



**The Provamel Sustainable Development Report 2009**

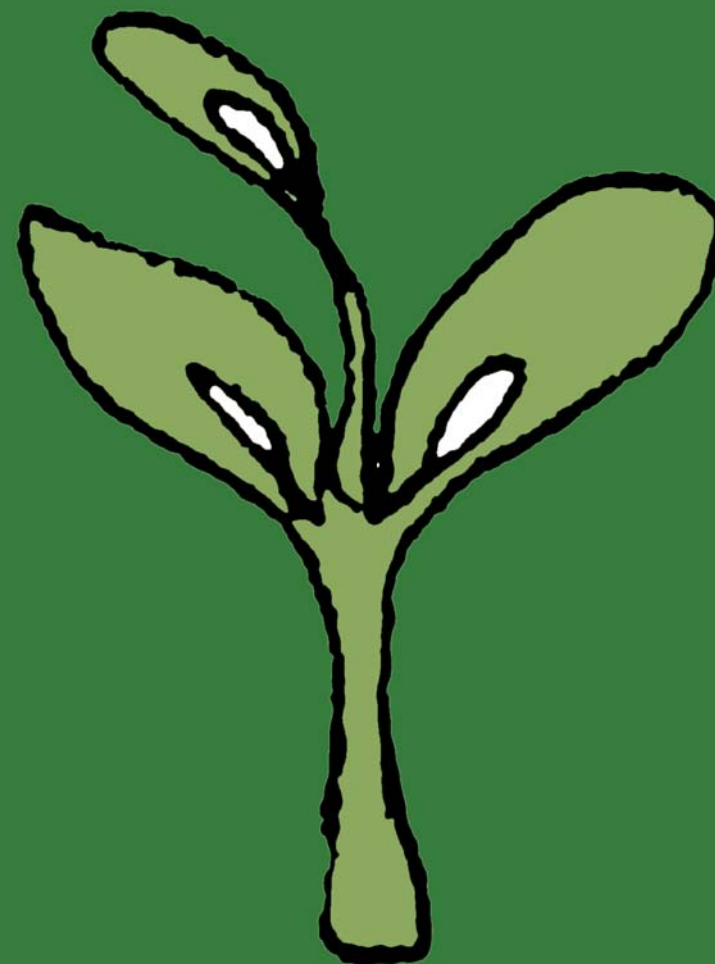
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The Provamel  
**Sustainable Development Report**  
2009



“I think they’re doing well. They have more control on traceability of their products and they are streets ahead of the rest of the trade working with farmers and funding schools and other projects. It’s not greenwash, they practise what they preach.”

**Ben Ayliffe, forest campaigner, Greenpeace**  
*‘Heart of the Mata’ The Guardian, April 2007*

*“We create delicious, naturally healthy, plant-based foods for the maximum wellbeing of everyone and with the utmost respect for our planet.”*

Provamel Mission Statement



**Provamel Sustainable Development Report 2009**

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Provamel is made by Alpro, Europe’s largest producer of soya dairy and meat alternative products. It has production sites in Belgium, France, the Netherlands and the UK, the latter in Burton Latimer, near Kettering, Northamptonshire. All the data in this report relate to UK operations, unless stated otherwise. Alpro is a subsidiary of the leading international group Dean Foods.



## What we do and why we do it

We make a delicious and nutritious range of soya products. In fact, we are part of the world's biggest soya foods company.

Our approach has always been different to other food businesses. The ethos of sustainability is all pervasive at Provamel, and our 'three Ps' mantra of People, Planet, Profit, is upheld in everything the company does.

The Provamel story began some 30 years ago, born of the vision of a founder who developed a unique, natural approach to soya milk production with the aim of helping third world nutrition using sustainable, local resources.

**In April 2007 Provamel's parent Alpro became the first UK food manufacturer to publicly declare that it would become carbon neutral by 2020.**

Others have followed with a variety of initiatives, but Alpro is leading the sector with its ambition to reduce and/or offset CO2 emissions throughout its production sites in the UK, Belgium, the Netherlands and France.

