# CSR REPORT







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# **BAVARIAN NORDIC IN BRIEF**

Bavarian Nordic is a global company that develops and manufactures innovative vaccines and immunotherapies for the prevention and treatment of life-threatening diseases where there are as yet unmet needs. The Company's clinical pipeline focuses on cancer and infectious diseases.

The Company received its first product approval in 2013 with the marketing authorization of the IMVANEX® smallpox vaccine in the European Union in August. The vaccine was later approved in Canada in November (under the name of IMVAMUNE®). The vaccine was developed over a number of years in a collaboration with the U.S. government, and the Company has since 2010 supplied more than 20 million doses of the vaccine to the U.S. Strategic National Stockpile.

The Company's other leading program is PROSTVAC®, an immunotherapy candidate for the treatment of prostate cancer, which is in Phase 3 clinical development.

The Company has research laboratories in Mountain View, California, and Martinsried, Germany. The Company's head office and production facilities are located in Kvistgaard, Denmark.

Listed on the NASDAQ OMX Copenhagen exchange, the Company has roughly 21 thousand shareholders.

For more information on the Company and its ownership structure, please see our 2013 annual report or the Company's website:

www.bavarian-nordic.com

# INTRODUCTION

The year 2013 was an eventful one for Bavarian Nordic. With our first product approval from both the European and Canadian drug authorities, we received a seal of approval of our vaccine technology, which we have developed over the past ten-plus years. This has created a solid platform for further development of new vaccines: a development that is primarily driven by contracts with the U.S. government, which sees additional potential in our technology for use against potential bioterror threats. The most important thing that happened in 2013 was, however, winning a new supply contract from the U.S. government for the continued supply of IMVAMUNE® smallpox vaccine to the U.S. Strategic National Stockpile.

As part of our growth strategy, we continue to invest solidly in the development of new cancer immunotherapies, for which the pivotal product is PROSTVAC®, our product candidate for treating prostate cancer. In 2013, the large-scale global Phase 3 study of PROSTVAC also reached Denmark, where patients are now receiving treatment under the study. A total of 1,200 patients in 15 countries are expected to be enrolled in the study, which would form the basis for a subsequent approval of PROSTVAC, provided the results

are successful. As part of the preparations for launching PROSTVAC, 2013 also saw us beginning to expand our production facilities at Kvistgaard in Denmark in order to have the capacity to manufacture several different products there.

We successfully continued to reduce our aggregate climate impact, reducing our  $\mathrm{CO}_2$  emissions by almost 9% in 2013. After a time spent upscaling our production, production volumes were slightly lower in 2013 than in previous years. Combined with significant improvements in our production process, we managed to further reduce our consumption of energy and raw materials.

We are focused on health and employee well-being and were pleased to record a drop in sickness absence among our employees in 2013, although the rate remained higher than the average for Danish companies. This can mainly be explained by the special requirements for our production, including production staff not being allowed to return to work until they have completely recovered from an illness.

Another aspect of our efforts to ensure that we have a healthy and safe work-

place is the comprehensive occupational environment work we do in our organisation, which includes user involvement at all levels and in compliance with national legislation. For this reason, we were not satisfied to note that the number of reported occupational accidents increased in 2013. However, most of them were minor accidents, a fact that is reflected in the minimal number of related sick days. The accidents were not related to our working processes, but were random and thus could not have been avoided through our preventive work. However, our goal is to continue to reduce the general accident risk, paying special attention to any nearaccidents.

In 2014, our CSR work will continue to focus primarily on environment and staff, but we will also remain attentive to the ever-growing wishes, demands and requirements from the world around us, including any new legislation. This is something also reflected in the new goals we have set for our CSR work in 2014 and the years ahead, which are described in this report.

Anders Hedegaard
President and CFO

# **KEY FIGURES**

	2013	2012	2011	2010	2009
CSR					
Carbon footprint, global, tCO <sub>2</sub>	3,345	3,662	3,813	3,787	2,705
Carbon footprint, production, tCO <sub>2</sub>	2,102	2,319	2,565	2,587	2,223
Carbon footprint, index per dose produced	60	35	50	155	100
Absence rate	3.9%	4.3%	3.7%	4.6%	4.6%
Accidents, number per million working hours	11.6	3.8	4.0	7.6	15.3
Number of employees	440	461	452	412	360
Financials					
Revenue, DKK million	1,212.5	1,016.6	523.6	314.1	74.8
Profit before tax, DKK million	6.2	(48.7)	(296.4)	(483.4)	(331.1)

# **GOALS**

In each of our CSR areas of focus, we will constantly seek to improve the conditions that can generate better business value for the Company as part of our overall goal of creating the greatest possible shareholder value. For example, we will constantly work to optimize our production processes, also

by reducing our consumption of raw materials and energy, just as we also – naturally – continue to strive towards a well-functioning workplace with informed, satisfied and healthy employees and the resultant lower levels of sickness absence and occupational accidents. These and other general goals

are fully integrated into the operation of our business and form part of the ongoing evaluations in the respective areas.

In addition, we have set the following specific objectives for our CSR work for the coming years:

Area	<b>Objective</b>	Timing
Environment	We will establish KPIs for our consumption of energy and chemicals and for production waste.	2014
Working environment	We will work to reduce the number of occupational accidents to an annual number equivalent or less than the average of the past three years.	2016
Working environment	We will work to keep overall sickness absence below 4%. In addition, we will endeavor to set individual targets for sickness absence for white-collar and blue-collar workers and to report performance in this respect going forward.	2014
Business ethics	We will establish a training program for ethical conduct/anti-corruption.	2014
Employees	We will work over the next three years to reduce rates of employee turnover to a level below the average of the previous three years.	2016
Human rights	We will conduct a screening of the UN guiding principles on human rights and business.	2015
Human rights	We will work to maintain an equal gender distribution among the managers of the Group.	2014

