

**ANNUAL REPORT  
2021**



**INFINITUM**









Infinitem owns and manages the Norwegian deposit return scheme (DRS). Our aim is for all DRS labelled bottles and cans to be collected.

We are working to make the return process itself both efficient and environmentally friendly.

Our ambition is for all bottles and cans to be recycled and turned into new high-quality products.

The deposit return scheme has a significant impact on the environment.

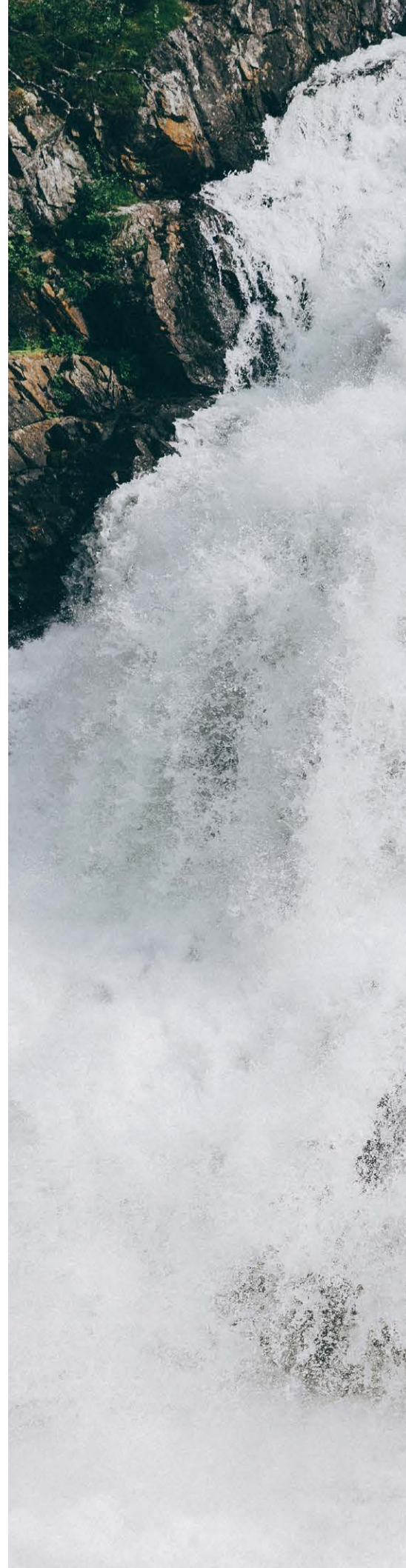
In 2021, Infinitem achieved a record deposit return rate of 92.3 percent and a total collection rate of 98.2 percent. All returns are recycled, and Norway is a role model for other countries.

Choosing products with the DRS label and returning all drink containers is one of the easiest and most important things we can all do for the environment, as valuable materials are reused time and again.

**INFINITEM**

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# A step closer to perfection

The Norwegian deposit return system is the best in the world, but not perfect, so we are constantly working to improve it. In 2021, we came a step closer to our goal.

It is well known that Norwegians lead the world, and in 2021 we collected more empties than ever before. All of 941 million cans and 612 million plastic bottles came in. That represents 287 cans and bottles for every single Norwegian.

Our aim is for all bottles and cans to be collected, and for them to be recycled into new bottles and cans. This is the most resource-efficient and eco-friendly solution, as the materials are used for what they are best suited.

The ambition is to create a closed chain in which all the materials we collect go back to the drinks manufacturers in the form of new packaging. Only then will we have a perfect, circular solution that is comparable to the old system of reusing bottles.

The old system was abandoned because transporting, sorting and washing intact bottles was not very

environmentally friendly. But we still reuse. The difference is that now it is the materials that are reused, not the bottles themselves. This takes less resources.

Last year's big step was the new recycling plant next door to our sorting facility at Heia in Lillestrøm Municipality. It turns the plastic bottles into raw material for new plastic products. A lot of it is made into new bottles, but recycled plastic is now so attractive that other producers pay more than the drinks manufacturers and buy a large proportion.