Since this announcement, all parts of the business have begun the complex process of planning for and achieving this goal. In the UK, we are aiming to achieve the ISO 14001 environmental management standard during 2010. This report looks at latest progress, as well as advances on a variety of other sustainability fronts.

We are committed to reducing water and energy use, waste, packaging and transport. On the plus side of the equation, we are investing time, effort and money in positive sustainability initiatives around the world.

Staying true to our founder's ethical principles, Provamel is active in 18 third world countries enabling local communities to produce their own soya milk and other foods; promoting sustainable, organic farming in China and Brazil; and involved in many other sustainable, green, eco-friendly and socially conscious initiatives.

**Welcome to our first UK Sustainable Development report.**



# Sustainable development starts with the bean

We think that there are two kinds of soya beans. Beans where you know the farms they came from and beans where you don't. Most soya beans are grown for animal feed and are traded as a commodity on international markets. The connection between the farm and the end user is broken.

Our soya beans are different. We have long-standing relationships with our farmers and we don't buy commodity beans. It means **we can be 100% sure that our beans are being grown sustainably** and, importantly, nowhere near the deforested Amazon.

In addition we guarantee that our beans are non-GM and that our farmers follow natural crop rotation cycles. Our agricultural practices are independently verified by IBD and Eco-social for organic and Cert ID and Pro-Terra for non-organic beans.

Our commitment to the environment where we grow our beans is such that we have funded a pilot study by the World Land Trust to see whether a corridor of ancient rainforest in southern Brazil – the Mata Atlantica – could be restored.

Getting good beans is even more important for Provamel than other soya makers because we use the whole bean - rather than chemically extracted protein - in a unique natural process which delivers nutritionally balanced and delicious products.

Of course, the biggest environmental argument for our beans is that they are not animal based - and thus their impact on the planet is significantly lower. The expert view is that **animal based products create five times more CO2 per litre than soya milk**, while meat production generates 10 times more per kilo than tofu, the soya meat replacement<sup>1</sup>.

The comparisons continue: you can feed five times as many people from a hectare of land where soya is grown than one used for animal protein production. Chicken, pork and beef all require more water per kilo than soya, indeed beef needs up to 16 times more<sup>2</sup>.

These are compelling reasons to contribute to sustainable development by changing the balance between animal and vegetable protein in our diets.

1. Alpro calculations (Ecofys) July 2009  
 2. Dr. Rajendra Pachauri, chairman UN International Panel on Climate Change



ANIMAL BASED PRODUCTS CREATE FIVE TIMES MORE CO2 PER LITRE THAN SOYA MILK

OUR PEOPLE  
INITIATIVES START  
LOCALLY AND EXTEND  
AROUND THE  
WORLD

# It's all about people...

With "the maximum wellbeing of everyone" in your mission statement, there's an obligation to deliver real benefits to consumers, employees and others.

Our products go a long way to meeting that commitment. The Provamel range of soya milk, dessert, yogurt and cream alternatives and tofu products can be an integral part of a healthy lifestyle. The link between soya consumption and cholesterol reduction is already well founded<sup>1</sup>, and researchers continue to report regularly on a wide range of possible other health benefits.

**Good nutrition from Provamel products is one element of maximising wellbeing, but we're also committed to a wider programme of people-focused initiatives.**

This starts at a local level with our staff here in the UK and extends around the world to touch some of the poorest communities on earth.

In the Kettering area, Provamel has been a major supporter of the Waendell Walk and the Cransley Hospice Road Race, as well as working with local schools to facilitate healthy breakfast and after school clubs.

When the local bus service was cut we worked with the affected college to promote a walk to school scheme complete with a Dragon's Den-style design competition for high visibility clothing.

