

# Climate Assessment



## Beckers Group 2019





## 1.Executive summary

Beckers Group has carried out a comprehensive annual assessment report of its carbon emission since 2013 according to the GHG Protocol Corporate Standard. The report quantifies our progress to mitigate climate emissions from the base year of 2013 and subsequent years. The purpose of measuring climate data is to develop a foundation for action, in order to systematically work with reduction initiatives to document our journey towards our vision of being the world's most sustainable industrial coatings company.

For 2019, our total emissions amounted to **52,996 tons of carbon dioxide equivalents from location-based emissions** and **52,593 tons CO<sub>2</sub>e from market-based emissions**. With respect to market-based emissions, this represents an **8% reduction compared to base year emissions** and **7% reduction compared to previous year's emissions**.

The market-based emissions depict emissions from purchased energy that Beckers Group has purposefully chosen. This portrays a higher responsibility for our emissions and thus this report will focus on and present market-based emissions for 2019 unless stated otherwise.

Emissions (tCO <sub>2</sub> e)	Scope 1	Scope 2	Scope 3	Total
2019 Market	10,646	13,795	28,152	<b>52,593</b>
2018 Market	10,081	15,055	31,623	<b>56,759</b>
2013	12,763	14,804	29,827	<b>57,393</b>

Table 1-1 Beckers Group - scope results (tCO<sub>2</sub>e)

The highlights for our results in 2019 are:

- We have started a new site in Nghe An, Vietnam.
- Our scope 1 emissions have increased by 6% compared to last year which arises from certain regions which have shifted to deliver products by company-owned trucks instead of engaging third-party logistics providers.
- Despite an increase of 6% in production, the scope 2 emissions have reduced, which is a result of the switch to certified renewable energy in our Italian site as well as reduction in electricity consumption and their emission factors, from sites based in countries with higher emissions from grid electricity.
- Scope 3 emissions have also reduced by 11% as a direct impact of reduced emissions from third-party inbound and outbound delivery emissions from our French site.

The major changes in emissions by activity are presented in the table below:

By activity	2018 tCO <sub>2</sub> e (Market)	2019 tCO <sub>2</sub> e (Market)	Difference
Premises	22,817	21,187	-1,630
Company-owned vehicles	1,143	1,949	805
Business travel	3,370	2,714	-656
Inbound third-party deliveries	12,022	12,755	733
Outbound third-party deliveries	11,928	8,614	-3,314
Paper	19	16	-3
Waste	330	328	-2
Production gases	5,130	5,031	-100
<b>Total</b>	<b>56,759</b>	<b>52,593</b>	<b>-4,166</b>

Table 1-2 Beckers Group – activity results

Our key emission intensity indicator, the total emissions per unit volume produced, reduced by 12% compared to the previous year while also depicting a reduction of 23% compared to our base year, 2013. This highlights improved transport and logistics management, switch to low carbon technologies and

increase in efficiency of raw material use with optimization of economy of scale in operations.

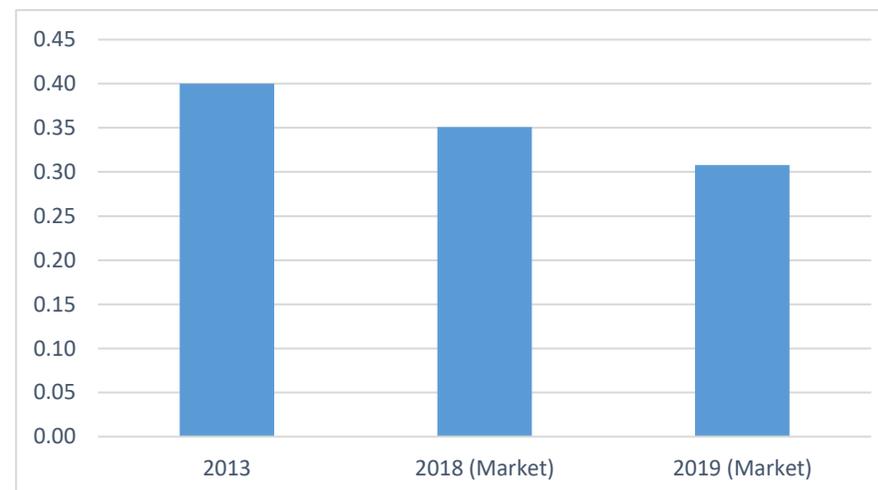


Chart 1-1 Emissions per ton product (tCO<sub>2</sub>e/ton product)

