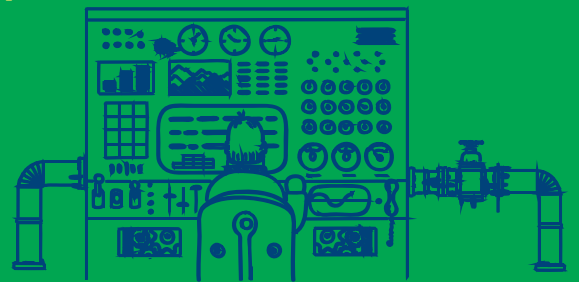


MONITORING

water consumption is
measured and controlled
by a number of devices
and systems

MANAGEMENT

water usage
reduction targets



USE

water is used in
our production
processes



DISPOSAL

as wastewater – this is what
water is called after use
in our facilities. Pollutants
are removed before being
returned to the environment



All production facilities adhere to corporate water reduction guidelines and targets. For example, in Brazil, there was an 8% overall drop in water consumption at our meat, leather, Seara and new business areas. As production processes become increasingly efficient, we have been able to save more than 5 billion L of water. Water reuse also rose 11%, substituting 178 million L of water from alternative sources, as well as a 45% rise in the volume of rainfall captured, also representing more than 178 million L.

In **Brazil**, water reuse procedures comply with the **Sustainable Water Management Program** (PGSA). In order to increase efficiency and avoid shortages, the PSGA attempts to identify critical areas and prioritize facilities and hydrographic microbasins to mitigate the risk of shortfalls and increase usage efficiency, in addition to measuring water-related financial impacts and providing strategic tools and methodologies to support investment decisions. **GRI G4-EN8**

The PGSA has been implemented at approximately 120 JBS processing facilities in the north and south of Brazil, including almost every major hydrographic basin in the country. It is a component in the water management procedures at the company's various businesses, including food (beef, pork, poultry and processed products), leather processing, hygiene and cleaning, biofuel, collagen and other product manufacturing processes.

The PGSA was instituted in 2015 and is split into nine phases. The first three phases were implemented in 2016, including governance, data collection and mapping, and the identification of regions presenting evidence of water stress. The subsequent phases should be concluded by the end of 2017, including a system of targets, project portfolio, team

member engagement, supply chain guidelines, communications and public policies, as well as activities focusing on hydrographic basins. The PGSA is managed by the Sustainability department and is supported by a Working Group that represents all Company business units in Brazil.

In **Europe**, Moy Park monitors water usage via its Environmental Management System (EMS), which includes ongoing audits and opportunity mapping for best practices.

In the **USA** and **Mexico**, overall water usage and water intensity (water usage per ton of products or per animal) are closely monitored. This methodology helps to support ongoing improvements.

A number of JBS USA production facilities have also taken steps to reduce water consumption. For example, the Ottumwa, IA, pork processing facility has instituted a number of projects throughout the year, resulting in daily savings of approximately 200,000 gallons of water.



The Sustainable Water Management Program now in place at Brazilian facilities was selected by the Getúlio Vargas Foundation (FGV)'s Sustainability Study Center (GVces) as one of Brazil's 10 most innovative corporate water management initiatives.

A. REUSE

All JBS units in Brazil have production-based water consumption targets and are encouraged to develop programs and projects that improve sustainable water usage as part of their production processes.

In 2016, 2.5% of all water was reused, equivalent to 1,672,635.31 m³. This performance improved from 2015, when the company reused 2% of all water. Globally, the volume of reused water has risen 46% year on year, equivalent to 5,736,421.53 m³. **GRI G4-EN10**

A number of JBS USA production facilities have also implemented projects to maximize water reuse. At the Pilgrim's Sanford, NC,

poultry processing facility, US\$5 million has been invested in a system to treat nitrogen in solid waste. JBS Five Rivers has adopted innovative techniques to manage water reuse using UV light filtration systems. In 2016, these mechanisms saved 10,516,617 gallons of fresh water.

At JBS Paraguay, the new beef processing unit in Belen is equipped with a modern water treatment station which, alongside the optimized production process, has reduced water consumption by 30%. Water is reused after being treated with an activated sludge as part of a highly efficient biological process. Additionally, a modern and highly efficient wastewater treatment system has been installed to remove pollutants.

B. EFFLUENTS **GRI G4-EN22**

All of the water used by JBS' production processes passes through wastewater treatment stations.

Volume of wastewater generated and treated

	2016		2015		Variation / year
	thousand m ³	%	thousand m ³	%	%
Total wastewater volume discarded	145,399.95	100.00	119,217.43	100.0	22
1.1. Volume discarded – body of water	83,764.29	58	66,965.48	56.2	25
1.2. Volume discarded – fertilization and irrigation	11,685.15	8	17,608.75	14.8	-34
1.3. Volume discarded – public supply network	13,194.42	9	34,358.48	28.8	-62
1.4. Volume discarded – soil infiltration	903.85	1	225.43	0.19	301
1.5. Volume discarded – other type of disposal	35,852.23	25	59.27	0.05	60,390

PRODUCT INTEGRITY

GRI G4-DMA

JBS is committed to offering its customers and consumers products that comply with the highest standards of food quality and safety. The company has a relentless focus on product quality, food safety and the integrity of its brands. JBS adopts strict standards in all of its food safety processes and quality control systems to ensure the safety and quality of its products. JBS is a mature, ethical company that operates professionally and as a global food company, provides complies with international food quality and safety standards and sells high-quality products to every consumer market in the world.

The sophisticated approach of the company to food safety, quality and product integrity includes:

Value chain management: adopts sustainability principles for raw material sourcing, responsible protein purchases and supplier training.

Food quality and safety: the company conducts laboratory research and takes care to ensure that all of its operations comply with the most recent certification and regulatory requirements. JBS does not sell any products prohibited in local markets and complies with local rules and best practices.

GRI G4-PR6

Labeling: All JBS products comply with a wide range of labeling requirements in accordance with local regulations. Labels contain information on product composition, a nutritional table, the product name, net weight, conservation instructions, the manufacturing date, sell-by date and manufacturing unit data. In Brazil, the company's product labeling also carries the Federal Inspection Service (FIS) seal from the Ministry of Agriculture, Livestock and Supply (MAPA). Labels also state products

contain or may contain one of 18 possible allergens, in accordance with a 2016 resolution published by ANVISA (the National Sanitation Agency).

In the US, all products carry the United States Department of Agriculture (USDA), Food Safety and Inspection Service (FSIS) mark of inspection. Certain products also present information on proper preparation and consumption, as well as a variety of recipes. Labels also provide information about ingredients and additives, specifically any that may contain allergens, added vitamins, minerals, fiber etc.

GRI G4-PR3, FP7

Certification: Third-party recognition of best practices, processes and routines adopted at JBS. These certifications not only guarantee the quality and effectiveness of company processes, they also allow JBS access to international markets.





JBS is the exclusive partner and supplier for the McDonald's Sustainable Hamburger program, which was launched in São Paulo, Brazil in 2016.

A. VALUE CHAIN MANAGEMENT

At JBS, raw material suppliers are our business partners, which means their adoption of best sustainability practices has an impact on raw material quality. As a result, JBS develops sustainability actions and strategies that are implemented at every stage of the value chain, from responsible raw material procurement to supplier relationships. This is intended to guarantee food quality in each of the markets served by the company.

Given the company's global operational scale, JBS is aware of the role it plays in the industry and supports innovation in all its production chains. Through various initiatives, the company provide suppliers with support and guidance in order to reduce environmental impacts and support local development. Some of these initiatives include:

The sustainable hamburger

JBS is the exclusive partner and supplier for the McDonald's Sustainable Hamburger program, which was launched in São Paulo, Brazil in 2016. This initiative produces hamburgers that not only meet the McDonald's quality requirements, but also comply with a range of social and environmental criteria. For example, cattle suppliers cannot be involved in deforestation or invasion of indigenous lands or conservation areas. Cattle suppliers must also avoid using any type of forced labor. Production of the sustainable hamburger, a pioneering initiative in Brazil, must also comply with three additional criteria: cattle monitoring from birth, compliance with the Sustainable Livestock Breeding Guidelines (GIPS)¹³, from the Brazilian Roundtable for Sustainable Livestock (GTPS), and independent verification of the project's entire management system.

Initially, McDonald's will purchase 250 tons of sustainable hamburgers annually, however, over the next several years, all of the meat sold at McDonald's in Brazil is expected to comply with the program's sustainability criteria.

13 <http://www.gtps.org.br/guia-de-indicadores/>



New Field Program

JBS is a partner in this initiative, **which aims to increase adoption of best livestock production practices on farms in the Legal Amazon.**

Created and coordinated by the Center for Life Institute (ICV)¹⁴, the New Field Program provides guidance on social, environmental and production issues for livestock breeders in the Alta Floresta region, the largest livestock breeding center in the state of Mato Grosso. The project addresses a number of issues, such as soil and water conservation, compliance with Brazilian employment and environmental legislation, best animal welfare and handling practices and techniques to boost productivity and carcass quality, etc. After adopting production techniques that generate various social and environmental gains, livestock breeders involved in the program are given the opportunity to access new markets not previously open to them before they joined the integrated management model.

The initiative is sponsored by the Althelia Climate Fund¹⁵, a European investment fund which finances initiatives focusing on sustainable land

use and ecosystem preservation. This investment is managed by Pecuária Sustentável na Amazônia (Pecsa)¹⁶. As a partner, JBS has worked hard to build long-term commercial relationships with companies highly committed to social and environmental issues, as part of efforts to strengthen the initiative's finances.

New Field Program highlights:

- An increase in pasture capacity of practically 100%. Correct pasture management, which has made it possible to graze an average 3.4 animals per hectare, practically twice the 1.7 animals per hectare previously observed.
- Animals are fattened 14 months faster. The animals previously took an average 26 months to achieve an adequate slaughter weight. Now, livestock breeders in the program are able to process animals after just 12 months of fattening.
- This represents a 500% increase in meat output. Before the program, livestock breeders produced 70 kg of meat per hectare, per year. This has now risen to 350 kg.
- This increase in efficiency saved 40,000 ha of forest from deforestation which would have been needed to produce more meat.
- 700 ha of forest are now being restored around rivers and other water sources.

Legal Supplier Program

In accordance with Brazilian legislation, the company has sponsored a major campaign since 2015 to encourage beef suppliers to comply with environmental regulations and enroll with the Brazilian government's Rural Environmental Register (Cadastro Ambiental Rural - CAR). The company also offers assistance through a group of consultants specializing in the CAR, helping farmers adapt to the Brazilian Forestry Code. In 2016, more than 10,000 new suppliers enrolled with the CAR with assistance from JBS.

