

## 7. OUR ENVIRONMENT

We are committed to the promotion of sustainable development and incorporate various sustainable practices into our daily business to make the world a better place for future generations. We hold a firm belief that doing business in a profitable way does not require forsaking the wellness of our planet. Apart from complying with applicable laws and regulations in respective regions, we always take our impact on the environment into account by establishing a series of environmentally friendly standards.

### Case Study:

#### Sustainability in Action – A New “Green Factory” in the Netherlands

The Group approved and commenced the construction of a new factory in Heerenveen, the Netherlands (the “Green Factory”) in 2014 to improve the blending and packaging capacity as well as the quality standards of the Group. Following completion of the Green Factory, the blending and packaging capacity of the Group in the Netherlands will gradually increase from approximately 30,000 tons to 90,000 tons by 2019.

A number of green features will be implemented in the Green Factory for energy conservation:

- ✓ By using heat exchange pumps, heat energy from the ground can be used by the underfloor heating system. During summer this system can be used for cooling purposes as well. By using this system the climate within the factory can be controlled at a low level of energy consumption throughout the year
- ✓ Gravity will be used during the production process, which will reduce the amount of energy consumption within the production process
- ✓ Thermoplastic Polyolefin (TPO) is used as the roof material. This single-ply reflective light coloured material reflects sunlight very well and therefore contributes to cooler interior temperatures inside
- ✓ LED lights are used throughout the factory



The Green Factory is now in the final stage of installing the product lines and equipment and is expected to commence operation in 2017.

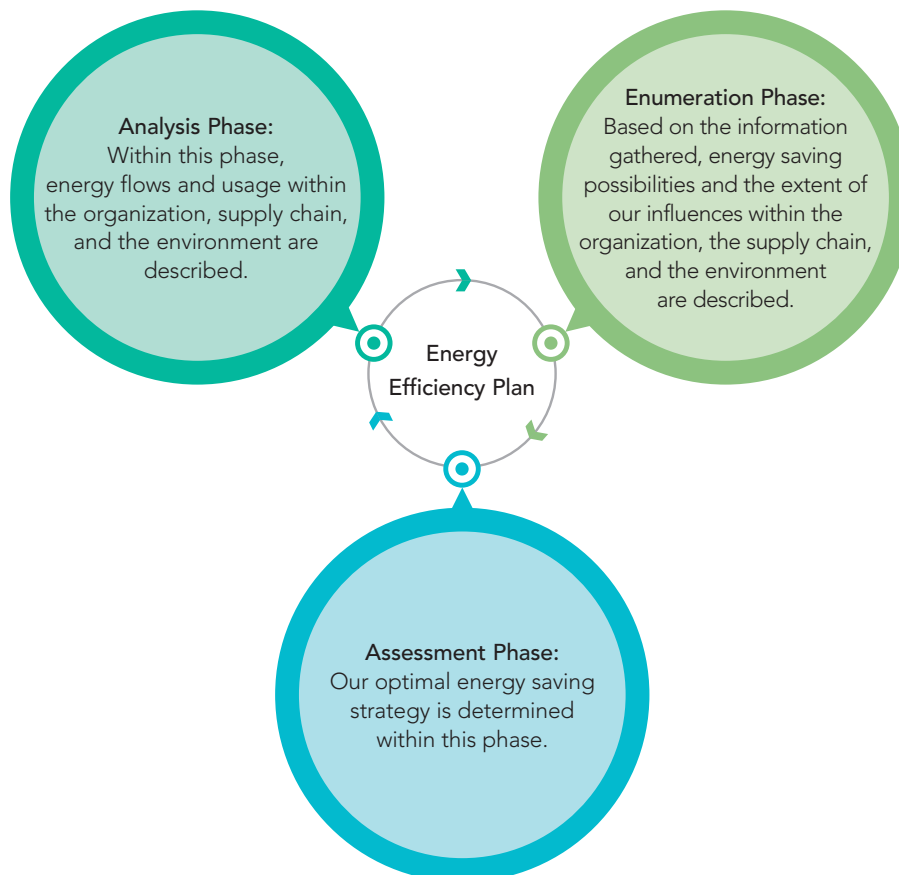
## 7.1 Energy and Emissions

Being a responsible company, we have high awareness of our energy consumption and emission patterns. Therefore, we have already implemented a multitude of energy-saving initiatives in both regions throughout the years.

