

ALVAR



Sustainability report

ALVAR PET 2020



Welcome to Alvar's journey to zero-carbon paw prints!



The first year of Alvar was significant - for more reasons than one. In March 2020 we sent out the first packages of Zero-Emission Kibble. By the end of the year, we'd already fed 7837 conscious pups.

We've gotten an warm reception from Finland's dog people and had the honour of working with amazing partners.

The year also brought challenges: at the wake of our launch covid-19 became the new normal, and Finland entered state of emergency.

We decided not to postpone the market entry - after all, a home delivery service of dog food is a great way to ease the everyday of self-isolating dog owners.

And when have people ever spent as much time with their dogs?

The popularity of dogs has seen a steep climb, and during the pandemic demand has urged even further. Puppy registration numbers grew 8% since the previous year.

However, an increasing number of dogs also means increasing consumption. It presents challenges from the perspective of sustainable growth - and puts more and more pressure on the environment.

As the pet industry grows and evolves, environmental aspects have been neglected.

This development worries us.

Nutrition makes for the majority of a pet dog's CO2 paw print. Due to premiumisation, using more meat in dog food than necessary or recommended, has become a trend.

The environmental impact of dog food production can be compared to food production, and in addition to greenhouse gas emissions the production leads to increasing use of resources (e.g. land, water, energy) that affects biodiversity.

Dogs bring so much joy into our lives - and owning a dog does not need to take a toll on the environment.

In addition to a positive reception, the topic of a dog's CO2 paw print has evoked strong reactions.

By initiating the discussion, our purpose is not to make dog owners feel guilty, but rather invite everyone to evaluate their consumption habits and the industry incumbents to alter their ways.

Making eco-friendly choices should not lie solely on the shoulders of consumers - combatting climate change is also a responsibility for companies. We believe, that by leading with example we can urge the industry to become sustainable.

As sustainability is such a central part of Alvar's strategy - well, it's the reason of our existence - we felt that publishing a sustainability report already after our first year, is important.

We want to communicate our actions as transparently as possible, so that both our customers and other stakeholders can become involved in our journey.

In sustainability, our work is never over: we're not perfect and we seek to constantly find even more sustainable solutions. We're not only open to change - we demand it.

Hope you enjoy the read,
Jenni & the rest of team Alvar.



Table of contents

1	Alvar x UN Sustainable Development Goals
3	The Carbon Paw Print
5	Sustainability throughout the value chain
12	Alvar's 2020 Compensation
14	The Team
16	What next
17	A Little Green Glossary



Alvar x the United Nation's Sustainable Development Goals

We are committed to working towards the [UN Sustainable Development Goals](#) (SDG). The SDGs offer a diverse understanding of the challenges of our time, and commit different actors to work together to achieve common goals.

For Alvar, the Sustainable Development Goals most integral to our operations are:

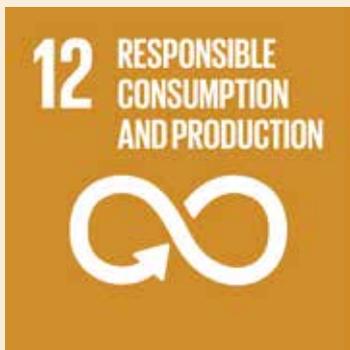


Goal #9 Industry, innovation and infrastructure

Innovations, new technologies and new business models can create jobs, promote sustainable industries and provide solutions for sustainable growth.

As a startup we have the agility, ambition and opportunity to challenge industry norms and conventions. And since the incumbents have failed to address climate concerns, such disruption is much needed.

With constant innovation we can keep leading the way towards a more and more sustainable way of dog ownership.



Goal #12 Responsible consumption and production

Sustainable production and consumption is at the core of our operation.

Our R&D philosophy is to develop needs-based products, to create solutions to serve the needs of dogs. We aim for sustainable use of resources with the smallest amount of waste.

We want to change the way people consume; when we understand our dogs' needs better, we can offer sustainable solutions that serve both the dog and the environment.



Goal #13 Climate action

Our mission is to minimize the carbon paw print. Climate change mitigation requires understanding of complex challenges - and accepting and adapting to the changes happening.

Reducing emissions take place along our whole value chain. Our business model, our services and our products are designed to meet the criteria of reduced emissions.