¹⁴ <http://www.icv.org.br/>

¹⁵ <https://althelia.com/>

¹⁶ <http://www.pecsa.com.br/pt/>

Quality Ranking

JBS developed this management tool to make it easier for livestock producers to understand the quality of cattle they supply to the company. The Ranking correlates a carcass's technical parameters to produce either a green light (desired standard), yellow light (tolerable standard) or red light (undesirable standard). In 2016, the livestock farmer relationship area – which is responsible for the initiative – held 30 presentations to explain the tool, **reaching 5,407 livestock opinion leaders at a number of events.**

Green Light Pact

In January 2016, this initiative – which is intended to highlight the importance of improving production practices in order to offer high quality products – achieved its target of ensuring that 100% of all carcasses from the state of Mato Grosso do Sul, one of Brazil's biggest producer centers, were classified.

The project also maps changes in cattle quality and this information can be used to develop action plans for producers. The Green Light Agreement was created when a number of local livestock organizations joined forces to improve product quality by adopting practices that reflect

regional requirements. In addition to JBS, this initiative is also supported by the state government in Mato Grosso do Sul, the Brazilian Meat Exporting Industry Association (Abiec)¹⁷, the Mato Grosso Do Sul Livestock Breeders Association (Acrissul)¹⁸, the Mato Grosso Do Sul Livestock and Agriculture Federation (Famasul)¹⁹ the Association of Young Steer Producers from Mato Grosso Do Sul²⁰ and Embrapa Beef Cattle²¹.

JBS Connection Program

This is a platform used to communicate directly with JBS cattle suppliers in Brazil. The program provides livestock breeders with commercial training. The platform is intended to build a stronger relationship between the producer and the value chain by providing information on meat processing, marketing and sales. As part of the program, the Connection Management initiative was launched in 2006 to improve the management capabilities of mid-size livestock

17 <http://www.abiec.com.br/>

18 <http://www.acrissul.com.br/>

19 <http://famasul.com.br/>

20 <http://www.novilhoms.com.br/>

21 <https://www.embrapa.br/gado-de-corte>



JBS is a partner in this initiative, which aims to increase adoption of best livestock production practices on farms in the Legal Amazon.

breeders supplying between 300 and two thousand animals annually. Partnering with the Inttegra Institute²², the project is still in its pilot phase. The first group included 10 livestock breeders based in Mato Grosso do Sul. It will be extended to other areas around the country in 2017.

Productivity Roadshow

In order to increase productivity in the livestock production chain and in addition to offering specialist technical training on health, nutrition, pasture management and livestock management, in 2016 JBS launched its Brazilian Productivity Roadshow, which traveled 178,000 km and visited 136 cities around the country. Partners in the initiative include Merial Saúde Animal, DSM Tortuga, Dow AgroSciences and Volkswagen.

Social Fuel Seal

In 2016, the Social Fuel Seal, a program set up by the Brazilian federal government, started including beef tallow as a raw material for biodiesel production.

This is the second most importance source of raw material for Brazilian biodiesel and JBS played a critical role explaining this to the government. JBS has been involved in the program since 2007, when it was then restricted to purchasing oilseed plants like soybeans, produced by family farmers.

Under the Social Seal program requirements is that raw material suppliers must be offered technical support. In order to meet this requirement, JBS Biodiesel, partnering with Sourcing teams at JBS Beef and Sustainability, is developing a program to provide guidance on financial planning and best livestock practices. The company also offers preset sales options, bonuses for cattle quality and guarantees to buy 100% of the herd.

²² <http://www.inttegra.com/>

In Brazil, JBS is also involved in the Carbon Neutral Meat program, a system to promote a livestock-forest integration model.

In Brazil, JBS is also involved in the Carbon Neutral Meat program, a system to promote a livestock-forest integration model contract guarantee. By 2015, JBS Biodiesel had helped over 4600 small-scale grain producers and purchased more than 7.5 million bags of soybeans as part of the Social Fuel Seal program. In 2007, the goal is to support an additional 300 livestock breeders.

CAP'2ER & BoviWell

In France, Moy Park Beef Orléans and McDonald's collaborated with the French beef sector to develop a tool called CAP'2ER[®] for beef farmers to measure their impact on the environment (e.g. carbon emissions, water and biodiversity impacts) and define an action plan for continuous improvement. Currently in its pilot phase, the tool has been adopted by 50 farms on a voluntary basis.

Moy Park Beef worked also with experts, to develop an easy-to-use tool to evaluate on-farm welfare of cattle: BoviWell.

By 2018, these 2 innovations should be used in all of French beef farms under contracts for Moy Park Beef Orléans, impacting over 1,600 farmers and 35,000 cattle.

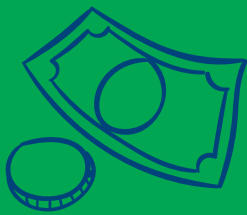
Carbon Neutral Meat

In Brazil, JBS is also involved in the Carbon Neutral Meat program, a system to promote a livestock-forest integration model. By planting trees that can be sold commercially, such as eucalyptus, while also producing livestock, the program is intended to neutralize greenhouse gas emissions from animals while also improving cattle comfort by increasing the availability of shaded areas. The program was launched in the state of Mato Grosso do Sul in 2016 and is being developed in partnership with Embraer.

JBS HAS A WIDE RANGE OF TOOLS AND CHANNELS TO BUILD CLOSER TIES WITH LIVESTOCK BREEDERS. FOR EXAMPLE, IN BRAZIL IT HAS:

BONUSES

This program helps farmers generate income based on their efficiency. It offers livestock breeders variable payments based on the quality of slaughtered carcasses. One in three suppliers received bonuses in 2016.



GIRO DO BOI

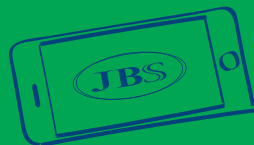
A daily TV program for cattle breeders broadcast on the Rural Channel. The main highlight is the Brazil Tour, with information on daily prices JBS practices throughout the country. In 2016, 43% of JPS livestock suppliers followed the program.



LIVESTOCK BREEDER WEBSITE²³

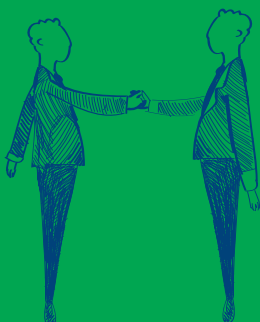
Offers producers free access to all slaughter figures from each of their farms, the status of JBS social and environmental criteria and photographic information on finishing classes with validation from academics, industry associations and specialists to ensure that carcass grading is transparent and auditable.

²³ pecuarista.jbs.com.br



CATTLE FUTURES

A system offering future sales based on indicators from the corresponding markets or at a fixed price. The New Channels Department was created in 2016 focusing mainly on the cattle futures program. 2016 saw a 15% increase in this type of sale, involving 2.2 thousand livestock breeders



JBS also changed the way the system is managed throughout the year. For example, at JBS Beef (Brazil), the Sourcing area has been restructured and now has nine regional offices. This decentralized approach affords the respective managers with the autonomy they need to create closer relationships with local producers.

Integrated supply chain management

In order to guarantee the origin of pork and poultry raw materials, Seara (Brazil), Moy Park (Europe) and Pilgrim's (North America) have implemented vertically integrated production systems. Under this business model, producers are provided all of the inputs needed to rear safe and healthy pork and poultry and guidance on production processes and best environmental practices. JBS tightly manages every stage of the production process, from genetic selection of breeding animals and processing to product point of sale delivery. This affords us greater control over sanitary and nutritional issues and guarantees product quality, food safety and cost efficiency.

In order to train integrated producers on production management skills, Seara has a team of more than 300 specialists who frequently visit integrated producers. They provide support during deployment of responsible production processes that comply with the requisite quality standards and address animal welfare. These specialists also monitor mandatory environmental practices in place at chicken farms and breeding centers and ensure they remain aligned with Seara's guidelines including, among other requirements, providing cisterns to capture rainwater, biodigesters and composting.

Seara has adopted a number of biosecurity initiatives, employing methods to protect breeding stock by providing adequate infrastructure and procedures to avoid contamination, including:

- Shielding for the water supply system from the source to consumption, avoiding organic contamination.

- A ban on using water from rivers, lakes, streams or other sources that have not been protected. Any process that uses water from these sources must be approved by the company's technical team.
- Closing poultry warehouses using lateral and gate screens to block access by other birds.
- Sanitary protections for vehicles and trucks entering chicken farms, with disinfection systems and training courses to ensure vehicles do not become vectors for contamination.
- Aviary bed fermentation, which significantly reduces the number of contaminants in aviary beds and improves poultry health.
- Each unit holds at least two annual health workshops to increase poultry breeder awareness of best practices. There are frequent simulations for emergency disease prevention procedures.

The Seara, Moy Park and Pilgrim's production systems are vertically integrated, which means the company owns 100% of the broilers responsible for poultry production. This provides significant advantages, such as:

- Greater control over poultry health, reducing the risk of disease; and
- Greater control over poultry nutrition, lot uniformity and reduced mortality.

Seara, Moy Park and Pilgrim's constantly focus on maintaining high levels of food safety and quality, which are essential to meet customer specifications, prevent contamination and maintain animal health. To do so, we must:

- Employ **modern traceability systems** to quickly identify and isolate any farm posing a quality or health risk;
- **Monitor poultry breeding through all phases of the process and throughout the animals' lifecycle;**
- **Structure each phase in the production chain** in order to support sustainable development.

At Pilgrim's, the vertically integrated management system includes more than 4,000 family farm partners in the US and Mexico. Pilgrim's supplies poultry, feed and technical/veterinary services to producers, ensuring that customers receive safe, high quality products.

Moy Park's fully integrated livestock system covers three generations of birds – grandparents and parents (for reproduction) and broiler chickens (to produce meat).

The company also has a tracking system for animal feed and raw materials covering the production, processing and distribution phases. These tools help Moy Park guarantee traceability, food quality and safety.

At Pilgrim's, the vertically integrated management system includes more than 4,000 family farm partners in the US and Mexico. Pilgrim's supplies poultry, feed and technical/veterinary services to producers, ensuring that customers receive safe, high quality products.

B. RESPONSIBLE RAW MATERIAL PROCUREMENT²⁴

GRI G4-DMA, G4-EN32, G4-LA15

Wherever JBS operates, its business units adhere to rigorous raw material supplier selection standards. Procurement procedures must adhere to best social and environmental practices and comply with tax, fiscal, employment and environmental legislation.

GRI FP1

- JBS Beef (Brazil) does not purchase animals from farms that are involved in the deforestation of native forests, encroach on indigenous lands or environmental conservation projects, or have been embargoed by the Brazilian Institute for the Environment and Natural Resources (IBAMA). The company also vetoes suppliers who employ forced or child labor. These principles are set out in the company's Responsible Raw Material Procurement Policy. **GRI G4-HR6**
- Seara carries out technical and health visits before and during any procurement activity and when certifying new suppliers, who must also hold environmental licenses. The company also carries out the necessary on-site checks to guarantee its suppliers fulfill their contractual obligations. **GRI G4-SO9**
- At Moy Park, the supplier approval process includes a self assessment questionnaire (SAQ), where suppliers must disclose information in line with the company's sourcing criteria. Furthermore, all poultry suppliers must be certified by the British Retail Consortium (BRC) or an equivalent organization, such as IFS or FSSC 22000. **GRI G4-SO9**

²⁴ This item, which is included in the global material issue "Product Integrity", only refers to animal procurement



Wherever JBS operates, its business units adhere to rigorous raw material supplier selection standards.