In the short-term perspective, we see the 2019 results have reduced significantly compared to our historical results, while our production has increased. This is a result of our efforts to decouple business growth from carbon emissions.

Sustainability in the long perspective means no negative climate impact at all from Beckers Group. We continue to monitor our emissions and manage our impact wherever possible to hold up our vision.

## 2. Methodology

According to the GHG Protocol, a company is accountable for emissions from all operations over which it has control. Control can be defined in either financial or operational terms.

Beckers is using the Greenhouse Gas (GHG) Protocol, an international standard developed by the World Resources Institute and the World Business Council for Sustainable Development. We use a web-based platform, Our Impacts, to quantify our global emissions from all sites. GHG Protocol divides greenhouse gases into three scopes:

- **Scope 1** – direct GHG emissions from sources that are owned by the company, for example, emissions from combustions in boilers, furnaces and vehicles.
- **Scope 2** – indirect GHG emissions from purchased or acquired electricity, heating/cooling or steam consumed by the company.
- **Scope 3** – other indirect GHG emissions (optional category) that occur as a consequence of all activities of an organization.

The report incorporates ‘The scope 2 guidance’ introduced by GHG Protocol in 2015 to portray emissions from specific

contractual energy procured by the sites (see ‘scope 2 guidance’ section below).

In addition to indirect emissions from activities influenced by the company, scope 3 emissions can also emanate from upstream activities of scope 1 and scope 2 emissions. For example, emissions due to grid loss through transmission and generation of electricity purchased. The upstream emissions from various activities are periodically added onto the platform in the spirit of continuous improvement to capture the total emissions from the value chain.

We monitor, analyse and present our emissions as per our business activities. This perspective enables better understanding of emission generation, which in turn will promote decision-making while developing reduction initiatives. Also, the activities are independent of the classification based on scopes i.e. a particular activity may be classified under multiple scope emissions.

Activities	
<b>Premises</b>	The total energy consumption from various sources and water usage on site
<b>Outbound third-party deliveries</b>	The transportation of our final products from our site to the customer by our third-party logistics providers
<b>Inbound third-party deliveries</b>	The transportation of raw materials from supplier to our site by our third-party logistics providers
<b>Production gases</b>	The emission of VOC (Volatile Organic Compounds) from our site
<b>Business travel</b>	Transportation used for business related activities
<b>Company-owned vehicles</b>	Use of vehicles owned or long-leased under the company name
<b>Waste</b>	Disposal of waste sent from site
<b>Paper</b>	Use of paper for business related activities

Table 2-1 Beckers' activities

## Scope 2 Guidance

In 2015, the GHG Protocol presented a change in reporting methodology regarding scope 2 emissions calculations. The new approach introduced by GHG Protocol constitutes two dual reporting methods for scope 2 emissions. This was implemented in 2016 on our reporting tool. The two methods, location-based and market-based emissions reporting, are required in order to be fully compliant with the GHG Protocol.

### FACT BOX

#### Location-based method

Uses grid average emission factors specific to the location of consumption to calculate emissions

#### Market-based method

Conveys emissions from electricity that companies have specifically procured through contractual instruments – or, conversely, reflects a lack of procurement through the application of residual emission factors.

Contractual instruments, also known as market-based instruments, can be:

- Energy attribute certificates (eg. Renewable Energy Certificates, Guarantee of Origin)
- Direct energy contracts (e.g. power purchase agreement)
- Supplier-specific emissions rates



Prior to 2015, the emissions from scope 2 were open for interpretation to follow either of the two reporting methods, thus the amendment was introduced to unify results from all reporting industries.

