

**ecolean**  
a lighter approach to packaging

# SUSTAINABILITY REPORT 2017



**A lighter  
world**

up to 50% lighter than conventional packaging  
as a lighter footprint on our planet  
weight argument for your product.  
not for consumption.

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## ABOUT THIS REPORT

This is the first sustainability report for Ecolean and will from now on be an annually recurring report. Since this is our first report, there are not any previous reports to relate significant changes to. This first report will create a baseline for the coming reports.

We have chosen to use GRI standards for the 2017 Ecolean Sustainability Report. It is important for us to be transparent and to practice what we preach. This report has been prepared in accordance with the GRI Standards: Core option. The monitoring according to the GRI standard will start with this report and the coming sustainability reports will document all progress made.

The Ecolean Sustainability Report covers all activities within the Ecolean Group during the reporting period 2017. The report includes activities within the Ecolean Group including Ecolean AB and the subsidiaries Ecolean (Tianjin) Co., Ltd., Ecolean Inc., Ecolean Pakistan (Pvt) Ltd., Ecolean SE Asia SDN.BHD, and UMZ Ecolean Ltd.

The Ecolean subsidiaries are referred to in the report as the geographical region they are located in, where Asia and Oceania include the subsidiaries Ecolean Pakistan (Pvt) Ltd., Ecolean (Tianjin) Co., Ltd., Ecolean SE Asia SDN.BHD, as well as the sales offices in Korea, Japan, and Australia.

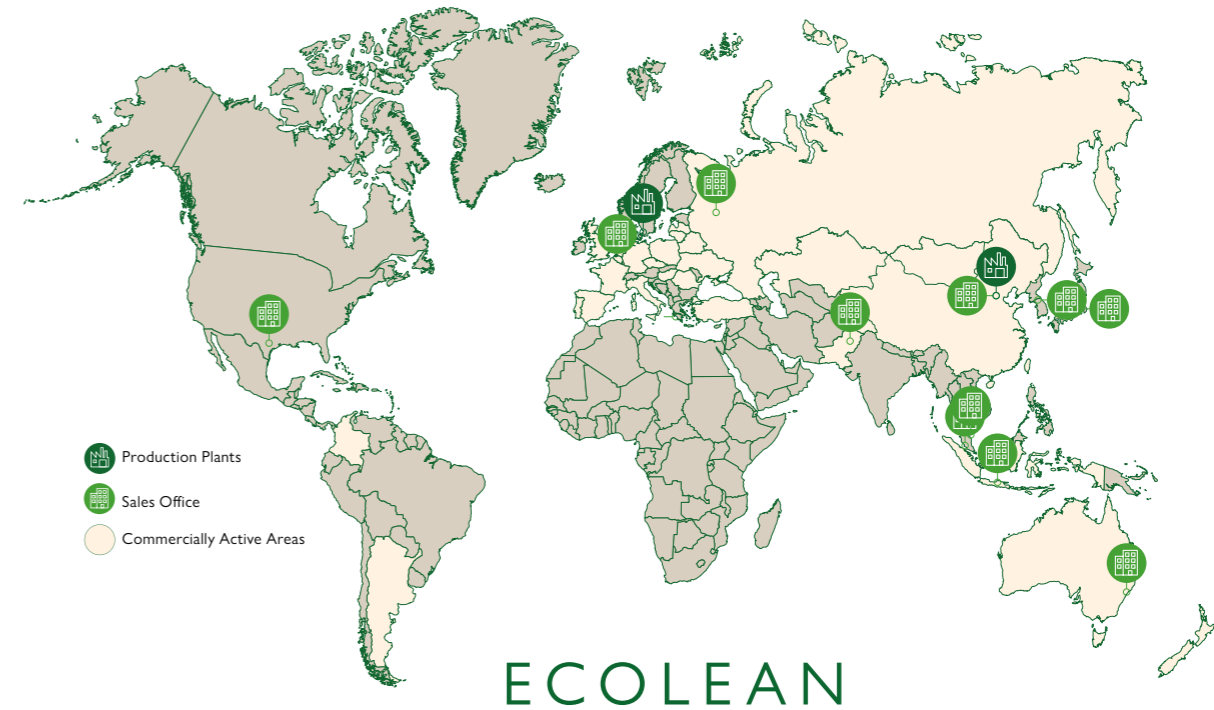
The Ecolean film production and converting plant in Sweden and the converting plant in China are certified in accordance with ISO 14001 and have a history of monitoring environmental data. Our certified environmental management systems in accordance with the ISO 14001 standard ensure compliance with the precautionary principle.

Please contact Sustainability Manager Anna Palminger ([anna.palminger@ecolean.se](mailto:anna.palminger@ecolean.se)) regarding questions about the Ecolean Sustainability Report.

## IMPORTANT EVENTS 2017

- Launch of Ecolean® Filling Machine EL2+, filling portion-sized packages for chilled distribution:
  - increased product safety and quality with a fully-automated cleaning system of the filling zone;
  - 100% increase in capacity, now filling up to 12,000 packages per hour;
  - 50% less compressed air used\*.
- Publication of four Environmental Product Declarations, for the Ecolean packages and filling machines.
- Ground breaking ceremony for new converting plant in Pakistan.
- The launch of Ecolean Core Values.
- Increased production capacity by 50% at the converting plant in China.
- Approval from Swedish Rheumatism Association (SRA):
  - all of Ecolean packages are approved by the SRA as easy-to-use and easy-to-open.
- 2.68 billion packages sold during 2017.
- 0.75 billion litres of liquid food products sold in an Ecolean package, around the world.

\*Compared to previous development step of the EL2 machine



Ecolean is a privately owned company, founded in 1996 in Helsingborg, Sweden. The Ecolean concept is to use a minimal amount of raw materials to produce a unique flexible lightweight package and a filling system for liquid food products. Ecolean is a system solution supplier for the liquid food industry.

Today, Ecolean is a fast growing and globally expanding company that continuously develops its products in order to meet new customer and consumer demands. Ecolean is established on the market as a full system supplier producing both filling line equipment and lightweight packages. At the end of 2017, Ecolean had 374 employees. In 2017, Ecolean grew with 47 new colleagues, an increase of staff with 14%. The headquarter is located in Helsingborg, Sweden, and Ecolean has production sites in Sweden, as well as in China.

In 2017, the decision was taken to build a new converting plant and a ground breaking event was held in Lahore, Pakistan. The new plant will convert packaging film into packages and support the Middle East and South Asia markets.

Ecolean has commercial activities in 30 countries, the largest markets being China, Russia and Pakistan. The company has local sales offices in eleven locations around the globe, their main activities are sales and technical support. During 2017, one new sales office opened in Sydney, Australia.

In 2017, Ecolean had net sales of SEK 917.9 million and total capitalisation of SEK 1,603.9 million (equity SEK 1,242.5 million and debt SEK 361.4 million). No changes of the share capital structure has occurred during the year.

## INTRODUCTION FROM OUR CEO

Having been a part of Ecolean for more than 10 years, I must say that 2017 might have been one of our most exciting years so far. New innovative product launches, start-up of the construction of a new production plant in Pakistan, developing and setting our core values, vision and mission statements together with all Ecolean employees as well as taking further steps to a sustainable future (and being able to challenge the industry to do the same), with the launch of Environmental Product Declarations (EPD), is just a few examples of Ecolean's cutting-edge activities during 2017.

Ecolean is a full system supplier of lightweight packages and efficient filling machines, and has from the start put a lot of emphasis into developing solutions with minimal environmental impact. One could argue that sustainability is in our DNA, to show this in a sustainability report adds to our commitment going forward.

However, the Ecolean focus goes beyond our own impact and performance. In order to really make a change, the whole industry needs to be a part in the shifting of perspectives. I think that far too many in our industry focus solely on a small part of their offering – be it raw materials, recycling or machine performance – and seldom on the full environmental life cycle impact. Our ambition when launching EPDs was to support food producers and consumers in requesting correct, transparent and objective data – to be able to ultimately choose a sustainable packaging solution. A perspective all those involved in the global packaging industry need to adopt, to really make a change for the future.

Being strong within the environmental field is however just one part. Being a fair company and workplace is just as important. In this report, we have put a lot of effort in analysing our global and local activities. We have talked with representatives from several stakeholders, including all Ecolean employees globally in a materiality assessment. We identified our most material topics, which covered economic, environmental, and social aspects. The topics and our sustainability objectives were clustered into *People* and *Packaging Solutions*. These objectives will help us improve our performance and support the UN Sustainable Development Goals.

As exciting as 2017 may have been for all Ecolean employees and myself, we are looking forward to 2018 and to follow up on our initiatives and the progress made.

Peter L Nilsson, CEO Ecolean



### ABOUT OUR CORE VALUES

When setting the Ecolean Core Values, every stakeholder's opinion mattered. Every single employee was invited to workshops where the daily life and working soul of the company was discussed. More than 25 workshops were held around the globe – the core values have been created by all Ecolean employees together.

During 2017, the Vision, Mission, and Core Value statements were launched on all of our markets. A workshop concept has been provided to make sure that all offices get the same information, and our CEO and human resource director have been present at the kick offs of the core value implementation at all our market offices.

Activities concerning the core values will be held continuously and are also a part of the introduction to all new colleagues starting at Ecolean.

# LIGHTER – THE ECOLEAN WAY

## VISION

*To be the best packaging company in the world in the eyes of all our stakeholders.*

## MISSION

*To provide the world with safe and convenient packaging solutions for liquid food with minimal environmental impact.*

## CORE VALUES

*We are brave.*

We always strive to be bolder and better than we were yesterday. We are quick on our feet, and our drive to do better than all others is limitless.