We like the fact that businesses all over the world want to demonstrate environmental responsibility by using recycled plastic, but are not keen on them choosing plastic from our bottles. This becomes a form of greenwashing if they do not take the trouble to collect and recycle their own products.

We are therefore battling on several

fronts to ensure that bottles are turned into new bottles. We support the politicians in their ambition to introduce a tax that rewards the use of recycled material in bottles, and we are looking into the possibility of establishing bottle production in Norway.

Infinitem and the Norwegian deposit return system have come a long way and are followed by specialists from all over the world. It is motivating, but not enough. We are working for full recycling of all materials in a closed, resource-efficient loop.

The mission that drives us is a difficult one. We will not give up!



Kjell Olav Maldum  
Managing Director, Infinitem







# Statistics for 2021



**941,122,743**  
cans collected\*

**91.5 %**  
of all cans sold

**12,921**  
tonnes of aluminium were  
collected and recycled by  
Norsk Hydro and Novelis



**611,361,319**  
plastic bottles collected

**92.8 %**  
of all cans sold

**23,092**  
tonnes of plastic were  
collected and recycled  
by Veolia



**1,552,484,062**  
total collected

\*Collection figures for reverse vending machines





**“Plastic is amazing,  
but too cheap”**



**“Plastic is an amazing material. But it is too cheap,” says plastics expert Thor Kamfjord. And he is sure that the solution to the plastic problem is not to replace plastic with other materials.**

We use a lot of plastic. According to the Norwegian Retailers’ Environment Fund, every Norwegian throws out more than 100 kg of plastic a year. Then there is all the plastic that stays in our households in the form of products. Thor Kamfjord is Director of Sustainable Development with R&D company Norner and an expert when it comes to plastic. Although a great deal is talked about cutting plastic consumption, he is convinced that it will increase.

**Reflecting consumption**

“Plastic consumption reflects general consumption. When we buy food, clothes, electronics, cars or just about anything, plastic is involved. Both as packaging and in the product itself. For plastic consumption to decrease, general consumption will have to decline, which would be extremely challenging. There are billions of people who dream of a living standard like that in Norway and other affluent countries. When they climb to our level, they will use a lot of plastic. Much of the earth’s population uses 30-40 kg of plastic a year, and this will probably double or triple if they are to have access to clean water, electricity, safely packaged food, and modern buildings and infrastructure,” Kamfjord explains.

**Plastic everywhere**

When we think of plastic, it is often plastic bags, bottles and other packaging that come to mind first. And it is true that a lot of plastic, around 40 percent, is used for packaging. But infrastructure, including water pipes, sewers, electrical components and other things we depend on, is made from plastic too. Cars, which need to be made lighter so that they use less fuel and electricity, contain more and more plastic.

“We are totally dependent on plastic, both as a society and as individuals,” Kamfjord insists.

**Harming nature and climate**

The problem with plastic is twofold. Firstly, a lot of plastic ends up in nature, where it harms wildlife.

“It is heart-rending to see animals caught in plastic, or with internal injuries caused by eating plastic. The problem is growing because there is more and more plastic, and a lot of it ends up in the sea as a result of people disposing of plastic in nature, or rain and floods washing plastic away. We must do all we can to stop this,” he says.

The second problem is the effect on climate of producing and incinerating plastic.

“Plastic production causes high emissions, and unfortunately far too little of the plastic is recycled. It is so cheap to make new plastic that it is unprofitable, and the collection and recycling systems are not good enough,” the expert explains.

**Still best**

So what can we do to save nature and the climate? Choose other materials?

