SUSTAINABILITY
REPORT

The circular bio-industry of paper and its decarbonisation

December 2018

ASPAPEL
Naturalmente, papel

Spanish Association of Pulp, Paper and Board Manufacturers

Summary

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Chairman of ASPAPEL

Letter from the Chairman

GRI 102-14

This fifth edition of the *Paper Sector's Sustainability Report* represents the materialisation of our two-fold, priority commitment to sustainability and transparency. On this occasion, the report we publish every three years covers the period 2015-2017, during which significant advances have been made in matters that are particularly relevant to our sector, such as the certification of sustainable forest management, the decarbonisation process we are working on at present, the consolidation of a powerful investment programme in innovation and technological renovation, or new initiatives to promote recycling within the framework of the circular economy.

The sector has a clear vision of itself as a circular bio-industry set to lead the decarbonisation of our economy, given that it is one of the industries with the greatest capabilities to face such a challenge through innovation of its products and processes and by attracting the right talent and human capital to achieve this ambitious goal.

And with that in mind, I would like to highlight our proactive work on initiatives promoted by the administration, such as the *Pact for a Circular Economy,* of which ASPAPEL is one of the signing parties, or the sectorial *Industrial Agenda*, in which our industry has been a pioneer.

Our work over the last three years is laid out in detail in this report through more than 60 contents structured around four axes of action: sustainable forest management, efficient and responsible productive processing, generation of wealth and contribution to the quality of life, and leadership in recovery and recycling. Each axis also includes ambitious sector-wide targets for the next period, of whose fulfilment we shall give full account in due course.

This Report aims to be an instrument of transparency and dialogue with our stakeholders, whom we thank for their support and collaboration throughout these years in improving our reporting on sustainability.

The circular bio-industry of paper and its decarbonisation

GRI 103-2

The pulp and paper industry is a circular bio-industry that leads industrial decarbonisation. In fact, the paper industry entails dual circularity: the natural circularity of its bio character (manufacture of bio-products from renewable natural sources), and the social and industrial circularity of recycling (recyclable bio-products that are massively recycled after use).

Bio-economy and circular economy are the two pillars of a new economy based on sustainable consumption. The combination of these two new paradigms allows for better and more efficient use of resources. Circular bio-industry means renewable raw materials, sustainable products and efficient use of resources, all from a circular approach. This dual concept is a powerful tool to accelerate progress towards a low-carbon economy... and in this industrial transformation, the circular bio-economy of paper is a clear model destined to lead the new economy.

Starting with such an approach, the sector's commitment to Sustainability is based on four main lines of action:

SUSTAINABLE FOREST MANAGEMENT

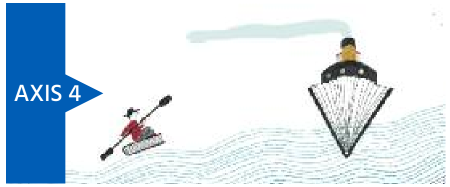
The circular bio-industry of paper starts on local eucalypt and pine plantations where the wood used by the sector comes from and which are large CO_2 sinks. Local sourcing and sustainable forest management of these plantations and their certification, improved forestry techniques, the genetic improvement of clones to be planted, and the improvement of plantation health in their adaptation to climate change are priority matters for the pulp and paper industry in Spain, as are promoting good practices in tree logging to ensure wood from legal and sustainable sources.

EFFICIENT AND RESPONSIBLE PRODUCTION PROCESSING

The key aspects of the papermaking process are optimizing the use of raw materials and water, the recovery of process waste and enhancing energy efficiency, and decarbonisation. The pulp and paper industry is intensive in gas and electricity and leads the decarbonisation of industry. Within the decarbonisation process in which the paper industry is immersed in Spain and in the rest of Europe, the mix of fuels, cogeneration and energy efficiency are essential to reducing CO_2 emissions. Worker health and safety, training and stability and qualifications as characteristics of employment in the sector are priorities in terms of human resource management.

GENERATION OF WEALTH AND CONTRIBUTION TO LIVING STANDARDS

The circular bio-industry of pulp and paper is one of the major European producers of pulp and paper, the driving force behind a powerful value chain, whose overall contribution to the economy accounts for 4.5% of GDP and generates one of every fifty jobs in our country. With bio-recyclable products capable of deriving the greatest added value from local raw materials, it improves citizens' quality of life. By replacing more and more products from non-renewable fossil sources, these bio-products contribute to decarbonisation.



LEADERSHIP IN COLLECTION AND RECYCLING

And, finally, recycling — which lies in the very DNA of paper and board — the loop of the circular bio-industry of paper closes. The key data for measuring the level of recycling is to see how much of the total paper and board consumed in Spain is collected for recycling after use and how much our paper industry recycles, i.e. how much paper for recycling it uses as raw material… and in both indicators, Spain passes with flying colours.

DETAILED SUMMARY OF THE CONTENTS INCLUDED IN THE REPORT (*)

(*)An index of GRI Disclosures can be consulted on pages 104-110.This summary includes all the information structured around the paper sector's four pillars of sustainability, which correspond to the four basic chapters in the report. In order to make the report's structure easier to read and understand, both the GRI disclosures as well as our own, which provide additional information on different subjects, are ordered here around those four strategic pillars.

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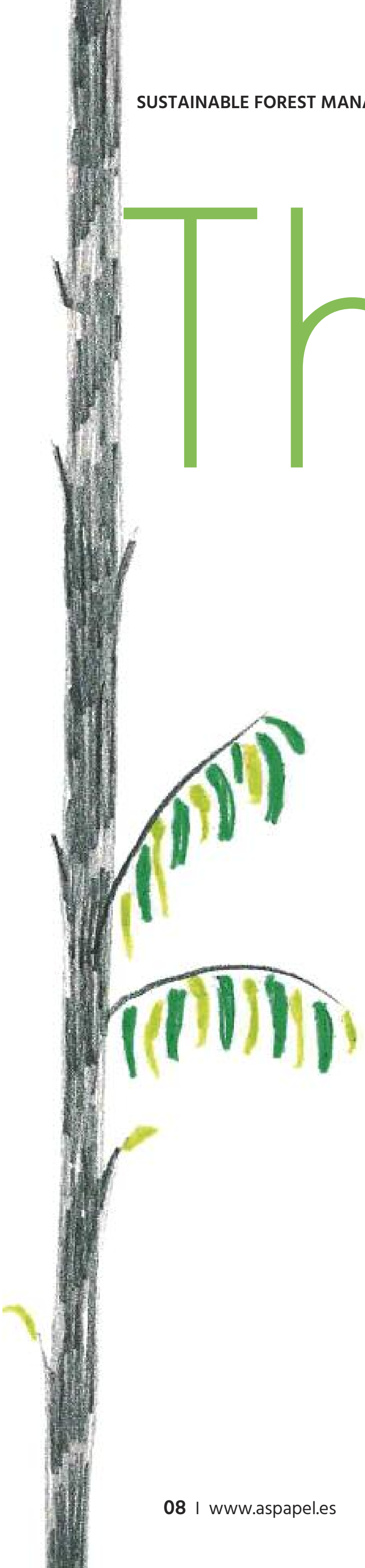
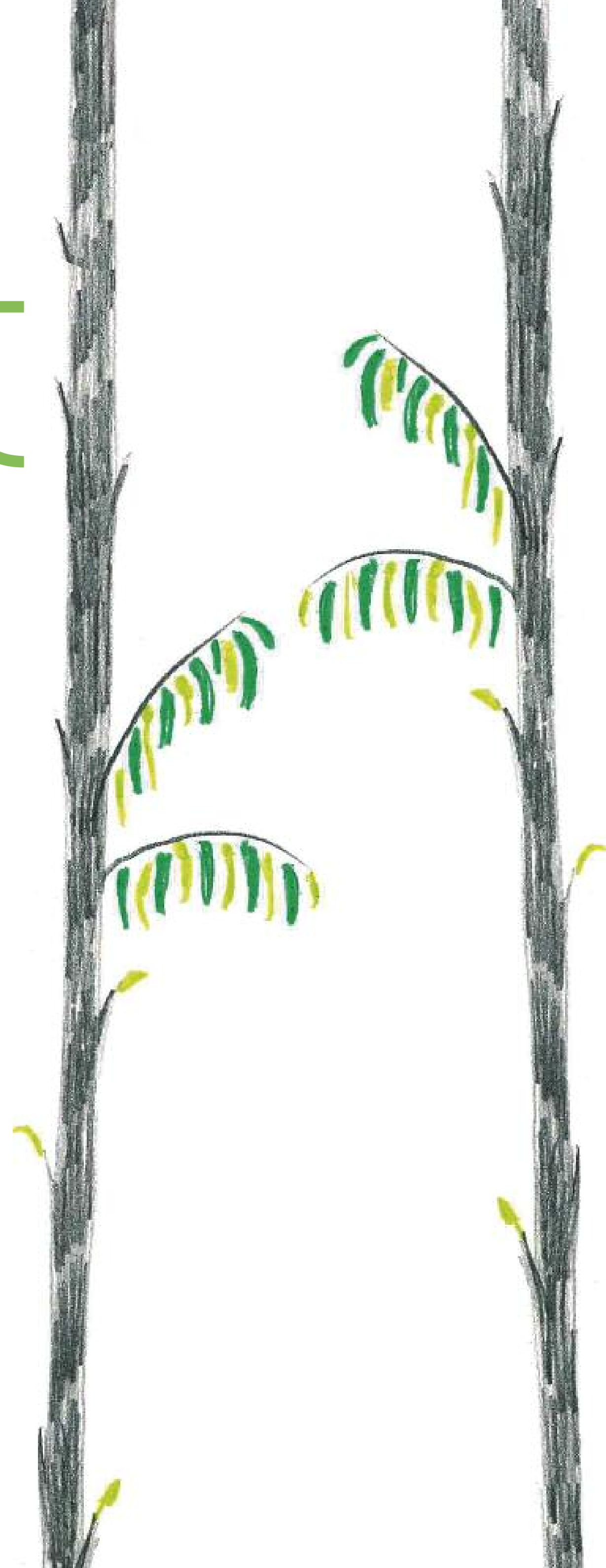


The forest bio-industry



The circular bio-industry of paper begins in the forest. The wood that the Spanish paper industry uses to produce pulp and paper comes from local eucalypt and pine plantations, which are a driving force of rural development by creating employment as well as being large CO_2 sinks. Sourcing from local plantations and their sustainable forest management and certification are the fundamental keys of the pulp and paper sector's forestry strategy in Spain

The plantations where wood to produce paper is grown

THE raw material used by the circular bio-industry of pulp and paper is wood from fast-growing species (pine and eucalyptus) that are grown almost entirely on local plantations. These plantations occupy 512,481 hectares (2.8% of total forestland area in our country). The wood grown on these local plantations is the natural, renewable and recyclable resource that gives us the cellulose fibre from which paper is made.

In a country with a serious shortage of raw materials, the paper industry is one of the few sectors with a high consumption rate of local raw materials: 98% of the wood used is sourced locally with legal logging and carefully controlled traceability from source. The paper industry makes efficient cascade use of this natural resource, creating added value through its industrial conversion of wood into pulp and pulp into paper at the ten pulp mills and sixty-eight paper mills the sector runs in Spain. That paper is then transformed into a wide range of paper-based products, which after being used, are recycled over and over, while even process waste finds new value in very different applications or is used as fuel.

In the period covered by this report, the use of local wood as a raw material has increased from 78% in 2014 to 98% today. Pine wood is entirely local, as is 97% of the eucalyptus wood used (the remaining 3% comes from eucalypt plantations in other European countries).

To produce 1.7 million tons of pulp in 2017, 5.5 million cubic metres of de-barked wood was used, of which 21% was pine and 79% eucalyptus.

CONSUMPTION OF WOOD FOR PAPERMAKING BY SPECIES | '000 m^3 DEBARKED WOOD

1 GF | GRI 204-1 | GRI 301-1

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Overall total	**6,172.4**	**5,381.8**	**5,802.5**	**6,122.9**	**6,112.7**	**6,140.1**	**5,678.2**	**5,093.8**	**5,238.3**	**5,539.1**
Eucalypt	5,038.0	4,292.4	4,605.5	4,897.3	5,004.6	5,009.8	4,525.2	3,912.0	4,123.8	4,366.7
National eucalypt	3,287.4	2,813.9	2,833.7	3,708.5	3,772.1	3,779.3	3,310.8	3,747.9	4,012.3	4,249.8
Imported eucalypt	1,750.6	1,478.5	1,771.8	1,188.8	1,232.5	1,230.5	1,214.4	164,0	111,4	116,9
Pine	1,134.4	1,089.4	1,197.0	1,225.6	1,108.0	1,130.3	1,153.0	1,181.9	1,114.5	1,172.4
National pine	1,059.3	1,021.5	1,125.6	1,132.4	1,108.0	1,130.3	1,145.0	1,181.9	1,114.5	1,172.4
Imported pine	75,1	67,9	71,4	93,2	0,0	0,0	8,0	0,0	0,0	0,0

Source: ASPAPEL

4 THINGS THAT YOU PERHAPS DO NOT KNOW ABOUT SPANISH FORESTS

> Top 5 ***countries in terms of forestlands*** *in Europe: Russia, Sweden, Finland, Spain and France (FAO).*

> ***Forests in Spain are getting bigger:*** *from 13.8 million hectares in 1990 to 18.4 million hectares in 2015 (MAPAMA).*

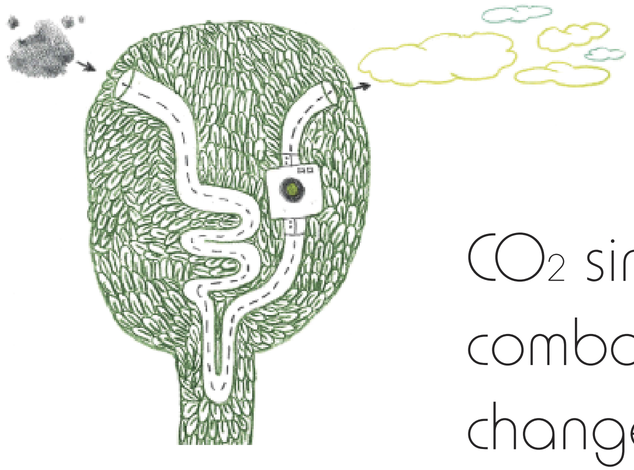
> ***The forest bio-economy*** *in Spain: 300,000 jobs (forestry and reforestation, paper industry, wood and furniture, biomass ...) 1.7% of GDP.*

> Spain 2017 - ***More trees were planted than were cut down:***

- *Annual growth of 46.3 million cubic metres of barked wood*
- *Annual logging for all uses of 17.2 million cubic metres of debarked wood.*

SOURCE OF WOOD FOR PAPERMAKING | ‘000 m³ DEBARKED WOOD

1 GF | GRI 204-1 | GRI 301-1



CO_2 sinks to combat climate change

Through photosynthesis, trees capture CO_2 from the atmosphere and using solar energy and water, they convert it into sugars. In the case of plantations of fast-growing trees such as pine and eucalyptus, this CO_2 sink effect is greater, due precisely to the fact that their development is taking place at a faster rate. These plantations of wood for paper, which are continuously regenerated and replanted, are an environmental opportunity. Furthermore, the carbon captured in the plantation remains in the end paper products, which are efficient CO_2 stores, and thanks to the successive recycling of the fibres, that storage is prolonged.

The 512,481 hectares of plantations where wood is grown to make paper are large CO_2 sinks that fix 46 million tons of CO_2 equivalent, thus helping to curb climate change, which according to recent surveys is now citizens' predominant environmental concern.

CO_2 FIXING DUE TO SINK EFFECT | '000 TONNES
3 GF

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
In total Spanish forestland cover										
Stored carbon	365,467.6	370,558.9	375,650.1	380,741.3	385,832.5	577,013.6	584,611.7	592,209.9	599,808.0	607,406.1
CO_2 equivalent	1,340,048.0	1,358,715.8	1,377,383.6	1,396,051.5	1,414,719.3	2,115,716.6	2,143,576.4	2,171,436.2	2,199,296.0	2,227,155.8
In total Eucalypt and Pinus radiata plantations										
Stored carbon	14,884.5	15,734.0	16,606.4	17,402.3	15,493.0	15,754.0	16,117.3	16,560.4	20,380.3	21,039.7
CO_2 equivalent	54,576.5	57,691.2	60,890.2	63,808.6	56,807.5	57,764.6	59,096.9	60,721.5	74,727.8	77,145.7
In dedicated papermaking plantations										
Stored carbon	5,762.9	5,219.5	5,735.3	7,451.0	8,088.3	8,674.3	7,604.9	8,465.0	11,442.2	12,530.2
CO_2 equivalent	21,130.5	19,138.2	21,029.3	27,320.3	29,586.0	31,642.0	27,884.8	31,038.4	41,954.8	45,944.2

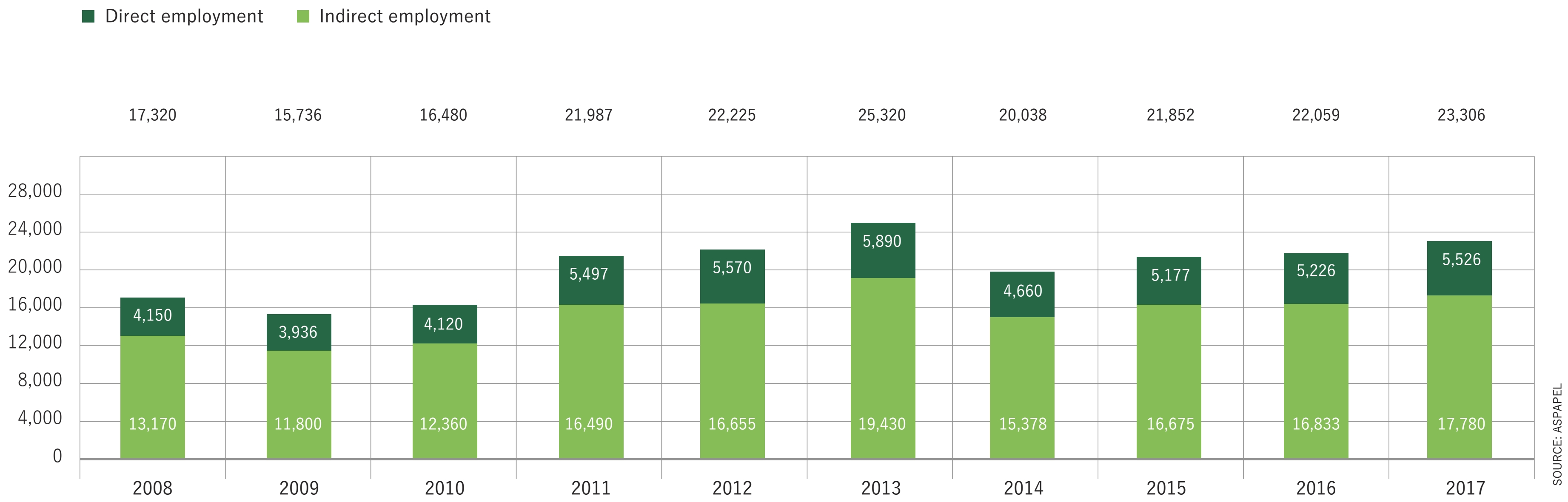
SOURCE: ASPAPEL

Creation of employment and wealth in the face of rural depopulation and ageing

In the context of an increasingly ageing and diminishing rural population, local paper plantations are a powerhouse of development and a source of employment and creation of wealth. The reforestation and management work on the 512,481 hectares dedicated in 2017 to the production of wood for paper accounts for 5,526 direct jobs, on top of which come a further 17,780 indirect jobs, in heavy plant, transportation, workshops ... These 23,306 jobs enable stable population to settle in depressed areas, thus helping to alleviate the increasing depopulation. The plantations also contribute significantly to the income of what are mostly small-scale forest landowners.

DIRECT AND INDIRECT RURAL EMPLOYMENT ON PINE AND EUCALYPTUS PLANTATIONS FOR PAPERMAKING | NUMBER OF JOBS

2 GF



Certification - the guarantee of sustainable sourcing

GRI 304-1 | GRI 304-2

The use of certified wood has seen a significant increase in the sector during the period covered by this report, from 37% in 2014 to 63% in 2017. The entire supply of wood in the sector is under control and comes from legal logging (98% from Spain and the rest also from Europe).

Likewise, forest certification in regard to forest-based products has also developed remarkably over this period: currently 56% of market pulp and 61% of market paper are certified. From 2018 onwards, these statistics will also include data on certified textile fibre.

The commitment of the circular bio-industry of pulp and paper to sustainable forest management and the development of its certification has led to significant results in the last decade, as can be seen in the table below. Today, 100% of pulp mills and pulp suppliers are certified, as are 92% of wood suppliers to the sector and 75% of Spanish paper mills.

FOREST CERTIFICATION | %

4 GF | GRI 308-1

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Certified pulp mills	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Certified pulp suppliers(1)	87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Certified wood consumed by paper sector	12.1	10.4	10.5	15.6	24.7	29.3	37.3	30.0	56.0	63,.0
Certified wood suppliers	53.7	33.5	65.0	80.0	80.0	82.0	85.0	88.0	90.0	92.0
Certified paper mills*	-	-	25.0	32.0	51.0	59.0	72.0	75.0	75.0	75.0
Certified market pulp*(2)	-	-	11.0	16.0	31.9	41.0	51.0	49.7	56.0	56.0
Certified paper on the market*	-	-	6.5	7.7	24.7	29.3	46.2	54.4	55.0	61.1

* New contents since 2010.
1 Refers to integrate pulp and paper mills.
2 Pulp sold in open competition with other producers.

SOURCE: ASPAPEL

HOW FOREST CERTIFICATION WORKS

*> **Sustainable forest management** is the management of forest stands, which reconciles the use of forest products with their capacity for regeneration, biodiversity, health and vitality, so that they can continue to fulfil their functions both now and in the future on a local, regional and global scale.*

*> Certification offers consumers a **guarantee** that the paper products they use are sustainable and come from legally logged wood.*

*> Certification is a process in which an **independent, officially accredited body** certifies that the management of a certain forest area is carried out in accordance with sustainability criteria, and also that its logging complies with the relevant legislation in the country of origin. It then monitors and controls each link in the chain of custody, when certified wood reaches the mills.*

*> Forest certification ensures Wood can be traced from the forest to the end consumer, who receives a product with a **label** that guarantees it has been sourced from a sustainably managed forest.*

Returning to the forest through its products

An historic milestone occurred at the end of the first decade of the 21st century: for the first time in history, over half the world's population is no longer rural but lives in cities. This process of human urbanization is especially visible in developed countries such as Spain, where the countryside accounts for 90% of the land area and yet only 21% of the population live there. Paper and forest products in general are an opportunity for development in a languishing rural world and at the same time they are a perfect showcase of the role of forestry in a society that lives away from the forest and the rural way of life. Forest products are the meeting point between the urban society that demands them and the rural society that produces them.

Consumers' growing environmental awareness and their demand for natural products finds a response in the increasing development of sustainable forest management of our forests and their certification, which guarantees the sustainable origin of these products.

Sustainable forest management and certification are also the best tool for improving the health of our forests and reducing the risk of wildfires. A sustainably managed forest has better health and more vitality and is better able to cope with the risk of forest fires or disease, while contributing to rural and industrial development and the creation of employment, thus helping to ensure the local population remains settled there.

GRI 304-1 | GRI 304-2

The Spanish paper industry obtains its raw material from productive plantations, installed on land vacated after the abandonment of its arable or livestock use and which contribute to preserving forests and their biodiversity. The Spanish paper industry is committed to Sustainable Forest Management and works very actively to have it certified, which entails maintaining, preserving and improving its bio-diversity and capacity to regenerate in order to prolong the existence of the forest over time.

THREE KEY ISSUES FOR FURTHERING THE CAUSE OF SUSTAINABLE FOREST MANAGEMENT

In Spain, a third all forestland area is public, belonging to local entities, autonomous or regional governments and, to a lesser extent, to the State. The remaining two thirds are private forests owned by more than two million private individuals or communities, the vast majority of whom are small owners. This fragmentation of the territory has traditionally been an obstacle to the development and implementation of forest management.

Both public and private forests must be documented and have instruments that guarantee they are planned and managed according to criteria that guarantee their sustainability and allow for monitoring. This process involves large capital outlays, which is why a fiscal policy for forest management is necessary. Furthermore, a new corporation is required that would promote and encourage small forest owners to group their properties together to enable more active management.

KEYS TO SUSTAINABLE FOREST MANAGEMENT AND ITS CERTIFICATION

1. A policy of specific ***incentives*** *and fiscal benefits for forests*

2. Encourage the ***enclosure or grouping*** *of small forest ownerships*

3. Make forest organisation and management projects and instruments compulsory

ASPAPEL activities to promote sustainable forest management

MONITORING

Among the actions carried out by ASPAPEL in the period 2015-2017 to support and promote the implementation and development of Sustainable Forest Management, it is worth highlighting the work of monitoring certified forest management and the certification of the chain of custody of paper products, a veritable in-house observatory aimed at increasing the supply of certified products.

FOREST HEALTH

Moreover, throughout the period covered by this report, the sector has been actively involved in monitoring and improving the health of forest eco-systems and their adaptation to climate change, especially of the species the sector uses as raw material. ASPAPEL's Forestry Committee carries out specific monitoring and proposes solutions to the relevant plant health authority.

In 2017, ASPAPEL coordinated the *Grupo Operativo Gonipterus* (GOSSGE), which developed an innovative project involving prospecting, biological control and integrated control using biological plant health materials of the *Gonipterus* eucalyptus weevil.

In 2018, a proposal to implement the project has been made, which calls for continuous and optimised prospecting in the territory using new technologies, improvements in the massive production of parasitoids, possible controlled introduction of new parasitoids, and the proposed implementation of integrated control using natural, environmentally-friendly phytosanitary products.

ASPAPEL also monitors other disorder affecting conifers (pine nematode and fusarium) and may take part in another operating group (InnoBandas) to solve the emerging affectation of brown bands in pine forests.

EUROPEAN DUE DILIGENCE REGULATIONS

GRI 308-1

Furthermore, through ASPAPEL, the pulp and paper industry, committed to legal tree logging, has pushed, encouraged and collaborated with the administrations to have the *European Due Diligence Regulations* (EUTR) implemented and to speed up the procedures involved. Internally, we work as consultants and advisors to respond to the questionnaires issued by the Autonomous Communities (regional governments) and to deliver them to the designated supervisory body.

ASPAPEL also maintains a chain of custody forum to resolve issues related to the Declaration of Responsibility that has to be delivered every 31st March and it promotes a group-wide reply of that data for statistical monitoring in the various administrations.

Codes of good practice for eucalyptus forest logging have been sponsored and disseminated among sector stakeholders and local institutions in the Principality of Asturias.

Production: decarbonisation, efficient use of resources and safety

Achieving the greatest environmental and economic efficiency throughout the entire manufacturing process is the objective of the circular bio-industry of pulp and paper. The key to such an industrial strategy is to optimise the use of raw materials and water, as well as the proper management of process waste, energy efficiency and decarbonisation.

Computerisation, automation and robotization of the industrial process, with the focus set on environmental protection, quality and innovation, are the factors that define work in the paper sector, performed by a qualified and stable workforce with a low turnover rate. Safety and continuous training are priority targets of the sector's human capital management.

Key factors in the production process

THE key factor in the Spanish paper sector's industrial strategy at its 10 pulp mills and 68 paper mills is to achieve the highest efficiency throughout the entire papermaking process. This includes optimising the use of raw materials, gaining efficiency in process waste management and in the use of water, and energy efficiency and decarbonisation.

Industrial papermaking calls for very hi-tech machinery and significant capital expenditure in innovation and technological renovation. A modern paper production line may measure up to 200 metres in length and the process is fully computerised and automated. Paper technology and the sector's investment in this area pursue the general target of achieving greater speeds, more productivity, further specialisation and better production quality, always with solutions geared towards making more efficient use of resources and decarbonisation.

GRI 308-1

94% of pulp and paper making in Spain is carried out under environmental management systems (ISO or EMAS). This means that suppliers to the sector are assessed on the basis of environmental criteria and practically all complaints that may be received concerning environmental impacts are processed through a claim system within the framework of the requirements set by the actual EMAS. As far as environmental assessment of suppliers is concerned, it must also be taken into account that 92% of suppliers of wood to the Spanish paper industry and 100% of pulp suppliers are certified under at least one forest certification system.

94 %

EMAS 2017
Of papermaking

HOW PULP AND PAPER ARE MADE

> To ***produce pulp from wood,*** *the fibres bonded together by lignin need to be separated, which is achieved by mechanical, chemical or semi-chemical means. The cellulose pulp obtained can be used directly to make paper or can first be subjected to a bleaching process to eliminate residual lignin that gives the pulp a dark brown colour. This bleaching process in the Spanish paper industry is 100% either TFC (totally free of chlorine) or ECF (free of elemental chlorine).*

> When the fibre source is paper for recycling, it is fed into a pulper with water and in successive screening stages, all foreign matter apart from cellulose fibres, including ink if relevant, are eliminated from the fibrous suspension.