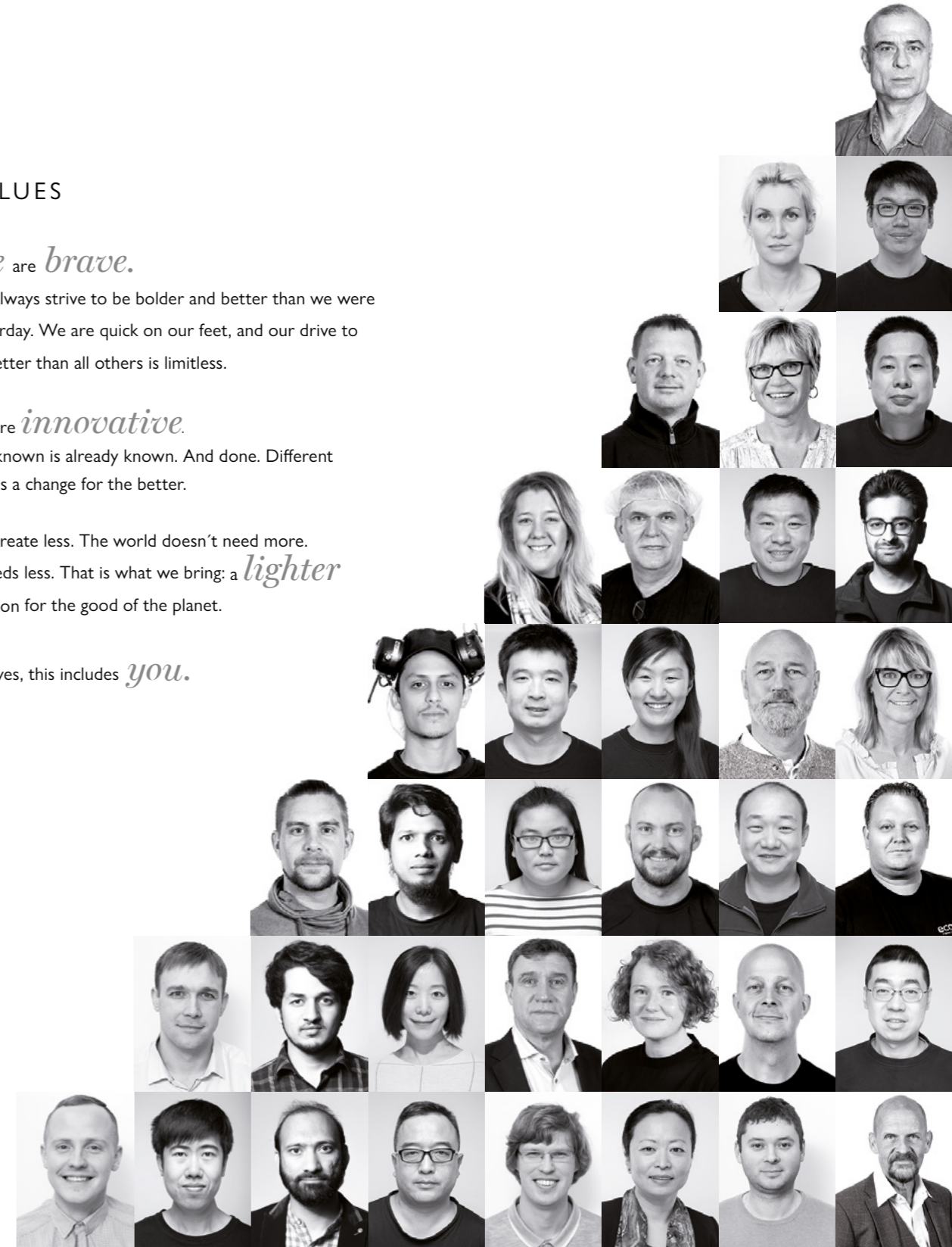
*We are innovative.*

The known is already known. And done. Different means a change for the better.

We create less. The world doesn't need more.

It needs less. That is what we bring: a *lighter* solution for the good of the planet.

And yes, this includes *you*.



# LIGHTWEIGHT PACKAGING SOLUTIONS

## ECOLEAN PROVIDES SYSTEM SOLUTIONS FOR LIQUID FOOD PRODUCTS

The production of filling machines and manufacturing of packaging material takes place in Helsingborg, and the plants in Sweden and China convert the packaging material film into a range of hermetically sealed ready-to-fill packages in a variety of different sizes. During 2017, the expansion of production capacity at the plant in Tianjin, China, was completed. From autumn 2017, the plant in China has been run with expanded production capacity.

The fundamental premise behind the whole system is the minimisation and efficient use of raw materials and energy, from the very start. For us, using less raw materials, while still keeping the product inside safe, is one of the most efficient ways to improve the sustainability of the packages. Up to 35% of the package (except the clear versions) consists of chalk (dolomite/calcium carbonate), a natural mineral. By using chalk as a filler, the lightweight Ecolean package uses a lower amount of plastic, while providing strength and stiffness.

**2.68**  
*billion sold packages 2017*

**35**  
*sold filling machines 2017*



## ECOLEAN® AIR

Ecolean® Air is a lightweight package that is associated with freshness, convenience and a low environmental impact by consumers worldwide. The package can be used for chilled distribution of liquid food products such as dairy products, still drinks, soups and beverage.

Ecolean® Air packages are hermetically sealed and available in six different sizes: 200ml, 250ml, 450ml, 500ml, 1,000ml, and 1,500ml. The packages for chilled distribution are also available in a transparent version, Ecolean® Air Clear in the size of 1,000ml. The ready-to-fill packages are distributed on reels to the customer.

## ECOLEAN® AIR ASEPTIC

Aseptic packaging brings healthy, flavourful, and exciting food products to people all over the world – without the limitations of chilled distribution. These products can travel long distances and withstand long-term storage at ambient temperatures.

The Ecolean® Air Aseptic packages are hermetically sealed and sterilised using electron beam treatment, or e-beam, at the Ecolean manufacturing plant, bringing the complexity from the dairy or beverage producer back to Ecolean. The ready-to-fill packages are distributed on reels to the customer.

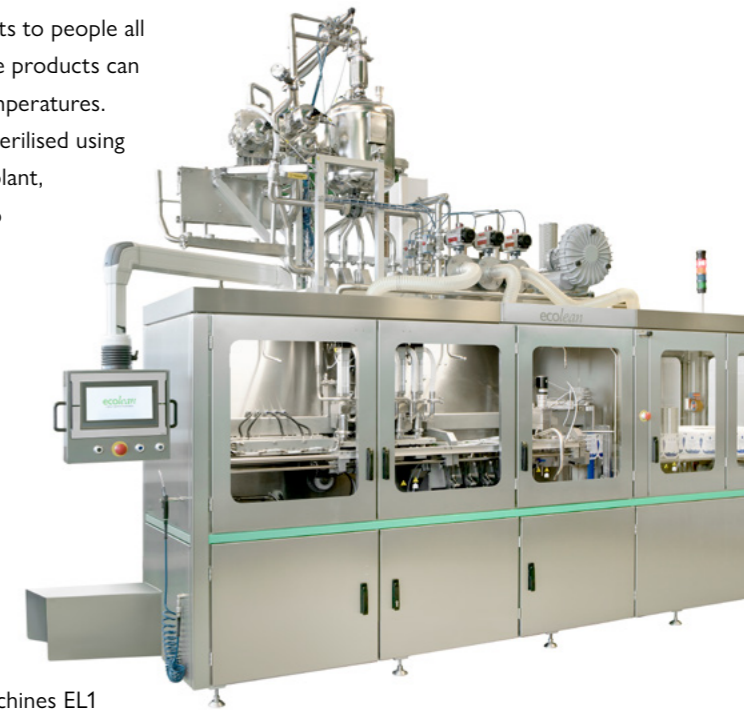
The Ecolean® Air Aseptic package is suitable for filling products such as: white milk, flavoured milk, drinking yoghurts, juice drinks, nectars, ice tea, soups, sauces, etc.

Ecolean® Air Aseptic packages are available in seven different sizes: 125ml, 200ml, 250ml, 350ml, 500ml, 750ml, and 1,000ml. The aseptic packages are also available in transparent versions, Ecolean® Air Aseptic Clear in the sizes 200ml and 250ml.

## ECOLEAN FILLING MACHINES

One vital part of the Ecolean packaging system is the filling machine, designed for efficient operations. During 2017, the Ecolean filling machines EL1 and EL2/EL2+ for chilled distribution and EL3/EL3+ and EL4/EL4+ for ambient distribution were available.

The machine production involves all activities related to procurement of components, assembly of equipment, quality assurance and factory acceptance tests. Based on Ecolean designs, components for the equipment are manufactured at the suppliers, who also are important partners in the assembly activities. In Helsingborg, the supply chain for filling line equipment, works closely with the product support department, the R&D department and the global technical service teams. All activities related to the machine equipment are done in accordance with ISO 9001, within the scope of design, supply and operation of filling line equipment.



During 2017, Ecolean made an upgrade of the filling machine for portion-sized packages for chilled distribution. Simplified design doubles capacity, enabling customers to produce more with less. The compact filling machine, EL2+, is yet another step in our commitment to innovation and simplicity for our customers, with a clean, modern design – all in the same footprint.

STRATEGY,  
STAKEHOLDERS,  
GOVERNANCE



# SUSTAINABILITY POLICY

## VISION:

To be the best packaging company in the world in the eyes of all our stakeholders.

## MISSION:

To provide the world with safe and convenient packaging solutions for liquid food with minimal environmental impact.

Ecolean delivers unique lightweight packaging solutions to liquid food producers around the world. We believe in resource-efficiency, both in terms of our innovative products and the way we conduct our business. We develop products and solutions in an ongoing dialogue with our stakeholders in order to meet their demands in the most efficient way.

In a growing world, we offer safe and innovative packages that can be used anywhere, regardless of local distribution channels and climate conditions, and that reduce food waste. In everything we do, we strive to create value for all our key stakeholders, from employees to end-users of the packaged liquid food.

The sustainability policy covers Ecolean's approach regarding economic, environmental and social aspects. An effective management of these aspects enhances Ecolean's performance and the quality of our products. We continuously improve our management system and processes to strengthen our operational efficiency.

## ECONOMIC SUSTAINABILITY

We always follow our Code of Conduct regarding business ethics, and we have zero tolerance towards all forms of corruption.

## ENVIRONMENTAL SUSTAINABILITY

Ecolean's packaging solutions shall have the lowest possible impact on the environment. Our design and manufacturing processes are based on a life-cycle perspective.

Ecolean strives to improve its sustainability performance by focusing on the most material topics and by working to reduce their negative impacts.

## SOCIAL SUSTAINABILITY

We support talent and provide our employees with equal opportunities for career development.

We always follow our Code of Conduct in the areas of human rights, diversity, equality and non-discrimination.

Ecolean has a zero-accident target that we strive to meet by systematically improving our work environment and by promoting physical, mental and social health of our employees.

Food safety and high-quality packaging solutions are at our core.

We always provide our stakeholders with correct and transparent information about our operations. All our environmental data is based on life-cycle assessments.

Ecolean complies with relevant legal obligations and voluntary standards that apply to our operations and packaging solutions. We constantly work to raise awareness around sustainability and quality, and encourage employees and business partners to respect people and the environment in day-to-day operations.

With our commitment to reduce impacts and improve performance we contribute to a more sustainable world.

The sustainability policy is in accordance with Ecolean's Code of Conduct and is supported and complemented by Ecolean's Whistleblowing Policy.

