CSR REPORT 2015

This report presents developments in our corporate sustainability strategy, activities and results in 2015. Corporate Social Responsibility (CSR) commitment is an integral part of our operations. Every year we work on further improvements to enhance the data and reporting cycle for our non-financial performance. We have not had our CSR performance verified externally.

This Sustainability Report is published in digital form only. To increase its readability and functionality, the report has been posted on our website in HTML format and can also be downloaded as a PDF document. In the event of textual inconsistencies between this English translation and the original Dutch version, the latter shall prevail.
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MAXIMISING THE VALUE OF RAW MATERIALS
Our commercial success stands or falls on the value we extract from our raw materials. We therefore use all parts of the plant in a process known as biorefinery. The challenge is to extract as many components as possible at the same time.

Our core business is processing vegetable raw materials. We turn more than 80% of the agricultural raw materials (biomass) into foodstuffs. Some 10% is made into animal feed and the rest is converted into bio-energy and biobased products.

LOCATIONS
Main offices and production facilities in the Netherlands, Europe, the US and Asia

BUSINESS MODEL

CULTIVATION ➔ BIOREFINERY ➔ SALES MARKETS
PROFILE

Royal Cosun is an agro-industrial group that processes arable crops and other vegetable raw materials. Cosun is a cooperative of some 9,000 Dutch sugar beet growers. The cooperative has been processing its members’ sugar beet since 1899. Over the years we have added new activities to our portfolio, nearly all of them relating to agriculture or horticulture.

We produce a wide range of ingredients and intermediate products from vegetable raw materials such as sugar beet, potatoes, chicory, fruit and vegetables for the international food industry. We also make products that are sold to consumers through the foodservice (out-of-home and wholesale outlets) and retail channels. We are increasingly developing ingredients for non-food applications. We supply products to the animal feed sector, develop building blocks for biobased chemicals and produce bio-energy (green gas).

Of all the businesses that make up Cosun, Suiker Unie and Aviko are the most widely known. They have traditionally produced sugar and potato specialities respectively. Sensus produces inulin from chicory. Inulin is a dietary fibre that reduces the sugar and fat content of foodstuffs. SVZ processes fruit and vegetables into concentrates and purees for the food industry.

Duynie Group is a trader and distributor of animal feed and develops advanced applications based on residual flows and by-products from the food industry. Cosun Biobased Products is a fledgling business specialising in the development and production of functional green chemicals and materials based on renewable vegetable raw materials. Its innovations are used in a wide range of applications.

Royal Cosun has a joint research and development centre. In close collaboration with the business groups that make up Cosun, it improves the use of agricultural raw materials, innovates process technology, optimises energy management and, in cooperation with customers, develops new products. Cosun R&D also works with a variety of institutions and universities in the Netherlands and abroad.

Recurring EBITDA is operating profit before depreciation and amortisation, after adjustment for activities divested and non-recurring items.

The members’ bonus is paid to the members as part of the quota beet price and recognised as a cost of raw materials in ordinary operating profit. More information on page 15 - 16.

The beet yield per hectare, calculated on the average yield with average quality and after premium payments.
**Total CO$_2$ emissions in tonnes/tonne of product**

The upper part of the figure represents direct emissions caused by our use of fossil fuels. The lower part is the indirect emission relating to the purchase of electricity, converted into tonnes of CO$_2$. More details on page 17.

**Number of complaints about nuisance**

Total number of complaints about Cosun’s production locations in the Netherlands and abroad. Most complaints related to odour nuisance. The values measured were within the limits of the environmental permits. See also page 20.

**Water consumption in m$^3$ of water/tonne of product**

Total water consumption of all Cosun production locations in m$^3$ per tonne of product. More details on page 18.

**Waste in kg/tonne of product**

Total volume of residual material per tonne of product, broken down into separated and mixed flows. Read more on page 19.
**Number of staff** average in FTEs

- Average number of FTEs
- Average number of FTEs (adjusted for divested activities)

Average number of staff during the year with a contract of employment with Cosun or one of its business groups.

**Number of lost-time accidents** per 1,000 employees

Total number of lost time accidents at Cosun business groups per 1,000 employees. For more details, see page 21.

**Reports of suspected wrongdoing**

Number of reports on suspected wrongdoing received by the Speak Up system since 2011. More details on page 23.

**Sickness absenteeism** in %

Rate of sickness absence at the Cosun business groups, excluding maternity leave. More on page 22.
THE PRINCIPLES OF CORPORATE RESPONSIBILITY

How do we work rationally and responsibly and how do we explain our guiding principles to all our stakeholders, and in the first place to our employees? It is not as simple as you might think. Open and honest discussions must be held to put our message across clearly. This insight prompted us to reiterate our principles in 2015 and introduce them at every level within all Cosun's business groups. The principles are grouped into four key themes: together - sustainable - respect - dedication.