Further afield, we have long supported a project in Brazil: EDHUCCA, or Escola de Desenvolvimento Humano Casa do Caminho, provides social and vocational training for impoverished Brazilians in the town of Apucarana in the south of the country. We are proud to have helped the organisation build a major new block of classrooms and training facilities within the last year.

Meanwhile, we continue to support the charity Malnutrition Matters and its Vitagoat project, which helps local communities produce their own highly nutritious foods from soya and other grains and fruits, using basic technology and local resources.

This is being extended to a further 45 locations in Africa and South East Asia during 2009, in addition to the existing 84 sites.

1. The Joint Health Claims Initiative (JHCI) has published the impartial advice that the inclusion of at least 25g of soya protein a day as part of a diet low in saturated fat can help reduce cholesterol in the blood.



Fig.1



Fig.2



## Less (water) is more

The increasing recognition of water as a precious resource has focused our minds on reducing both the amount of water we use and the amount that we waste.

Most food manufacturing businesses are heavy users of water - and we are no exception, needing water both as an ingredient in our products, but also for processing and cleaning.

The good news is that, despite our production increasing, **we reduced water use in our UK plant by 18% in 2008 compared to 2007.** This follows a decrease of 4% in the previous year.

There is clearly a finite limit to water reduction and our target for 2009 was originally to maintain the status quo.

Progress in water management has been such however that **we expect to record a further fall by the end of the year, currently running at 8%.**

WE HAVE  
REDUCED  
WASTE WATER  
BY 36% IN 2008  
vs. 2007.

As well as water coming in, there's water going out, in the form of waste at the end of the manufacturing process. If we are reducing the input, we should be reducing the output too and the savings have indeed been significant.

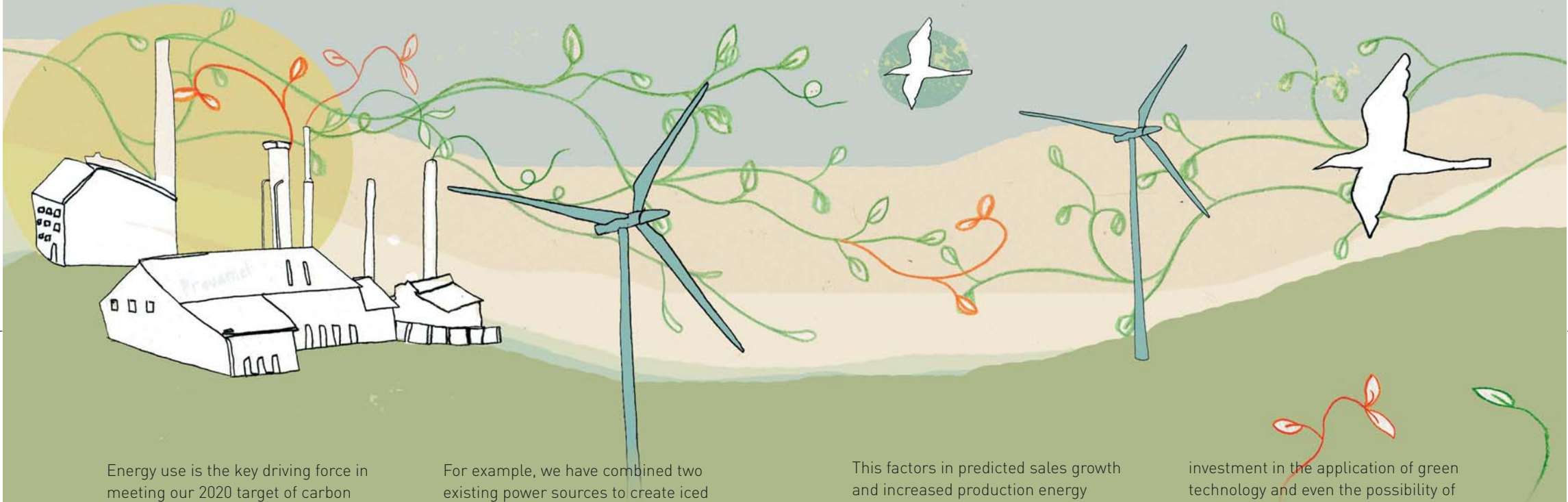
Through careful use and recycling of water we have managed to reduce water waste by 36% in 2008 versus 2007. This after a 9% reduction in the previous year.