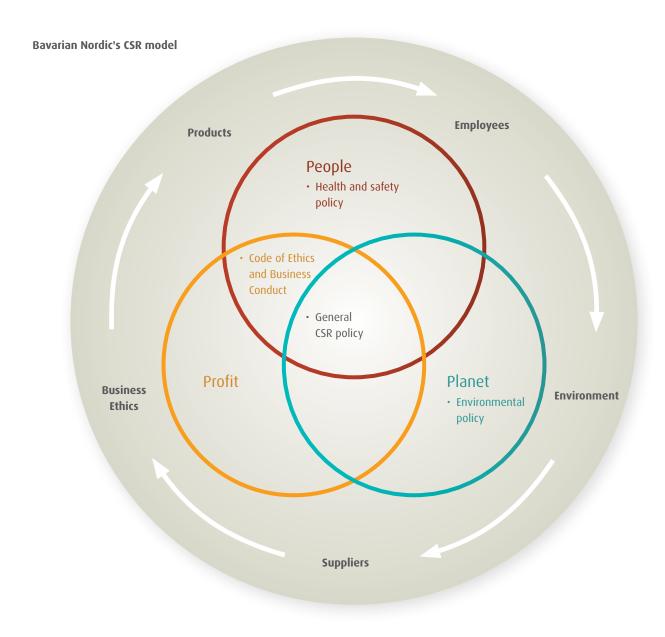
# **BAVARIAN NORDIC AND CSR**

In just a few years, Bavarian Nordic has grown from a pure research company into a fully integrated company with activities ranging from early research to the in-house production of vaccines. This transformation, combined with a high rate of organic growth, has required a great deal of systematic and thorough work to adapt the organization to its new tasks as a production company while also considering the world around us, in order to ensure that

our operations are responsible from both a financial and a social point of view.

In addition to our annual environmental reporting, we began working systematically with other aspects of CSR in 2009. This work is concentrated on the environment, our employees and our suppliers, but we also include other areas of significance to our business and have defined an additional two areas of focus: business ethics

and products. As a result, we now have five focus areas, all wholly or partly related to the three main elements of our CSR work: people (social relationships), planet (the environment) and profit (finances), as shown in the figure below. The figure below also shows how our policies and other specific initiatives cover the three main elements.



Our CSR goals are driven by the Company's general strategy of creating a profitable business; many of the specific targets stated in this report are derived directly from activities that support our general strategic goals. We are constantly working to identify areas that are crucial to the Company's business and also have or could have a positive impact on performance in working towards to the CSR targets set.

The model is explained in greater detail in the section of this report entitled "CSR elements".

In addition to a general CSR policy, we have policies in the areas we believe are essential to our work. These policies are a natural extension of the various objectives we work towards as a company, whose purpose is to create commercial value for the Company. We do not as yet have an actual suppliers policy, but have instead incorporated these elements into our general CSR policy. Neither do we have a policy for human rights, but we are aware of the UN Guiding Principles on Business and Human Rights, which we will investigate further in relation to our business.

We also have a number of other elements to support the Company's CSR work. A general overview of the most important of these elements appears at the end of this report, in the section "CSR elements".

#### About the report

This CSR report was prepared in accordance with the Danish Financial Statements Act requirements with respect to CSR reporting. The report covers the financial year January 1 to December 31, 2013, and forms part of the management's review in the annual report as signed and approved by the Board of Directors and Corporate Management on March 19, 2014.

#### Reporting principles

This CSR report was prepared with inspiration from the Global Reporting Initiative (GRI), a recognized framework for sustainability reporting. The GRI structure includes principles and indicators we use to measure and explain the Company's financial, environmental and social performance. We selected the areas to be reported on based on a principle of materiality: we endeavored to include the most important ways in which the Company has either a direct or an indirect impact on the world around it. Our production facilities are one of the chief sources of our impact on the environment, and we seek to provide a high degree of transparency by calculating our carbon footprint and reporting environmental data.

#### Scope of the report

In our CSR report, we focus on our largest facilities: i.e. Kvistgaard (industrial production, quality control laboratories, technical services department and administration), Martinsried (research and development), Berlin (production of clinical trial materials) and Mountain View, California (research and development). Taken together, these facilities employ more than 99% of the Group's staff and are responsible for the greatest share by far of the energy and raw materials consumed by the Group.

As part of our efforts to optimize our production competencies, we closed our Berlin facility in 2013 and transferred its operations to Kvistgaard. As a certain level of activity was maintained at the Berlin facility in the first six months of 2013, we have elected to include the 2013 data from Berlin in this report.

The scope of this report has not been expanded compared with our 2012 report.

# **POLICIES**

Bavarian Nordic develops and manufactures vaccines for the prevention and treatment of life-threatening diseases where there are as yet unmet needs. In doing so, we seek to create a continuing business that will ensure the Company's growth and investment in research and development and thus continue to contribute to a healthier and safer society.

At the same time, we focus on working and acting responsibly with respect to the world we live in. We aim to do this by

- manufacturing high-quality vaccines.
- working actively and systematically to minimize our impact on the environment and climate.
- maintaining an active dialog with our stakeholders on a local, national and global level.
- actively supporting and respecting human rights and labor standards.
- providing a safe and healthy working environment for our staff that includes opportunities for professional and personal development.
- communicating our CSR policy to external collaboration partners, including our suppliers.

#### **Environmental and climate policy**

At Bavarian Nordic, we design our vaccine production facilities and procedures so

that viruses do not escape into the indoor or outdoor environment through the air, in our waste or in our wastewater. At Bavarian Nordic, we continually work to improve our environmental and climate performance. Our aims are

- to encourage environmentally aware behavior and prevent contamination and pollution throughout the Company.
- to reduce our environmental and climate impact impact by
- developing and using processes with a minimum of environmental impact.
- optimizing our utilization of materials and energy.
- reducing emissions and waste.
- to comply with environmental protection regulations and relevant requirements.
- to gradually build an environmental management system based on the principles in the ISO 14001 standard.

#### Health and safety policy

A safe and healthy working environment is vital to employee safety and satisfaction at the workplace. We focus on systematically mapping both the physical and mental working environment so that the necessary preventive steps can be taken, for the benefit of both individual employees and the Company as a whole.

The aims of our general health and safety policy are

- to promote awareness of health- and safety-related behavior in all employees as part of their day-to-day work and to produce proactive solutions to potential problems.
- to gradually develop an environmental health and safety management system to support this proactive safety work.

# **PRODUCTS**

Bavarian Nordic helps make the world healthier, safer and more secure through our development and production of innovative vaccines and immunotherapies for the prevention and treatment of life-threatening diseases.

Research into and development of new products requires substantial investment, so a precondition for this work is the ability to create a lasting and profitable business.