- JBS USA has developed a Supplier Code of Conduct covering issues such as human rights, forced labor, freedom of association and collective bargaining, as well as health and safety, animal welfare, environmental and business integrity issues and other factors. The company expects to launch the Code in 2017.
- At JBS and Pilgrim's, all suppliers must supply a statement from the British Retail Consortium (BRC) guaranteeing they undergo annual safety and quality audits. Supplies are also monitored by ISNetwork²⁵, which evaluates criteria related to product quality and occupational safety.
- Suppliers are only contracted after a rigorous assessment which is repeated annually throughout the life of any contract.

²⁵ <https://pt.isnetwork.com/>

RAW MATERIAL PROCUREMENT STANDARDS

GRI G4-15

JBS Beef (Brazil) procures cattle in accordance with the **Public Livestock Commitment**, an initiative led by Greenpeace to which JBS is a signatory. This commitment is intended to ensure that the Brazilian beef industry does not purchase raw materials from farms involved in Amazon deforestation from October 2009 onwards, use forced labor, or occupy indigenous land or conservation units. As a signatory, JBS Beef operations in Brazil are subject to an independent annual audit. These audits are carried out to evaluate compliance with the Technical Terms of Reference drawn up with Greenpeace and other Public Commitment companies.

Working with Greenpeace, the company has implemented a working plan to improve social and environmental processes and comply with the Commitment. The plan is revised every year

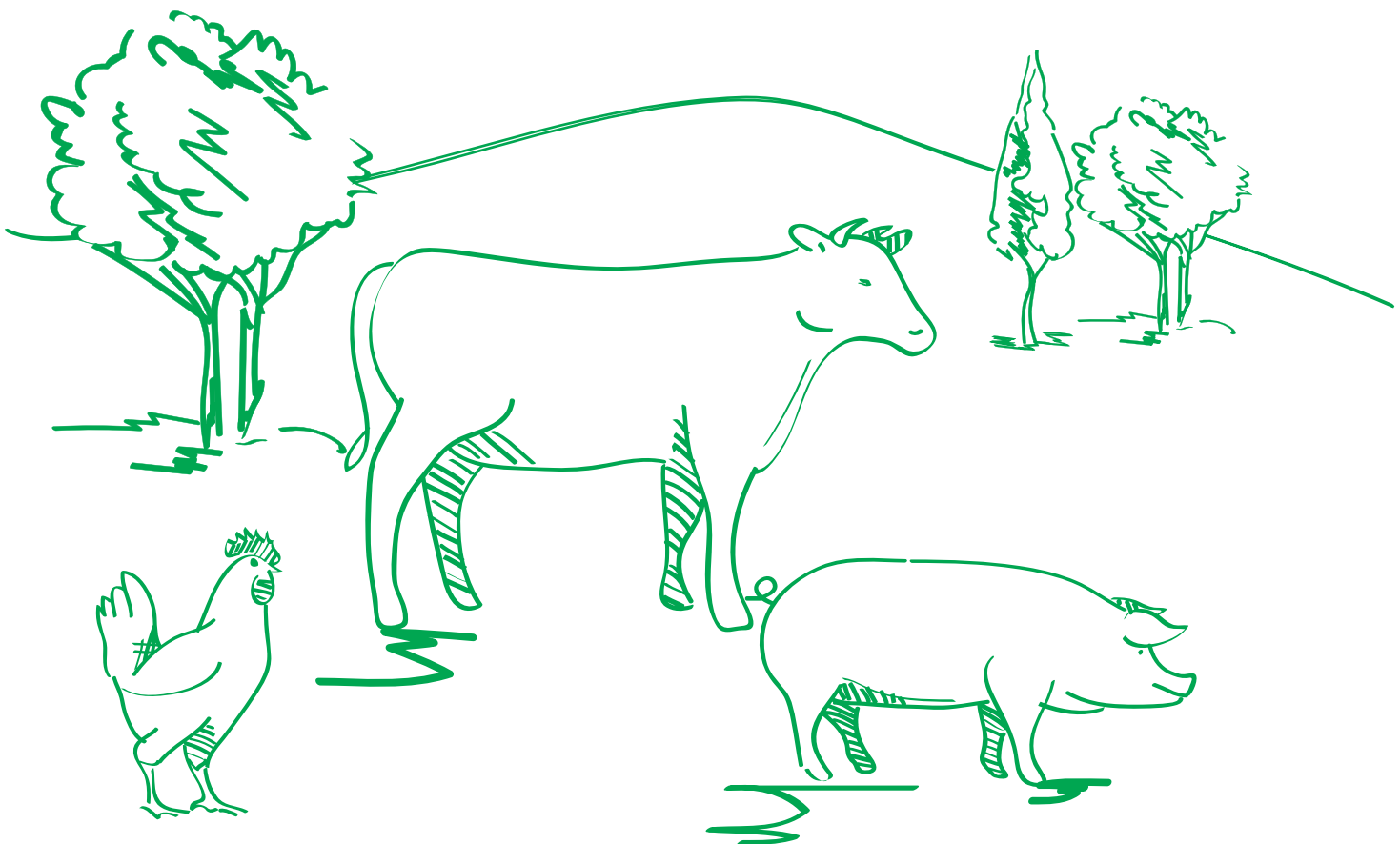
and the most recent version can be viewed here, in Portuguese²⁶ and English²⁷.

The company also verifies whether its procurement activities comply with the Commitment. Every year, a representative sample of all cattle purchases is reviewed. During the last inspection, published in 2016, 99.97% of purchases were found to be in compliance. We achieved the same results in 2015.

In 2016, the Public Livestock Commitment was also adopted by three of Brazil's largest supermarket chains – GPA, Carrefour and WalMart – and JBS continues to ensure that its live cattle procurement system supports their commitments.

26 http://app.jbs.com.br/ComunicacaoCorporativa/Relatorios_Aud_Monit_Socioambiental_2015_vportugues.pdf

27 http://app.jbs.com.br/ComunicacaoCorporativa/Relatorios_Aud_Monit_Socioambiental_2015_vingles.pdf



JBS operations in the US and Mexico are governed by a corporate policy that governs issues related to forced labor and people trafficking, in accordance with local, state and federal law. This policy is mandatory for all employees, outsourced staff and suppliers. Suppliers also sign a document attesting that they comply with all laws and regulations governing these issues. In the US, relationships with contract growers and producers are regulated by the U.S. Department of Agriculture's Grain Inspection, Packers and Stockyards Administration (GIPSA).

In Europe, Moy Park bases its policy on the ETI Base Code, an internationally recognized document which itself is based on guidelines from the International Labour Organisation (ILO) to address illegal working conditions with suppliers and employees. The company has an Ethics Leadership Forum made up of company employees to maintain, develop and continuously improve these practices.

INSTITUTIONAL ADVOCACY GRI G4-16

JBS is a member of several major global and local sustainability forums. A number of these initiatives directly address product integrity issues:

British Poultry Council (BPC) – The BPC represents the UK poultry meat sector covering primary breeding, agriculture, and processing and drives best practice throughout the industry in partnership with stakeholders ranging from Government and regulatory bodies, through food and farming organisations, to consumer groups. In addition to taking an active role on BPC committees, Moy Park is also a member of its Board of Directors.

The Global Roundtable for Sustainable Beef (GRSB) – This organization focuses on ongoing sustainability improvements throughout the global beef value chain through leadership,

Every year, a representative sample of all cattle purchases is reviewed. During the last inspection, published in 2016, 99.97% of purchases were found to be in compliance. JBS achieved the same results in 2015.

science, engagement and collaboration. In addition to being a founding member, JBS also has a seat on the Board of Directors and Executive Committee.

Brazilian Roundtable for Sustainable Livestock (GTPS) – Made up of representatives from the various sectors involved in Brazil's beef value chain, the Group's goal is to encourage ongoing improvement, transparency and ethics, best farming practices and environmental compliance. JBS has been a member of the GTPS since 2011.

The Canadian Roundtable for Sustainable Beef (CRSB) – This organization connects leaders throughout the sector to drive advances in sustainability for the Canadian meat industry. JBS is a founding member and currently sits on the Board of Directors.

U.S. Roundtable for Sustainable Beef (USRSB) – The USRSB supports continuous sustainability improvements throughout the US beef value chain, helping to engage companies and organizations with this issue. JBS is a founding member and has a seat on the Board of Directors.

National Pact Institute for the Eradication of Forced Labor (InPACTO) – An initiative intended to strengthen efforts to combat forced labor in Brazil. JBS has been a signatory of the National Pact Institute for the Eradication of Forced Labor in Brazil since 2007 and a member of the Institute since 2014.



JBS Beef (Brazil) procures cattle in accordance with the Public Livestock Commitment, an initiative led by Greenpeace to which JBS is a signatory.

Leather Working Group (LWG) – This is a leather industry initiative involving international brands, tanners, suppliers and retailers to promote industry-appropriate and sustainable environmental management practices. JBS Leather has taken an active role on the Technical Sub-Group and Trader Working Group, actively supporting development of LWG certification. The company has 17 certified production facilities, 15 holding gold medals and another two holding silver medals and they have all received an “A” grade for traceability.

SOCIAL AND ENVIRONMENTAL MONITORING AT SUPPLIER FARMS

GRI G4-DMA, G4-EN12, G4-EN32, G4-EN33, G4-EN34, G4-HR6, G4-HR10, G4-HR11, G4-SO9, G4-SO10

JBS employs a robust monitoring system to check social and environmental conditions at supplier farms and ensure that all Brazilian beef purchases are sourced responsibly. Every day, JBS analyzes more than 70,000 cattle suppliers in Brazil – of which 10.7 thousand were registered in 2016, using satellite imagery, farm geo-referencing data and information from government agencies²⁸. This social and environmental monitoring system covers over 59 million ha in the Amazon region and 437 Brazilian cities.

²⁸ To monitor deforestation, the company consults data published by the National Space Research Institute (INPE). In order to monitor embargoed areas, the company consults data published by the Brazilian Environmental and Renewable Natural Resources Institute (IBAMA) and monitors forced labor using data published by the Ministry of Jobs and Employment (MTE).



When the system detects supplier farms that are non-compliant with the company's social and environmental criteria, the farm's commercial registration is suspended, which means all procurement activities by JBS stop until the situation has been corrected in compliance with our policies.