It's not just the volume but also the quality of our waste water which is important too. 2009 has seen a major advance with the commissioning of a new waste water treatment plant at our Kettering site.

The water we will be putting into our local stream at the end of our manufacturing process may actually be cleaner than the stream itself. There's already a growing family of ducks which appreciates the improvement in water quality.

# The greening of energy

BY 2020,  
50-75% OF OUR  
ENERGY SUPPLY WILL  
BE 'GREEN', WITH  
25-50% OFFSET BY  
COMPENSATORY  
ACTIVITY.



Energy use is the key driving force in meeting our 2020 target of carbon neutrality and we have three main tactics available to meet the challenge: energy reduction, substitution and offsetting.

At the fore is reducing energy consumption, following the principle that the greenest energy is the energy you don't consume. There is a vast array of initiatives throughout the business to reduce our energy use. A lot of it is about finding smart solutions.

For example, we have combined two existing power sources to create iced water to cool milk in production which will reduce energy consumption for this process by 10%.

In addition, we are exploring replacing fossil fuel with green, renewable energy and using the company's own biomass as an energy source.

Our forecast is that by 2020, 50-75% of our energy supply will be 'green', preferably generated on site and/or coming from Provamel biomass, with 25-50% offset by compensatory activity.

This factors in predicted sales growth and increased production energy requirements.

**We were able to reduce energy consumption in our UK plant and offices by 21% in 2008** – enough of a saving to power some 600 homes for a year - and across the company by 15%. Our target for 2009 is a further 5%.

These sorts of sustained reductions will be achieved by programmes now in hand including the switch to green electricity – already being used at our UK, French and Belgian sites;

investment in the application of green technology and even the possibility of installing a wind turbine at our Kettering plant. A feasibility survey is underway.

We're also reviewing the opportunity of using an anaerobic reactor to be able to produce electricity, fuelled by the by-products of making soya milk (waste water, bean fibres and husks, and so on). 10% of the energy used on site at our Wevelgem plant in Belgium is produced in this way, so we have high hopes for something similar in the UK.

## Making waste work

Reducing waste makes both environmental and commercial sense. Our waste tends to come from two main sources – production, in the form of waste water [see page 8], okara, and packaging – and general office waste.

Okara is the main by-product of our soya production method and is essentially the residue of the soya bean after we've extracted as much goodness as we can.

There is still some protein and sugar left however, so until now we have collected the okara and shipped it off to farmers as livestock feed.

There is potential though, to mix it with our waste water to create enough biomass to generate power, which would be far more efficient.