TOGETHER
We work with each other within the businesses, the group, the cooperative and with external parties. One example of cooperation is the Sugar & Nutrition Platform set up in 2015. It represents three links in the supply chain: the sugar beet growers, the sugar industry and the sugar processors in the Netherlands. Building on our shared responsibilities, we seek a dialogue about sugar and nutrition with civil organisations, the media and consumers. Too many calories in our food and too little exercise to use up the energy can lead to obesity. Everyone agrees about that. But opinions differ on the causes and the answers to the problem. We are doing our best to make sure the dialogue is based on scientifically objective facts.

SUSTAINABLE
Sustainability is all about long-term continuity, for the benefit of the environment, people and our own business. Cosun invests with the growers to make the crops more sustainable. In our own production processes, we do all we can to create value from the raw materials and prevent waste. For many years we have been extracting value from our co-products and by-products and innovating even better applications. Energy savings make a considerable contribution to waste prevention. This report explains how we want to achieve these goals and what progress we have made.

RESPECT
Respect refers to how we go about our business and work with each other, our integrity and our accountability to all stakeholders inside and outside the group. We respect each other, the information and materials we use and the rules and agreements we make. And we also respect the local communities and the people who live near our sites. This report explains that a little inconvenience is sometimes unavoidable but we do all we can to minimise it and are open to dialogue with the local community. Cosun wants to earn and retain the respect of others.

DEDICATION
Together, our employees make up Cosun and they are at the heart of everything we do. As an employer we are responsible for providing safe and pleasant working conditions and for the professional and personal development of our people. We are not satisfied with the safety at work. There are still too many incidents and lost-time accidents. We have to do more to systematically lower the number, for the benefit of our people and the group as a whole. What we produce and supply to our customers also demands our constant attention. Safe and responsible food is of vital importance to the entire supply chain, and to the consumer above all.

These principles guide all our efforts to achieve responsible results, not only for us personally as the people with final responsibility, but for everyone who belongs to the Cosun community.

Dirk de Lugt
Chairman of the Board

Robert Smith
Chief Executive Officer
Cosun wants to be a sustainable player in areas where we are active and can bring our influence to bear. We do so by taking a practical approach to corporate social responsibility (CSR). Our approach says something about how we weigh up different interests before reaching a decision.

**OUR VISION:**

**GROWTH IS AT THE HEART OF EVERYTHING WE DO.**
When crops grow, people prosper.
By working together, we create a future that enables growth for everyone.
We learn by doing and aim to be better at every step we take.
Our purpose is to create the most out of crops.
To deliver lasting added value in the agro supply chain.
With true respect for the environment.
Strong and resilient.
For generations to come.
We take our responsibility.

**STAKEHOLDERS**

- Members of the cooperative
- Customers
- Suppliers/service providers/partners
- Consumers
- Local residents
- Potential employees
- Politicians and public authorities
- Financial institutions
- Education
- Media (press)
- NGOs

**MISSION**

Cosun operates close to the arable sector and works with farmers on the sustainable cultivation of vegetable raw materials.

We are convinced that the refinery of vegetable raw materials is essential to make optimal and sustainable use of our agricultural raw materials and natural resources.

We deliver ingredients for food and feed, materials for many non-food applications and ultimately for energy production.

We carefully balance respect for people, planet and profit with the continuity of the business and the cooperative.

**GUIDELINES**

- Cosun Principles
  (fully revised code of conduct in 2015)
- Specific regulations
- NCR Code for cooperatives

Cosun's sustainability policy is built on four pillars:

1. **Sustainable cultivation**
   - Investment in the knowledge and expertise of the growers and suppliers of our raw materials
   - Higher yield per hectare
   - Mineral cycles closed wherever possible

2. **Financial and economic value creation**
   - For members (income through the beet price)
   - For staff (salaries and pensions)
   - For society (products and taxes)

3. **Optimisation of production processes**
   - Optimal use of raw materials and consumables including water
   - Energy savings and lower CO₂ emissions
   - Waste prevention
   - Caring for the social environment, minimising nuisance

4. **Good employment practices**
   - Safe working environment
   - Fitness and employability
   - Education and training
We have set a number of social and environmental targets to measure the results of our efforts. We also account to our members for the return earned on the capital invested and our contribution to the financial result per hectare of sugar beet. Responsibility for the financial result is shared between our members/beet growers and ourselves as a sugar manufacturer. More information on our financial results can be found in our Annual Report for 2015.