“That is a worse solution in most contexts. All other materials usually have a larger climate footprint than plastic. Plastic has a number of advantages. It can be moulded into all sorts of shapes, it is light, it can be given customised properties and it can be made extremely strong. If, for example, we did not wrap our food in plastic, a lot of it would spoil and we would have to produce a lot more, which would have a much greater impact on the climate. And when it comes to drinks, which Infinitum works with, studies show that plastic bottles are more environmentally friendly than glass bottles, cans and cardboard cartons. No, we should not replace plastic, but generally use less and recycle more,” he says, summing up.

**Too cheap**

“Plastic is essentially very suitable for recycling, and can be used many times over if we focus on retaining the good properties of the various materials. With large volumes, it is more profitable to build recycling facilities, like Infinitum and Veolia have done at Heia. The challenge is to guarantee demand for recycled plastic. New plastic is so cheap that it pays to choose it over recycled, but recycled plastic has a much smaller climate footprint. The authorities should therefore put taxes in place that make it profitable to use recycled plastic. Then demand for recycled plastic will increase, and it will become more profitable to organise good recycling schemes, such as Infinitum’s DRS. Sustainability comes at a price that is worth paying. What Infinitum has achieved is totally unique, and a role model for other countries and other industries,” says Kamfjord.

**In the mirror**

At a societal level, the solution to plastic consumption lies in better collection systems and incentives for recycling and reusing plastic. But Kamfjord knows that the most important change is one we can all help with.

“The solution rests with the person you see in the mirror every day. We all need to get better at sorting everything correctly, but it is much more important for us to reduce consumption, and to choose products that last longer and can be recycled. Do you need more jackets? Do we have to have a new television? Can the car last a few more years? The very best thing we can do to save the globe is to say ‘no thanks,’” Thor Kamfjord concludes.





# A bureaucrat who gets results

"They should really hang a picture of me in the Ministry of Finance considering all the billions I have raised with this," says a laughing Espen Langtvet of the Norwegian Environment Agency.







Langtvet talks enthusiastically about the deposit return regulations, which are why Norway has one of the most effective deposit return systems in the world. Everyone is familiar with the deposit return system, but not many people know about the regulations and how they came into being.

### Reuse given preferential treatment

Let's go back to the 1990s. Glass and plastic bottles were returned, washed and used again. The drinks manufacturers and retailers believed that a system with cans and bottles that were used once and recycled was just as efficient and environmentally friendly as the reusable bottle system.

The environmental movement and the trade unions representing workers in the drinks industry wanted to retain the reusable bottle system, and the high 'grunnavgift' tax on non-reusable packaging.

### The desire to recycle

The dispute landed on Espen Langtvet's desk.

"Both Norsk Hydro and Norsk Resirk (now Infinitum) were very interested in recycling aluminium cans, but the high 'grunnavgift' made it unprofitable. You incurred the high tax even if you collected 100 percent of the cans, because the tax gave preferential treatment to the old form of reuse.

Espen Langtvet smiles when he gets to talk about this. He glows with commitment and tells the tale with scarcely a pause. He has worked as an economist at the Norwegian Environment Agency for 38 years, and the deposit return regulations represent one of his most unforgettable projects.

### Calculating climate gas emissions

"I am an economist and do not really deal with regulations, but reports. But

since deposits are money and that is what we economists know best, the matter ended up with us. This is the project where I came closest to reality and spoke to all the parties," he says.

He reflects as he talks about the dispute that went on between the actors. The environmental movement and the unions representing producers and users of reusable bottles were on one side, while Infinitum, Hydro and the grocery trade were on the other.

*"Playing a part in designing the best deposit return system in the world is definitely one of the things I am most proud of in my career."*

"It was argued that reusable packaging was best for the environment, but we lacked proof. We commissioned a number of life cycle analyses, which showed that climate gas emissions were roughly the same for reusable and recyclable packaging, provided that the recyclable bottles and cans were collected and recycled to the same extent," he relates.

### Political assistance

The general perception, in the Norwegian parliament as elsewhere, was that reusable bottles were better for the environment than recyclable bottles and cans, however.