> To ***make paper*** *with virgin cellulose fibre or with recycled fibre, a watery solution is prepared that is laid onto an endless belt to produce a long band or web driven by rollers. The operations that complete the process are then performed: the fibres are laid in the form of a wet sheet, remaining water is removed by pressure and drying, and finally the paper is finished.*

ENVIRONMENTAL MANAGEMENT SYSTEM (EMAS)

13PP | GRI 308-1

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
N° of mills with an EMAS	56	47	53	54	55	55	52	54	54	52
% of production under EMAS	94	91	93	93	94	97	97	96	93	94

SOURCE: ASPAPEL

Energy in the papermaking process: decarbonisation

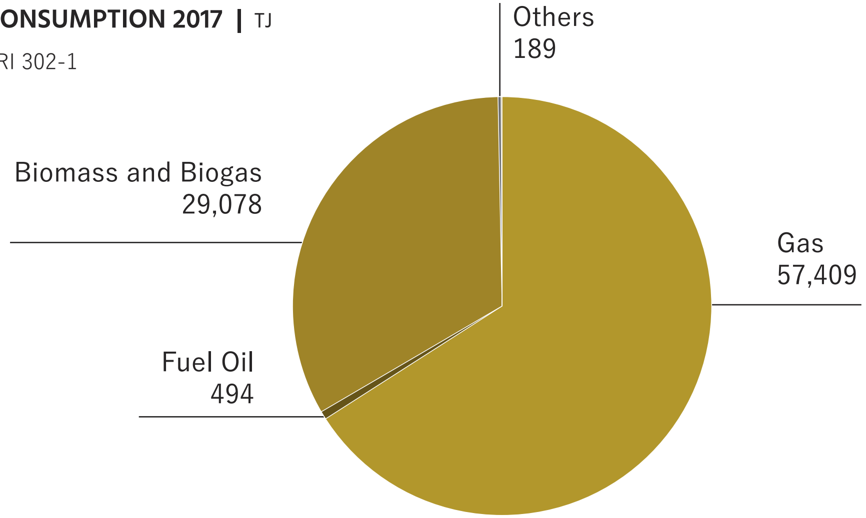
GRI 302-1

The pulp and paper industry is both electricity and gas intensive and heads the decarbonisation of industry. Within the decarbonisation process in which the paper industry is immersed both in Spain and in the rest of Europe, the mix of fuels, cogeneration, and energy efficiency are key factors in reducing CO_2 emissions.

The papermaking process generates biomass (bark, lignin, remains of fibres that are no longer suitable for recycling ...), which is increasingly used as fuel on site at the same mill, thus making the paper industry both the largest producer and the greatest industrial consumer of biomass in our country. A third of the fuel used by the sector is renewable (biomass and biogas), and the rest is natural gas.

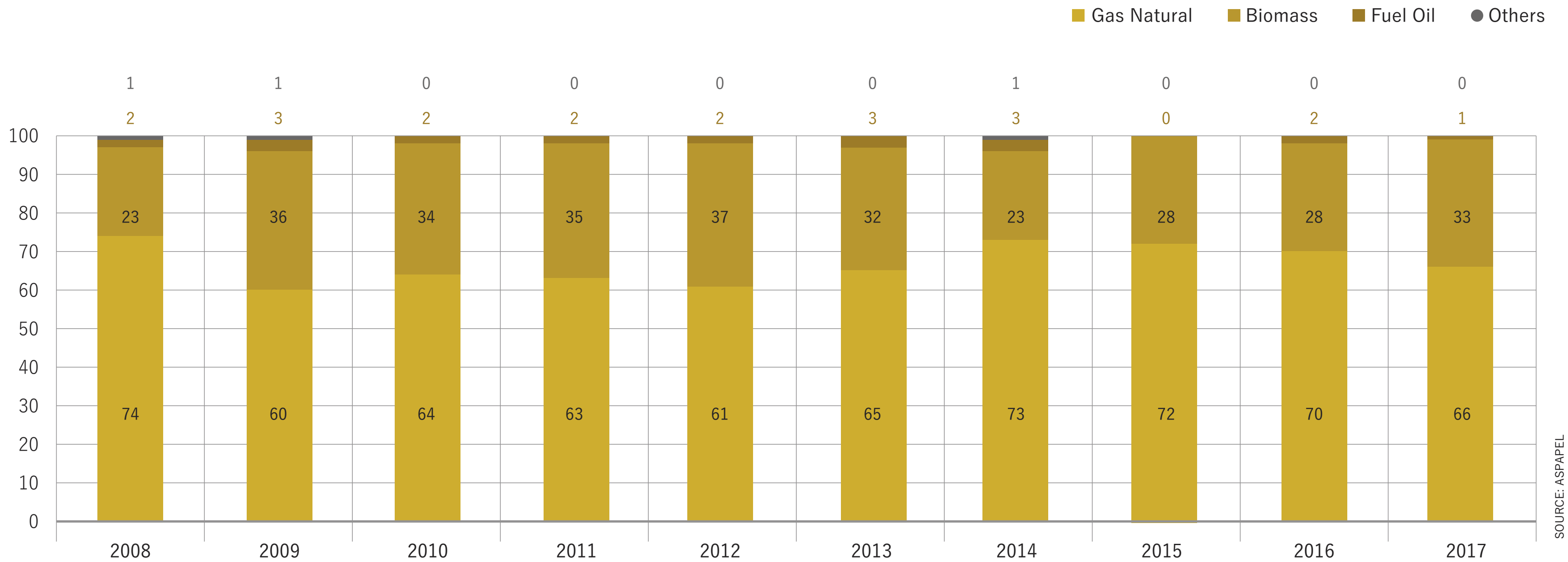
FUEL CONSUMPTION 2017 | TJ

5PP | GRI 302-1



FUEL CONSUMPTION | % OF TOTAL

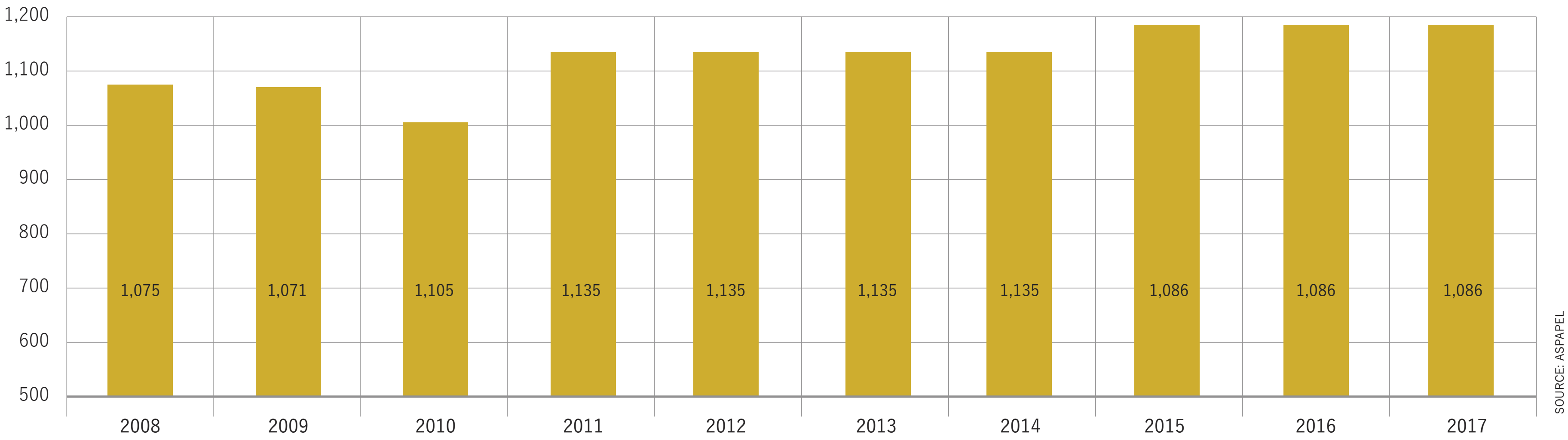
5 PP | GRI 302-1



The paper industry needs electricity to drive its machinery and steam to dry its pulp and paper. The paper industry produces most of the energy consumed by its mills in cogeneration plants, which together have an installed power rating of 1,086 MW. These plants are located next to the pulp and paper mills, thus preventing losses of electricity during transport. Cogeneration is a BAT (best available technology), which simultaneously produces power and heat in the form of steam, thus optimising the use of fuel, saving primary energy and reducing emissions. This is a high-efficiency distributed power generation system, which for the paper sector is a tool of environmental and economic efficiency and at the same time an instrument in its competitiveness, given the traditionally high costs of industrial electricity in Spain.

COGENERATION INSTALLED POWER | MW

6 PP | GRI 302-1



ENERGY EFFICIENCY | MWhe/t
(Electricity consumption /production)

2010	2011	2012	2013	2014	2015	2016	2017
0.62	0.59	0.61	0.61	0.63	0.59	0.58	0.60

FUENTE: ASPAPEL

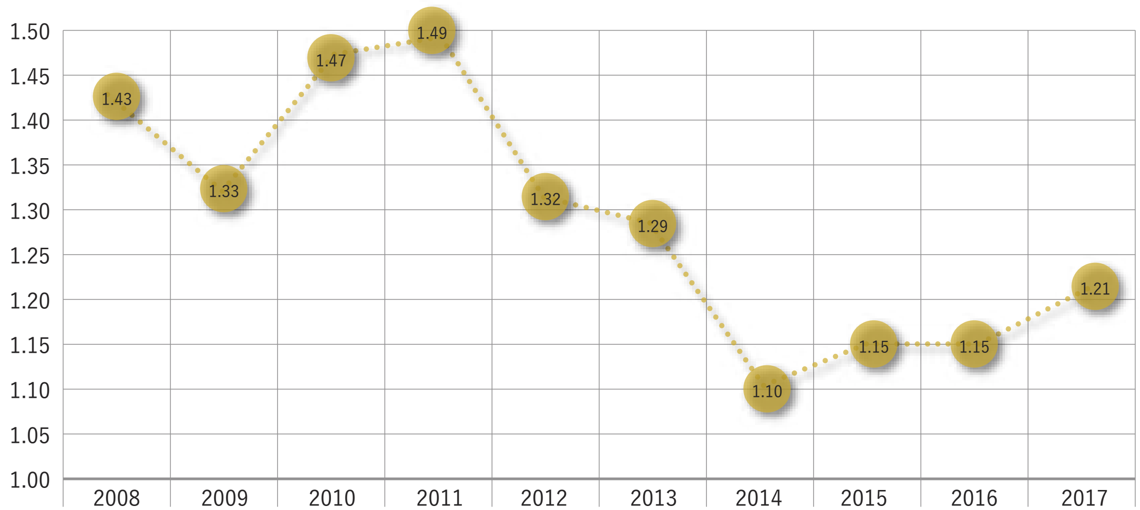
GENERATED / CONSUMED ELECTRICITY | %

6 PP | GRI 302-1

2017

20,625 TJ
Generated electric power

17,048 TJ
Consumed electric power



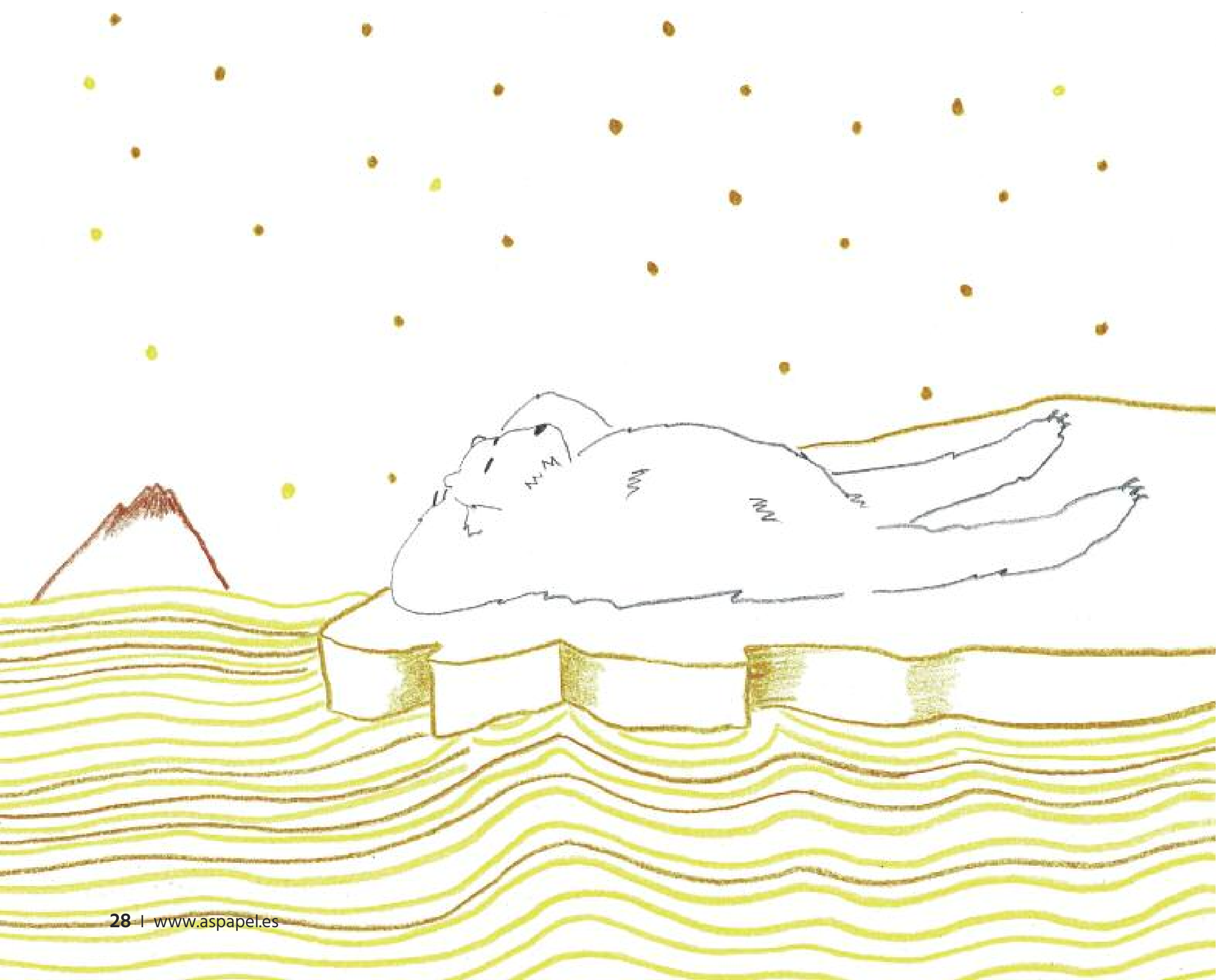
SOURCE: ASPAPEL

Energy efficiency in its processes is essential to the sector for both environmental and economic reasons (energy accounts for 30% of costs).

The sector's main energy efficiency measures are the use of biomass and cogeneration. Cogeneration is considered a Best Available Technology in the BREF document on pulp and paper making. This technology is widely implemented in Europe as a measure of efficiency and is closely related to the paper making process using paper for recycling. Cogeneration is designed to meet the process' demand for steam, while electric power is obtained as a by-product. Mills are implementing energy efficiency measures to improve consumption of both thermal energy and electric power, the latter being where the greatest potential for reduction has been identified and which would be most clearly seen in indirect emission statistics.

The measures that are currently being implemented or are planned for implementation by the sector include the following: renewed burners for better combustion control, drying section retrofits to recover heat, replacement of machinery with more efficient models (vacuum pumps, refiners, heat exchangers), shutdown of equipment no longer required due to changes in production (e.g.: switching pumping to gravity transfer), improvements in heat insulation, installation of frequency inverters, installation of flash steam systems and monitoring of electricity consumption.

80% reduction in emission levels by 2050



GRI 305-1

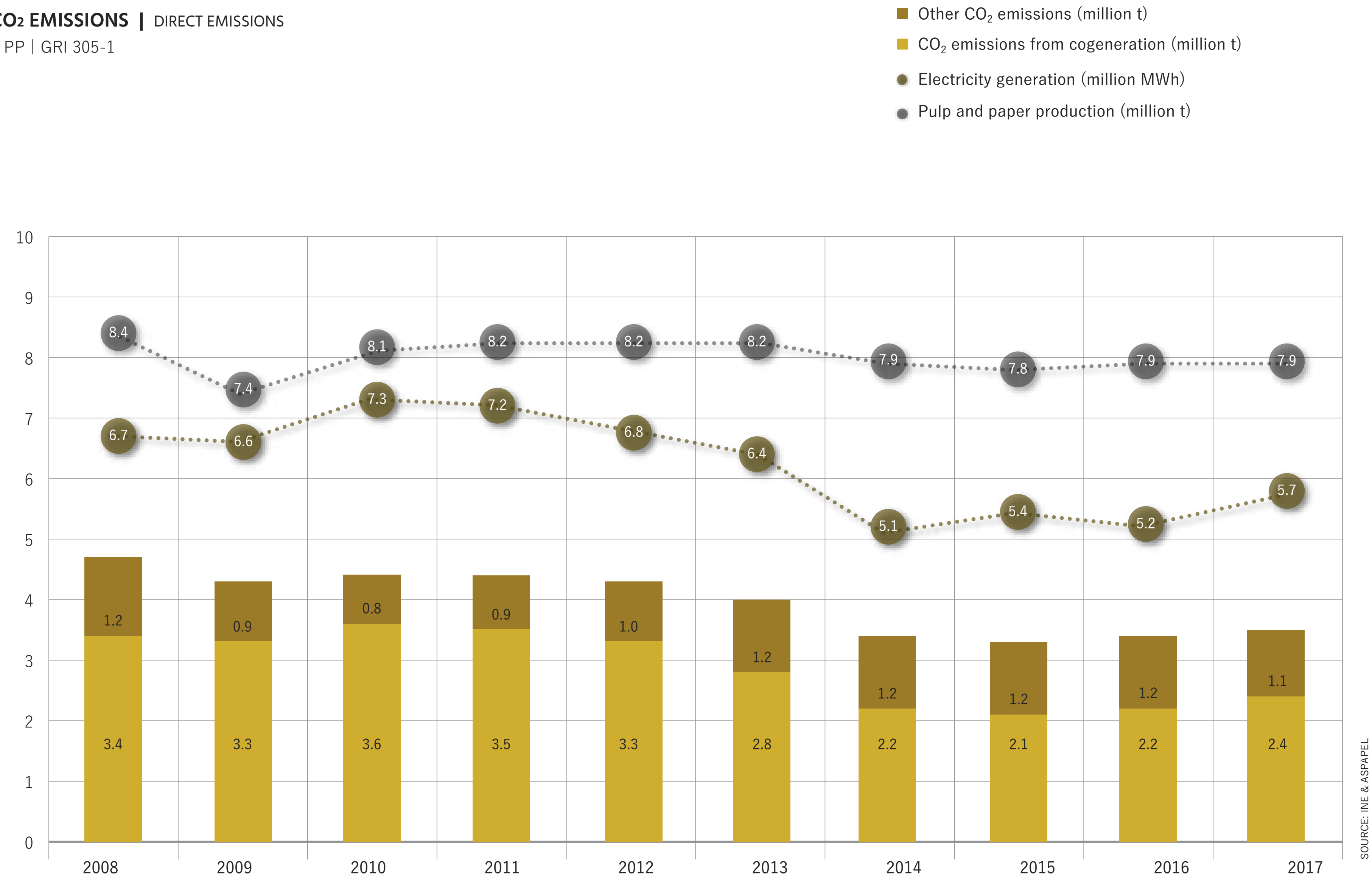
The Spanish and European pulp and paper industry's Roadmap 2050 sets the target of reducing CO_2 emissions by 80% compared to 2015. In the achievement of such a goal, the paper industry combines the potential, the commitment and the track record that guarantee it as part of the solution in the mitigation of climate change.

This reduction in emissions refers to both direct emissions and purchased electricity and transport, which in 2015 accounted for 49 million tons of CO_2 for the sector in Europe. The target is for these emissions to fall by 2050 to 12 million tons, which represents a reduction of 37 million tons CO_2 in the European pulp and paper industry as a whole. The Roadmap estimates that 60% of this reduction will be obtained by improving the fuel mix as a result of the growing use of low carbon or carbon-free fuels, energy efficiency with improvements to the process that include moving to Industry 4.0, enhancing cogeneration to flex demand, and the application of innovative emerging technologies. Another 30% of the reduction will come from reducing indirect emissions entailed in the purchase of electric power in parallel with the decarbonisation of the European power generation sector. The remaining 10% will come from transportation thanks to efficiency measures, the use of less polluting fuels, improved infrastructures, intermodality, etc.

It should be noted that this 80% reduction in emissions by 2050 in the European paper industry does not include the benefits of carbon storage in the sector's wood plantations or in paper products, storage that is prolonged with successive recycling. Nor does it contemplate the increasing substitution of petroleum products by paper bio-products.

CO2 EMISSIONS | DIRECT EMISSIONS

7 PP | GRI 305-1



GRI 305-1

Direct emissions in the pulp & paper sector in Spain come from combustion processes used to obtain the power required for the industrial process. The main greenhouse gas (GHG) is CO_2. In line with the European Roadmap, energy efficiency measures, the use of biomass (neutral in carbon emissions, according to the criterion established in the GHG Trade Directive) as fuel and cogeneration comprise the sector's strategy in Spain in terms of reducing emissions.

Spain's pulp & paper mills form part of the European Union's ETS (emissions trading system). Therefore, their emissions have to be covered by carbon credits received either through free allocation or by purchase. The current scheme is a disincentive for a fundamental energy-efficient technology in the sector such as co-generation, since emission rights are not assigned to the part corresponding to the generation of electric power.

With regard to transport, the Spanish pulp & paper industry's strategy for reducing emissions focuses on improving access to rail freighting and the optimisation of road haulage, for which increasing permitted truck loading capacity to 44 tons, as is the case in neighbouring countries, would be a vital asset.

ATMOSPHERIC EMISSIONS OF SOX AND NOX AND OTHERS | TONS

8PP | GRI 305-7

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Atmospheric emissions of SOx(*)	4,715	4,850	4,279	3,514	3,346	4,828	1,224	1,647	ND	1,724
Atmospheric emissions of NOx(*)	9,109	11,500	12,371	11,248	10,849	9,285	5,938	7,612	6,696	6,857
Total particles(**)	-	-	-	-	-	-	215	337	307	279

SOURCE: ASPAPEL

* SOx y NOx emissions as from 2014 are taken from a survey on companies in the sector, whereas previous years data were calculated using emission factors based on the fuels consumed (EMEP/CORINAIR book and guide to emission factors for the paper industry taking into account fuel used and emitting source) and did not consider the emission reducing measures implemented at many mills
**Data only available since 2014
N/A = not available

Less water and cleaner discharges

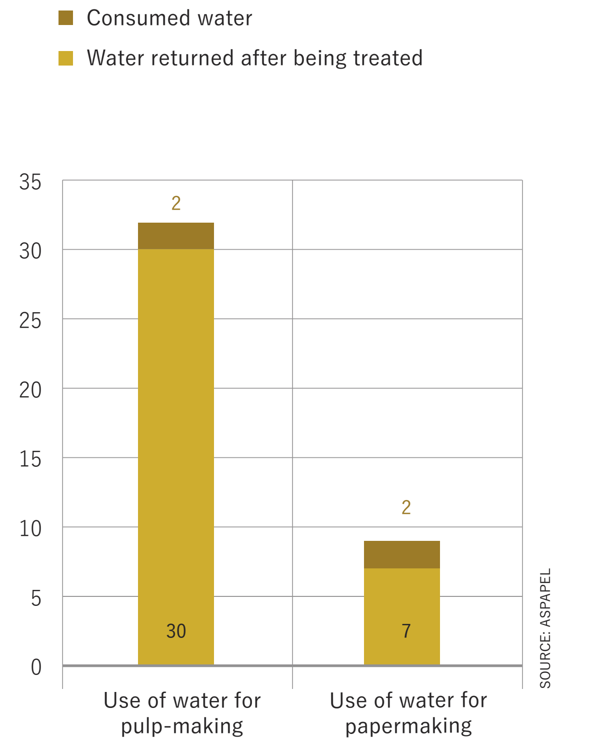
10 PP

Water is used in the paper industry to prepare pulp and mainly as a means of conveying the cellulose fibre which paper is made of. The technique of papermaking relies precisely on the natural property that the cellulose fibre have of bonding in the presence of water without the need for adhesives.

In Spain, the sector has a long tradition of optimising its use of water. Total water usage in Spanish pulp and paper mills currently stands at 111 million m3 per year, which is half the amount used in 1990 and 30% less than in the year 2000, even though production has increased by 60% since the early 1990s and by 22% since the beginning of the 21st century. Another fact to bear in mind is that of these 111 million cubic metres of water used to produce pulp and paper, only 5-10% is actually consumed, either because it evaporates during the process or because it is incorporated inside the end product. The remaining 90-95% is returned to the receiving medium once properly treated and after it has been reused internally as many times as possible.

All paper industry effluents are treated at the sector's own water treatment plants. In 2017, 20% of the discharges – double the figure of just one decade ago – received tertiary treatment over and above primary and secondary treatment. The percentage of effluent discharges that receive secondary in addition to primary treatment (71%) has also increased over the last ten years. On the other hand, the percentage of effluents with only primary treatment has been reduced from 25% in 2008 to the current 8% (with additional treatment in the public sewers network). A significant improvement in effluent quality has also been achieved throughout this last decade.