Through contracts with the U.S. government, we have successfully developed a new smallpox vaccine that we manufacture for the U.S. Strategic National Stockpile, and this has laid the necessary foundation for the further development of our business and new products to benefit patients in the future.

Product safety is crucial in our business, and quality and responsibility are important elements of our corporate culture. Drug development is already one of the most regulated areas, in which a strong regulatory regime of inspections and approvals sets a high standard for all areas of our disciplines.

#### IMVANEX® smallpox vaccine

Our IMVANEX smallpox vaccine was approved in the European Union in August 2013 and in Canada in November 2013 (under the name of IMVAMUNE). We have manufactured the vaccine at our Kvistgaard facility for a number of years and supplied it to various governments. Although we only obtained marketing

authorizations for the vaccine in 2013, certain countries have prioritised having a stockpile of the vaccine for potential use as part of their biological preparedness in persons who do not tolerate the traditional smallpox vaccines well.

Our primary customer is the U.S. government, which ordered 20 million doses in 2007 for delivery in 2010-2013. The U.S. government placed a new order in April 2013, which runs into 2014.

The IMVANEX vaccine is based on a live attenuated virus, so it cannot be heat sterilized because that would destroy the active ingredient in the vaccine. For this reason, a scrupulous quality control and hygiene assurance has been built into the entire process. The pharmaceutical industry works according to GMP<sup>2</sup>). GMP includes strict requirements with respect to a product's traceability, strength, quality and purity, which means that quality management is built into each step of the manufacturing process. GMP rules are laid down by the Danish, European and U.S. health authorities.

Bavarian Nordic supplies these markets and thus complies with these quality requirements.

# PROSTVAC® – prostate cancer immunotherapy

PROSTVAC is our leading cancer project in final Phase 3 development. PROSTVAC belongs to a new class of treatment: immunotherapy aimed at training the patient's own immune system to fight cancer. In an earlier large-scale Phase 2 clinical study, the vaccine demonstrated an increased median survival time of 8.5 months for patients with advanced prostate cancer. These results are among the best ever demonstrated in this patient group, and they have led to the start-up of a global Phase 3 clinical study in 1200 patients with metastatic castration-resistant prostate cancer.

We intend to apply for a marketing authorization for PROSTVAC once positive data from the study are available. We have already begun preliminary activities with a view to a market launch, including preparations for manufacturing the vaccine at our Kvistgaard facility, where the construction of a new production unit began in 2013 after we received environmental approval in June.

# **ENVIRONMENT AND CLIMATE**

Most of Bavarian Nordic's impact on the environment and climate comes from our production, so we pay particular attention to improving efficiency and our manufacturing processes in order to optimize our use of resources.

When we built our factory in the Danish town of Kvistgaard in 2005, we had a great deal of focus on the factory's environmental impact. Since then, we have continually worked to minimize our environmental impact, and we continue to work actively with environmental, health and safety planning in new building projects as well, also in connection with the construction of the new building in which PROSTVAC will be manufactured. The new features of the building will include recirculation of air to save on energy consumption, as approved by the Danish Working Environment Authority.

In connection with recent years' expansion of the facility and its production, we have also paid particular attention to our impact on the community, making an effort to remain in communication with our neighbors, especially with respect to noise, which is what may affect them most directly.

In 2013, we exceeded the noise limits on a single reference point in connection with the installation of new cooling containers. However, we received no complaints from our neighbors or others, so we applied for these restrictions to be eased pursuant to Danish law in 2012. In March 2013, the Danish Environmental Protection Agency turned down our application for the noise limits to be eased, so we have begun installing a noise screen

to limit the noise. We subsequently made a new measurement of noise throughout the facility, which was documented in a report issued in November 2013. The report contains an updated calculation of noise conditions around the facility. The noise exposure has been determined at all reference points and shows that the noise exposure is lower than the noise limits set during all day and night periods.

A wastewater test measurement in December 2012 showed that it exceeded permitted pH and chloride content levels. An investigation was launched, and a slightly elevated content of chloride was found, probably due to road salt. No cause of the elevated pH level was identified. A test measurement in October 2013 showed that all parameters were in compliance.

The environmental protection authorities have categorized Bavarian Nordic as a Level 1 company, i.e. they deem the Company to be at the forefront of environmental work. This is reflected in a high degree of compliance and systematization. The environmental authorities no longer categorize companies, but it is Bavarian Nordic's goal to remain at a high level in its environmental work, also as we await a new initiative from the environmental authorities in the course of 2014.

In 2013, we maintained our low 2012 level of relative climate impact, which was achieved as we continued to work towards a more efficient utilization of our production facilities. We will continue to focus on opportunities to reduce our relative climate impact.

In late 2012, we installed a new energy monitoring system at our Kvistgaard facility to collect data and track our use of energy and water. The new system allows us to identify inappropriate consumption and thus make improvements. In 2013, we had the opportunity to analyse our consumption figures, and we will continue to do so in 2013 in order to define future reduction targets.

Moreover, we will be conducting an energy screening of our entire Kvistgaard facility in 2014 to find out how and where we can optimize our energy consumption. We will conduct the energy screening, when we have selected an external service provider to so.

Bavarian Nordic's environmental permit from September 7, 2004, is up for reassessment, so we prepared a new, updated environmental technical description in late 2013. Against this backdrop, the environmental authorities will conduct a reassessment – also looking at the limits set – sometime in 2014. The purpose of the update is to incorporate the changes that have occurred since 2004, including an environmental approval of the manufacture of PROSTVAC from June 2013.

# **EMPLOYEES**

Bavarian Nordic has in recent years moved from being a purely research-based business to also encompassing in-house production and quality control.

These are areas in which many different staff groups work together, and the rapid growth we have seen has made it essential for us to establish a shared identity and culture for the Company and its employees. For this reason, we defined a set of corporate values in 2011 and worked to anchor them throughout the organization over the past few years.

As an example, the corporate values are an integral part of both our annual employee performance reviews and job interviews when we recruit new employees. In addition, we have begun offering a management development course in which our corporate values also play a key role.

We have also established an HR forum with representatives from the HR functions in all our countries of operation: its purpose is to ensure overall coordination of management initiatives and to establish best practices for this field. The forum has defined common goals for our work with the corporate values, and in 2014 we will focus on strengthening our internal communications throughout the organisation.

#### Diversity

As a global organisation, we are used to collaborating across national borders and cultures. We support a diverse, accommodating and non-discriminatory working environment without looking at gender, age, ethnicity, physical impairment, religion or sexual orientation, and we believe this helps create business value in the Company.