He tells how Thorbjørn Berntsen, former Minister of Environmental Affairs, played a key role in the process of amending the deposit return regulations. Langtvet has especially vivid memories of a meeting Berntsen chaired at the Gamle Logen hall in Oslo.

"He brought all the actors involved together in the big hall and opened the meeting by saying that he had gathered them all there so that they could not come and lie to him in private," he laughs.

### Time for change

At around the same time, the ministry took on an enterprising new case officer and gave them the matter to deal with.

"It was Ellen Hambro, who has been Director General of the Norwegian Environment Agency for a long time now. Hambro and Berntsen stuck to their guns and argued based on hard facts. Our job as economists is to weigh the environmental impact against the economic effects, and in this case it was quite simple. Everything fell into place, with a hard-hitting politician, an enterprising case officer in the ministry, and economists with expertise in the tax system and experience of running the system," he relates.

### Success factors

After a long, hard fight, the whole system was revamped, with the 'grunnavgift' for using recyclable packaging being reduced, in addition to which an environmental levy that fell in proportion to the return rate was introduced.

In this way, manufacturers were encouraged to set up collection systems for packaging. This was the start of the deposit return system that we know today, and a major victory for Infinitum and the other actors.

"It was also very important for me to have the requirement that anyone who sold products with a deposit was also under an obligation to take them back included in the regulations. We received a lot of complaints from the public as a result of shops refusing to pay out deposits on bottles they had sold. I believe this was an important success factor," says Langtvet.





ADMINISTRATION IN PRACTICE: After working on the deposit return regulations for a very long time, Espen Langtvet finally got to visit Infitum's facility in Heia.

### **Proud bureaucrat**

Despite the key role he played in the DRS story, the bureaucrat had never visited Infitum's sorting facility. We took him to Heia, where Kjell Olav Maldum, Infitum's Managing Director, show him around the sorting, conveyors and drums. Langtvet seemed as happy as a kid in a sweet shop.

"It strikes me as pretty strange that I have never been here before despite feeling such strong ownership of the deposit return system. But it has been tremendous fun to see how far things have come from the very first discussions we had with Infitum several decades ago," he says.

"Playing a part in designing the best deposit return system in the world is definitely one of the things I am most proud of in my career. It is something really concrete and it works so well. Public administration is fun when it brings results," says a smiling Langtvet.



# DRS film on NRK hits big

**The LOOP foundation and NRK, the Norwegian Broadcasting Corporation, have produced 20 educational films on sustainable development. One of these popular films is about the Norwegian deposit return scheme.**

“One of the most important things we can teach children and young people is to look after resources. By teaching them about sustainability and the importance of making good environmental choices in everyday life, we equip them to create a more sustainable world,” says Fredrikke Friis Bertheussen of LOOP.

The LOOP non-profit foundation was set up in 2000 by a number of take-back companies that wanted to join forces in order to provide better information on sustainability. Infinitem is one of those companies.

Bertheussen is responsible for LOOP’s Environment School, which targets children and young people, and is one of the first things LOOP put in place when it started up.

“The films address how everything we buy, use and throw away affects animals, the environment and people, as well as explaining the value of good waste management systems. They also highlight possible solutions, and how each and every one of us can help to make a positive difference.”

## Contacting NRK

Three years ago, she contacted NRK School and asked whether it might be an idea to work together. The inquiry came about because of new curricula in schools that focused more on sustainability and assigned it greater importance than before. This meant that teachers were faced with new requirements and needed good teaching resources dealing with what is the most important issue of our times.

“NRK has a unique resource called NRK School. It contains around 10,000 highly educational film clips, so I was tempted to find out whether they might be interested in producing an educational film with us,” Bertheussen explains.

“Contact with NRK exceeded all expectations. We ended up making not just one film together, but 20,” she continues with a smile.

The films have been adapted for every level from primary to upper secondary, and can be watched on YouTube. The idea is for them to be incorporated directly in lessons.