Not only do we operate sustainably but we require that the same standards and ambitions are met by our partners too, as we believe that collaboration is the key in achieving our goals.





The Carbon Paw Print

We've worked hard during the last year to reduce our carbon footprint. Both our business and our products are designed carbon neutrality in mind. Having a science-based tool to measure the impact of our actions has been essential for the process.

Carbon footprint calculations are a useful tool for measuring environmental impact. However, several different methods of assessment exist, even within an industry - making it sometimes difficult to compare the impact of different companies or products.

At Alvar, we use our CO2 calculations to make better decisions. Knowing where we can achieve the greatest environmental impact, it is possible to develop our actions into more sustainable.

When we understand better the impacts along our value chain, we can prioritize and make reduction measures where it is most impactful.

For consumers, CO2 calculations provide a tool to make more conscious decisions and choose more environmentally friendly options.

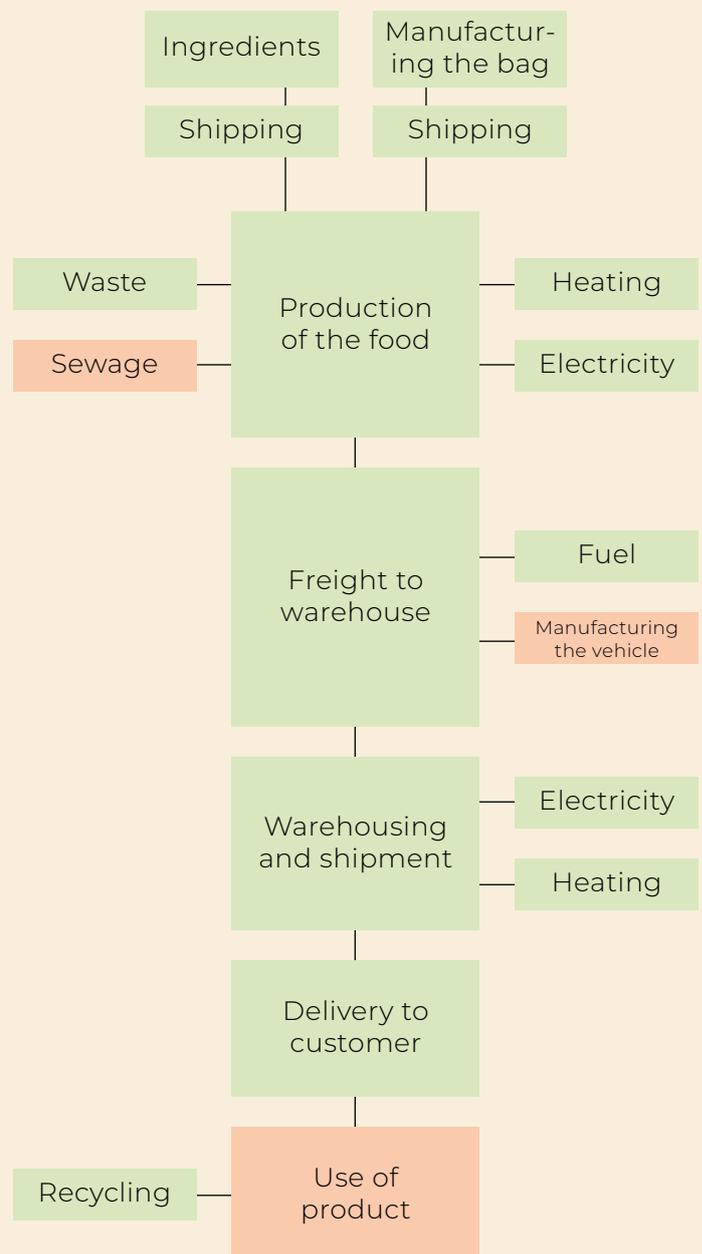
We have created a [Carbon paw print calculator](#) to demonstrate the difference between dog food options. The reference number used in the calculator is from The global environmental paw print of pet food (Alexander et al., 2020). Although the calculator is still work in progress, it highlights how by choosing consciously, one can make a difference.