Our Board of Directors discusses the Company's activities every year in order to ensure that the greatest possible competencies exist at all management levels. Our managers and executives are selected exclusively on the basis of their qualifications and not on gender. This ensures that we can provide equal opportunities to both sexes if candidates for the positions have the required professional background.

The Board of Directors is our supreme governing body and consists of six shareholder-elected members. In 2013, all members of the Board of Directors were men, so the Board set a target for representation of the under-represented gender: 15%, equivalent to one person, and the target must be met in 2017 at the latest. The target was set taking into account the composition of the current Board of Directors and the boards of directors of our peer companies, but also considered ensuring continuity on the Board of Directors, which is why the target is considered to be both realistic and ambitious.

There was no under-representation of men or women among other executive or management staff of Bavarian Nordic at year-end 2013. We will determine the share of male and female managers and executives every year to ensure compliance with statutory requirements. (See also Table 2.)

#### Training and upgrading of employee qualifications

We are an innovative, knowledge-based company, and it is important for us to attract and retain highly qualified workers. Also for this reason, we want to offer our staff a good working environment that also provides them with development opportunities. There are good opportunities at Bavarian Nordic, both for development within a field of work by rotation between

production, laboratory and office jobs, or for development vertically within the management hierarchy. As a result, we are happy to recruit internally, and we focus on staff development potential in our annual employee performance reviews.

It is crucial that our employees have the necessary tools and techniques to perform well in their jobs now and in the future. Our goal is, as a minimum, for our workers and managers to always have the skills to look for and find their own job. For this reason, we focus on continuing training and education and on upgrading qualifications, also those of the many employees who work in the GMP areas. Furthermore, we have allocated additional funds for training, and more employees have taken external courses. A few have begun taking classes in training or educational programs while continuing to work at Bavarian Nordic. In 2013, the first employees at our Kvistgaard facility completed training as plant operators, and several new participants have enrolled.

We also regularly hire trainees, also graduate work experience trainees, contributing to the effort to ensure that university students obtain the competencies required in business and industry. We also want to be able to offer relevant student jobs to university students. In addition, representatives from Bavarian Nordic regularly hold presentations at a number of colleges and universities as part of the programs offered by those institutions.

#### Leadership

In step with our growth as a company, requirements with respect to a visible and competent leadership have also grown, and in recent years we have had a special focus on training managers and execu-

tives at all levels. In 2013, we completed a specially designed management development course for all managers and executives of the Group.

#### Employee health and job satisfaction

At Bavarian Nordic, we strive towards a good, healthy work-life balance, and at work we focus on employee health and job satisfaction. We do so in a close dialogue between management and employees through a number of established committees, including a works council and a health and safety committee on which both management and employees are represented and regularly discuss matters that may have an impact on the wellbeing and jobs of our employees. All staff at Kvistgaard are included in our corporate health insurance plan, which ensures fast and professional help and treatment at private hospitals and from psychologists, chiropractors, physiotherapists, etc., should the need arise.

We work actively to counteract stress. We have a focus on stress indicators in daily

work life and offer help in handling stress as needed.

#### Absence

We have been working actively for several years on dialog-based sickness absence management, ahead of legislative trends. We generally achieve a quicker return to work by handling each case individually, also including an option to return to work part-time or be assigned other tasks at first. The goal is to reduce the percentage of long-term absence that is due to sickness, which has accounted for a substantial share of all sickness absence in recent years.

#### A good, safe working environment

The Company's occupational health and safety work is different at our different sites to comply with the different countries' regulatory requirements. We will survey working environment conditions at our Kvistgaard facility going forward by conducting workplace assessments every second year, which is more frequent than the every three years required by Dan-

ish law. Moreover, we regularly conduct workplace assessments when observations or changes in working procedures indicate there is a need to do so. Based on the workplace assessments, relevant improvement initiatives are put forward, prioritized and translated into action in the various departments. In compliance with Danish regulations, employee representatives and managers have been elected to health and safety groups and a health and safety committee at Kvistgaard. The health and safety committee meets every quarter to follow up on the action plan in order improve working conditions and safety.

To further improve our health and safety work, we hired an EHS specialist at Kvistgaard in 2013 (Environment, Health and Safety) to provide support in our health and safety work and to coordinate measures concerning health and safety, the environment and our general preparedness. In 2013, a special area of focus was a workplace assessment, implementation of a new system for preparing workplace

#### **Our values**

#### **EXCELLENCE**

- We show ambition and openness to novel approaches
- We are goal oriented and deliver on our promises
- We show determination to succeed and perform above expectations and market standards

#### **AGILIT**

- We adapt with speed and flexibility to business challenges and opportunities
- We are accountable and willing to make decisions

#### DEDICATION

- We show commitment and motivation to the development of the business
- We show initiative and persistence in what we do
- We are enthusiastic in how we work and show a deep felt interest in what we are here for

user guides, coordination of construction site safety, and risk assessment preparations related to the coming production of PROSTVAC.

In 2013, an increase was recorded in the number of occupational accidents with more than one day of resulting absence, which also caused an increase in our accident rate, although this rate is still lower than the average accident rate for Danish companies.

At Kvistgaard, where most of the Company's employees work, three occupational accidents were reported in 2013, and six were reported in Germany. The accidents were minor ones, causing an average of

1.3 days of absence. We are very much focusing on reversing this trend by thoroughly investigating the accident causes in order to prevent similar accidents in future. As part of our preventive work, we have also introduced reporting of near-events that could have led to an accident.

#### Our employee philosophy

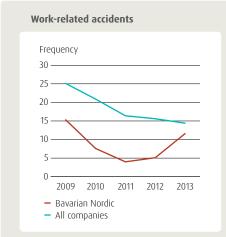
At Bavarian Nordic, we offer a challenging and international working environment in which job satisfaction and personal development have a high priority. We are committed to making it a great place to work by empowering our employees to perform their tasks to their own satisfaction, while aiming for the success of the Company.

We encourage innovative thinking that promotes beneficial change for both the individual and the Company.

We believe that flexibility and a willingness to adapt are key characteristics for success – as a company and as employees.