WATER USAGE AND CONSUMPTION IN 2017 | m³/t



TOTAL WATER CAPTURE BY SOURCE | MILLION m³

GRI 303-1

	2014	2015	2016	2017
Well	36	23	23	21 (19%)
River (surface waters)	79	70	70	76 (69%)
Public network	3	13	12	11 (10%)
Others (recovered waters)	2	2	3	2 (2%)
Total water used	**120**	**109**	**109**	**111 (100%)**

SOURCE: ASPAPEL

TOTAL WASTEWATER EFFLUENTS, BY TYPE AND DESTINATION | MILLION m³

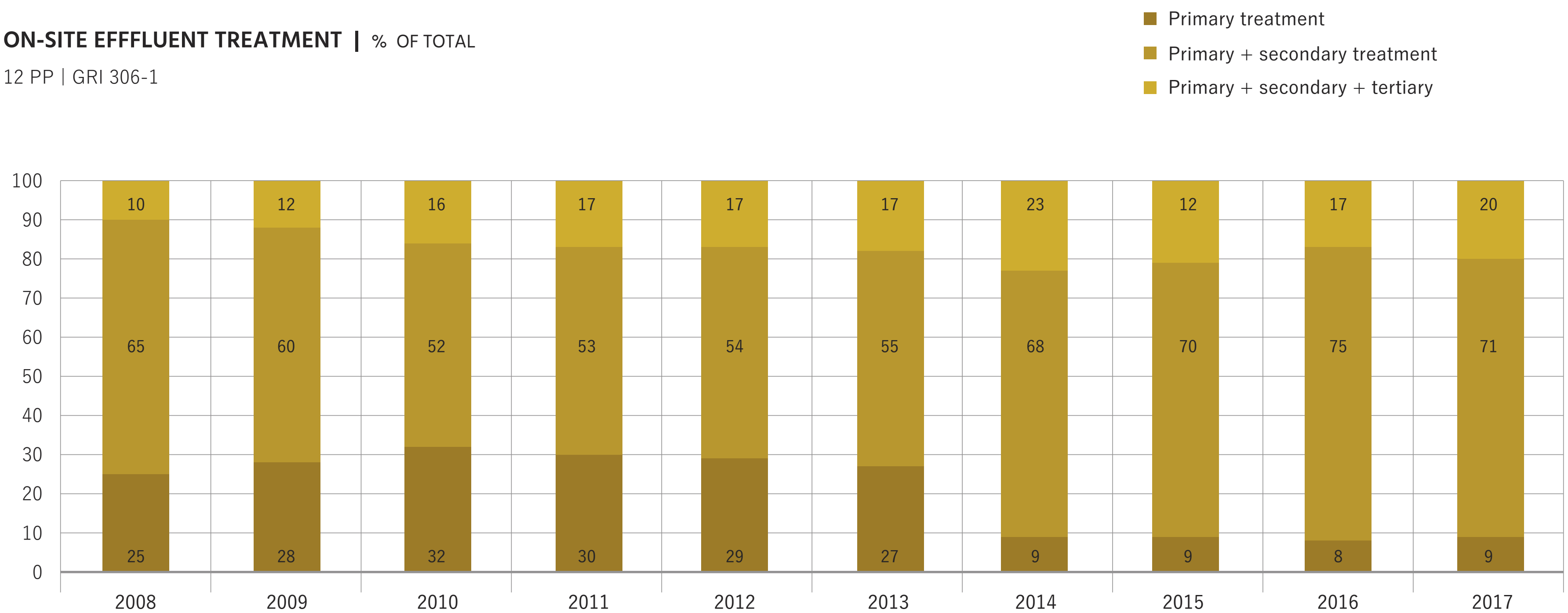
GRI306-1

	2014	2015	2016	2017
Rivers or lakes	51	40	34	39 (41%)
Sea	34	32	36	40 (42%)
Municipal sewers	19	19	21	10 (10%)
Estuaries	0	0	2	6.5 (7%)
Total water discharged	**104**	**91**	**93**	**95 (100%)**

SOURCE: ASPAPEL

ON-SITE EFFFLUENT TREATMENT | % OF TOTAL

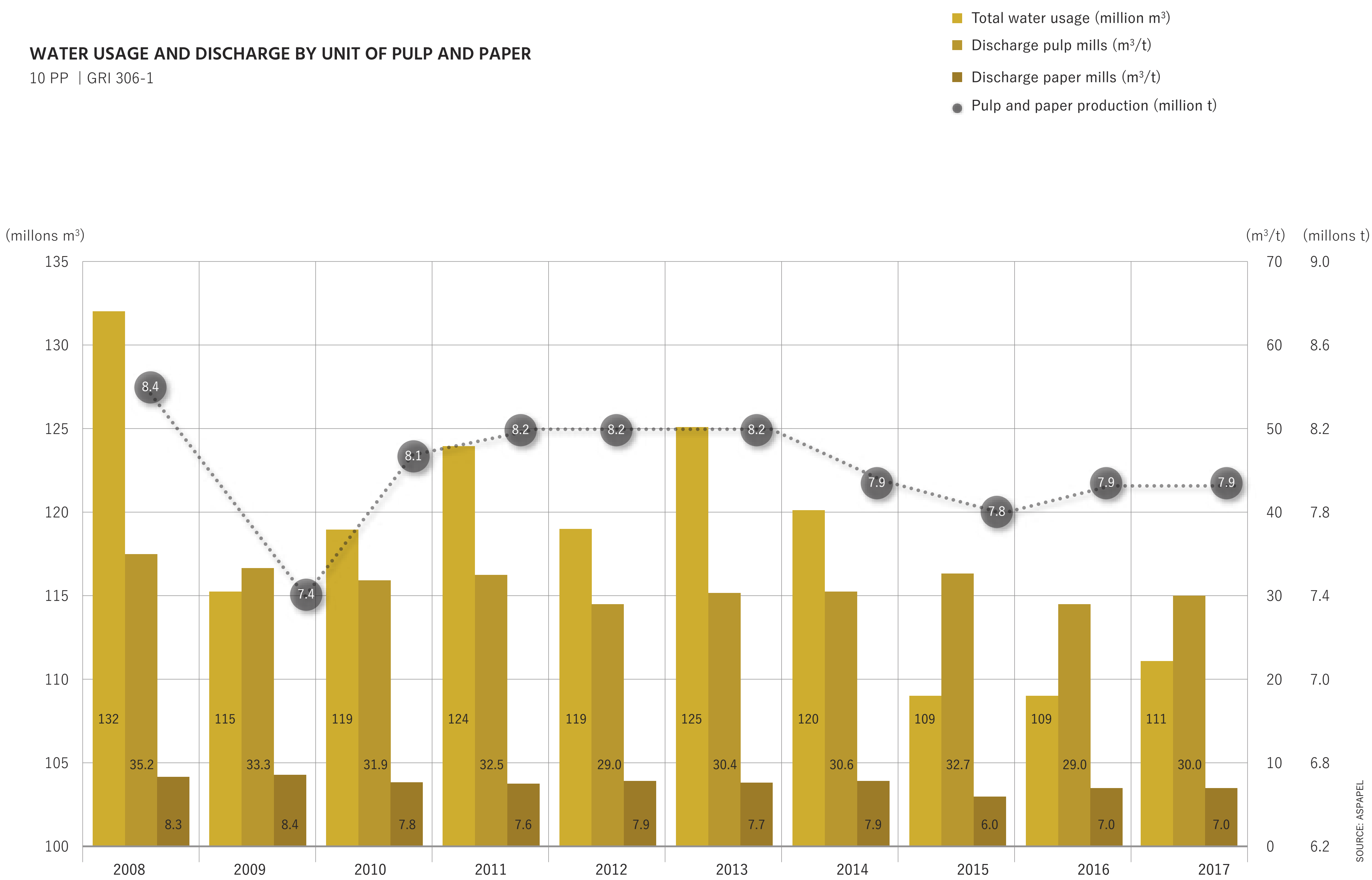
12 PP | GRI 306-1



SOURCE: ASPAPEL

WATER USAGE AND DISCHARGE BY UNIT OF PULP AND PAPER

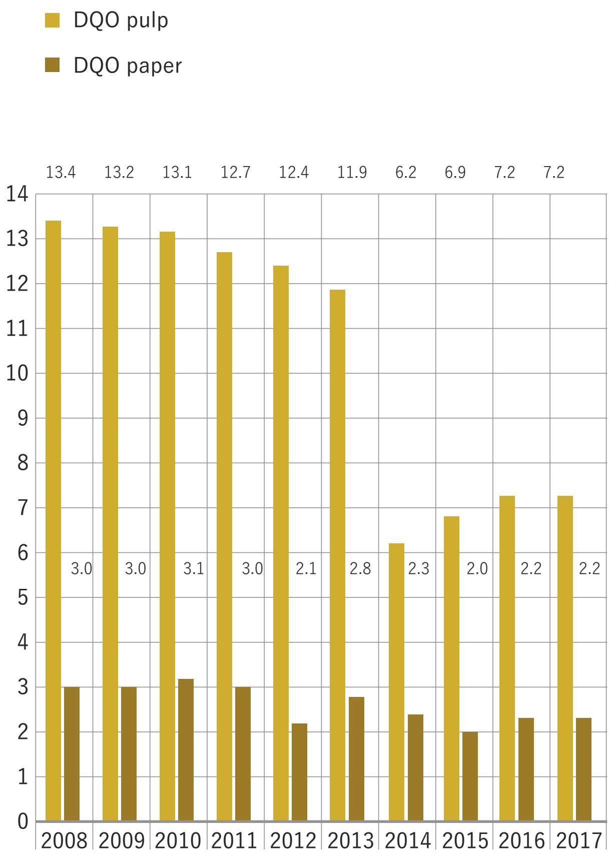
10 PP | GRI 306-1



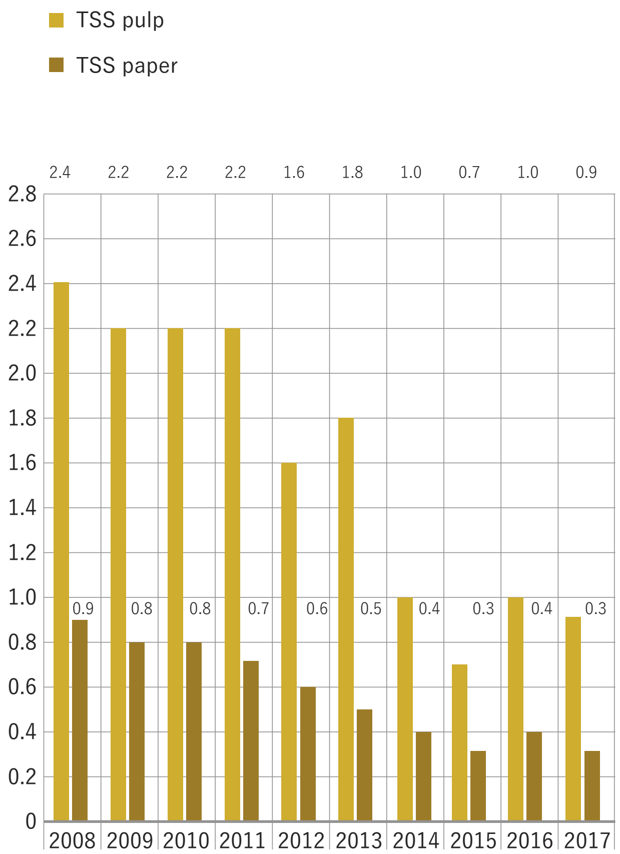
EFFLUENT QUALITY | kg/t

11 PP | GRI 306-1

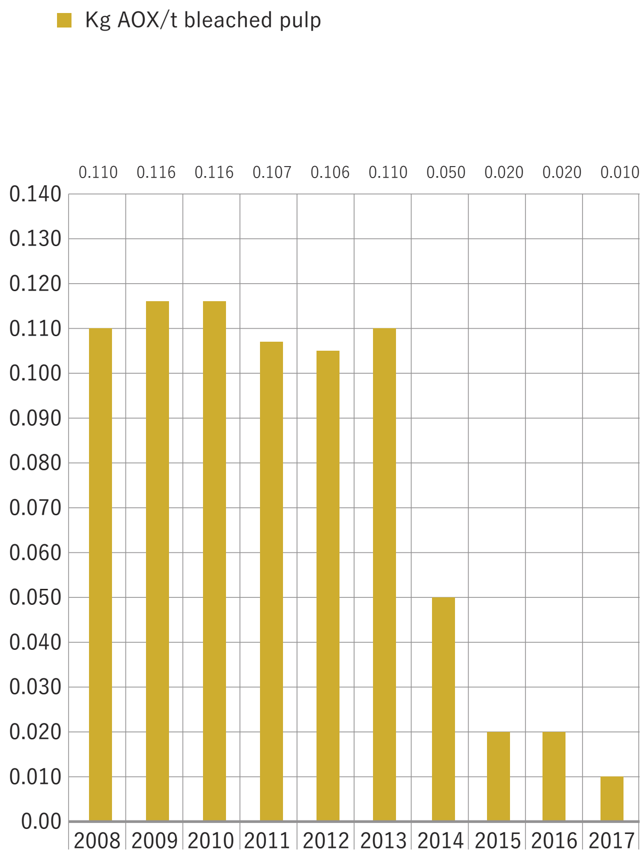
CHEMICAL OXYGEN DEMAND | kg/t



SUSPENDED SOLIDS | kg/t

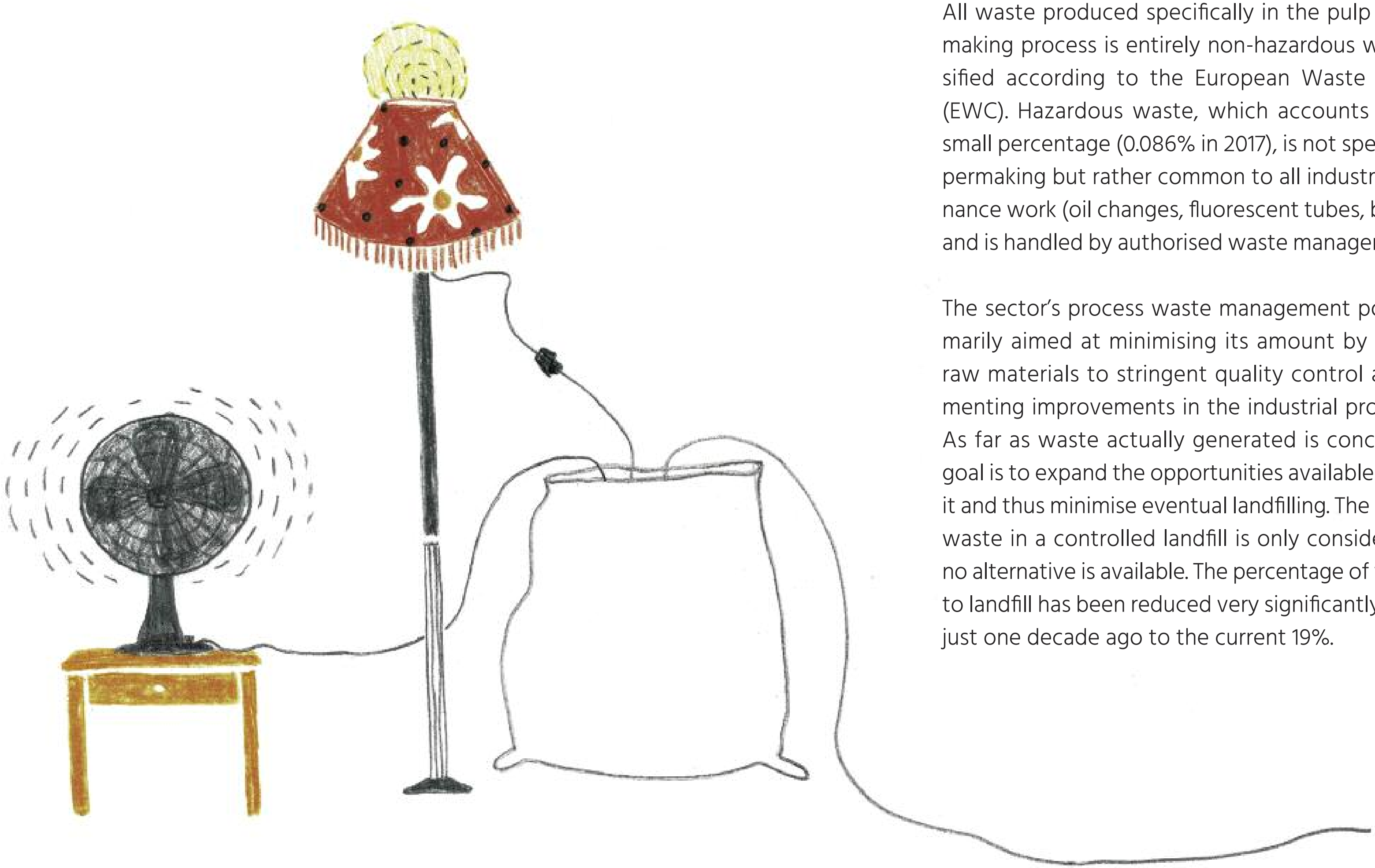


ADSORBABLE ORGANIC HALIDES | kg/t



FUENTE: ASPAPEL

Circularity in process waste management



All waste produced specifically in the pulp and paper making process is entirely non-hazardous waste, classified according to the European Waste Catalogue (EWC). Hazardous waste, which accounts for a very small percentage (0.086% in 2017), is not specific to papermaking but rather common to all industrial maintenance work (oil changes, fluorescent tubes, batteries ...) and is handled by authorised waste management firms.

The sector's process waste management policy is primarily aimed at minimising its amount by subjecting raw materials to stringent quality control and implementing improvements in the industrial process itself. As far as waste actually generated is concerned, the goal is to expand the opportunities available to recover it and thus minimise eventual landfilling. The disposal of waste in a controlled landfill is only considered when no alternative is available. The percentage of waste sent to landfill has been reduced very significantly from 38% just one decade ago to the current 19%.

Currently 81% of process waste is re-used in various ways. The main uses it is given are for energy recovery, principally at the mill itself (39%), as raw material in other sectors such as the cement or ceramics industries (9.1%), for direct agricultural use (8.8%) and as compost (7.3%). Significant progress has been made in re-using this waste as fuel on site at the mill, growing from just 0.5% in 2008 to 36.7% today.

Each plant – individually and for each type of waste – chooses the best way of treating its waste on the basis of technical and environmental criteria, legal requisites and economic feasibility.

SOLID WASTE IN THE SPANISH PAPER INDUSTRY | TONS

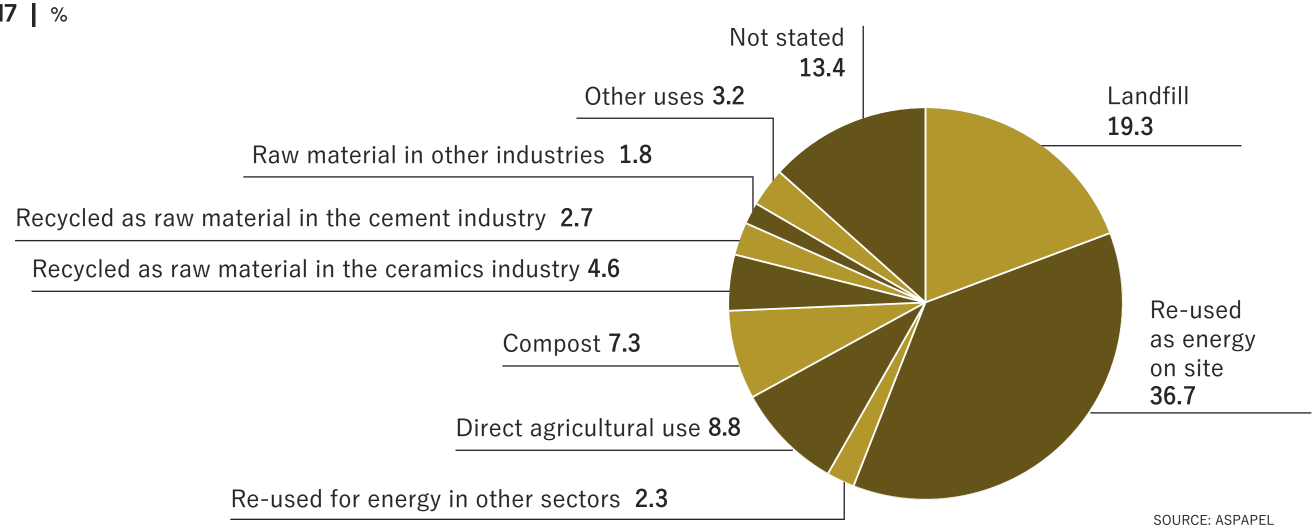
9 PP | GRI 306-2

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Non-hazardous waste specific to the paper industry	1,447,568	1,424,208	1,553,390	1,483,497	1,590,360	1,480,865	1,412,856	1,488,563	1,344,009	1,269,041
Other non-hazardous waste	82,961	85,435	86,851	110,326	154,420	137,658	158,382	90,877	239,579	114,021
Hazardous waste	9,026	9,348	2,349	2,452	3,069	2,890	2,500	1,753	1,601	1,192
Total	**1,539,555**	**1,518,991**	**1,642,590**	**1,596,275**	**1,747,849**	**1,621,413**	**1,573,738**	**1,581,193**	**1,585,189**	**1,385,055**

SOURCE: ASPAPEL

PAPER INDUSTRY PROCESS WASTE MANAGEMENT IN 2017 | %

9 PP | GRI 306-2



SOURCE: ASPAPEL

PAPER INDUSTRY PROCESS WASTE MANAGEMENT | TONS

9 PP | GRI 306-2

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Landfill	37.5	35.0	35.0	29.0	27.8	22.9	19.4	19.8	20.9	19.3
Re-used for energy on site at the mill	0.5	2.6	2.9	8.8	23.6	27.3	25.3	25.2	27.8	36.7
Re-used for energy in other industries	-	-	-	-	-	-	2.2	2.6	2.3	2.3
Direct agricultural use	33.0	29.5	32.4	31.4	24.0	24.2	22.1	15.2	13.6	8.8
Compost	7.0	7.4	8.5	12.1	15.4	9.9	9.3	14.6	14.5	7.3
Recycled as raw material in the ceramics industry	13.0	14.7	10.3	9.6	3.4	1.3	1.3	6.3	9.7	4.6
Recycled as raw material in the cement industry	6.0	5.1	6.7	7.7	2.0	2.1	3.1	0.4	2.2	2.7
Raw material in other sectors	1.0	0.8	0.4	0.7	2.2	8.0	1.4	4.3	2.2	1.8
Other uses	2.0	4.9	3.8	0.7	1.5	4.2	4.2	4.6	5.2	3.2
Not stated	-	-	-	-	-	-	11.7	7.0	1.5	13.4

SOURCE: ASPAPEL

Stable and well-qualified workforce

GRI 401-1

Work in the paper industry is characterised by its continuous technological renovation. The production process is highly computerised, automated and robotized. Quality control and environmental issues, as well as innovation in processes and products and the development of new applications, are the main features of today's papermaking business. All of this calls for a stable workforce of qualified employees.

The number of employees in the paper industry in Spain totals 16,280 direct jobs in 2017, which represents a slight (0.5%) recovery of the employment lost during the first and second recessions, which saw 10% of the workforce in 2007 made redundant.

By sex, the workforce is split into a majority of men (86%) and 14% women. Females make up the majority of staff in Administration departments, where they account for 53% of employees; they also hold 21% of managerial and technical positions, and it is at the line operating level where the proportion of female staff is lowest, just 6%.

As far as distribution by age is concerned, a little over one third (34.4%) of employees are in the 41 to 50 year old range, 33.6% are below that age, while 31.9% belong to the eldest age group.

WORKFORCE EVOLUTION

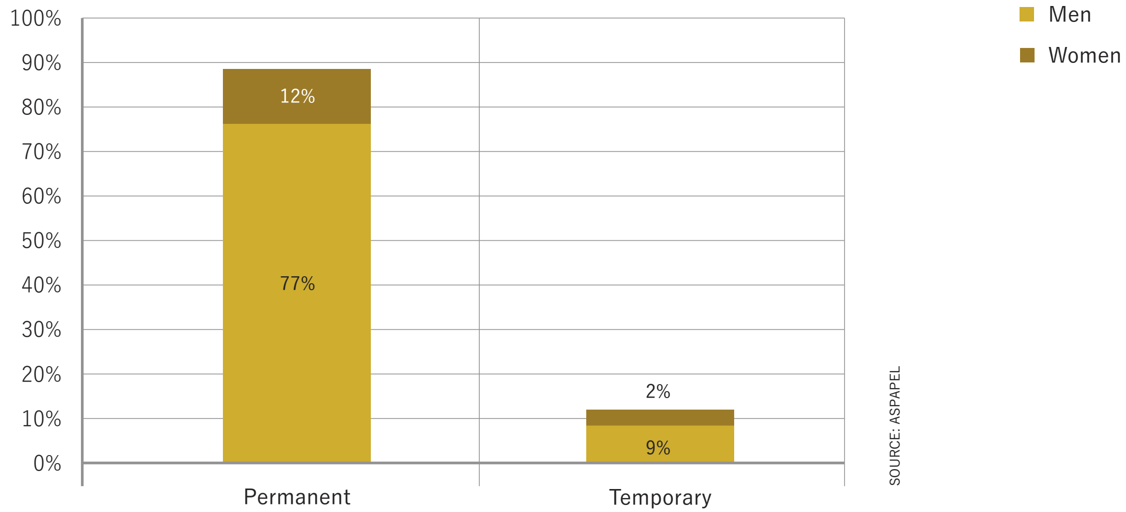
14 PP | 15 PP | GRI 401-1

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Number of direct employees	17,850	17,400	17,200	17,200	17,150	17,075	16,570	16,320	16,200	16,280

SOURCE: ASPAPEL

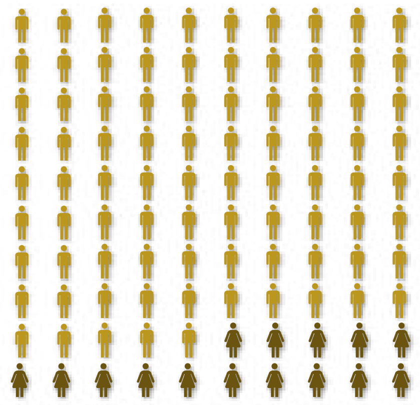
WORKFORCE STRUCTURE

14 PP | 15PP | GRI 401-1



DISTRIBUTION BY SEX

14 PP | GRI 401-1



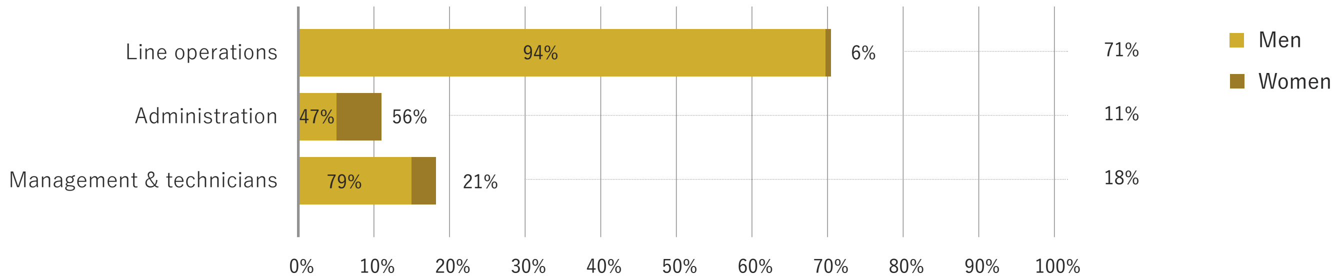
86% Men

14% Women

SOURCE: ASPAPEL

DISTRIBUTION BY CONTRACT TYPE

14PP | GRI 401-1

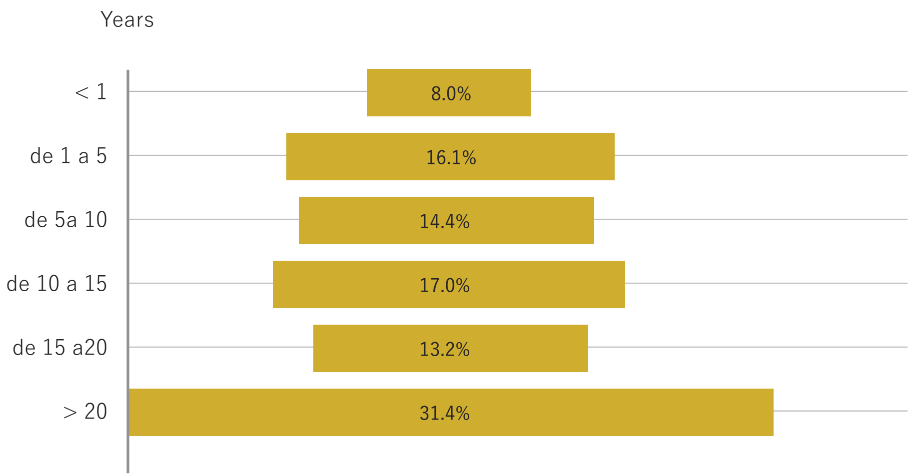


SOURCE: ASPAPEL

Worker employment in the sector is characterised by stability and low rotation. Currently 89% of the sector's employees have permanent contracts, while 11% are temporary jobs. One in three employees (31.4%) has been with the company for more than 20 years and three out of five (61.6%) have more than 10 years' seniority.

DISTRIBUTION BY SENIORITY

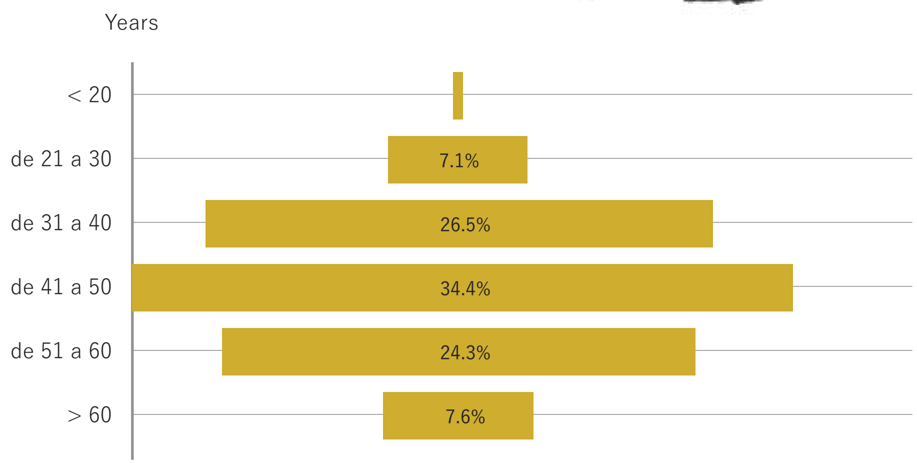
14 PP | 15 PP | GRI 401-1



SOURCE: ASPAPEL

DISTRIBUTION BY AGE

14 PP | 15 PP | GRI 401-1

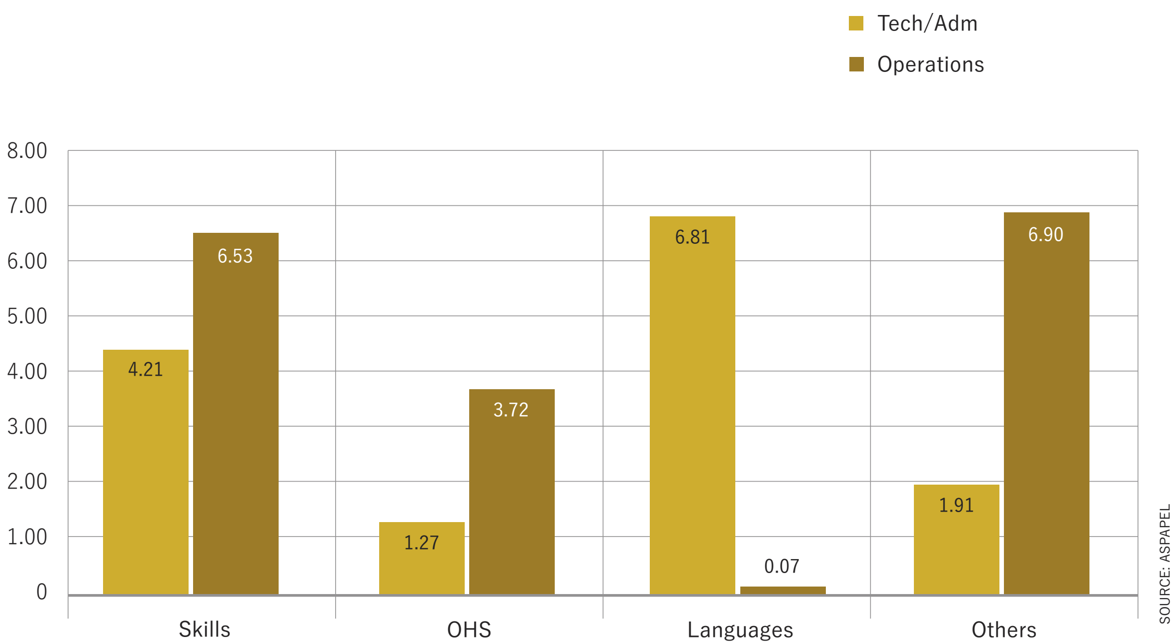


SOURCE: ASPAPEL

Continuous in-house training supplemented by a sector-wide offer

GRI 404-1

TRAINING | HOURS/EMPLOYEE
14 PP | 15 PP |GR I 404-1



As far as in-house training is concerned, the average annual number of hours per employee is 14.2 in Administration departments and Technical positions and 17.22 at line operating level. For the first group of Technicians and Admin staff, training is aimed mostly at languages and skills-building, whereas at operator level, training is geared at skills-building, occupational health & safety, and above all, other specific matters related to the particular job.