## An unqualified success

Bertheussen says that the partnership with NRK was a great success and the films have been very well received by the public.

“Since Sustainability School’s official launch in March 2021, the films have been watched by more than a million school students. There is a great deal of interest in Sustainability School outside Norway too, as well as among Norwegian businesses,” says Bertheussen.

One of these films is about the Norwegian deposit return scheme. It tells the story of how important it is for all bottles and cans to be recycled, and how Norway is the world champion when it comes to returning empties. Bottles ending up as litter in nature is an enormous challenge worldwide. Norway is a pioneer, and our deposit return scheme is a role model for many other countries.

“According to NRK, the Sustainability School film package, which includes the film ‘Pant for nature’ (Return for Nature), is one of the most watched films of the entire 10,000 on NRK School,” says Bertheussen.





*"Since Sustainability School's official launch in March 2021, the films have been watched by more than a million school students."*



# Can deposit return save the sea?

**Every year, between eight and twelve million tonnes of plastic waste end up in the sea. By assisting other countries with setting up effective deposit return systems, Infinitem is helping to solve this challenge.**

“I was shocked by the amount of plastic that lay scattered across many of the locations we visited,” says Kenneth Bruvik, fisherman and environmental activist. In “Plasthavet” (The Plastic Sea) shown on NRK, the Norwegian Broadcasting Corporation, in 2021, he takes viewers on a journey along Norway’s coastline to find out how big the pollution problem is and its consequences for people and nature.

## **Large quantities of plastic on Norwegian beaches**

“In one location outside Bergen, we saw insects building their homes in plastic because it provided the best camouflage in an environment that was filled to

overflowing with plastic. It was simply overwhelming,” says Bruvik. Although plastic pollution is largely a global problem, we are also seeing plastic being washed ashore on beaches in Norway, or ending up in animals’ stomachs. Beach cleanup initiatives see to it that the plastic is removed, but the problem will not be solved until it can be ensured that plastic does not go astray.

## **Bottles rarely seen**

According to Mepex and Miljøstatus.no, all of 46 percent of the marine litter came from fishing and aquaculture, while 15 percent came from consumer products.



“There were large amounts of fishing gear like fishing nets and rope. We also saw a lot of plastic jerrycans and large items that looked like they came from ships or boats. There were also some single-use products that typically come from consumers, but there were very few plastic bottles from Norway,” says Bruvik.

## **Transferable deposit return scheme**

More than 98 percent of the plastic bottles sold in Norway are collected.

“We talked a lot to people who clean up the shoreline and they frequently says the same as Bruvik. Norwegian plastic bottles are rarely seen lying about in





A LOT OF ROPE: Kenneth Bruvik was surprised at how much fishing gear he found while filming the NRK series 'Plasthavet'.

nature, and there is a good reason for that. Here in Norway, the consumer has a great incentive to return bottles when they are empty, as they have a value that makes it worth the effort. Such incentives are lacking when it comes to other products, which means that it can be easier to just dump them. Out of sight, out of mind," says Kjell Olav Maldum, Infinitum's Managing Director.

Kenneth Bruvik has noticed this and says that he could envisage a DRS for more products.

"There is no reason in principle why we should not have a DRS for other products, provided that the products meet

certain requirements that enable us to recycle them. We at Infinitum are open to that," says Maldum.

### **Good systems are crucial**

Norway is a world leader when it comes to returning bottles, and you do not need to travel very far to see bottles going straight into the bin or, even worse, into nature. Plastic bottles are a large part of the plastic pollution problem globally, and a lot of people from other countries travel to Norway to learn about its effective DRS.

"Although plastic bottles go astray in many countries, it is not the bottles themselves that are the problem, but the

system around them. We at Infinitum are eager to share the experience we have of setting up the best DRS in the world," says Maldum.

He believes it is important for the state to establish an economic framework that makes it profitable for manufacturers to collect their packaging.