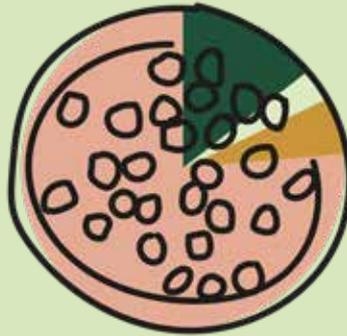
Allvar's product life cycle assessment (LCA)

Our calculations are conducted by [UseLess Company](#). The calculations are based on the industry standards: Product Environmental Footprint Category Rules (PEFCRs) Prepared Pet Food for Cats and Dogs (EU standard for dog food carbon footprint).

UseLess' team has over 20 years of experience of different LCA projects, the calculations use the most recent research, method and evidence.

Our CO2 calculation takes into account the following steps (green = included, red = not included):





	Ingredients	0.858	76.5%
	Shipping	0.162	14.4%
	Packaging	0.036	3.2%
	Production	0.065	5.8%
	Warehousing	0.001	0.1%
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	Total	1.122 kg CO ₂ e/kg	

During 2020 we have calculated the carbon footprint for 4 of our recipes. As the results highlight, ingredients make up most of the carbon paw print of dog food.

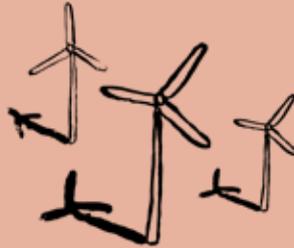
Sustainability throughout the value chain

Recognizing the different environmental impacts throughout our value chain is essential in order for us to be able to assess the sustainability of our products and operation.

To do that, we have to look into the details of the products' life cycle; sourcing, production, use and recycling. It helps us to identify the overall impacts and to choose the most sustainable option wherever possible.



**Made from sustainable,
Nordic ingredients**



**Produced close to the
customer and with
renewable energy**



**Delivered straight to your
doggie doorstep - without
detours**



**All of our packaging
materials are recyclable**



**The little emissions that
are left, we compensate**

Sourcing high-quality, sustainable ingredients

Our recipes are designed by our very own veterinarian and pet food expert Henna Söderholm in collaboration with the research and product development team at Danish Nordic Petcare Group.

The ingredients used in Alvar's recipes are of high quality from well known suppliers. The ingredients are analysed before being accepted into the production.

The final products will go through laboratory analysis and palatability tests to ensure sufficient nutrients, digestibility and highest quality.

Ingredients make up most of the food's carbon paw print (76%) - and that's why choosing the right ones matters.

By choosing a low emission protein of animal origin can result in half the emissions. For reference, beef and lamb constitute only 5 percent of the total pet food, but they make up 50 % of all the GHG emissions and 70 % of land use in the industry.

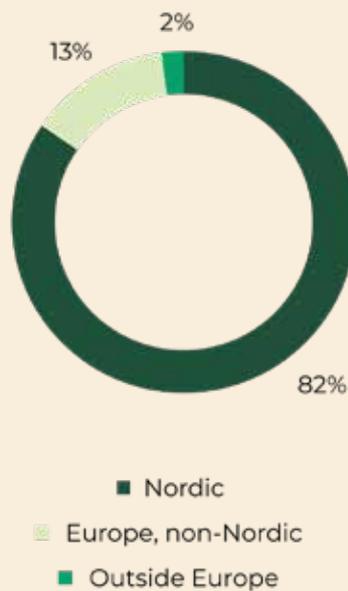
When designing the recipes, using less is more and therefore our recipes consist of only ingredients that are necessary.

We choose our ingredients based on these three criteria, in this order:

1. Safe and of good quality
2. Good for the environment
3. Produced near by

We choose ingredients that are low in emissions and when possible, produced nearby.

Origin of ingredients



82% of our ingredients
are Nordic.

We document the supply chain together with our production partner and used ingredients can be traced back to its sources.

We are still, however, missing a few pieces from our supply chain map, and we aim to work harder to achieve 100% traceability of our products.

We favour animal by-products (ABP) in our production and by doing so we can also economically support the relating industries. ABPs are high in nutritional value and offer a sustainable source for pet food production. The ABP industry is also essential for the public as the by-products end up back in the cycle instead of being wasted.

Our products are designed with dogs' nutritional needs in mind and in addition to that we want to design products that fit different dogs' needs so that there is a need for less different recipes (less waste).

As a small company we have the advantage of adjusting quickly to changing situations. To make sure we're up to date, we love receiving customer feedback and with that, improve our products further.