ASPAPEL sponsors a sector-wide offer of talent development designed to supplement the training plans companies offer their workers, which responds with agility to the training needs of companies and professionals in the sector through flexible formulas (courses and seminars on site, webinars and streaming courses and training sessions with an in-company option).

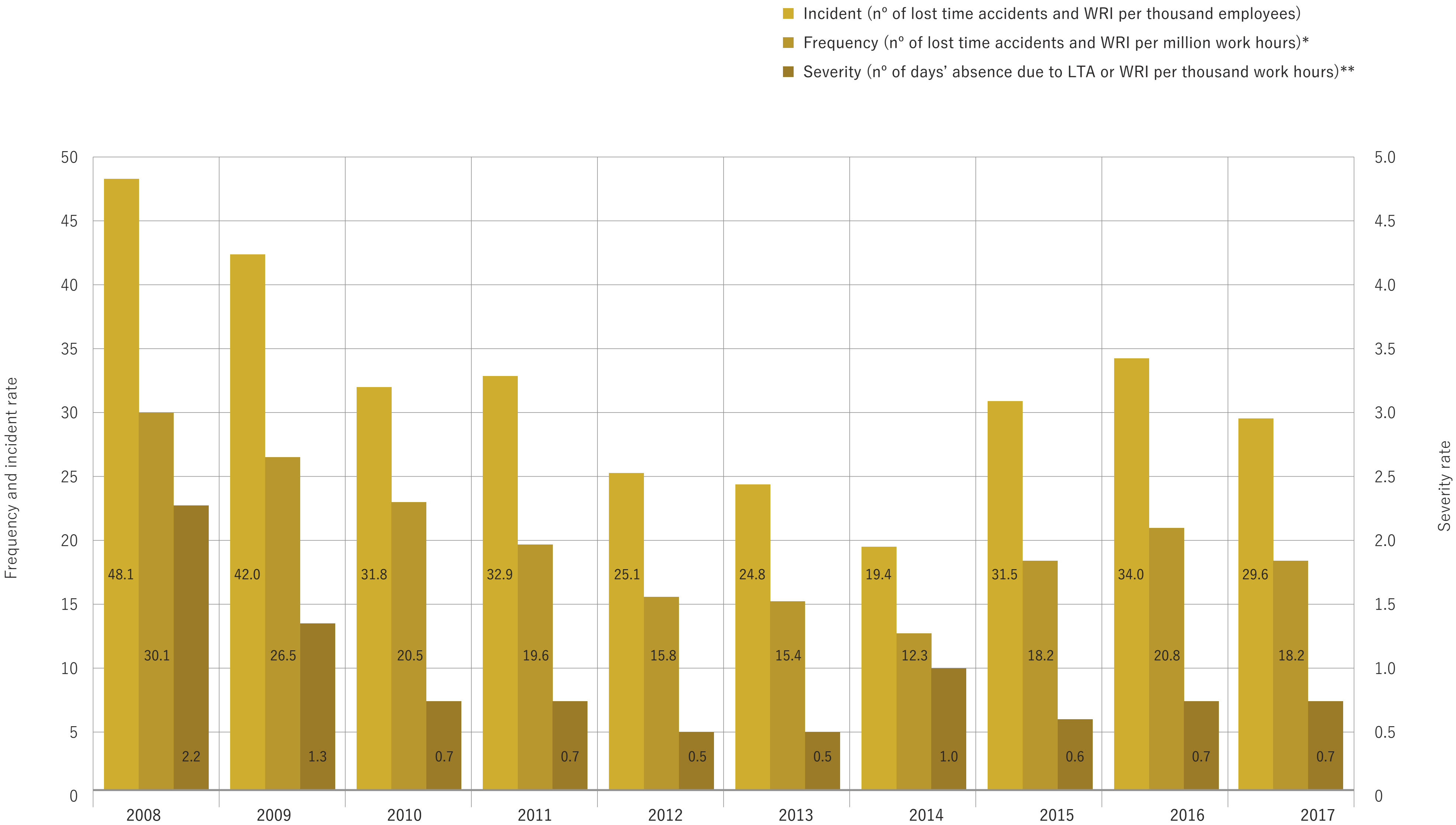
Collaboration in occupational health & safety

Occupational health & safety is a basic item and a strategic priority in the paper industry's human capital management in Spain. It comprises a powerful and ambitious sector-wide programme that counts on the collaboration of employers and trade unions and the active and committed participation of companies.

Collaboration and involvement in this strategic objective has enabled accident rates to be reduced significantly over the last decade. In the period covered by this report, however, there was a slight rebound in 2015 and 2016 in terms of accident and incident frequency, a trend that has since been reversed in 2017. In terms of accident severity, the index remained at around 0.6 or 0.7 in 2015-2017, with zero fatal accidents in this period.

EMPLOYEE ACCIDENT RATES | INCIDENTS, FREQUENCY AND SEVERITY

17 PP | GRI 403-2



*Frequency rate includes fatal accidents where applicable

**Lost days start counting from the day of the accident (unlike other European countries that count from the third day)

SOURCE: ASPAPEL

In the period 2015-2017, average sick leave duration was between 34 and 40.6 calendar days.

EMPLOYEE ACCIDENT RATES | AVERAGE DURATION

17 PP | GRI 403-2

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average duration *	74.45	47.66	35.81	34.56	30.12	33.76	79.71	34.09	34.37	40.59

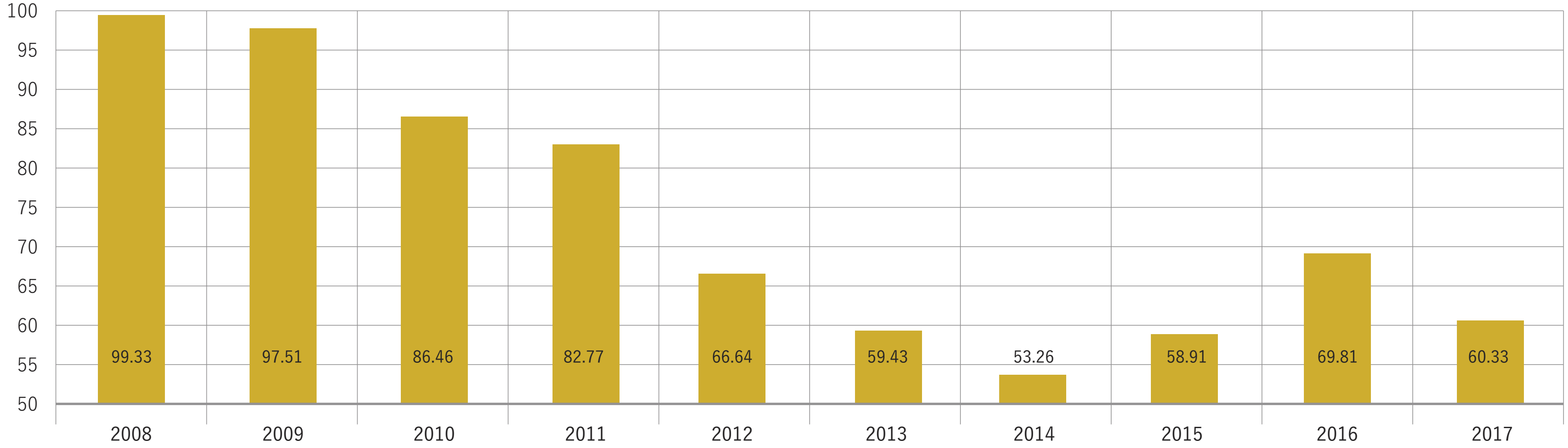
SOURCE: ASPAPEL

*Average length of sick leaves (calendar days on leave / total no. of accidents and work-related illnesses)

The overall frequency rate, which includes lost time accidents and those that do not entail sick leave, had the same trend over the period 2015-2017, with a slight upward rebound followed by correction in the last year.

EMPLOYEE ACCIDENT RATES | OVERALL FREQUENCY (INCLUDES ACCIDENTS WITH & WITHOUT LOST TIME)

17 PP | GRI 403-2

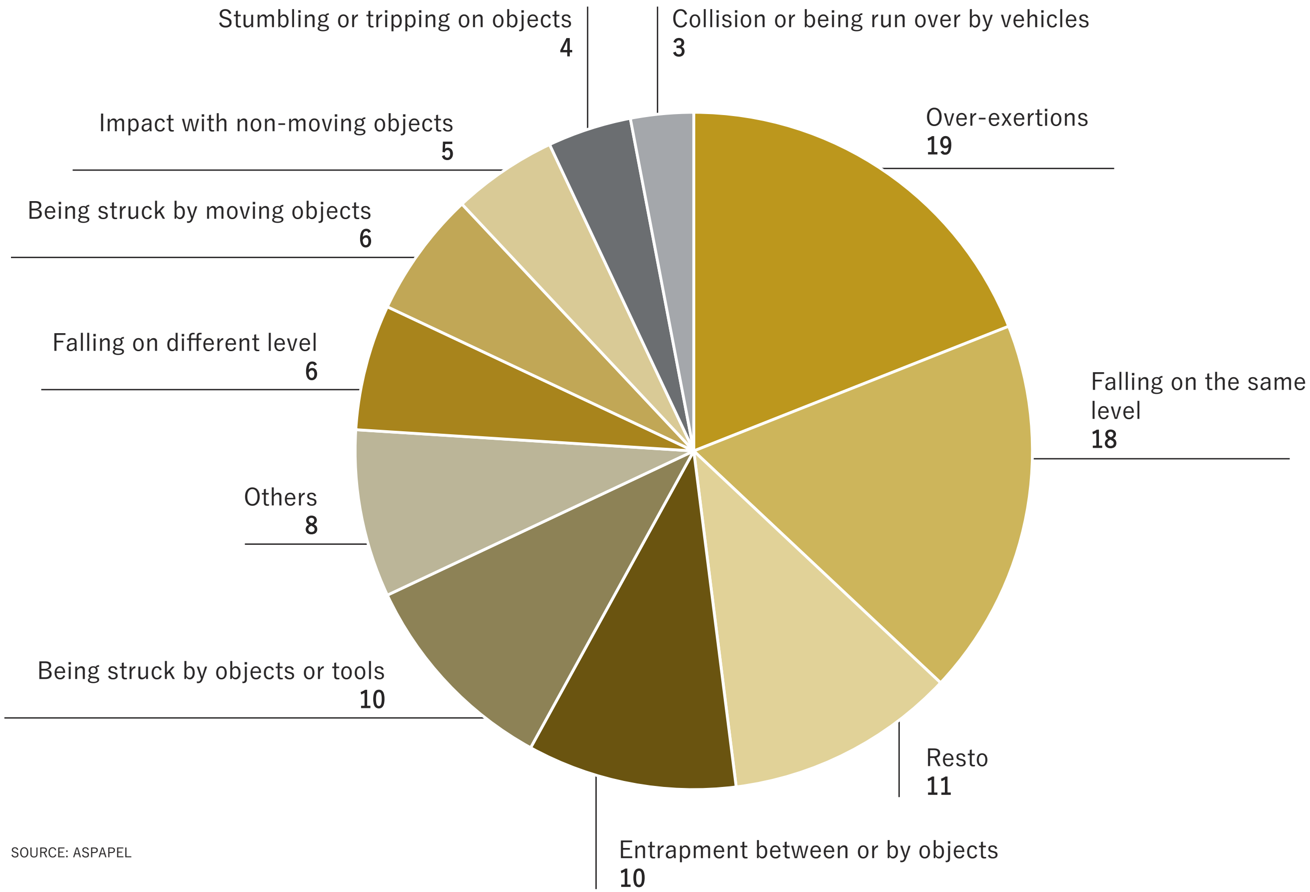


SOURCE: ASPAPEL

Looking at types of accidents and how they occur, in 2017, over-exertions and falls on the same level account for 19% and 18% respectively, followed by impacts with an object or tools (10%) and entrapment between or by objects (10%). The pattern of accident types has remained stable in recent years.

TYPES OF EMPLOYEE ACCIDENTS 2017 | %

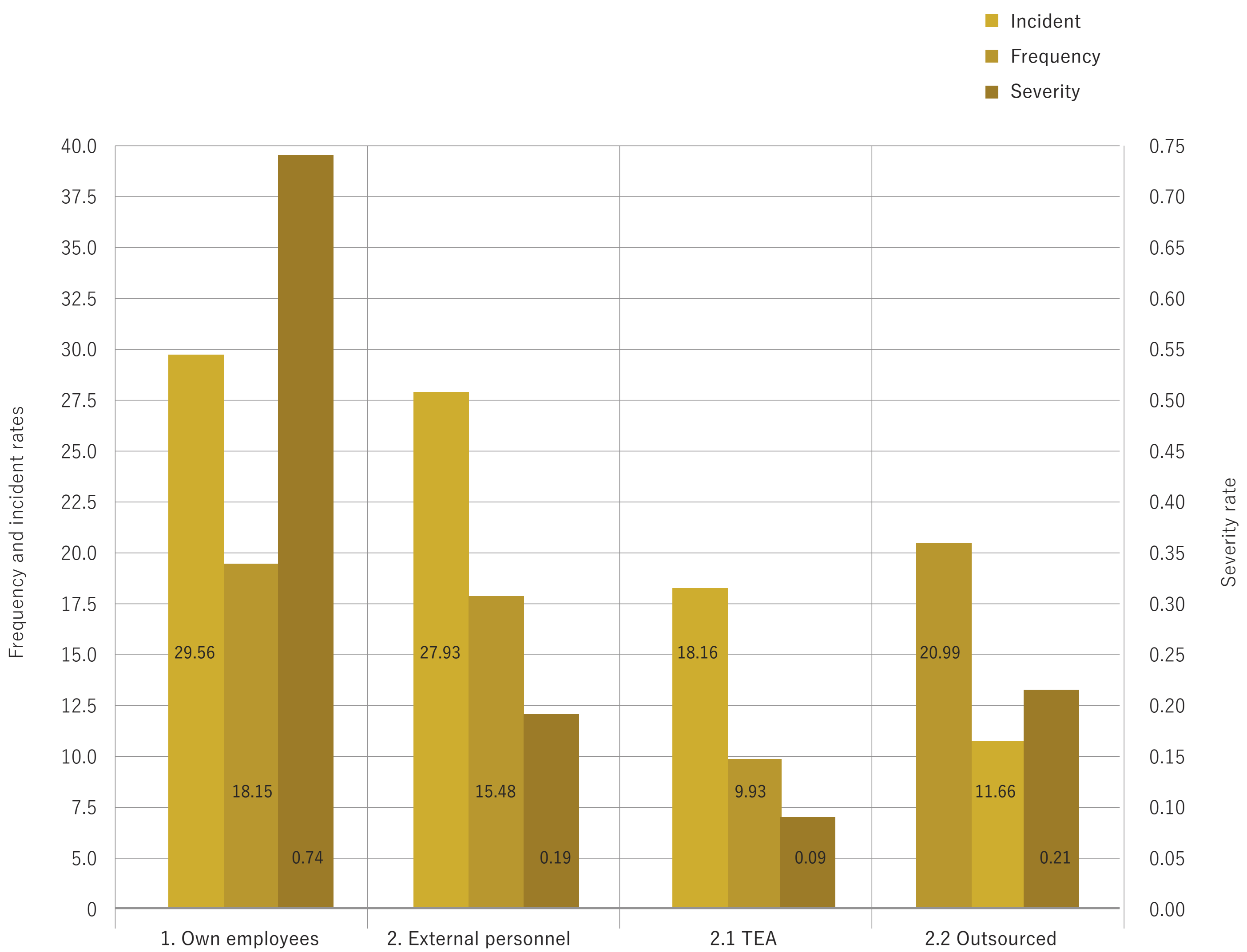
17 PP | GRI 403-2



SOURCE: ASPAPEL

OWN EMPLOYEES AND REGULAR EXTERNAL PERSONNEL INDEXES 2017

17 PP | GRI 403-2



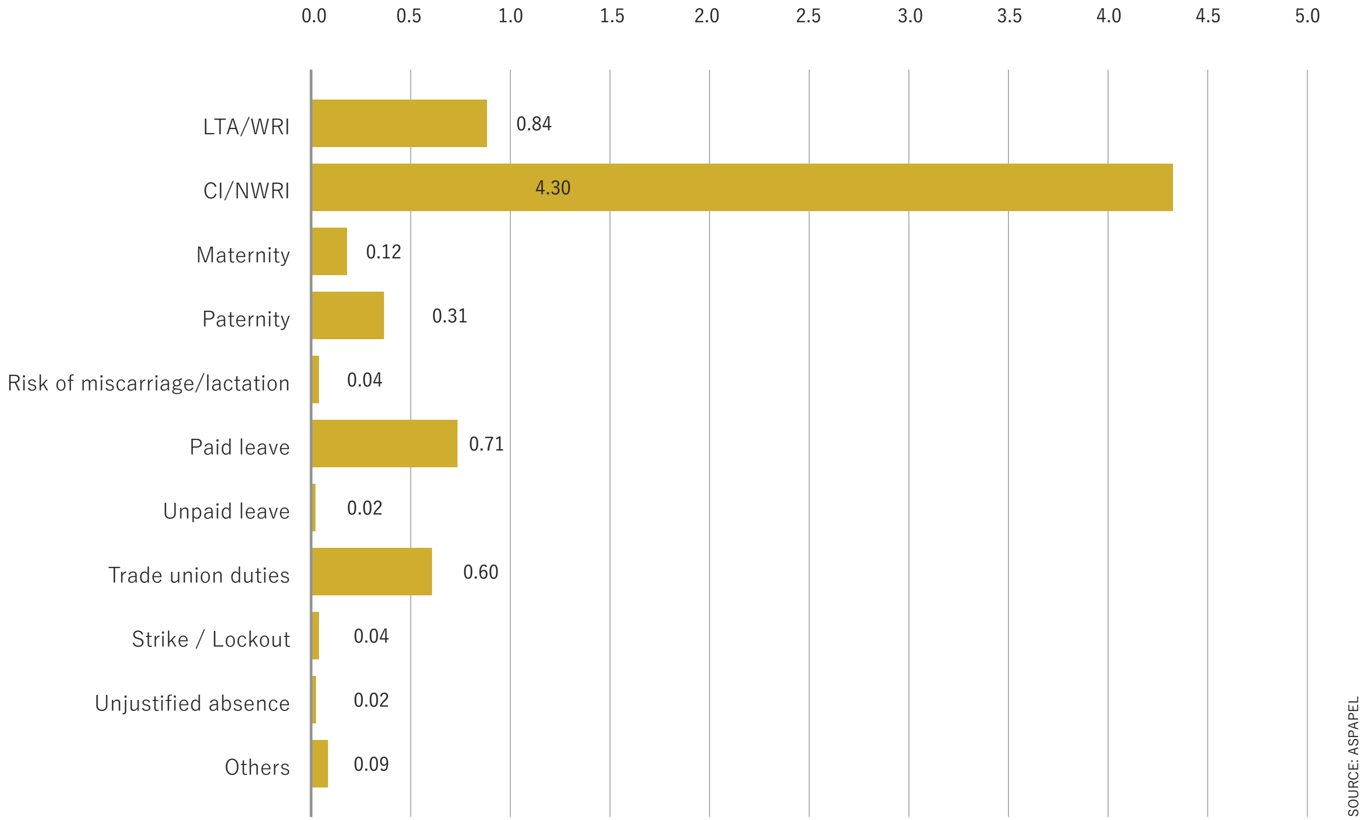
Rates calculated only for subcontracts and regular temping agencies.

SOURCE: ASPAPEL

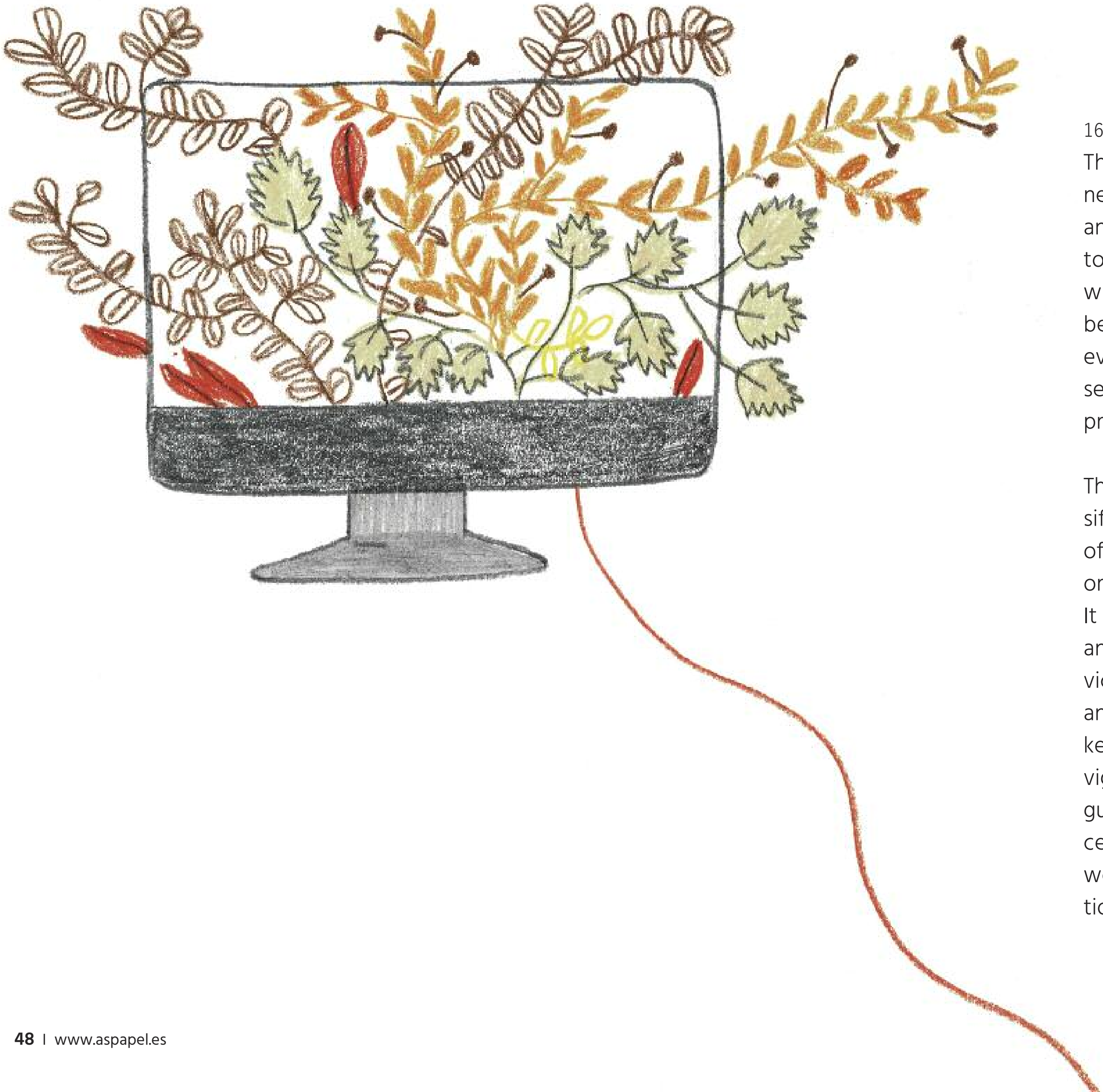
In 2017, the accident rate among outside companies that are regularly subcontracted to do work in the sector fared well in regard to frequency and incidents and especially in terms of severity, with a result below that of the sector's own employees.

EMPLOYEE ABSENTEEISM BY REASON | LOST WORK DAYS / THEORETICAL WORK DAYS AS %

17PP | GRI 403-2



Common illness and non-work related accidents are the main causes of employee absenteeism, followed a long way back by work-related accidents and occupational illness, paid leave, trade union duties (hours for members of the works council and shop stewards to exercise their trade union duties) and paternity and maternity leave.



16 PP | GRI 403-4

The sector's collective bargaining agreement indicates the need to encourage preventive action in occupational health and safety, to implement a method for analysing and monitoring work accidents and occupational illness, and to adopt whatever organisational, training and information actions may be necessary to ensure a true decrease in the number of events. It emphasises that all companies in the sector should seek to guarantee everyone's full collaboration so that these preventive measures can effectively reduce risks.

The agreement stresses as a priority the promotion and intensification of organisational, training and information actions of a preventive nature that enable employees to adapt to the organisational changes brought about by new technologies. It also points to the need to strengthen the task of medical and epidemiological surveillance by companies' medical services. The agreement calls on company management, health and safety committees, HSE officials, works councils and worker representatives to provide for the strictest compliance, vigilance and application of all current health and safety regulations (both general and specific to the company or work centre). It expressly mentions that the best protection for workers is achieved through referral to the current Occupational Health and Safety Act (LPRL).

In the period covered by this report, work has continued on different projects within the framework of the Sectorial OHS Programme initiated in 2003 by ASPAPEL and the trade unions that signed the collective bargaining agreement. In 2015, a third assessment of the situation in the sector in terms of OHS was carried out, which diagnoses the situation over a five-year period and defines future actions to maintain a sustained reduction in accident rates.

In 2016, the project entitled *'Nuestro Papel en PRL en los últimos 10 años / Our Role in OHS over the last 10 years'* was undertaken jointly with the FICA-UGT traded union to compile in a structured manner all the manuals, guides, training videos and other materials published within the framework of the *Paper Industry's Sectorial OHS Programme* over the last decade. In addition, in 2016 ASPAPEL published its *Sectorial Guide to Truck Loading and Unloading Operations*, with recommendations that guarantee the consistent application of preventive and safety actions when transport hauliers are operating at production work centres.

ASPAPEL launched two other projects in 2017: the *'Campaña PRL en Casa / OHS Campaign at Home'*, which reflects on the need to transfer into our daily lives the safety habits that we learn over the years at work, and the Microsite for training trainers in OHS, which encompasses a total of 21 group dynamics to strengthen the concepts of preventive culture, risk perception, behaviour change, safety leadership, training techniques and communications in OHS.

GRI 403-1

It is worth noting that management–employee collaboration in matters of occupational health and safety is largely ensured in the sector due to the fact that over 95% of employees are represented on health & safety committees.

Bioproducts, bioconsumerism

The Spanish circular bioindustry of pulp and paper is one of the largest producers of pulp and paper in Europe, with 68 paper mills and 10 pulp mills. Its business contributes to the generation of wealth, as well as being the driving force behind a powerful value chain, whose global contribution to the economy accounts for 4.5% of GDP and generates one in every fifty jobs in our country. The sector improves citizens' quality of life with renewable and recyclable bioproducts, capable of producing the greatest added value from local raw materials. These bioproducts respond to modern consumers' demands by replacing products from non-renewable fossil resources and thus contribute to decarbonisation.

The multiplier effect of the sector through the paper value chain

GRI 201-1 | GRI 203-2

THE circular bio-industry of pulp and paper has an important multiplier effect on the economy as the driving force of a powerful value chain, whose overall contribution to the economy accounts for 4.5% of GDP and generates one in every fifty jobs in Spain, according to a recent study by CEPREDE for the organisations in the chain. Likewise, four out of every fifty euros invoiced by the industry and one out of every fifty euros collected by the State through taxation or social security contributions in Spain are linked to the business activities of this value chain.

The pulp, paper and board value chain - as defined in that study - begins in nature with wood for paper plantations from which the natural and renewable raw material is obtained that the paper industry uses to produce pulp and paper. In the next link, converting companies take that paper and use it to produce a very broad range of paper and board products, such as packaging of all kinds (boxes, bags...), stationery (envelopes, notebooks, folders...) and tissue products (toilet paper, handkerchiefs, kitchen towels...). The value chain continues through the printing, reproduction and finishing services sector, advertising and direct publicity firms, and through the publishing industry with books, newspapers and magazines. This powerful chain that creates employment and wealth also encompasses postal and mail businesses dedicated to sending letters and parcels. And finally, the chain closes with the waste recovery sector that collects and treats used paper so that it can be returned to the paper mills.

Made up of 17,377 companies with paid workforces, the pulp, paper and board value chain provides direct employment to 182,370 people. Direct turnover stands at 23.094 billion Euros. The paper and board value chain has a very significant effect on the Spanish economy, not just directly but also an indirect or induced effect that has to be reckoned in its entirety.