Since a market-based method reflects emissions from electricity that companies have purposefully chosen, evidence of such 'contractual instruments' is a prerequisite. These contractual instruments need to convey information such as emission rates, traceability, issuance, source etc. In absence of such information, the company will be allotted untracked or unclaimed emission factors (aka Residual Mix). The application of these requirements and the data availability for calculations is developing, among reporting companies and their energy suppliers, at the moment. A higher maturity in the figures will be achieved as the entire value chain unifies around the scope 2 guidance amendment.

In the initial years of the scope 2 guideline implementation, as we aligned with the prerequisites of the new reporting standard, our market-based emissions suffered inaccuracies from residual-mix emission factors, which portrays inflated results from market-based emission results. We thus consider the location-based emissions for 2016 and 2017 to be realistic depiction of our emissions. Whereas, in all subsequent years, the emission results will primarily focus on market-based emissions.



### 3.Participants

In order to achieve a good accuracy of data for reporting, Beckers maintains at least one reporter per site for all its manufacturing sites around the world. The network of climate reporters collects and documents relevant parameters into our reporting tool. This data is consolidated to form the global climate footprint of the company. The network of the reporting units is presented in the adjoining table.

#### Contact

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Argentina, Buenos Aires	Bangladesh, Dhaka
France, Feignies	China, Guangzhou
France, Montbrison	China, Shanghai
Germany, Berlin (HQ)	China, Tianjin
Germany, Dormagen	India, Goa
Italy, Caleppio	India, Nagpur
Mexico, Monterrey	Indonesia, Bekasi
Poland, Tarnow	Malaysia, Shah Alam
South Africa, Johannesburg	UAE, Ras Al Khaimah
Sweden, Maersta	Vietnam, Ho Chi Minh
Turkey, Gebze	Vietnam, Nghe An
UK, Liverpool	
USA, Chicago	
USA, Fontana	

Table 3-1 Beckers locations

## 4. Results and analysis

### Overall results

For 2019, our total emission amounted to **52,996 tons of carbon dioxide equivalents from location-based emissions** and **52,593 tons CO<sub>2</sub>e from market-based emissions**. With respect to market-based emissions, this represent an **8% reduction compared to base year emissions** and **7% reduction compared to previous year emissions**. This year, we also mark the opening of our new site in Nghe An, Vietnam.

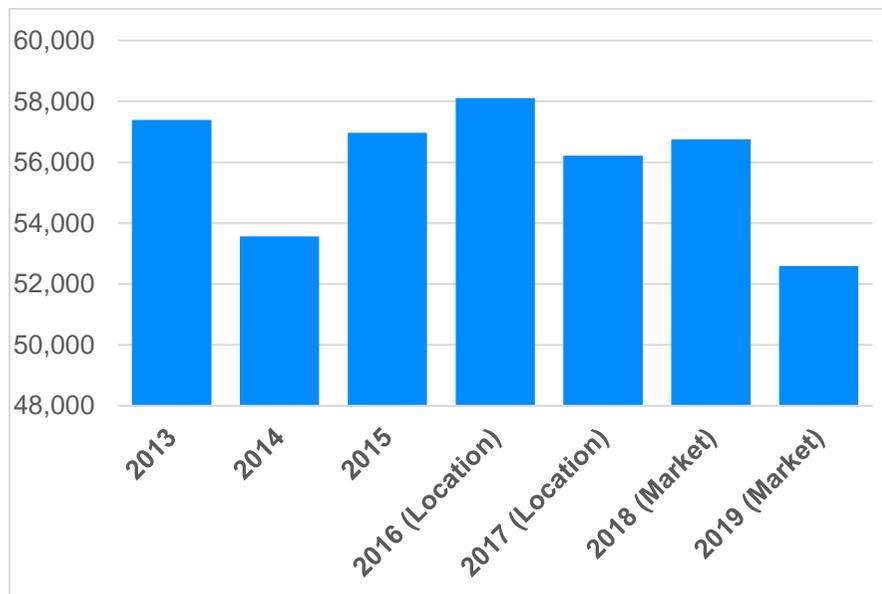


Chart 4-1 Beckers total emissions (tCO<sub>2</sub>e)

