



SUSTAINABILITY REPORT 2015

Embracing responsibility, creating growth



1913

we make it grow

About us



















Klasmann-Deilmann is the leading corporate group in the international substrate industry, with numerous sales and production companies in Europe, Asia and America. All over the world, our growing media provide a vital basis for plant growth, and for the success of our partners and customers who are active in the commercial horticulture sector. Furthermore, we are active in the field of renewable energy and resources. In so doing, we are placing our confidence in the expertise we have acquired over many decades in managing land on a large scale and in utilising biomass.

Our product portfolio includes growing media for commercial horticulture and in the consumer sector, white and black peat as raw materials, and green compost and wood fibre manufactured in-house. We also sell biomass from short-rotation plantations as a heat energy source.

Our being certified to the ISO 9001 and ISO 14001 standards, the verification of our climate footprint to ISO 14064, our Regeling Handels Potgronden (RHP) certification and our reporting in compliance with Global Reporting Initiative (GRI-G4) guidelines are among the benchmarks we use to gauge how seriously we take our responsibility for humankind, the environment and future generations. Our environmental-protection measures include the re-wetting of several thousand hectares of former peat extraction areas.

We intend to remain the most sustainable company in the substrate industry and progress to become a significant supplier in the field of renewable energy and resources. In this, our employees are a foundational asset, playing a crucial role in moving our organisation forward as we help them to excel.

Our brands G4-4

 SUBSTRATES	 RAW MATERIALS	 ENERGY	 SPECIAL APPLICATIONS
 SUBSTRATES Easy Growing	 RAW MATERIALS GreenFibre®	 ENERGY Wood Chips	 SPECIAL APPLICATIONS Containermulch
 SUBSTRATES Select	 RAW MATERIALS TerrAktiv®	 ENERGY Wood Trading	 SPECIAL APPLICATIONS Animal Bedding
 SUBSTRATES Florabella®	 RAW MATERIALS TerrAktiv® FT	 ENERGY Wood Services	
	 RAW MATERIALS Peat		
	 RAW MATERIALS Fertilizers		
	 RAW MATERIALS Additives		

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1 Statement by the Managing Directors G4-1

In November 2015, the 'Alliance 90/The Greens' parliamentary group submitted a brief enquiry (PRINTED PAPER 18/6927) to the German Federal Ministry of Environment, Nature Conservation and Reactor Safety on the topic of 'Protecting peatlands – a contribution towards nature conservation and climate protection'. In the reply (PRINTED PAPER 18/7197), the Ministry stated that, for the foreseeable future, commercial horticulture will not be able to do without peat as alternative constituents are neither sufficiently developed nor available in the quantity and quality required. In this context, it emphasised the responsibility of players in the industry to offer peat-reduced products to an increased extent.

The Ministry also drew attention to emissions from peatlands, these gases originating chiefly from land used for agriculture, with peat extraction for horticultural purposes accounting for a smaller proportion. It was also noted that the underlying source data for the calculation of emissions from land use is not yet

fully reliable. The revitalisation of peatlands is given high priority. It was also pointed out by the Ministry that the management of short-rotation forestry (SRF) plantations on agricultural sites is, under certain circumstances, worthy of funding as a land use that serves environmental interests. And, importantly, paludiculture as a potential commercial use of peatland was discussed. In particular, Sphagnum (peat moss) farming on former areas of raised bog could lead to the development of an alternative substrate component.

We welcome the Ministry's position statement as a fair analysis of the relevant issues including the demanding situations facing the peat and substrate industry. We also regard this as an endorsement of our strategic focus on sustainability across all of our activities. In recent years, Klasmann-Deilmann has vigorously pursued the challenges specified by the Ministry and devised solutions:

Increasingly, we are using alternative constituents in our substrates, such as our wood fibre product Green-Fibre and our green-compost product TerrAktiv. We will increase the proportion of alternative raw materials to 15% of our total annual production by 2020.

We have further intensified activities with which we aim to achieve sustainable synergies at the interface between nature and climate protection on the one hand, and our business areas on the other. In this connection, Klasmann-Deilmann has initiated the world's largest Sphagnum-farming project, which is aimed at developing an innovative substrate component and will help answer various scientific questions. We have also continued the dialogue with our political and NGO stakeholders in order, as part of the transition to renewable energy, to promote sustainable land use forms such as the management of short-rotation plantations.

With our measures to restore former extraction sites, we have for many years now been actively involved in environmental and climate protection, as well as the enhancement of biodiversity. Furthermore, we commissioned the monitoring of emissions from our extraction areas in Germany and Lithuania, which has been in progress for more than a year now. Following this measurement campaign, the findings will make a scientifically based contribution to assessing the climatic impact of peat extraction. If the results of the measurements obtained to date are corroborated, this will confirm that the emissions due to peat extraction have thus far been overestimated.

The changes over time in the emissions disclosed in our climate footprint are also worthy of note: despite an increase in our extraction and production totals, we have achieved a slight reduction in emissions. In terms of emissions per product unit (1 m³ of substrate), a positive trend is emerging.

As in previous years, we have thus achieved key sustainability goals in 2015. We will, in the years ahead, very much continue down the successful path we have chosen.

We are, however, aware that the factors affecting our industry have changed. Klasmann-Deilmann has been supplying numerous horticultural businesses on five continents for more than 50 years now. Our growing media are high-performance products that satisfy our customers' all-round quality requirements. However, we are today – much more so than was the case only a few years ago – under an obligation to provide substrates that not only meet the needs of nurseries but equally can count on public acceptance. Klasmann-Deilmann has therefore set itself the future goal of selling substrates that meet aspirations for social and economic acceptability and ecological compatibility even more fully, these needs being well captured by the term 'sustainability'. The challenge is to maintain the high standards attained in a decades-long process of development while also fulfilling the demands of policy makers, professional associations and the public. In view of this, we have – as part of our strategic focus with 2025 in mind – accorded highest priority to far-reaching research projects and to our ambitious innovation management system.

This is the way in which we want, as a company, to make our contribution to the climate goals agreed at COP 21, the 21st UN convention on climate change held in Paris, which call for a restriction of global warming to 1.5°C above pre-industrial levels.

We look forward to your feedback on our activities and on our Sustainability Report 2015, and to the continuation of our shared dialogue.

Geeste, June 2016
Managing Directors



Moritz Böcking



Norbert Siebels



2

Our Sustainability Report 2015 complies with the G4 guidelines of the Global Reporting Initiative (GRI). This means we ensure comparability with the sustainability reports of other firms at international level and generate additional key spheres of activity for our company.

2 Report profile 2015

Defining the report period and the reporting levels

G4-17, G4-18, G4-19, G4-20, G4-21, G4-23, G4-28, G4-29, G4-30

In this, our fifth Sustainability Report, which covers the financial year from 1 January – 31 December 2015, we provide information about our key activities that reflect a corporate policy geared to sustainability. The previous reports were for 2011, 2012, 2013 and 2014, with the Sustainability Report 2014 published in November 2015. Further reports will follow on an annual basis.

Our Sustainability Report 2015 is based on a unified pool of data that takes in the entire Klasmann-Deilmann Group. The Aspect Boundaries for this Report (in accordance with GRI-G4-18, G4-19, G4-20 and G4-21) were set by our internal 'Sustainability Project Group':

- Emissions and energy consumption are recorded in a standardised manner and centrally evaluated by Klasmann-Deilmann GmbH, the lead company. The validity of these data is checked on a random-sample basis by SGS United Kingdom Ltd. as part of the verification of our climate footprint to the ISO 14064 standard.
- Those Aspect Boundaries that still exist relate to a) the fact that air travel has not yet been included and b) the fact that the incorporation of diesel consumption resulting from the use of cars is thus far limited to Germany. These will, however, be factored into future climate footprints.
- This report is the first to cover transport, an aspect that will be of increasing importance in the future.
- The impact on the environment and biodiversity – an impact associated with the use of renewable and finite resources – is subject to ongoing monitoring by our production companies. It will be examined in close consultation with the lead company in the interests of sustainable development.

- Dialogue with policymakers and environmental organisations on the use of peat as an essential yet controversial raw material in the production of growing media is fostered chiefly at management level by the lead company, Klasmann-Deilmann GmbH.
- Health and safety for the benefit of our customers will be jointly ensured by the lead company and all of the production and sales companies.

We aim to extend our reporting to further GRI aspects and indicators, provided these fulfil the requirement of materiality for Klasmann-Deilmann.

Those involved in preparing the Report

G4-18, G4-24

The contents of the Sustainability Report 2015 have been prepared by our internal Sustainability Project Group. This includes:

- the Managing Directors of Klasmann-Deilmann GmbH;
- representatives of the divisions 'Land Use & Sustainability Management', 'Technology & Procurement', 'Research & Development', 'Human Resources', 'Finance, IT & Legal' and 'Corporate Communications & Identity' at Klasmann-Deilmann GmbH, the lead company;
- representatives of the divisions 'Sales Administration und Logistics' and 'Advisory Services & Quality Management' at Klasmann-Deilmann Service GmbH; and
- representatives of Klasmann-Deilmann Europe GmbH, the largest sales company.

We were advised by triple innova GmbH, a Wuppertal-based firm. The carbon footprint was calculated with the assistance of MEO Carbon Solutions GmbH of Cologne, and verified by SGS United Kingdom Ltd., Cheshire, UK. The contributions from the various divisions have been integrated into this Sustainability Report.



Stakeholders included in the process

G4-24, G4-25, G4-26

The key stakeholders identified by the Sustainability Project Group are as follows:

- Customers and sales partners in commercial horticulture, currently the most important target group for our sales activities;
- Customers and business partners in the renewable-energy and renewable-resources sectors, an increasingly important target group for the relevant sales activities;
- Suppliers and other business partners of our Group;
- Employees of all companies within our Group;
- Shareholders;
- Lobby groups, especially at European and international level;
- Environmental organisations as our dialogue partners with regard to the use of peat and former extraction sites;
- Public authorities and governments as approval bodies for numerous projects, including those of crucial importance to the future of our company, and as our dialogue partners with regard to the use of peat and former extraction sites.

As a matter of principle, we seek and cultivate direct dialogue with our stakeholders.

- For example, the Managing Directors of the Klasmann-Deilmann Group are engaged in ongoing discussions with our shareholders. Meetings are held with the shareholder-appointed Administrative Board several times a year.
- Our employees are included in a multifaceted process of dialogue by means of performance appraisals, departmental and staff meetings, our employee magazine, strategy newsletters, noticeboards, circular e-mails, the Intranet presence introduced in 2015, company meetings and other suitable measures.

- Relevant personnel at all hierarchical levels maintain close contact with our sales partners, customers, suppliers and other business partners, as well as with authorities and environmental organisations. This takes place via the usual channels, at appropriate intervals – preferably in face-to-face meetings.
- In cases of particular importance (as, for instance, in dialogue with representatives at government level), the Managing Directors of the Klasmann-Deilmann Group become involved as well.
- In the case of certain projects, direct two-way communication takes place at the level of professional associations. During the reporting period this applied, for example, to the ongoing dialogue between the European Peat and Growing Media Association (EPAGMA) and the responsible EU Commission in Brussels.
- In addition, in 2015 we identified from among the above mentioned stakeholders the product champions, opinion leaders and sparring partners that are most important to us worldwide. Starting in 2016, we want to get these individuals more involved in targeted dialogue on issues relevant to us and our stakeholders.

This Sustainability Report covers the sustainability issues that are relevant to us. It also addresses our stakeholders' interests that are known to us, and comments on these. In particular, this Report includes:

- remarks on emissions monitoring at our extraction sites. We will use this to carry out further considerable improvements to the underlying source data for our carbon footprint and, additionally, make a scientifically relevant contribution to the debate on the climate impact of peat extraction;
- the Managing Directors' comments on the reply to the brief enquiry to the German Federal Ministry of Environment, Nature Conservation and Reactor Safety (BMUB) on the topic of 'Protecting peatlands – a contribution towards nature conservation and climate protection'.

Outcome of the materiality process

G4-18, G4-19, G4-27

The sustainability issues most important to us were, in the light of the interests of our company and our stakeholders, identified by what is known as the 'materiality assessment'. All of the outcomes are incorporated into this Report. In particular, these include the following:

- The debate on the appropriateness/advisability of using peat in commercial horticulture, initiated in particular by nature conservation organisations;
- Securing the sourcing of raw materials necessary for substrate production, such as peat, wood and green compost, this being vital both to our internal stakeholders and to our customers in commercial horticulture;
- The relevance of peat extraction sites with regard to climate and nature conservation, which is being discussed by bodies including nature conservation organisations, authorities and the Lower Saxony state government;
- The expansion of activities in the field of renewable energy and resources, which is chiefly attributable to an initiative by our shareholders.

The main content of the Report was developed at two externally facilitated workshops held with the Managing Directors and with others involved from the above-mentioned divisions in 2011. We have, since then, been developing the identified areas further – strategically and in both business and content terms – and will publish key outcomes in the following Sustainability Reports. Reader feedback and new ideas from work with professional associations will also be incorporated into the reporting. In 2015, this ongoing process led to (amongst other things):

- emissions measurements being taken on our extraction areas;
- all data on land holdings being re-collected and re-evaluated;
- assistance with the development of the 'Responsibly Produced Peat' (RPP) certification system;
- the introduction of the DEFRA/P4 evaluation scheme at Klasmann-Deilmann Ireland;
- the purchasing of green electricity for our companies in Germany;
- the certification of our Lithuanian companies under the OHSAS 18001 health and safety management system.

Approval of the Report

G4-32, G4-33

Our Sustainability Report 2015 was prepared in accordance with the Core option of the G4 Guidelines of the Global Reporting Initiative (GRI). Our reporting thus includes all sustainability aspects identified as material to our business activities. The GRI Content Index Service confirmed that the GRI Content Index is accurate, and that all included disclosures are labelled correctly in the report itself.

The corporate carbon footprint for 2015 and the relevant calculation tools were audited by SGS to the ISO 14064-1 standard. It was found, as previously, that the calculation of product carbon footprints on this basis also led to verifiable outcomes. The audit report is included on pages 60 to 63 of this Report. This audit covers the following standard disclosures: G4-EN15 (Scope 1), G4-EN16 (Scope 2), G4-EN17 (Scope 3) and G4-EN19 (carbon footprint per m³ of substrate).

Contact for enquiries on the Sustainability Report G4-31

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A close-up photograph of industrial machinery. A large yellow electric motor is mounted on a metal frame. A thick black cable runs from the motor towards the left. In the foreground, a red pulley is visible, with a red cable passing over it. The background is slightly blurred, showing more of the industrial environment.

3

For more than 50 years now, Klasmann-Deilmann has been supplying numerous horticultural businesses with tried-and-tested substrates for trouble-free cultivation. Our growing media are high-performance products that satisfy our customers' all-round quality requirements. We will, into the future, sell substrates that meet aspirations for social and economic acceptability and ecological compatibility even more fully, these needs being well captured by the term 'sustainability'.