Overall turnover accounts for 4.5% of Spanish GDP. In terms of labour, the global contribution of the chain represents 18.5% of industrial employment and 2% of total employment. With 8.8% of industrial output, it generates 13.2% of industry's added value. It also contributes 1.8% of the country's tax revenue through corporate tax, S.S. contributions, income tax and VAT.

The total contribution (direct, indirect and induced) of the pulp, paper and board value chain to the entire national economy translates into 369,036 jobs and a payroll bill of 12.536 billion Euros. Overall turnover stands at 48.471 billion Euro and added value amounts to 18.378 billion. Therefore, total contribution to the State coffers via taxation and social security contributions is 7.424 billion Euros.

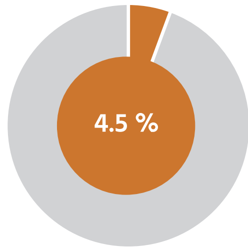
SOCIO-ECONOMIC SIGNIFICANCE OF THE PULP, PAPER AND BOARD VALUE CHAIN 2015 | MILLION EUROS

GRI 201-1 | GRI 203-2

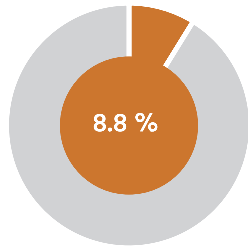
	Direct contribution	Total contribution (direct+indirect+induced)
Turnover	23,094	48,471
Added value	8,528	18,378
Employment	182,370	369,036
Payroll	6,090	12,536
Gross surplus	2,566	6,055
Taxation	3,529	7,424

TOTAL CONTRIBUTION OF PULP, PAPER AND BOARD VALUE CHAIN 2015 (direct+indirect+induced) | MILLION EUROS

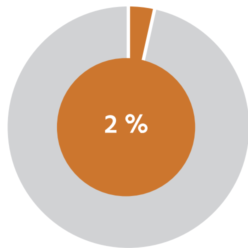
GRI 201-1 | GRI 203-2



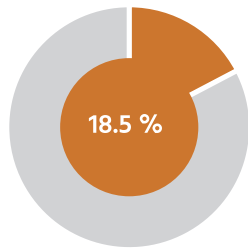
Of Spanish GDP



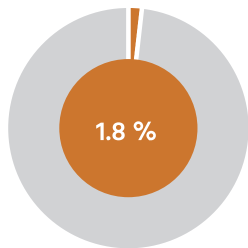
Of industry turnover



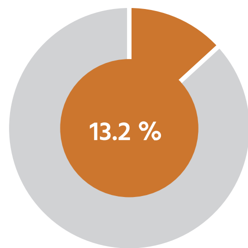
Of total employment in Spain



Of employment in industry



Of tax revenues in Spain



Of industry added value

Part of Europe's elite

THE Spanish paper industry is one of the largest European producers of pulp and paper, with 68 paper mills and 10 pulp production plants, which play an important role in generating employment and wealth in their respective communities.

With a production of 6.2 million tons of paper, accounting for 7% of all European output, Spain is the sixth producer in the E.U. after Germany (which produces a quarter of the paper manufactured in Europe), Finland, Sweden, Italy and France. With 1.7 million tons of pulp production, Spain is also the sixth largest European producer after Sweden and Finland (the two top European forest powers, which have an equal share of 60% of European production), Portugal, Germany and France.

Within the context of recovery initiated by the sector in 2015, the various types of paper have performed differently, the highlight being the growth in packaging papers and specialty papers.

Papers for packaging already account for 61% of production. Demand for them is growing strongly with great future prospects as a result of the increase in electronic commerce and of the fact that paper, given its environmental characteristics (natural, renewable, recyclable, biodegradable), is taking over from other packaging materials based on fossil resources. Production of corrugated paper is at an all-time high, nearly reaching the three million ton mark in 2017, while production of coated cardboard is displaying 2-digit growth rates.

Similarly, production of special papers has been growing at or around a two-digit rate for four consecutive years. These high added-value papers for very specific applications (decorative papers, security papers, self-adhesive paper, metallized paper ...) already account for 8% of Spanish paper production.

SECTOR'S TOTAL TURNOVER | MILLION EUROS

23 GR | GRI 201-1

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
4,845	3,400	4,160	4,643	4,317	4,263	4,141	4,156	4,240	4,401

SOURCE: ASPAPEL

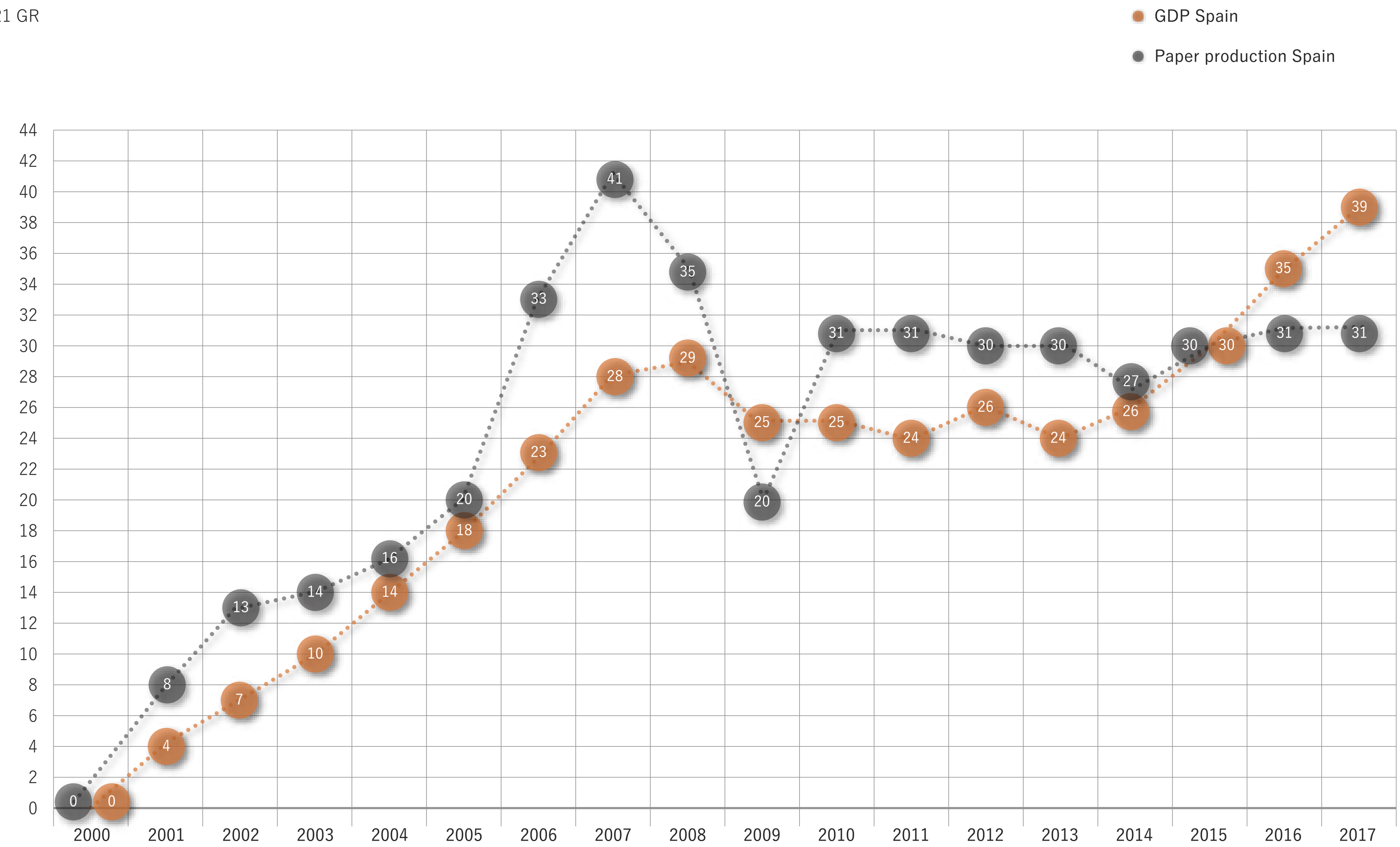
EVOLUTION OF PRODUCTION OUTPUT AND CONSUMPTION | 000' TONS

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Paper production	6,414	5,700	6,193	6,203	6,177	6,181	6,036	6,195	6,219	6,218
Paper consumption	7,266	6,213	6,448	6,428	6,158	6,085	6,257	6,607	6,645	6,803
Pulp production	2,009	1,739	1,865	1,976	1,981	1,977	1,863	1,641	1,677	1,700
Pulp consumption	1,965	1,743	1,794	1,771	1,847	1,921	1,813	1,949	1,914	1,877

SOURCE: ASPAPEL

SECTOR GROWTH VS. GDP | % OF AGGREGATE GROWTH SINCE 2000

21 GR



SOURCE: INE & ASPAPEL

LABOUR EMPLOYMENT AND PRODUCTIVITY

26 GR | 27 GR | GRI 401-1

The number of direct jobs in the pulp and paper sector stands at 16,280. In 2017, a rebound in employment began following the first and second recession, which brought about a 10% loss of employment in the sector compared to 2007. Employment in the sector is characterised by its high qualification and stability. The paper industry is the driving force of a powerful value chain that globally generates 19% of industrial employment and 2% of all employment in Spain.

Labour productivity has continued to grow in the period covered by this report (2015-2017) and is already back at pre-crisis levels.

UPDATED MAP OF PRODUCTION MILLS

GRI 203-1

SOURCE: ASPAPEL

GRI 203-1

EXAMPLES OF DYNAMIC INFRASTRUCTURES AND SERVICES AROUND THE SECTOR'S BUSINESS

RAW MATERIAL SOURCING

> Wood Contribution to cleaning forest stands and the building and maintenance of access roads (forest tracks)
> Paper for recycling Contribution to clean cities and reduced dumping on landfills.

PRODUCTION

Improved access roads, extension of gas supplies or installation of municipal water treatment plants where there were none previously.
Enhanced stability of the electric system, grid and transformer stations thanks to the sector's CHP plants.

GRI 203-1

The Spanish paper sector's business, in as far as supplies of both wood and paper for recycling are concerned, generates capital expenditure in infrastructures and services that boost economic and social dynamics in the vicinity of its 68 paper mills and 10 pulp mills, to the benefit of the entire community in the areas where they operate.

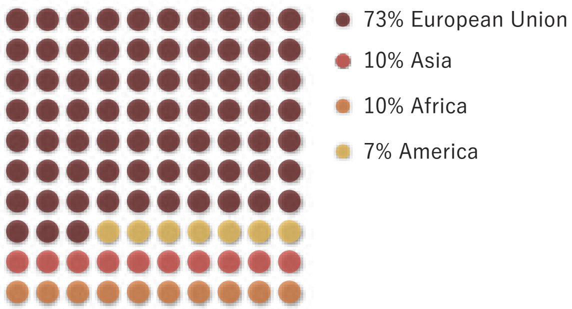
EVOLUTION OF EXPORT RATE | % EXPORTS/PRODUCTION OUTPUT
25 GR

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Paper export rate	46.2	49.3	49.4	47.6	47.9	49.3	48.3	45.1	45.5	43.1
Pulp export rate	53.3	50.1	51.8	62.3	59.2	61.6	58.9	51.8	55.4	56.6

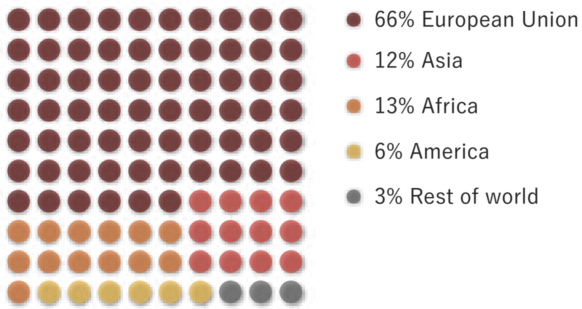
SOURCE: ASPAPEL

DESTINATION OF PULP AND PAPER EXPORTS | % OF TOTAL
25 GR

2014



2017



SOURCE: ASPAPEL

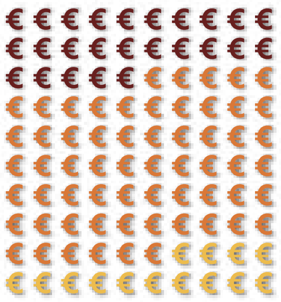
The paper industry is strongly geared to foreign trade - 57% of pulp and 43% of paper made in Spain is destined to foreign trade, which accounts for 56% of turnover. Most of the exports (59% of paper and 84% of pulp) are headed to other countries in the European Union, more specifically to highly demanding markets such as Germany, France, Italy, Portugal and the Netherlands. The EU remains the destination of 66% of all of the sector's exports, although other regions such as Asia and Africa are increasing.

Exports gave the sector certain respite during the crisis in the face of the significant downturn in the domestic market. Following the reactivation of the Spanish economy, the sector – while still not neglecting its foreign markets – is giving domestic consumption top priority again.

RAW MATERIAL PROCUREMENT

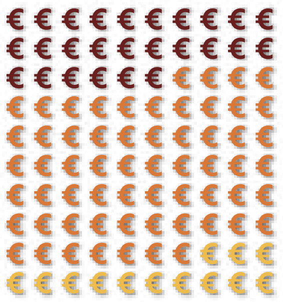
24 GR | GRI 203-2 | GRI 301-1 | GRI 301-2

2014



- 25% Virgin fibre
- 61% Fibre for recycling
- 14% Auxiliary materials

2017



- 26% Virgin fibre
- 61% Fibre for recycling
- 13% Auxiliary materials

SOURCE: ASPAPEL

RAW MATERIAL PROCUREMENT

24 GR | GRI 203-2 | GRI 204-1 | GRI 301-1 | GRI 301-2

Virgin fibre, fibre for recycling and auxiliary materials (starch, kaolin, glues, dyes … which are used to give paper certain finishes depending on its intended end use) are the fundamental raw materials used in papermaking.

Raw material procurement is an important chapter in terms of economic impact in the pulp and paper industry, since the sector prioritises local sourcing.

98% of the wood and 70% of the paper for recycling that were used in 2017 as raw material for the Spanish pulp and paper industry came from of local sources. Few industrial sectors in our country, which traditionally suffers from a large deficit of raw materials, have a similar degree of local sourcing of raw materials and creation of added value through industrial conversion at the sector's 10 pulp mills and 68 paper mills in Spain.

Spain is the third largest EU country in terms of forest land cover after Sweden and Finland, the two major European forest powers, and also has an efficient system of collecting paper for recycling with which citizens collaborate on a massive scale.

RAW MATERIAL PROCUREMENT | 000' TONS

24 GR | GRI 203-2 | GRI 301-1 | GRI 301-2

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Virgin fibre	1,965	1,743	1,794	1,771	1,847	1,921	1,813	1,949	1,914	1,877
Fibre for recycling(*)	4,735	3,997	4,440	4,432	4,409	4,476	4,396	4,508	4,520	4,367
Auxiliary materials	850	750	800	866	867	886	1,043	1,198	1,024	906
Total raw materials	**7,550**	**6,490**	**7,034**	**7,069**	**7,123**	**7,283**	**7,252**	**7,655**	**7,434**	**7,150**

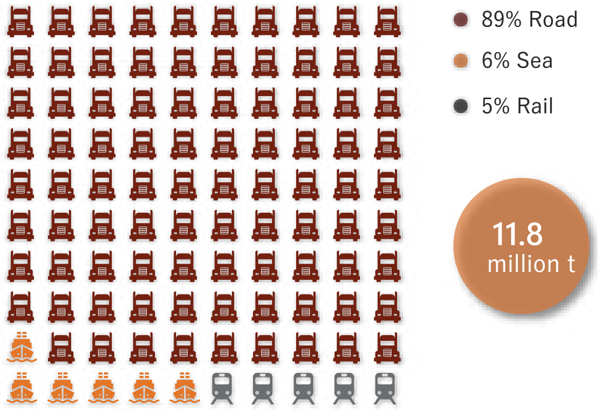
SOURCE: ASPAPEL

* Equivalent pulp consumption

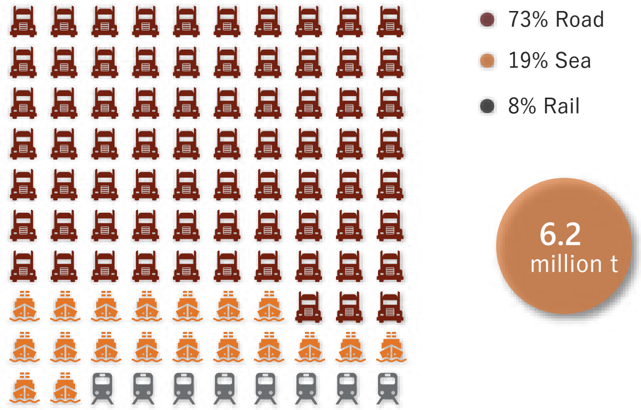
RAW MATERIAL AND FINISHED GOODS FREIGHTING 2017

32 GR

RAW MATERIALS



FINISHED GOODS



SOURCE: ASPAPEL

FREIGHTING | 32 GR

	2014	2015	2016	2017
Raw material freighting (wood, market pulp, paper for recycling)				
Total volume (million t)	11.2	11.4	11.6	11.8
Rail (%)	7	6	5	5
Road (%)	86	89	90	89
Sea (%)	7	5	5	6
Finished goods freighting				
Total volume (million t)	6	6.2	6.2	6.2
Rail (%)	10	9	8	8
Road (%)	66	69	71	73
Sea (%)	25	22	21	19

SOURCE: ASPAPEL

RAW MATERIAL AND FINISHED GOODS FREIGHTING

32 GR

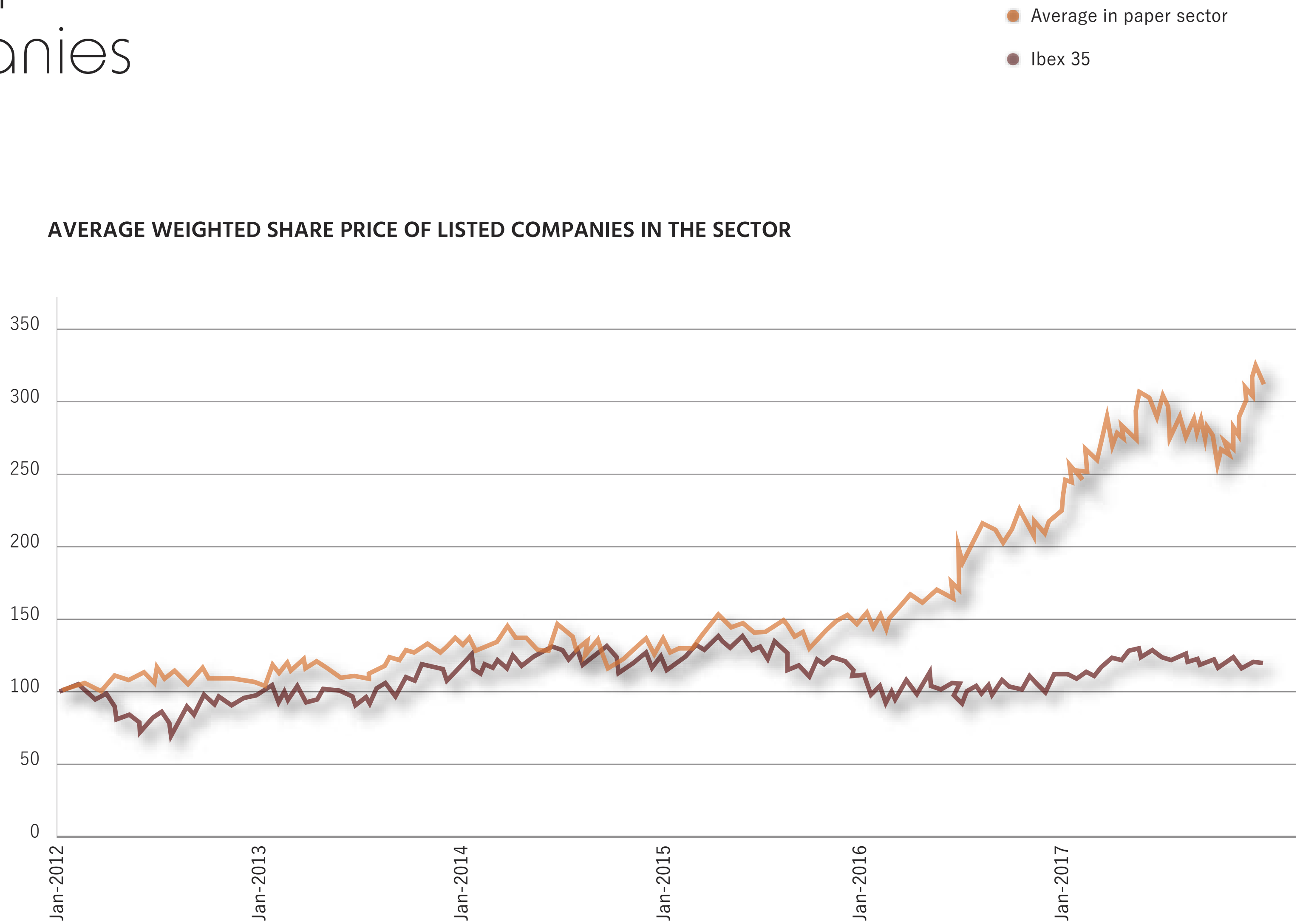
Of equal relevance in economic and environmental terms is the transportation of raw materials and finished products. Based on 2017 data, the Spanish pulp and paper industry moves 11.8 million tons of raw materials (wood, market pulp and paper for recycling) by road (89%), sea (6%) and rail (5%) every year. Road haulage (73%) is also the most usual means of transport for finished goods (6.2 million tons), followed by sea freight (19%), mainly for export destinations, and rail freighting (8%).

Share price performance of listed companies

28 GR

During the period covered by this report (2015-2017), the share price of listed companies in the paper sector has evolved very positively, with the average price for the industry shooting clearly upward, well above the IBEX 35 overall average. The stability and strength of an export-oriented sector that manufactures products of essential daily use make it an attractive investment.

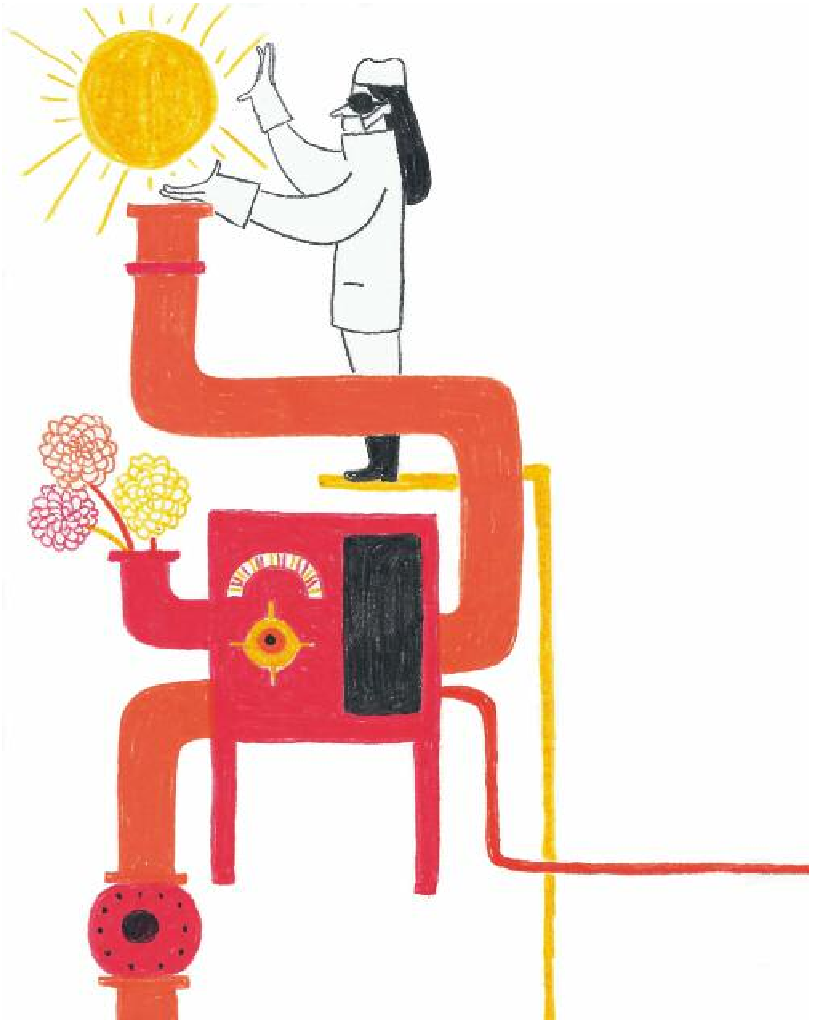
AVERAGE WEIGHTED SHARE PRICE OF LISTED COMPANIES IN THE SECTOR



SOURCE: ASPAPEL

Innovation: moving towards a circular, decarbonised bio-industry

31 GR



In the 2050 vision of the pulp and paper sector in Spain and Europe as a decarbonised circular bio-industry, innovation in products and processes is key to achieving the two proposed targets: reducing CO_2 emissions by 80% and increasing the biovalue of production by 50%.

It is not just a vision of the future but a transformation that is already occurring in the pulp and paper industry in Spain and Europe, with large capital investment in technological innovation and renovation, as is already being carried out by the sector in Spain. As the CEPI (European paper employers' association) report *'To our roots and beyond'* says, two paths have been chosen: improved processes in production mills aimed at *"doing more with less"* - lower energy and fewer emissions -, and making full use of the sector's renewable raw materials, which makes the difference in terms of carbon intensity in both products and processes.

The report includes a whole series of innovative projects currently underway in European factories: improving energy efficiency with innovative technologies, increasing the use of renewable energies and enhancing the development of bioproducts as a low-cost alternative; zero carbon footprint versus carbon-intensive products from non-renewable sources.

Heavy investment in technological innovation and renovation

With almost 900 million euros of capital outlay in the last three years and expected investments for 2018 of around an additional 500 million, the Spanish paper industry is redirecting its production to papers with great growth potential and greater added value, such as papers for packaging and specialty papers.

The €479 million investments programmed for 2018 account for over 10% of sector's turnover. By way of reference, it should be noted that the latest data available from the National Statistics Office (INE) (2015) shows average industrial investment as 4% of Spanish industrial turnover.

The €390 million invested in 2017 are geared towards increasing capacity and providing technological innovation and renovation to achieve a better position within a new scenario, with new consumer habits defined by the growing demand for bio-products and the digital economy.

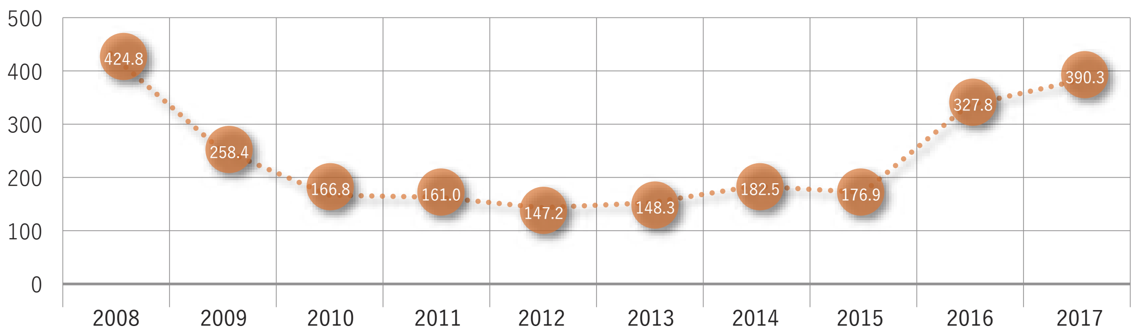
55% of total investment in 2017, i.e. €217 million, was earmarked for technological renovation and innovation. Investment in this concept over the last three years amounts to €394 million.

Increasing capacity is the next main investment item (26%) with €101 million. In the last three years, investments in this respect total €247 million.

Cost reduction with €94 million invested in the last three years, Quality and Environment with €67m, and Health and Safety with €36m are the following items in terms of financial significance.

PAPER SECTOR CAPITAL INVESTMENT | MILLION EUROS

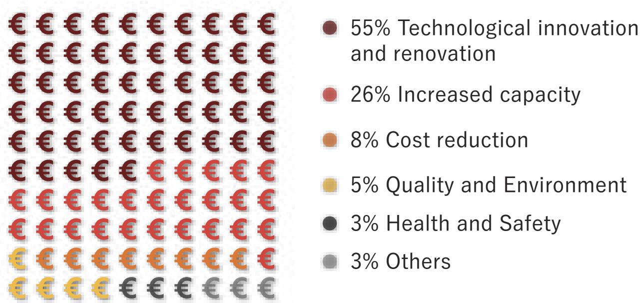
22 GR



SOURCE: ASPAPEL

PAPER SECTOR CAPITAL INVESTMENT 2017 | % OF TOTAL

22 GR | 31GR



SOURCE: ASPAPEL

Doubly circular and low-carbon paper products

29 GR

Paper-based products are natural and come from renewable sources. Not only can they be recycled but they are recycled on a massive scale. This combination of renewability and recyclability provide for natural circularity (raw material that is not depleted but rather regenerated and re-planted) that matches social and industrial circularity of recycling (citizens who collaborate with administrations and industry in the recovery and recycling of the products they have used).