### Scope analysis

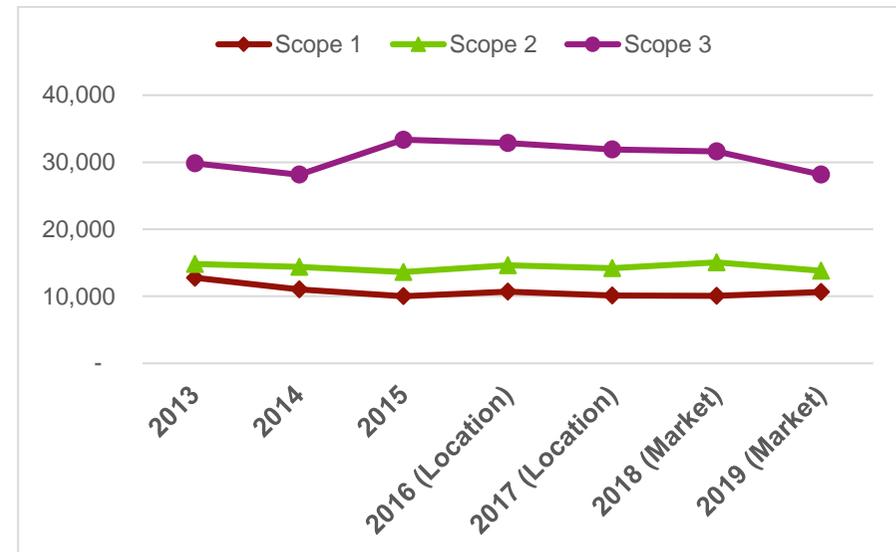


Chart 4-2 Scope-wise annual emissions (tCO<sub>2</sub>e)

Compared to 2018, the major scope-wise emission highlights are presented below:

- Our scope 1 emissions have increased by 6% compared to last year which stems from certain regions which have shifted to deliver by company-owned trucks instead of engaging third-party logistics providers.
- Despite a record increase of 6% in production, the scope 2 emissions have reduced, which is a result of the switch to certified renewable energy at our Italian site as well as reduction in electricity consumption and their emission

factors, from sites based in countries with higher emissions from grid electricity.

- Scope 3 emissions have also reduced by 11% as a direct result of reduced emissions from improved logistics emissions at our French site.

### Activity analysis

We monitor and report our emissions in terms of activities. These are business operations that we actively quantify to convert to tons of carbon dioxide equivalents using globally accepted emission factors. Analysing our emissions in terms of activities, enables us to develop a foundation for climate goals as we plan to set targets for major business operations.