3 Corporate profile

3.1 Corporate structure G4-3, G4-5, G4-7, G4-13, G4-34

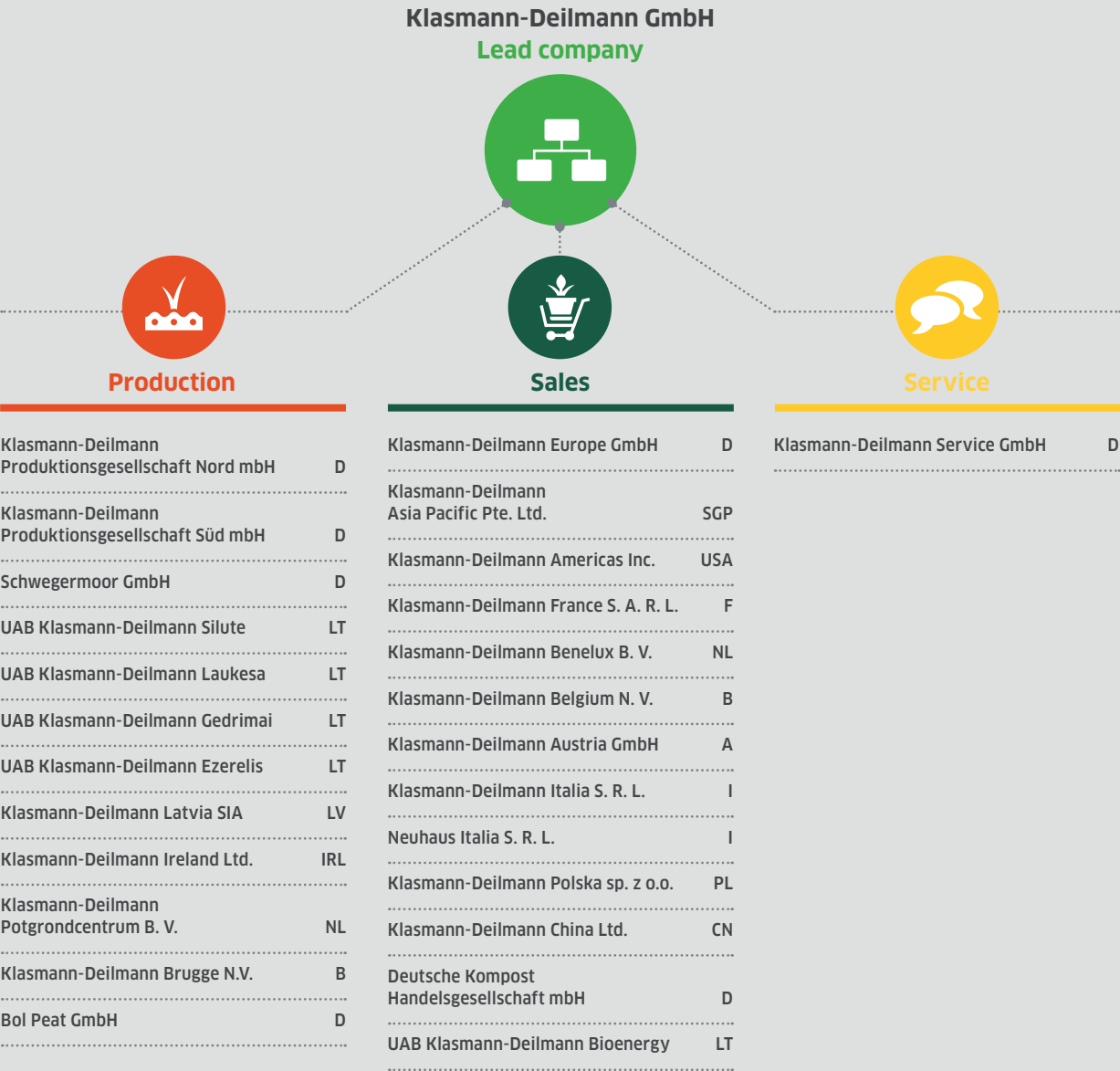
The core business areas of the Klasmann-Deilmann Group are the extraction of raw peat materials, the manufacture of wood fibre and green compost, and the development, production and sale of growing media. This includes international logistical and consulting services for our subsidiaries, sales partners and customers, as well as trading in substrate constituents.

Furthermore, we are – especially in the Baltic countries – active in the field of renewable energy and resources. In so doing, we are placing our confidence in the expertise we have acquired over many decades in managing land on a large scale and in utilising biomass. We are already achieving notable successes, particularly with the creation and management of short-rotation forestry (SRF) plantations on agricultural sites in the Baltic region.

2014 and 2015 saw a reorganisation of the Klasmann-Deilmann Group. Klasmann-Deilmann GmbH, based in Geeste, Germany, was assigned all strategic and controlling functions for the Group as a whole. The subsidiaries have, since then, been strictly divided into production and sales companies.

- In this connection, Klasmann-Deilmann Deutschland GmbH was incorporated into Klasmann-Deilmann Europe GmbH, which is in charge of growing-media sales in those European countries that do not have their own sales company.
- Furthermore, Klasmann-Deilmann GmbH's previous production sites Süd (south) and Nord (north) were spun off to form two independent production companies, Klasmann-Deilmann Produktionsgesellschaft Süd GmbH & Co. KG and Klasmann-Deilmann Produktionsgesellschaft Nord GmbH & Co. KG.
- The production facility belonging to Klasmann-Deilmann Benelux B.V. was transferred into Klasmann-Deilmann Potgrondcentrum B.V.
- Klasmann-Deilmann Belgium N.V.'s production plant was transferred to Klasmann-Deilmann Brugge B.V.
- This means that Klasmann-Deilmann Benelux and Klasmann-Deilmann Belgium are purely sales companies.
- With effect from 1 January 2016, Klasmann-Deilmann Service GmbH assumed responsibility for the Group companies' wide-ranging service activities. These include payroll services, accounting, purchasing and marketing services.

From 1 January 2016, the Klasmann-Deilmann Group's organisational structure is as follows:



57.5 %

Deilmann-Montan GmbH

Klasmann-Deilmann GmbH

42.5 %

Klasmann Anlage- und Verwaltungs GmbH

Klasmann-Deilmann GmbH's shareholders are Deilmann-Montan GmbH (based in Bad Bentheim), with a stakeholding of 57.5%, and Klasmann Anlage- und Verwaltungs GmbH & Co. KG (based in Meppen), which has a 42.5% interest. The shareholders appoint members to the Administrative Board of Klasmann-Deilmann GmbH, of which Carl-Gerrit Deilmann has been the chair since 2007.

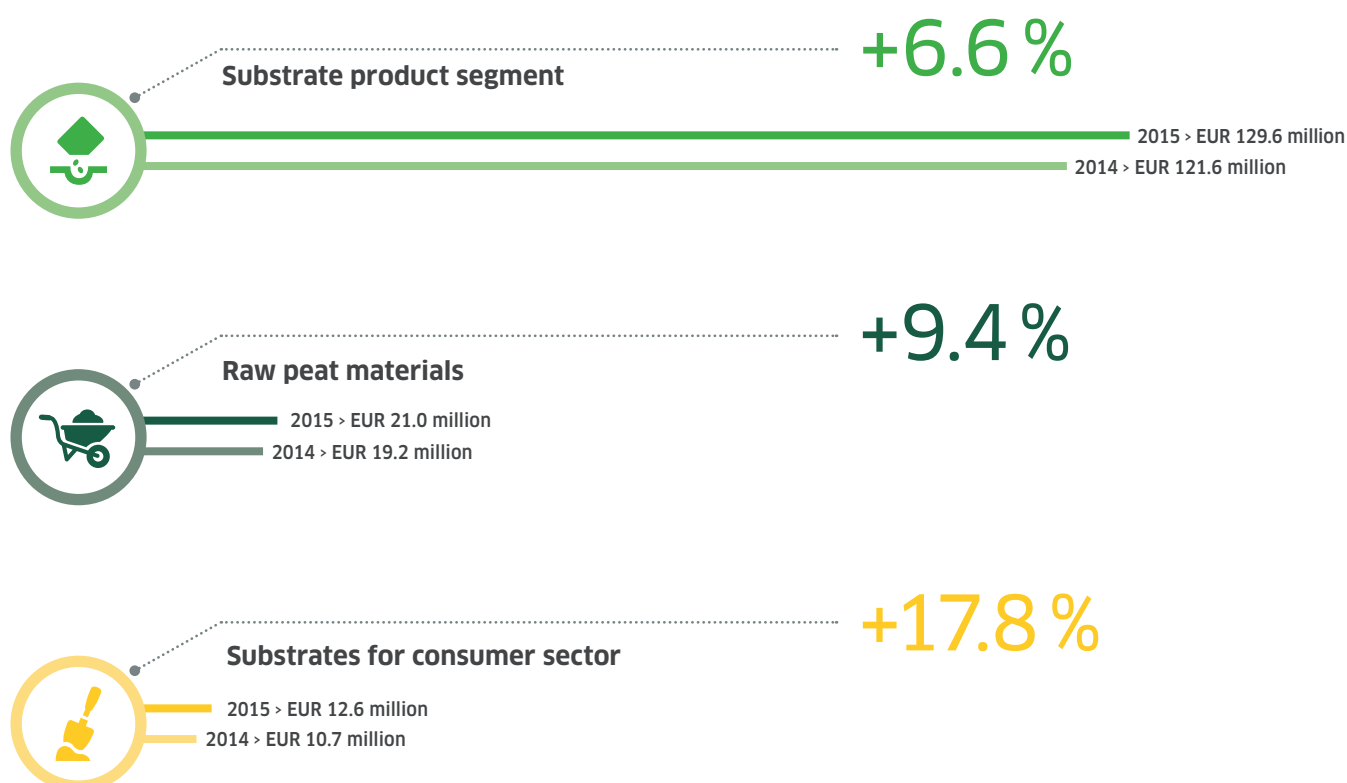
The Managing Directors of Klasmann-Deilmann GmbH are Dr Norbert Siebels (since 1990) and Moritz Böcking (since 2011), who consult with the Administrative Board on key business developments, primarily with regard to their strategic, economic, ecological or social impact. An important in-house decision-making body is the Management Board, which convenes every two months and which consists of the Managing Directors of Klasmann-Deilmann GmbH, divisional heads and managing directors of the Klasmann-Deilmann Group's subsidiaries.

3.2 Financial results G4-9

In the 2015 financial year, the Klasmann-Deilmann Group posted consolidated sales revenue of EUR 176.9 million (previous year: EUR 165.0 million). We thus achieved a new record-high sales performance once more. In 2015, as previously, the firm's main source of revenue was its substrate product segment, with sales of EUR 129.6 million (previous year: EUR 121.0 million). This accounts for 73.3% of consolidated sales (previous year: EUR 73.7%). Sales of raw peat materials were EUR 21.0 million (previous year: EUR 19.2 million), and those substrates for the consumer sector increased to EUR 12.6 million (previous year: EUR 10.7 million).

The Klasmann-Deilmann Group's end-of-year balance sheet total for 2015 was EUR 176 million, which was up EUR 16 million year-on-year. Equity capital increased to EUR 75.0 million, up EUR 7.8 million on the 2014 financial year.

Business figures for Klasmann-Deilmann GmbH will be regularly published on the website of the German Federal Gazette.





3.3 Raw materials G4-PR6, G4-DMA Customer Health and Safety, G4-DMA Marketing, G4-DMA Materials

To make our growing media we use not only peat but also wood fibre, green compost and other raw materials. By 2020, we will increase the proportion of alternative constituents such that they account for 15% of Klasmann-Deilmann's annual production. Nevertheless, for a period not precisely definable, peat will remain an important (and not fully replaceable) ingredient in substrates.

Principle of reliability for resources, production and use G4-14

A substrate's quality is measured by how well it works in nurseries. Modern commercial horticulture demands well-developed, tried-and-tested and highly reliable substrates for trouble-free cultivation. It remains the case that only peat-based growing media can meet these requirements. Peat is a substrate constituent which has the full range of physical, chemical and biological properties needed by plant producers, and which is available long term in the necessary quantities.

At the same time, however, the proportion of alternative organic ingredients for growing media is increasing. In many substrate blends, wood fibre, green compost and coco pith are horticulturally valuable and their use is well-established. Being renewable resources, they also help to conserve peatlands and to further improve the carbon footprint for these growing media. In the light of this, we are securing our long-term peat supplies while also applying our high-quality standards as substrate producers to manufacture wood fibre and green compost using our own facilities. This will ensure that these substrate constituents are always available in the required quantity.

Systematic product development and innovation management

An integral part of the Research & Development division's work is systematic, cross-functional innovation management. We develop and produce growing media on the basis of our extensive knowledge concerning the product-related, economic, ecological and social aspects of all of our ingredients and we continuously redraw the boundaries of what is possible and horticulturally beneficial. To this end, we work closely together, and conduct joint research, with universities, technical colleges, training and research institutes as well as with suppliers.

In connection with our corporate reorganisation we have attached even greater strategic importance to the Research & Development division. We aim to develop growing media which, meeting the proven horticultural standards, take into account sustainable criteria in every respect and achieve wide acceptance by policymakers, NGOs and the public at large.

At the same time, we are continuing application-targeted engagement with professional growers. We take on board our customers' ideas and needs and turn them into innovative product solutions that are geared towards long-term gain and bring plant producers tangible advantages.

Quality assurance of our substrate constituents G4-4

The most important components of our growing media are white and black peat, wood fibre, green compost and coco pith. To ensure that raw materials are of the highest quality, we commission testing of the raw materials – and, if appropriate, the suppliers – to the requirements of Dutch organisation 'Regeling Handels Potgronden' (RHP). We continuously test proven and new constituents as to their suitability for use in substrates, and subject them to growing trials in order to guarantee and further optimise the physical, chemical and biological properties of our products. As well as raw materials certified to RHP, PEFC (Programme for the Endorsement of Forest Certification Schemes) or RAL (German Institute for Quality Assurance and Certification) standards, we are also focusing on in-house solutions for fertiliser formulations, wetting agents and additives.





Peat G4-4

Raised-bog peat has been the most important component in growing-media manufacturing for more than 50 years now. Commercial horticulture is tailored to its multiple advantages that lead to optimum growth and high yields in plant production, including that on an industrial scale. Peat-based substrates deliver unique reliability in cultivating a wide range of plant crops. They can be continuously produced and supplied to a consistently high quality. After processing, the different types of peat have physical, chemical and biological properties that make them ideal for horticulture and which, overall, are unmatched by any other raw material. In view of this, peat will remain the most important constituent in substrate manufacture until an all-round replacement is found.

Securing the sourcing of raw materials is, therefore, a high priority. We have extensive sites in Germany devoted to the extraction of frozen black peat. In Lithuania, too, high-quality grades of more decomposed peat have been available for some years, and we are increasingly using these for substrate manufacturing. We use our extensive resources in Lithuania, Latvia and Ireland for sod-cut or milled white-peat extraction – resources that will ensure supplies to our production facilities for many decades to come. The techniques involved in raw-materials processing are subject to an ongoing process of improvement.

We extracted a total of 3.168 million m³ of raw peat materials in the 2015 financial year (previous year: 3.297 million m³). The main causes of this decline compared with the previous season were twofold: the absence of the necessary cold spells (these are required so that the black peat freezes right through), and the cap on extraction in Germany – as planned – to conserve resources.

Green compost G4-4

Since the early 1990s, we have run our own composting facilities in Groß Hesepe and Bohmte – with another plant operating in Dörpen since 2006 – at which green waste is processed into 'TerrAktiv', a compost for growing media. Our units are the only ones in Germany subject to RHP quality assurance. TerrAktiv green compost is RHP-certified, carries the RAL quality-assurance mark and, for use in organic substrates, complies with EU Regulation (EC) No. 834/2007 and Annex I to Implementing Regulation (EC) No. 889/2008.

As green waste is being utilised more and more as an energy source, there is now competition for these materials. Particular grades of green-waste material are no longer available to us. However, we will do all we can to further expand our composting activities, especially since our compost is very popular as a substrate component with organic horticulturalists. In the light of this, the 2015 financial year saw us prepare for sizeable investment in 2016 that will help us consolidate our leading position in the field of composting with regard to both quality and quantity.

The production of green compost suitable for substrates rose to 96,000 m³ in 2015 (previous year: 89,000 m³).

Wood fibre G4-4

We have been using wood fibre as a bulking ingredient in our substrates since the 1990s. Following a developmental phase lasting several years, in 2010 we put into operation (in Germany) the first facility for manufacturing our own wood fibre product branded 'GreenFibre'. Today, we also have our own wood fibre plants at our production sites in Ireland and the Netherlands.

Klasmann GreenFibre is certified to RHP and PEFC/FSC standards and, with regard to its use in organic substrates, complies with EU Regulation (EC) No. 834/2007 and Annex I to Implementing Regulation (EC) No. 889/2008.

In the year under review, the total volume of wood fibre and other wood products (e.g. 'TerrAktiv FT' and 'TerrAktiv container mulch') that we made increased from 99,000 m³ (2014) to 138,000 m³.

+7.9 %



96,000 m³

Green compost
suitable for substrates

+39.4 %



138,000 m³

Wood fibre and
other wood products

Our extraction sites G4-6, G4-9, G4-17

The following subsidiaries (all of which are production companies) extract and produce our raw materials:

Companies	Country	White-peat extraction	Black-peat extraction	Green-waste composting	Wood fibre production
Klasmann-Deilmann Produktionsgesellschaft Nord mbH	D		✓		
Klasmann-Deilmann Produktionsgesellschaft Süd mbH	D		✓	✓	✓
Schwegermoor GmbH	D	✓		✓	
UAB Klasmann-Deilmann Silute	LT	✓	✓		
UAB Klasmann-Deilmann Laukesa	LT	✓			
UAB Klasmann-Deilmann Gedrimai	LT	✓			
UAB Klasmann-Deilmann Ezerelis	LT	✓	✓		
UAB Klasmann-Deilmann Latvia	LV	✓			
Klasmann-Deilmann Ireland Ltd.	IRL	✓			✓
Klasmann-Deilmann Potgrondcentrum B.V.	NL				✓

3.4 Production G4-EN1

In the year under review, our production of growing media for commercial horticulture and the consumer segment increased to 3.401 million m³ (previous year: 3.324 million m³). In connection with the manufacture of substrates, we used the following quantities of substrate components and additives, fertiliser, packaging film and pallets:

	2015	2014	2013
Raw peat materials	3.144 million m ³	2.915 million m ³	3.075 million m ³
GreenFibre wood fibre product	140,694 m ³	107,326 m ³	81,349 m ³
TerrAktiv green compost	42,631 m ³	43,698 m ³	31,842 m ³
Lime	18,716 t	18,448 t	17,392 t
Clay	10,303 t	10,114 t	7,609 t
Sand	2,497 m ³	2,389 m ³	2,152 m ³
Mineral fertiliser *	4,190 t	3,325 t	2,525 t
Organic fertiliser	698 t	632 t	537 t
Packaging film	2,019 t	1,240 t	1,493 t
Pallets	435,675 units	556,050 units	549,780 units

* Figure for 2013 excluding substrate production in Belgium, from 2014 onwards including Belgium

Where the trends do not follow a clear pattern, this is caused in part by differences in the degree of compaction of the raw materials prior to processing, the varying proportions of sod-cut peat that has yet to be fractionated, the different amounts of loose goods as a proportion of total goods produced, and the order-related potential for capacity utilisation of pallets.