<table>
<thead>
<tr>
<th>PEOPLE</th>
<th>ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• To reduce lost time incidents to zero eventually. The target for 2016 is at the most 17 lost time incidents per 1,000 FTEs.</td>
<td>• To reduce energy consumption per unit of production at our factories by an average of 2% per annum. This will in turn reduce the carbon footprint of our operations.</td>
</tr>
<tr>
<td>• To reduce sickness absenteeism, in any event to remain below the average for the food industry (2014: 4.8%, source: Statistics Netherlands).</td>
<td>• To excel in creating value by converting all our vegetable raw materials (biomass) into food, feed, non-food applications and energy products, and so prevent biomass being treated as waste wherever possible.</td>
</tr>
<tr>
<td>• To reduce the number of complaints made by local residents about our production sites. The ultimate goal is an average of less than one complaint per site.</td>
<td></td>
</tr>
</tbody>
</table>

**OTHER TARGETS**

We have also set targets in other areas. We have taken initiatives to make the cultivation of our agricultural raw materials more sustainable, to use water more responsibly both to grow the crops and to process them, to cooperate within the supply chain, to encourage sustainable innovation, to reduce CO₂ emissions before and after our production processes and to professionalise staff development through training and education. These targets, too, are considered in this report.

**INTEGRATED**

Corporate social responsibility is an integral part of our strategy. Final responsibility for the policy lies with the Board, with the Supervisory Board overseeing the policy’s implementation by the Executive Board. The Chief Executive Officer reports to the Board.

**COOPERATION AND COORDINATION**

The group directors are responsible for setting and implementing their business groups’ policies. At Cosun level, the policies are coordinated by the CSR platform. The platform’s members are:

- Anouk ter Laak, chair – member of the Executive Board
- Coen de Haas, secretary – environmental coordinator, Cosun
- Dick van der Aart, marketing manager, Aviko
- Iwan Blankers, director, Sensus
- Etiënne Geerts, member of the Central Works Council
- Jobien Laurijssen, sustainability manager, SVZ
- Derk van Manen, QNR manager, Duynie Group
- Frank van Noord, R&D director, Suiker Unie
- Willy van Oorschot, corporate communication manager, Cosun

Each business group has its own steering group; some have also appointed working groups in specific areas such as the environment and employee relations. The business groups’ management teams coordinate, direct, monitor and report on their activities to the Executive Board. A working group at Cosun level compiles management reports and the Annual Report.
SUSTAINABLE CULTIVATION OF THE RAW MATERIALS

The multinationals that buy products from Cosun’s business groups have set themselves ambitious sustainability goals that they can only achieve with the help of their suppliers. To this end, both Cosun and its stakeholders have developed registration systems and benchmarks.

Multinationals set up the Sustainable Agriculture Initiative (SAI) in 2002. The SAI has developed the farmer sustainability assessment (SAI-FSA) to analyse the principles and practice of farming. It provides an insight into the sustainability of crops and growing regions. This is important information because the consideration paid to sustainability within the supply chain depends not only on the crop but also on the growing region and local circumstances.

The Cosun group joined the SAI in 2016. Aviko and SVZ had already been members. Aviko has become a member under the Cosun flag but SVZ will continue under its own name for the time being. In addition to membership of such international platforms, Cosun also develops its own dedicated systems. Sensus, for example, has developed the Cimone programme to optimise chicory cultivation and Suiker Unie uses the Unitip programme to raise the standard of sugar beet cultivation.

On behalf of over 40 multinationals, EcoVadis rates more than 150 industries on four themes: environment, fair labour practices, ethics/fair business practices and supply chain. This independent supplier rating organisation again awarded Suiker Unie Gold status in 2015. It also awarded SVZ Gold status in 2015.

POTATOES
Aviko continued its sustainability projects in 2015 which were introduced to guarantee food safety and improve crop registration and tracking & tracing. The stricter demands customers are making on Aviko’s products are having a more pronounced effect. Aviko has taken a variety of measures and actions in response. The production factory in Steenderen, for example, was awarded BRC-A status in 2015. BRC is a globally recognised food safety standard.

CHICORY
Sensus launched an ambitious programme in 2015 to bring about structural improvements in the crop yield. Cimone®, a new monitoring system, is at the heart of the programme. It gives the chicory growers an insight into their crops and yields. Sensus helps the growers and encourages them to use Cimone; it even provides them with a financial incentive. Cimone will build up a knowledge bank over the years to further improve the yields of individual growers and Sensus. The motto is: the highest possible output from the lowest possible input.