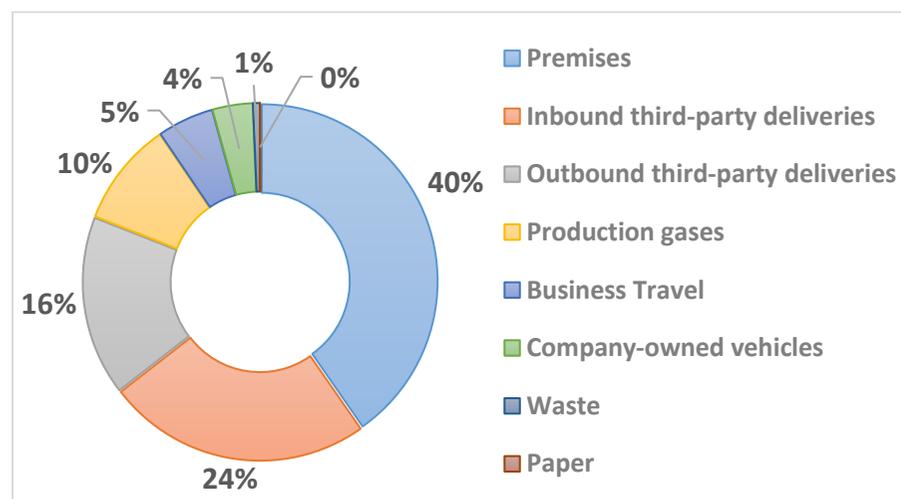


Chart 4-3 Activity-wise 2019 emissions (%)

As shown in Chart 4-3, the activities with the highest emissions are premises (40% of total emission), inbound third-party deliveries (24%) and outbound third-party deliveries (16%). Premises entails the activities carried out on the site and majorly comprises of various forms of energy consumption and water usage. It also depicts that 80% of Beckers' emissions are a result of activities in premises and third-party delivery logistics. The major changes in activities, compared to our base year (2013) and 2018, are illustrated in the following table:

By activity	2013 tCO <sub>2</sub> e	2018 tCO <sub>2</sub> e (Market)	2019 tCO <sub>2</sub> e (Market)
Premises	20,036	22,817	21,187
Company-owned vehicles	1,382	1,143	1,949
Business travel	2,737	3,370	2,714
Inbound third-party deliveries	11,585	12,022	12,755
Outbound third-party deliveries	14,368	11,928	8,614
Paper	22	19	16
Waste	432	330	328
Production gases	6,833	5,130	5,031
<b>Total</b>	<b>57,393</b>	<b>56,759</b>	<b>52,593</b>

Table 4-1 Activity-wise historical emissions

Compared to 2018, activities undergoing major changes come from:

- Company-owned vehicles – 70% increase which represents an 805 tCO<sub>2e</sub> rise in emissions. This is a predominantly due to use of own trucks for delivery of some finished goods instead of solely relying on third-party logistics providers. This additionally also indicates an increase in scope 1 emissions as mentioned earlier.
- Outbound third-party deliveries – 28% reduction which represents a 3314 tCO<sub>2e</sub> fall in emissions. A significant contributor to this is the reduction in air freight for deliveries and improved coordination with the logistics provider.
- Business travel – 19% reduction which represents a 656 tCO<sub>2e</sub> fall in emissions. Restrictions on certain business trips and change in personnel have contributed to this change.

Emissions from premises have also largely contributed to the overall reduction in emissions compared to 2018. With a reduction representing 3% of the total emissions (1630 tCO<sub>2e</sub>), the change is majorly due to the switch to renewable electricity at our Italian site. Although the site has switched to green electricity in the preceding years, we have faced delays in procuring the Renewable Energy Certificate that guarantees the origin of the energy generation, without which, we have not claimed the reduction in carbon emissions earlier.