*Packaging  
solutions with  
minimal  
environmental  
impact*





*Several sustainability workshops were held within the company*

## MATERIALITY ASSESSMENT

The main purpose for Ecolean is that our sustainability report should reflect and report on those sustainability topics that matter the most to our organisation and our stakeholders. Relevant topics are those that may be considered important for the organisation's economic, environmental and social impact, or influencing the decisions of stakeholders. We have used GRI's Reporting Principles as a guideline to define the content of this report.

### IDENTIFY RELEVANT TOPICS AND STAKEHOLDERS

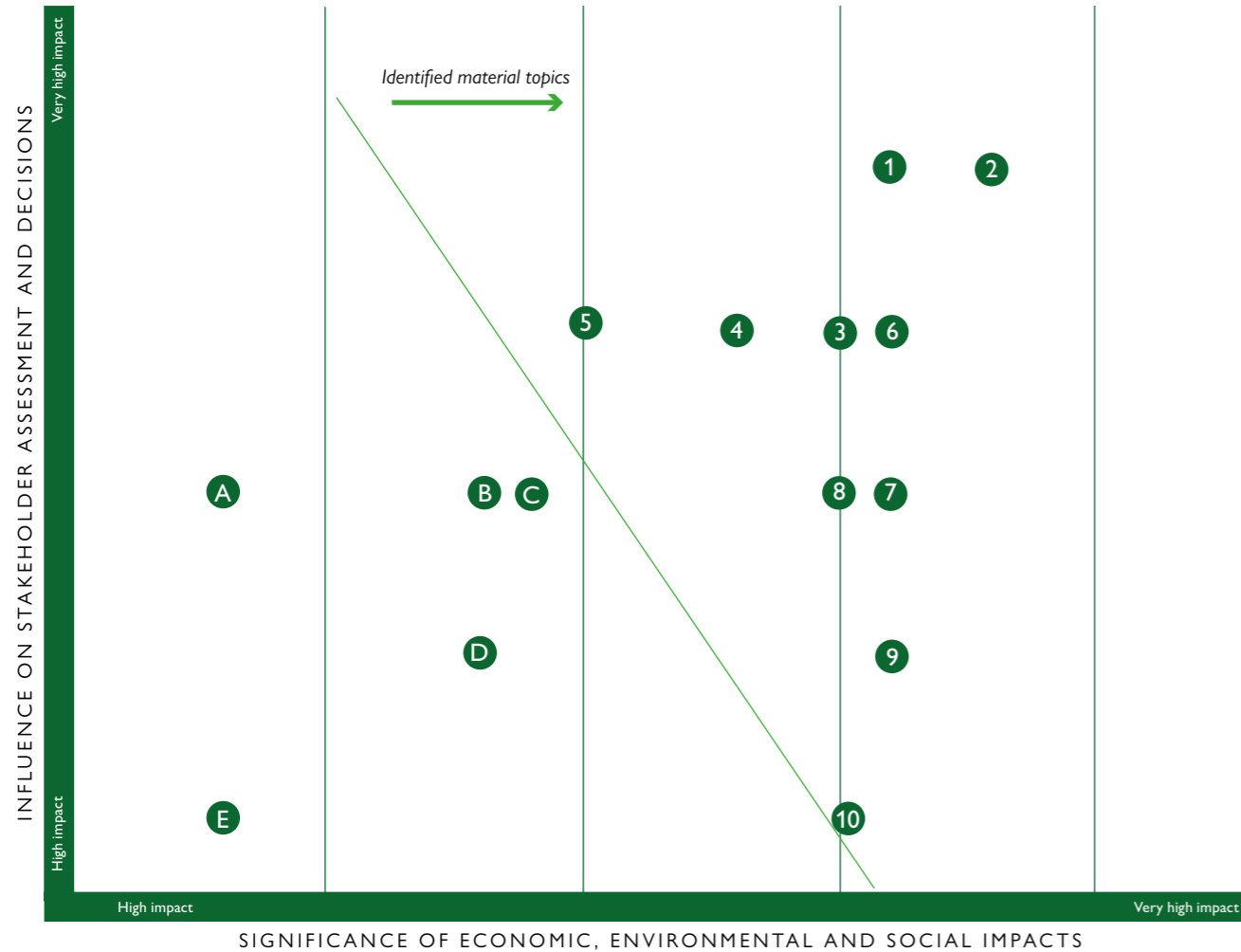
Ecolean has a long history of working with environmental management systems and reducing the environmental impact from production and products. In 2017, Ecolean collected all initiatives within the sustainability area. As a first step, several workshops were held within the company. The aim was to identify those sustainability topics that are material for the company. We used different sources to identify areas that could be relevant for Ecolean and our stakeholders:

- articles in media;
- input from industry organisations;
- new laws and regulations relating to our field of business and used materials;
- environmental organisations;
- the United Nations Sustainable Development Goals;
- GRI topic list.

The results from these workshops were communicated with stakeholders and, in dialogue with them during the summer, we collected their point of view. Our stakeholders are those directly or indirectly impacted by our business. The list includes owner, employees, customers, consumers, suppliers, auditors, investors, governments as well as local authorities and neighbours of our operations. When defining this report's stakeholders we limited them to Ecolean employees, customers and suppliers and they were all contacted and asked to answer a survey. Sustainability is a compulsory feature of all corporate presentations when we meet our customers or suppliers and this also forms a natural part of our stakeholder dialogue.

We have incorporated the key topics and concerns raised by our stakeholders in our materiality analysis. The material topics and concerns raised have been adopted into our approach and create the baseline for the Ecolean Sustainability Objectives. Compliance to laws and legal obligations has the highest importance to our organisation and any deviations will be reported upon in the annual sustainability report.

THE WORKSHOPS RESULTED IN THE FOLLOWING MATERIAL TOPICS



MATERIALITY

The results from the surveys sent to customers, suppliers and employees have been mapped into a materiality matrix and used for the materiality analysis. The stakeholders' point of view on sustainability topics have been plotted on the vertical axis and the economic, environmental and social impact on the organisation has been plotted on the horizontal axis.

The materiality matrix was presented to the Ecolean Group management team. The topics with the highest impact, both from a stakeholder point of view and from the company point of view were identified as material topics. The threshold was set by the management team and they also validated the result. The result from the materiality analysis is shown in the graph.

The most material topics identified have been used to define sustainability objectives for the organisation. These objectives have been linked to appropriate GRI Standard topics and indicators have been chosen to ensure completeness of the report.

This work has resulted in 13 objectives, divided into two focus areas. *People* include the objectives linked to social topics and the society, and *Packaging Solutions* relate to the environmental impact of production and products.

*People and Packaging Solutions*

- |                                    |                           |  |  |
|------------------------------------|---------------------------|--|--|
| <b>IDENTIFIED MATERIAL TOPICS</b>  |                           | <b>OTHER IMPORTANT TOPICS</b>            |  |
| 1. Occupational Health and Safety  | 5. Training and Education | A. Operational water in filling machines |  |
| 1. Customer Health and Safety      | 6. Effluents and Waste    | B. Market presence                       |  |
| 2. Anti-corruption                 | 7. Promote recycling      | C. Energy use in filling machines        |  |
| 3. Marketing and Labeling          | 8. Emissions              | D. Human rights in supply chain          |  |
| 3. Diversity and Equal Opportunity | 9. Materials              | D. Environmental impact in supply chain  |  |
| 3. Non-discrimination              | 10. Energy                | E. Employee turnover                     |  |
| 4. Human Rights Assessment         |                           |  |  |

# OBJECTIVES AND ACTIONS

## PEOPLE

Ecolean Sustainability Objective	Action	GRI Topic	Boundary/Specific interest to stakeholders
We have zero tolerance for corruption.	Ecolean has zero tolerance concerning all forms of corruption and will work actively to ensure a non-existence within the Ecolean Group.	Anti-corruption	Ecolean Customers Suppliers
We have zero tolerance for breach of human rights.	We will respect human rights as defined in the United Nations Global Compact, and we desire to take that responsibility towards our employees and the societies within which we work.	Human Rights Assessment	Ecolean Society
We have zero tolerance for discrimination.	We will work actively for a company culture and a working community free from discrimination and harassment.	Non-discrimination	Ecolean
We promote a diverse workforce and equal opportunities.	We offer all individuals equal opportunities regardless of gender, nationality, religion, age, ethnic background or other distinctive characteristics.	Diversity and Equal Opportunity	Ecolean
We have a zero accident target in all our operations.	Appropriate health and safety information and training are provided to employees.	Occupational Health and Safety	Ecolean
We invest in training and education for our personnel.	We will strive to attract, develop and retain qualified and motivated employees in a professional environment.	Training and Education	Ecolean
We provide the world with safe and convenient packaging solutions for liquid food.	The products manufactured and marketed by Ecolean comply with all laws and rules relating to product safety, throughout the value chain.	Customer Health and Safety	Ecolean Customers Consumers Suppliers
We take responsibility for fair and transparent information regarding our systems.	Information regarding our systems will always be true and transparent, by following relevant standards and guidelines.	Marketing and Labeling	Customers

## PACKAGING SOLUTIONS

Ecolean Sustainability Objective	Action	GRI Topic	Boundary/Specific interest to stakeholders
We will reduce the GHG intensity from our packages.	Reducing GHG emissions by reducing use, shift to renewable energy sources, optimising production, transports, etc.	Emissions	Ecolean Customers Suppliers Logistics
We will use 100% renewable electricity in all our production sites by 2030.	We will use renewable electricity, by using the RE100 definitions.	Energy	Ecolean
We will keep reducing the environmental impact from raw materials used in production, based on a life cycle perspective.	By monitoring raw material usage and research progress, we will reduce the impact from materials used in a life cycle perspective.	Materials	Ecolean Suppliers
We will have zero waste to landfill from our production sites by 2030.	Use the waste hierarchy (EU Directive 2008/98/EC) as a guideline for our waste handling and work with waste contractors to find better treatment options than landfill for all our production sites.	Effluents and Waste	Ecolean
We are taking action to increase the possibilities for a circular economy for our packaging solutions.	Support different initiatives for recycling of flexible plastic packaging. To offer circular solutions for our filling line equipment.	No topic-specific GRI Standard – Circular Economy	Ecolean Customers Consumers/ Society Industry/ Partners

GRI Disclosure 102-44, 102-46

## UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

On 25 September 2015, the United Nations presented a set of goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda, the Sustainable Development Goals (SDG).

As part of our materiality analysis and stakeholder engagement, we have linked our sustainability objectives to the relevant UN SDGs.

Our sustainability approach supports the following SDGs:

**2 ZERO HUNGER** By delivering safe packaging solutions that can bring healthy food to people independent of access to refrigeration and electricity for storage.

**6 CLEAN WATER AND SANITATION** By reducing the water consumption in our process, but also during the cleaning phase of the filling machines.

**7 AFFORDABLE AND CLEAN ENERGY** By using renewable energy at our production sites and by reducing the energy use, both at our production sites and in our filling line equipment.