21st century consumers are looking for natural, renewable, recyclable and biodegradable products that are low in carbon. Few products satisfactorily meet those requirements as paper-based goods do. For that reason, paper is increasingly replacing carbon-intensive products from non-renewable sources in numerous applications.

The latest trends in the paper industry in terms of new products are focused on the manufacture of low-carbon bioproducts developed in accordance with five lines of innovation: the use of cellulose fibres from new natural sources, bio-composites, printed electronics and nanotechnology, new packaging concepts, and new products with superpowers for everyday life, as outlined in the report entitled "LA ERA DE LA CELLULOSA - los productos más innovadores de la industria de la celulosa y el papel / THE AGE OF CELLULOSE - the most innovative products in the pulp and paper industry", an initiative chaired by CEPI in which Spanish companies and other European countries have collaborated.

Cellulose is very abundant in nature and can be obtained from a variety of renewable sources. Apart from cellulose from wood, the paper industry is now also using fibre from milk, pastures, leather or cocoa husk.

Nor is there any limit to the potential uses of cellulose fibre from wood. Paper is the perfect, natural and renewable substitute for petroleum-based materials: cellulose fibre bio-composites, hi-tech moulded products, extruded or assembled from lighter components from a renewable source such as wood.

Today, the market and consumers demand more than products: they want solutions. In the field of printed electronics and nanotechnology, the European paper industry is already developing innovative solutions: complete electronic circuits or RFIB labels printed on paper, nano-cellulose insulators, ...

Packaging plays an increasingly important role in consumer purchasing decisions and incorporates increasingly sophisticated communication and protection features. With innovative design and connectivity solutions, paper and board packaging is the sustainable response to new market demands.

Packaging for electronic products with protective flaps, anti-humidity packaging, cardboard pallets, multi-purpose boxes for online purchases, new solutions for bottles and cans, or the disappearing cement bag are just some examples.

To make our life easier and more comfortable, the paper industry is developing renewable, recyclable and biodegradable products with unique and innovative features: Toilet paper that cleans pipes, containers that cool Champagne or Cava, cardboard with a layer of active carbon that absorbs odour and protects against the migration of unwanted substances...

The report takes a look at a broad panorama of innovative paper and board products that show us that the era of cellulose has begun: there are no limits to cellulose and paper in this new post-oil era. The bio-economy is already a reality.

CONSUMER SATISFACTION

GRI 102-43 | GRI 102-44

The Paper Forum, of which ASPAPEL is a member, carries out regular surveys with SigmaDos on paper in Spain. The first edition took place in 2005 and the third edition is currently being prepared.

The last edition (2012, one thousand interviews nationwide aimed at the general population over 18 years of age) shows an overall satisfaction rate with the product of 7.7 out of 10, an improvement of 0.3 over the result of the previous survey (2005). The most highly-valued characteristics of paper products (always on a scale of 10) include recyclability (8.4), functionality (7.9), product safety (7.9) and its natural character (7.6), with an improvement in all cases over the results of the previous survey.

Consumers say they cannot imagine their life without paper (91%) and feel it as more endearing and closer to them than other alternative products and technologies (81%). 93% say that paper and board containers are the greenest. 87% consider that, in a sustainable economy, the appropriate thing is for the paper book to co-exist with the e-book. And in the opinion of 77% of respondents, paper should continue to be used in the future for newspapers and magazines.

Spanish consumers not only make use of today's paper products but are willing (68%) to use new products such as smart packaging, batteries, cosmetics and medicines based on cellulose fibre...

PRODUCT SAFETY

GRI 103-2

The Spanish paper industry is deeply committed to the quality and safety of its products, especially those destined to come into contact with foodstuffs as part of food packaging. Given the absence of specific harmonized legislation for paper and board within the EU, for a long time the Spanish paper industry has proactively self-imposed specific control measures. Back in 2010, it collaborated in preparing an Industrial Guide to determine the conformity of paper and board materials and objects for contact with food in accordance with the most demanding European regulations on the matter.

Very recently and given the continued absence of harmonised specific legislation, a new Guidebook has been drawn up to help the industry comply with current European legislations, considered to be the most complete and demanding norms on the matter. The Guide includes risk management, product design, selection of raw materials, good manufacturing practices and process control and monitoring techniques, together with end product tests. It covers all paper and board materials and objects and therefore applies to paper and board making, the manufacture of tissue, and handling finished materials and objects destined to come into contact with food.

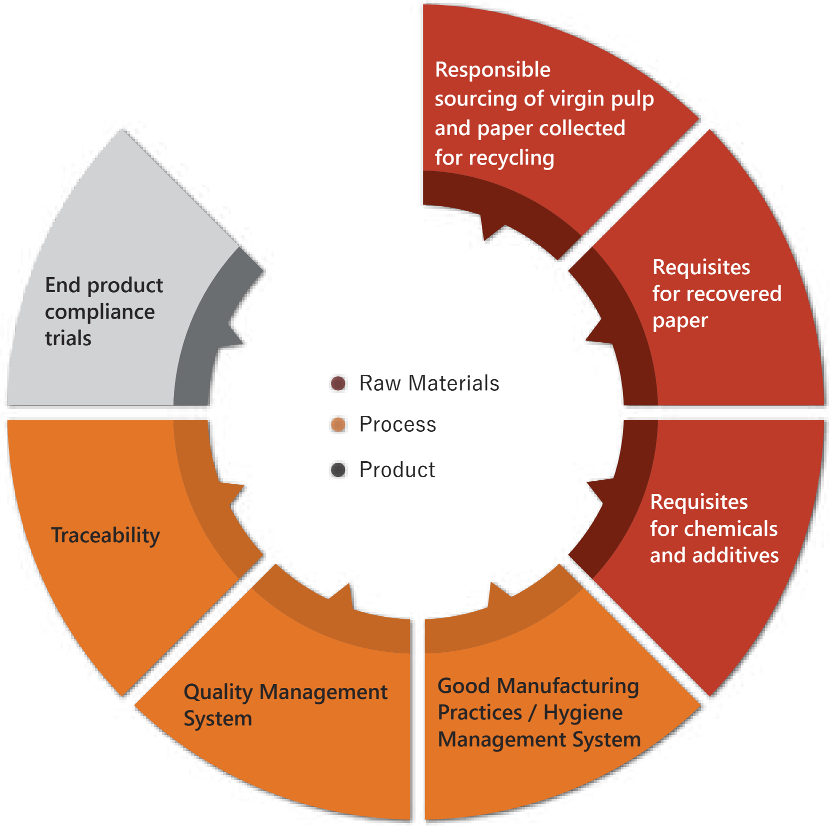
Following the recommendations given in the Industrial Guide, an increasing number of companies have already obtained end product safety certification that offers the consumer validation of the results of their self-control measures, certifies compliance with applicable regulations, and guarantees the quality of paper and board for contact with food.

Also at this current point in time, the Good Manufacturing Practices for Paper and Board destined to come into contact with food booklet written in 2010 is being reviewed and updated, which recommends making sure all raw materials used come from clearly identified and approved suppliers. Such control must also ensure traceability throughout the process all the way to the end product and must enable the level of risk to be ascertained in order to implement suitable management as necessary.

Throughout the period of time covered by this report, work has continued on implementing the Guidebook and the Good Manufacturing Practices.

The Spanish paper industry defends the safety of paper products along the value chain by requiring all stakeholders in the chain to commit to consumer health. In addition, it collaborates at national and supranational level with legislators and regulatory bodies to guarantee the necessary measures to protect consumers' health and defend consumers' interests.

ASSESSMENT OF COMPLIANCE IN THE MANUFACTURE OF PAPER AND BOARD FOR CONTACT WITH FOOD



Paper sector social action

30 GR | GRI 413-1

INITIATIVES AT SECTOR LEVEL

ASPAPEL is developing several initiatives at sectorial level in regard to environmental issues such as the forestry education programmes of the Edufores Foundation (www.edufores.com) or its *Pajaritas Azules* / Blue Birdies programme (www.tupapelesimportante.com) to assess, advise and certify local authorities as a way of promoting good practices in their management of selective used paper and board collection.

Through ASPAPEL, the sector is party in collaboration agreements with different organisations, such as:

• **The Hispanic Association of Paper Historians:** an agreement that provides support for the organization and its structure, by sponsoring the Association's biennial awards and collaborating in the organisation of exhibitions, publications, etc.

• **The Capellades Paper Mill Museum:** a collaboration agreement that helps in the maintenance of the Museum and of its work.

• **EMOZ Origami Museum School of Zaragoza:** an agreement that supports this pioneer initiative, the first of its kind in Europe.

• **Polytechnic University of Catalonia:** an agreement to promote the Master's degree in Textile and Paper Engineering, taught at the Terrassa School of Engineering (internships, scholarships, etc.).

INITIATIVES AT COMPANY LEVEL

Within the framework of their corporate social responsibility strategies, companies from the paper sector undertake a wide range of sponsorship and patronage programmes in collaboration with local bodies and non-governmental organisations. These programmes may involve assistance with educational, cultural and sports events and underline the sector's commitment to the communities where it runs its business.

SOME EXAMPLES OF SOCIAL ACTIONS BY COMPANIES IN THE P&P SECTOR

• EUROPAC

Actions in Valladolid

This sponsorship agreement entered into with the City Council of Valladolid to co-finance the city's social welfare diner completed its third year in force in 2017. Furthermore, 2017 also saw the renewal of collaboration agreements with the workshops 'Discovering Urbanism' and 'Build The City', organised by local firm Urbyplan in conjunction with the City Council of Valladolid, which 250 teenage students from different secondary schools in the city take part in. Europac was also one of the sponsors of the exhibition "Hijo del Laocoonte, Alonso Berruguete y la Antigüedad Pagana" that opened in July 2017 at the National Museum of Sculpture in Valladolid.

Actions in Morocco

Europac repeated its collaboration in 2017 with the "Week of Spanish Language in Morocco" by financing the performance on stage of España Eterna.

Project: Value Chain

In 2017, Europac made a donation of € 40,000 to Cadena de Valor (Value Chain), an institution created in 2015 that embodies 4 non-profit associations (APADIS, APAMA, APNA and the Institute of Psychopaediatrics) that work in the field of intellectual handicaps.

• ESSITY SPAIN

APQUA is an educational project aimed at the entire population that focuses on chemical products and processes with the intention, among others, of providing people with sufficient knowledge and tools for them to make their own decisions and participate in a more responsible manner as members of a free and democratic society. APQUA is the result of collaboration between the Department of Chemical Engineering (DEQ) at the Rovira i Virgili University (URV) and the SEPUP (Science Education for Public Understanding Program) of the Lawrence Hall of Science at the University of California in Berkeley (USA). In 2013, Essity Spain, S.L. (former SCA Hygiene Products, S.L.) signed a collaboration agreement to participate in the project. Once a year, Essity Spain receives a visit from a school. The activities consist of visiting operating units and doing some practical work with experiments related to the visit.

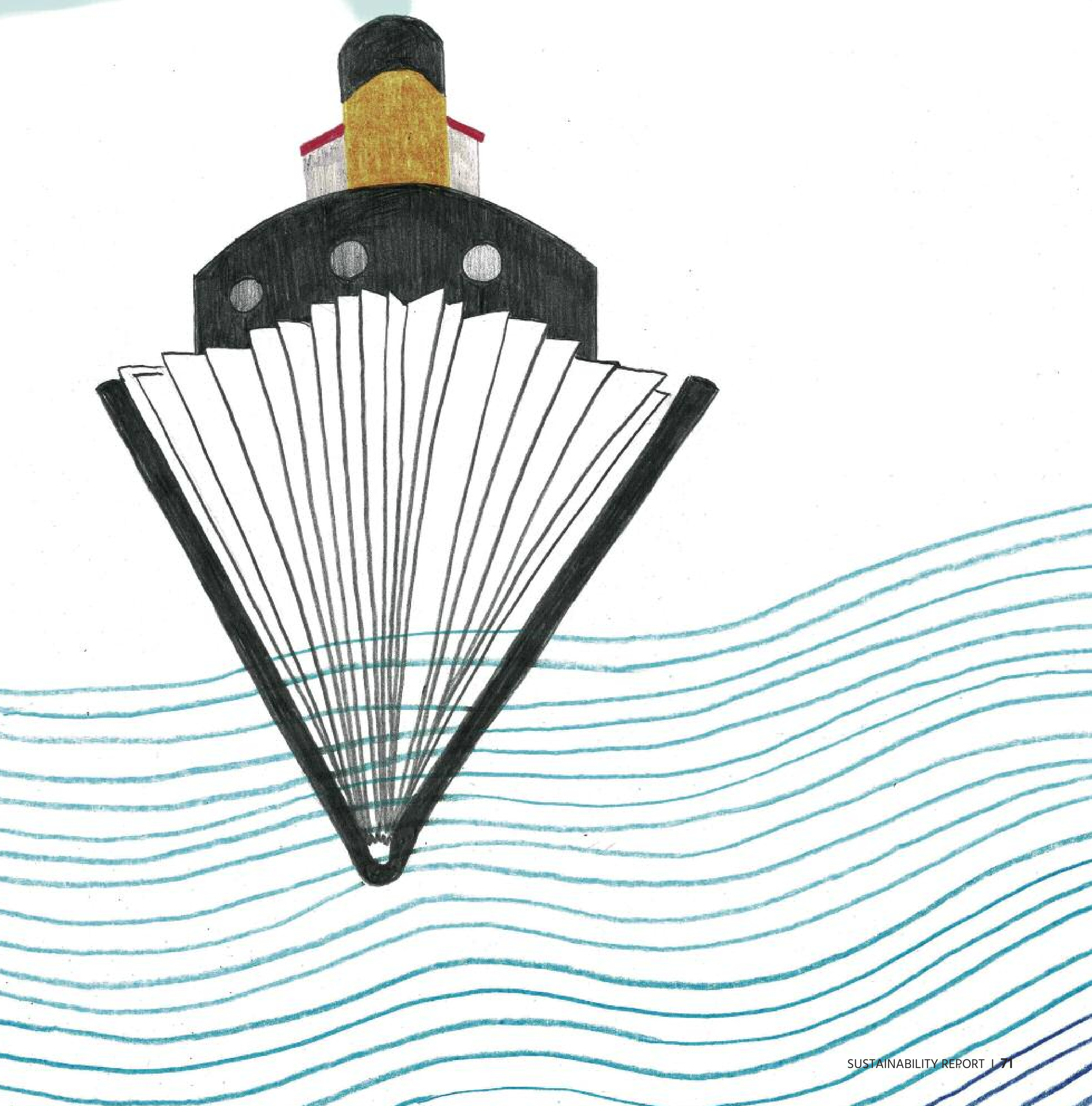
• COTTON SOUTH

Cotton South, a company that signed the ten principles of Global Compact and a B member of Sedex, renewed its commitment to the Club de Empresas de la Naturaleza (WWF) in 2017. Its social action activities in 2017 include assistance collaboration (Red Cross, Association of Patients and Organ Donors for Transplants AEDOPAT, Ayudale a Caminar, association for the integration of disabled people in society and employment), sports (Badlands Fonelas Trail Route, Benalua Trail), and with institutions mainly in the area where it runs its business (City Councils of Fonelas and Benalúa, Benalúa Parish, Civil Guard).

Circular economy:

Quality recycling to close the cycle

With recycling, the cycle of the circular bioindustry of paper is closed, thus optimising the use of a natural and renewable resource such as wood. Recycling is in the very DNA of paper and board and the paper industry plays a leading role in this key element of the circular economy that is recycling. The quality of raw materials for recycling is the new challenge facing paper and board recyclers in a varying scenario marked by China's new waste policy nd the role played by paper and board packaging in a context of economic growth with an increasing proportion of e-commerce.



Paper collection and recycling in the face of new challenges

18 LR | 19 LR | 301-3

THE key figures when measuring the level of recycling are how much paper and board of the total amount consumed in Spain is collected for recycling once used, and how much does our paper industry recycle, i.e. how much paper for recycling does it use as raw material - and in both cases, Spain passes with top marks.

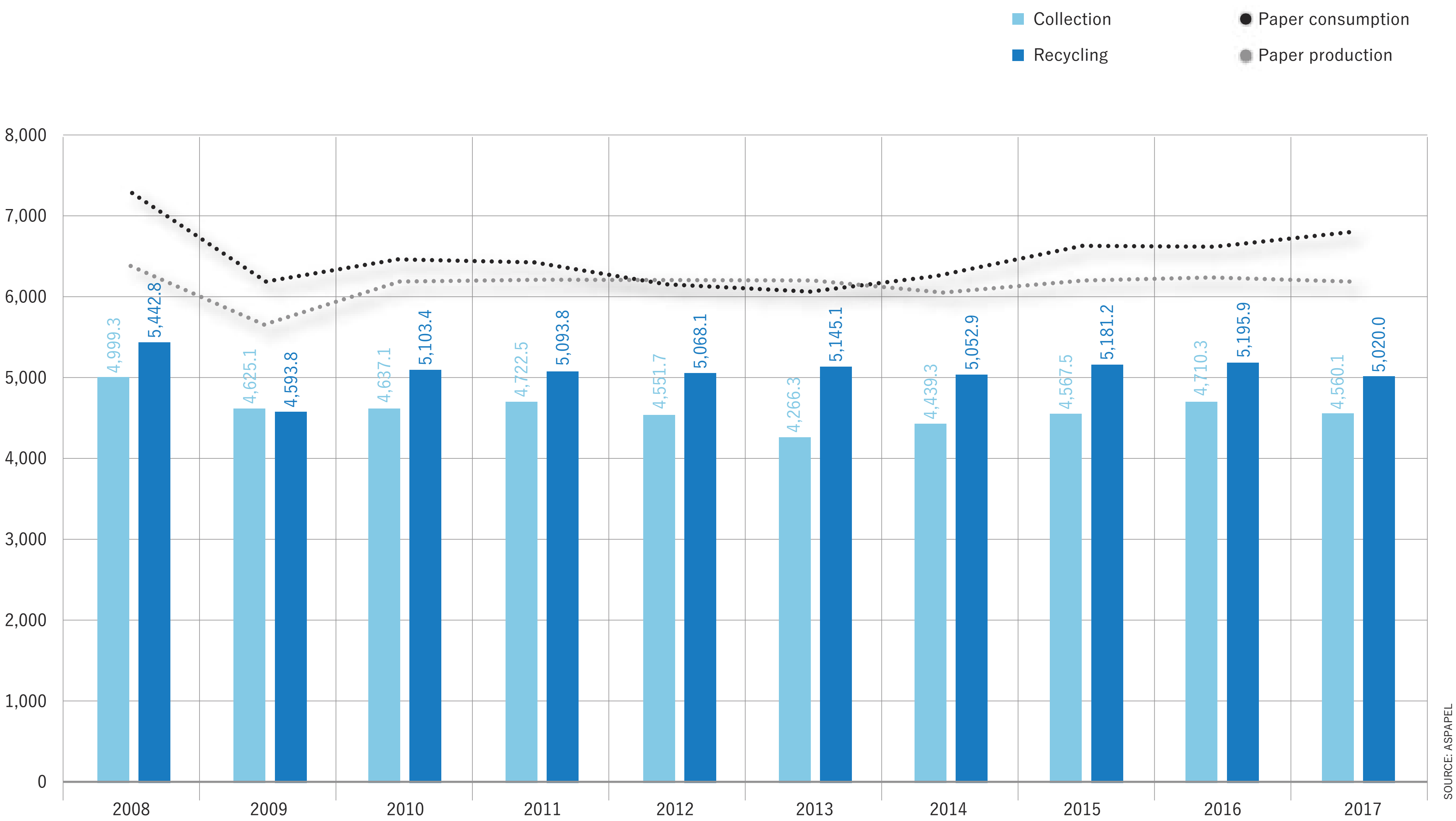
The collection rate (paper that is collected for recycling as a percentage of total paper consumption) has remained stable in recent years in Spain at around the European average (72% in 2017) and even higher, except for a specific slump in 2017. As far as the recycling rate (recycled paper consumed as raw material as a percentage of total paper and board consumption) is concerned, while the average in Europe in 2017 was 62%, in Spain that figure is exceeded by 12% - not in vain, the Spanish paper industry is the third largest recycler in Europe in terms of volume.

Looking at the period covered by this Report, the collection of paper for recycling that started to grow in 2014 after the crisis in line with the recovery in paper consumption has continued. Over the entire period, it has gone from 4.44 million tons in 2014 to 4.56 million tons collected in 2017. It increased in both 2015 and 2016, although there was a decline in collection rates in 2017, a year that should be seen as the transition towards a new scenario marked by two factors: China's new waste policy (improvement of its collection systems and higher quality requirements for its imports of paper for recycling), and the role played by paper and board packaging in a context of economic growth with an increasing amount of e-commerce.

In recycling (paper collected and used as raw material by the paper mills), after two years' growth, a downturn came in 2017. This interruption of the growth trend is due in this case mainly to the stoppage of a large newsprint mill being re-fitted to produce packaging paper and due to start up in 2018.

VOLUME OF PAPER AND BOARD COLLECTED AND RECYCLED | 000' TONS

18 LR | 19 LR | 301-3



How it works...

COLLECTION OF PAPER AND BOARD FOR RECYCLING

Once they have been used, paper products are collected for recycling in two ways: via separate municipal collection (blue bin, retail door-to-door, and recycling centres), which accounts for 20% of the paper and board collected for recycling, and secondly, collection made by private operators in large shopping centres, industries, printing shops..., which accounts for the remaining 80%.

Where there is most room for improvement is in paper from domestic households, where the collection rate is 60%, while in large retail outlets, printing shops, industry, etc. the rate is practically 100%.

All this collected paper and board goes to the depots of recovery firms for treatment, which involves sorting, conditioning and baling it according to the UNE-EN643 standard.

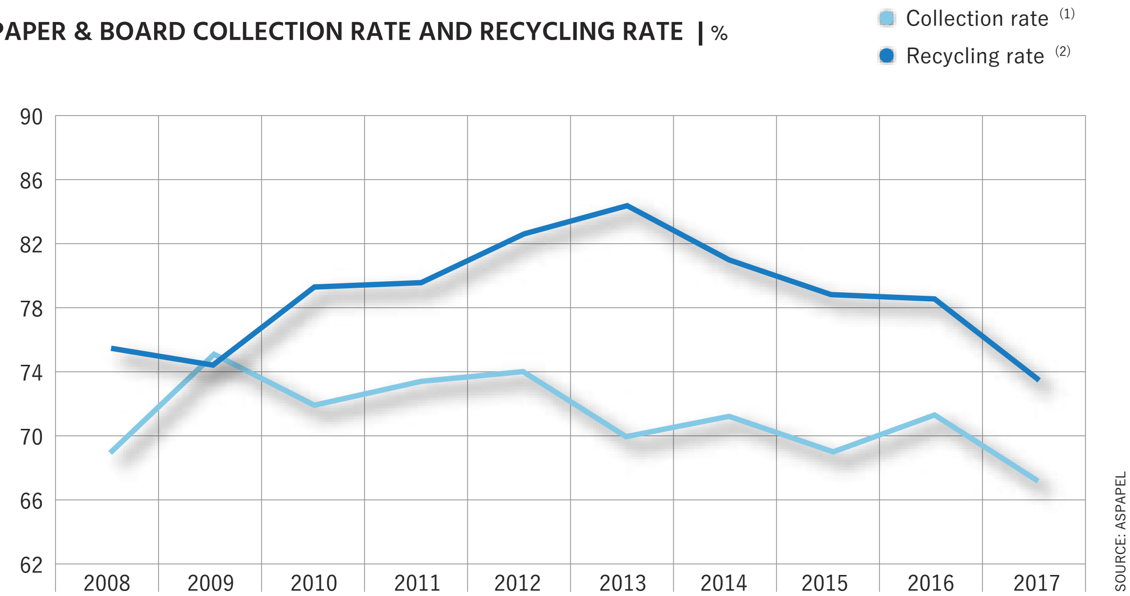
Finally, paper mills buy that paper and board and recycle it, using it as a raw material to make recycled paper and board, which returns to the consumer in the form of different paper products.

THE RECYCLING MILL

When paper for recycling arrives at the paper mill, it is mixed with water. In successive cleaning and screening stages, its cellulose fibres are separated from staples, plastics ... if it was printed paper, inks are also removed by means of a flotation process.

The pulp slurry formed of just clean fibres is then fed onto the paper machine, where a wet paper web is formed, from which water is removed by gravity, vacuum, pressure and finally with hot drying.

PAPER & BOARD COLLECTION RATE AND RECYCLING RATE | %



1 Paper recovered for recycling expressed as a % of total paper & board consumption

2 Consumption of paper for recycling used as raw material expressed as a % of paper and board consumption

Quality recycling, the new challenge in the circular economy of paper

The separate municipal collection of paper and board in Spain is a success story in Europe. The blue bin system, reinforced by door-to-door collection from small businesses and by supplementary collection from schools and municipal offices, has amply demonstrated its effectiveness.

The strength and appropriateness of our system and the commitment and collaboration of all agents involved will undoubtedly enable us to face the changes taking place in the international paper for recycling market with success.

China has developed a plan to improve its municipal collection systems and has opted for higher quality requirements in its imports of paper for recycling. This double strategy by the Chinese giant is having a worldwide impact, discouraging collection systems that generate lower quality material, which is now increasingly difficult to market.

On the other hand, the new role of paper and cardboard packaging in a context of a growing economy combined with an increasing proportion of e-commerce again plays on the importance of having effective collection systems.

Both factors lead to a scenario in which the new challenge in the circular economy of paper and board is the quality of the material collected. Collection systems need to be adapted to the different waste streams, with a dual purpose: firstly, to recover as much quantity as possible for recycling, and secondly, to do so with the quality standards required for effective recycling. Thanks to its enormous recycling capacity, the Spanish paper industry guarantees that it will recycle all paper and board collected separately from other waste that complies with European quality standards, i.e., with European standard EN 643.

EUROPEAN STANDARD UNE-EN 643

The European list of standard grades of paper and cardboard for recycling

> *defines the different **types of paper and board for recycling** used as raw material in the manufacture of paper and board products in the paper industry*

> *specifies tolerances for **unwanted (unsuitable) materials***

Spanish paper mills have a large recycling capacity: we recycle more than five million tons of used paper each year. In the European Union, which is the leading region in the world in paper and board recycling, only Germany and France are above us in terms of recycled paper volume.

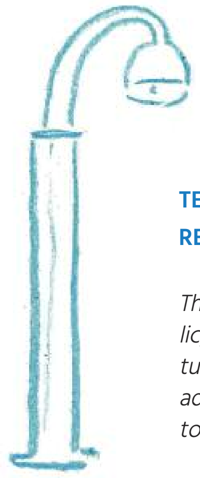
In order to really boost the circular economy model in Europe and efficiency in the use of resources along value chains, it is essential that all collected materials have adequate levels of quality. And to achieve that, it is necessary to reduce the level of unsuitable materials (organic matter, plastics, metals, glass,...) that sometimes accompany paper and board for recycling.

This is a challenge that requires the collaboration of all agents involved (manufacturers, recovery firms, local administrations, citizens and waste producers) in order to continue advancing down the road to the circular economy of paper.

In order to achieve this required improvement in the quality of collected paper and board, municipal authorities must have a sufficient number of blue bins for the selective collection of paper, that close properly, with small mouths or openings to prevent waste other than paper and board being deposited in them. Another essential measure is to recover and strengthen door-to-door collection services of retail board, which to some extent was abandoned during the economic crisis. It is also essential to control and monitor the level of unsuitable materials.

In fact, town councils are already adopting measures of this type, such as installing blue bins with small but elongated mouths and flaps that close properly. They are implementing information and citizen awareness campaigns about the correct separation of recyclable waste, and they are recovering and extending systematic door-to-door cardboard collection services from small businesses that were cut back at the time of the economic crisis.

How to collaborate with quality recycling...



TOWN COUNCILS

> Suitable bins for the selective collection of paper, closed with small mouths or openings to avoid waste other than paper and board being dropped in them.

> Recover and strengthen door-to-door collection systems of retail cardboard, which to some extent was abandoned during the financial crisis.

> Undertake control and monitoring of the level of unsuitable materials.

CITIZENS

> All paper and cardboard should go in the blue bin. Deposit all used paper and cardboard inside the blue bins, because paper and board are 100% recyclable. It is important to collect paper and board separately from other materials to prevent staining and facilitate its recycling.

> Only paper. Materials other than paper and board (such as plastic bags, string, etc.) should not be put in the blue bin.

> Fold boxes. You should fold boxes before inserting them into the bin so that they do not take up more space than necessary. And if boxes do not fit inside, they should be folded, tied up and left aside the bin.

TEN KEY STRATEGIES FOR PAPER AND BOARD RECYCLING

The paper industry is promoting a new raw materials policy that involves everybody that participates in the virtuous circle of recycling, from the citizen, through public administrations and the paper and board recovery sector to the paper mills where recycling is finally performed.