THERE IS POTENTIAL TO MIX SOYA BEAN RESIDUE WITH WASTE WATER TO CREATE BIOMASS TO GENERATE POWER

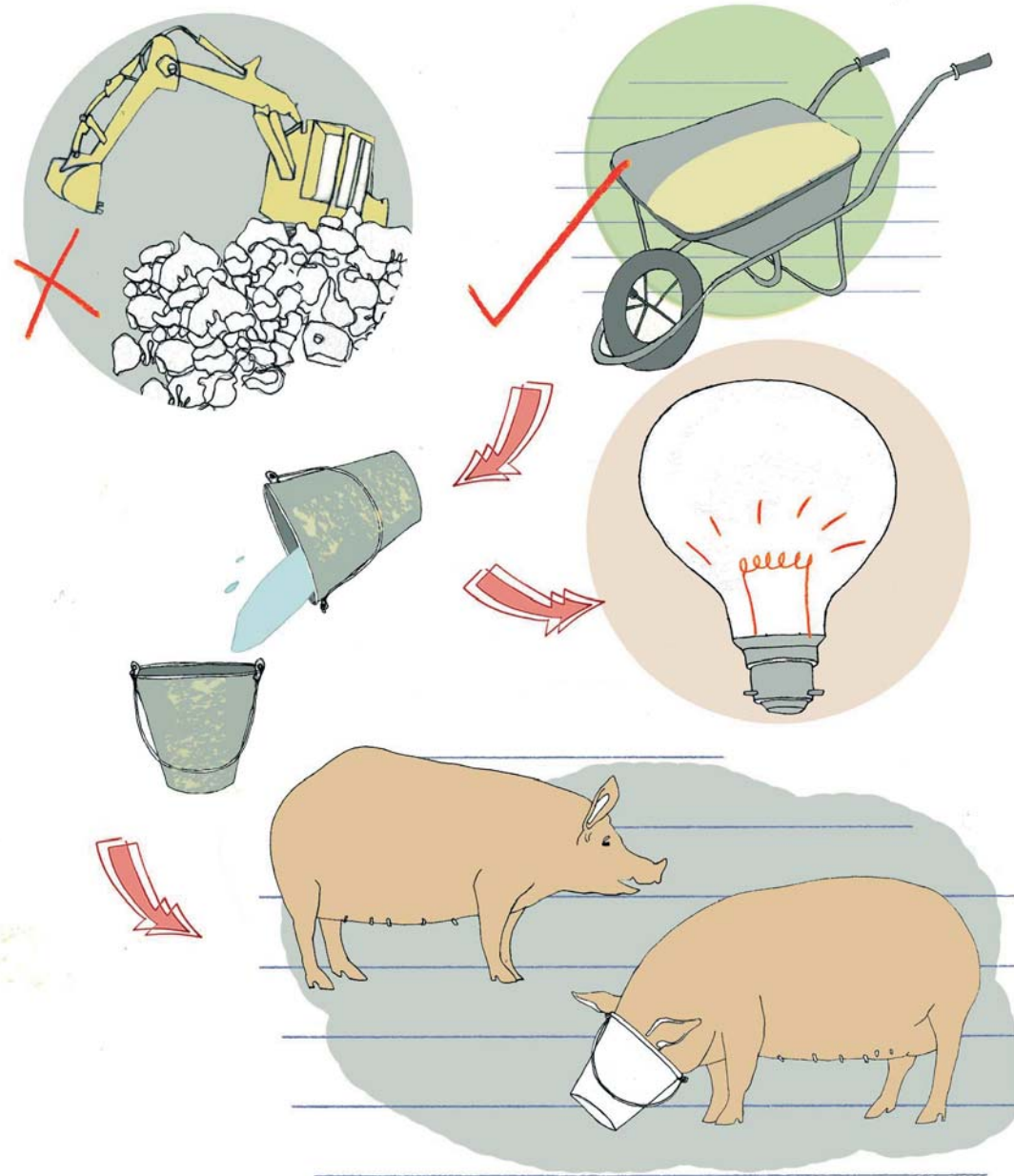
Other waste is now sorted where possible for recycling. Reduction is even better than recycling of course, and we continue to try to cut materials usage throughout the business.

**This is even more acute where non-recyclable waste is concerned. We have managed to reduce this from 13.4 tonnes in 2005 to 2.1 tonnes in 2008.**

This is partly due to better management of our production so that there's less waste packaging at the end of each run.

But we're also learning lessons from our sister operation in Belgium where a 'waste farm' has been established on site to segregate and sort waste for recycling more efficiently.

The result is that none of the waste it produces goes to landfill. Instead it is sorted into 16 different types and either recycled, reprocessed or incinerated for heat generation.



## The quest for better packaging

There's a balance to be struck between over-packaging of products, which consumers rightly reject in increasing numbers, and packs that are not robust enough to ensure products reach the user in optimum condition.