Organic substrates G4-4

Our organic substrates conform to the regulations and requirements of the growers' associations in Germany, Austria and Switzerland. The entire production process involved in creating compost and organic substrates is monitored by the EU ecological certification organisation 'Grünstempel'. Depending on what our substrates are specifically utilised for, in certain cases we achieve peat replacement of up to 50% in organic horticulture by adding TerrAktiv, Klasmann GreenFibre and clay. In this segment, use is made of organic fertiliser such as hoof and horn shavings from BSE-free countries.



Substrates for the consumer segment G4-4

Among the products we sell in the consumer segment are our 'Florabella' potting soils and garden composts. The composition of these products is based on our substrate recipes for commercial horticulture. For reasons of both quality and availability, peat will – as with other uses – remain essential as the main component in this sector (as well as for professional growers), although here too the utilisation of alternative constituents for substrates is continuously increasing. For example, we sell a 'Florabella organic potting soil' with a high proportion of green compost and wood fibre from domestic renewable resources. Also available is our 'Florabella potting soil from renewable resources', which is manufactured solely from the above-mentioned raw materials, making it a completely peat-free product.



Product stewardship G4-PR1, G4-PR6, G4-DMA Marketing, G4-DMA Customer health and safety

All of our products are made to the highest industry-specific standards. One hundred per cent of our products and services undergo inspections (customary in the sector) with regard to their impact on health and safety, in order to determine additional potential for improvement. As well as using our own raw materials, we buy in components and additives for substrates, choosing only products that comply with RHP standards. Looked at both qualitatively and quantitatively, peat is an essential raw material in our products; it is, however, also a subject of controversial debate. Coco fibre, another ingredient whose usage is questioned because its impact on the environment is not fully understood, has played only a marginal role in our production to date. As we wish, however, to be able to make greater use of it in the future, we are looking into the possibilities of manufacturing it ourselves in line with sustainable criteria.

The labelling of our products – and the raw materials we use – on packaging, and their designation on delivery notes, consistently complies with the requirements of the recipient countries.

Because of their components' properties, substrates tend to be of high weight. Therefore, we also offer smaller, and hence lighter, packaging sizes, particularly in the consumer segment. We have also developed two different-sized containers, our 200-litre and 100-litre bales, for commercial horticulture which are much more lightweight than other standard packaging units. Many of these bales are exported to countries in which they are manually transported and handled.

We determine the content quantities of our substrate packaging units, and the quantities of loose substrate supplied, on the basis of the relevant statutory requirements with calibrated instruments and using the procedure described in EN 12580. At regular intervals, the relevant office of the Weights and Measures authority in Lower Saxony (MEN) conducts neutral checks of content quantities at the German production sites. Furthermore, Klasmann-Deilmann has committed to voluntary self-regulation resulting from a joint initiative between the horticultural-industry association Industrieverband Gartenbau (IVG e. V.) and German substrate producers.

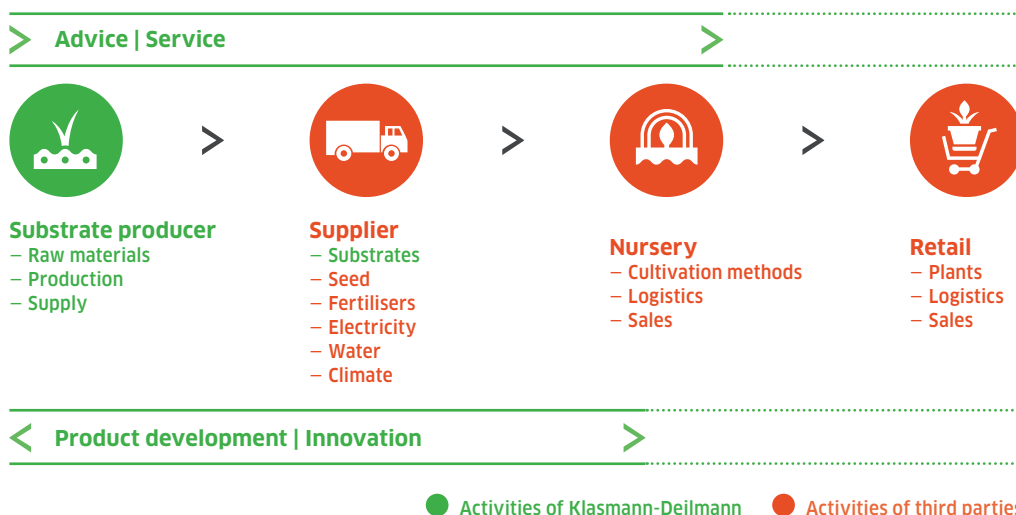
Our production sites G4-6, G4-9, G4-17

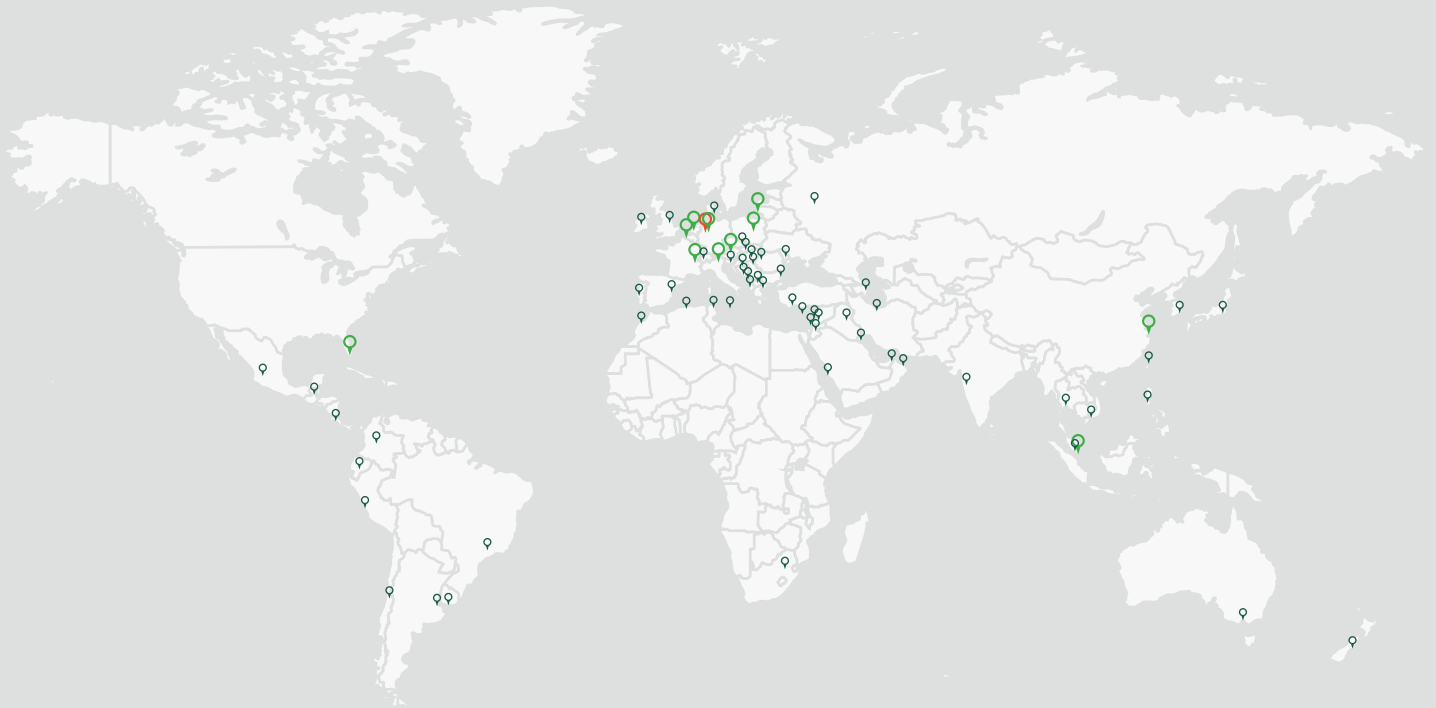
The following subsidiaries (all of which are production companies) process our raw materials:


Companies	Country	Production of growing media for commercial horticulture	Production of potting soils for the consumer segment
Klasmann-Deilmann Produktionsgesellschaft Nord mbH	D	✓	
Klasmann-Deilmann Produktionsgesellschaft Süd mbH	D	✓	✓
Schwegermoor GmbH	D	✓	✓
UAB Klasmann-Deilmann Silute	LT	✓	
Klasmann-Deilmann Ireland Ltd.	IRL	✓	
Klasmann-Deilmann Benelux B.V.	NL	✓	
Klasmann-Deilmann Brugge N.V.	B	✓	

3.5 Sales G4-6, G4-8, G4-9, G4-12, G4-17


The most important market segment for Klasmann-Deilmann is commercial horticulture, which we supply with ready-to-use growing media. Our end customers are nurseries throughout the world. Additionally, a relatively small proportion of our substrates are intended for the consumer segment. As a supplier, we form an integral part of the materials value chain in commercial horticulture. This incorporates both our knowledge management and our innovation management.





 **Lead company**

 **Sales companies**

 **Independent sales companies**

Our sales of growing media extended to more than 70 countries worldwide in the year under review. In most of these markets, we supply independent sales partners with which we have long-term agreements and which are exclusively responsible for local distribution. Within the central sales markets, our own subsidiaries are in charge of distribution and providing support to sales partners.

Country-specific sales companies:

- Klasmann-Deilmann Benelux B. V.
- Klasmann-Deilmann France S.A.R.L.
- Klasmann-Deilmann Belgium N. V.
- Klasmann-Deilmann Austria GmbH
- Klasmann-Deilmann Italia S.R.L. and Neuhaus Italia S.R.L.
- Klasmann-Deilmann Polska sp. z o.o.
- Klasmann-Deilmann China Ltd.
- Deutsche Kompost Handelsgesellschaft mbH

Transnational sales companies:

- Western and Eastern Europe: Klasmann-Deilmann Europe GmbH
- North and South Africa: Klasmann-Deilmann France S.A.R.L.
- Asia, Oceania, Middle East: Klasmann-Deilmann Asia Pacific Pte. Ltd.
- North, Central and South America: Klasmann-Deilmann Americas Inc.

3.6 Renewable energy

Sustainability-related benefits of energy sources from short-rotation forestry (SRF) plantations derive chiefly from the avoidance of fossil fuels. Especially in the Baltic region, Klasmann-Deilmann has extensive land designated for planting and managing SRF. We intend to become a significant supplier of alternative fuels in the years ahead.

Renewable and fossil fuels

Of the alternative energy sources that are intended to contribute to a balanced and reliable overall mix of different energies in future years, renewable resources such as wood have become firmly established. Unlike the fossil fuels – petroleum, natural gas and coal – which are finite resources, renewable resources are repeatedly available as they continuously regenerate themselves in specific cycles. Their good climate performance in energy production results:

- from the extent to which they replace fossil fuels;
- from the essentially climate-neutral cycle involving release of CO₂ when used as a source of energy, and the recapture of carbon through photosynthesis during growth; and
- from the fact that state-of-the-art and energy-efficient technology is used, as for example in cogeneration plants.

Short-rotation forestry plantations G4-4, G4-17

Of increasing importance in this connection are short-rotation forestry (SRF) plantations, in which fast-growing tree species, generally willows or poplars, are cultivated. This involves planting cuttings, whose wood growth is harvested after three to four years and is used to produce both materials and energy. Over a period of at least 20 years, growth and harvest cycles repeat at intervals of three to four years. Compared with other energy crops such as maize, the relationship between inputs and yield is far superior: in terms of energy expenditure from planting up until the time when the biomass becomes available for heat or power generation, climate performance is much better than that of other energy crops. On the strength of its ecological, economic and social constants, SRF satisfies the criteria for sustainability.

+11.4 %



2,967 ha
Total area SRF

We value and make use of these plantations as a modern and responsible form of land management and means of producing energy sources. Since 2010, we have been carrying out extensive SRF projects, especially in the Baltic region. In the 2015 financial year, too, we purchased additional agricultural land there, so that the year-end total area available for establishing SRF was 2,967 hectares (previous year: 2,664 hectares). Since, when acquiring land, it was always ensured that new areas are contiguous with existing sites, land consolidation necessitated a longer timeframe than originally planned. The delay has brought benefits, however: now that the circumstances are more favourable in terms of land management, greater added value can be expected.

During the year under review, a further 488 hectares of SRF sites were planted with cuttings, making a total of just over 1,800 hectares of actively cultivated land. We also invested in the required machinery.

Towards the end of the year under review, Klasmann-Deilmann achieved the first appreciable SRF harvest, with the harvesting period lasting into the new year. A large proportion of the fresh woodchips were supplied directly to customers, with the remainder put into storage for drying.

Companies that own land used for SRF



Extraction, production and sales G4-4, G4-17

The following subsidiaries (all of which are production companies) extract and process fuel peat and woodchips:

Companies	Country	Fuel peat extraction	Biomass from SRF plantations
Klasmann-Deilmann Produktionsgesellschaft Süd mbH	D		✓
UAB Klasmann-Deilmann Silute	LT		✓
UAB Klasmann-Deilmann Ezerelis	LT	✓	

In the Baltic region, Lithuanian company UAB Klasmann-Deilmann Bioenergy sells energy from alternative sources. Key raw materials are woodchips from short-rotation forestry (SRF) plantations, and fuel peat. The use of both these energy sources is of great importance to the Baltic states, enabling them to maximise the proportion of domestic resources used in generating heat and power, and in this way to make them independent of gas, oil and coal supplies from abroad.



4

Thanks to our peatland restoration measures involving the re-wetting of former extraction areas, numerous biotopes are developing that are permanently available for conservation and climate protection purposes. We are also publishing a climate footprint for the third time. Our goal is to considerably reduce our emissions in the coming years.

4 Nature conservation and climate protection

4.1 Land use G4-56, G4-EN13

In extracting raw peat materials, we exclusively use already drained or degraded former peatlands. In Germany, intact bogs have been designated protection areas since the 1980s and are left untouched by us (see NIEDERSÄCHSISCHER MINISTER FÜR ERNÄHRUNG, LANDWIRTSCHAFT UND FORSTEN 1981). Following cessation of raw-material extraction, we restore the sites so that they are permanently available as biotopes for conservation and climate mitigation purposes.