The tare soil attaching to nearly half the chicory is now removed by secondary washing when the chicory roots are loaded for transport. Considerably less soil is therefore carried to the factory than in the past. Two new cleaning concepts were trialled during the 2015 campaign in areas where secondary washing is not applied. Sensus will select one of the two concepts in 2016 and roll it out this year and next.
FRUIT & VEGETABLES
As an industrial processor of fruit and vegetables, SVZ works with a wide variety of raw materials from many growing areas. They are sourced directly from growers but also from cooperatives and other partners in the supply chain. The stronger focus on sustainability and transparency in the agricultural production chain has increased the importance of control in every link in the chain. SVZ set up separate supply systems for some customers in 2015 so that sustainably grown products can be traced all the way back to the growers.

SVZ also rolled out supply instruments (such as SAI-FSA) in many of its own supply lines in 2015 so that it can monitor its progress. The results will help it make the right improvements. SVZ is also helping its growers make their crops more sustainable. Its agronomists, for example, train thousands of local red fruit growers in Poland every year. The mainly small-scale growers are taught about the responsible use of nutrients and integrated crop protection. The scope of this training programme is widened every year and the results are used to select new topics. The training programme was also introduced in Serbia in 2015.

In Spain, a great deal of knowledge has been gained on efficient irrigation methods in recent years. To make wider use of the knowledge held by customers and local expertise centres, SVZ has been working with other food companies, retailers, the World Wildlife Fund and local stakeholders to improve water management in the region. It also invested in knowledge sharing among irrigation experts in Spain, Poland and the United Kingdom during the year. The cooperation with the ornithological association of Lublin (Poland), a local bat protection NGO, was continued in 2015. Counts found that about 15% of the bat boxes which were placed in the previous year were now sheltering bats.

SUGAR BEET
Suiker Unie has taken numerous initiatives to make beet cultivation more sustainable. They include:

• providing cultivation advice through its own media (e.g. websites and the members’ magazine) and during meetings with growers throughout the country;
• setting up specific programmes such as IPM (Integrated Pest Management) and Biodiversity & Beet Cultivation. The IRS, an institute for practical research into beet cultivation, plays an important role in these programmes;
• promoting the use of Unitip. This programme’s sustainability modules are still being refined and Suiker Unie is encouraging all growers to take part;
• participating in the Skylark Foundation, a sustainability platform for arable farming.

In 2013 and 2014 Suiker Unie took part in an SAI pilot project to study beet sugar production in the EU. SAI itself decided which parties it would approach and how high the bar would be set. It followed up the pilot project in 2015 by asking Suiker Unie to have an independent agency (CLM) benchmark the SAI-FSA conditions against Suiker Unie’s own sustainability programmes and schemes. Suiker Unie’s programmes are based on Dutch and EU laws and rules, the supply agreement between the beet growers and the cooperative, Suiker Unie’s sugar beet food safety certificate and its cultivation and evaluation programme, Unitip. SAI assessed the benchmarking results and found that all beet growers in the Netherlands were of Silver standard and all Unitip participants were of Gold standard. Suiker Unie wants all beet growers to join the Unitip programme within the foreseeable future.
Figure 1 shows that the yield per hectare, and the five-year average in particular, has steadily increased over the years. The differences from one year to the next are due chiefly to the weather during the growing season. The sugar yield in 2014 was exceptionally high: more than 15 tonnes per hectare. It was boosted by the early sowing dates, high spring temperatures, the relative absence of stress factors such as drought and plant diseases and pests. These factors were less favourable in 2015 and the sugar yield per hectare was accordingly lower than in the record year of 2014. New beet varieties and the growers’ skills, of course, also contribute to high yields. Suiker Unie helps beet growers optimise their output by providing advice based on research by the IRS and other knowledge centres.

Figure 2 shows that there is a direct relationship between the sugar yield per hectare and the energy consumed during the growing season, for example by vehicles working the fields. The more sugar obtained from a hectare, the less energy is needed to produce each kilogram of sugar. In broad lines, beet cultivation is becoming more energy efficient, thanks largely to the increased yield. The growers are optimising their yields by taking the right measures at the right moment rather than simply increasing their use of fertilisers, herbicides and pesticides. This increases the output without increasing the input.