**8 DECENT WORK AND ECONOMIC GROWTH** By taking care of our employees, where health and safety has highest priority. Our Code of Conduct sets the rules on labour and human rights, how we treat the environment and how we do business.

**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE** By growing on a global market we can provide jobs and help build infrastructure, also in developing countries. We develop our products with a life cycle perspective, striving to reduce impact in the full life cycle.

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION** By producing packages that keep food safe and are easy to empty, we can help reduce food waste. By keeping the input of raw materials at a minimum and keep making our production processes more efficient. By developing our products from a life cycle perspective, including keeping the utility need low in our filling machines and filling lines equipment.

**13 CLIMATE ACTION** By managing our emissions and strive to reduce them.

**16 PEACE, JUSTICE AND STRONG INSTITUTIONS** By living by our Code of Conduct we help to set the rules for business, with zero tolerance concerning all forms of corruption. The Code of Conduct sets mandatory rules for how we conduct our business, always respecting human rights and working to prevent any form of violation of human rights throughout our value chain.

**17 PARTNERSHIPS FOR THE GOALS** By engaging with relevant partners to address challenges and collaborating with our stakeholders to always improve our performance.

## GOVERNANCE STRUCTURE

The Board of Directors in Ecolean AB is responsible for the governance of the total Ecolean Group. There are four sub committees to the Board of Directors, the Audit Committee, the Strategy Committee, the Remuneration Committee and the Technical and Innovation Committee. The Board of Directors has the ultimate authority in the strategic decision making within Ecolean Group.

The Ecolean Group management team, including the CEO and the functional and regional directors, is responsible for the operational governance of the company.



Ecolean's headquarter and one of two plants are located in Råå, close to Helsingborg, Sweden. The south of Sweden is an area known for its historical connections to the Swedish packaging industry, filled with knowledge and experience.

## RISKS AND OPPORTUNITIES

The world is full of challenges and opportunities and Ecolean is affected by what happens around us. Some activities create new possibilities to develop our offer and find new business opportunities. There are challenges which demand us to develop the way we work with our products and to take bigger part in sharing knowledge and to push for development on the markets where we act.

### RAW MATERIALS

Producing lightweight packages is one way to address the use of raw materials, by making sure that the packaging material is as optimised as possible. Ecolean uses polymers made of fossil oil, due to the quality requirements on packaging material for food. Restrictions on use of fossil oil could impact our business.

The use of bioplastics is a hot topic in media, often mentioned as a solution to littering and to prevent plastics in the ocean. The concept of bioplastics can easily cause confusion among consumers. Bioplastics can either be plastics made of renewable (bio based) sources, fossil based plastics with biodegradable properties or bio based plastics that also are biodegradable.

The confusion regarding bioplastics can also create environmental impact when consumers perceive that the bioplastic packaging they are holding in their hand automatically will biodegrade

in the environment, it can cause increased littering and also create sources of micro plastics in the environment.

The biodegradable plastics can also impact the quality of recycled plastics and the recycling industry is doubtful to the biodegradable plastics in the recycling streams. Ecolean will not, with the facts we have today, put any priority into making our packaging material biodegradable. Our prime interest is to create packaging using minimal raw materials that can keep the food inside safe without compromising the quality.

The access to bio based plastics is still very limited and the total environmental impact of using bioplastics is not fully studied. The particular qualities of bio based plastics required in the Ecolean production are still non-existent and our R&D team keeps the area under surveillance.

### LIFE CYCLE APPROACH

A big opportunity for Ecolean is to continue to work with a life cycle approach to our products. Flexible packaging is lightweight, resource efficient and has a low impact throughout the life cycle. Life cycle assessments show that flexible packaging, even though not widely recycled, still has a lower environmental impact than heavier packaging materials.

Lightweight packaging requires less raw materials, less energy to produce, transport and finally results in less waste generated. By using standardised Environmental Product Declarations (EPD), Ecolean can push the market to be more transparent regarding the environmental impact of products.

### CIRCULAR ECONOMY FOR FLEXIBLE PACKAGING

One of the most frequently discussed topics is recycling of plastic packaging. The Ellen MacArthur Foundation states in its latest New Plastics Economy report: "Analysis and synthesis from across many dispersed data sources has indicated a 14% global collected-for-recycling rate for plastic packaging". Valuable materials are lost due to lacking collection and recycling systems.

Ecolean has joined CEFLEX during 2017, a collaborative project of a European consortium of companies and associations representing the entire value chain of flexible packaging. The project mission is to make flexible packaging more relevant to the circular economy by advancing better system design solutions through the collaboration of companies representing the entire value chain.

### PLASTICS IN THE OCEAN

During the year, articles in media addressing the problem of plastics in the oceans have gained attention. Approximately 8 million metric tons of plastic waste end up in the ocean every year. Approximately 2 billion people around the globe are lacking access to proper waste management, and when waste is mismanaged and littered the risk of waste, not only plastic waste, ending up in the environment increases. Ecolean is fully aware of this problem and will evaluate different projects aiming to improve the global situation.

### BUSINESS ETHICS

Ecolean is a global company, operating on many markets. This can create risks when it comes to doing business and operating on new markets. For the purpose of protecting human rights, promoting fair employment conditions, safe working conditions, responsible management of environmental issues and high ethical standards, the Code of Conduct has been implemented and shall be applied in all areas of Ecolean.

*Ecolean has zero tolerance concerning all forms of corruption*



PEOPLE



NUMBER OF EMPLOYEES

	Europe	Americas	Russia	Asia and Oceania
Female	31	0	12	31
Male	158	4	17	121
<b>Total</b>	<b>189</b>	<b>4</b>	<b>29</b>	<b>152</b>

TOTAL NUMBER OF EMPLOYEES  
BY EMPLOYMENT CONTRACT, BY GENDER

	Permanent	Temporary
Female	72	2
Male	293	7

TOTAL NUMBER OF EMPLOYEES  
BY EMPLOYMENT CONTRACT BY REGION

	Europe	Americas	Russia	Asia and Oceania
Permanent	181	4	28	152
Temporary	8	0	1	0
<b>Total</b>	<b>189</b>	<b>4</b>	<b>29</b>	<b>152</b>

TOTAL NUMBER OF EMPLOYEES  
BY EMPLOYMENT TYPE, BY GENDER

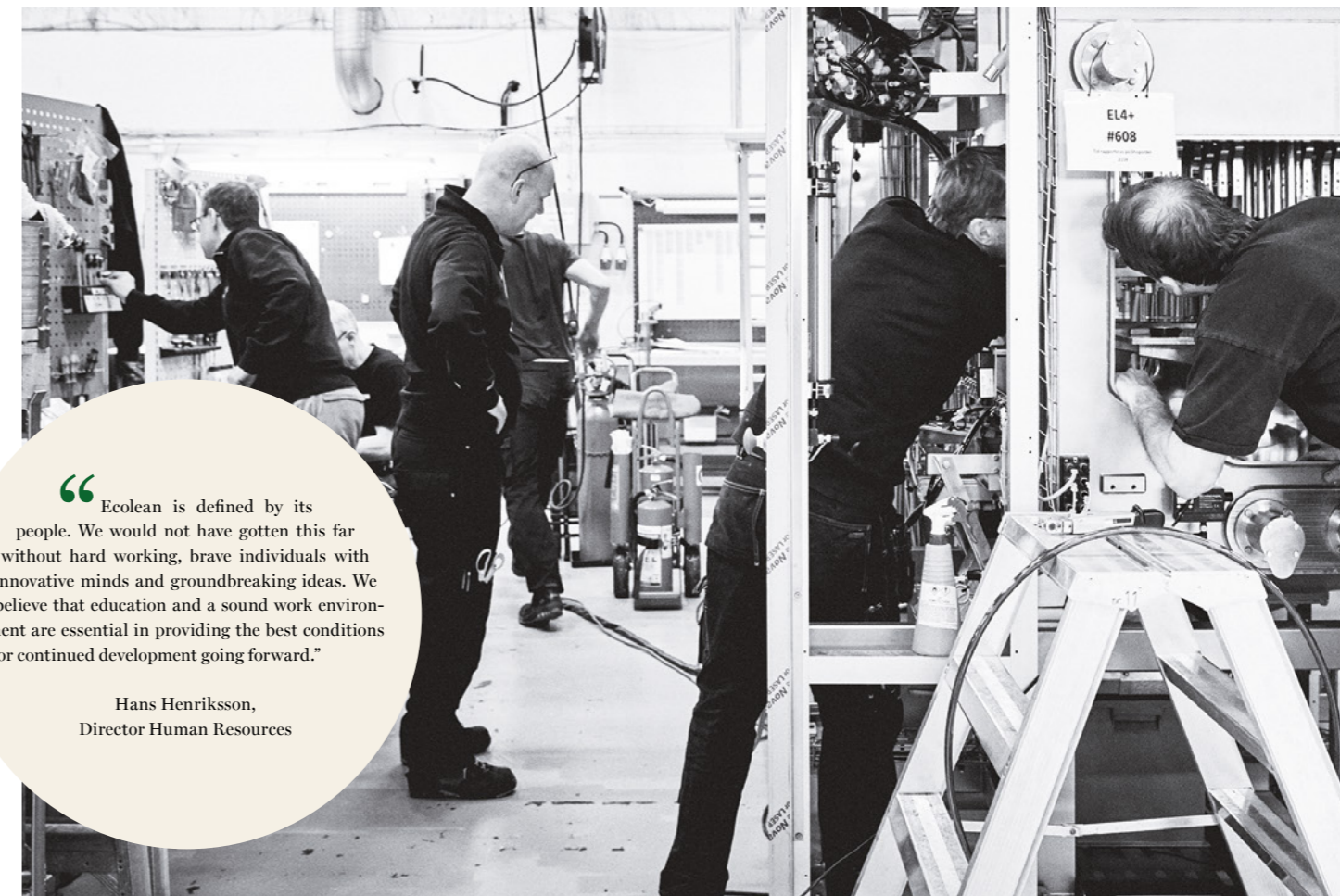
	Full time	Part time
Female	70	4
Male	293	7

All figures refer to the number of employees 2017-12-31

# PEOPLE

Ecolean launched its Vision, Mission and Core Value statements in 2017. During 2016 and 2017, we prepared for the launch by engaging all employees worldwide in workshops to enable us to define the soul of Ecolean. These descriptions are launched in a very exciting time where we experience growth in our business as well as in our organisation. Therefore it is of outmost importance that all employees share the same mindset of who we are and how we operate. The work taken place in 2016 and 2017 paves the way to ensure that this happens.

The Vision, Mission and Core Value statements are well supported by a Human Resources strategy and clear action plan, which includes an appropriate governance structure.