1. Set ambitious and uniform waste recycling targets for all materials.

2. Ban dumping on landfills of recyclable waste for which viable management alternatives exist

3. Strengthen the municipal selective collection system with investment in bin deployment and replacement to generate recovered paper of quality.

4. Encourage selective collection from small retail outlets and offices.

5. Ensure that waste recovered in Spain is recycled in Spain or in the European Union.

6. Do not penalise waste from recycling with the same levies as untreated waste.

7. Allow waste from recycling to be reused on site or by other industries.

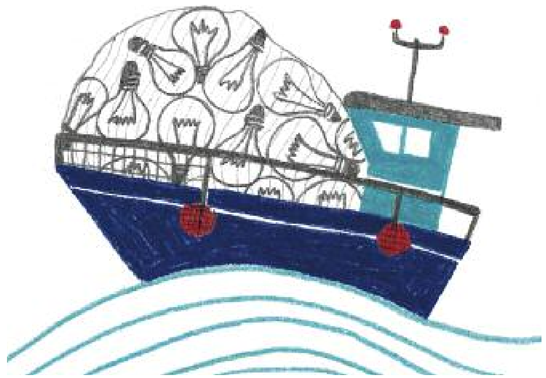
8. Motivate citizen collaboration with transparency in the information on the results of recycling and final destination of waste.

9. Measure waste streams throughout Europe uniformly so that they can be compared.

10. Change consumption patterns, giving preference to materials that have a better environmental performance.

New initiatives to promote recovery and recycling

20 LR



PAJARITAS AZULES / BLUE BIRDIES

Promoting the recycling of paper and board is one of ASPAPEL's strategic objectives and forms part of its ambitious project called *"Tu papel es importante"*, designed to enhance continuous improvement in the recovery and recycling of paper and board, strengthening collection from blue bins and developing supplementary formulas in areas under municipal management with greater margins of improvement. Within the framework of this project, in 2016, the Spanish Association of Pulp, Paper and Board Manufacturers (ASPAPEL) launched the *"Pajaritas Azules - Tu Papel 21 · Municipios"* programme directed at local authorities (municipalities and local groups) with a population of over 50,000 and provincial capital towns. With this new initiative, ASPAPEL renewed its well-known *Tu Papel 21* certification after ten years in service.

Pajaritas Azules / Blue Birdies is an annual programme of assessment, evaluation and recognition of the quality of municipal management in the selective collection of paper and board for recycling that focuses on continuous improvement. ASPAPEL carries out advisory work as well as the evaluation and accompanies the local authority in its process of continuous improvement. For this purpose, the yearly assessment of each town council or group of town councils is accompanied by personalised technical advice with recommendations for improvement, which will allow local authorities to improve their results for next year's edition of *Pajaritas Azules*. The fact that the assessment is carried out on a yearly basis and the possibilities proffered by purpose-built software enable a log of historical data about the local authority to be built up that it can access via a password. That way, a record can be made of how the town council has evolved in terms of continuous improvement in its selective collection of paper and board, which provides an extremely useful tool for further planning.

The assessment is based on 21 indicators, which analyse everything related to blue bin collection and supplementary collections, information and citizen awareness campaigns and actions, matters related to regulating and planning its organization and results, and traceability through to final recycling. The programme offers an incentive for improvement by awarding Blue Birdies to those town councils or groups of town councils that each year stand out above the other participants in the programme thanks to the high levels of excellence achieved in their management of selective paper and board collection. This group of local authorities that have distinguished themselves by their management obtain a special recognition, consisting of one, two or three Blue Birdies based on objective targets and their scores in the assessment. Depending on their results, in successive annual editions of *Pajaritas Azules*, they are able to keep, increase or lose the Blue Birdies they achieved the previous year.

ASPAPEL's *Pajaritas Azules* programme has won the European Paper Recycling Award 2017. This prestigious biennial award organised by the European Paper Recycling Council comes as recognition of the work and commitment displayed by the local authorities participating in the scheme and their citizens.

NEW RECOVERY BOARD

Another initiative to work on to improve Spain's already highly successful paper and board collection and recycling system is the Mesa de la Nueva Recuperación (New Recovery Board). Incorporated in 2015 at ASPAPEL, it is an open platform for companies in the paper and board recovery sector that want to contribute to the definition and development of strategies and projects concerning the future of recovery and recycling in Spain.

It was born with a vocation for creating alliances with other interlocutors along the recycling chain, working together to define and achieve common goals. The Board promotes an integrated strategy for the paper recycling chain: it is only on the basis of an integral vision of the chain and in collaboration with the various agents that participate in it that efficient improvements can be achieved in paper collection and recycling.

Both in terms of size and type of company and geographical distribution, the Board is representative of the entire sector. The member companies - currently fifteen in number – have different sizes and business models but represent in volume over half the entire recovery of paper and board in Spain and are present in all autonomous communities or regions. This volume and diversity give the Board the institutional strength to represent the paper and board recovery sector in Spain and defend its interests as a reference before public institutions and interest groups.

Its main lines of action include promoting the business model for the recovery sector and, more specifically, promotion of private management of commercial / industrial waste, the reduction of bureaucratic burdens and nationwide standardization, and the promotion of good practices and the fight against illegal intrusion. Improvement in the quality of the material and reducing accident rates are two other priority areas of work. Likewise, efforts are being made to achieve differential taxation schemes for waste from recycling, to maximise opportunities for subsidies and aid, and to improve the sector's public image.

ANTI-THEFT AND ANTI-TAMPERING BINS

With the paper chain industry (through Recipap) and Ecoembes as its promoters, a contest to design an anti-theft and anti-tampering closing mechanism for paper and board bins was launched in 2015.

The initiative, in which all agents involved are collaborating, also counts on the participation of both bin manufacturers and local authorities and users. Participation in the contest was very high with about a hundred projects submitted. The shortlisted prototypes were tested in pilot tests on public roads by different town councils.

Currently anti-theft and anti-tampering bins are being installed in different locations and Dos Hermanas is the first Spanish city to roll out this new closing system on all its bins.

These bins with an effective lid locking system help to increase paper and board selective collection rates, improve the quality of the recovered material, and reduce the costs not only of maintaining bins but also of cleaning the areas around them.

STANDARDISATION

AENOR's Technical Standardisation Committee, with the active participation of ASPAPEL, is currently seeking a final vote on the draft *CEN prEN 17085 Paper and Board - Sampling procedures for paper and board for recycling*. Following the agreement of all members of the paper supply chain at European level, this new standard will enable standardization of the type of sampling that is applied to paper for recycling depending on the analytical method to used later on. Specifically, for sampling complete truckloads of paper for recycling using automatic tools and infrared probe readers, a sampling frequency of one bale per truck is established.

OBJETIVES 2015-2017

- **Fulfilled**
- **Partly fulfilled**
- **Not fulfilled**
- **Awaiting implementation**

Sustainability objectives

GRI 103-2 | GRI 103-3

Based on its vision as a circular bioindustry destined to lead the process of industrial decarbonisation, the pulp and paper sector sets itself three-year sustainability objectives, fulfilment of which is duly reported in the Sustainability Reports.

These objectives are grouped around the sector's four pillars of activity in terms of sustainability: sustainable forest management, efficient and responsible production processes, generation of wealth and contribution to the quality of life, and leadership in recovery and recycling.

For the period 2015-2017 covered by this report, the sector had set itself ambitious objectives, which to a large extent have been fulfilled, as can be seen from the detailed information on the following pages.

For the three-year period 2018-2020, sixteen objectives have been set, some of which add to previous objectives while others are intended to respond to new challenges.

Objectives

SUSTAINABLE FOREST MANAGEMENT

FULFILMENT OF 2015-2017 OBJECTIVES

1.- IMPROVED SUSTAINABLE MANAGEMENT OF PLANTATIONS

>> Implementation of management tools and their certification

• **Fulfilled.** **89% of industrial forestlands** have **implemented** and **certified (FSC/PEFC) management tools.**

>> Monitoring of plantation health and vitality

• **Fulfilled.** Active monitoring of diseases and pests in eucalyptus and conifers. Start-up of the **Gonipterus Operational Group** for innovation in treatment schemes.

>> ASPAPEL award for sustainable use of resources

• **Awaiting implementation**

2.- INCREASE SUPPLY OF DOMESTIC WOOD

- **Fulfilled**. Recovery of **8.7% in wood consumption** following the closure of two plants **National supplies** have grown by up to **98%**

>> Improved productivity from plantations

>> Monitoring of extraction and logging rates

- **Partly fulfilled.** Monitoring of extraction of production species by Regional Govts. with **Forest Photos.** Presentation of a **wood extraction plan** in **Castilla y León**

3.- ENSURE LEGAL WOOD AND FIBRE LOGGING AND TRADING

>> Monitoring forum on the implantation of Due Diligence measures

- **Fulfilled.** Implementation of EUTR Regulations

Wood supplies 100% legal and controlled

4.- INCREASED SUPPLY OF CERTIFIED PRODUCTS

- **Fulfilled.** The use of **certified wood** has grown significantly from 37% to **63%** Likewise, the amount of **certified product** has gone up to **56%** for **pulp** and **61%** for **market paper**

>> Observatory of how types of certified paper evolve

>> Monitoring of market pulp and other certified fibre

5.- PROMOTE THE SUSTAINABLE USE OF FORESTS AND PAPER-BASED PRODUCTS

- **Fulfilled.** Educational contests and activities carried out through the **EDUFORES Foundation**

>> New teaching resources

>> School competition

NEW

OBJECTIVES FOR 2018-2020

1.–IMPROVED SUSTAINABLE MANAGEMENT OF PLANTATIONS

>> To keep the current amount of sustainably managed and certified industrial forestlands and to increase the amount of forest land run under management tools

>> To take pro-active initiative to control illnesses and pest affecting species by involving innovation Operational Groups

2.–CONTRIBUTION TO RURAL DEVELOPMENT

>> To keep wood supplies at the same level with nationally sourced wood at over 95%

>> Monitoring use of quality seedlings and measures to improve plantation productivity

>> To promote forest resource extraction plans in the regions where they are required

3.–LEGALITY OF WOOD SUPPLIES AND PRODUCT CERTIFICATION

>> To monitor and publish statistics on the application of EUTR regulations

>> To increase the percentage of certified products on the market

Objetives

EFFICIENT AND RESPONSIBLE PRODUCTION PROCESSES

FULFILMENT OF 2015-2017 OBJECTIVES

6.-REDUCED ACCIDENT RATES

>> Sustained reduction in all statistical rates

• **Not fulfilled** given that in **2015** and **2016**, **the downward trend was interrupted**, although **recovered in 2017**

>> To keep accident frequency rate (lost time accidents per million work hours) under 10

• **Not fulfilled** although the trend in previous years led us to think it was possible.
At present, we are at the same level as in 2010

>> Reduce overall accident frequency rate (total accidents per million hours worked) to below 40

• **Not fulfilled** although the trend in previous years led us to think it was possible
At present, we are at the same level as in 2012

7.-BOOST ENERGY EFFICIENCY

>> Energy efficiency measures and implementation of Energy Management Systems

• **Fulfilled.** The **number of companies with energy efficiency management systems has increased**

8. –IMPROVE WASTE RE-USE AND MINIMISE LANDFILLING

>> Assessment and search for new ways of re-using process waste

• **Fulfilled. New possible options under study have been identified,** although they are not yet applied in in practice

NEW

OBJECTIVES FOR 2018-2020

4.–TO REDUCE ACCIDENT RATES

>> Sustained reduction in all statistical rates

>> To keep accident frequency rate (lost time accidents per million work hours) under 15

>> To reduce overall frequency rate (total no. of accidents per million work hours) under 50

5.–TO BOOST ENERGY EFFICIENCY AND DECARBONISATION

>> Implementation on new energy efficiency measures

>> Further the implementation of the 2050 Roadmap for decarbonisation in the sector

6.–IMPROVE WASTE RECOVERY AND MINIMISE LANDFILLING

>> Assessment and search for new ways of re-using process waste within the framework of the circular economy

7.–ENVIRONMENTAL AWARENESS ACTIONS AT PRODUCTION CENTRES

Objetives

GENERATION OF WEALTH AND CONTRIBUTION TO QUALITY OF LIFE

FULFILMENT OF 2015-2017 OBJECTIVES

9.- CONTRIBUTE TO IMPROVING COMPETITIVENESS

>> Increase capital investment

• **Fulfilled.** Recovery started in 2015 with performance varying according to the type of paper. **Almost nine hundred million Euros invested in the last three years**

>> Actions to attract talent and human capital

• **Partly fulfilled.** **Improved image for investors**

10.- WORK IN FAVOUR OF SUSTAINABILITY AND SAFETY IN TRANSPORTATION

>> Weights and size regulations (increase truck loading to at least 44 tons)

• **Not fulfilled.** Significant steps have been taken in that direction, such as authorisation for 60-ton Euro articulated lorries, but **political willpower is still missing**

>> Implementation of CEPI recommendations on securing cargoes

• **Fulfilled.** Practically **all paper products** that leave our mills are **secured in accordance with CEPI's Guidelines and in compliance with the regulations**

>> Networking in ASPAPEL's transportation division to train-communicate-inform

• **Fulfilled.** **Forums, seminars, webinars, meetings, etc.** are held that help build the sector's awareness about the importance of safety and sustainability in transport, whether by road, rail or sea

11.-CONTRIBUTE TO FORESTRY EDUCATION

• **Partly fulfilled.** Educational contests and activities organised through the EDUFORES Foundation

>> New teaching resources

>> School competition

>> Training course for teachers

>> Edufores website renewed

12.- CONTRIBUTE TO EDUCATION ON RECYCLING

>> Continue the programme (re-design newsletter, renew certificates, transparency about final recycling on local authority websites)

• **Fulfilled.** **3 yearly newsletters** with information for local authority technicians have been published.

The **Blue Birdies** programme has been launched that acknowledges improvements on municipal selective paper collection and intensive work has been done on improving **traceability on town council websites**

13.- TRANSIT TOWARDS THE CIRCULAR ECONOMY OF PAPER

>> Report on the evolution of efficiency throughout the entire paper cycle: raw material, papermaking, products and end of life cycle

• **Fulfilled.** The sector pays increasing attention to the concept of the cycle, as is seen by the integration of suppliers in ASPAPEL through the **New Recovery Board**

14.- CONTINUOUS IMPROVEMENT TO PROTECT THE PRODUCT

>> Collaboration in the development of regulations

• **Fulfilled**. Active **collaboration with the Administration**

>> Improved communication, dissemination and promotion of the safety of paper in contact with food

• **Partly fulfilled.** Significant **Progress** made

NEW

OBJECTIVES FOR 2018-2020

8.–CONTRIBUTE TO IMPROVING COMPETITIVENESS

>> Enhance capital investment on papers with great growth potential and greater added value

>> Strengthen collaboration with training centres to attract talent

9.-WORK ON THE SUSTAINABILITY AND SAFETY IN TRANSPORTATION

>> Push for a review of the weights and sizes regulation (increase loading capacity up to at least 44 tons)

>> Standardise stowage files for the various types of loads in the sector and consolidate cargo securing for all products and raw materials

>> Networking through ASPAPEL's transport division to train-communicate-inform

10 – CONTRIBUTION TO EDUCATION ON RECYCLING

>> Continue the Blue Birdies programme to encourage town councils and other interest groups to carry out specific campaigns about the selective collection and recycling of paper.

11 – TRANSIT TOWARDS THE CIRCULAR ECONOMY OF PAPER

>> Maintain and promote the concept of the circular economy to ensure efficiency throughout the chain, from the eco-design of products to their final recycling in paper mills

12 – CONTINUOUS IMPROVEMENT TO PROTECT THE PRODUCT

>> Strengthen the monitoring of legislation that affects paper in contact with food, working from the value chain

>> Support the creation of specific framework legislation

>> Improve technical understanding, supplementing that of our member companies

Objetives

LEADERSHIP IN COLLECTION AND RECYCLING

FULFILMENT 2015-2017 OBJECTIVES

15.-MAINTAIN PAPER COLLECTION RATE ABOVE 72%

• **Fulfilled,** although the average for the period did not meet the objective, due mainly to the fact that the current situation on the world market has **increased stock levels of paper for recycling enormously** and those stocks are not accounted for in the recovery rate until they are recycled in a factory

16.-SPECIFIC PROJECT

>> Recovery of an additional 20,000 tons per year of paper files

• **Discarded** given the **difficulty** and **cost** of collecting marginal tonnage

17.- COMMON WORK STRUCTURE WITH SUPPLIERS OF PAPER FOR RECYCLING THAT ACCOUNT FOR AT LEAST 60% OF PAPER RECOVERY

• **Fulfilled.** The **New Recovery Board** was set up within ASPAPEL to integrate all stakeholders in the paper for recycling supply chain

18.-IMPROVE THE QUALITY OF PAPER FOR RECYCLING

>> Less than 2% of non-paper components and quality measurement of 70% of deliveries to the paper mills

• **Partly fulfilled.** **Convergence towards target values is underway** but it is taking longer than expected.

19.-PROMOTE LOCAL RECYCLING

>> To reach the level of 87% of all paper recycled in Spanish mills, in accordance with the Waste Act 22/2011

• **Partly fulfilled.** **The percentage of paper for recycling procured from national sources has increased** but it is still not enough to reach the objective.

NEW

OBJECTIVES FOR 2018-2020

13.– MAINTAIN PAPER COLLECTION RATE ABOVE 70%

>> Promote the renewal of blue bins in town councils and the recovery of door-to-door collection services

14.- ENHANCE RECYCLING BY WORKING WITH A CHAIN APPROACH

>> To address the challenges that allow for the efficiency of the entire supply chain to be improved

15.– IMPROVE THE QUALITY OF PAPER FOR RECYCLING

>> To push for quality to become the main focus of separate collection and recycling of paper

16.– STRENGTHEN THE SUPPLY OF PAPER FOR RECYCLING FROM NATIONAL SOURCES TO 75-80%

>> The make optimal use of the Spanish paper industry's recycling capacity

ASPAPEL, the organisation

ASPAPEL
Naturalmente, papel
Asociación Española de Fabricantes de Pasta, Papel y Cartón

THE TRADE ASSOCIATION OF PAPER AND BOARD MANUFACTURERS IN SPAIN

GRI 102-1 | GRI 102-4 | GRI 102-5 | GRI 102-6 | GRI 102-7

ASPAPEL (the Spanish Association of Pulp, Paper and Board Manufacturers) is a nationwide, professional organisation (non-profit making) that encompasses companies in the pulp and paper industry in Spain. Our member companies account for over 90% of production in the sector *(see the list of member companies on page 95).*

The Spanish pulp and paper sector has 10 pulp mills, which produce 1.7 million tons of pulp, and 68 paper mills with overall annual production of 6.2 million tons of paper. These mills are spread across the entire country, although the heaviest concentrations are found in the regions of Aragon, Catalonia, the Basque Country, Navarre, Castilla y Leon, and the Autonomous Community (Region) of Valencia.

By subsectors, 61% of the 6.2 million tons of paper produced by the Spanish paper industry is paper for packaging and wrapping; 20% is printing and writing paper, 11% is personal hygiene and sanitary paper, and 8% is specialist and other papers.

WORKING FOR THE COMPETETIVE AND SUSTAINABLE DEVELOPMENT OF THE SPANISH PAPER INDUSTRY

GRI 102-2

The primary aim of the association is to contribute to the competitive and sustainable development of its member companies and to promote the image of the sector, its companies and their products.

ASPAPEL represents and defends the interests of the sector before government agencies and stakeholders. It also develops sector-wide strategies in priority matters for the industry and carries out diverse activities to improve public awareness of the sector and strengthen its competitiveness worldwide. Furthermore, it is a meeting point for member companies, where initiatives are developed to improve the image of paper and of the companies that manufacture it.

ASPAPEL enjoys close ties with government bodies, with which it collaborates in the achievement of common goals.

ACTIVITY AREAS

GRI 102-2 |GRI 102-7

ASPAPEL's activity is structured into 7 main areas, whose goals and activities are explained in detail below.

FORESTRY Promoting the sustainability of natural resources and generating employment and wealth in rural areas with plantations of eucalypt and pine trees for paper. Harmonising sustainability and mobilisation of these forest resources – wood and biomass – for their efficient use in industrial processes. Committed to sustainable forest management and its certification that lead to certificate-endorsed products.

ENVIRONMENT Collaborating in European, national and regional standard and regulation setting processes. Conveying important information to member companies so they can deal with new requirements efficiently. Fostering pro-active initiatives that enable companies in the sector to successfully tackle different environmental and energy challenges.

ENERGY Driving initiatives and strategies that improve energy efficiency and costs in the sector.

HUMAN CAPITAL Strengthening human resources as a competitive factor for companies in the sector in three areas: labour relations, occupational and industrial health and safety, and training.

RECYCLING Promoting collection and recycling within the framework of paper's circular economy. Staging activities to promote the recovery of sufficient paper and board to supply mills and to ensure that paper for recycling meets suitable quality standards and that its collection is cost effective.

TRANSPORT AND SUPPLY CHAIN Promoting sustainability and safety in transportation and reducing the impact of freight costs on the sector to improve competitiveness. Improving access to rail freight and optimising road haulage.

PRODUCT Working to further product safety. Ensuring the suitability of paper for its use in contact with foodstuffs, acting on the legal framework, customer requirements and companies' adaptation to them. Procuring a favourable position for the sector in public procurement policies, environmental labelling and footprints, and health & safety measures.

PR & COMMUNICATIONS Strengthening seamless and transparent communications with sector stakeholders and with the general public. Improving awareness and appreciation of the sector, its companies and the products they make.

TEAM AND MANAGEMENT STRUCTURE

GRI 102-3

The Association's central offices are located in Madrid, which makes it easier to perform its duties with the Administration and to collaborate with other business organisations. From the logistical point of view, this location is at an equal distance for companies in the sector, which are spread across the whole of Spain.

GRI 102-8 | GRI 102-7 | GRI 102-41

The ASPAPEL team of 17 professional employees is sufficient for the Association to handle the business of its priority areas without the need to outsource other workers. The entire workforce is covered by collective bargaining agreements.

ASPAPEL upholds a strict policy of transparency and publishes information on its website about the organisation, including financial data.

ASPAPEL TEAM

GRI 102-8

	TOTAL		Men		Women		Permanent		Full-time	
	2014	2017	2014	2017	2014	2017	2014	2017	2014	2017
Admin staff	6	5	1	1	5	4	6	5	6	5
Middle management	4	4	2	2	2	2	3	4	3	3
Directors	7	6	4	4	3	2	7	6	7	6
Total	17	15	7	7	10	8	16	15	16	14

SOURCE: ASPAPEL

GRI 102-7 | GRI 102-18

ASPAPEL'S management structure is adapted to its needs and comprises management boards, committees and specific groups for each Area, in which sector companies also take part. The committees and working groups prepare and submit proposals to the management boards on different activities. It is a non-profit making organisation and therefore has no shareholders.

The sovereign governing body is the general assembly made up of representatives from all member companies. The assembly delegates on a smaller board of directors, where the different types of companies in the sector in terms of product, size, etc. are represented. The board meets periodically and is responsible for the day-to-day running of the association. Members of the board of directors are unpaid. Both the general assembly and the board have a chairman, elected from among the member companies, whose main task is to represent the association and preside over meetings of the management bodies.

According to the by-laws and the representational proportion of member companies on each management body, there can be no conflict of interest between them that may hinder the smooth running of the association.

To achieve its purposes, ASPAPEL sets itself a three-year strategic plan that defines objectives for each area and the means to achieve them.

Decisions that involve a commitment by the organization with certain issues and ultimately its support for an initiative taken by other national or foreign bodies that may be relevant to the fulfilment of its objectives or external position, must be assessed and approved by the management bodies.

The following committees and working groups are currently constituted: Forestry Committee, Recycling Committee, Environmental Committee, Energy Committee, Human Capital Committee, Transport & Supply Chain Committee.

GRI 102-9

ASPAPEL works with a small number of **suppliers** to fulfil its objectives and provide the services it performs. These suppliers are managed under the organisation's Quality Management System, specifically, under the Purchasing procedure implemented for that purpose.

Its field of action is mostly within Spain and, on very rare occasions, European. Recurring suppliers and service providers number about fifty, as well as another twenty occasional or non-recurring firms. The type of external supplier varies from professional services, consultants, advertising and public relations, infrastructure, supplies, technology, financial services, maintenance, furniture and equipment, venue rentals ... annual payment turnover exceeds one million euros.

GRI 102-10

There have been no significant changes in the organisation or its supply chain during the period covered by this report (2015-2017).

GRI 102-13

ASPAPEL belongs to a number of **European and Spanish organisations** such as CEPI (Confederation of European Paper Industries), EUROGRAPH (Confederation of European Fine Paper Industries), ICFPA (International Council of Forest and Paper Associations), UTIPULP (European Association representing the Group of European Market Wood Pulp Users), CEOE (Confederación Española de Organizaciones Empresariales), ACOGEN (Asociación Española de Cogeneración), PEFC (Programme for the Endorsement of Forest Certification Systems), etc. It is also a patron of the Edufores Foundation and a shareholder of RECIPAP, S.L.

VISION, MISSION AND VALUES

GRI 102-16

VISION

To contribute to the competitive and sustainable development of its companies while promoting the positive image of a sector with the ability to influence.

MISSION

To **represent** the sector actively and pro-actively; **to play** a decisive role in the political sphere, in society and before relevant international organizations; **to improve the competitiveness** of member companies by acting on key aspects and especially on raw materials and energy; to promote a positive image of the sector, positioning it as a dynamic and innovative industry that adds value to society and which stands as a benchmark of sustainability and the circular economy; **to help attract human talent and capital; to develop specific projects** of interest for all or part of the sector, and **to provide a forum** where member companies can meet.

VALUES

- True **representation**, which legitimises its work as spokesperson for the sector.
- **Consensus and balance** for the different sensitivities of its member companies.
- **Focus** on matters and challenges that are priority for the sector.
- **Geared to producing results** that offer its members true value.
- **Efficient** use of available media.
- **Credibility and transparency** in its role as a solvent interlocutor.
- Documented **data** that support its discourse.
- **Pro-activity** to anticipate problems and provide solutions.
- **Alliances** that enhance its own capabilities.
- The **professionalism and teamwork** of its employees.

CODE OF CONDUCT, QUALITY AND TRANSPARENCY

GRI 102-16

ASPAPEL pledges to comply with the principles and values of its Code of conduct in its relations with government authorities, elected officials and other public employees.

GRI 102-12

The Association is run under a Quality Management System certified by an independent third party according to ISO 9001. During the period covered by this Report, these certificates have been renewed each year.

ASPAPEL is listed on the European Union Transparency Register (number: 814014013312-48) and on Spain's National Securities and Competition Commission's Register of Interest Groups.

STAKEHOLDERS

GRI 102-40| GRI 102-42| GRI 102-43| GRI 102-44

ASPAPEL has worked on defining a Map of Stakeholders that analyses both the degree of influence each of these groups exerts on the economic, social and environmental performance of the association, and the extent to which each group is affected by ASPAPEL's own performance in those three areas, both now and in the near future.

As representative of the paper industry, ASPAPEL stages a number of activities, such as the **annual event** open to stakeholders, which has registered an attendance of around 300 people in recent years, and **publishes** a series of periodicals, such as the *Sector's Annual Statistical Report* or the *Sustainability Report*, as well as publications on specific topics, which are widely distributed to stakeholders in the sector. The association also publishes an **electronic newsletter** every two weeks and runs a permanently updated **website**.

It **interrelates with the different stakeholders** continuously within specific work programmes or working groups such as the *Paper Forum*, which the various sectors in the paper chain take part in, of the *Sector's OHS Programme* in collaboration with trade unions, or the *Pajaritas Azules - Tu Papel 21 programme* to promote recycling, in which municipal authorities participate.

As was the case during the **process to prepare earlier editions of this report** (in 2008 and 2011) and in 2015, a process of stakeholder consultation and participation was opened. To decide what material topics were to be included in this report, an **online survey of stakeholders** was carried out, which received over 300 responses. The quality of the information collected about stakeholders' interests and expectations was extremely useful to widen the issues considerably as well as the volume of information collected in this report compared to previous editions *(see the materiality matrix on page 99)*.

The broad participation in this consultation process and the wealth of opinions and suggestions received have contributed to defining a detailed **road map** to advance down the path of Sustainability, a map that will be deployed further in chapters to come.