"This will promote collection schemes that ensure that packaging is taken back, just like with the deposit return system for bottles in Norway. The model can also be transferred to other products. If more countries had done the same as us, we would have overcome some of the global pollution problem," says Maldum.



# An eternal circle

*Today my heart skipped a beat  
when I heard Norway leads the world  
'cos someone here has come up with  
a recycling system that works*

*When I hear what they're doing  
I'm lost for words  
'cos they're banking on plastic and aluminium  
It's not weird that their name's Infinitem  
since it goes round in an eternal circle.*

*The fact is, as we all know  
everything collected is totally  
of the very finest quality  
which we should all applaud.*

*'Cos plastic and aluminium are better than glass  
as they can be recycled in a suitable place  
almost like a fiddle against a double base  
it's easier to compact*

*It disappears to village and hamlet  
but comes back bit by bit  
and is recycled time after time  
so nothing goes to waste*

*'Cos I don't want the earth to die  
and plastic is actually green  
but if it ends up in the open sea  
that's when things can go badly!*

*We know that plastic in a closed loop is gold  
while plastic in the wrong place is rubbish  
so when the reverse vending machine is full  
things couldn't be any better*

*It's really an insanely good model:  
Transporting returns is just crazy  
'cos we take them to the store ourselves  
so the environment isn't harmed*

*A reverse vending machine gives you adrenaline,  
it's like a backwards slot machine.  
Money comes out and empties go in  
which you will never get tired of*



**"A reverse vending machine gives you adrenaline," says Jon Niklas Rønning in this song, which he and Trond Hanssen wrote for Infinitum for the Keep Norway Clean conference in 2021.**

*'Cos it's simple to use an RVM:  
You cram in cans and bottles and kegs  
which will all end up as granulate  
at a sorting plant in Heia*

*Where they are always being visited  
by people from foreign climes  
who want to make a serious attempt  
to learn about the DRS*

*'Cos in some countries things are bad  
and many have a long way to go  
as they burn plastic in big fires  
they're quite simply very extreme!*

*The world has been given a new vision:  
Norway's become a deposit return nation  
a recycling and reuse icon  
a role model for the rest*

*'Cos the deposit return rate makes me sweat  
In Norway we simply return the most  
It's equal to the budget  
of North Korea – pretty much!*

*I feel like I deserve some thanks  
and a small salute for all I drank  
'cos I'm contributing Ringnes and Hansa  
and Mack, and keeping the quantity up*

*So the moral is your just desert:  
Drink beer and soda, it does you good  
'cos you're the one making sure the wheel  
goes round if you just remember to return!*











# Full speed ahead in the pandemic

2021 was another year marked by Covid-19, with new lockdowns and working from home, but more returns too. Infinitem worked all out, expanding its deposit return portfolio, acquiring a new partner, and starting work on a new facility in North Norway.



*“Having intelligent reception facilities in a number of locations enables us to operate an effective deposit return system throughout Norway.”*

*Randi Haavik Varberg, Communications and Marketing Director*

“Fortunately, the pandemic has not had an impact on Infinitem’s operations. We ran at full capacity all year without a single case of Covid-19 among our employees, something we are very happy about,” says Randi Haavik Varberg, Infinitem’s Communications and Marketing Director.

Although it was easier for Norwegians to travel abroad in 2021, return volume continued to rise. All told, we ended the year with a deposit return rate of 92 percent and a collection rate of 98 percent.

“We are curious about how things will be when we get back to ‘normal’. Then we will see how many of the new habits stick. I think many people have seen the benefits of shopping more in Norway and how well the deposit return system works,” says Varberg.

### **A new partner and a new facility**

Infinitem is constantly working to improve the deposit return system, and there were a number of big changes in 2021. In May, Infinitem acquired a new recycling partner for aluminium, switching from Hydro to Novelis. This means that all aluminium cans from Norway are now being recycled by Novelis, the world’s leading actor in this field.