Our voluntary commitment to the EPAGMA Code of Practice

In its management of peatlands, Klasmann-Deilmann has since 2009 – voluntarily – adhered to the applicable Code of Practice of the European Peat and Growing Media Association (EPAGMA). This code (see EPAGMA 2011) specifies rules governing the choice of extraction sites, the method of extraction, and peatland restoration once these activities have ceased. The voluntary commitments include:

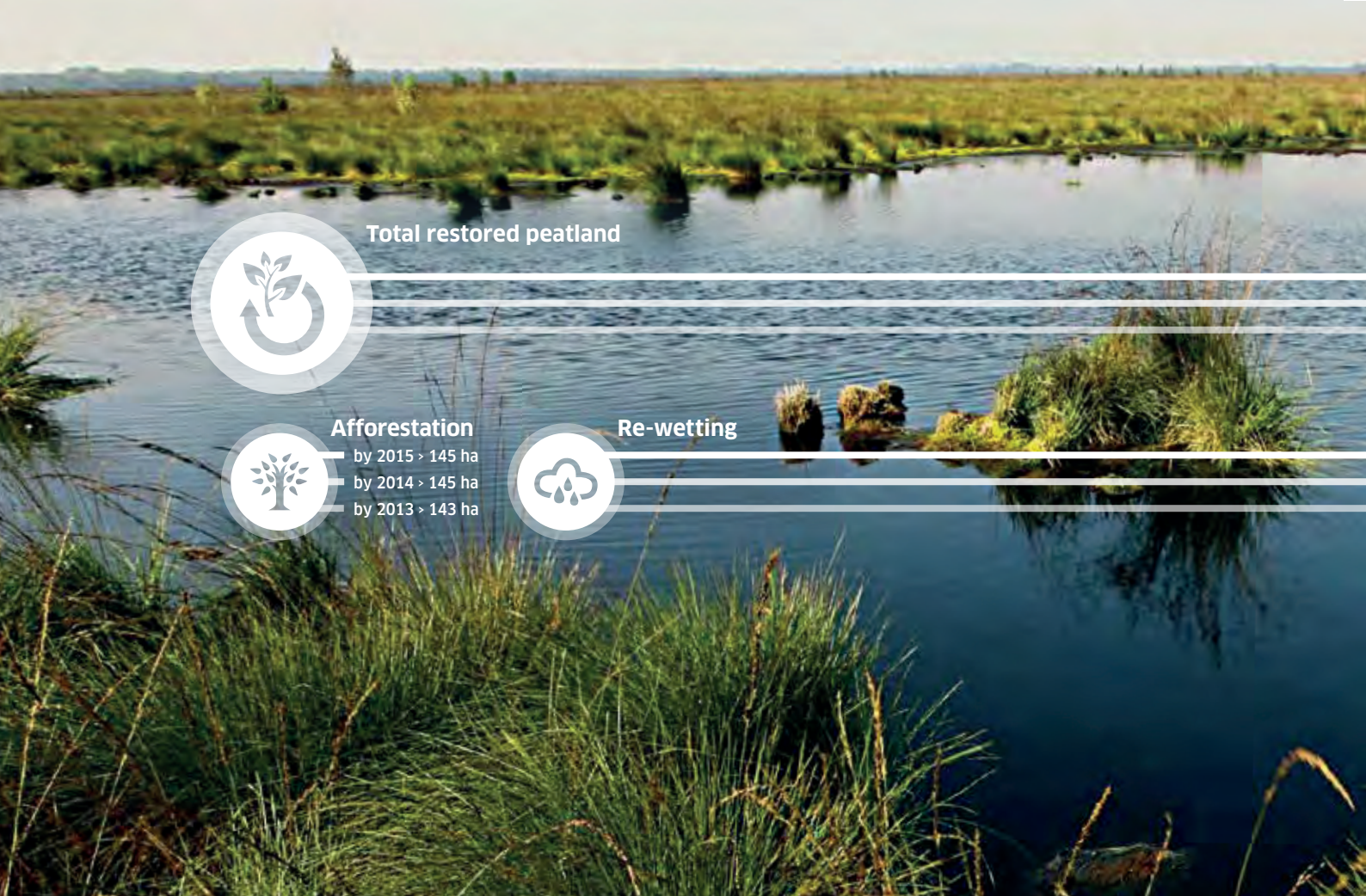
- complying with locally applicable legislation;
- the exclusive use of already drained or degraded peatland;
- minimising emissions of dust and noise;
- avoiding soil contamination, and environmentally sound disposal of waste;
- regulating self-heating in storage stacks;
- including local inhabitants in the overall process, and giving stakeholders a means of providing feedback;
- preserving biological diversity and ecosystem functions during after-use once raw-material extraction ceases;
- responsibly managing the extraction sites, including management systems with risk assessment relating to accidents, emissions and health aspects, as well as training on safe working practices.

At international level, our land management and our raw-material extraction comply with the guidelines for the Strategy for Responsible Peatland Management laid down by the International Peatland Society (IPS, see INTERNATIONAL PEATLAND SOCIETY 2010).

Headway being made with RPP certification system

The European certification system ‘Responsible Produced Peat’ (RPP) was finalised in 2015. It was in this connection that we first applied to have several peat extraction areas certified. All RPP criteria were met for these sites; we are expecting certification to be awarded for them in 2016. Concurrently, we are also aiming towards RPP certification for further extraction areas and are committed to enhancing the system. It is our understanding that, in this way, integration of other important raw materials for substrates into the RPP management system is also to be achieved, enabling the ecological footprint of these components to be evaluated as well.

In the UK, a government-initiated project to phase out the use of peat in all areas of horticulture by 2030 has led to a separate certification scheme that was tested in several British and Irish peat plants in 2015, including our own production company Klasmann-Deilmann Ireland Ltd. The British certification scheme, entitled ‘Responsible Sourcing and Manufacture of Growing Media’, covers not only peat but also other key substrate constituents such as coco pith, wood products, green compost and mineral materials. Thus far, efforts to combine the British certification system and the RPP system (and thus prevent the existence of two competing schemes) have been progressing only slowly.



Measures following cessation of peat extraction in Germany

G4-EN13, G4-DMA Biodiversity

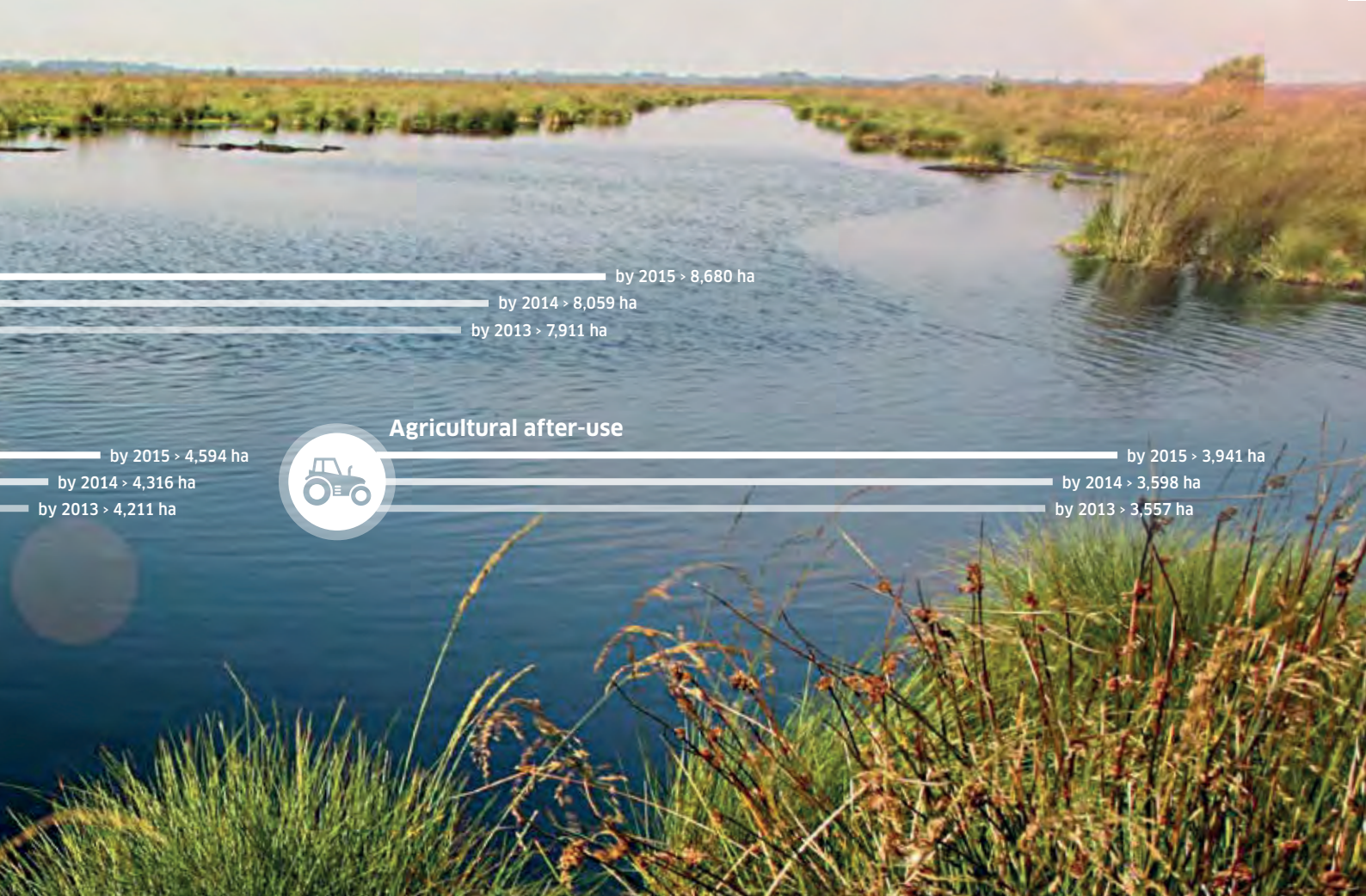
Depending on the extraction technique used, raw-material production on a particular site may continue for several decades. After peat extraction has ceased, sites are covered with residual peat to at least the legally required depth. There are essentially four options for their subsequent use, and which of these is implemented in a given case is stipulated by the relevant authorities in the permit documents issued prior to commencement of raw-material extraction.

The most important form of after-use in Germany is re-wetting. Its aim is to establish peat moss (*Sphagnum*) and other typical peatland plants, such as cotton grass. In the re-wetted areas, the presence of standing water will lead to the former hydrological conditions being restored, resulting in bog-like vegetation (i.e. rehabilitation) or even typical bogland vegetation (i.e. regeneration), and these sites can become CO₂ sinks when the peat body begins to grow again. In this way, a re-wetted area can contribute to the biodiversity typical of peatland – in this case, to the

variety of ecosystems present – and again become a characteristic feature of the landscape. Because local geological and hydrological situations differ, not all areas can be returned to nature in this way once peat extraction comes to an end. Instead, some former production areas are afforested or prepared for agricultural after-use. In some cases, buffer zones are also established between differently used areas and left to the process of natural succession.

Responsibility for implementing these measures generally rests with Klasmann-Deilmann. Over a several-year period, the effectiveness of the measures carried out is monitored by the relevant authorities and – in line with its voluntary commitment to the code of practice – by Klasmann-Deilmann itself. In certain cases, our after-use projects go beyond the official requirements, a major reason for this being to apply new knowledge of how to return peatlands to nature.

Since 1960, Klasmann-Deilmann has re-wetted, afforested or made available to agriculture a total of 8,680 hectares.



Peatland restoration measures in Ireland and the Baltic states

During the year under review, and for the first time, we began re-wetting a former extraction area in Lithuania with a view to returning the 37-hectare site to the state in 2016. Initial projects aimed at rehabilitating former extraction sites are also in preparation at other locations in the Baltic region and Ireland. Here, we are pursuing only those approaches to peatland restoration that have proven successful in Germany. It is not yet possible to assess the extent to which we will have to tailor our practice to the local conditions and the applicable local laws, and hence to deviate from our proven procedure. Klasmann-Deilmann's locally responsible subsidiaries are liaising closely with the relevant authorities on this matter.

Sphagnum-farming project

In the summer of 2015, we launched the world's largest peat moss cultivation project (Sphagnum farming). Our objective is, in close collaboration with the University of Hanover, to prepare a total of 10 hectares of former peat extraction areas for this new use by the end of

2016. The aim of this effort, funded with resources from the federal state of Lower Saxony, is to develop a renewable raw material for substrate production. To this end, the growth of these mosses must be stimulated so that it results in an appreciable yield.

After extensive preparations, the first part of the two 5-hectare growing sites was prepared for inoculation with peat moss during the summer months. The special moss required for the project – namely, moss obtained from peat hummocks – was removed from restored peatland areas and then distributed over sites where standard re-wetting practice had already been implemented or was still due to be carried out. This necessitated our obtaining full approval from the relevant authorities to ensure that the project meets the highest environmental standards.

The peat moss was then distributed over the designated growing sites in the 'Provinzialmoor' and 'Drenth' peatlands. To protect the sensitive peat moss shoots from the elements, they were covered with straw or shading net. At the re-wetted Provinzialmoor site, a 'Sphagnum bank' is being developed as a source of



peat mosses for future sites under restoration. The former peat extraction area called Drenth, however, will serve as a 'laboratory' in which biomass growth and the resistance of the various cultivated species are to be tested, as are their suitability as a substrate component.

Over the winter months, the growing sites showed good development; evidently, the peat moss coped well with the change of location. In 2016, various irrigation and drainage methods will be tested with a view to minimising fluctuation of water levels. Additionally, we will be starting extensive trials to test the Sphagnum's suitability for use in substrates. Another aim is to devise a workable and cost-effective harvesting technique.

Any changes over time in biodiversity on the sites in question and in greenhouse gas emissions will be scientifically investigated by the University of Hanover and the Thünen Institute in Braunschweig. We assume that the onset of growth of the relocated peat moss will enable the uptake of greenhouse gases to be accelerated.

Concurrently, continuous sharing of experience is taking place with the Canadian Sphagnum Peat Moss Association (CSPMA), which is pursuing similar efforts. The International Peatland Society (IPS) is also involved, pooling the findings of such projects and subjecting them to further scientific analysis.

Water management

The manufacture of growing media does not require unusually large quantities of water: its consumption in the context of production is of relatively minor importance in terms of our sustainability-related activities. Nevertheless, our water management practices adhere to the locally applicable legal provisions and are geared towards consuming resources as sparingly as possible and towards environmentally sound use.

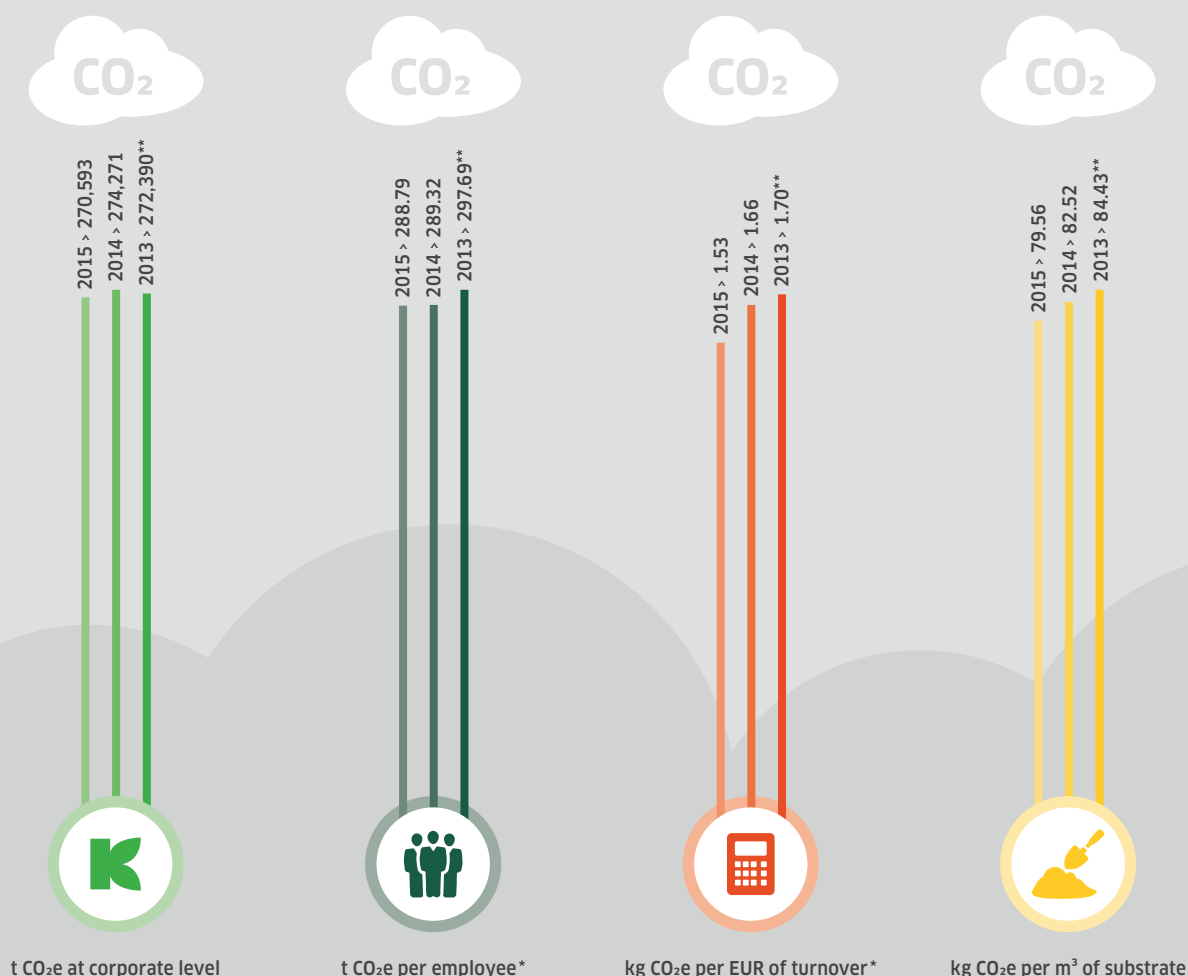
However, there is appreciable disturbance of the hydrological balance of a peatland caused by drainage when it is reclaimed for peat extraction. Peat moss can absorb many times its own weight in rainwater. Prior to industrial usage of peatland, water stored was drained away. Klasmann-Deilmann obtains raw peat materials solely from sites drained decades beforehand. During the course of peatland restoration, most of the now-depleted areas are re-wetted; in this way, they progressively recover their water storage function.