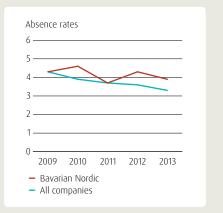
We respect different personalities and cultures and believe the the diversity of our employees creates value for the Company. We strive for an integrated corporate culture driven by teamwork and mutual respect, while at the same time recognizing the individual effort.

We expect our employees to be accountable in all aspects of their working life.



Number of accidents per million working hours compared with DI (Confederation of Danish Industry) statistics for work-related accidents (all occupational groups).

#### Sickness absence



Comparison with DI (Confederation of Danish Industry) statistics for sickness absence (all companies).

# **SUPPLIERS**

As an integral part of Bavarian Nordic's CSR policy, we wish to maintain an active dialog with our suppliers about social responsibility and environmental initiatives.

When setting up our production, we mapped out the geographical locations of our raw materials suppliers and found that they are mainly located in North America and the EU, which already have a high level of regulation of social and environmental parameters. Also, new potential suppliers are evaluated with respect to their geographical location and thus the risk they represent, and an assessment is made as to whether action is necessary.

In contracts with our suppliers, we inform them of our business ethics and our expectations that our suppliers comply with basic ethical, social and environmental guidelines. In accordance with both Good Manufacturing Practice (GMP) and our own supplier management system currently in place, all our new raw materials suppliers are audited. Following the initial audit, suppliers are evaluated every third year as a minimum, either by way of a visit or a questionnaire, depending on the situation.

The audits do not include CSR-related issues, but they provide an excellent opportunity to talk with the suppliers about their attitudes and practices in the area and also to comment on any problematic issues.

# **BUSINESS ETHICS**

Bavarian Nordic prioritizes business ethics as a natural part of its underlying business concept. We want to be seen as credible and reliable in the eyes of our collaboration partners and the rest of the world around us.

We have developed a Code of Ethics and Business Conduct that must be observed by everyone in the Company. Management is obliged to take violations of the code seriously.

The Code of Ethics and Business Conduct contains rules within a large number of areas, including

- · Compliance with laws and regulations
- · Conflicts of interest
- · Gifts, free services and entertainment
- Corrupt practices

The Code also includes the rules and regulations in the Foreign Corrupt Practices
Act (FCPA) and the Truth in Negotiations
Act (TINA) that are relevant in connection
with the Company's business transactions
and negotiations in the United States.

The Company is otherwise committed to cooperating in connection with investigations organized by authorized individuals working on behalf of authorities with legitimate rights.

#### Ethics hotline in 2014

The Company's management has decided to introduce an ethics hotline to give employees the opportunity to report possible violations of the Code. A special work group reporting to the management

has been looking at the practical aspects of such a hotline, which will be set up in collaboration with a third-party service provider, partly to protect the employees who raise concerns, and partly to ensure that the necessary investigations are conducted when a concern has been raised, and that corrective action is taken if necessary.

Because the ethics hotline may involve reporting personally sensitive data, it must be pre-approved by the Danish Data Protection Agency. We filed an application with the Agency in 2012 that the Agency took longer than expected to process, so we expect to have the hotline up and running sometime in the first half of 2014.

# INDEPENDENT AUDITOR'S REPORT ON KEY PERFORMANCE INDICATORS

# To the Executive Board of Bavarian Nordic A/S

We have reviewed the key performance indicators for 2013 in Tables 1 to 6 in Bavarian Nordic A/S' 2013 CSR report for the purpose of issuing an auditor's report in this respect.

The Company's Management is responsible for the CSR report. Our responsibility is to express a conclusion on the key performance indicators in the CSR report based on our review.

#### Scope of work

We conducted our work in accordance with International Standards on Auditing governing Other Assurance Engagements and additional requirements under Danish audit regulation to obtain limited assurance about our conclusion. We have obtained limited assurance because, compared to a reasonable assurance engagement, our work has been limited primarily to inquiries of company personnel and analytical procedures.

The purpose has been to obtain limited assurance that the data presented in the CSR report are in accordance with the described reporting practice and the information submitted by the reporting units included.

Our work is based on an assessment of risk of material misstatements. The work consists primarily of inquiries of company personnel and of applying analytical procedures.

We believe that the work conducted provides a reasonable basis for our conclusion.

#### Conclusion

Based on our work, nothing has come to our attention that causes us to believe that the key performance indicators in Tables 1 to 6 in the CSR report for 2013 are not in accordance with the reporting practice described and the information reported by the production sites.

Copenhagen, March 19, 2014

#### **Deloitte**

Statsautoriseret Revisionspartnerselskab

#### **Carsten Vaarby**

State Authorised Public Accountant

# **KEY FIGURES**

The key figures in Table 1 (carbon footprint) and Table 2 (employees) relate to our overall global activities to the greatest possible extent, whereas the key figures in Tables 3-6 only cover environmental conditions relating to our production facility in Kvistgaard, Denmark, and contain data that must be reported and published under Danish environmental legislation and the EU PRTR regulation.

#### **GLOBAL**

#### 1. Carbon footprint

Table 1	Unit	2013	2012	2011	2010	2009
Carbon footprint, global	t CO <sub>2</sub>	3,345	3,662	3,813	3,787	2,705
Direct emissions (Scope 1)						
Heating	t CO <sub>2</sub>	1,324	1,367	1,225	1,356	956
Power generation	t CO <sub>2</sub>	12	6	3	3	1
Fugitive emissions	t CO <sub>2</sub>	14	14	8	4	6
Transport of employees (motor vehicles)	t CO <sub>2</sub>	67	83	79	72	68
Transport of raw materials (internal)	t CO <sub>2</sub>	1	1	1	0	0
Indirect emissions (Scope 2)						
Electrical power, purchased	t CO <sub>2</sub>	1,734	1,939	2,110	2,010	1,494
Heating, purchased	t CO <sub>2</sub>	193	252	388	342	180
Cooling, purchased	t CO <sub>2</sub>	-	-	-	-	-
Carbon footprint, Kvistgaard	t CO <sub>2</sub>	2,102	2,319	2,565	2,587	2,223
Carbon footprint, Kvistgaard, Index per dose produ	ıced*	60	35	50	155	100

<sup>\*</sup> In recent years, Bavarian Nordic has focused on production optimization, and this has resulted in substantial improvements in the use of resources and energy per manufactured dose. For this reason, we elected to present our climate impact as an index figure reflecting the relative energy consumption per manufactured dose.