STAKEHOLDERS (*)

Direct employees
Raw material suppliers

First customers (corrugators, printers, paper bag manufacturers, publishers, etc.)
Public administration
Residents' associations
Trade unions

Investors

Rating Agencies
Political parties
Institutes of Education / Colleges / Universities
Consumer associations
Sectorial associations
Environmentalists
The Media

(*) In order of degree of influence and affectation

ASPAPEL MEMBER COMPANIES

GRI 102-5 | GRI 102-7

- > AGUSTÍN BARRAL, S.A.
- > AHLSTROM-MUNKSJÖ PAPER, S.A.
- > ALIER, S.A.
- > CELULOSA DE LEVANTE, S.A. (CELESA)
- > CELULOSAS MOLDEADAS, S.A. (CEMOSA)
- > CLARIANA, S.A.
- > COTTON SOUTH, S.L. (CELSUR)
- > DICEPA PAPELERA DE ENATE, S.L.
- > ENCE ENERGÍA Y CELULOSA
- > ESSITY SPAIN, S.L.
- > FILTROS ANOIA, S.A.
- > GOMÀ-CAMPS, S.A.U.
- > GUARRO CASAS, S.A.
- > HINOJOSA PAPER
- > IBERBOARD MILL, S.L.
- > INTERNATIONAL PAPER
- > INVERSIONES MACLEAN IBÉRICA, S.L.
- > ISMA 2000, S.L.
- > J. VILASECA, S.A.
- > LC PAPER 1881, S.A.
- > LUCART TISSUE & SOAPS, S.L.U.
- > MATÍAS GOMÁ TOMÁS, S.A.
- > MB PAPELES ESPECIALES, S.A.
- > MIQUEL Y COSTAS & MIQUEL, S.A.
- > PACK BENEFIT (ONEWORLD PACKAGING, S.L.)
- > PAPEL ARALAR, S.A.
- > PAPELERA DE BRANDIA, S.A.
- > PAPELERA DEL ORIA, S.A.
- > PAPELERA DEL PRINCIPADO, S.A. (PAPRINSA)
- > PAPEPELERA ECKER, S.A.
- > PAPELERA GUIPUZCOANA DE ZICUÑAGA, S.A.
- > PAPELES Y CARTONES DE EUROPA, S.A. (EUROPAC)
- > PAPERTECH, S.L.
- > PERE PONS, S.A.
- > PERE VALLS, S.A.
- > RDM BARCELONA CARTONBOARD, S.A.U.
- > S.A. INDUSTRIAS CELULOSA ARAGONESA (SAICA)
- > SARRIÓ PAPELERA DE ALMAZÁN, S.L.U.
- > SMURFIT KAPPA ESPAÑA, S.A.
- > SMURFIT KAPPA NAVARRA, S.A.
- > SMURFIT KAPPA NERVIÓN, S.A.
- > SNIACE
- > SOFIDEL SPAIN
- > SOLIDUS SAN ANDRÉS, S.L.
- > TERRANOVA PAPERS, S.A.
- > TORRASPAPEL, S.A.
- > UNIÓN INDUSTRIAL PAPELERA, S.A. (UIPSA)

The Report

GRI 101

MATERIALITY AND COVERAGE

GRI 102-46 | GRI 103-1

All disclosures relating to the organisation (general disclosures) refer to a single entity: ASPAPEL (the Spanish Association of Pulp, Paper and Board Manufacturers). The material topics are sector-wide in dimension and refer to the whole of the Spanish pulp and paper making sector that ASPAPEL represents.

ASPAPEL's sustainability report intends to provide a response to those topics that interest the groups and people who the sector relates with and which are also priorities for the Association itself. The process of determining which topics are relevant to stakeholders was carried out in 2015 in several stages, following the AA1000SES of Accountability and taking into consideration the principles of the GRI G4 Guide, with the specialist support of LAVOLA external consultants.

In the first place, a series of issues and global trends were identified as relevant to the entire paper sector (pulp and paper making) by considering both external (GRI documents, sustainability or environmental reports from companies in the sector and other studies) and internal information (ASPAPEL sustainability reports and their respective updates, outcome of consulting stakeholders, axes of the sector's commitment to sustainability, ASPAPEL's strategic lines and sectorial reports). This identifying stage was completed at meetings with the heads and leaders of the various ASPAPEL areas and projects to understand the sustainability issues they are involved with and handle with each stakeholder.

GRI 102-46

Subsequently, each identified topic's degree of relevance at both internal level (relevance to ASPAPEL) and external level (relevance to stakeholders) was assessed. For the **internal assessment**, a group work-session was held with the heads and leaders of the various ASPAPEL areas and projects to assess the importance of each aspect and issue within ASPAPEL's strategy and that of the sector as a whole. The exercise consisted of determining which point in the sector's value chain was impacted by each aspect and analysing the degree of relevance it held by allocating it a score.

GRI 102-43

For the **external analysis,** ASPAPEL's main stakeholders were surveyed online. With **over 300 replies** received from the online survey, the results obtained can be considered sufficiently representative of ASPAPEL's stakeholders as a whole. For the statistical analysis, responses were weighted according to the interest group, so that the weight of each group is directly proportional to its degree of relevance to ASPAPEL, in order to provide a more coherent overview in line with the Association's actual circumstances.

The outcome of this process was that topics that are a priority for ASPAPEL and its stakeholders could be identified, including topics that are specific to the sector and GRI material disclosures.

PROCUREMENT

Raw material suppliers (wood plantations, manufacturers of additives, etc.)

Service providers

Recovery agents (collection of used paper/board, cleaning and sorting)

ACTIVITY

Pulp making

Paper making

CONSUMERS / CUSTOMERS

Transforming firms
(who convert paper into paper-based products)
Printers and publishers
(who convert paper into publications)

End consumers
(domestic households, retail outlets, offices and industry)

DETERMINATION OF MATERIAL TOPICS	
GRI DISCLOSURES OR SPECIFIC TOPICS	**IMPACT ON VALUE CHAIN**
Economic material topics	
Economic performance	Procurement/Customers/Consumers
Market presence	Procurement/Activity
Indirect economic impacts	Procurement/Activity
Procurement practices	Procurement
Anti competitive behavior	Procurement/Activity
Environmental material topics	
Materials	Procurement/Activity
Energy	Activity
Water	Activity
Biodiversity	Procurement (raw material suppliers: wood)
Sustainable forest management practices*	Procurement (raw material suppliers: wood)
Land management*	Procurement (raw material suppliers: wood)
Product certification*	Procurement (raw material suppliers: wood)/Activity/Customers/Consumers
Emissions	Activity
Effluents and waste	Procurement/Activity
Products and services	Procurement (raw material suppliers: paper for recycling)/ Activity/Customers/Consumers
Environmental compliance	Procurement/Activity
Transport*	Activity
General*	Activity
Citizen awareness building*	Customers/Consumers
Supplier environmental assessment	Procurement (raw material suppliers: wood and virgin fibre)/Activity
Social material topics	
Employment	Procurement (raw material suppliers)/Activity
Labor/management relations	Activity
Occupational health and safety	Activity
Training and education	Activity
Diversity and equal opportunity	Activity
Freedom of association and collective bargaining	Activity
Local communities	Procurement (raw material suppliers)/Activity
Anti-corruption	Procurement (raw material suppliers)/Activity
Public policy	Procurement (forest plantations)/Activity
Customer health and safety	Activity/Customers/Consumers
R&D&i*	Activity
Marketing and labeling	Activity (paper in contact with foodstuffs)/Customers/Consumers
Socioeconomic compliance	Procurement (raw material suppliers: wood)/Activity (in general)/ Activity (paper in contact with foodstuffs)
*Refer to specific topics	

Thereafter, a **materiality matrix** was drawn up, which classifies those relevant topics according to the importance given to each one by stakeholders (external assessment, Y axis) and by ASPAPEL (internal assessment, X axis).

GRI 102-44 | GRI 102-47

RELEVANCE FOR **STAKEHOLDERS**

		Material topics	
↑		Training and education Local communities	Materials Energy Water Effluents and waste Environmental compliance Employment Occupational health and safety Customer health and safety
→	Anti-corruption	Market presence Indirect economic impacts Biodiversity R&D&i	Economic performance Procurement practices Sustainable forest management practices Product certification Emissions Products and services Transport General Citizen awareness building Supplier environmental assessment Labor/management relations Public policy Anti competitive behavior Socioeconomic compliance Marketing and labeling
↓	Land management Diversity and equal opportunity Freedom of association and collective bargaining		
	↓	→	↑

RELEVANCE FOR **ASPAPEL**

Environmental material topics   Economic material topics   Social material topics

Finally, the top 29 topics classed as being of high or medium relevance were selected, while those with low or no relevance were discarded

MATERIAL TOPICS DISTRIBUTED BY CATEGORY AND IN ORDER OF RELEVANCE

GRI 102-44 | GRI 102-47

ECONOMIC

1. Economic performance
2. Procurement practices
3. Anti-competitive behavior
4. Indirect economic impacts
5. Market presence

ENVIRONMENTAL

1. Energy
2. Water
3. Materials
4. Effluents and waste
5. Environmental compliance
6. Emissions
7. Sustainable forest management practices
8. Products and services
9. Citizen awareness building
10. Overall
11. Transport
12. Product certification
13. Supplier environmental assessment
14. Biodiversity

SOCIAL

1. Occupational health and safety
2. Employment
3. Customer health and safety
4. Labor/management relations
5. Public policy
6. Socioeconomic compliance
7. Marketing and labeling
8. Training and education
9. Local communities
10. R&D&i

REPORT PROFILE

GRI 102-50 | GRI 102-51 | GRI 102-52

This fifth Sustainability Report for the Paper Sector covers the period 2015-2017 and provides an update on how the data collected in the previous report, published in 2015, has evolved. The report has been published every three years since 2005, and from 2008 onwards, an annual update of the main disclosures has also been published. The historical data shown in this edition refers to the period 2008-2017 for a better understanding of how the topic has evolved and also to add relevance by providing comparable data from before the economic crisis. Where a complete series of historical data is not available for certain material topics included in the report, last year's data or as much historical information as possible is provided in each case.

Information given in the general disclosures section refers to the organisation (ASPAPEL) and the material topics or specific disclosures refer to the business of the paper sector, which the association represents.

Starting from the concept of the circular economy, the sector's commitment to sustainability is based on four main axes: Sustainable Forest Management (SFM), efficient and responsible production processes (PP), leadership in recovery and recycling (LR), and the generation of wealth and contribution to the quality of life (GW). On the basis of these four main axes, information is organised into four chapters on topics that are materially relevant and include aspects that directly or indirectly impact on the sustainable development of the sector. In that way, the report looks at the fundamental issues related to sustainability from the economic, environmental and social points of view.

DATA COLLECTION AND HANDLING

Information is collected on each topic from companies in the sector and then the aggregate datum is the one included in the report. The nature of this organisation as a sectorial association has the advantage of providing a sector-wide overall view, which - as was see in previous editions - serves as a model and stimulus for individual companies in the sector to publish in turn their own reports with their individual data. External sources are also used (MARM, INE, ...), as noted in each table or chart.

Forestry data for the sector is collected from the annual survey sent to all pulp and paper making mills that consume wood. The data tends to be highly representative (97% in 2014 for wood, 100% for pulp and 92% for certified paper). Data on eucalyptus and pine forestland cover comes from the National Inventory, while data on the land area used by the sector, as well as on employment and CO_2 fixation, was taken using ASPAPEL's own methodology based on the growth and productivity rates for one hectare of eucalyptus and pine plantation and on the number of operators managing the forests and handling the wood consumed.

Environmental data for the sector is taken from an annual survey that sent to all pulp and paper making mills. Again, the data tends to be highly representative - close to or greater than 90% - while for that part of overall production for which no replies are available, the information is estimated proportionally to the rate for the sector so as to report data for the sector as a whole.

Mills mostly report to ASPAPEL the same environmental data they have already given to the Authorities as part of their legal disclosure requirements and which is taken from metering and controls in place at the mills.

GRI 305-1

The main greenhouse gas (GHG) in the paper sector is CO_2 and direct emissions from the process are reported. The data is obtained from sector-wide surveys and is the same data that is used to check compliance with the requirements of CO_2 (carbon) emission rights trading. The overall figure for the sector is obtained from annual assessment reports by the Spanish Bureau on Climate Change (OECC).

SOx and NOx emission rates from 2014 onwards come from a survey of companies in the sector, whereas prior to that date, they used to be calculated by using emission factors based on the fuels involved (EMEP/CORINAIR book and guide, emission factors for the paper industry taking the fuel used and emission source into account) and did not take into consideration the emission reduction measures that many mills have put in place.

Data on pulp and paper production, capital investments, raw material consumption and others come from surveys that member companies fill out each month. In addition to this system, ASPAPEL uses foreign trade data from the Customs Dept. and published periodically by the Tax Agency Statistics Department. The source of international data is CEPI or RISI. Some data is calculated or estimated from these statistical sources.

GRI 301-3

Sector-wide data on paper recycling is drawn up at ASPAPEL by taking the aggregate of data received from companies about their production of paper and consumption of raw materials. Once these figures are added up, paper recovery data is calculated indirectly using information from Customs (paper collection = consumption of paper for recycling by mills + imports - exports).

The information included shows the performance of the sector in the broader context of sustainability. The material topics and their coverage reflect significant economic, environmental and social, so they enable stakeholders to assess the sector's performance over the period covered by the report (2015-2017).

The report has been prepared in accordance with the GRI Standards: core option. It has not been externall assured. Its preparation has sought to find a balance between the different material topics, accuracy and reliability of the data provided, clarity in the exhibition thereof, and comparability between successive editions of this report.

MANAGEMENT APPROACH

GRI 103-2

The pulp and paper sector formulates its vision of sustainability as the decisive contribution of paper and the companies that manufacture it to the improvement of living standards and sustainable development through sustainable forest management, clean production processes and the continuous recycling of their products.

The environment is a priority in all ASPAPEL activities and a large part of the organisation's resources and efforts are focused on getting the sector to minimise its environmental impact. All members of the ASPAPEL management team are committed to their responsibilities in terms of developing and managing environmental policies and actions. Its Forest Area, the Environment and Energy Area and the Recycling and Supply Chain Area all have working committees dealing with these matters, made up of experts from companies in the sector to design and implement actions that will improve the sector's environmental performance. Their proposals are submitted for approval by the Board of Directors.

In regard to social matters (including product liability), safety at work, training and the establishment of adequate and fair working conditions in companies in the sector is another of ASPAPEL's priority. In this sense, it is worth highlighting various initiatives that are being carried out in collaboration with the trade unions, especially concerning occupational health and safety. Furthermore, working conditions are negotiated with the main trade union and agreed in Collective Bargaining Agreements. ASPAPEL has a Human Capital Area and the permanent support of a committee of experts from companies in the sector.

ASPAPEL also works on developing proactive initiatives in the field of paper product safety and consumer health, such as the implementation of good manufacturing practices for paper and board and the participation in forums on the development of product safety policies.

As far as the economic dimension is concerned, ASPAPEL works for the competitive and sustainable development of a circular bioindustry that is the driving force of the powerful value chain of pulp, paper and board. An industry that exports half of its production, creates stable and skilled employment and uses a natural and renewable resource in which Spain has great potential, is a key sector for the industrial future of our country. Consumers increasingly and clearly demand products that meet their needs with the lowest possible environmental cost - natural, renewable and massively recycled products such as paper.

GRI 103-3

ASPAPEL's environmental, social and financial sustainability policy is defined in three-yearly strategic plans, which include objectives for different topics and are defined by the respective Committees and Areas that report regularly to the Board of Directors. Since 2005, ASPAPEL has published a Sustainability Report every three years, in which it reports on sustainability objectives and their fulfilment and which uses GRI standards backed by its own specific contents. In addition, the Association is managed under a Quality Management system certified by an independent third party according to ISO 9001, which ensures a commitment to continuous improvement and compliance with the regulations and provides schemes to correct any deviations or incidents that may arise.

INDEX OF GRI DISCLOSURES

GRI Empowering Sustainable Decisions
Materiality Disclosures
ASPAPEL
Nov 2018
Service

FOUNDATION AND GENERAL DISCLOSURES

DISCLOSURE	PAGE NUMBERS, LOCATION OR EXPLANATION	OMISSION	EXTERNAL ASSURANCE
GRI 101 Foundation 2016			
101 Principios	Chapter The Report Pages 96-103		NO
GRI 102 General Disclosures			
Organizational profile			
102-1 Name of the organization	Page 90		NO
102-2 Activities, brands, products, and services	Pages 90-91 No products or services are banned in certain markets		NO
102-3 Location of headquarters	Page 91		NO
102-4 Location of operations	Page 90		NO
102-5 Ownership and legal form	Pages 90 and 95		NO
102-6 Markets served	Page 90		NO
102-7 Scale of the organization	Pages 90-92 and 95 Financial data: http://www.aspapel.es/sites/default/files/adjuntos/doc_535_informe_auditoria_2017.pdf		YES
102-8 Information on employees and other workers	Pages 91-92		NO
102-9 Supply chain	Pages 92-93		NO
102-10 Significant changes to the organization and its supply chain	Page 93		NO
102-11 Precautionary Principle or approach	Precautionary principle not applicable due to nature of ASPAPEL's business		NO
102-12 External initiatives	Page 93		NO
102-13 Membership of associations	Page 93		NO
Strategy			
102-14 Statement from senior decision-maker	Pages 2- 3		NO
Ethics and integrity			
102-16 Values, principles, standards and norms of behavior	Page 93 Code of conduct: http://www.aspapel.es/sites/default/files/adjuntos/doc_445_0.pdf		NO

Governance		
102-18 Governance structure	Page 92	NO
Stakeholder engagement		
102-40 List of stakeholders groups	Page 94	NO
102-41Collective bargaining agreements	Page 91	NO
102-42 Identifying and selecting stakeholders	Page 94	NO
102-43 Approach to stakeholder engagement	Page 94 Page 97 Page 66	NO
102-44 Key topics and concerns raised	Page 94 Pages 98-100 Page 66	NO
Reporting practice		
102-45 Entities included in the consolidated financial statements	The financial statements refer to a sole organization: ASPAPEL (Spanish Association of Pulp and Paper Manufacturers) http://www.aspapel.es/sites/default/files/adjuntos/doc_535_informe_auditoria_2017.pdf (pages 7-11)	NO
102-46 Defining report content and topic Boundaries	Pages 96-98	NO
102-47 List of material topics	Pages 98-100	NO
102-48 Restatements of information	No significant changes	NO
102-49 Changes in reporting	No significant changes	NO
102-50 Reporting period informe	Page 101	NO
102-51 Date of most recent report	Page 101	NO
102-52 Reporting cycle	Page 101	NO
102-53 Contact point for questions regarding the report	aspapel@aspapel.es	NO
102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option Pages 104-110	NO
102-55 GRI content index	The report has not been externally assured	NO
102-56 External assurance	Only ASPAPEL financial statements has been externally assured: http://www.aspapel.es/sites/default/files/adjuntos/doc_535_informe_auditoria_2017.pdf	NO

ECONOMIC MATERIAL TOPICS

GRI 103 Management Approach 2016 **Related to: Economic Performance (201), Market Presence (202), Indirect Economic Impacts (203), Procurement Practices (204), Anti-competitive Behavior (206)**		
103-1 Explanation of the material topic and its Boundary	Pages 96-100	NO
103-2 The management approach and its components	Pages 4-5 Pages 81-89 and 103	NO
103-3 Evaluation of the management approach	Pages 81-89 and 103	NO

DISCLOSURE	PAGE NUMBERS, LOCATION OR EXPLANATION	OMISSION	EXTERNAL ASSURANCE
GRI 201 Economic Performance 2016			
201-1 Direct economic value generated and distributed	Direct economic value generated Page 55 Direct economic value distributed Socioeconomic impact of pulp, paper and board value chain Pages 52-53 (abstract) Whole report: http://www.aspapel.es/en/content/socio-economic-importance-pulp-paper-board-value-chain (pages 16-18 and 24-25)	As ASPAPEL is a nationwide, professional organization that encompasses the whole pulp and paper industry in Spain, the organization cannot obtain information of sufficient quality to enable sectoral reporting about direct economic value distributed. From a sectoral point of view is more interesting the role of pulp and paper industry as driving force of a powerful value chain and its direct, indirect and induced socioeconomic impact. ASPAPEL and others organizations of the chain have published a detailed report about it.	NO
GRI 202 Market Presence 2016			
202-1 Ratios of standard entry level wage by gender compared to local minimum wage	GRI 202-1 The sector's collective bargaining agreement sets down (regardless of gender) minimum gross salaries for the various professional groups of between € 16,468 and € 18,385 for labours and between € 14,890 and € 30,581 for employees. Remuneration for non-stop working (continual shifts that enable non-stop plant operation), as well as other working conditions (no. of hours, rest periods, etc.) are determined by agreement between the company Management and the Workers' Committee or Personnel representatives. By comparison, the minimum gross wage in Spain for 2017 was set at € 9,906.40 per year.		NO
GRI 203 Indirect Economic Impacts 2016			
203-1 Infrastructure investments and services supported	Pages 58- 59		NO
203-2 Significant indirect economic impacts	Page 60 Pages 52-53 (abstract of the report Socioeconomic impact of pulp, paper and board value chain) Whole report: http://www.aspapel.es/en/content/socio-economic-importance-pulp-paper-board-value-chain (pages 16-18 and 24-25)		NO
GRI 204 Procurement Practices 2016			
204-1 Proportion of spending on local suppliers	Pages 11-12 Page 60		NO
GRI 206 Anti-competitive Behavior 2016			
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Although cases have existed related to suppliers and customers, as far as the pulp and paper sector is concerned, no grievances have been filed during the reporting period (CNMC).		NO

ENVIRONMENTAL MATERIAL TOPICS		
GRI 103 Management Approach 2016 **Related to: Materiales (301), Energy (302), Water (303), Biodiversity (304), Emissions (305), Effluents and Waste (306), Environmental Compliance (307), Supplier Environmental Assessment (308)**		
103-1 Explanation of the material topic and its Boundary	Pages 96-100	NO
103-2 The management approach and its components	Pages 4-5 Pages 81-89 and 103	NO
103-3 Evaluation of the management approach	Pages 81-89 and 103	NO
GRI 301 Materials 2016		
301-1 Materials used by weight or volume	Page 60 Pages 11-12	NO
301-2 Recycled input materials used	Page 60	NO
301-3 Reclaimed products and their packaging materials	Pages 72-73 Page 102	NO
GRI 302 Energy 2016		
302-1 Energy consumption within the organization	Pages 24-27	NO
GRI 303 Water 2016		
303-1 Water withdrawal by source	Page 32	NO
GRI 304 Biodiversity		
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Page 15 Page 17 Operational sites are not in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas. Pulp and paper plants are integrated in municipalities or located in industrial parks.	NO
304-2 Significant impacts of activities, products, and services on biodiversity	Page 15 Page 17 No impacts on biodiversity detected in plantations management. As a pilot experience, a code of good practices for eucalyptus forest logging have been sponsored and disseminated among sector stakeholders and local institutions in the Principality of Asturias in order to preserve biodiversity and improve occupational health and safety.	NO
GRI 305 Emissions 2016		
305-1 Direct (Scope 1) GHG emissions	Pages 28-30 Page 102	NO
305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Page 30	NO
GRI 306 Effluents and Waste 2016		
306-1 Water discharge by quality and destination	Pages 32-34	NO
306-2 Waste by type and disposal method	Pages 36-37	NO

DISCLOSURE	PAGE NUMBERS, LOCATION OR EXPLANATION	OMISIONES	EXTERNAL ASSURANCE
GRI 307 Environmental Compliance 2016			
307-1 Non-compliance with environmental laws and regulations	Although fines and penalties are public, no central registry exists to record them, ASPAPEL works continually on monitoring new environmental requirements for mills in the sector and provides information for compliance by its affiliate member facilities. Most plants (94% of the sector's total output) has an environmental management system in place, which implies commitment to continual improvement and compliance and therefore a system to correct any deviation or incident that may arise.		NO
GRI 308 Supplier Environmental Assessment 2016			
308-1 New suppliers that were screened using environmental criteria	Page 15 Page 19 Page 23 100% of pulp suppliers and 92% of wood suppliers have a certified chain of custody, so they are bound to comply with the requirements of their certification systems that ensure their wood logging is carried out according to the environmental sustainability criteria established by PEFC and FSC. In addition, companies have built meticulous environmental regulations into their work procedures that restrict wood logging to purpose-built plantations and exclude all wood from protected areas or pulp from wood from dubious sources, thanks to the due diligence that mills have implemented to guarantee they only consume legally logged raw materials.		NO
SOCIAL MATERIAL TOPICS			
GRI 103 Management Approach 2016 **Related to: Employment (401), Labor/Management Relations (402), Occupational Health and Safety (403), Training and Education (404), Local Communities (414), Public Policy (415), Customer Health and Safety (416), Marketing and Labeling (417), Socioeconomic Compliance (419)**			
103-1 Explanation of the material topic and its Boundary	Pages 96-100		NO
103-2 The management approach and its components	Pages 4-5 Pages 66-67 Pages 81-89 and 103		NO
103-3 Evaluation of the management approach	Pages 81-89 and 103		NO
GRI 401 Employment 2016			
401-1 New employee hires and employee turnover	Pages 38-40 Page 57		NO

GRI 402 Labor/Management Relations 2016			
402-1 Minimum notice periods regarding operational changes	The State Collective Bargaining Agreement for the sector establishes minimum periods for notification, consultation and negotiation that must be fulfilled in order to carry out certain organisational changes. Article 7.4 Individual transfer - in the event that no prior agreement is reached notification to worker and worker reps with at least 30 days' notice prior to effective date. Art. 9.7 Flexibility and irregular work times. Worker reps to be called with at least 3 days' notice before a negotiation period. If no agreement is reached in 5 days, the provisions in the Workers' Statute shall be implemented.		NO
GRI 403 Occupational Health and Safety 2016			
403-1 Workers representation in formal joint management-worker health and safety committees	Page 49		NO
403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Pages 43-47	The breakdown by sex and region in the sector is not significant, given the uniform legal and working conditions across the country	NO
403-4 Health and safety topics covered in formal agreements with trade unions	Pages 48-49		NO
GRI 404 Training and Education 2016			
404-1 Average hours of training per year per employee	Page 41	The breakdown by sex and region in the sector is not significant, given the uniform legal and working conditions across the country	NO
GRI 413 Local Communities 2016			
413-1 Operations with local community engagement, impact assessments, and development programs	Pages 68-69		NO
GRI 415 Public Policy 2016			
415-1 Political contributions	Given that ASPAPEL participates in developing public policies, it makes no political contributions. ASPAPEL has adopted a Code of Conduct for its representation of stakeholder interests, under which the Chairman, Deputy Chairman and other members of the Board of Directors, as well as all ASPAPEL workers and employees, plus any other associated member or person under contract to act on behalf or in representation of ASPAPEL, undertake to comply with a series of principles and values in their relations with authorities, elected officials and other public employees. You can find this Code of Conduct at http://www.aspapel.es/sites/default/files/adjuntos/doc_445_0.pdf		NO
GRI 416 Customer Health and Safety 2016			
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Between January 2015 and December 2017, the European Commission's RASFF Portal http://ec.europa.eu/food/safety/rasff/index_en.htm recorded no alerts relating to paper in contact with food, a datum that confirms the actions carried out voluntarily by the sector in regard to the safety of paper products in contact with food have been successful.		NO

DISCLOSURE	PAGE NUMBERS, LOCATION OR EXPLANATION	OMISIONES	EXTERNAL ASSURANCE
GRI 417 Marketing and Labeling 2016			
417-1 Requirements for product and service information and labeling	Paper and board, especially paper and board for food contact, are safe products with European regulations controlling that safety, which are more stringent than general product safety rules and which are marketed with sufficient information to enable their risk-free usage. Furthermore, in compliance with either current European legislation or self-imposed sector-wide measures, product traceability is guaranteed as is a recovery mechanism forprocured materials, if necessary.		NO
417-2 Incidents of non-compliance concerning product and service information and labeling	Since January 2015 to December 2017, the EC RAPEX portal https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/?event=main.search had no record of any alert related to paper or paperboard in contact with foodstuffs, in regard to non-compliance of regulations on product labelling. This confirms that the sector applies in regard to the labelling of its products when sold or used without jeopardising consumer health and safety by this cause.		NO
GRI 419 Socioeconomic Compliance 2016			
419-1 Non-compliance with laws and regulations in the social and economic area	No significant fines against sector companies during the period are known of.		NO
SPECIFIC TOPICS (ASPAPEL OWN CONTENTS)			
ENVIRONMENTAL MATERIAL TOPICS **GRI 103 Management Approach 2016** **Related to: Sustainable forest management practices (1GF, 2GF, 3GF), Product certification (4GF), Citizen awareness building (20LR), Transport of raw material and finished goods (32GR)**			
103-1 Explanation of the material topic and its Boundary	Pages 96-100		NO
103-2 The management approach and its components	Pages 4-5 Pages 81-89 and 103		NO
103-3 Evaluation of the management approach	Pages 81-89 and 103		NO
1 GF, 2 GF, 3 GF Sustainable forest management practices	Pages 11-14		NO
4 GF Product certification	Page 15		NO
20 LR Citizen awareness building	Pages 78-79		NO
32 GR Transport of raw material and finished goods	Page 61		NO
SOCIAL MATERIAL TOPICS **GRI 103 Management Approach 2016** **Related to: R&D&i (31GR)**			
103-1 Explanation of the material topic and its Boundary	Pages 96-100		NO
103-2 The management approach and its components	Pages 4-5 Pages 81-89 and 103		NO
103-3 Evaluation of the management approach	Pages 81-89 and 103		NO
31 GR R&D&i	Pages 63-64		NO

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