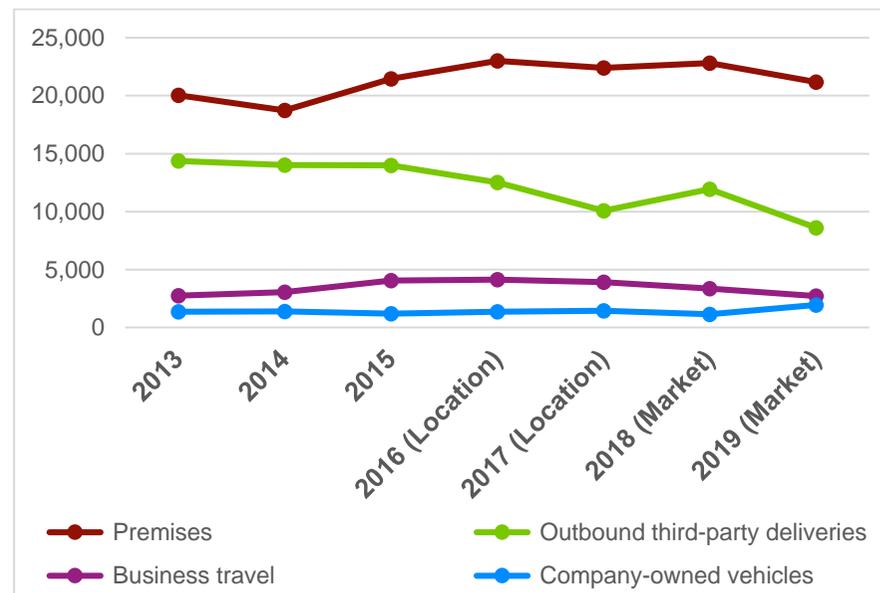


Chart 4-4 Activity-wise significant emission changes (tCO<sub>2e</sub>)



## 5. Emission intensity

The absolute result for emissions neither considers the fact that operations might change, nor the extent of market changes in business. In order to adjust for this and identify the fluctuations in emissions over the year, a relative measurement needs to be adopted with regards to the growth of the company. These KPIs provide a fundamental insight into our activities and highlight areas of major interest for carbon mitigation initiatives. We understand that such relative indicators do not mandate targets for our long-term ambitions on climate emissions, since absolute targets are required to align with IPCC recommendations to have net-zero emissions by 2050. The relative indicators outlined in this section serve as an initial baseline to develop future action plans to manage climate emissions.

We have maintained our KPIs for 2019, which include: products (volume produced in metric tons), full time employees (FTE) and total sales (Million SEK).

<b>FTE (Number)</b>	1,843
<b>Product (tons)</b>	170,000
<b>Sales (MSEK)</b>	6,488

Table 5-1 Beckers' indicators

The emissions KPI over the years is depicted in the table below.

<b>Year</b>	<b>FTE KPI (tCO<sub>2</sub>e/number)</b>	<b>Sales KPI (tCO<sub>2</sub>e/MSEK)</b>	<b>Product KPI (tCO<sub>2</sub>e/ton)</b>
2013	32.6	12.5	0.40
2014	29.9	10.9	0.36
2015	32.9	10.8	0.38
2016 Location	33.5	10.7	0.36
2017 Location	32.6	10.0	0.35
2018 Market	31.7	9.5	0.35
2019 Market	28.5	8.1	0.31

Table 5-2 Annual Beckers' KPIs

The trends in the KPI changes over time provide a robust approach to analyse an organisation's climate impact based on milestone changes in operations and/or business. These trends are illustrated in Chart 5-1.