Our total  $CO_2$  emissions were down by 9% year on year, which was mainly due to a lower level of manufacturing activity.

Our manufacturing efficiency improved again in 2013 as a result of a continuing focus on process efficiencies and utilization of resources; we also reduced our power consumption, with the effect that relative emissions per manufactured dose remained under index 100.

The Kvistgaard facility, where our industrial production and many of our laboratory activities take place, is also the facility that contributes most to our total carbon footprint. The largest source of CO<sub>2</sub> emissions is the facility's use of electrical power, followed by natural gas for heating. The power is used to run ventilation systems, a refrigeration compressor, process equipment, refrigerators, freezers, air compressors, office equipment and lighting; the natural gas is used for heating and steam production.

<sup>&</sup>lt;sup>2</sup> PRTR: Pollutant Release and Transfer Register: http://europa.eu/legislation\_summaries/environment/general\_provisions/l28149\_en.htm

#### 2. Employees

Table 2	Unit	2013	2012	2011	2010	2009
Employees, total (year-end)	Number	440	461	452	412	360
Employees, total (converted to full-time	Number	440	401	432	712	300
equivalents, average over the year)	Number	441	448	429	377	337
Distribution:						
Kvistgaard	Number	238	246	245	206	176
Martinsried and Berlin	Number	126	138	131	128	126
Mountain View	Number	73	60	49	37	28
Other	Number	4	4	4	6	6
Absence	0/0	3.9	4.3	3.7	4.6	4.6
Employee turnover	0/0	19.6	13.7	14.1	-	
Employee groups						
Ratio of men to women in management						
and executive positions	%	55/45	-	-	-	
Under collective agreement	Number	52	57	71	-	
Other employees (white-collar workers with or						
without management responsibility, executives)	Number	388	404	381	-	
Accidents, total	Number	9	4	3	5	9
Kvistgaard	Number	3	0	3	4	8
Martinsried and Berlin	Number	6	4	0	1	1
Mountain View	Number	0	0	0	0	0
Other	Number	0	0	0	0	0
Accident rate	-	11.6	3.8(1)	4.0	7.6	15.2
Average absence per occupational accident	Days	1.3				

<sup>&</sup>lt;sup>1)</sup> The comparative figure for 2012 has been restated.

Our headcount was down by 5% in 2013, a decline mainly due to the closure of our facility in Berlin, which took place over the course of the year as part of our efforts to increase production efficiency. The activities from Berlin were transferred to Kvistgaard. The decline was partly offset by the continuing expansion of our R&D department in Mountain View, primarily as a result of the Phase 3 study for PROSTVAC.

The rate of employee turnover was 19.6% (2012: 13.7%), an increase primarily due to the outflow of employees from Berlin.

The absence rate was 3.9% in 2013, which was lower than in 2012. The absence rate includes employees at Kvistgaard, Martinsried and Berlin. The absence rate for Kvistgaard was 3.5% (2012: 3.5%), while the combined rate for Martinsried and Berlin was 4.8% (2012: 5.7%), an improvement mainly due to a lower percentage of long-term absence.

In 2013, there were nine occupational accidents, the highest number since 2009, although they were minor accidents causing an average of 1.3 days of absence. The accident rate remains below that of other companies, and it is our goal to continue reducing the rate through proactive measures in the field of occupational health and safety.

#### **DENMARK**

#### 3. Raw and ancillary materials

Table 3	Unit	2013	2012	2011	2010	2009
Eggs	pcs.	565,500	916,650	790,090	285,948	266,496
Various ready-mix media, etc.	Liters	111,217	144,380	184,560	100,643	85,371
Acids/bases	Liters	10,644	10,142	10,962	5,065	4,333
Salt (NaCl)	kg	6,000	9,000	9,000	9,000	6,000
Cleaning agents, disinfectants	Liters	16,127	25,401	27,830	9,112	4,454
Plastic bags	pcs.	9,914	13,177	15,314	6,675	8,288
Refrigerants, propylene glycol, etc.	Liters	326	300	610	500	1,208
CO <sub>2</sub>	Nm³	4,558	4,917	3,116	2,385	3,357
$\overline{N_2}$	Nm³	1,784	773	777	649	899
Propane	kg	264	264	385	605	374
Agar plates	pcs.	75,670	99,880	128,165	97,980	78,210
Media for process simulation	Liters	7,402	11,164	8,717	6,636	4,922

Chicken eggs are used in the production process, inoculated with MVA-BN® to produce the active ingredient of the vaccine. Ready-mixed media (nutrients) are used to culture the biological agents, along with ready-made saline solutions to purify the active ingredient. Disinfectants are used together with acidic and alkaline solutions to clean systems and equipment and adjust the pH of the wastewater before discharging it into the municipal sewer system. Disinfectants are also used to disinfect the eggs

before further processing. Glycol is used in the cooling/refrigeration systems, along with small amounts of corrosion inhibitors in the production of steam.

For most parameters, raw materials consumption was below the 2012 level, because fewer batches were produced in 2013 than in 2012.

#### 4. Water and wastewater

Unit	2013	2012	2011	2010	2009
$m^3$	3,680	5,560	5,689	3,158	2,671
m³	8,218	6,829	6,917	12,871	7,740
m³	11,898	12,389	12,606	16,029	10,411
kg	29	22	20	41	5
kg	224	191	161	223	29
kg	630	481	530	1,115	110
kg	5,259	4,234	2,628	1,416	389
	m³ m³ m³ kg kg	m³ 3,680 m³ 8,218 m³ 11,898 kg 29 kg 224 kg 630	m³     3,680     5,560       m³     8,218     6,829       m³     11,898     12,389       kg     29     22       kg     224     191       kg     630     481	m³         3,680         5,560         5,689           m³         8,218         6,829         6,917           m³         11,898         12,389         12,606           kg         29         22         20           kg         224         191         161           kg         630         481         530	m³     3,680     5,560     5,689     3,158       m³     8,218     6,829     6,917     12,871       m³     11,898     12,389     12,606     16,029       kg     29     22     20     41       kg     224     191     161     223       kg     630     481     530     1,115

Process wastewater is heat-inactivated, cooled and pH adjusted before being discharged into the public sewer system. Inactivation is a procedure that ensures that all virus remnants are rendered 100% harmless, and the system is checked for operational problems before discharge. This treatment ensures that the discharged wastewater complies with the requirements in the Company's permit to use the municipal sewer system, which was issued in October 2004.