In addition to kibbles, our product portfolio consists of fish heads and elk dog chews both made from by-products. Our fish heads would not be used for human nutrition (here: "muikkukukka") purposes. To avoid throwing them into waste, we dry them into a sustainable treat for dogs.

Elks on the other hand, live and grow in the wild resulting in zero climate impact. Hunting Elks are strictly regulated in Finland, elks skin is mainly used in leather production. The leftovers that don't make the cut end up as dog chews!

To this date, we are not able to guarantee the ethical production in every farm. However, we choose the most ethical supplier when possible - and constantly negotiate with our suppliers to better achieve transparency.

That way we can ensure socially responsible production and high standards in every one of our partner facilities.

The process is on-going and we are not yet where we want to be.

Production partners

We choose our partners carefully and require the same standard of sustainability and transparency from them.

Choosing the right partner is important so we can show that there is a demand for sustainable business. That way we can inspire others in the industry.

Our dry food production partner is Danish pet food manufacturer Nordic Petcare Group. NPG has over 20 years of experience in the dog food business with certificates, quality control systems, their own vets and UN Global Compact membership (FSSC 22000, GFSI Compliant, ISO 22000, BRC -certificate).

Our production uses wind energy from renewable sources. The amount of waste from our production is around 3 percent, which includes only packaging materials. The wasted materials will be directed to waste incineration. Used water is directed to municipal water treatment plants.

The location of our production factor is essential to ensure availability of our ingredients throughout the year. The location is also centrally located considering Alvar's future markets. Central location is the key in minimizing the transportation of raw ingredients from their supplier to the production plant but also from the factory to our warehouses.

The fish heads are produced by Järvi-Suomen Kalatuote and the chews by Kokkolan Nahka Oy.



Nordic Petcare Group

“Our vision is to be the biggest and most preferred Nordic pet product company and improving joyful connections with healthier pets.

“During this work we have in mind and work for the 17 sustainable development goals defined by the UN as a call for action by all countries.”

Järvi-Suomen Kalatuote

“We follow sustainable fishing practices and many of the fish species used are of less appreciated. We also make use of by-catches and by-products.

“Our production utilizes renewable energy to reduce our environmental impact.

“We promote socially responsible practices and are committed to hiring staff who are neglected on the job market, such as partially disabled.”

Kokkolan Nahka

“Our business strategy is based on the principles of environmental responsibility and sustainable development goals. Hunting to keep populations stable makes chews ethical and ecological products. The leathers are acquired from local hunting clubs. Our production and products are accepted and regulated by the Finnish food authority.

“We utilize green energy in our production and compensate our climate impact with our own carbon sink; by actively growing new forests and taking care of them we can actively take a part in climate actions.”

Packaging

Responsible use of materials is by first to use less - safety in mind of course. It's all about making sure that the used materials end up back in the cycle after their service life. We aim to choose materials that are of renewal sources, durable and easily recycled.

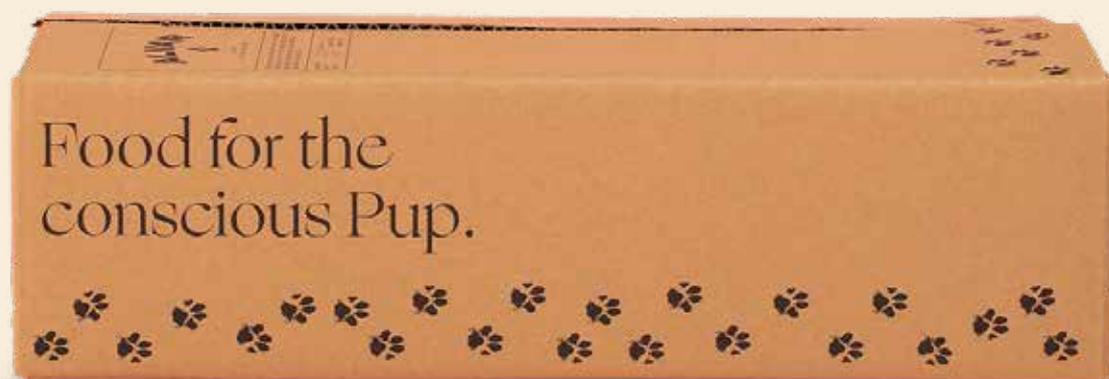
Alone in the pet food industry packaging results in enormous amounts of plastic of which only fraction are recycled. Most of the pet food packaging materials are made from multiple layers of mix materials making them almost impossible to recycle. Choosing the right material is about the material itself but also the recycling possibilities it has.