CO-PRODUCTS

Most of the Cosun business groups process vegetable raw materials into foodstuffs and food ingredients. Some parts of the raw materials cannot be processed, for example beet and chicory pulp, potato cuttings and peelings and starch. They are known as co-products. Duynie collects them, not only from the other Cosun business groups but also from external suppliers such as beer brewers, and turns them into animal feed and a variety of products used in a range of industries, from biogas and oil production to wallpaper paste, label glue and the paper industry.
Cosun’s Annual Report for 2015 considers the cooperative’s performance during the year and the main developments at and around the group. It also takes a detailed look at the figures in the annual accounts. In this CSR Report, we look at the value of our operations. We create value by selling goods and services, making payments to our members and staff, and investing in the sustainability of our production processes also.

Cosun is a major economic player that creates added value:
• by upgrading raw materials into products for our many customers; and
• by making substantial payments to our members, suppliers, staff, the government and financiers.

The table below shows the added value that Cosun generates by selling its products, after the deduction of payments to suppliers and members for their goods and services.

In 2015 we created €642 million. Of this amount, €499 million was paid to our employees, members, the government and other financiers. Cosun invested the remainder of the added value in its assets and in the expansion of its activities.

**TURNOVER**

We create value by making optimal use of our vegetable raw materials. Total turnover declined to €1,948 million in 2015, 8% less than in 2014. Suiker Unie suffered from the historically low sugar prices in the European market and its turnover was lower than in the previous year. Aviko’s turnover was lifted by higher sales and firmer selling prices than in 2014. Sensus also reported higher turnover in 2015. SVZ’s turnover was virtually unchanged, while Duynie’s was lower. The greater part of our turnover, about 85%, was made in Europe.

**PROFIT**

Cosun’s profit for the year was lower than that for 2014, but higher than expected. Operating profit before depreciation and amortisation and after adjustment for discontinued activities and non-recurring items (recurring EBITDA) fell from €202 million in 2014 to €167 million in 2015.

<table>
<thead>
<tr>
<th>ADDED VALUE STATEMENT</th>
<th>Amounts in millions of euros</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net turnover</td>
<td>1,948</td>
<td>2,115</td>
<td></td>
</tr>
<tr>
<td>Other revenue and stock movements</td>
<td>39</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Payments to suppliers of raw materials</td>
<td>-/-</td>
<td>-/-</td>
<td>981</td>
</tr>
<tr>
<td>Payments to other suppliers</td>
<td>-/-</td>
<td>-/-</td>
<td>364</td>
</tr>
<tr>
<td><strong>Added value created</strong></td>
<td><strong>642</strong></td>
<td><strong>735</strong></td>
<td></td>
</tr>
<tr>
<td>Personnel (salaries)</td>
<td>255</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>Members (beet purchases and members’ bonus)</td>
<td>230</td>
<td>283</td>
<td></td>
</tr>
<tr>
<td>Financiers (interest)</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Government (taxes)</td>
<td>8</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td><strong>Value created for stakeholders</strong></td>
<td><strong>499</strong></td>
<td><strong>565</strong></td>
<td></td>
</tr>
<tr>
<td>Retained profit</td>
<td>46</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Depreciation and amortisation</td>
<td>98</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td><strong>Value created for reinvestment</strong></td>
<td><strong>143</strong></td>
<td><strong>170</strong></td>
<td></td>
</tr>
</tbody>
</table>
MEMBERS
As a cooperative, we pay out a substantial proportion of our earnings to our members. The members’ bonus for the year came to €69 million, down 36% on 2014. The quota beet price paid to our members was accordingly lower: €43.01 per tonne of beet with average sugar content and average extractability (2014: €50.18 per tonne). At 13.9 tonnes, the average sugar yield per hectare was markedly lower than in 2014 (15.1 tonnes). The average financial yield per beet grower in the Netherlands accordingly came to €3,301 per hectare, €1,053 less than in the previous year. The financial yield per hectare is an important measure of the profitability of beet cultivation.

INVESTMENTS
The cash position was adequate to finance the investments we made in our factories. The healthy financial position gives us a strong platform to continue implementing our growth strategy. Capital expenditure totalled €104 million in 2015 (2014: €112 million). We again made substantial investments in our sugar and potato activities. They were targeted primarily at increasing the scale and flexibility of our production capacity. We also made regular replacement investments. Cosun made only limited use of acquisitions to strengthen its activities in 2015 (2014: €19 million). Next year, too, Cosun will invest in a variety of segments in order to strengthen its market position.

Figure 3. Value distribution 2015
OPTIMISING THE PRODUCTION PROCESSES

When we process our vegetable raw materials, our care for the environment often comes down to the prevention of waste. We aim to make optimal use of all our raw materials and consumables, energy, water and residual flows, and to reduce our CO₂, odour and noise emissions. We take a critical approach to road safety around our locations and to the appearance of our buildings, facilities and sites.