#### 5. Waste

Table 5	Unit	2013	2012	2011	2010	2009
Total waste	Metric tons	125	162	162	100	76
- Of which hazardous waste	Metric tons	20	23	24	8	4
Breakdown of waste disposed of:						
Incineration		74%	79%	76%	80%	83%
Recycling		10%	7%	8%	11%	11%
Special treatment		16%	14%	15%	8%	6%

Waste consists primarily of disposable process equipment and egg waste. Disposable process equipment includes production bags, tubing and other disposable equipment. The bags are autoclaved and sent to incineration; the egg waste is also sent to incineration. Hazardous waste includes organic solvents, acids, bases, hazardous clinical waste, etc.

#### 6. Incidents of non-compliance with environmental protection legislation

Table 6	Unit	2013	2012	2011
Violations of terms, etc. and accidental discharge	Number	1	7	7
violations of terms, etc. and accidental discharge	Nullibei	<u>'</u>		
Complaints	Number	0	0	0

In March 2013, Bavarian Nordic received a noise limits enforcement notice from the Danish Environmental Protection Agency, which at the same time rejected the company's application for the noise limit to be raised at a single reference point at our Kvistgaard facility. Against this backdrop, we prepared and implemented an action plan to reduce noise, with the result that we now comply with the noise limits as documented in our November 2013 report titled Miljømåling Ekstern Støj ("Environmental measurement, external noise").

# **CSR ELEMENTS**

	People	Planet	Profit
Our values	X	X	Х
Quality system	X		
Policies			
General CSR policy	X	X	Х
Environmental policy		X	
Health and safety policy	X		
Suppliers policy	Х	X	Х
Trade in Company shares			Х
Handling of inside information			Х
Code of Ethics and Business Conduct			
Code of Ethics and Business Conduct			Х
Gifts, gratuities and entertainment			X
Compliance with laws and regulations			X
Conflicts of interest			X
Foreign Corrupt Practices Act (FCPA)			X
Truth in Negotiations Act (TINA)			X
Government investigations			X
Creating accurate records and preserving Company records			X
Timekeeping requirements			Х
Working conditions			
Stress management and conflict management	X		
Dialog-based sickness absence management	X		
Health insurance	X		
Staff association			
Phantom share scheme	X X		X
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Tools			
Management development training course	X		
Employee performance reviews	X		
Ethics hotline for reporting violations, etc.	Х	Х	Х
Special committees and groups			
Works council	Х		
Health and safety work group	Х		
Health and safety committee	Х		
CSR group	Х	Х	Х
HR Forum	Х		

# **GRI INDICATORS**

This CSR report was prepared with inspiration from parts of the Global Reporting Initiative (GRI) , a recognized framework for sustainability reporting. The GRI structure includes principles and indicators used to measure and explain financial, environmental and social performance.

GRI ref.	Description	Reference
Profile di	sclosure	
1.2	Description of key impacts, risks, and opportunities	Section 5
2.1	Name of the organization	Section 5
2.2	Primary brands, products, and/or services	Section 7
2.3	Operational structure of the organization, incl. main divisions, operating companies, subsidiaries	
	and joint ventures	Annual report
2.4	Location of organization's headquarters	Section 1
2.5	Number of countries where the organization operates	Section 5
2.6	Nature of ownership and legal form	Section 1
2.7	Markets	Section 1
2.8	Scale of the reporting organization	Section 13 and annual report
2.9	Significant changes during the reporting period regarding size, structure or ownership	Annual report
3.1	Reporting period	Section 5
3.2	Date of most recent previous report	Section 5
3.3	Reporting cycle	Section 5
3.4	Contact point for questions regarding report	Back page
3.5	Process for defining report content	Section 5
3.6	Boundary of the report	Section 5
3.7	Specific limitations on the scope or boundary of the report	Section 5
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques	
	underlying estimations applied to the compilation of the indicators and other information in the repor	t Section 16
3.10	Explanation of the effect of any restatements of information in previous reports and the reasons for	
	such restatements	Section 13
3.11	Significant changes to previous reporting periods in the scope, boundary, or measurement methods	
	applied in the report.	Sections 1 & 16
3.12	Table identifying the location of the Standard Disclosures in the report	Section 15
3.13	Policy and current practice with regard to seeking external assurance for the report	Section 12
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	Annual report
4.3	The number of members of the highest governance body that are independent and/or	
	non-executive members.	Annual report
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to	
	economic, environmental and social performance	Sections 6 & 9
Economic	performance indicators	
EC1	Direct economic value generated and distributed	Annual report
		-

<sup>&</sup>lt;sup>3</sup> http://www.globalreporting.org

GRI ref.	Description	Reference
Environm	ental performance indicators	
EN1	Materials used by weight or volume	Section 13
EN2	Percentage of materials used that are recycled input materials	Section 13
EN3	Direct energy consumption by primary source	Section 13
EN4	Indirect energy consumption by primary source	Section 13
EN5	Energy saved due to conservation and efficiency improvements	Section 8
EN8	Total water withdrawal by source	Section 13
EN16	Total direct and indirect greenhouse gas emissions by weight	Section 13
EN17	Other relevant indirect indirect greenhouse gas emissions by weight	Section 13
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	Section 8
EN19	Emissions of ozone-depleting substances by weight	Section 13
EN20	NOx, SOx and other significant air emissions by type and weight	Section 13
EN21	Total water discharge by quality and destination	Section 13
EN22	Total weight of waste by type and disposal method	Section 13
EN23	Total number and volume of significant spills	Section 13
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous	Section 13
EN28	Monetary value of significant fines and total number of non-monetary sanctions for	
	non-compliance with environmental laws and regulations	Section 13
LA1 LA2	Total workforce by employment type, employment contract, and region  Total number and rate of employee turnover by age group, gender, and region	Section 13 Section 13
LA3	Employee benefits	Annual report
LA4	Percentage of employees covered by collective bargaining agreements	Section 13
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of	
	work-related fatalities by region	Section 13
Section 1	Bavarian Nordic in Brief (page 3)	
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Section 16		

# REPORTING PRINCIPLES

The basic data for this report covers the entities stated in the table below. All data for resource and raw materials consumption in the manufacture of finished products refers only to the production facility at Kvistgaard. The facility in Berlin was closed by the end of June 2013, so data from there only refers to the first six months of the year. Data was gathered to the extent it was accessible within the boundaries of our existing systems.