On December 31, 2016, approximately 74,500 farms were registered on the company's commercial system in Brazil, 11% more than the preceding year. This is a testament to the success of the JBS Sourcing area, which has created closer relationships with producers. As a result of analyses carried out by the Social and Environmental Monitoring System, 5,799 suppliers were blocked in 2016, of which:

- 3,767 were barred because of deforestation involving native forest (since October 2009) and/or invasion of indigenous lands or environmental conservation areas;
- 1,951 were blocked because they were included on Ibama's List of Embargoed Areas;
- 81 were suspended because they were listed as being involved with forced labor.

The entire cattle procurement process and the JBS Beef social and environmental monitoring system are audited annually by independent auditors. The audit reports are published on the company website in English²⁹ and Portuguese³⁰, and can be viewed here.

QUALITY GRI G4-DMA

JBS employs the latest in quality assurance practices and infrastructure. It also monitors regulatory requirements in all local markets.

In Brazil, all meatpacking plants are subject to municipal, state or federal health inspections. All company facilities are inspected by the Federal Inspection Service (FIS), which represents the Brazilian government's Ministry of Agriculture, to ensure that the company is certified to export from any of its facilities and sell products offering the highest standards of food safety on the domestic market.

In the US, all beef, pork and poultry processing facilities are regularly inspected by the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS), to ensure that food products meet federal standards. Food safety procedures include Standard Operating Procedures (SOP's), Standardized Health Operating Procedures (SSOPs), Hazard Analysis and Critical Control Points (HAACP) and proven technological interventions.

29 http://app.jbs.com.br/ComunicacaoCorporativa/Relatorios_Aud_Monit_Socioambiental_2015_vingles.pdf

30 http://app.jbs.com.br/ComunicacaoCorporativa/Relatorios_Aud_Monit_Socioambiental_2015_vportugues.pdf

QUALITY IS THE NUMBER ONE PRIORITY FOR JBS AND ITS BRANDS

JBS does not tolerate any quality issues in its production processes. The company is highly committed to food safety and product quality and it is constantly improving its health practices.

- JBS facilities export to more than 150 countries in South America, North America, Europe, Asia and the Middle East. We are audited annually by international health authorities and by our customers.
- JBS Brazil has more food safety and quality certifications from the British Retail Consortium (BRC) than any other Brazilian company. BRC is the global benchmark for protein production quality. Many of the company's global facilities are also certified for ISO 9001 quality management standards.
- Over the past two years, JBS global facilities have undergone more than 800 quality audits and the company has proactively engaged suppliers to ensure a commitment to food safety throughout the value chain.
- In Brazil, there are more than 2,000 JBS team members focused exclusively on product quality assurance. 70,000 thousand team members undergo annual quality assurance training every year.
- The rigorous JBS quality control system improves the company's credibility in the eyes of consumers and creates additional export opportunities.

All JBS USA Food Company facilities include the following in their routines:

- The best manufacturing practices program (GMP).
- Product monitoring and traceability, to ensure all products in the respective expiry dates can be identified, if required.
- A cattle certification program, where all producers must certify their compliance with relevant legislation.
- A Pest Control Program.
- A Food Safety Program.

Processing facilities at Pilgrim's, are regularly inspected by the US Department Of Agriculture's Food Inspection Safety Service (FSIS) to guarantee all food products comply with federal food safety standards. In Mexico, plants comply with best chicken production practices published by the Secretariat for Agriculture, Livestock, Rule Development, Fishing and Food (SAGARPA) and the national Agriculture and Food Health, Safety and Quality Service (SENASICA). Additionally, each Mexican plant holds a TIF (federal inspection certificate) which is issued by the government to certify that foodstuffs comply with World Animal Health Organization standards and the Codex Alimentarius of the Food and Agriculture Organization of the United Nations. Facilities that do not have the TIF seal follow highly specific food quality and safety guidelines, as well as general guidelines issued by the Ministry of Health and only TIF-accredited plants are allowed to export.

PROPRIETARY LABORATORY STRUCTURE

All of **JBS Beef** 36 industrial plants in Brazil have their own laboratories. These, alongside another 13 laboratories, are used for official microbiological analyses to provide food safety indicators and guarantee quality.

In 2016, the company continued the investments that began the previous year to update and standardize layouts, equipment and software at all our laboratories. With these changes, the company will be able to issue results within 24 hours, cutting the current reporting time in half. There has also been an 8% increase in the number of analyses carried out and a 17% drop in cost per analysis. As the 13 laboratories are located all around the country, the company has been able to reduce logistics costs by 10% compared with the previous year. Projects to modernize these laboratories are in line with JBS Beef efforts to computerize and monitor the production process, automate routines at distribution centers and processing plants, and efficiently streamline day-to-day factory operations.

In 2016, the company continued the investments that began the previous year to update and standardize layouts, equipment and software at all our laboratories.

Seara also has its own in-house food analysis laboratories. Analysis results are included on the Laboratory Information Management System (LIMS) which generates a periodically updated database of performance and standards compliance information used by the entire company. This allows the company to view results from each unit – including products, processes and microbiological and physical/chemical analyses – as well as monthly changes in results. This is in line with Seara's commitment to validating its processes in order to guarantee a high level of product quality and safety.





Moy Park operates a fully accredited laboratory service, providing a prompt, efficient, high quality, comprehensive microbiological testing service. All tests are carried out using standard or verified methods supported by fully documented quality control procedures to ensure accuracy, precision and repeatability of results. The laboratories are accredited to the CLAS standard and the International Standard BS EN ISO/IEC 17025:2005.

VALUE CHAIN TRAINING

Steps have also been taken in Brazil to influence the value chain. 20 meetings were organized with supermarket chains nationwide to help JBS customers improve the quality of services they offer to end consumers. At these meetings, which

were attended by around 700 people, including JBS customer employees and point-of-sale teams, the company provided information on a number of issues, including product packaging, ideal refrigerator temperatures, and storage care.

GOVERNANCE

JBS Beef (Brazil) has a Food Safety Consultative Committee which discusses issues related to beef and beef byproduct production in order to improve products and processes. Committee members include a number of reputable industry and academic experts as well as government representatives.

Moy Park's bespoke Food Safety Forum, which comprises leading external, academic



experts, helps to proactively challenge the status quo and bring new ideas, technologies and opportunities to the fore.

IN-HOUSE ACTIVITIES

Quality Week

In 2016, each of JBS Beef (Brazil) organized a Quality Week. Over the five days of the event, which is organized to increase team integration and align targets and strategies, employees receive refresher courses on Agent Q, a national engagement campaign for constant process and product improvement. In 2007, a new initiative was included as part of each unit's activities: each month, one day will be set aside to reinforce and teach concepts related to a specific quality practice. At Seara,

Quality Week was held at all Pork, Poultry and Processed Product units and Distribution Centers.

QUALITY MANAGEMENT SYSTEMS

Environmental management System (EMS)

In Europe, Moy Park facilities operate an Environmental Management System (EMS) which is based on ISO 14001. The EMS covers important aspects of each operation, maps improvement plans and monitors our initiatives to support ongoing environmental performance improvement at all our operations.

HACCP

JBS USA and Pilgrim's has voluntarily implemented the Hazard Analysis and Critical Control Point (HAACP), a control system that reinforces animal quality and safety by prioritizing and controlling potential physical, chemical and microbiological hazards during the production process, detecting any preventive steps that may be required to guarantee the highest possible level of consumer protection. Pilgrim's joined the system in 1989, 10 years before it was adopted by the US Department of Agriculture (USDA) as a rule for industrial meat and poultry processes. Since then, JBS USA and Pilgrim's have invested millions of dollars in new beef, pork and poultry processing equipment and programs to improve its products' microbiological profile. As a result, the company has exceeded USDA pathogen reduction standards.

Seara has also adopted HAACP in Brazil to underpin periodic quality audits. The program supports continuous improvement for processes, products and the quality system throughout the organization. The program evaluates best production, cleaning and equipment practices as well as operational and allergen health controls.

Quality System

In Brazil, Seara has implemented a Quality System, which includes the best and most up-to-date approaches from domestic and international agencies. To help implement the system, the company complies with guidelines in the “Quality Book,” a set of 15 management tools that support planning, execution, control and improvements, in addition to defining roles and responsibilities throughout the production chain.

Ravex System

This is used by the Seara Logistics area to provide real-time monitoring of the distribution fleet cold chain. The system has reinforced food safety and quality.

Excellence Verticals

Seara’s Excellence Verticals have standardized industrial management procedures to achieve additional growth and profitability, while continuously improving product quality.

Self-management of pests

The Seara quality area invests in pest control management systems that comply with a wide range of prerequisites for safe food production. Staff are trained by consultancy company that also provides technical supervision at all units.

AUDITS G4-PR1, GRI FP5

All **Moy Park** production facilities undergo an independent technical audit and are required to meet the most stringent industry standards in order to ensure the best food safety practices are in place and certify compliance with our customers’ quality requirements. Additionally, the company offers team members technical training in their particular areas of expertise.

In 2016, all JBS Beef (Brazil) production facilities underwent 178 audits to retain current certificates or obtain new ones. The company depends on these certificates to export products to many important international markets. Production facilities obtained 97% approval and were audited in accordance with international standards such as BRC Global Standards, ISO9001, and ISO17025. In addition, facilities were audited by the Brazilian Ministry of Agriculture, clients and international market-based organizations (sanitary missions from other countries).

Various food quality and safety systems are audited annually at JBS USA. All US plants



and most Mexican facilities are audited and certified by the British Retail Consortium (BRC), one of four auditing systems recognized by the Global Food Safety Initiative (GFSI). Most of our retail customers currently require these audits. Quarterly internal audits are also carried out by the respective corporate quality assurance teams.

INSTITUTIONAL FOOD SAFETY ACTIONS

GRI G4-16

Moy Park is a member of the Industrial Advisory Board of the Institute for Global Food Security, which is headed by one of the world’s foremost specialists in the area, Professor Chris Elliott.

Moy Park also supports the Food Standards Agency (FSA) campaign to reduce Campylobacter, a characteristic common bacteria which may be present in raw chicken but is removed when cooked. Moy Park has also developed an innovative and robust strategy for Campylobacter reduction, which is a benchmark throughout Europe. It includes steps throughout the supply chain, from the farm to the factory and the finished product. Each step in the process is as important as any other. The action plan focuses on dedicated research and analysis, farming for the future, biosafety, farmer incentives, chicken farm management, processing, packaging innovation and consumer communication.



All Moy Park production facilities undergo an independent technical audit and are required to meet the most stringent industry standards.