At group level, Cosun monitors the CO₂ emissions of its factories, the water consumption of its processes, the amount of residual matter and the number of complaints made by local residents. We monitor all our production sites, including those outside the Netherlands. The figures are expressed in units per tonne of product so as not to conflate variations in the size of the harvests we process. Our overall environmental performance in 2015 was comparable to that in 2014. The number of complaints about our production activities was lower but still higher than our target. Dutch NOₓ standards are becoming stricter. All our locations are taking measures to work to the tighter standards.

CO₂ EMISSIONS

The composition and quality of the harvests we process vary from year to year. We have very little influence on their impact on our energy consumption. Energy consumption accounts for a substantial proportion of our costs. We have set ourselves the goal of reducing our overall energy consumption per tonne of product by at least 2% on average every year as from 2010. This saving will also reduce our CO₂ emission per tonne of product. In recent years, we have nearly always realised this goal and we did so again last year. On average, we have achieved our goal over the past five years and are on track to reach our target for 2020. Every additional saving, however, requires an even greater effort if we are to cut energy consumption by 2% per annum.

COGENERATION

Cosun is constantly seeking ways to make better use of its production capacity and reduce its gas and electricity consumption. Nearly all production sites produce steam as a source of energy. They use natural gas to heat water and produce steam and thus satisfy a large proportion of their own energy needs. The CO₂ that is released is classified as a direct emission. The indirect CO₂ emission is based on the net electricity purchased from external suppliers and the average CO₂ emission per kWh they declare. Where specific figures are not available, we use national averages.

With the help and support of Cosun Food Technology Centre (CFTC), the energy specialists in the business groups are optimising the processes at various locations or completely replacing steam boilers and peripheral equipment. The ultimate goal is to increase energy efficiency even further and thus reduce the environmental impact.
TRANSPORT
Cosun also scrutinises the CO₂ emissions in the links before and after its production processes, for example when carrying the beet to our factories and the end product to our customers. We can reduce the number of transport kilometres per tonne of product – and thus our CO₂ emissions – through better planning and loading, carrying return loads wherever possible, using lighter and more economical vehicles, improving driver behaviour and the like. Another option is to offer intermediate products to our customers. By selling liquid thick juice, for example, Suiker Unie no longer needs to carry out an energy-intensive crystallisation process. Customers can use the product directly in their own processes without having to add water first. This reduces the total energy consumption in the supply chain.

Duynie relies heavily on transport to pick-up co-products from suppliers and deliver products to its customers. Efficient logistic planning therefore pays for itself. Duynie’s fleet consists of 15 trucks with 26 drivers. It has successfully reduced the number of ‘empty kilometres’ year on year. A project to optimise the load rate uses special measuring equipment to monitor silos and containers in real time so that transport can be planned more precisely. At the beginning of 2016 Duynie began to study which software packages could further improve the planning. Drivers are also being trained to drive more safely in order to prevent accidents and minimise fuel consumption. Monthly reports provide an insight into their progress, increase their awareness and help the drivers put the theory into practice. There is even an internal competition to see who gets the highest score. Taken together, the measures have brought about a considerable fuel saving, cut costs and reduced CO₂ emissions. Every addition to the fleet is based on the strict environmental standards and low emission values in place for clean engines.

WATER CONSUMPTION
The food industry uses a lot of water, not only to wash the raw materials but also to process them and to clean the processing equipment. The vegetable raw materials themselves also contain a lot of water that we can use after it has been treated. The total volume of water we use is directly related to the size of the crops we process. In and of itself, therefore, absolute water consumption in m³ is of relatively little importance.

Water consumption per tonne of product increased in 2015. The increased use of groundwater was mostly due to changes in the product portfolio and improved reporting by recent acquisitions. The remaining increase requires further study.

Fresh water is becoming scarcer in some regions. In these regions we are seeking uses for good quality water that we no longer need. We treat and re-use as much water as we can but for food safety reasons we cannot do so indefinitely. Because we produce food, the water must be of drinking water quality. Water that is surplus to our needs is treated in our own facilities and discharged into surface water or into the public sewer. Our water treatment plants work to high standards, so high in fact that we can sometimes discharge water into vulnerable surface waters subject to strict environmental standards. This makes very high demands on our treatment plants and their management.
WASTE

Cosun produces two kinds of waste: separated and mixed. Separated waste is sorted into paper and board, wood, stones, plastic and chemicals. We send this sorted waste to external processors. What remains is mixed waste.

Per tonne of product there was a fall in the amount of waste in 2015 in comparison with 2014. To put the amount of waste into perspective, for every 1,000 kilograms of product leaving our factories, there is less than 6 kilos of waste that cannot be processed. Cosun nevertheless intends to reduce the volume of waste even further and make good use of any valuable residual matter.