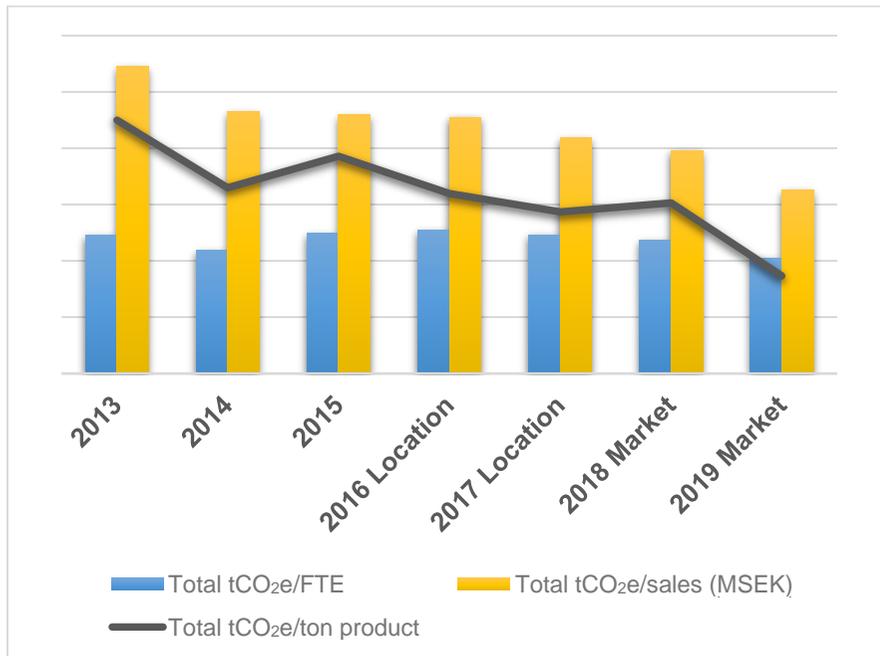


Chart 5-1 Beckers' KPI

emissions per ton product in 2015, which is linked to the additional upstream emissions added to scope 3 activities as per the GHG protocol in that year, without a significant increase in production or changes in the organisation activities.

In 2019, all three KPIs depict a clear reduction indicating improved efficiency. With a decrease of 7% in climate emissions, our production increased by 6% in 2019, highlighting a successful decoupling of climate emissions and business operations. This was made possible by switching to low carbon emitting technologies, improved transport and logistics management. Further, although the total number of employees increased by 55 workers, representing a 3% increase, the emission per employee reduced due to optimising economies of scale in production. The graph also depicts an increase in



## 6. Conclusion

We have been able to reduce our emissions despite having significant increase in production. We aim to continue to decouple our climate emissions from business growth.

The market-based emissions represent emissions from purchased energy that we have purposefully chosen. This represents a higher responsibility for our emissions and will thus form the principle basis for our emissions analysis in all future reports.

We aim to increase our focus on sourcing renewable energy for the group in the coming years as a key area to mitigate carbon emissions. Our data collection and reporting will also emphasize on acquiring the documents necessary to validate the origin of the energy sourced. In 2019, we see a significant reduction in emissions from scope 2 sources which represents the certified renewable energy sourced by us. This change, however, had actually occurred prior to 2019, but was not reflected in the previous year's results. In 2020, we plan to further increase our fraction of renewable electricity consumption.

Emissions from outbound third-party deliveries showed significant reduction with a 28% reduction compared to the previous year. A significant contributor to this is the reduction in

air freight for deliveries and improved coordination with the logistics provider.

Our key emission intensity indicator, the total emissions per unit volume produced, reduced by 12% compared to the previous year while also depicting a reduction of 23% compared to our base year, 2013. This highlights improved transport and logistics management, switch to low carbon technologies and increase in efficiency of raw material use with optimization of economy of scale in operations.

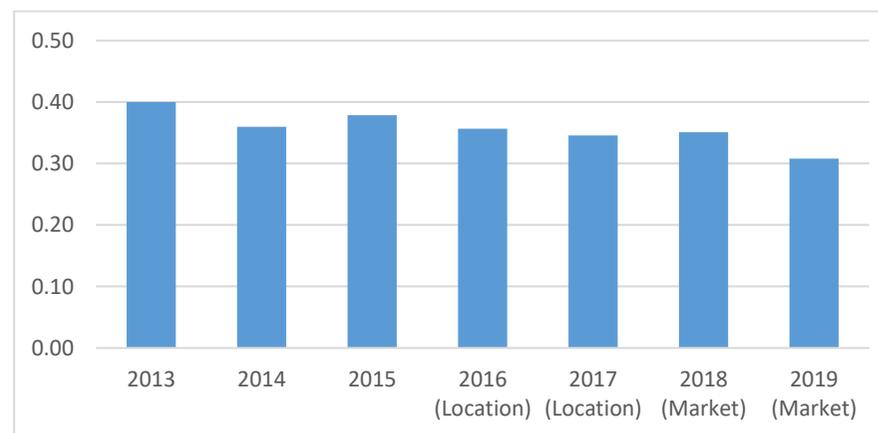


Chart 6-1 Emissions per ton product (tCO<sub>2</sub>e/ton product)

Sustainability in the long perspective means no negative climate impact at all from Beckers Group. We continue to monitor our emissions and manage our impact wherever possible.