**Where we can, we have 'designed out' over-packaging, either by changing pack formats or choosing lighter, better and more recyclable materials.**

Increasingly, we're looking at better packaging. For example, we have introduced a cardboard sleeve to our desserts packaging - which would appear to be an increase in the total amount of packaging for the product.

However, the sleeve is 100% recycled and recyclable and it allows us to reduce the thickness and weight of the plastic pots which cannot be recycled.

Similarly on our 500g soya yogurts, we moved from a printed pot to a pot with a cardboard wraparound which again means a reduction in the thickness of the plastic we have to use.

In the last year there have been dramatic advances in the recyclability of Tetra Pak cartons, which make up the majority of our packaging. The majority of local authorities in the UK will now accept Tetra Pak for recycling, up from only one in five in March last year.

Given that 70-90% of a Tetra Pak carton is paperboard (ie. made from a natural, renewable resource - wood) they represent a good low carbon packaging choice. The task now is to encourage UK consumers to recycle more and increase the coverage of participating local authorities to continental levels, where carton recycling is the norm.



## Transports of delight

Oh that we were blessed with the waterway network enjoyed by Provamel in Belgium and the Netherlands.

The availability of practical water transport has meant that Provamel has been able to build its new soya bean plant next to a navigable river.

Because soya beans can now be shipped in by barge it means that 1,900 lorry journeys a year can be saved.

Lacking that sort of potential in Kettering, we have at least ensured that our transport is as efficient as possible.

**We have kept transport miles to a minimum for a number of years by distributing via multi-user vehicles.**

It is something that wider UK industry is waking up to now and effectively means that there is no empty running of vehicles.

We're also careful in our choice of transport suppliers, ensuring they operate modern vehicle fleets to reduce emissions and maintain optimum service: on time collection and delivery results in fewer re-deliveries or returns and keeps food miles down.

Assuming that whenever a vehicle goes out it must return, we work with our suppliers to ensure as many as possible of their products are loaded into our returning lorries, again resulting in fewer vehicles on the road.

BECAUSE SOYA BEANS CAN NOW BE SHIPPED BY BARGE, 1,900 LORRY JOURNEYS A YEAR CAN BE SAVED.

## CO2, the 20:20 view...

In April 2007 Provamel brand-owner Alpro became the first British food manufacturer to declare a goal of carbon neutrality. This ambitious plan took shape as the year progressed and emissions had already been reduced significantly by the end of the year, when a 'roadmap' to complete carbon neutrality by 2020 was approved by Alpro's board.

The emission reductions have continued. 2007 saw a 24% fall on 2006, while in 2008 CO2 emissions were down by 23% on 2007.

Provamel has commissioned extensive research and analysis throughout its production chain to both measure emissions and determine how to reduce them. Using independent consultants, it has analysed an extraordinary range of inputs, from tractors in China to lorries in Kettering, from agricultural practices in Brazil to power generation in Belgium.

Earlier this year we commissioned Ecofys to analyse the carbon footprints of our plain soya milk with calcium and of UHT dairy milk.

This was based across the entire life cycle of the products and used detailed data from four of our soya farms and two production plants.

Soya milk was found to have a footprint of 278 grams CO2eq/litre while UHT dairy milk had a footprint of 1.31 kg CO2eq/litre. In effect, the dairy footprint was five times greater than the soya milk footprint.

Provamel soya is clearly already a low CO2 choice, but we will pursue our goal of making it a zero CO2 choice, at least in terms of production, by 2020.



Provamel's commitment to producing its products in a sustainable way was recognised in 2008 when Alpro was awarded the inaugural Grocer Gold **'Green Supplier of the Year'** Award. The judges commended the company for being the first UK food manufacturer to commit to carbon neutrality, for pioneering sustainable soya farming in Brazil and China and being actively involved in a wide range of social projects across the globe.