“We think it is very exciting to be working with such an innovative actor on recycling aluminium. Novelis is just as concerned as we are to make the best possible use of the materials,” says Varberg.

Construction work on Infinitem’s new facility at Bjerkvik in North Norway has also started. Infinitem used to lease a facility, but they have now gone a step further and are building their own.

“It will give us plenty of scope to build the way we believe to be most effective, and we can improve our system. Having intelligent reception facilities in a number of locations enables us to operate an effective deposit return system throughout Norway,” says Varberg.

### **Norway’s first recycling plant for PET bottles**

There has also been great progress at the main facility at Heia in Fetsund. In June, the then Minister of Finance Jan Tore Sanner opened Norway’s first recycling plant for PET bottles, right next to Infinitem’s facility. The bottles used to be sent to Sweden and Germany for recycling. Now the vast majority of them are simply wheeled across the courtyard.

“We are very happy working with Veolia, which owns the plant. We now have

nearly the entire value chain in the same location. It represents an important step towards a circular economy,” says Varberg.

### **Expanding the portfolio and going for a world record**

Infinitem has not just made progress on the facility front, but has expanded its deposit return portfolio too. Both recyclable plastic beer kegs and festival cups now carry the DRS label.

“By including more products in our portfolio, we ensure that even more plastic is recycled and can be reused. This strikes right at the core of what we do, and I am looking forward to the next instalment,” says Varberg.

With Karsten Warholm on the team as its DRS ambassador, Infinitem has great plans for bringing in the little that remains in the way of non-returns.

“Even though we already hold the world record, we will not ease up until we achieve our goal and everything is collected,” says Randi Haavik Varberg in conclusion.











# “An important step towards a circular economy”

**“This is a good example of how to create green industry, transition and jobs,” said the then Minister of Finance Jan Tore Sanner when, back in June, he opened the factory that is going to recycle more than 500 million deposit bottles a year in Norway.**

Infinitem and Veolia have invested NOK 200 million in one of the world’s most advanced recycling plants with the capacity to recycle 25,000 tonnes of plastic annually. The factory is at Heia in Lillestrøm Municipality.

## **An eco-friendly, circular economy**

“This is an important step towards a complete, circular economy for drinks bottles in Norway. Now we no longer have to send our bottles abroad for recycling, which means fewer trailers on the roads and reduced emissions,” says Kjell Olav Maldum, Infinitem’s Managing Director.

The recycling plant is next door to Infinitem’s sorting facility, where bottles and cans from reverse vending machines all over the country are sorted and crushed.

“If the green transition is to succeed, we have to reuse instead of consume. This will help reduce the pressure on resources, while reducing emissions and pollution. The whole world will have to move in this direction if we are to succeed with sustainable development. I believe there to be great opportunities

for business development in Norway, as well as opportunities for exporting the technology where we are in the forefront,” says Jan Tore Sanner.

“Everybody is talking about a circular economy, we are demonstrating it in practice. Veolia buys our plastic bottles and makes plastic pellets, which in turn are sold to bottle producers, who sell bottle pre-forms to the drinks manufacturers. The entire chain is based on supply and demand,” Maldum explains.

## **New tax wanted**

The drinks industry now wants the authorities to introduce a material tax on new plastic.

“We want it to be more profitable for the drinks manufacturers to choose bottles with a high recycled plastic content. Many bottles are currently made from new plastic, which is not the best thing for the climate,” says the Infinitem boss.

“A number of things are important for bringing about more recycling and a circular economy. One of them is competence through education and training, and promoting positive attitudes among the public regarding the importance of reusing and recycling more. I also believe that the authorities need to help by investing in research and development,” says Sanner.



NEIGHBOURS: Veolia’s plastic bottle recycling plant is right next to Infinitem’s facility at Heia in Fetsund.



# 760 tonnes of bottles recycled in December

**Veolia's Heia factory operates seven days a week. Although the factory recycled 760 tonnes of empty bottles in December, there is still a way to go.**

When we spoke to factory manager Torben Beck at Veolia's plant in autumn 2020, he told us this:

"The dream scenario would be consistent production day in, day out, but unfortunately that is not the reality."