Alvar's kibbles are packed in a paper bag that not only keeps the kibbles fresh, but can be recycled afterwards.

Once recycled, the material is reused. We are constantly monitoring the amount of damaged items so we can make changes in the packaging material if necessary. So far the amount of damaged items has remained low.

Our work with the packaging material is constant and we recognize improvement possibilities in this area. Although there are pros and cons with both paper and plastic, convenient recyclability will always remain our priority.

One of our goals for the coming year to further understand the environmental impact of different materials, to find the most sustainable option that fits our needs.





Logistics

Our warehouse partner in Finland is Warasto in Turku. Products from all of our production partners are first shipped to our warehouse.

Our logistics partner is Leafhill.

Since the second largest share of our kibbles carbon footprint comes from transportation (14%) we wanted to design a business model to minimize the transportation miles.

With our 'direct-to-dog' model products travel from the factories straight to our warehouse, where they will be shipped to our customers, reducing need for extra stopovers, terminals or storages.

Our shipping partners in Finland are Posti & Budbee.

Warasto

"We aim for zero emissions in our operations by taking proper care of recycling; separate different types of material and dispose of our clients' products with the best practices and according to regulations.

"Our short-term goal is to move to new premises with the aim of carbon neutrality."

Posti

"Our ambitious target is to reach zero emissions by 2030.

"Halving our emissions would have put us in line with the target of limiting climate warming to 1.5°C. However, that was not enough. We doubled that target and decided to go for a full zero."

Budbee

"We have reached 100 % fossil free deliveries in Finland starting from 1.4. Being green has been our mission since the beginning and we compensate 110 % of our emissions.

"We use biodiesel and electric vehicles and are planning to pilot electric bikes in the near future."



Sidenote: Minimising waste

We minimize waste already in production. None of our ingredients goes to waste as the extra mass is used into other kibbles.

To avoid wastage, we donate all returned items. Because our bags are personalised, the products are not resold. The products are otherwise in prime condition and can be used in our other operations such as donations or sponsorships.

Our charity partners include Operaatio ruokakassi, Suomen löytöeläinten kummit ry, Siperia Lapponica and Ivalon löytöeläintarha.

The other source of waste is a damaged or faulty bags. Sometimes products get knocks in transportation, or have misplaced labels. These are put to good use by our own waste-fighting dogs.

We keep an eye on the level of returned and/or faulty items. Currently the amount of both is low and occur only occasionally.





Alvar's 2020 Compensation

Compensation should not be the only tool used for climate change mitigation. But when used correctly, it becomes a valuable part of corporate responsibility work.

The most important part before compensation is to reduce emissions along the supply chain and design the whole operation with carbon neutrality as a goal.

We have compensated all of our emissions starting from the transportation of our ingredients to delivering the package to our customers' doorstep, including the recycling of the package. This includes emissions from the use of renewable energy, from sidestream and by-products (financial allocation) and from transportation.

Alvar's compensation project is carried out in co-operation with [NGS Finland Oy](#). NGS's compensation projects focus on extending the carbon sequestration cycle of Finnish forests and afforestation of new land areas.

"The idea of NGS Finland was born out of the need to stop talking and start walking... The organisations of today, they must act responsibly - it benefits everyone."

- NGS Finland Oy

Our compensation in 2020 was 71,4 t CO₂e, of which 60,7 t CO₂ was implemented in 2020.

85% of the compensation is targeted at the extension of forests' carbon sequestration cycle.

The current forestry being rather aggressive it is important to support extending the forests' life cycle. It is often more profitable for the owners to chop down the trees than keep them growing, but with our support maintaining the forest becomes more profitable.

The impact takes effect immediately as the CO₂ sequestration continues with the growing forest.

The project was fully completed in 2020. The compensation resulted in 60,7 t CO₂ in 2020 with the 20 % safety marginal totalling of 93,8 t CO₂.

As a concrete outcome, there is now 8,6 hectares of forest in Lohja, binding greenhouse gas emissions and dedicated to Alvaristis.

15% of our compensation is targeted at afforestation of new areas.