ORGANIC RESIDUAL MATTER

Suiker Unie’s three sugar factories have been operating biomass digesters since 2011 to convert organic residual matter from our production processes into biogas. The residual matter is converted only if it cannot be used in applications that have a higher value, such as animal feed. If our biomass digesters cannot handle all the residual matter on site, we prefer to supply the surplus to an external biomass digester. In both cases, we produce a commercial application rather than waste.

By processing our own organic residual flows, we have reduced the amount of organic residual matter from 82 kg per tonne of product in 2011 to 38 kg in 2013. There was a fractional increase in the amount again in 2014 as some of the beet tops from the factory in Vierverlaten were converted into biogas externally. The amount of vegetable waste increased across the board again in 2015. More detailed information on the internal and external flows of organic by-products is needed to analyse the increase correctly. We will look into this in 2016. Figure 7 shows the amount of organic residual matter that our factories supplied to external biomass digesters or composters.

BIO-ENERGY

Suiker Unie produces green gas from vegetable residuals such as beet tops and tails, foliage and some of the pulp remaining after the beet have been processed into sugar. Pulp is turned into gas only if the fresh pulp cannot be sold as animal feed. This is an alternative to drying the pulp, which costs so much energy that it is often better for the environment if we turn it into energy (in the form of biogas).

Suiker Unie operates three digesters that together produce more than 30 million m³ of green gas per annum. Most of it is fed into the national gas transmission network. Financially this is the most attractive option, although some of Suiker Unie’s trucks drive on the green gas. This puts into practice our green deal with the government to make our transport more sustainable.

Other production units within Cosun have been producing biogas from process water by means of methane reactors for many years. The Aviko factory in Steenderen supplies process water to a nearby water treatment plant that recovers energy and minerals (chiefly struvite). This helps close the mineral cycle as the minerals, such as phosphate, can be returned to the fields as plant nutrients.
LIMITING NUISANCE AND INCONVENIENCE

Cosun has a total of 29 production sites in the Netherlands and abroad. Their large-scale industrial processes are sometimes a source of nuisance to local residents.

Where factories are located close to residential areas, residents may be inconvenienced by odours or noise from the production processes. The transport of raw materials to our factories can also be a source of nuisance to people who live along the delivery routes to the factories.

**AVIKO LOMM**

Residents near Aviko’s production facility in Lomm are inconvenienced chiefly by odour emissions. This has been a problem for many years. The Tauw Group, an international firm of consulting engineers, studied the feasibility and effectiveness of a range of measures to reduce the odour nuisance and issued an advisory report. Several options proposed in the report were tested on a small scale in 2015. The results indicate that building a new chimney would be the most effective solution and would reduce the odour nuisance by about 80%. Aviko began the application procedure for a building permit in December 2015. Construction is expected to start in mid-2016.

**SUIKER UNIE VIERVERLATEN**

Suiker Unie received half as many complaints in 2015 as in 2014. Nearly all of them related to odour emissions from the digester at the Vierverlaten site and, to a lesser extent, traffic at and around the sugar factory. Residents living closest to the digester are the first to notice ‘something in the air’ and we have asked them to report odours immediately. It is then easier for us to recognise patterns in the circumstances causing the inconvenience. It also helps us take effective remedial measures. A panel has been set up with representatives of the residents and specialists from Suiker Unie. Under the guidance of an independent chairman, they share thoughts about the nature of the complaints and potential solutions. This form of stakeholder dialogue improves relations between the factory and the local community.

In comparison with 2014, the number of complaints fell from 207 to 141 in 2015. Most of the complaints related to the two production sites that had also received the most complaints in previous years. The fall in the number of reports indicates that residents are experiencing less inconvenience. But there are still too many complaints. Both factories are therefore taking measures to reduce odour emissions.
GOOD EMPLOYMENT PRACTICES

Our people are at the heart of our success. We are proud of our well trained and highly motivated staff who work tirelessly every day to deliver a good product or contribute to the group in any other way. As an employer we shoulder our responsibilities by ensuring that they can work safely, keep their know-how and expertise up to date and continue to develop.

As Cosun has relatively more older employees than younger ones, we must invest in keeping our older employees fit. Older employees are also remaining in the labour process for longer than in the past. When and even before they retire, we must recruit enough qualified young people to fill the vacancies and train them on their jobs.

Figure 9 shows that the number of FTEs has increased slightly in recent years.