CERTIFICATION

GRI G4-DMA, GRI FP2, GRI FP5

In addition to operational certifications, several JBS facilities also hold additional certifications that guarantee access to global markets and international customers. Some of the company's certificates include:

- **The British Retail Consortium (BRC)** – this certificate is a prerequisite for supplying European customers. Recognized by the Global Food Safety Initiative, this is one of the most rigorous certification processes in the industry, looking at 326 different plant safety and quality criteria. Today, 13 JBS Beef facilities, 16 Seara facilities and most US and Australian facilities hold BRC certification. The plants in the US and Australia are also audited for compliance with GFSI criteria. The GFSI is a global initiative supporting continuous improvement in food safety management systems and ensuring people worldwide can trust the food they buy is safe.
- **McDonalds'** certification monitors animal welfare, food safety and best manufacturing practices, among other criteria. Today, 7 JBS Beef and four Seara facilities are certified to supply the raw materials used to manufacture McDonald's hamburgers. One of the company's facilities is certified to produce a hamburger in accordance with the SQMS (Supplier Quality Management System) and the other, in Colider, Mato Grosso, is certified to produce the McDonald's sustainable hamburger.
- **ISO 9001** – refers to set of technical guidelines that establish a quality management model for organizations in general, whatever their size or business. Currently, five JBS Beef and all five JBS USA Pork facilities have adopted this standard.
- **ISO 17025** – this standard is used to standardize laboratory testing and calibration. JBS has three laboratories in Brazil with this certificate and the others are currently going through the certification process. In 2017, all 13 JBS Beef laboratories will be certified.
- **Leather Working Group (LWG)** – a British organization which certifies companies that have adopted best environmental practices at tanning plants worldwide. In Brazil, more than 85% of the leather produced by JBS was made at production facilities that have achieved the LWG's gold standard. In the US, 100% of JBS leather produced in the Cactus, Texas Tannery has achieved the gold standard.
- **Global Gap** – this is an external audit focusing on the farming production chain (breeders/incubators/broiler chicken farms). Two Seara facilities have been certified.
- **CFM** – Seara holds this certificate, which is a standard for food component standards to guarantee product safety.
- **SMETA** – this is a social responsibility and sustainability audit required by European customers. It assesses working conditions (number of hours worked, special equipment conditions, hazards, etc.), contract employees and relevant legislation. Nine Seara facilities have been certified.
- **YUM!** – this audit is carried out by YUM!, the parent company of Kentucky Fried Chicken, Pizza Hut and Taco Bell. There

Today, 13 JBS Beef facilities, 16 Seara facilities and most US and Australian facilities hold BRC certification. The plants in the US and Australia are also audited for compliance with GFSI criteria.

are three audits required for YUM! approval: quality systems, food safety and farming (management, best practices and animal welfare). 13 Seara production facilities have been certified.

- In 2016, JBS Trading obtained the **ISCC (International Sustainability and Carbon Certificate)**. This seal attests that companies are taking a responsible approach to reducing greenhouse gas impacts, practicing sustainable soil usage, protecting natural biospheres and increasing social sustainability. This audit was carried out by the Control Union, a company that specializes in cargo inspection, supervision and transportation globally. The certificate allows JBS Trading to sell its products to the European Union.
- **Seara** also holds certificates from KFC Agriculture – UK, McDonalds Swiss Law, GlobalGap and other organizations, including certificates and audits carried out by Brazilian and foreign customers.
- **JBS Europe** holds the several certificates, including FSC, Roundtable on Sustainable Palm Oil (RSPO), the Sustainable Agricultural Initiative and the QS Standard.



Various food quality and safety systems are audited annually at JBS USA. Most of our retail customers currently require these audits.

CLIMATE CHANGE

GRI G4-DMA, GRI G4-EC2

A. EMISSIONS MANAGEMENT

In order to minimize its operations' environmental and societal impacts, JBS has a number of initiatives to reduce greenhouse gases. The company believes it is critical to quantify the emissions produced by its

businesses in order to manage the issue and understand emissions profiles. Therefore, every year it measures direct omissions (scope 1), indirect energy emissions (scope 2) and indirect emissions (scope 3).

Greenhouse gas emissions from JBS global operations

GRI G4-EN15, G4-EN16, G4-EN17 e G4-EN18

	Metric	2016	2015	Variation %
Scope 1	tCO ₂ e	6,553,358.36	4,445,098.00	47
Scope 2	tCO ₂ e	1,745,022.29	1,779,980.77	-2
Scope 3	tCO ₂ e	634,411.71	2,956,242.13	-79

The increase in Scope 1 emissions is a result of improved data collection methods which provided information that was not previously available, such as enteric fermentation and animal heating (stationary combustion) from Pilgrim's in Mexico and waste handling at Pilgrim's that is now being reported.

Scope 3 reductions were mainly based on the lower level of waste shipped to landfills by Pilgrim's Mexico, representing more than 60% of the year on year difference reported.

The annual inventory, available on the Public Commissions Records Platform from the Brazil GHG Protocol Program and on the CDB Platform, has been made available since 2009. Initially, the inventory focused only on the company's Brazilian operations, but we expanded our approach in 2012 to include all global operations. Therefore, the above data refers to JBS' activities in each of the 15 countries where it operates.

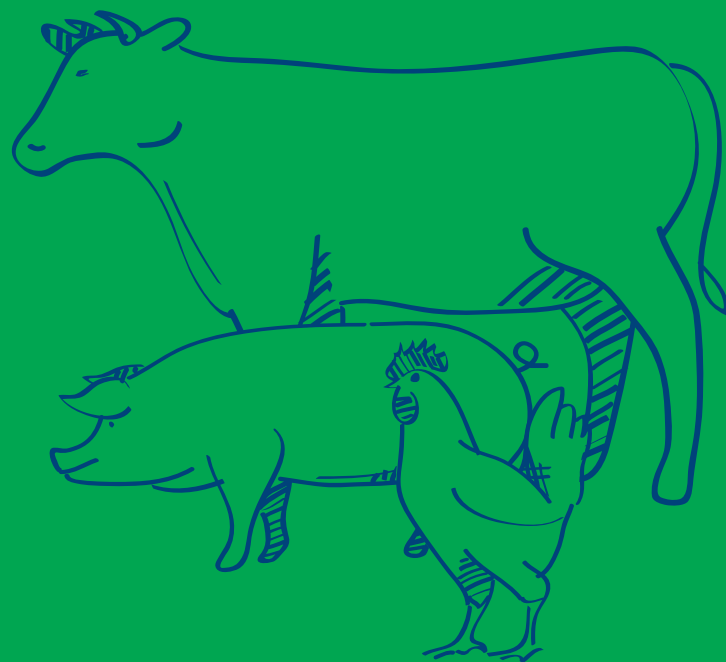
Based on indicator performance and emissions profiles, management strategies are developed and deployed throughout the value chain, some of which are described below:

SUPPLIERS / PRODUCERS

THE COMPANY MONITORS CATTLE SUPPLIERS to avoid further deforestation and subsequent greenhouse gas emissions.

LEGAL SUPPLIER PROGRAM, which is intended to help beef suppliers adapt to environmental regulations.

THE NEW FIELD PROGRAM, implemented at farms located in the Brazilian Amazon, was established to encourage livestock breeders to reforest areas that had previously undergone deforestation and adopt other practices to reduce greenhouse gas emissions.



TRANSPORT



THE COMPANY OPTIMIZES LOGISTICS by managing the performance of its own and third-party trucks in order to reduce travel distances, fuel consumption and other related costs.

OPERATIONS / INDUSTRY

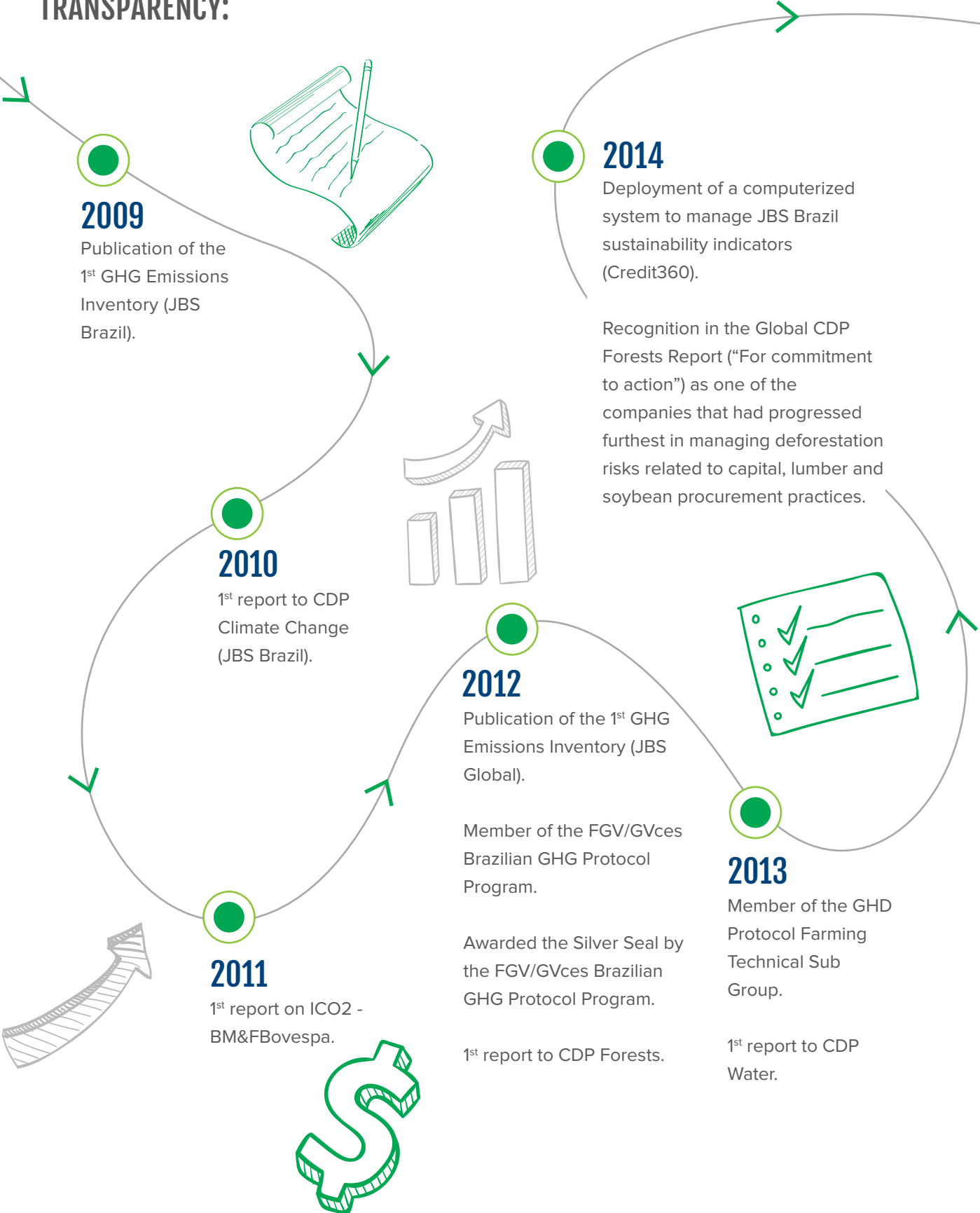
ENERGY EFFICIENCY and renewable energy projects.