“Ecolean is defined by its people. We would not have gotten this far without hard working, brave individuals with innovative minds and groundbreaking ideas. We believe that education and a sound work environment are essential in providing the best conditions for continued development going forward.”

Hans Henriksson,  
Director Human Resources

“Ecolean is a global company with local perspectives. All of our market offices have local staff and are in tune with the regional cultures and conditions. The balance between an international and regional approach is easy to navigate when you have such clear values internally. No matter where in the world you are located, Ecolean is always the same to everyone.”

Kamran Khan,  
Regional Director, Ecolean Asia South & Middle East and  
Managing Director, Ecolean Pakistan (Pvt) Ltd.

Lahore, Pakistan – a fast-developing, buzzing city with around 12 million inhabitants is an important place to be for Ecolean. Our ambition is to be close to the market and our customers, which has proven to be a successful strategy. During 2017, we started to build our third converting plant, located in Lahore.

## MANAGEMENT APPROACH PEOPLE

### CODE OF CONDUCT

Ecolean has established a global Code of Conduct in order to provide guidance and support for all employees. We are committed to conduct our business with honesty and integrity and this is also something that is expected of all employees. For the purpose of business ethics, protecting human rights, promoting fair employment conditions and safe working conditions, responsible management of environmental issues and high ethical standards, the Code of Conduct is applied in all areas of Ecolean.

Ecolean will strive to ensure that our business partners comply with our Code of Conduct and other policies. Ecolean's Code of Conduct should be read in combination with the more detailed instructions that can be found in the company policies. These policies support the Code of Conduct. They are statements of mandatory behaviour issued centrally and applicable to specific areas like whistleblowing, IT, HR, confidentiality and authorization. They apply to all entities and all employees.

In addition to compliance with relevant laws, regulations and standards in the countries we operate, all employees shall comply with the Code of Conduct, even if it stipulates a higher standard than required by national laws and regulations.

All Ecolean employees with responsibility for personnel have a particular obligation to introduce new employees to the Code of Conduct as well as update current employees on a regular basis.

The Code of Conduct covers respect for people and for human rights. Ecolean respects human rights as defined in the United Nations Global Compact.

The Code of Conduct is very important to us, and areas such as non-discrimination, human rights and equal opportunities were also some of the topics mentioned as especially important by stakeholders in our stakeholder dialogue.



*All employees shall comply with the Code of Conduct*



# OBJECTIVES PEOPLE

According to the Ecolean Code of Conduct, the terms and conditions of employment which are offered to our employees must be easy to understand and must comply with the minimal requirements according to national law and/or collective agreements as well as relevant ILO Conventions. All employees in Sweden are covered by collective bargaining agreements, representing approximately 50% of the total work force.

## WE HAVE ZERO TOLERANCE FOR CORRUPTION

Our Code of Conduct is very clear on the matter, we have zero tolerance for corruption. The Code of Conduct is available for employees on the intranet and in printed versions at all offices. Our employees continuously receive information and training regarding the Code of Conduct and the objective "We have zero tolerance for corruption". The Code of Conduct is a topic on staff meetings and part of our daily work. No cases of corruption have been reported during the year.

## WE HAVE ZERO TOLERANCE FOR BREACH OF HUMAN RIGHTS

The risk of breaches of human rights within Ecolean and its supply chain is considered low. Specific training regarding human rights has been adapted accordingly. Being on a global market, the risk could arise and our management organisation and whistleblowing system are in place to address any suspected cases.

Human rights are addressed in the Code of Conduct. When implemented in 2015 all employees received training. All new employees receive information of the Code of Conduct during their introduction and after this they sign a confirmation. During 2017, the number of employees trained in the Code of Conduct corresponds to the number of new employees through the year. This equals a total of 15% of the employee base at the end of the year. No cases of breach of human rights have been reported during 2017.

GRI Disclosure 102-41

Management Approach: Anti-corruption  
GRI Disclosure 205-8

Management Approach: Human Rights Assessment  
GRI Disclosure 412-2

0  
cases reported  
2017

0  
cases reported  
2017

0  
cases reported  
2017

**WHISTLEBLOWING**  
Ecolean has a whistleblowing policy and an external online whistleblowing service. The aim of this policy is to provide an internal mechanism for reporting, investigating and remedying any wrongdoing in the workplace. We strive to maintain a transparent business climate and high business ethics. During 2017, one case was reported in the whistleblowing system (not related to any of our sustainability objectives).

## WE HAVE ZERO TOLERANCE FOR DISCRIMINATION

Any cases of discrimination should be reported to management or through the management organisation or the whistleblowing system. The Code of Conduct is a topic at staff meetings and a part of our daily work. During 2017, no cases of discrimination were reported. An e-learning course within the Ecolean Academy, covering discrimination to raise the awareness regarding this important topic, will be implemented during 2018.

Management Approach: Non-discrimination  
GRI Disclosure 406-1



## WE PROMOTE A DIVERSE WORKFORCE AND EQUAL OPPORTUNITIES

Ecolean works to make sure that all employees should experience development through their daily work and feel safe in their professional roles. It assumes that differences are respected and that we counteract discrimination and harassment. At Ecolean, all employees have the same rights, obligations and opportunities regardless of gender, gender identity or gender expression, age, sexual orientation, disability, ethnicity, religion or nationality.

GENDER DIVERSITY BY EMPLOYMENT CATEGORY

	Production Blue collar	Commercial/Technical/General	Management	Total
Female	6%	30%	19%	20%
Male	94%	70%	81%	80%

AGE DIVERSITY BY EMPLOYMENT CATEGORY

	Production/Blue collar	Commercial/Technical/General	Management	Total
<30	34%	19%	3%	22%
30-50	60%	61%	72%	62%
>50	6%	20%	25%	16%

## WE INVEST IN TRAINING AND EDUCATION FOR OUR PERSONNEL

Growth indicates the increased importance of introducing and training our employees in a common and professional manner. During 2017, we introduced Ecolean Academy – a platform holding internal education and training, orientation courses as well as e-learning within a range of different areas.

All employees on a global scale are in the process of attending the Ecolean orientation course, giving the main facts about the company, providing information on business, ethics, code of conduct, strategies, sustainability and market activities. The Ecolean orientation courses held during 2017 include in total 1,031 hours of training. Training within Ecolean Academy can be categorized in commercial, technical and general training.

Apart from this, top management of Ecolean has taken a special ownership of the introduction of a common leadership training programme throughout the organisation. During 2017, approximately half of all managers and leaders (formal and informal) in Ecolean were trained in the new leadership curriculum. The programme was performed during a total of nine days per person. The remaining part of the Ecolean managers and leaders will follow in 2018.

At Ecolean, we want to ensure the long term employability of our employees. This is manifested in a couple of different ways. The most important, however,

being the uniqueness of our technology, product development and production apparatus.

This implies that, after a careful selection process, we will invest in substantial training periods for our employees to ensure the right skills and behaviors to manage and grow within the role. With a constantly evolving organisation and operation, this foundation will facilitate internal horizontal or vertical movement within Ecolean. The on-the-job training is an automatic institution where our employees will grow with the development of technology, product development and production apparatus. This is also facilitated by the Ecolean Academy, where internal training is collected to ensure availability for our employees.

## WE HAVE A ZERO ACCIDENT TARGET IN ALL OUR OPERATIONS

Ecolean is constantly working with safety in the organisation. Risk assessments are performed on all processes and formal health and safety committees perform safety inspections four times a year. In these inspections employees, management and external safety engineers attend. All occasions where the risk for an incident was close, near misses, are reported and actions are taken to prevent accidents.

Ecolean collects all reports of injuries that occur, divided by gender, but not yet by region. The total number of injuries include minor (first-aid level) injuries. The global available data covers injuries that are work-related and are based on all employees at Ecolean.

	Number of injuries	Number of injuries/ employee	Work-related fatalities	Lost day rate
Female	0	0	0	0
Male	10	0.033	0	0.00012
Total	10	0.027	0	0.000097

”What the passport states is of no importance at Ecolean. We welcome all knowledgeable people with a desire to change the world of packaging.”

Peter L Nilsson, CEO Ecolean

### WE PROVIDE THE WORLD WITH SAFE & CONVENIENT PACKAGING SOLUTIONS FOR LIQUID FOOD

The products manufactured and marketed by Ecolean must comply with all laws and rules relating to product safety. Beyond this, we are also complying with voluntary certification schemes.

The ISO 22000 family of International Standards addresses food safety management. The BRC/IOP is a leading global standard adopted by major retailers, manufacturers and packaging businesses around the world. Certification to this standard verifies technical performance, aids manufacturers' fulfilment of legal obligations and helps provide protection for the consumer. The FSSC 22000 Food Safety System Certification provides a framework for effectively managing food safety responsibilities.

The management and instructions regarding customer health and safety are built upon the used management systems. The production plants continuously work with quality inspections and audits. All processes have documented instructions to follow including quality checks, hygiene rounds and claims. The performance of the management systems are regularly audited, both by internal and external audits.

If a customer has a claim on the products they first approach the regional market office. All claims follow the deviation process. A claim investigation is coordinated by the quality department, to assure relevant actions are taken. The actions are communicated with the customer and further activities are decided depending on the claim.

Production site	Certificates
Packaging film production and converting, Sweden	ISO 14001, BRC/IOP, ISO 22000, Halal certificate
Production of filling line equipment, Sweden	ISO 9001
Packaging converting, China	ISO 14001, FSSC 22000, Q-mark for the Chinese market

The Ecolean filling lines operation is certified according to ISO 9001. The filling line technical teams provide the customers with support and expertise on how to maximize the performance of the Ecolean packaging system. The teams work to ensure that the customer's equipment is optimised to the production requirements. Systematic performance assessments, customised training programs and technical upgrades maximise performance and minimise downtime.

During 2017, a new system for audits on customers' sites was developed, Performance Optimisation Program (POP365). The audit will, among other things, follow-up on safety, training of machine operators and optimising the machine performance. The customer will gain higher equipment performance, lower operating costs and higher skilled operators of the filling machine. The first POP was performed in Pakistan during the year and the experience will be passed on to coming audits.

Our packaging system is only one part of all the activities related to put a safe product on the market. Producing and packaging liquid food products is complex and a lot of regulation must be followed. In the end it's our customers who have the responsibility to ensure compliance with relevant health and safety regulations. If the regulations are violated and the customer believe it can be due to the packaging system they can post a product liability claim. During 2017, no product liability claims or product recalls were reported from our customers.