This year, numerous measures are adopted in our factories under this plan for more energy efficient production process. For example, we have installed new icewater pumps to control the pressure of the production process. By controlling the pressure, 20% of the overall energy consumption can be saved. We have also introduced a new compressor system which has reduced approximately 324,000 KWh of electricity consumption annually. Instead of one single speed option, the new system is equipped with various speed options that allowed operators to choose the best suitable speed to avoid consuming additional electricity. In addition, we have upgraded part of our lighting system by replacing with motion-sensing dimmable LED lights. By adopting a highly energy efficient lighting technology, we have saved an estimate of 12,000 KWh of electricity per year. All new measures have prevented a total of 97 tonnes of CO<sub>2e</sub> emissions in 2016. We will continue to make positive progress on environmental stewardship by proactively planning ahead.

To optimise our management strategy more efficiently, the “Energy Efficiency Plan 2017-2020” is introduced at all our spray drying factories in the Netherlands. With a goal to continuously reduce our energy consumption by 2020, the plan describes energy saving measures of Ausnutria for the coming four years. Under the plan, we keep track of our energy consumption and analyse the data in order to search for possibilities to lower the consumption. We are determined to invest in energy saving measures and have been working on different areas to achieve the goal.

Implementation of our “Energy Efficiency Plan 2017-2020”



Under the “Energy Efficiency Plan 2017-2020”, we monitor and evaluate the progress and results of our energy saving measures on an annual basis. We have established a clear timeline to introduce a wide variety of energy-saving projects by 2020. In the coming years, we are planning to further enhance and upgrade the equipment at our factories. Some examples are to increase the number of isolated pipelines and implement more energy efficient engines. We are also planning to fully adopt LED lightings to further reduce energy consumption.



dutch dairy association



### Case Study:

#### Ausnutria's Contribution to Achieving Sustainability within the Industry

Ausnutria has joined the Dutch Dairy Association (“NZO”), a trade association representing the interests of dairy companies in the Netherlands. Under four working areas, namely sustainability, nutrition, quality, and market, NZO aims to reinforce its members’ abilities to produce and market their products. As a member of the NZO, Ausnutria has been actively contributing by joining one of their working groups where we promote knowledge sharing among members on Dutch milk processing.

Ausnutria is also a member of a joint initiative of NZO and LTO Nederland named the “Sustainable Dairy Chain (Duurzame Zuivelketen)”. Under the initiative, ambitious goals are formulated with an aim to achieve a sustainable production of dairy products by 2020. Through collective efforts with other members, Ausnutria pledged to take an active role in the initiative. We take the responsibility to provide advices on the implementation and other practical issues involved in achieving the goals, in particular on environmental goals. This includes sharing professional experience on energy-saving measures, sustainable energy generation and collective purchase of solar panels.

In the PRC, we have also published guidelines with regard to the environmental management procedures and the conservation of electricity for all of our employees. They are expected to observe and follow the guidelines under any circumstances. Some of the rules have been implemented like refraining from turning on lights in daytime when there is sufficient daylight during working hours. Employees working at night are only allowed to turn on the lighting necessary for their work. Moreover, we prohibit employees from turning on air conditioning or heating when the room temperature is between 16-28°C. We ensure all employees do their best to conserve electricity by communicating this concept to all departments. We believe that hard work will pay off, so we place a high importance in adopting a sustainable working style in our everyday business operation.

## Energy consumption by type, Year 2016

Electricity	19,955,076 KWh
Unleaded petrol	35,857 Litre
Diesel	6,222 Litre
Natural gas	10,956,456 m <sup>3</sup>
Renewable energy	1,671,935 KWh