INDUSTRIAL WASTEWATER TREATMENT efficiency improvements.

CORRECT DISPOSAL OR REUSE OF SOLID WASTE.

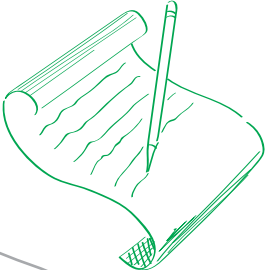


EVERY YEAR, JBS STRIVES TO IMPROVE ITS MANAGEMENT MECHANISMS AND ITS TRANSPARENCY:



2009

Publication of the 1st GHG Emissions Inventory (JBS Brazil).



2014

Deployment of a computerized system to manage JBS Brazil sustainability indicators (Credit360).

Recognition in the Global CDP Forests Report (“For commitment to action”) as one of the companies that had progressed furthest in managing deforestation risks related to capital, lumber and soybean procurement practices.



2010

1st report to CDP Climate Change (JBS Brazil).



2012

Publication of the 1st GHG Emissions Inventory (JBS Global).

Member of the FGV/GVces Brazilian GHG Protocol Program.

Awarded the Silver Seal by the FGV/GVces Brazilian GHG Protocol Program.

1st report to CDP Forests.



2013

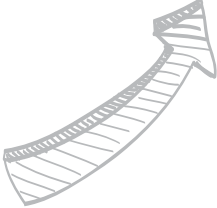
Member of the GHD Protocol Farming Technical Sub Group.

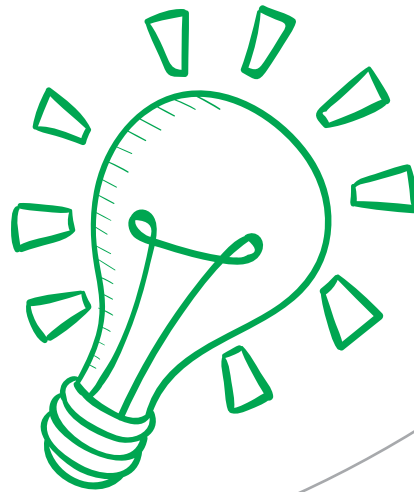
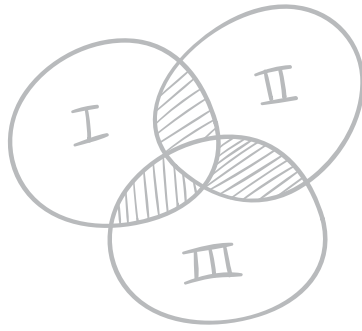
1st report to CDP Water.



2011

1st report on ICO2 - BM&FBovespa.





2015

Recognition in the Global CDP Forests Report (“Transforming the supply chain for the future”), with an honorable mention for creating a monitoring system and for cattle supplier engagement.

Recognition in CDP Supply Chain Water, via Arcos Dourados, as a standout supplier in water risk management.

Joined the São Paulo State Government Climate Protocol.

2016

Recognition in the Global CDP Forests Report (“Because the approach to deforestation is fundamental for business success”) for its performance leading risk management for deforestation linked with cattle, lumber and soybean procurement practices.

Recognition in the CDP Climate Change Latin America Report for leading performance in emissions management.

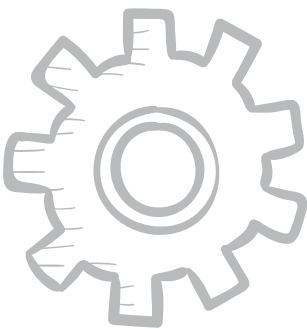
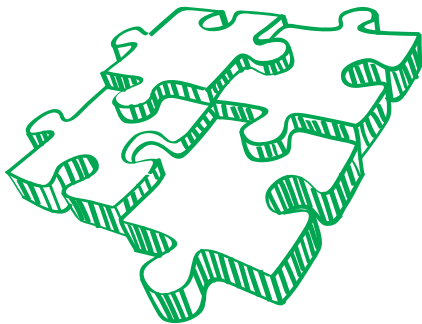
Recognition in the CDP Supply Chain Climate Change for standout performance in emissions management.

Recognition in the CDP Supply Chain Water for standout performance in water risk management.

Paraná Climate Seal Recognition from the Paraná State Government.

Conducted a carbon footprint study for Seara DaGranja and Picanha Maturatta Friboi products.

JBS becomes a member of the Brazil Climate, Forest and Farming Coalition.



OTHER ACTIONS GRI G4-EN19

JBS facilities implement specific initiatives to reduce operational emissions. For example, in Brazil, **JBS Transports** wastes neither time nor space. When its trucks take cargo to another Brazilian state, all 1,400 vehicles return carrying products from partner companies, at a reasonable cost. This system, called the Optimized Route Project, eliminated 22.4 million kilometers of travel in 2016, thereby reducing CO₂ atmospheric emissions.

Moy Park is a member of the EU Emissions Trade System (ETS) and the Climate Change Agreement Scheme for the industrial and agricultural sectors, reinforcing its commitment to finding solutions for the sector.

JBS USA has identified climate change as part of its sustainability strategy and is currently

implementing strategic reduction goals in this area. In 2014, it initiated the process by defining approximately 30 important performance indicators for high priority issues at more than 50 facilities. In 2016, each facility was responsible for identifying improvement targets and reduction goals to lower the company's GHG emission profile. The company also believes that a robust program will bring measurable change, driving continuous improvements in responsible resource usage, meeting the expectations of both the company's management team and its stakeholders.

In 2016, in partnership with CHEP USA, a global provider of supply chain solutions, JBS USA evaluated its transportation operations and developed and implemented innovative solutions to improve the efficiency of its



In 2016, JBS produced a carbon footprint study for Seara DaGranja and Picanha Maturatta Friboi products. The survey evaluated carbon emissions throughout the production chain, from animal feed production and cattle breeding, all the way up to product consumption. This study was the starting point for further analyses that will be carried out in 2017 in order to obtain more conclusive results.

JBS is a member of the **Brazil Climate, Forest and Farming Coalition**, an initiative involving leading companies in Brazilian agribusiness and major societal organizations, among other stakeholders, addressing climate change issues through a new economic approach, based on lower greenhouse gas emissions. The coalition develops proposals to support or comply with Brazil's commitments in COP-21, signed in Paris, via INDCs - Intended Nationally Determined Contributions.

GRI G4-16

transportation network through the reduction of empty truck miles. Through this partnership, JBS USA was able to eliminate 880,000 empty truck miles, reducing CO₂ emissions by 3.3 million pounds.

JBS' Brazilian operations manage a wide range of environmental indicators linked with greenhouse gas emissions. Some of the steps it has taken include reducing fossil fuel use and energy consumption, cutting the amount of waste sent to landfills, increasing reuse of waste to produce energy and increasing wastewater treatment efficiency, in addition to creating logistics efficiencies for its own and subsidiary fleets.

ENERGY GRI G4-DMA, G4-EN3, G4-EN6

JBS believes that investing in renewable energy and energy efficiency is one of the ways it can help reduce greenhouse gas emissions. As a result, the company is constantly investing in more efficient equipment and its operations have adopted energy usage reduction targets. New practices have also been introduced based on new solutions and technologies, so that the company's traditional energy sources are gradually replaced with cleaner sources of energy.

In 2016, JBS' global operations consumed 113,023,990 GJ of direct energy, of which 70.0% was generated from renewable sources. This compares favorably with the 62.6% registered in 2015.

Global energy consumption by source

		2016		2015	Variation/ year %
		%		%	
Renewable Energy	33,413,450	30.0	33,131,302	47.4	0.9
Non-Renewable Energy	79,610,540	70.0	36,383,112	52.3	118.8
Total GJ	113,023,990		69,514,414		62.6

The level of energy consumption in GJ increased due to an increase in fuels reported for stationary combustion by JBS globally, more specifically in Italia, Argentina and the US.

Energy consumption figures (GJ) include energy used for the following:

- generating electricity.
- burning fuel to generate steam and thermal heat (stationary combustion).
- fuel consumed to operate the company's fleet (mobile combustion).

Focusing exclusively on JBS' Brazilian operations, renewable sources – such as hydroelectrics and burning renewable fuels – represent 78% of the company's entire energy consumption. **In relation to stationary fuel, this percentage rises to 97% because the company prioritized renewable fuels to produce steam from its boilers.**



Biodiesel from cooking oil. In 2016, JBS Biodiesel started a program to collect cooking oil and use it as a raw material to produce biodiesel. Last year alone, the company collected 20 million L of cooking oil.

2016 ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTIONS

Transforming waste into energy – JBS Five Rivers Cattle Feeding developed a manure gasification pilot project which has the potential to replace some of the natural gas used in the feed plant boilers.

JBS facilities in Brazil reused 24,520 tons of waste to produce energy, reducing their greenhouse gas emissions. Waste such as cattle rumen (14,952 tons), poultry tallow (4,839 tons) and beef tallow (257 tons) as well as other organic products generated by the wastewater treatment process (4,472 tons) were not sent to landfills or disposed of using less sustainable methods.

Biogas – 10 JBS USA facilities use biogas produced by the company's own wastewater treatment systems. For example, the pork processing unit located in Marshalltown, IA, recovers biogas from a covered anaerobic lagoon. The Hyrum, UT, beef processing facility has a biogas collection and usage system that provides around 15% of the natural gas used at its facilities.

Biomass – At JBS Leather facility in Cascavel (CE), the company has replaced fossil fuels with biomass from cashew nuts and babassu coconut. Around 500 tons of cashew nut husk and 60 tons of babassu palm husk are used monthly to supply the facility with energy, producing around 180,000 leather items monthly. This not only helps to reduce greenhouse gas emissions, but also cuts costs by approximately 50%.

Energy cogeneration - In Brazil, JBS owns a cogeneration unit which employs biomass (sugarcane bagasse, sawdust, peanut and rice

husks and eucalyptus chips) to generate thermal energy and steam. This takes place at Biolins, which is located in the Lins Industrial Park, based in Lins (São Paulo), in the interior of the state of São Paulo.

Biolins runs a thermal plant capable of generating around 45 MW of energy per hour, sufficient to supply a city of 300,000 inhabitants and which is likely to expand over the next several years following the 2016 expansion project, which received R\$ 48 million in investment.

Around 60% of this electricity is used to supply the Meat and Leather plants based at the Lins industrial complex. The remainder is distributed to JBS facilities and sold on the domestic market. The steam produced at the plant supplies the adjacent JBS facilities. Biolins alone generates the equivalent of 7% of all the energy used by every JBS plant in Brazil.

Incentivized energy purchases. In Brazil, JBS has a specialist team purchasing incentivized energy on the open market, which is supplied by small hydroelectric power stations or other sources of renewable energy, such as wind parks, solar parks or biomass energy plants. In 2016, the team purchased 1,405,357 MWh on the open market. 807,362 MWh came from incentivized sources (57.45%), representing 36% of the group's electricity consumption in Brazil.