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Our carbon footprint calculations are based on the standard from and recommendations of the Greenhouse Gas Protocol Initiative for calculating an organization's total carbon emissions, which include the six greenhouse gasses addressed by the Kyoto Protocol - CO<sub>2</sub>,CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub> – calculated in metric tons of CO<sub>2</sub> equivalents. Emissions sources are divided into three scopes: direct emissions from activities under the Company's control (Scope 1), emissions from the consumption of electrical power (Scope 2) and indirect emissions from products and services (Scope 3). According to the recommendations, organizations should report on Scope 1 and Scope 2 as a minimum, and this is what we have decided to do in our carbon footprint statement.

We have calculated the total carbon emissions from our locations in Kvistgaard, Martinsried, Berlin and Mountain View. In 2013, we also included the power and heating consumption at our leased laboratories in Hørsholm. Berlin was only in operation during the first six months of the year. As no consumption data are available from that location, we estimated the figures based on average consumption during the preceding three years.

Indicator	Reference	Entities included
Carbon footprint (tCO <sub>2</sub> )	Table 1	K, M, B, C (1) (2)
Other environmental data	Tables 3-6	K
Accident rate	Table 2	All
Absence	Table 2	K, M, B
Number of employees	Table 2	All
Employee turnover	Table 2	AII <sup>(3)</sup>

K: Kvistgaard, M: Martinsried, B: Berlin, C: California (Mountain View)

For other sites, the calculations include the following four different types of emissions:

#### Natural gas and oil

This figure is based primarily on current consumption as measured by monthly meter readings. Oil used for emergency generators is estimated or based on oil purchased. Greenhouse gas emissions from the combustion of fossil fuels are calculated on the basis of an average emission factor.

#### **Fugitive emissions**

Fugitive emissions include CO<sub>2</sub> from the use of dry ice and CO<sub>2</sub> gas plus emissions of greenhouse gasses from cooling and refrigeration systems.

#### **Electricity**

Electrical power consumption is based on meter readings recorded at the end of the year. The calculation of greenhouse gas emissions from electrical power consumption is based on specific emission factors provided by the power company and an average emission factor for generation of power in Germany.

#### Mileage (in km)

This figure is calculated on the basis of receipts from gasoline companies and in-

cludes motor vehicles owned or leased by the Company. Greenhouse gas emissions are calculated on the basis of an average fuel-specific emission factor for ordinary cars in Denmark and Germany.

#### **Emission factors**

In calculating CO<sub>2</sub> emissions, specific emission factors based on emissions type and geographic location were used. CO<sub>2</sub> emissions from the combustion of natural gas, oil, gasoline, diesel fuel and LPG and from fugitive emissions were deemed to have a general global effect with minor local differences. Emission factors from these sources are based on data provided by the Danish Energy Agency.

However, natural gas emission factors for Mountain View are based on figures from The Pacific Gas and Electric Company, a provider of natural gas and electricity in California.

Emissions for locally purchased electricity were determined on the basis of local conditions. Emission factors for Kvistgaard are based on factors for Denmark as a whole. Emission calculations for electrical power at Mountain View are based on emission factors provided by The Pacific Gas and Electric Company. Emission calculations for electrical power purchased in

<sup>(1)</sup> The comparative figure for 2009 in Table 1 does not include Berlin and Mountain View.

<sup>&</sup>lt;sup>(2)</sup> Kvistgaard includes a small leased laboratory facility in Hørsholm: the carbon footprint for this facility is calculated separately and included in total emissions, but is not included in emissions for Kvistgaard, cf. Table 1.

<sup>(3)</sup> The comparative figure for 2011 does not include Mountain View.

Germany are based on general German emission factors; emission calculations for district heating purchased in Germany are based on emission factors published by local district heating companies.

#### Indexed CO, emissions per dose produced.

CO<sub>2</sub> emissions per manufactured dose are indexed to 2009 and calculated on the basis of the number of batches manufactured, translated into the projected number of doses manufactured during the calendar year.

#### **Employees**

#### Absence

Absence data includes recorded staff sick days and child sick days. Leave - also maternity and paternity leave - is not included in these figures. The absence rate was calculated by dividing the total number of days of absence by the product of the average number of full-time employees for the year and the number of work days in the calendar year.

#### Employee turnover

Employee turnover is calculated as the number of employees that left their jobs divided by the average number of employees over the course of the year.

#### Accidents

Work-related accident data relates to accidents resulting in more than one day of absence. The definition of "work-related accident" in Danish law is the definition applicable in this document. The accident rate is the number of occupational accidents per one million working hours; vacation days are not included.

#### Raw and ancillary materials

Raw materials for production are calculated based on the Company's inventory system (ERP system), and figures refer to consumption for the year. Ancillary materials (acids/bases, salt and refrigerants) are materials sourced during the year, and figures are based on invoiced purchases.

#### Water

Water consumption is calculated for the entire Kvistgaard facility, including laboratories and administrative functions. An analysis of wastewater is made once a year. The figures in Table 4 for phosphorous, nitrogen, carbon and chlorides are based on these measurements.

#### Waste

Waste volumes are calculated based on annual statements from approved waste carriers handling ordinary and hazardous waste.

<sup>4</sup> www.ahaprotocol.ora

http://www.ens.dk/da-DK/Klima0qC02/C02Kvoter/produktionsenheder/co2\_rapportering/Documents/standardfaktorer%202011.pdf,

<sup>6</sup> http://www.pge.com/myhome/environment/calculator/assumptions.shtml

<sup>&</sup>lt;sup>7</sup> Energinet, an independent government owned enterprise under the Ministry of Climate, Energy and Building, http://www.energinet.dk/DA/KLIMA-OG-MILJOE/ Miljoedeklarationer/Sider/Miljoedeklarering-af-1-kWh-el.aspx.

<sup>&</sup>lt;sup>8</sup> IEA, the International Energy Agency, is an independent organization working to ensure reliable, cheap and clean energy for its 28 member countries.
<sup>9</sup> AGFW, "Der Energieeffizienzverband für Wärme, Kälte und KWK e. V."

Bavarian Nordic A/S Hejreskovvej 10A DK-3490 Kvistgaard Denmark

Phone: +45 3326 8383 www.bavarian-nordic.com info@bavarian-nordic.com