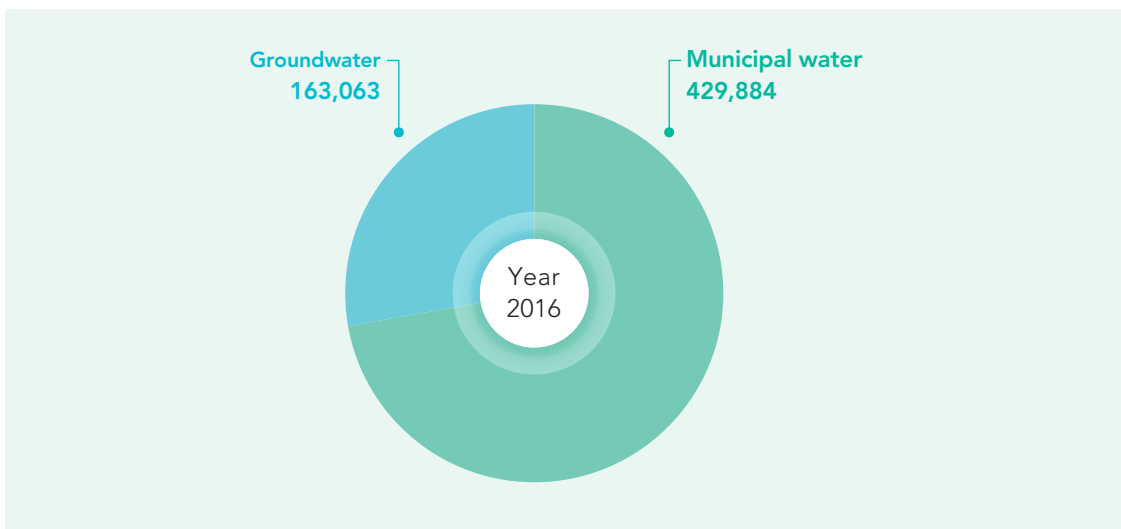
### 7.2 Water Management

During the production of our dairy products, a considerable amount of water is needed. Therefore, it is crucial for us to constantly review various water-saving initiatives focusing on water consumption reduction and wastewater recycling.

Factories in the Netherlands use water and ground water simultaneously during their operations. In 2016, the factory in Ommen started reusing the water from the cooling system instead of using water from wells. As a result, this closed system successfully conserved 40,000 m<sup>3</sup> of water in this year. Moreover, the cleaning water in the Ommen factory is also reused as cleaning water for other facilities. The condensed water generated during production in the factory in Kampen is reused by the steam boiler for Clean-In-Place (CIP). Our dedication in promoting the efficient use of water is presented in the above initiatives, and we look forward to witnessing further improvements in water consumption and wastewater recycling.

We extended our efforts in managing wastewater generation to our operations in the PRC. As stated in our environmental management procedure, sewage must be treated to reach the effluent standard before it is discharged into municipal sewage pipes. The production department has also installed water taps with automatic sensors to better conserve water. Furthermore, by recycling the cooling water from the air conditioning system, more water is expected to be conserved. Our goal is to reduce water consumption and improve our water recycling work every year to promote sustainable development.

Water consumption by source (in m<sup>3</sup>), Year 2016



### 7.3 Waste Management

Certain amount of waste is produced at various stages of our production process. Through properly managing our waste production, Ausnutria is devoted to reduce the burden added to landfills due to our operations by combining our efforts of reducing the amount of waste at source and reusing and recycling waste whenever possible.

Systematic and clear waste handling procedures are implemented across our operations. We ensure that waste, including hazardous waste, generated from our production processes are properly sorted and handled by local specialised waste processors or licenced operators. Most waste processors in the Netherlands will explore ways to transform waste into useful materials in order to reduce the impact on the environment as much as possible. For example, our factory in Kampen has turned the Lyempf Kampen milk and milk powder into biogas with a waste processor, which is a valuable energy resource. Waste generated from our operations in the PRC are also collectively managed by licensed operators, where recyclable waste, such as paper boxes, metals and packaging materials, are handled separately. To allow effective management of waste across our operations in the Netherlands and the PRC, we strictly monitored our performance by keeping records of our waste generation, disposal, recycle and reuse.

Internally, we constantly explore opportunities to further improve our recycle and reuse practices. In 2016, we have successfully recycled over 8,000 tons of liquid waste residues which would have been disposed of otherwise. Additionally, we have looked into our hazardous waste generation and have been trying to recycle our waste machine oil to become useful resources to facilitate our production. In the PRC, waste machine oil is distributed to construction sites to use as a lubricant for machineries.

An effective waste management has to be coupled with good behaviours and practices from our employees. Apart from our production lines, we require our employees to use double-sided printing or recycled paper for documents for internal circulation. We also encourage our employees to purchase environmentally friendly office supplies. Through our daily collective efforts, we believe that the quality of our environment will also improve progressively.

Considering the environmental impact of packaging materials, we are dedicated to adopt simple packaging for our products that will cause the least burden to the environment. We sincerely hope that customers can enjoy our products in a sustainable way and be thoughtful of the environment at the same time.

Packaging materials by weight (in tons), Year 2016