4.2 Climate footprint for 2015 G4-EN15, G4-EN16, G4-EN17, G4-EN18, G4-EN19, G4-DMA Emissions, Emissions report for verification to ISO 14064-1

On the basis of corporate data for the 2015 financial year we have, for the third time, commissioned the calculation of a carbon footprint at both company and product levels. It was carried out by Cologne-based Meo Carbon Solutions GmbH. The carbon footprint was audited and verified by SGS United Kingdom Ltd. (Cheshire, UK), with regard to its assumptions, function and internal logic, in accordance with the ISO 14064-1 standard and at a limited level of assurance. The subject matter of the internal and external audits conducted in this context included quality-management aspects associated with the data collection process. As before, we provided the relevant employees from the various parts of the company with in-depth training for this purpose.

Taking into account all climate-related factors along the value chain 'from raw-material extraction to the factory gate, including transport', our corporate climate footprint for 2015 reveals emissions – converted into CO₂ equivalents (CO₂e) – of 270,593 t CO₂e ('base year' 2013: 272,390 t CO₂e). At a turnover of EUR 176.9 million and an average headcount of 937, this yielded a figure for the year under review of 1.53 kg of CO₂ per euro of turnover*, and 288.79 t of CO₂ for each employee*. With the total volume of growing media and raw materials sold standing at 3.40 million m³, this translates into an average carbon footprint – expressed per cubic metre of substrate, per annum – of 79.56 kg of CO₂e m⁻³.

Emissions in CO₂e



* Figures not verified by SGS

** Revised figures from the Sustainability Report for 2014, excluding emissions from sales companies

Comments on the carbon footprint for 2015

System boundary

The 'base year' for calculating our carbon footprint is 2013. Our carbon footprint includes all emissions arising within the system boundary 'cradle to gate, plus transport to customers'. We are incorporating the Logistics division as it is a major factor in our turnover. The end-of-life phase is not incorporated into the carbon footprint.

In accordance with the GRI's materiality principle, we have deferred to a later date the calculation of emissions from travel in order that we can develop a uniform Group-wide standard.

Emissions from our sales companies in France, the Netherlands, Belgium, Austria, Italy, Poland, Singapore, China and the USA, chiefly from the consumption of power, natural gas and heating oil, were not included in the carbon footprint for the base year 2013, but are incorporated into the carbon footprints for 2014 and 2015. However, as the relevant figures - 265 t CO₂e (2015) and 260 t CO₂e (2014) - are not a key determinant of the size of the climate footprint in question, the years 2013, 2014 and 2015 are still comparable.

Corrections G4-22

In preparing the carbon footprint for 2014, the carbon footprint for 2013 was amended with regard to 'alternative substrate constituents and additives', as certain quantities of raw wood materials for wood fibre production had been counted double. This results in slight changes to the carbon footprint disclosed in the Sustainability Report 2013. When drawing up the carbon footprint for 2015, nothing came to light that necessitated corrections to the carbon footprints for the two preceding years.

Emission factors

Emission factors not derived from calculations based on corporate data were, as before, extracted from the Eco-Invent database or the Quantis study (see QUANTIS, EPAGMA 2011).

In calculating emissions from the extraction and use of peat, we rely on existing data from scientific measuring campaigns. However, these data are subject to some uncertainty, especially because the campaigns and relevant studies do not relate to the active phase of peat production. Emission levels must, therefore, be derived. With regard to emission factors for peat extraction areas, our calculation is based on the approach adopted



by the German Federal Ministry of Education and Research (BMBF) report 'Klimaschutz durch Moorschutz' ('Combating Climate Change by Protecting Peatlands'; see Drösler 2011). The figures stated in this publication are based on the latest data available at the time which, moreover, was obtained from direct greenhouse gas measurements on German bog sites. According to this study, emission levels from the different usage categories – agriculture, afforestation, drained raised bogs, natural raised bogs and re-wetting – depend on the water table depth (see Drösler 2011, pp. 7-9). For the peat extraction phase which was, however, not taken into account in the BMBF report, a general water depth of –30 cm was applied and, at the same time, a 50% lower emission rate was assumed, to reflect the reduced respiration processes (no autotrophic respiration, potentially reduced heterotrophic respiration). On this basis, an average emission level of 10.73 t CO₂e per hectare, per annum was calculated, forming the starting point for all further calculations on emissions derived from peat and substrates.

Changes in basis for calculations G4-22

Substantial changes to the calculation basis for the 2015 carbon footprint have resulted from a completely new inventory and evaluation of the active and potential extraction areas and the already depleted sites under the various after-use scenarios. As part of the land inventory process these data were, for the first time, collected on the basis of a unified company-wide system. As well as the actual peat areas, the peripheral zones between the approved extraction sites and the property/leasehold boundaries were included. Aerial photographs, extraction plans and records of on-site inspections formed the basis for this work. In the resulting database, all land-related information has now been pooled for the entire company in a way that clearly shows cadastral units: current and former extraction areas, areas under restoration and areas with previously unused extraction potential, as well as areas with commercial woodland. The greater extent of areas for white-peat (as opposed to black peat) extraction determined in this context led to an increase in the emissions ascertained. As the peat in black-peat extraction areas was frozen right through only to a comparatively very small extent in the winter of 2014/2015, the quantity harvested was down appreciably year-on-year. This increased the emissions generated from this land as expressed per cubic metre of black peat. However, the lower yield led to lower energy consumption in the extraction process.

Increase in emissions

In connection with the year-on-year increase in production, other emission totals included in the carbon footprint also rose, although not proportionally in every case. The reasons for this are as follows:

- Changes in our load-securing practices meant that certain additional packaging materials could be dispensed with. Therefore, despite the increases in production, fewer emissions resulted from the consumption of paper products.
- Due to lower quantities being harvested, more raw materials were purchased from external suppliers, resulting in increased emissions from these activities.
- In the same context, transport of raw materials between our plants increased, especially that between Lithuania and the Netherlands.
- Against a background of increasing quantities of green compost, wood fibre and SRF produced, as well as the greater need for additives owing to increased manufacturing of growing media, emissions associated with these activities rose.
- Our substrates were transported by road to a greater extent, as additional capacity for rail transport from Germany was not available.

Reductions in emissions

In energy consumption, we achieved reductions in emissions chiefly by obtaining electricity from hydropower with a guarantee of origin for all Klasmann-Deilmann Group companies based in Germany. Furthermore, the UAB Klasmann-Deilmann Laukesa operations in Lithuania started up another woodchip heating facility.

Explanatory notes on the climate footprint for 2015 G4-18

Extraction areas

- **Reference scenarios:** The starting point for the reference scenarios is the fact that, even before raw-material extraction began, drained bogs were already emitting trace gases (in the form of CO₂, N₂O or CH₄) that affect the climate. And even without peat extraction, the sites would – depending on land use – have continued to emit these gases. Following this line of reasoning, the emissions pertaining to this time-based reference scenario have been factored out of the company's carbon footprint.

- **Peat extraction, intermediate storage:** The emissions stated here are those from our extraction and use of peat, examples being actively worked peat extraction areas, peat storage in stacks and the peat used in growing media.
- **After-use scenarios:** This gives the emissions that arise after peat harvesting ceases – in relation to peatland restoration, for instance – before the area stores greenhouse gases once more.
- **End use 1/100:** The emissions disclosed here result from degradation of peat. Peat used as a raw material or substrate progressively releases stored carbon – by means of respiratory processes as it reacts with atmospheric oxygen – into the environment in the form of CO₂. The assessment of peat's climatic impact is based not on how much carbon remains in the substrate, but on the proportion emitted in the form of CO₂. In respect of this, we convert emission totals into CO₂ equivalents with a global-warming potential (GWP) for the next 100 years (GWP100). In our corporate carbon footprint, a resulting aggregate mean value for the year under review is adopted, equivalent to 1% of the GWP100. Emissions arising during the end use of our products are excluded. This means that a distinction is made between the emissions attributed to our company and those attributed to downstream users such as nurseries or retail consumers. This last point, in particular, prompted extensive discussions, as a considerable proportion of the greenhouse gases were not included in the climate footprint. The rationale behind this decision is that, in the same way that an oil producer is not responsible for a car driver's petrol consumption, a substrate producer cannot be held to account for the way a product is used by a customer.
- **Subtotal for emissions in 2015:** This line gives the sum total of all emissions resulting from our extraction areas.

Energy consumption

- **Extraction sites:** This line refers to the emissions of our lead company and our subsidiaries which own peat extraction operations, and primarily includes consumption of diesel, heating oil, electricity, natural gas and woodchips.
- **Other sites:** The figures given here are total emissions from our production and sales companies which, particularly in the administrative buildings, result from consumption of heating oil, electricity, natural gas and woodchips.

Transport

- **Raw materials, internal:** This line states the emissions resulting from transport of raw materials within the Klasmann-Deilmann Group.
- **Raw materials and substrates to customers:** These emissions are those originating from transport to the customer worldwide. A detailed breakdown was provided for transport by road, container, water and rail.

Not included here are internal and customer-related empty runs, as the hauliers and transport providers whose services are enlisted are – in accordance with relevant joint agreements – responsible for providing onward and return transport. Transport arranged by our customers themselves, and with which we generate no turnover, is not incorporated either.

External suppliers

- **Peat inclusive of transport:** Emissions from the extraction and transport of peat that we do not extract ourselves but buy in from outside, are disclosed here. As we use these raw materials, the emissions are attributed to us.
- **Packaging material:** This line gives the total emissions resulting from the use of packaging film, paper, cardboard and palettes.

Further sources of emissions

- **Alternative substrate constituents and additives including transport:** The emissions stated in this line result chiefly from the production of our own alternative substrate constituents, 'TerrAktiv' (green compost) and 'GreenFibre' (wood fibre). This figure also includes those emissions generated by our suppliers through the production and transport of additives such as fertiliser and lime. As we buy and use these products, the emissions are attributed to us.
- **Other areas of activity:** The emissions disclosed here are those resulting from the establishment and maintenance of SRF plantations, forest, photovoltaic installations or woodchip heating systems. Over and above this, no CO₂ sinks or reservoirs exist that would need to be included in the climate footprint; neither do we operate any of the same.

Our carbon footprint for 2015 G4-EN18, G4-EN30

Emission sources	2015 in t CO ₂ e	% of total footprint	2014 in t CO ₂ e	2013 in t CO ₂ e
Extraction areas: Reference scenarios	-123,470	- 45.63	- 134,961	- 148,560
Extraction areas: Peat extraction, interim storage	187,056	69.13	192,618	210,972
Extraction areas: After-use scenarios	36,461	13.47	52,177	54,424
Extraction areas: End use 1/100	7,333	2.71	7,767	8,346
Extraction areas: Subtotal for emissions	= 107,380	39.68	= 117,601	= 125,182
Energy consumption: Extraction areas	18,460	6.82	20,575	19,657
Energy consumption: Other sites	2,084	0.77	1,832	* 1,414
Transport: Raw materials, internal	7,230	2.67	6,518	5,751
Transport: Raw materials and substrates to the customer	67,096	24.79	62,421	59,690
External suppliers: Peat inclusive of transport	38,810	14.34	37,613	38,021
External suppliers: Packaging materials	4,399	1.63	4,575	4,657
Alternative substrate constituents and additives inclusive of transport	24,020	8.88	22,408	** 17,650
Other areas of activities (SRF, forest, photovoltaic installations, woodchip heating)	1,114	0.42	728	368
Carbon footprint of overall company	270,593	100.00	274,271	** 272,390
Total quantity Substrates, raw materials incl. retail (m³)	3,401,297		3,323,670	3,226,356
Carbon footprint per m³ of substrate	79.56 kg CO₂e		82.52 kg CO₂e	** 84.43 kg CO₂e

* Figures excluding energy consumption by sales companies

** Figure revised from Sustainability Report 2013

'Positive' footprint for 2015

The Renewable Energy and Resources business unit is to be considerably expanded in the coming years. It will also contribute to emissions avoidance but, under the requirements of the ISO 14064 standard, is disclosed separately from the climate footprint. The chief reason for this is that the bulk of the energy generated in this way will not be consumed by Klasmann-Deilmann itself, but fed into the grid and sold. In addition to the carbon footprint for 2015, a 'positive' carbon footprint has therefore also been drawn up (i.e. one that includes only carbon-positive measures). It discloses how many emissions from fossil energy sources such as coal, oil and natural gas are avoided by the use of renewable energy from short-rotation forestry (SRF) and photovoltaic installations, and captured by forest resources.

Classification of emissions into scopes

G4-EN15, G4-EN16, G4-EN17

The greenhouse gas calculator classifies the emissions into three scopes in conformity with ISO 14064 and the requirements of the Kyoto Protocol.

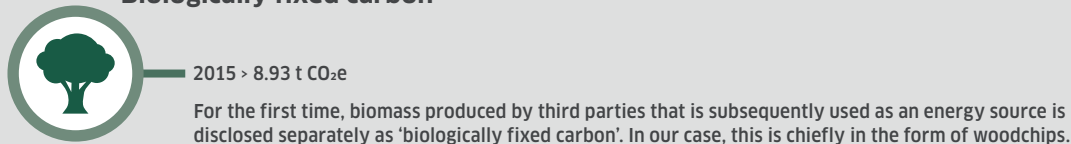
- Scope 1 includes all emissions which are directly generated from combustion processes in a company's own facilities.
- Scope 2 covers emissions relating to purchased energy such as electricity, or heat energy sources such as woodchips.
- Scope 3 refers to emissions from third-party services and purchased preliminary services.

Emissions avoidance

Use and generation of renewable energy and of forest resources



Biologically fixed carbon

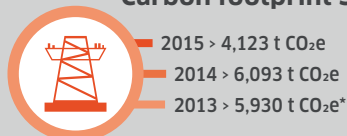


Emission sources by scope

Carbon footprint Scope 1



Carbon footprint Scope 2



Carbon footprint Scope 3



* Figures exclude energy consumption by the sales companies

Product carbon footprint

In our Sustainability Reports for 2013 and 2014 we published a product carbon footprint (PCF) for selected products, adopting the 'cradle to gate plus transport' system boundary we use at corporate level. Dialogue with our stakeholders, especially from the sectors of science and environmental protection, has now prompted our decision to additionally report a PCF that covers the 'cradle to grave' system boundary, i.e. one that includes both the use phase and the 'end of life' of our substrates.

Based on this breakdown, the bulk of the emissions are generated outside our system boundaries. Here we acknowledge our responsibility to continue down

our chosen path and to increasingly focus on ensuring that, with our range of substrates, fewer greenhouse gases are produced at every link of the value and consumption chains. This is the rationale behind measures that are an integral part of our strategy, such as increasing the proportion of alternative raw materials in our substrate blends to 15% by volume.

The graphic below provides a schematic overview of the stages of the value and consumption chains included in the PCF, including a simplified percentage weighting. We aim to achieve further differentiation in our presentation format in future years, and to augment the underlying data.

Product carbon footprint (PCF)





Recipe	Designation	Type	Emissions 2015 cradle to gate	Emissions 2015 cradle to grave
413	Base substrate	White-peat substrate	46.68	210.02
002	Potgrond P	Black-peat substrate	37.15	256.59
062	KKS organic tray substrate	Black-peat / white-peat blend with green compost	59.40	206.83
080	Seedling substrate	Black-peat / white-peat blend with coco pith	40.74	182.63
698	BP substrate	Black-peat / white-peat blend with wood fibre	33.60	170.37

Figures in kg CO₂e/m³

With reference to a recipe database, the data for the corporate carbon footprint can be converted for individual products, creating PCFs. By way of example, the table above gives the climate footprints of selected growing media for 2015 within the system boundaries 'cradle to gate' and 'cradle to grave'.

CO₂ reduction strategy G4-EN19, G4-DMA Emissions

Based on our carbon footprint, we set ourselves the goal of taking action to reduce or offset the emissions caused by our company. Accordingly, we are drawing up a CO₂ reduction strategy.

Among the scenarios for reducing or offsetting emissions – scenarios realistic for Klasmann-Deilmann – are measures to either avoid the use of fossil fuels or enable direct carbon capture. These include photo-voltaic installations, afforestation, the management of woodland and short-rotation (SRF) plantations, and production of heat energy from corporate-owned SRF plantations. The greater part of the energy generated in this way would not be consumed by Klasmann-Deilmann itself, but fed into the grid and sold.