”*The Ecolean packages for ambient or chilled distribution are made from a multi-layer co-extrusion film with barrier properties and comes with a Full Food Contact Approval Certificate.*”

Magnus Carlberg, material development, Ecolean Helsingborg



“ Ever since the start it has been important to Ecolean to make as little impact on the environment as possible. To produce a lightweight package means less raw material used and less energy and resources needed throughout the package’s life cycle. This sustainability report will not only document and track our impact, but also show us the way forward to challenge ourselves even harder. That is also important to our organisation.”

Evert Månsson,  
Director Material Production

- **Safe system for ambient distribution**

Our packaging system for ambient distribution takes safety a step further. The Ecolean® Air Aseptic packages are hermetically sealed and sterilised using electron beam treatment or e-beam, at the Ecolean manufacturing plant, bringing the complexity from the liquid food producer back to Ecolean.

The ready-to-fill packages are distributed on reels that can be transported and stored without special arrangements for temperature and humidity control. Before opening, filling and sealing in the filling machine, the outer surfaces of the packages are re-sterilised using diluted hydrogen peroxide and UV light.

Our ambition is to make the system reliable and at the same time make it easier for producers to manage the aseptic filling process. The food treatment, the filling equipment and the package need to form a contamination-free chain where risks are controlled or avoided.

Ecolean’s choice of a non-chemical alternative, using e-beam technology for package sterilisation, ensures that food contact surfaces are never exposed to any chemicals. We have also separated sterilisation from the filling machines, which allows it to be handled under controlled conditions at our own plants. We believe, this is a more efficient approach from a system point of view which removes the need of high utility consumption running the filling line equipment at the customer’s site.

- **Convenience**

In late 2017, the Swedish Rheumatism Association (SRA) approved all of Ecolean’s packages as easy-to-open and easy-to-use for everyone. Ecolean’s complete range of lightweight packages for chilled and ambient distribution, including the use of straw and reclosing device SnapQuick™, have been tested and approved by the SRA.

The Swedish Rheumatism Association test is a scientifically developed method. By obtaining the SRA’s approval and quality mark, Ecolean’s lightweight packages are certified as easy-to-open and easy-to-use by people with reduced hand function.

Difficulties to handle packages is an increasing concern, according to the SRA. In Europe it is estimated that 20% of the total population suffer from some kind of reduced hand function. In addition, the global population is becoming older, and between year 2015 and 2030 the number of people aged 60 years and over, is estimated to double.

“ The idea is that products that are functional and easy-to-use for people with reduced hand function, are suitable for everyone. I sincerely hope that more packaging companies will follow Ecolean’s lead and focus on developing easy-to-use packages.”

Lotta Håkansson,  
President,  
Swedish Rheumatism Association



## WE TAKE RESPONSIBILITY FOR FAIR AND TRANSPARENT INFORMATION REGARDING OUR SYSTEMS

We believe that our customers should have access to fair and transparent information regarding our systems to base their decisions upon. We will follow laws and regulations regarding marketing. That is why we have committed ourselves to always base our environmental communication on life cycle assessments. We have chosen to use standardised programs to provide the possibility for our customers to get the full picture and also to be able to request the same type of documents from other suppliers. We use the International Chamber of Commerce (ICC) Framework for Responsible Environmental Marketing Communications as guidance in our environmental communication. The marketing department of Ecolan is responsible for the marketing activities and how to communicate our performance. The sustainability manager of Ecolan is part of the marketing department to ensure that sustainability and environmental communication follow guidelines.

Any complaints regarding the quality of the communication will be reported to the marketing department and handled by the marketing director. The reasons for the complaint will be investigated and when relevant, adjusted. No incidents of non-compliance concerning marketing communications were reported during the year.

During 2017, we published four Environmental Product Declarations (EPD), covering our packaging range for ambient and chilled distribution and our filling machines for ambient and chilled distribution. An EPD is a verified and registered document that communicates transparent and comparable information about the life cycle environmental impact of products. An EPD is created and verified in accordance with the International Standard ISO 14025. The EPD is based on life cycle assessment (LCA) according to ISO 14040 and ISO 14044. Ecolan's four EPDs are published at The International EPD® System ([www.environdec.com](http://www.environdec.com)).

The EPD system can also provide the customer with a possibility to compare products from different suppliers. An EPD is a life cycle assessment with defined system boundaries. The definition of the system boundaries are found in a document called Product Category Rules (PCR). The fact that EPDs within the same product category follow the same PCR open up the possibilities for comparisons between the EPDs. Since the system boundaries in a LCA are established by the producer of the LCA, the results from a LCA can be very hard to compare with others.

We believe that offering these documents, open sourced, to our customers, will provide them with information regarding environmental impact from our systems and can also help our customers to make informed choices. We would also like to encourage our customers to start requesting EPDs from all suppliers to be able to compare systems on a fair basis.

“ I welcome the publication of Environmental Product Declarations by Ecolan, providing a transparent declaration of the life cycle environmental impact of their products. This is to my knowledge the first case where a company publish EPDs of both their packaging and filling machines, which demonstrates how communication of life cycle based environmental information may be relevant for different applications and target audiences.”

Kristian Jelse, Programme Manager  
The International EPD® System.



### ECOLEAN PACKAGE'S LIFE CYCLE

1. Extraction and transportation of raw materials to Ecolan site.
2. Design and development of packaging film and packages in-house.
3. Production of packaging film. Hermetically sealed ready-to-fill packages are wound on reels.
4. Transportation of pre-converted packages to producer's site.
- 5-6. Filling of liquid food product.
7. Filled packages are transported to distribution centers and retail outlets.
8. The package is used by the consumer.
9. End of life, the packages can be recycled as plastics or recovered as energy, depending on local waste handling systems.



# PACKAGING SOLUTIONS

...welcome to team up with  
...anking behind Ecolean. An  
...e from the minimum amount  
...o less waste when empty.

...equally welcome to team up with  
...green thinking behind Ecolean. An  
...that spans from the minimum amount  
...material to less waste when empty.

...distribution. Milk, juice, yogurt?  
...are equally welcome to team up with  
...the green thinking behind Ecolean. An  
...that spans from the minimum amount  
...material to less waste when empty.

...All are equally welcome to team up  
...the green thinking behind Ecolean.  
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# MANAGEMENT APPROACH PACKAGING SOLUTIONS

Management Approach: Materials

Within Packaging Solutions we have collected the sustainability objectives mainly linked to our environmental impact. The entities included in the monitoring regarding environmental impact are mainly the production sites when not otherwise stated. This is also where most impact occurs.

Ecolean's tagline "a lighter approach to packaging" expresses the vision to be leading in offering sustainable packaging systems for liquid food also from the perspective of the environment. We are aware of the causes of our most significant impacts on the environment and are working continuously to make our processes more efficient to achieve lower use of raw materials and energy.



The fundamental premise behind our production process is the minimisation and efficient use of raw materials and energy, from the very start. For us, using less raw materials, still keeping the filled product inside safe, is one of the most efficient ways to improve the sustainability of the packages. By making resource efficient packages, and helping our customers use less packaging material overall we ensure that less product goes to waste through better protection, hereby lowering the product's overall environmental impact. At the same time less waste is generated.

The waste hierarchy defined in the EU Directive 2008/98/EC sets the rules for how to handle waste. The best way is to reduce the amount of generated waste. The Ecolean packages ensure very high product to pack ratios. This means that the least amount of packaging material (by weight) is needed to provide optimal protection and functionality for a given amount of product.

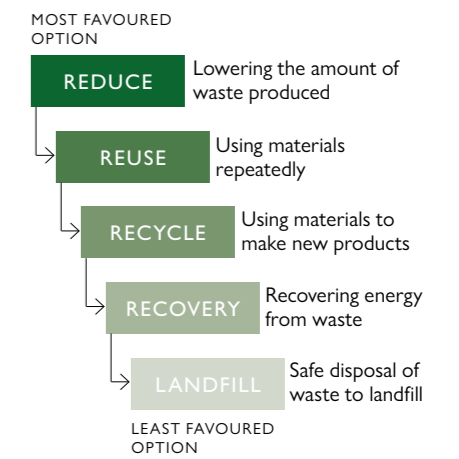
This is our philosophy, keeping our packages lightweight and not making the material too complex. It's also how we develop filling line equipment and especially the filling machines. Keeping them compact and minimizing the use of chemicals and energy in the filling process is another way of reducing our impact. Ecolean has always worked with a life cycle approach of the products and this is an essential part of how we identify where the environmental impact occurs and how to address it. Being in the liquid food packaging industry sets high requirements on performance and we will always meet applicable legal requirements.

The sustainability objectives have been defined and decided upon by the Ecolean Group management team. The responsibility to achieve the objectives follows the organisational structure where each director has identified their organisational impact and identified relevant actions to address the impact. The production plants are certified according to the ISO 14001 standard and the objectives and activities are implemented in the management system.

The objectives related to Packaging Solutions are mainly handled by the directors for material production and filling lines and their organisations. The sustainability manager is supporting their initiatives.

Management Approach: Energy, Emissions, Effluents and Waste

## Waste hierarchy EU Directive 2008/98/EC



# OBJECTIVES PACKAGING SOLUTIONS

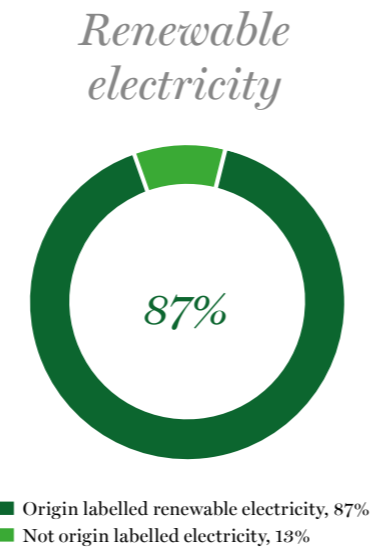
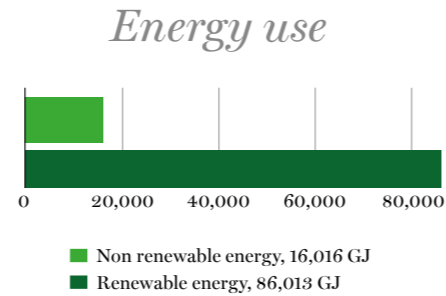
## WE WILL USE 100% RENEWABLE ELECTRICITY IN ALL OUR PRODUCTION SITES BY 2030

We have committed ourselves to reduce the impact from energy use and to achieve 100% renewable electricity in our production sites by 2030, according to the definition set by RE100.

The report covers the energy use for the production sites for packaging material and converting and filling line equipment production in Helsingborg, Sweden, and the site for converting packaging material into packages in Tianjin, China. The main energy use occurs at these sites and the boundaries for monitoring and reporting energy use will be the Ecolean production sites. It is mainly electricity that is used in the production. By optimising the production even further the energy intensity and the GHG intensity from the products can be reduced.