Biodiesel from cooking oil. In 2016, JBS Biodiesel started a program to collect cooking oil and use it as a raw material to produce biodiesel. Last year alone, the company collected 20 million L of cooking oil. Each liter collected means 20,000 to 25,000 liters of water go uncontaminated or do not need to be treated by sewage companies, reducing costs for the government and wider society.

ACTION TAKEN TO REDUCE ENERGY CONSUMPTION:

JBS USA monitors and measures energy usage at all of its facilities and is constantly investing in increasingly efficient equipment. In 2016, the Beef business unit reduced natural gas consumption by approximately 4.3% and water usage by around 3% per animal. At Pilgrim's, natural gas consumption fell 4.6% and electricity usage was reduced by 1.3%, per animal. At Five Rivers, the reduction in natural gas consumption per animal was 8%, but energy consumption per animal rose 3% because of climate variations and the energy needed to efficiently manage the food and water made available to live cattle.

The company purchased two new boilers for the beef processing facility in Plainwell, MI, reducing overall natural gas consumption by 15%. At the Greeley, CO, beef processing facility, the company partnered with suppliers to create the "Focus on Energy" program, cutting costs by 10%.

A number of projects were implemented at Pilgrim's to switch lamps to LED systems, including facilities in Lufkin, TX, Sanford, NC, Natchitoches, LA, Marshville, NC, Mt. Pleasant, TX, Sumter, SC, Athens, GA and Moorefield, WV.

LED lamps were also implemented at the JBS Paraguay facility, which opened in Belen in 2016. In addition to the LED lighting, the facility has 7 compressors that operate using frequency inverters, which modulate and balance the power being consumed based on operational requirements, generating an estimated 10% saving compared with Brazilian facilities. Another innovation is the way heat from heated water used during several stages of the process is recycled, reducing boiler activity. The boiler is also fed with solid waste (rumen and material from the wastewater treatment station), reducing the volume of waste generated by the facility.

JBS Australia set a target of reducing energy intensity by 10% over a period of five years, which will be included on the business scorecard detailing the business's energy performance goals. However, following new acquisitions in 2015 and 2016, a new study will be carried out and the target may be adjusted.

JBS operations in Brazil have achieved an absolute 5% reduction in energy consumed compared with the previous year, reflecting a number of efficiency projects, such as machine room automation, changes to the freezing tunnel, process changes and other initiatives.

SOLID WASTE

GRI G4-DMA, G4-EN1, G4-EN2, G4-EN23, G4-EN25

JBS' day-to-day routines include solid waste management – both waste generated by its own operations as well as waste from the company's product packaging after products have been consumed. A number of initiatives have been implemented in order to properly dispose of or treat this waste and avoid environmental impacts such as methane (CH₄) emissions, which are one of the causes of global warming.

Volume of waste generated by operations

JBS GLOBAL				
	2016		2015	
Non-Hazardous ton	2,543,845.48	98.13%	4,622,847.41*	98.96%
Hazardous ton	48,543.81	1.87%	48,703.41*	1.04%
TOTAL VOLUME ton	2,592,389.28		4,671,550.82*	
1. Industrial/Sanitary Landfill – Own ton	34,474.22	1.33%	27,253.14	0.58%
2. Industrial/Sanitary Landfill – Third Party ton	279,334.35	10.78%	3,500,252.74*	74.93%
3. Composting ton	1,240,670.77	47.86%	850,766.66*	18.21%
4. Incineration ton	11,412.6	0.44%	44,138.54	0.9%
5. Recycling ton	269,300.05	10.39%	223,894.89*	4.79%
6. Energy reuse ton	51,324.57	1.98%	9,966.97	0.21%
7. Cogeneration ton	14,395.37	0.56%	**	-
8. Fertirrigation ton	470,962.93	18.17%	**	-
9. Others ton	220,514.43	8.51%	15,277.73*	0.33%

* Amended figures

** Data not controlled in 2015



More than 60% of post-industrial waste generated by JBS operations is used for composting, recycling or energy reuse. In 2016, 1,575,690.76 tons of waste were processed this way.

More than 60% of post-industrial waste generated by JBS operations is used for composting, recycling or energy reuse. In 2016, 1,575,690.76 tons of waste were processed this way. **GRI G4-EN1**

There was a 45% reduction in waste volumes compared with the previous year. This change was the result of 3,277,155.92 tons of waste that was disposed of in landfills by Pilgrim's Mexico in 2015. The waste was generated after cleaning wastewater treatment lakes. Lakes do not need cleaning every year, which justifies the difference in the yearly figures disclosed.

No Moy Park unit sends waste to landfills any longer. In 2012, 80% of waste produced was sent to landfills. Being able to reduce this volume to 0% has been a notable achievement for the company and highlights its commitment to the environment and local communities.

In 2016, Moy Park was recognized as part of the annual "Ireland Sustainable" awards and was named Waste Management Team of the Year for its OSCAR (Online Segregation, Collection & Recycling) project, in partnership with consultants Biffa IRM for the Craigavon plant.

JBS respects local legislation in every market. In Brazil, it complies with the National Solid Waste Policy (PNRS), which focuses on reducing the amount of waste generated, increasing recycling and reuse of materials and encourage environmentally appropriate waste disposal. This policy also creates shared responsibilities for those generating post-industrial and post-consumption waste (packaging). JBS signed the Industry Packaging Accord in 2014, which involves more than 300 companies based all around the country who are now committed to supporting recycling nationwide. The company also signed a Consent Decree with the State Environmental Secretariat in Paraná, towards the same objective.

MAIN ACTIVITIES IN 2016

Professional training for the recycling industry.

In Brazil, efforts have focused on training courses, infrastructure improvements and equipment donations to recycling cooperators and the people who collect these materials, helping to increase incomes in the sector and boost recycling in Brazil. In 2016, JBS supported recyclable material collector cooperatives in the states of São Paulo and Paraná. This project will be expanded to include other states in 2017.

In one of these initiatives, the company supported construction of a Recyclable Materials Valuation Center in the city of Maringá (PR). Now in operation, the facility is designed to separate between 300 and 400 tons of recyclable

materials collected in the city and surrounding region every month. With the Center, collected waste can now be triaged even more efficiently and sold at higher prices, increasing financial returns for these cooperatives.

Another major initiative took place during Recycling Week, which is held in June in Brazil. Students from state schools and the Lins-SP University alongside representatives from local cooperatives visited JBS Environmental, the business unit responsible for managing and recycling waste at JBS. The three-day event included visits to facilities, a recycling workshop for children and waste recycling and separation training for participants.

IMPORTANT FIGURES: RECYCLING CHAIN



PACKAGING COALITION

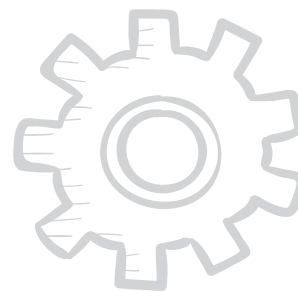


+3,000 ACTIONS

- Institutional Training
- Operational Training
- Technical Diagnosis
- Operational Infrastructure and Adaptations
- Indicator Management Assistance
- Environmental Education

Governance and transparency

The Solid Waste Committee was set up in Brazil in 2016. Led by JBS Environmental, the committee also includes members from the Sustainability, Legal, Communications, Compliance and Environment areas of each business. Its responsibilities include defining guidelines and actions, disclosing information and managing related risks, as well as mapping opportunities that can be realized through cracked solid waste disposal. The group has also established a Solid Waste Management Policy for the company in Brazil.



Reduction in product packaging volumes

The Research and Development (R&D) areas have worked to reduce product packaging. Throughout 2016, the areas surveyed the volume and type of material produced for the consumer market. This information helps the company define which recycling cooperatives it would support and the minimum level of investment required.

JBS USA has clear targets to reduce packaging volumes for each of its finished products. While complying with product safety requirements, the company has examined alternative materials that can also be recycled, as well as technologies to reduce the amount of packaging used.

Packaging materials used in Brazil

(listed by volume – renewable and nonrenewable)

TYPE	%	CATEGORY
Plastic	13.57	Nonrenewable
Paper	1.20	Renewable
Cardboard	83.51	Renewable
Metal	1.57	Nonrenewable
Polystyrene	0.15	Nonrenewable
Cellulose/Wood	0.005	Renewable

	%
Primary and secondary packaging	22
Tertiary packaging	78

This has revealed that more than 80% of company packaging comes from renewable sources.

Institutional support

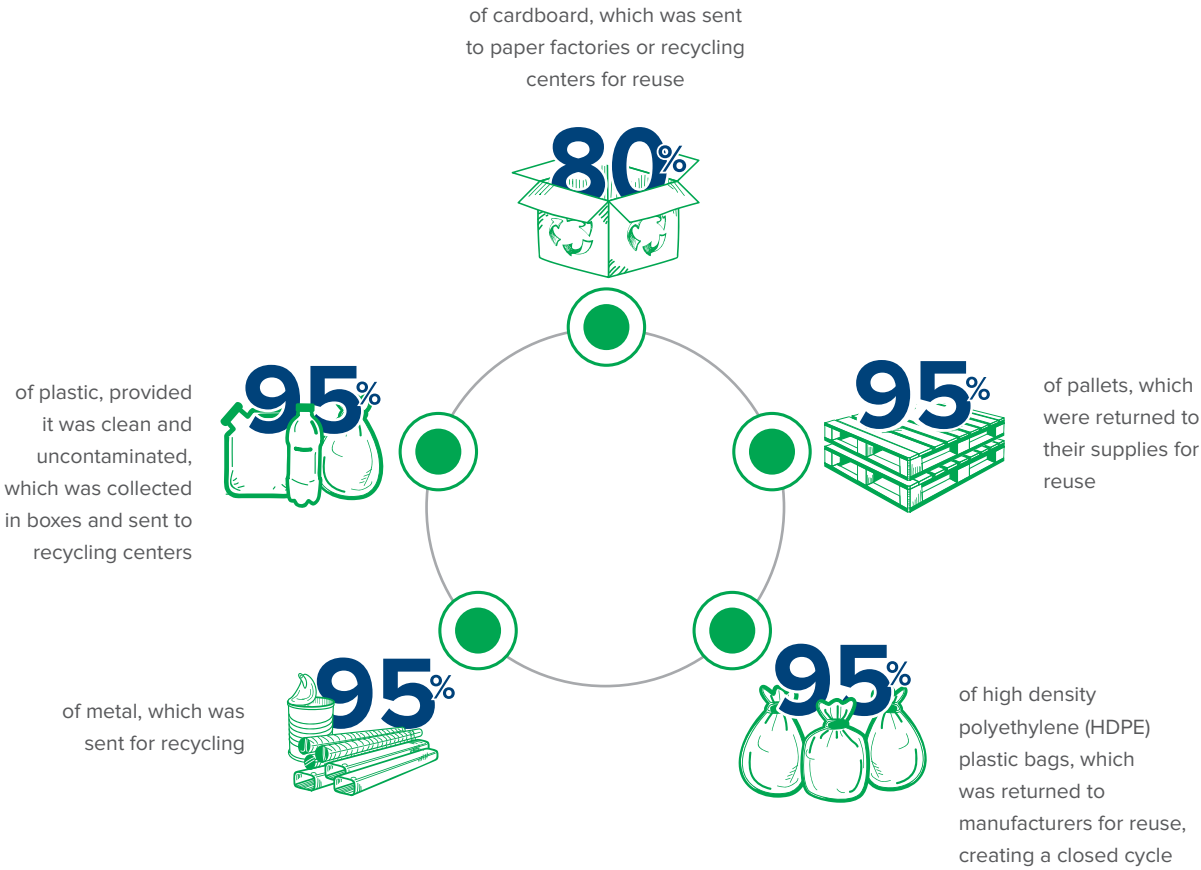
In Brazil, JBS supports ANVAT - the National Association of Recyclable Material Collectors and, through its Metal Packaging business, it partners with **Prolata Reciclagem**, a nonprofit association of steel can value chain manufacturers in Brazil whose goal is to increase the amount of steel recovered and reused in the value chain.