Internal transport, as well as that bought in from transport providers, is also a crucial factor for our carbon footprint and harbours fundamental potential

for additional emissions avoidance. The weight of our raw materials and growing media is one starting point: the lighter these materials, the greater the volumes that can be carried in each transport unit. We have already launched a number of internal projects aimed at reducing the weight of our raw materials and products.

Furthermore, the use of peat-substitute bulking constituents in our growing media has a positive impact on our carbon footprint at both product and corporate level. We have therefore set ourselves the target of increasing the proportion of alternative constituents to 15% (by volume) of the annual production total by 2020.

Since 2015, all of the Klasmann-Deilmann Group companies based in Germany have obtained their electricity from hydropower with a guarantee of origin.

A large part of our emissions originate from extraction sites. We are, therefore, discussing ways of putting our methods of extracting peat on a more sustainable footing. The company needs to exercise particular caution here, as being reliably supplied with raw materials constitutes the backbone of our core business. We assume that we will be able to report on initial targets in this regard in our Sustainability Report for 2016.

4.3 Emissions monitoring

For the last 10 years, there has been an overlap between – on the one hand – the discussion on emissions from the extraction and use of peat and – on the other – the conservation-related debate that has been continuing since the 1970s on the preservation of peatland.

Experts agree that producing and using peat for horticultural purposes causes significant emissions. Thus far, however, scientific knowledge is (for the most part) available only for peatlands that are

natural, used for agriculture or under restoration. To date, direct measurements of greenhouse gases from sites actively used for peat extraction have not been factored into calculations. Therefore, statements on the climate impact of peat extraction areas had to be derived from the outcomes of monitoring on peatlands used for other purposes, and from model assumptions. Our climate footprints for the years 2013 – 2015 are also (as outlined above) based on the best possible assumptions inferred from the available studies.



In-house measurements

In view of this, in the winter of 2015 we began conducting greenhouse gas measurements of our own on our extraction areas. The aim is to close the existing gap in the scientific data and to provide reliable information about emissions from the extraction and use of peat. We were ably assisted, in both monitoring greenhouse gas levels and drawing up the footprint, by the Cologne-based Meo Carbon Solutions GmbH. On completion of a 12-month series of measurements, we invited experts from Meo, the Müncheberg-based Leibniz Centre for Agricultural Landscape Research (ZALF), the regional State Agency for Mining, Energy and Geology (LBEG) in Hanover, the German Research Centre for Geosciences (GFZ) in Potsdam, and the Kiel Institute for the World Economy (IFW) to carry out a critical analysis of our procedures and the resulting, still preliminary, results. It was confirmed that the measurements and footprinting activities in the first year yielded valid outcomes and that, after the second year of monitoring (ending in February 2017), these will also meet scientific criteria.

Measurement set-up

To carry out cumulative global-warming impact assessments for the trace gases carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) we have, since February 2015, been using the proven chamber-based measuring technique. This has already been employed in the BMBF study 'Klimaschutz durch Moorschutz' ('Combating Climate Change by Protecting Peatlands'; see DRÖSLER 2011) and applied in other scientific studies and greenhouse gas measurements. Monitoring using two manual sampling units takes place on two production sites in Germany and in Lithuania. The measurements in Germany are taken on a black-peat extraction area and those in Lithuania on a white-peat production site. These areas were chosen such that the results reflect

the corporate situation as representatively as possible in terms of peat grade, climate, etc. Greenhouse gases were, for the most part, measured on a 14-day cycle using repeat measurements from five spatially separate plots. A set of chambers was available for each CO₂ measurement, consisting of one opaque and one translucent chamber. The measurements were carried out on site using an LI-820 infrared gas analyser manufactured by LI-COR. CH₄ and N₂O samples were taken and analysed in the lab using gas chromatography. After 12 months the results, incorporated into a cumulative footprinting model, formed the basis for the footprint for the first year.

Preliminary outcome G4-DMA Transport

In calculating our carbon footprint we are currently following the approach set out in the BMBF report 'Klimaschutz durch Moorschutz', according to which the level of emissions depends on the water table depth in a given case (see DRÖSLER 2011, pp. 7-9). On this basis, we applied an average emission value of 10.73 t CO₂e per hectare, per annum in order to calculate the emissions from peat and substrates.

However, the preliminary results of our own emissions measurements tell a different story. On this basis, the average emissions in CO₂e ha⁻¹ a⁻¹ are considerably lower than was hitherto assumed. The mean emission levels determined for the black-peat extraction area used for monitoring in Germany are 2.94 t CO₂e ha⁻¹ a⁻¹. On the white-peat extraction site in Lithuania, monitoring revealed average emissions of 7.22 t CO₂e ha⁻¹ a⁻¹. Thus, mineralisation of both black and white peat, and the associated greenhouse gas emissions, occurred to a lesser extent than had been assumed in the previous greenhouse gas footprint.

Footprints based on 12 months of direct greenhouse gas measurements

	Black peat: Sedelsberg, Germany	White peat: Silute, Lithuania
CH ₄	0.70 kg CO ₂ e ha ⁻¹ a ⁻¹	38.2 kg CO ₂ e ha ⁻¹ a ⁻¹
N ₂ O	0.30 t CO ₂ e ha ⁻¹ a ⁻¹	0.33 t CO ₂ e ha ⁻¹ a ⁻¹
CO ₂	2.64 t CO ₂ e ha ⁻¹ a ⁻¹	6.85 t CO ₂ e ha ⁻¹ a ⁻¹
Ø	2.94 t CO ₂ e ha ⁻¹ a ⁻¹	7.22 t CO ₂ e ha ⁻¹ a ⁻¹



If these measurement outcomes are substantiated as the campaign continues and stand up to a scientific review, then we have considerably overstated our emissions from peat extraction and use so far. If this proves to be the case we will, from the coming year onwards, commission a recalculation of the carbon footprint based on these lower values.

It is apparent that emissions from transport will account for roughly the same percentage share of our overall emissions as those from the extraction and use of peat. This means that transport will, in the future, be assigned greater priority in our CO₂ reduction strategy.

Outlook

As soon as all the results from what will (by then) be two years of emissions monitoring are compiled, work on scientific analysis and evaluation can start. We aim to be able to replace the model assumptions and values from the literature previously used in our carbon footprint with corroborated data from these measurements.

In view of this, we have postponed the announcement of specific targets for the reduction of greenhouse gases until this measurement campaign has been completed and evaluated.



5

As a benchmark for our company's sustainable development, we have devised key performance indicators (KPIs) that reflect our performance in a manner which goes beyond the scope of our financial results and climate footprint. Our goal is the continuous improvement of these annually obtained KPIs. The aim is to generate target values for all these figures (this already having been done in some cases).

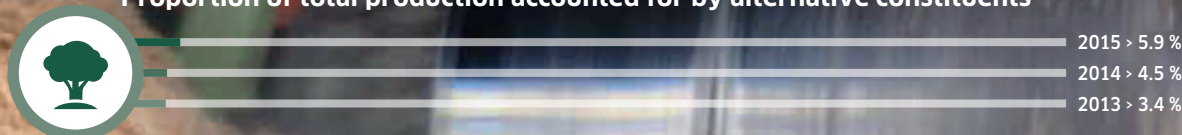
5 Key performance indicators for 2015

G4-9

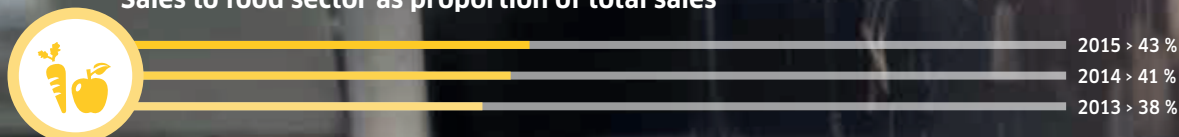
	2015	2014	2013
Sales revenue in million euros	176.9	165.0	160.1
Balance sheet total in million euros	175.5	159.9	148.2
Equity capital in million euros	75.0	67.2	61.1
Production of growing media and potting soils in m ³	3,401,297	3,323,670	3,226,356
Extraction of raw peat materials in m ³	3,168,000	3,297,000	3,683,000
Production of wood fibre in m ³	138,000	99,000	66,000
Production of green compost in m ³	96,000	89,000	68,000
Total area of SRF plantations in ha	2,927	2,664	2,440
Average headcount	937	948	915
Total emissions in t CO ₂ e	270,593	274,271	* 272,390
Emissions per euro of turnover in kg CO ₂ e	1.53	1.66	1.70

* Figure revised from Sustainability Report 2013

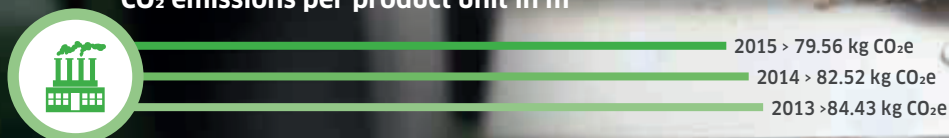
Proportion of total production accounted for by alternative constituents



Sales to food sector as proportion of total sales



CO₂ emissions per product unit in m³



Alternative constituents G4-DMA Biodiversity

Our target is that, by 2020, the proportion of alternative constituents in our annual production total will increase to at least 15%. Calculating this percentage involves comparing the used volumes (in m³) of our wood fibre product 'Klasmann GreenFibre', our green compost 'TerrAktiv', and all other bulking raw materials with the total quantity of growing media (in m³) produced by the Klasmann-Deilmann Group.

Food sector

We wish, in future years, to step up our supplies to the fruit- and vegetable-growing sector. To document our progress here, we compare sales figures achieved for this area with total sales of growing media (in m³ in both cases).

Emissions DMA Emissions

As well as reducing our overall emissions, a further priority for us is optimising emission levels per product unit. We therefore calculate the ratio between our corporate group's total emissions (in t CO₂e) and our total production volume (in m³).



Ratio between emission levels and emission avoidance



2015 › 6.98 %
2014 › 4.09 %
2013 › 3.84 %

Employee health



2015 › 95.5 %
2014 › 96.3 %
2013 › 95.1 %

Renewable energy

We want to see considerable growth in our Renewable Energy and Resources business unit over the coming years. Our activities in this area also contribute to emissions avoidance. The figures given below are the ratio between emissions (in t CO₂e) and emissions avoidance (in t CO₂e); they underline the increasing importance of energy activities in our company and take account of the emissions-preventing impact of our measures.

Employee health

The following KPI of employee health gives the ratio between the total number of days to be worked by our international workforce and the number of days off sick (including sickness periods of less than and more than six weeks).

6

Our commitment to sustainable corporate governance permeates all of our company's activities. Both the successes we achieve and the setbacks we experience make us all the more determined to continue down the path we have chosen. On the following pages, we report on relevant developments with reference to areas of particular importance.

6 Measures in different areas of activity

6.1 Energy management G4-EN3, G4-EN6, G4-EN19, G4-DMA Energy

With our ISO 14001 certification, we have committed ourselves to continually improving our environmental management system. As energy efficiency is directly linked to environmental protection, we are seeking to continuously reduce our energy needs and thus our CO₂ emissions. To identify potential for energy saving, energy consumption is monitored and evaluated on an ongoing basis. For this purpose, we use the automated recording and processing system that forms part of our energy management scheme. On this basis, we can introduce energy-saving measures with a positive impact on our company's carbon footprint.

Emission source (in t CO ₂ e)	2015	Change	2014	2013
Energy consumption for extraction sites (diesel, electricity)	18,460	- 10.28 %	20,575	19,657
Internal peat transport (diesel)	7,230	+ 10.92 %	6,518	5,751
Energy consumption for buildings (electricity, gas)	2,084	+ 13.76 %	1,832	1,414
Packaging material (foil)	4,399	- 3.85 %	4,575	4,657

Emission source (in MWh)	2015	Change	2014	2013
Electricity	9,476	+ 8.6 %	8,728	8,472
Gas	3,327	+ 11.8 %	2,976	3,324
Diesel	48,633	+ 3.1 %	47,151	43,583


Emission source (in gigajoules)	2015	Change	2014	2013
Electricity	34,113.6	+ 8.6 %	31,420.8	30,499.2
Gas	11,977.2	+ 11.8 %	10,713.6	11,966.4
Diesel	175,078.8	+ 3.1 %	169,743.6	156,898.8

Consumption figures for the Group as a whole

In-house heating supplied to three production facilities

In 2013, we put into operation (in Germany) our first woodchip heating facility. With an effective rated output of 440 kW, it is providing all the required heat for the buildings of our production company Klasmann-Deilmann Produktionsgesellschaft Nord at the Sedelsberg site. The fuel used here includes woodchips from our own plantations. The second

such unit was constructed in Latvia in 2014, and at the end of that year we put the third woodchip heating facility into operation. Equipped with a 320 kW boiler, it is used to heat the new building that houses the administration and the mechanics' workshop at our Lithuanian subsidiary UAB Klasmann-Deilmann Laukesa. In this way, it proved possible to fully substitute the previous consumption of about 270,000 kWh from fossil fuels.



	Consumption in MWh			Consumption in GJ			Change 2014/2015
	2015	2014	2013	2015	2014	2013	%
Total energy consumption	62,591.9	60,616.4	58,494.5	225,331	218,219	210,580	+ 3.26
of which from our renewable-energy facilities	1,095.6	798.1	1,105.5	3,944	2,873	3,979	+ 37.28
Consumption figures for the Group as a whole							

Further measures related to the use of heating and power G4-13

We made further progress in 2015 with the conversion of selected sites to renewable energy.

The production facility put into operation to manufacture big bales in Silute, Lithuania, is serviced entirely by the district heating grid, of which renewable energy accounts for 80%. Removal of existing buildings means that consumption of heating oil was reduced by about 85%. We also use many other energy-efficient systems in this regard:

- Lighting with LED technology;
- Efficient ventilation heat-recovery systems;
- Frequency convertor for all sizeable drive units;
- Energy management software.

In the substrate factory of our production company Klasmann-Deilmann Produktionsgesellschaft Nord in Sedelsberg, virtually all light sources on the shop floor were changed to LED lighting. Analysis of other sites revealed that similarly high energy savings could also be made in the adjacent Vehnemoor production facility.

The Klasmann-Deilmann Group's overall heating requirements are decreasing thanks to ongoing improvements in heating technology and insulation standards.

Power consumption per unit of packaged goods produced was, as before, reduced year-on-year in 2015. Savings on electricity associated with loose goods were, in particular, achieved at the Schöninghsdorf site.

Per year:



6.2 Logistics G4-EN30, G4-DMA Transport

Thanks to long-standing relations with dependable national and international haulage companies and transport service providers, Klasmann-Deilmann can guarantee that all orders are processed reliably and fast. We utilise rail and shipping wherever these are feasible and efficient options. In 2015, Klasmann-Deilmann used:

- 40,000 lorries;
- 2,300 railway cars;
- 100 barges/ships; and
- 8,200 (40-ft) containers which are carried by ship on the main haul of the journey and by truck to and from the ports

Responsible logistics

Our growing media and raw peat materials are relatively bulky and heavy. The consignees are primarily horticultural businesses in around 70 countries on

five continents. This transport causes environmental impact, which is why the Logistics division is playing an increasingly important and responsible role in terms of sustainability. A fundamental principle we follow is 'water before rail before road'. In implementing this principle, however, we repeatedly come up against the limits of what is feasible and commercially viable.

Unfortunately, rail transport still often proves uneconomical compared with road haulage, a major factor being high transshipment costs. With regard to movement of goods between Western and Eastern Europe, another problem is that of rail gauge incompatibility as this means there are no direct rail links. Nevertheless, we endeavour to ensure a large proportion of our freight consignments are carried on rail, especially since our production company Klasmann-Deilmann Produktionsgesellschaft Nord mbH has its own connection to the Deutsche Bahn rail network.

Within Western Europe, we also make use of the opportunities provided by domestic waterway shipping. Water routes needed for a comparable volume of trade in goods with Eastern Europe are lacking, so that chartering seagoing vessels is the only realistic alternative. Whereas sea transport is a good solution for raw materials and loose materials, the loss ratio associated with loading pallets onto such vessels is excessively high.

For deliveries overseas, we make exclusive use of container transport.

Overall, road transport is essential to us, whether for direct deliveries to our customers in Europe or as a component of combined (road/water/road) transport.

Moreover, many customer orders involve very short delivery times – in some cases next-day delivery – and these can only be met using road haulage.