During 2017, Ecolean used a total of 102,029 gigajoules (GJ) of energy at the three production sites. 98,335 GJ were electricity and 2,139 GJ district heating purchased for the production sites and 1,555 GJ originated from non-renewable natural gas, used for heating. Ecolean do not sell any energy.

On 1 January 2017 Ecolean started to purchase origin labelled renewable electricity (hydro power) for the production sites in Sweden. This means that 87% of the electricity and 84% of the total energy used in production originates from renewable sources. All energy data is delivered from the suppliers.



## WE WILL REDUCE THE GHG INTENSITY FROM OUR PACKAGES

Climate change is one of the biggest challenges the world has ever faced. Ecolean is committed to reduce its impact across the value chain. This can be achieved by reducing energy use, using renewable energy or reducing impact from transports for example. The first step for us is to start monitoring our GHG emissions and identify a baseline.

This is the first time Ecolean reports on Greenhouse Gas (GHG) emissions and more comprehensive comparisons and analysis will be possible first after a couple of years of monitoring. Ecolean reports on energy use from the production sites, using the same boundaries as for the calculations of GHG emissions related to energy and waste. For business travels, Ecolean AB and its subsidiaries are included and the data includes impact from cars, trains and flights when available. No biogenic CO<sub>2</sub> emissions occur within the Ecolean organisation. For scope 1 and 2 emissions we use operational control as a consolidation approach. The emissions occur from plants and sites within the Ecolean Group. Reporting is based on GHG Protocol, and the source of emission factors are both generic and company specific.

The GHG emissions, direct and indirect in scope 1, 2 and 3 according to the GHG Protocol, were 39,958 tonnes CO<sub>2</sub>-eq. 20 tonnes (0.05%) of the emissions occur in scope 1 and 2,755 tonnes (6.90%) in scope 2, the majority, 37,183 tonnes (93.05%), of the emissions occur in scope 3.

The GHG emissions in scope 3 accounts for 37,183 tonnes of CO<sub>2</sub>-eq and the largest source of GHG emissions are linked to raw materials and upstream transportation used for packaging production and filling machines.

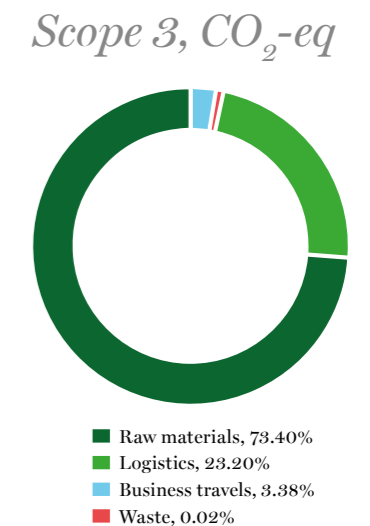
Logistics include the transport of packaging and filling machines from Ecolean in Sweden to customers around the globe. The products are transported by sea, road, train, and air.

To be able to monitor the achievements in reducing the climate impact Ecolean will follow up on the GHG intensity. The total GHG emissions from scope 1, 2 and 3 is divided by the used amount of raw materials for packaging production. The GHG intensity calculated for scope 1 and 2 shows the result 0.13 kg CO<sub>2</sub>-eq/kg packaging and 1.8 kg CO<sub>2</sub>-eq/kg packaging for scope 1-3.

**Scope 1:** Emissions from sources that are owned or controlled by the organisation.

**Scope 2:** Emissions from the consumption of purchased electricity, steam, or other sources of energy (e.g. chilled water) generated upstream from the organisation.

**Scope 3:** Emissions that are a consequence of the operations of an organisation, but are not directly owned or controlled by the organisation.







One of Ecolean's converting plants is located in TEDA, Tianjin region, China. With one of China's largest ports, Tianjin has quickly become an important place for export and import. For Ecolean, this means less need for road transportation, and easy access to distributing pre-converted Ecolean packages to markets in the region.

**WE WILL KEEP REDUCING THE ENVIRONMENTAL IMPACT FROM RAW MATERIALS USED IN PRODUCTION, BASED ON A LIFE CYCLE PERSPECTIVE**

Ecolean works with 129 suppliers of raw material for packaging material production and for the production of filling line equipment. In 2017, Ecolean spent SEK 350,000,000 directly to suppliers related to raw material for packaging production and filling equipment. Our main suppliers are large, international companies in the chemical sector, located in Sweden and Europe, providing us with the polymers and additives needed for the packaging manufacturing.

In the filling machine production, Ecolean works with mainly Swedish suppliers providing machine parts and components for the assembly of the machines. Part of the assembly of the equipment is made by local, Swedish suppliers.

The procurement department assesses new suppliers before signing new contracts, both through self-assessments and audits on site. No significant changes to the supply chain has occurred during the reporting period.

During 2017, 22,051 tonnes of raw materials were used for production of packages. These materials are purchased from external suppliers and the data originates from procurement data.

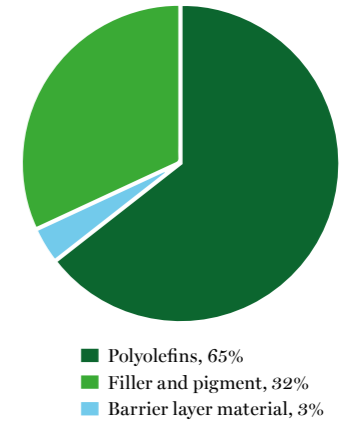
In the production of packaging film, Ecolean uses approximately 25% internal recycled material. Edge trim from packaging film production and trims from the converting process are reground and granulated internally and mixed into the ingoing material. This reduces the waste generated and also the need for virgin materials.

The packages are delivered to the customers in transport packaging, during the reporting period 918 tonnes wooden pallets, 74 tonnes of plastic wrapping and 676 tonnes of paperboard sheets were used.

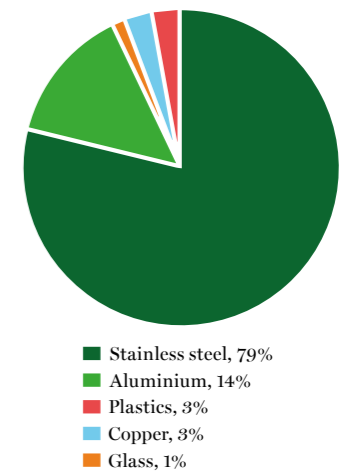
The filling machines consist mainly of stainless steel, aluminium, glass, rubber and copper. During 2017, Ecolean used 120 tonnes of material to produce the delivered filling machines. The amounts of raw materials used are based on the composition model reported in the two Environmental Product Declarations for the Ecolean filling machines (EL1 and EL2+, EL3+ and EL4+).

Ecolean used in total 23,269 tonnes of materials for the production of packages and filling machines, including transport packaging materials. 1,070 tonnes were renewable and 22,199 tonnes of non-renewable origin.

*Raw materials Packaging*



*Raw materials Filling machines*



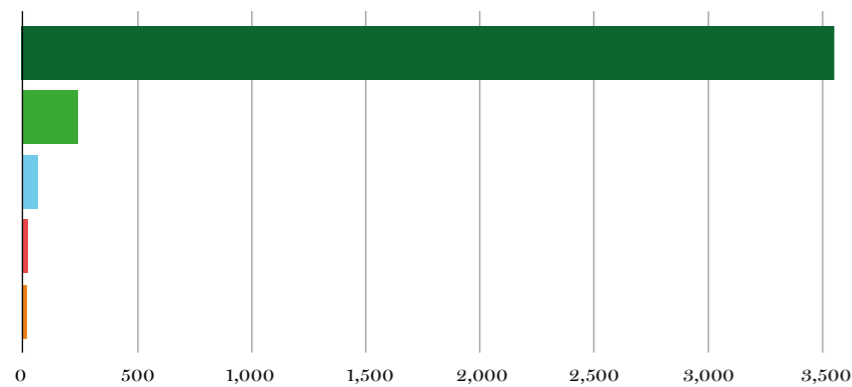
### WE WILL HAVE ZERO WASTE TO LANDFILL FROM OUR PRODUCTION SITES BY 2030

We are committed to have zero waste to landfill from our production sites by 2030. This can be achieved by working according to the waste hierarchy (EU Directive 2008/98/EC) and reduce the amount of generated waste, recycle as much as possible, find solutions for waste to energy and as little waste as possible sent to landfill. All production sites sort their waste and work to minimise the generated waste.

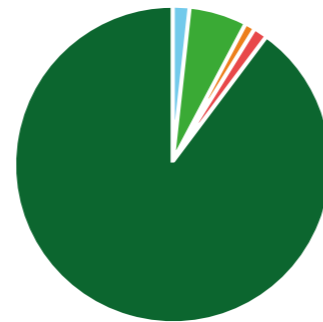
The production sites generated 3,890 tonnes of waste during 2017. This amount includes 6.7 tonnes of waste sent to landfill and 64.7 tonnes hazardous waste.

Most of the waste, 91.4%, was sent for recycling. All waste is handled by different waste contractors in each country. The waste is treated according to valid regulations for each country, the information is provided by the waste contractors. The hazardous waste in Sweden is treated by incineration and this is also the main treatment in China.

Waste (tonne)



Waste treatment



- Recycling, 91.4%
- Hazardous waste, 1.6%
- Energy recovery, 6.2%
- Landfill, 0.2%
- Organic treatment, 0.6%

**91.4%**  
waste sent  
for recycling

### WE ARE TAKING ACTION TO INCREASE THE POSSIBILITIES FOR A CIRCULAR ECONOMY FOR OUR PACKAGING SOLUTIONS

We want to take action to increase the possibilities for recycling and enable a circular economy of flexible plastic packaging. The possibilities for recycling differs on all markets and according to The Ellen MacArthur Foundation only 14% of the plastic packaging on a global scale are recycled. What is even worse is that many countries still lack proper waste management systems and a lot of waste ends up in the wrong places. By creating value for plastic packaging, the possibilities for recycling increases.

Both stakeholders and the Ecolan Group management team identified circular economy and recycling as a material topic in the materiality assessment and the need for action. Our sustainability manager together with the R&D team are responsible for mapping the situation on a global scale and also for addressing the topic. Different initiatives, organisations and projects are being evaluated. The possibilities for recycling varies on different markets. Discussions with local recyclers and recycling organisations are ongoing. By getting involved and sharing knowledge with the recycling industry and dedicated recycling projects Ecolan wants to increase the possibilities for recycling for our packaging solutions. Ecolan will monitor and report on different circular economy initiatives for our packaging solutions.



That is why Ecolean has joined forces with the full value chain for flexible packaging and joined a European project called CEFLEX. Ecolean attends the stakeholder meetings and different work groups, for example creating guidelines on flexible packaging recycling and design for recycling.