Post-consumption impact

In Brazil, JBS includes symbols on all product packaging to identify the type of packaging material used and to inform consumers how to correctly dispose of any packaging. This is in line with the Environmental Labeling rules issued by the Brazilian Association of Technical Standards in ABNT NBR 16182.

REUSE AND RECYCLING

JBS USA and Pilgrim's reuse or recycle as much material as possible in order to reduce the amount of waste sent to landfill. In 2016, they recycled:



JBS Environmental manages residues from operations in Brazil, as well as from other companies.

JBS Transports (Brazil) avoids disposing of an average 1.1 thousand tires every month. Some of them are reused as an alternative fuel by the cement industry or used to manufacture shoe soles, sealing rubber, rain water ducts, sports flooring, industrial flooring and car mats. Tires that cannot be reused or refurbished are appropriately disposed. The company partners with Reciclanip, a national tire industry organization responsible for collecting and disposing of tires that can no longer be reused or refurbished.

In order to manage postindustrial waste produced by both JBS and other companies in Brazil, JBS has a specific business unit: **JBS Environmental**. This unit specializes in solid waste management solutions for plastics, wooden products and metals, developing products and services using cutting-edge technologies so that waste is disposed without impacting the environment, while providing the necessary legal certifications. The company uses a closed cycle, which is a process where recycled waste returns to the market after being processed and converted into other raw materials or products.

The company has dozens of waste centers at JBS plants throughout the country. Two of them, in Barra do Piraí (RJ) and Lins (SP), opened in

2016. At the Lins plant alone, 150 tons of various types of plastics are processed every month and transformed into recycled plastic resins, a raw material used to manufacture new plastic products.

The company has a smart system to track solid waste, allowing it to monitor all material transportation from source up to final disposal. Throughout the year, JBS Environmental handled around 20,800 tons of solid waste, including plastics, metals, paper and hazardous and nonrecyclable materials. This is equivalent to 1,300 trucks or 950 containers of material.

JBS ENVIRONMENTAL WASTE VOLUMES MANAGED IN 2016

Material	Volumes managed (thousand ton)
Cardboard	3.7
Plastic	8.3
Metal	7.1

Some of this waste was recycled and returned to processing plants as trash bags, tarpaulins, bags or plastic coverings. All company facilities in Brazil use recycled bags produced by JBS Environmental. In 2016, the company produced 5.2 million bags. JBS Leather uses plastic covers to protect leather items against damage and contamination caused by the weather. 573,000 plastic covers were produced in 2016. Plastic covers were also exported to facilities located in Argentina in Paraguay during 2016. Around 5.5 tons of these products were shipped to both countries in the second half of the year. The plastic covers will also be used by the JBS leather facilities in Uruguay in 2017.

JBS Environmental also makes plastic products out of virgin material for food packaging. Under the Supply Maintenance and Qualification Program and following an audit, the company also qualified as a plastic food packaging supplier for JBS Beef.



GRI G4 CONTENT SUMMARY

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G4-4 Main brands, products and services.		18, 20
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G4-7 Nature of company ownership and legal form		18
G4-8 The markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).		18, 19
G4-9 The scale of the organization:		18, 19, 36
G4-10 Total number of employees		45
G4-11 The percentage of total employees covered by collective bargaining agreements.		45
G4-12 The organization's supply chain.		86, 88, 90
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G4-14 Whether and how the precautionary approach or principle is addressed by the organization.	The company implements a rigorous risk management process, which includes taking steps to prevent possible environmental impacts.	
G4-15 Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.		112
G4-16 List memberships of associations (such as industry associations) and national or international advocacy organizations		92, 113, 121, 128
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G4-18 Explain the process for defining the report content and the Aspect Boundaries		4, 76
G4-19 List all the material Aspects identified in the process for defining report content.		5, 76
G4-20 For each material Aspect, report the Aspect Boundary within the organization		5
G4-21 For each material Aspect, report the Aspect Boundary outside the organization		5
G4-22 Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.		4
G4-23 Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.		4
STAKEHOLDER ENGAGEMENT		
G4-24 Provide a list of stakeholder groups engaged by the organization.		4
G4-25 Report the basis for identification and selection of stakeholders with whom to engage.		4
G4-26 Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.		4
G4-27 Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.		4
G4-28 Reporting period (such as fiscal or calendar year) for information provided.		4
G4-29 Date of most recent previous report (if any).		4
G4-30 Reporting cycle (such as annual, biennial).		4

GENERAL STANDARD DISCLOSURES		PAGE/RESPONSE
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GOVERNANCE		
G4-34	The governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	35
ETHICS AND INTEGRITY		
G4-56	The organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	39, 41

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Emissions	G4-DMA Form of management	124
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SPECIFIC STANDARD DISCLOSURES		
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MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
General	G4-DMA Form of management	15
	G4-EN31 Total environmental protection expenditures and investments by type	15
Supplier environmental assessment	G4-DMA Form of management	110
	G4-EN32 Percentage of new suppliers that were screened using environmental criteria	110, 114
Environmental grievance mechanisms	G4-EN33 Significant actual and potential negative environmental impacts in the supply chain and actions taken	114
	G4-DMA Form of management	114
	G4-EN34 Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	114
	SOCIAL CATEGORY	
Labor Practices and Decent Work		
MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Occupational health & safety	G4-DMA Form of management	77
	G4-LA5 Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	79
	G4-LA6 Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	83
	G4-LA7 Workers with high incidence or high risk of diseases related to their occupation	77, 83
	G4-LA8 Health and safety topics covered in formal agreements with trade unions	78
Training and education	G4-DMA Form of management	46
	G4-LA11 Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	46
Supplier employment practices assessment	G4-DMA Form of management	110
	G4-LA15 Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	110
SOCIAL CATEGORY		
Human Rights		
MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Forced or compulsory labor - Security practices	G4-DMA Form of management	110
	G4-HR6 Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	110, 114
Indigenous rights - Assessment	G4-DMA Form of management	114
	G4-H48 Total number of incidents of violations involving rights of indigenous peoples and actions taken	There are no cases of violations involving the rights of indigenous peoples.
Supplier human rights assessment	G4-DMA Form of management	114
	G4-HR10 Percentage of new suppliers that were screened using human rights criteria	114
	G4-HR11 Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	114

SPECIFIC STANDARD DISCLOSURES		
SOCIAL CATEGORY		
Society		
MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Public policies	G4-DMA Form of management	39
	G4-SO6 Total value of political contributions by country and recipient/beneficiary	39
Supplier assessment for impacts on society	G4-DMA Form of management	110
	G4-SO9 Percentage of new suppliers that were screened using criteria for impacts on society	110, 111, 114
	G4-SO10 Significant actual and potential negative impacts on society in the supply chain and actions taken	114
SOCIAL CATEGORY		
Product Responsibility		
MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Customer health and safety	G4-DMA Form of management	115
	G4-PR1 Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	120
Product and service labeling	G4-DMA Form of management	103
	G4-PR3 Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	103
Marketing communications	G4-DMA Form of management	103
	G4-PR6 Sale of banned or disputed products	103
Procurement practices	G4-PR7 Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	In 2016, there were no cases of noncompliance with marketing communication regulations.
	G4-DMA Form of management	110
	GRI FP1 Percentage of purchased volume from suppliers compliant with company's sourcing policy	110
	GRI FP2 Percentage of purchased volume which is verified as being in accordance with credible, internationally recognized responsible production standards, broken down by standard	122
SOCIAL CATEGORY		
Product Responsibility		
MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Consumer health and safety	G4-DMA Form of management	115
	GRI FP5 Percentage of production volume manufactured in sites certified by an independent third party according to internationally recognized food safety management system standards	120, 122
	GRI FP7 Percentage of total sales volume of consumer products, by product category, that contain increased nutritious ingredients like fiber, vitamins, minerals, phytochemicals or functional food additives	103
Product and service labeling	G4-DMA Form of management	24
	GRI FP8 Policies and practices on communication to consumers about ingredients and nutritional information beyond legal requirements	24
Animal breeding and genetics	G4-DMA Form of management	84
	GRI FP9 Percentage and total of animals raised and/or processed, by species and breed type	84

SPECIFIC STANDARD DISCLOSURES

SOCIAL CATEGORY

Product Responsibility

MATERIAL ASPECTS	DMAS AND INDICATORS	PAGE/RESPONSE
Livestock	G4-DMA Form of management	84
	GRI FP10 Policies and practices, by species and breed type, related to physical alterations and the use of anaesthetic	84
	GRI FP11 Percentage and total of animals raised and/ or processed, by species and breed type, per housing type	84
	GRI FP12 Policies and practices on antibiotic, anti-inflammatory, hormone, and/or growth promotion treatments, by species and breed type	The company complies with all municipal, state and federal regulations in relation to use of these substances, both in Brazil, in other countries where it operates and its export markets. JBS does not use antibiotics or other substances to promote growth in its global operations. As a global company, JBS has a diverse customer base that has specific product criteria, resulting in attributes such as natural, antibiotic-free, ractopamine-free, premium and conventional foodstuffs. As a partner offering proven value to domestic and international customers, JBS offers a wide range of high quality products, designed to meet the different requirements of demanding customers worldwide.
Transport, handling and slaughter	G4-DMA Form of management	84
	FRI FP13 Total number of incidents of non-compliance with laws and regulations, and adherence with voluntary standards related to transportation, handling, and slaughter practices for live terrestrial and aquatic animals	All animals under JBS' care are handled, transported, treated and slaughtered in accordance with all municipal, state and federal animal protection laws and regulations. The company's operations are inspected on a daily basis to ensure compliance with relevant legislation in every market where JBS operates, as well the company's own internal standards.

CREDITS

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