Nevertheless, we strive to keep the environmental impact of our logistics operations as low as possible. The measures we are continuously pursuing in this regard include the reduction of internal transport between our various production sites. Setting up intermediate storage facilities in selected European target regions, too, enabled us to switch to rail for a significant proportion of the annual volume transported. As logistics-related activities account for a considerable share of our emissions, we will in the future intensify our search for solutions and alternatives still further.

6.3 Procurement practices G4-56

Our 'Sustainability guidelines for suppliers', in force since 2012, augment our selection criteria for our suppliers; they contain requirements for upholding human rights, for employees' working conditions and for environmental standards, as well as a business ethics code.

We require all our suppliers to commit to these guidelines. The standards this document defines, and their adoption, are a prerequisite for all supply agreements with Klasmann-Deilmann. In accepting a contract or order, our supplier undertakes to ensure that all their processes conform to the provisions of these guidelines. We play an active part in achieving a common understanding of social, ethical and ecological standards. As in previous years, 2015 saw numerous conversations with suppliers take place at which our sustainability guidelines were high on the agenda. On this basis, we can confirm that our suppliers conscientiously embrace these standards.

The key points of our sustainability guidelines are:

- prohibition of child labour on the part of our business partners or their suppliers;
- prohibition of forced or compulsory labour;
- prohibition of any form of discrimination;
- freedom of association and the right to conduct collective bargaining – if required under applicable law;
- minimum wage and overtime pay in line with statutory benefits for staff;
- encouraging ongoing improvements and refinements to occupational health and safety arrangements in compliance with national regulations;
- prohibition of bribery, extortion and embezzlement;
- evaluation of suppliers on the basis of their optimisation measures regarding the management of resources, minimisation of ecological damage, adoption of a precautionary approach, and the promotion of environmental responsibility and environmental technologies.



6.4 Certification G4-15

We don't ourselves set the standards we are measured by. Our certification to ISO 9001, ISO 14001 and RHP requirements is among the benchmarks we use to gauge how seriously we take our responsibility to humankind, the environment and future generations.

Comprehensive monitoring of the use of raw materials and of the value chain

Product quality is assessed in a supply chain control process by the Dutch foundation 'Regeling Handels Potgronden' (RHP). The assessment criteria applied here are among the most stringent worldwide. RHP's quality-assurance process includes all the raw peat materials that we use, as well as 'TerrAktiv' green compost and our 'GreenFibre' wood fibre product. The production sites in Germany, Ireland, Lithuania and the Netherlands are also RHP-certified, with a large part of the marketed substrates originating from these manufacturing facilities subject to monitoring for compliance with RHP standards.

ISO 9001

After extensive preparatory work, Klasmann-Deilmann GmbH was first certified to the ISO 9001 standard in the 1998 financial year, with the development and implementation of an internal key performance indicator system commencing in 1999. Klasmann-Deilmann has undertaken to continuously monitor and improve all central internal processes. Chief among these are the development and sale of substrates for commercial horticulture and the consumer sector, including the procurement of constituents and additives for

substrates, land management of extraction sites for obtaining raw materials, and quality assurance of products sold. This certificate has since been confirmed at each regular audit. The quality management system applied by the Group's lead company, Klasmann-Deilmann GmbH, currently satisfies the the ISO 9001:2008 standard. Certification to ISO 9001:2015 is being sought for 2017.

ISO 14001

Klasmann-Deilmann has been certified to the internationally valid environmental standard ISO 14001 since 2008. The core element of this certification is an environmental policy geared to sustainability, based on ecologically acceptable and controllable environmental-management processes. Klasmann-Deilmann's environmental policy includes an environmental-management system that is implemented at all corporate locations. Its responsibility to humankind, the environment and future generations enshrined therein ultimately means harmonising products and production processes with defined environmental targets, taking economic aspects into account and based on the applicable laws and legal regulations. Implementation of the company's environmental policies and the efficacy of the environmental-management system are regularly audited, improved and updated by Klasmann-Deilmann as well as independent institutes. The environmental-management system of the Group's lead company, Klasmann-Deilmann GmbH, complies with the ISO 14001:2009 standard. Certification to ISO 14001:2015 is being sought for 2017.

6.5 Customer satisfaction survey G4-26

So that we can assess how satisfied horticultural businesses are with our substrates, services and employees, we attach great importance to direct dialogue with our customers and to targeted surveys.

As our experts are regularly on-site, we frequently receive feedback from our international markets and straight from the horse's mouth, so to speak. At corporate headquarters, we can evaluate it and take any necessary steps. This means that we receive criticism and praise very soon after the event and can pass it on to the 'source'. Problems can be solved and things put right without delay. This results in a continuous process of improvement that benefits our customers.

At irregular intervals, we complement this non-systematic feedback with a 'specific customer satisfaction survey'. In 2011, for example, we surveyed some of our sales partners and our own sales subsidiaries. In 2014, our customer base in Germany received a questionnaire aimed at obtaining a general picture in terms of customer satisfaction. We were delighted at how positive our customer response was. No acute deficiencies emerged, and the analysis showed that our employees – above all our specialists paying on-site visits – performed very well. This confirms the assumption that direct dialogue remains of particular importance for our customers in commercial horticulture. The next survey is scheduled for 2016.

6.6 Community commitment and work with professional associations

G4-15, G4-16, G4-25, G4-26, G4-27, G4-56

In this globalised world, our company is part of a diverse network involving people, professional associations and other organisations, and the worlds of politics, culture and sport, as well as very different interest and needs. We take our social responsibility (which extends beyond our business objectives) seriously, and do what we can to get involved financially, in the realm of ideas and on a voluntary basis – but always with great dedication.

Klasmann-Deilmann GmbH supports a large number of local sports clubs, especially in communities that are home to members of staff. It also sponsors specific charitable and cultural projects. Every year during the Advent season, a major fundraising effort takes place, with selected clubs, associations and projects in the social, political and economic spheres receiving financial assistance. In 2013, Klasmann-Deilmann agreed on a long-term cooperative arrangement with



the environmental foundation 'Plant for the Planet'. The company is also a member of organisations whose goal is to respond to the challenges of a society in transition. For example, Klasmann-Deilmann is among the founding members of the Emsland region's 'Work and Family' foundation (www.familienstiftung-emsland.de), which is committed to helping local people combine family and career. Klasmann-Deilmann has an excellent reputation in this regard; among other measures, it offers a great many part-time jobs.

Through membership of key international, European and domestic organisations, we are strengthening political and scientific dialogue and doing important lobbying work. The focus is on securing the supply of raw materials for substrates, on the science of peat and peatlands, on the study and standardisation of substrates, on relevant legislation and on the interdisciplinary complexities involved in the horticultural sciences.

Within the German Peat Society (DGMT), Klasmann-Deilmann is involved in professional seminars and in presenting and representing the substrate industry in the political arena, with specialised publications being part of this. An expert from Klasmann-Deilmann has served for more than 20 years as the Chairman of the DIN Working Committee on 'Soil Improvers and Growing Media' and is Chief Delegate of Technical Committee no. 233 of the 'Comité Européen de Normalisation' (CEN). During this period, 19 European standards have been developed, some of which will serve as the basis for the labelling of growing media under a new EU Regulation. Klasmann-Deilmann is involved in drafting this regulation, which is expected to be published in 2017.

At the European level, we are actively involved in (and a founding member of) the European Peat and Growing Media Association (EPAGMA). Klasmann-Deilmann currently provides the Chair of EPAGMA and one of the Executive Board members, who is also Chair of the EPAGMA Growing Media Sector Group. Another representative of the Klasmann-Deilmann Group is a member of the EPAGMA Energy from Peat and Peatlands Sector Group.

As our company becomes more and more internationally focused, our involvement at this wider level is very strong. A member of the International Peatland Society (IPS), Klasmann-Deilmann contributes one member of the IPS's seven-strong Board. The IPS Commission II on 'Industrial Utilization of Peat and Peatlands for Horticultural, Energy and Other Economic Purposes' is also chaired by an expert from the Klasmann-Deilmann Group. In the role of co-partner of the International Society for Horticultural Science (ISHS), the IPS Commission II assists the ISHS Commission on Substrates in organising and holding its biennial symposia. One of our professionals has been awarded the ISHS Medal in his capacity as Chair of the IPS Commission II.

Membership of organisations

Among other organisations, Klasmann-Deilmann is a member of the following:

- European Peat and Growing Media Association (EPAGMA);
- International Peatland Society (IPS);
- Deutsche Gesellschaft für Moor- und Torfkunde (DGMT; German Peat Society);
- Regelung Handels Potgronden (RHP/ECAS);
- Bundesgütegemeinschaft Kompost e. V. (German Federal Compost Quality Assurance Association);
- Gütegemeinschaft Substrate für Pflanzenbau (GGG; Quality Assurance Association Growing Media for Plant Cultivation);
- Gemüsebauberatungsring Papenburg e. V. (Papenburg Consulting Group for the Vegetable-Growing Industry);
- Ökoring e. V. (Lower Saxony's advisory organisation for ecological growers);
- Zentralverband Gartenbau (ZVG; Germany's national horticultural association);
- Bundesverband BioEnergie e. V. (BBE; German BioEnergy Association);
- Emsländische Stiftung Beruf und Familie (the Emsland region's 'Work and Family' foundation);
- Global Reporting Initiative (GRI);
- Niedersächsische Allianz für Nachhaltigkeit (Lower Saxony's Alliance for Sustainability).



7

We attach great importance to having highly qualified and capable employees who play a crucial role in moving our organisation forward. Knowing that our commercial success depends very much on their commitment, motivation and skills, our priorities include individually tailored training and professional development, a corporate culture that encourages innovation, and cultivating a way of relating in which – out of the diversity of opinions and ideas – we pave the best way forward.

7 Employees G4-56

The following remarks refer to all of the Klasmann-Deilmann Group's employees. It remains the case that personnel management at our German sites is particularly well-developed. Where it is advantageous (in the interests of human-resources development) to transfer to our international locations measures tried and tested in Germany, we will do so, with adjustments to take account of local laws and practices.

Challenges for the future

We want our employees to enjoy working in our company, and our low staff turnover shows that many of them do. A large number of our employees have been with us for several decades. This means that, in the years ahead, a generational shift is coming for numerous positions in our company – a change affecting jobs at different hierarchical levels and in different divisions. At the same time, we are noticing the growing skills shortage that is driven by demographic change; this makes it harder for us to fill individual posts intended for highly specialised experts. In the light of this, considerations with regard to employer branding are gaining in importance. Positive developments that have, in past years, primarily strengthened our attractiveness as an employer internally must, in the coming years, also be evident externally. A priority in this connection will be to recruit young talent and female executives in greater numbers. For this reason, lead company Klasmann-Deilmann GmbH is increasing its presence at jobs fairs and has launched an advertising campaign to boost recruitment.

Family-friendly working-time arrangements

We want to continue to provide a set-up that enables our workforce to successfully combine their jobs with other commitments. An important factor here is our family-conscious working conditions. Our company is among the founder members of the 'Work and Family' foundation and has, since 2010, been a certified family-friendly firm (see: www.familienstiftungemsland.de; in German only).



A flexitime scheme for working mothers and fathers is, of course, in place at our company. As far as is operationally feasible, there is scope for allocating weekly working hours to suit individual needs and/or reducing them on either a temporary or more permanent basis. Young parents are keen to use the option of sharing their parental leave.

A wide range of opportunities for training, professional development and scholarships

A major goal of our human-resources policy is to develop staff to fulfil our future requirements for skilled personnel and managers from within the company. We therefore offer a wealth of training opportunities for both technical and business administration jobs. The following options are available: conventional vocational training, training in conjunction with a university of cooperative education ('Berufsakademie'), and entry as a graduate on-the-job trainee. We ensure that close guidance is provided within the departments in which training takes place. It is not only high-quality training in the subject matter itself that is important to us, but also personality development.

Developing technical expertise and interpersonal skills is particularly important for our young employees. We therefore encourage them to combine work with part-time studies relevant to their careers or the company. In cooperation with the University of Wageningen, one employee successfully completed a Master's degree in Hortibusiness in each of the years 2014 and 2015. Courses of study for employees to take - alongside their jobs - are currently being prepared for two other subject areas, Innovation Management and Systems Engineering.

In 2015, for the second time, we also awarded a Deutschlandstipendium scholarship to a student at the Horticultural Faculty at Osnabrück University of Applied Sciences. This scheme is an excellent means of encouraging networking between students, higher-education institutes and the private sector.

We are pursuing a similar goal with a workshop on Horticultural Growing Media held by specialists from Klasmann-Deilmann with students and teachers of the Horticultural Faculty at the University of Osnabrück. Two main topics were explored, 'Peat and alternative substrate constituents' and 'Assessing growing media on the basis of carbon footprints and LCAs', and very close initial contacts were made with the students.



We have also begun to intensify in-house training measures. We have gained positive experience for some years now with e-learning programmes covering a range of subject matter, including regular mandatory safety training. Modernisation and expansion of these activities is planned for 2016/2017. The intention is that an in-house Academy will provide a far wider range of training and professional-development opportunities. Specific planning for this began in 2015.

Actively promoting health

Klasmann-Deilmann has a highly proactive health management programme, the aim of which is to maintain, improve or restore the health and well-being of our workforce. Accordingly, health management is an integral part of all operating processes. A body consisting of executives, works council members and our company medical officer advises at regular intervals on measures to promote health.

Central elements are regular preventive health check-ups as well as promoting various measures aimed at improving employees' general health, including free flu vaccinations. Additionally, an internal works agreement enables all employees to exercise in gyms and other fitness facilities, with Klasmann-Deilmann covering a substantial part of the costs. We have adjusted to the fact that our staff will remain in employment for longer than would have been the case a few years ago. To the greatest extent possible, we intend to encourage this trend by creating attractive conditions with regard to working hours, provision of the right equipment and resources and, in particular, health promotion. The mechanisation of work processes in our technical/industrial operations has reached a high level at all locations, as has the equipping of office workplaces, so that physically demanding work is required only in exceptional cases. In 2015 there was a particular focus on psychosocial stress and the risk of addiction. This resulted in two workshops under the heading 'Relating to employees suffering from psychosocial stress' being held in 2015/2016.

The proportion of time employees are at work and not absent due to illness (Gesundheitsquote, 'health rate') for all staff of the Klasmann-Deilmann Group – including time off sick greater than six weeks' duration – decreased to 95.9% (previous year: 96.3%). The number of paid sick days per employee increased from 9.4 days in 2014 to 10.3 days in 2015.



10.3

Sick days
per employee

Comprehensive health and safety management

Klasmann-Deilmann maintains a health and safety management system whose goal is the total prevention of accidents by identifying potential workplace hazards in good time and, as far as possible, removing or remedying them. Among the measures to achieve this are regular on-site inspections by in-house and external safety experts, company medical officers and safety officers, as well as meetings of the health and safety committees. To encourage our staff to get involved, Klasmann-Deilmann has, since 2002, held annual safety competitions to enhance safety awareness among people working in the company. Efforts that meet the requirements set for this contest, including regular training courses, are rewarded with non-cash prizes.

We recorded a total of 25 workplace accidents (previous year: 31) in 2015. Of these, 12 were notifiable (previous year: 16).



12

Notifiable
workplace accidents

Headcount down G4-9, G4-10, G4-11

In the year under review, the average number of staff employed within the Klasmann-Deilmann Group stood at 937 (previous year: 948). Of these, a total of 376 men and women were in administrative activities, and 561 in technical/industrial jobs. The proportion of those employed outside Germany was 61.4% (previous year: 61.2%).

Of those employed in Germany, just over 70% belonged to a trade union; the figure for Lithuania is around 5%. We will, in future years, add equivalent figures for other subsidiaries.

	2015			2014			2013		
	Total	♂	♀	Total	♂	♀	Total	♂	♀
Germany	362	294	68	368	296	72	371	302	69
Lithuania	301	253	48	305	270	35	295	259	36
Latvia	100	68	32	105	68	37	88	59	29
Ireland	63	60	3	63	59	4	69	66	3
Netherlands	38	36	2	38	36	2	34	32	2
France	21	13	8	21	13	8	19	11	8
Belgium	11	9	2	10	8	2	9	7	2
Singapore	10	2	8	10	2	8	9	2	7
China	9	6	3	6	4	2	0	0	0
Poland	9	7	2	9	7	2	9	7	2
Italy	6	3	3	6	3	3	6	3	3
USA	5	2	3	5	2	3	4	1	3
Austria	2	1	1	2	1	1	2	1	1
Total	937	754	183	948	769	179	915	750	165

All figures are average levels for the year in question.

The majority of our activities are carried out by our permanent employees. Additionally, Klasmann-Deilmann employs contract workers at its production sites, especially during the summer months; these may total between 100 and 200 individuals at any given time.