CEFLEX gathers representatives from material producers, flexible packaging converters, brand owners and retailers, collectors, sorters and recyclers, suppliers and end users. The project mission is to make flexible packaging more relevant to the circular economy by advancing better system design solutions via the collaboration of companies representing the entire value chain. The project goals are as follows:

- By 2020 flexible packaging will be recycled in an increasing number of European countries, facilitated by project CEFLEX through:
  - the development and application of robust design guidelines for both flexible packaging and the “End of Cycle” infrastructure to collect, sort and recycle them;
  - the identification and development of sustainable end markets for the secondary materials recycled from flexible packaging.
- By 2025 the development of a collection, sorting and reprocessing infrastructure for post-consumer flexible packaging across Europe, facilitated by project CEFLEX through:
  - a business case for collecting all flexible packaging;
  - proof of principle from successful pilot projects.

- **Circular economy solution for filling machines**

We have an extended producer responsibility to give information regarding recycling of the equipment. But for the filling equipment, we have already implemented a circular economy solution. In agreements for the filling lines equipment a paragraph is included regulating the end of life for the filling machine. It is the responsibility of the regional directors and the sales staff to make sure that this paragraph is included and used. When a machine is taken out of production, Ecolean offers to refurbish or recycle the machine. In 2017, one machine was refurbished.



“Our ambition, being part of CEFLEX, is to increase the possibilities for recycling of flexible packaging. This is not something we can create by ourselves, we must work together in the full value chain to share knowledge and to find and implement practical recycling solutions.”

Anna Palminger,  
Sustainability Manager

## EXTERNAL INITIATIVES

Our approach to sustainability is described in many ways in our Code of Conduct. In the Code of Conduct we refer to the United Nations Global Compact and live by these guidelines.

Our packaging production sites are certified according to the ISO 14001 standard and several of standards relevant to products for liquid food packaging. These standards are described in separate sections in this report.

In 2017, the filling line operations started the process to certify its operations according to ISO 14001.

Membership of associations:

Organisation	Membership status	Geographic area
CEFLEX	Member	Europe
EUROPEN - The European Organization for packaging and the environment	Member	Europe
Normpack	Member	Sweden
Miljöpack	Member	Sweden
Swedish Association for Quality	Member	Sweden
FTI AB	Member	Sweden
Sedex	Registered supplier	Global
IKEM	Member	Sweden
Packbridge	Member	Sweden
HR Club of Tianjin	Member	China
Dairy producer's union	Member	Russia
Juice producer's union	Member	Russia
Chamber of Commerce and Industry	Member	Pakistan
Pakistan dairy association	Member	Pakistan
Swedish Business Council, Pakistan	Member	Pakistan

## EXTERNAL ASSURANCE



### Assurance statement

2050 Consulting was commissioned by Ecolean AB to conduct an independent third-party assessment to verify the Ecolean's 2017 sustainability report's fulfillment of the GRI Sustainability Reporting Standards (2016) requirements at the Core reporting level. The assurance does not include verification of the robustness and veraciousness of the contents of the report. The audit has been conducted and quality assured using a systematic and documented method developed by 2050 Consulting AB. The assurance process has involved desktop assessment of the written report in its final version.

We hereby confirm that Ecolean's 2017 sustainability report does fulfill the GRI SRS requirements at the Core level. Being the first GRI report from Ecolean, several omissions were made with valid reasons which are described throughout the report and in the GRI Index.

Recommendation for future reports: This being Ecolean's first GRI report, future reports will have to follow up performance on relevant KPIs and progress on material topics to fulfill the GRI principle regarding 'Comparability'.

Malmö, 2018-05-15

Carl Höjman

2050 Consulting AB

# GRI CONTENT INDEX

GRI Disclosure 102-55

GRI Standard Title	Disclosure Number	Disclosure Title <i>Individual disclosure items ('a', 'b', 'c', etc.) are not listed here</i>	Page Number	Omissions	Explanation
GRI 102: General Disclosures 2016	102-1	Name of the organisation	3		
	102-2	Activities, brands, products, and services	5, 10, 11		
	102-3	Location of headquarters	5		
	102-4	Location of operations	5		
	102-5	Ownership and legal form	5		
	102-6	Markets served	5		
	102-7	Scale of the organisation	5, 10, 28		
	102-8	Information on employees and other workers	28		
	102-9	Supply chain	49		
	102-10	Significant changes to the organisation and its supply chain	5, 10, 49		
	102-11	Precautionary Principle or approach	3		
	102-12	External initiatives	22, 31, 54		
	102-13	Membership of associations	54		
	102-14	Statement from senior decision-maker	6		
	102-16	Values, principles, standards, and norms of behavior	8-9, 14-15		
	102-18	Governance structure	23		
	102-40	List of stakeholder groups	17		
	102-41	Collective bargaining agreements	32		
	102-42	Identifying and selecting stakeholders	17		
	102-43	Approach to stakeholder engagement	17		
	102-44	Key topics and concerns raised	17-21		
	102-45	Entities included in the consolidated financial statements	3		
	102-46	Defining report content and topic Boundaries	17-21		
	102-47	List of material topics	18		
	102-48	Restatements of information	3	Not applicable	First time to report.
	102-49	Changes in reporting	3		
	102-50	Reporting period	3		
	102-51	Date of most recent report	3	Not applicable	First time to report.
102-52	Reporting cycle	3			
102-53	Contact point for questions regarding the report	3			
102-54	Claims of reporting in accordance with the GRI Standards	3			
102-55	GRI content index	56-58			
102-56	External assurance	55			

GRI Standard Title	Disclosure Number	Disclosure Title <i>Individual disclosure items ('a', 'b', 'c', etc.) are not listed here</i>	Page Number	Omissions	Explanation
GRI 205: Anti-corruption 2016	GRI 103: Management approach 2016		32		
	205-3	Confirmed incidents of corruption and actions taken	32		
GRI 301: Materials 2016	GRI 103: Management approach 2016		24-25, 40-41, 44-45		
	301-1	Materials used by weight or volume	49	No data available for associated process materials. Only raw materials are reported.	The possibilities to also report on associated process materials will be reviewed upon.
GRI 302: Energy 2016	GRI 103: Management approach 2016		45, 46		
	302-1	Energy consumption within the organisation	46		
GRI 305: Emissions 2016	GRI 103: Management approach 2016		45, 47		
	305-1	Direct (Scope 1) GHG emissions	47, 59		Emissions are consolidated from entities over which Ecolean has operational control.
	305-2	Energy indirect (Scope 2) GHG emissions	47, 59		Emissions are consolidated from entities over which Ecolean has operational control.
	305-3	Other indirect (Scope 3) GHG emissions	47, 59		
	305-4	GHG emissions intensity	47		
GRI 306: Effluents and Waste 2016	GRI 103: Management approach 2016		45, 50-51		
	306-2	Waste by type and disposal method	50-51		
GRI 403: Occupational Health and Safety 2016	GRI 103: Management approach 2016		35		
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	35	Data available per gender, not per region. Consolidated data for absenteeism and total occupational diseases not available for Ecolean Group.	The collection on this specific data will be developed during 2017. Lost days refers to scheduled working days.

GRI Standard Title	Disclosure Number	Disclosure Title <i>Individual disclosure items ('a', 'b', 'c', etc.) are not listed here</i>	Page Number	Omissions	Explanation
GRI 404: Training and Education 2016	GRI 103: Management approach 2016		34		
	404-2	Programs for upgrading employee skills and transition assistance programs	34		
GRI 405: Diversity and Equal Opportunity 2016	GRI 103: Management approach 2016		31, 34		
	405-1	Diversity of governance bodies and employees	34		
GRI 406: Non-discrimination 2016	GRI 103: Management approach 2016		31,33		
	406-1	Incidents of discrimination and corrective actions taken	33		
GRI 412: Human Rights Assessment 2016	GRI 103: Management approach 2016		31, 32		
	412-2	Employee training on human rights policies or procedures	32	412-2a: No data available on total hours devoted to training on human rights.	A new Learning Management System is being implemented where training of code of conduct will be mandatory. Monitoring of devoted time will be developed.
GRI 416: Customer Health and Safety 2016	GRI 103: Management approach 2016		36		
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	37		
GRI 417: Marketing and Labeling 2016	GRI 103: Management approach 2016		40		
	417-3	Incidents of non-compliance concerning marketing communications	40		
We are taking action to increase the possibilities for a circular economy for our packaging solutions	GRI 103: Management approach 2016		51		
	No topic specific GRI standard	Report on initiatives taken to increase recycling and circular economy for our products	53	Data on availability of circular solutions for flexible plastic packaging solutions is missing.	Mapping of availability for separate collection and recycling possibilities for flexible plastic packaging will be further developed, as part of this objective.

## APPENDIX 1

- **GHG emissions scope 1, 2 and 3**

This is the first time Ecolan reports on Greenhouse Gas (GHG) emissions and more comprehensive comparisons and analysis will be possible first after a couple of years of monitoring. Ecolan reports on energy use from the production sites, the same boundaries are used in the GHG emissions calculations from energy and waste. For business travels, Ecolan AB and its subsidiaries are included and the data includes impact from cars, trains, and flights when available.

- **Scope 1 and 2**

The Greenhouse Gas Protocol has been used for calculation of the emissions. Carbon dioxide is the dominating emission but also some other greenhouse gases are included. The model for calculations has been prepared and delivered by an independent consultancy agency. Scope 1 emission factors for natural gas are based on values from Miljöhandboken 2011 and emission factors for fuel for company owned cars are based on data from the Swedish Transport Agency (*Handbok för vägtrafikens luftföroreningar*, 180208).

Emission factors for scope 2 are based on data for electricity and district heating in China from GHG Protocol, Purchased electricity v4.8 and GHG Protocol, Stationary Combustion v4.1. The emission for the Swedish electricity is based on data from the Swedish supplier of electricity.

- **Scope 3**

Scope 3 emissions cover all other indirect emissions in a company's value chain. In scope 3 Ecolan reports according to GHG Protocol Corporate Value Chain Standard using the following categories: 1. Purchased goods and services, 4. Upstream transportation and distribution, 5. Waste generated in operations, 6. Business travels and 9. Downstream transportation and distribution.

Emission factors for waste are based on GHG Protocol, Technical Guidance for Calculating scope 3 Emissions v1.0, 2013, business trips by air from ICAO, business trips by train and car from GHG Protocol Average, 2015.

The impact from raw materials and upstream transportation is calculated and based on background data from the life cycle assessments performed during 2017, published in the four Ecolan Environmental Product Declarations in October 2017. The impact from raw materials include the upstream transportation and distribution.

# *ecolean*

a lighter approach to packaging

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