SAFE WORKING CONDITIONS

Safety at work is always a matter of concern. Cosun’s overall safety record was slightly better in 2015 than in the previous year (2015 index: 24) but the number of lost time incidents and accidents is still too high. Safety at work is expressed as an index based on the number of lost time accidents reported per 1,000 FTEs. Cosun has set the bar very high at 17 reported lost-time accidents per 1,000 FTEs at the most in 2016. This means we must all make an extra effort to be even more aware of unsafe situations, to hold each other responsible for unsafe conduct and to ensure strict observance of the safety rules.

EDUCATION AND TRAINING

All members of staff must keep their knowledge and expertise up to date, especially if they have been working for Cosun for many years. Some training courses are compulsory (e.g. those on hygiene regulations, safety and new equipment). Other courses are provided to keep skills at the required level or to transmit new knowledge. The staff are also offered opportunities to take additional courses to qualify them for other positions. The average number of training days per FTE is about three working days per annum.

Cosun takes on students as trainees every year to carry out practical internships or research projects. The students have an opportunity to gain practical experience in their specialisation under the supervision of experienced professionals.
Safety experts at the business groups have introduced special programmes to increase safety at work. Although the approach differs from one programme to another, there are many similarities. They all give the highest priority to involving the employees directly in their own safety. All members of staff receive safety training courses and safety instructions. But accidents are still not yet a thing of the past. Many measures have been taken, especially at production sites, to increase safety and make staff more aware of how they themselves can increase it. By themselves, changes in the structure and equipment are not enough. The Safety, Health and Environment component of the TPM programme gives high priority to the safety of all members of staff.

**HEALTH AND FITNESS**

The rate of sickness absenteeism at Cosun remained virtually unchanged at 3.9% (2014: 3.8%). In comparison with the average rate for the industry as a whole (2014: 4.8%, source: Statistics Netherlands) this is a relatively low rate.

![Figure 11. Sickness absenteeism in %](image)

With a view to the ageing workforce and the higher retirement age, the two business groups with the most members of staff, Aviko and Suiker Unie, launched fitness programmes for their employees some years ago. Such programmes cost money, but if the investments are weighed up against the cost of long-term sickness absenteeism, it is money well spent. To say nothing of the health benefits for the staff.

**DIVERSITY**

Several business groups employ people with a disability or a weak position on the labour market. These employees need more attention and sometimes more assistance than others. Our aim is to coach them so that they can eventually carry out their duties independently. It is sometimes a matter of trial and error before young disabled people find their feet, but when successful both sides are very satisfied with the results.

Diversity in terms of gender balance and ethnic minorities is not a decisive factor in the recruitment procedure or in internal career development. The acid test is the right person in the right place.
REPORTING SUSPECTED WRONGDOING

Cosun introduced a fully revised code of conduct in 2015 entitled the Cosun Principles. The principles set out the standards and conduct that are expected of Cosun’s staff so that they take the right decisions in their day-to-day work. Specific regulations and channels are also in place within Cosun for staff to report suspected wrongdoing, anonymously if they wish.

Anyone who suspects wrongdoing or a breach of integrity by one or more of their colleagues must be able to report it to a superior or, if that is neither possible nor desirable, to a counsellor. To increase accessibility, a dedicated reporting line known as Speak Up has been introduced. Staff can contact a counsellor by telephone or through the website, in their own language and anonymously if they wish. We regularly draw attention to this channel in articles in the staff magazines, posters in the canteens and changing rooms and through the members of the local Works Councils.

We received five reports via Speak Up in 2015. As four of them related to the same issue, we treated the reports as two notifications.

We respond to reports of potential wrongdoing as quickly as possible. It is good that this channel is in place and is used in practice. It must regularly be brought to the staff’s attention so that they know what to do if necessary.

Some cases, relating for example to the atmosphere at work, a colleague’s inconsiderate behaviour and the relationship with a superior, could perhaps be better discussed with a superior, the P&D department or the local Works Council. In such cases the counsellor encourages the staff to try to solve the problem internally first. The first report received in 2015 fell into this category and was dealt with locally at the site itself. The second issue was reported by several people and was more complex. The Chief Executive Officer asked the managers concerned to deal with the complaint and to create a working environment in which people feel safe and have the confidence to discuss issues openly with each other.

Safety, both physical and social, is a key theme in the Cosun Principles. The Cosun Principles apply not only to all members of staff but also to the cooperative’s Board members, executive directors and supervisory directors. They were brought to everyone’s attention during 2015 through various channels, including the line organisation and our own media such as websites, staff magazines and leaflets enclosed with the payslips. In parallel, we will develop an instrument to help managers introduce the Cosun Principles and raise awareness of the desired conduct.