The purpose of an afforestation project is to create a new forest area. The main idea is that these areas wouldn't otherwise be afforested without the financial support. The forest owner is committed to take care of the area so the area can reach its full potential in carbon sequestration. The calculations take into account the first 50 years of the forests' cycle. The project doesn't include areas that would have recovered naturally.

The project will be carried out in the spring of 2021 totalling of 10,7 tCO₂.

We wanted a “
compensation project that
would feel close to dog owners.

Saving a forest from being cut down - it doesn't get much more tangible than that. A walk in the woods is a sanctuary experience for owners and dogs alike.

Team Alvar

We are committed to creating an equal and inclusive environment of mutual respect.

Ensuring a workplace that is free of discrimination and harrassment comes first. Moreover, we want everyone to have the opportunity to enjoy and express themselves.

Alvar's success is thanks to our amazing people (and dogs) and we want to continue to support and encourage self development and continuous learning.

As sustainability is at the heart of everything we do, it's ever present in our everyday operations.

Here's what the team answered to the question "what does sustainability mean to you?"



Sustainability, “
for me, is knowing the consequences of my actions and how to make a positive impact in the world.

I wish to see a change in my lifetime and to know that we have somehow contributed to more sustainable society.

We should strive towards a world that is just for everyone beyond us humans, and liveable for future generations too.



For me, sustainability means to live and consume in such a way that the earth has the chance to replenish its resources and is not harmed beyond its capacity to repair itself.

In a nutshell, sustainability should mean balance.



What next?

Alvar is expanding to Germany in the beginning of 2021 and by the time of publishing of this report, there is already a team of 3 in Germany. We are excited for this opportunity to reduce the carbon paw prints of more and more conscious pups.

Our product portfolio has grown from 4 kibble recipes to 8 recipes and selection of treats. We are developing new products and services to make our pupstomers' life even more sustainable.

Our plan is to calculate the carbon footprint of our new products too, so that we can improve and make changes where needed. We are constantly looking for new ways to do things, new products, new packaging materials so we can serve our customers better.

For the coming year, we hope to be able to measure our impact and development more systematically and so that we can actually provide metrics that are comparable.

We are excited to tell you more about our progress in the future - thank you for being part of our journey!



Little Green Glossary

CARBON PAW PRINT refers to the total emissions caused by dogs (primarily their nutrition). Research also uses the terms ecological paw print (EPP) or environmental paw print. Depending on method it includes GHG emissions, the use of land area and water or both.

RESPONSIBLE BUSINESS takes into account the ecological, social and economical aspects. Unprofitable business is not sustainable, and we at Alvar want to ensure a stable working environment for both our employees and partners now and in the future. Being responsible is also a key element in risk management by helping to foresee possible risks and impacts.

SUSTAINABLE GROWTH is to secure the business running in the long term. Sustainable growth takes into account the future and ensures sufficient resources for future generations as well, for both people and dogs.

As for any other business, our mission at Alvar is to grow so we can serve an even larger audience and to achieve our goal of minimising carbon paw print. The growth, however, will not happen at the cost of the environment, we take sustainability into consideration in all of our decision making.

Sustainable growth can be challenging for startups, as startups often want to grow - and to grow quickly. Rapid growth requires effective decisions especially in product development and it is about adjusting to the unexpected.

CORPORATE RESPONSIBILITY at Alvar means, above all, our responsibility of the wellbeing of dogs and our responsibility of the wellbeing of our environment. Dismantling the conflicts between these two is at the core of our business.

We acknowledge that food production can be harmful for the environment - and it matters from a social and economical point of view as well.

As a company we can choose how and what kind of dog food we produce, we can guide consumer demand and challenge industry trends.

TRANSPARENCY is also a key element in corporate responsibility; we report and communicate openly.

Transparency is important in building trust - both with consumers, other stakeholders and society. We believe that transparency is the very foundation of building sustainable business - and the current regulations aren't supporting this enough.

A RESPONSIBLE DOG OWNER takes care of the dog's wellbeing and knows its environmental impact. Dogs' wellbeing starts from a balanced diet, but also includes sufficient exercise, activities and sleep.

We want to support and encourage dog owners to make more sustainable decisions. We believe that with each pup joining our cause, we can make the world a bit of a better place.

The CO2- revolution has begun!

Please don't hesitate to contact us in case you have any questions or feedback. What would you like to know about in our next report?

Alvar Pet Oy
Helsinki 10th May 2021

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