In order that production can cope with the strong, seasonal build-up of delivery orders, intermediate storage facilities have been established in Austria, France, Germany and Hungary, which are not run by employees of the Klasmann-Deilmann Group.

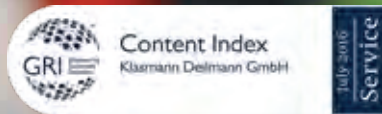
Full-time	2015		2014		2013	
Permanent contracts	♂	♀	♂	♀	♂	♀
Administrators	230	103	222	101	208	94
Technical/Industrial	442	36	454	32	449	27
Fixed-term contracts	♂	♀	♂	♀	♂	♀
Administrators	3	1	47	4	56	2
Technical/Industrial	77	6	40	3	31	1
Total full-time	898		903		868	

Part-time	2015		2014		2013	
Permanent contracts	♂	♀	♂	♀	♂	♀
Administrators	3	35	3	37	3	39
Technical/Industrial	0	0	2	1	3	1
Fixed-term contracts	♂	♀	♂	♀	♂	♀
Administrators	0	1	0	2	0	1
Technical/Industrial	0	1	0	0	0	0
Total part-time	39		45		47	
Total headcount	937		948		915	

All figures are average levels for the year in question.

8 Annex

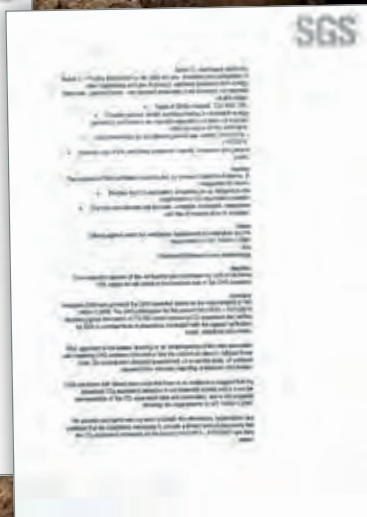
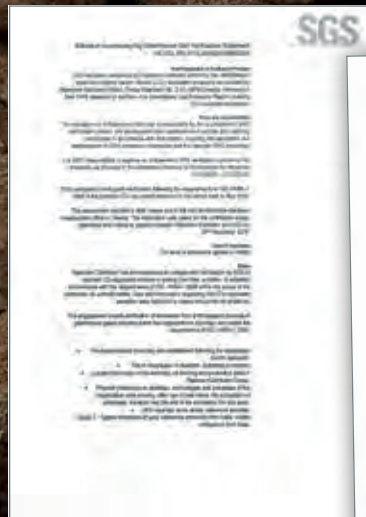
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8.2 SGS Verification Statement G4-33

Corporate Carbon Footprint

Greenhouse Gas Verification Statement Number UK.VOL.INV.0115.2015

The inventory of Greenhouse Gas emissions in the period 01/01/2015 – 31/12/2015 for Klasmann-Deilmann GmbH, Georg-Klasmann-Str. 2 – 10, 49744 Geeste, Germany has been verified in accordance with ISO 14064-3:2006 as meeting the requirements of **ISO 14064-1:2006** to represent a total amount of: **270 593 t CO₂e**

For the following activities: **Substrate production**

Lead Assessor: Dina Bauer | Technical Reviewer: Shane Hughes

Authorised by: Jonathan Hall | Business Manager SGS United Kingdom Ltd

Verification Statement Date: 08th June 2016

Schedule Accompanying Greenhouse Gas Verification Statement Number UK.VOL.INV.0115.2015

Brief Description of Verification Process

SGS has been contracted by Klasmann-Deilmann GmbH for the verification of direct and indirect carbon dioxide (CO₂) equivalent emissions as provided by Klasmann-Deilmann GmbH, Georg-Klasmann-Str. 2-10, 49744 Geeste, Germany in their GHG Assertion in the form of a Greenhouse Gas Emissions Report covering CO₂ equivalent emissions.

Roles and responsibilities

The management of Klasmann-Deilmann is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions. It is SGS' responsibility to express an independent GHG verification opinion on the emissions as provided in the Klasmann-Deilmann GHG Assertion for the period 01/01/2015 – 31/12/2015. SGS conducted a third party verification following the requirements of ISO 14064-3: 2006 of the provided CO₂ equivalent assertion in the period April to May 2016. The assessment included a desk review and a site visit at Klasmann-Deilmann headquarters office in Geeste. The verification was based on the verification scope, objectives and criteria as agreed between Klasmann-Deilmann and SGS on 02nd November/2015.

Level of Assurance

The level of assurance agreed is limited.

Scope

Klasmann-Deilmann has commissioned an independent verification by SGS of reported CO₂ equivalent emissions arising from their activities, to establish conformance with the requirements of ISO 14064-1:2006 within the scope of the verification as outlined below. Data and information supporting the CO₂ equivalent assertion were historical in nature and proven by evidence.

This engagement covers verification of emissions from anthropogenic sources of greenhouse gases included within the organization's boundary and meets the requirements of ISO 14064-1:2006.

- The organizational boundary was established following the operational control approach.
- Title or description of activities: Substrate production
- Location/boundary of the activities: all winning and production sites of Klasmann-Deilmann Group.
- Physical infrastructure, activities, technologies and processes of the organization peat winning, after use of peat areas, the production of substrates, transport and the end of life emissions (for one year).
- GHG sources, sinks and/or reservoirs included: Scope 1 – fugitive emissions of peat, stationary emissions from fuels, mobile combustion from fuels |



Note: This Statement is issued, on behalf of Klasmann-Deilmann GmbH, by SGS United Kingdom Ltd, Rossmore Business Park, Inward Way, Ellesmere Port, Cheshire, CH65 3EN ("SGS") under its General Conditions for GHG Validation and Verification Services. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement and the supporting GHG Assertion may be consulted at Klasmann-Deilmann (Sustainability Report 2015/ www.klasmann-deilmann.com). This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.

This Statement is not valid without the full verification scope, objectives, criteria and conclusion available on pages 2 to 4 of this Statement.

Scope 2 – purchased electricity | Scope 3 – 3rd party distribution by rail, road and sea, emissions from production of other ingredients, end use of product, upstream emissions from energy Removals – planted forest – are reported separately to the inventory, not reported as any scope.

- Types of GHGs included: CO₂, N₂O, CH₄.
- Directed actions: certain activities relating to renewable energy generation and forestry are reported separately but were not included within the scope of this verification.
- GHG information for the following period was verified: 01/01/2015 – 31/12/2015.
- Intended user of the verification statement: internal, customers and general public.

Objective

The purposes of this verification exercise are, by review of objective evidence, to independently review:

- Whether the CO₂ equivalent emissions are as declared by the organization's CO₂ equivalent assertion
- That the data reported are accurate, complete, consistent, transparent and free of material error or omission.

Criteria

Criteria against which the verification assessment is undertaken are the requirements of ISO 14064-1:2006. And Klasmann-Deilmann's own methodology.

Materiality

The materiality required of the verification was considered by SGS to be below 10%, based on the needs of the intended user of the GHG Assertion.

Conclusion

Klasmann-Deilmann provided the GHG assertion based on the requirements of ISO 14064-1:2006. The GHG information for the period 01/01/2015 – 31/12/2015 disclosing gross emissions of 270.593 metric tonnes of CO₂ equivalent are verified by SGS to a limited level

of assurance, consistent with the agreed verification scope, objectives and criteria.

SGS' approach is risk-based, drawing on an understanding of the risks associated with modeling GHG emission information and the controls in place to mitigate these risks. Our examination included assessment, on a sample basis, of evidence relevant to the voluntary reporting of emission information.

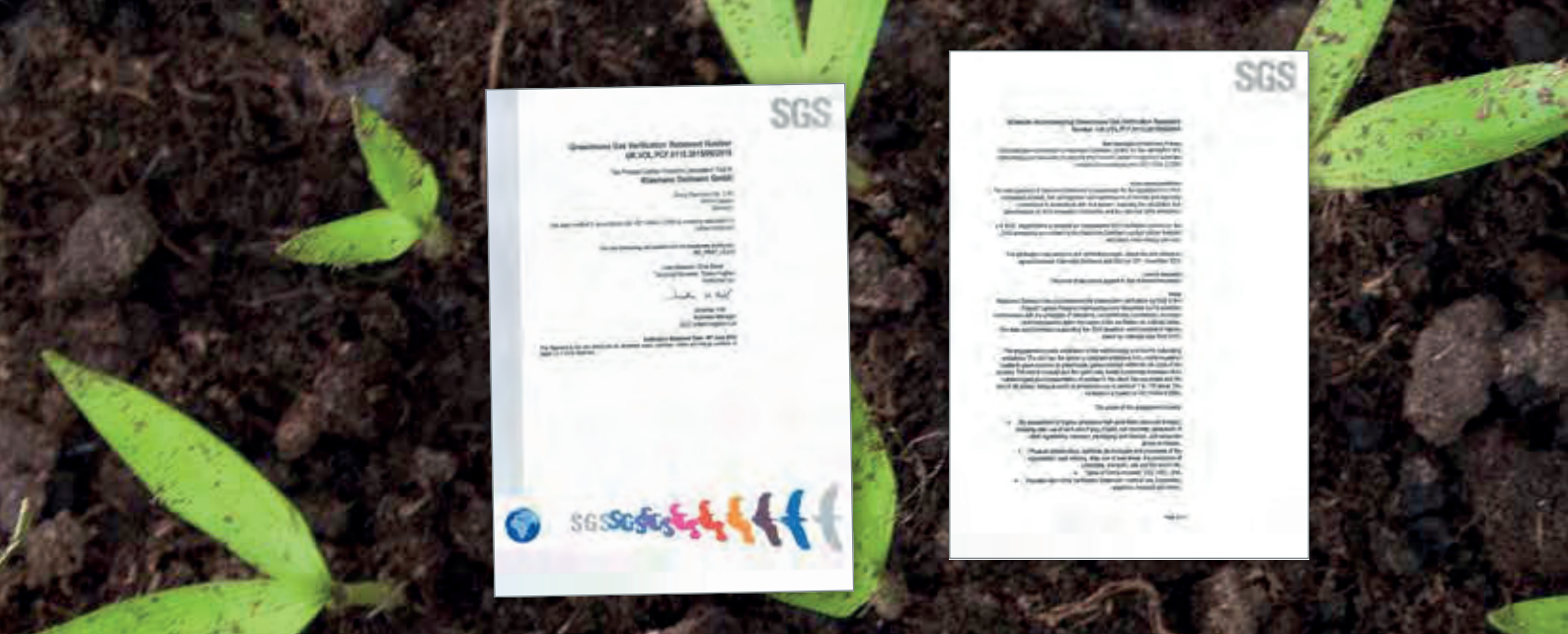
SGS concludes with limited assurance that there is no evidence to suggest that the presented CO₂ equivalent assertion is not materially correct and is a not fair representation of the CO₂ equivalent data and information, and is not prepared following the requirements of ISO 14064-1:2006.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a limited level of assurance that the CO₂ equivalent emissions for the period 01/01/2015 – 31/12/2015 are fairly stated.

SGS makes the following qualifications:

- The methodology used for the calculation of fugitive emissions from peat is based on ongoing research and has inherent uncertainties because of this. This uncertainty has not been accounted for within the materiality level applied.
- The organization's scope 3 emissions from the customer's fugitive emissions from peat are accounted for a period of 1 year only.
- The methodology used for the calculation of fugitive emissions from peat provides a net emissions figure taking account of baseline emissions that would have occurred without the activities of the client.
- Empty transport emissions (journeys back) are not included in the inventory as part of scope 3 emissions.

This statement shall be interpreted with the CO₂ equivalent assertion of Klasmann-Deilmann as a whole.



Product Carbon Footprint

Greenhouse Gas Verification Statement Number UK.VOL.PCF.0115.2015

The Product Carbon Footprint Calculation Tool of Klasmann Deilmann GmbH, Georg-Klasmann-Str. 2-10, 49744 Geeste, Germany has been verified in accordance with ISO 14064-3:2006 as enabling calculation of carbon footprints For the following calculation tool for substrate products: **KD_PEAT_v3.2.4**
Lead Assessor: Dina Bauer | Technical Reviewer: Shane Hughes
Authorised by: Jonathan Hall | Business Manager SGS United Kingdom Ltd
Verification Statement Date: 8th June 2016

Schedule Accompanying Greenhouse Gas Verification Statement Number UK.VOL.PCF.0115.2015

Brief Description of Verification Process

SGS has been contracted by Klasmann-Deilmann GmbH, for the verification of a methodology and tool used to calculate the Product Carbon Footprint of substrate products in accordance with ISO 14064-3:2006.

Roles and responsibilities

The management of Klasmann-Deilmann is responsible for the organization's GHG information system, the development and maintenance of records and reporting procedures in accordance with that system, including the calculation and determination of GHG emissions information and the reported GHG emissions. It is SGS' responsibility to express an independent GHG verification opinion on the GHG emissions as provided in the Klasmann-Deilmann product carbon footprint calculation methodology and tool. The verification was based on the verification scope, objectives and criteria as agreed between Klasmann-Deilmann and SGS on 02nd November 2015.

Level of Assurance

The level of assurance agreed is that of limited assurance.

Scope

Klasmann-Deilmann has commissioned an independent verification by SGS of the Product Carbon Footprint methodology and calculation tool to establish conformance with the principles of relevance, completeness, consistency, accuracy and transparency within the scope of the verification as outlined below. The data and information supporting the GHG assertion were historical in nature, based on collected data from 2015. This engagement covers verification of the methodology and tool for calculating emissions. The tool has the option to calculate emissions from cradle-to-gate or cradle-to-grave sources of greenhouse gases included within the life cycle of the product. The tool is modular and the option also exists to calculate emissions from cradle-to-gate plus transportation of product to the client, the use phase and the end of life phase, taking account of emissions over a period of 1 to 100 years. The verification is based on ISO 14064-3:2006.



Note: This Statement is issued, on behalf of Klasmann-Deilmann GmbH, by SGS UK Ltd ("SGS") under its General Conditions for GHG Validation and Verification Services available at http://www.climatechange.sgs.com/terms_and_conditions_climatechange. The findings recorded hereon are based upon an audit performed by SGS. A full copy of this statement, the findings and the supporting GHG Assertion may be consulted at Klasmann-Deilmann (Sustainability Report 2015/ www.klasmann-deilmann.com). This Statement does not relieve Client from compliance with any bylaws, federal, national or regional acts and regulations or with any guidelines issued pursuant to such regulations. Stipulations to the contrary are not binding on SGS and SGS shall have no responsibility vis-à-vis parties other than its Client.

This Statement is not valid without the full verification scope, objectives, criteria and findings available on pages 2 to 3 of this Statement.

The scope of this engagement covers:

- the assessment of fugitive emissions from peat fields (land use change), including after use of land and drying of peat, raw materials, production of other ingredients, transport, packaging, bulk storage, and consumer phase emissions.
- Physical infrastructure, activities, technologies and processes of the organization: peat winning, after use of peat areas, the production of substrates, transport, use and the end of life.
- Types of GHGs included: CO₂, N₂O, CH₄.
- Intended user of the Verification Statement: external use (customers, suppliers, investors and other).

Objective

The purpose of this verification exercise is, by review of objective evidence, to independently review:

- The methodology employed in the tool calculates CO₂ equivalent emissions per functional unit according to the requirements of the criteria below.

Criteria

Criteria against which the verification assessment are the principles of relevance, completeness, consistency, accuracy and transparency.

Materiality

The materiality threshold applied by SGS was 10%, based on the needs of the intended user.

Conclusion

Klasmann-Deilmann provided the Product Carbon Footprint Methodology and Calculation Tool based on the principles of relevance, completeness, consistency, accuracy and transparency. The methodology employed, the tool used to calculate the product carbon footprint of substrate products based on different recipes, and the input data for 2015 used in the tool are verified by SGS to a limited level of assurance, consistent with the agreed verification scope, objectives and criteria.

SGS' approach is risk-based, drawing on an understanding of the risks associated with modeling GHG emission information and the controls in place to mitigate these risks. Our examination included assessment, on a sample basis, of evidence relevant to the reporting of emission information.

SGS concludes with limited assurance that, there is no evidence that the Methodology and Product Carbon Footprint tool stated above is not materially correct and does not present data that is complete and accurate.

SGS makes the following qualifications:

- The methodology used for the calculation of fugitive emissions from peat is based on ongoing research and has inherent uncertainties because of this. This uncertainty has not been accounted for within the materiality level applied.
- The methodology used for the calculation of fugitive emissions from peat provides a net emissions figure taking account of baseline emissions that would have occurred without the activities of the client.

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8.4 About this publication

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Paper

Igepa Design Offset, natural white
100% certified FSC paper
Printed by: Riebelmann GmbH, Lohne





we make it grow