At that time, the factory was still being built, and the conversation was about his vision for how things would look when the machines were in full operation a few months later. Little did he know what was in store for him, and that a year and a half later, at the start of 2022, he would appear something of a clairvoyant.

Because, back in the autumn of 2020, the pandemic restrictions were very limited, but not for long. New travel restrictions were soon introduced, which had consequences for the factory's commissioning.

When he has to describe how things turned out in reality, Beck is left scratching his head. Finally, he sums it all up briefly and concisely:

"Things took longer than expected. And even though we had hoped to be fully up

and running in the course of 2021, we are not at full capacity yet. But we started operating seven days a week instead of five with effect from 15 November 2021, so we are headed in the right direction," he adds with a smile.

## Finishing touches

Compared with budget, the factory is running at 80-90 percent capacity. Some new agreements, together with fine-tuning of operations, will ensure that Beck and his enterprising colleagues will be able to report that they have achieved their target 100 percent by and by.

"There is nothing major to be done, and we are now in a stabilisation and optimisation phase. 2022 will be the year when we take all the small steps that remain to achieve budget and planned turnover," says the factory boss.

At the same time, new agreements and approvals will ensure even higher demand for the raw materials that the factory produces.

"That is what it is about, recycling the plastic bottles we get from Infinitum. We

turn them into plastic granulate, which then becomes pre-forms and, ultimately, new plastic bottles," he explains.

## Attractive market

Veolia is operating in an attractive market, as prices are now high.

"Non-recycled bottles are made from oil. The price we got for the granulate used to be determined by the price of oil. Now it is governed by a recycling index instead," says Beck.

It is that old chestnut, supply and demand, that determines the price of the raw materials. When demand exceeds supply, the price rises.

"Plastic bottles used to be recycled because it was profitable, now it is out of duty. When the big producers sharpen up their environmental profile, it creates a market for the plastic raw materials. Our task is to meet this demand by putting regular deliveries to the big customers in place," says Beck.





TOWARDS FULL PRODUCTION: Torben Beck, the factory manager at Veolia's recycling plant, says that they are working to increase capacity utilisation.



SPRUCE TREES: Morten Gran, Managing Director of Grans Brewery, is thinking about growing spruce trees as the business's contribution to carbon capture.







# Working broadly on sustainability

Grans Brewery is proud to be part of the Norwegian deposit return system and aims to be carbon-neutral by 2030. “We are working broadly to achieve this goal. Since we are called Gran, which is Norwegian for spruce, we are thinking about growing spruce trees as our contribution to carbon capture,” says Managing Director Morten Gran.

“On a global scale, we in Norway have every reason to be proud of our deposit return system. I am very proud to be an actor in something as amazing as the Norwegian DRS. I am also amazed that not more countries have copied our way of handling drinks packaging,” says Gran.

## Plastic and aluminium are best

Grans Brewery in Sandefjord is keen to use as much recycled material as possible, and to ensure that its packaging can be returned. Grans stopped using glass packaging in 2017, and all their drinks now come in plastic bottles or aluminium cans.

“Our reason for cutting out glass is two-fold. We saw that there was less demand for products in glass among consumers, and it is best to use plastic and aluminium that can be handled by the deposit return system for environmental reasons,” Gran explains.

## Experimenting with thin plastic

Grans Brewery has already done a lot to reduce its plastic consumption, but is also experimenting with new measures.

“We use plastic to wrap six-packs and pallets. We are experimenting with using less plastic and thinner plastic for this purpose. We have thought about using other materials for packing, but plastic is a very good, flexible packaging material that safeguards the quality of our products. We are also looking into the possibility of increasing the recycling rate for the plastic we use and reducing the thickness of our plastic packaging,” says Gran.

## Thinking about growing spruce trees

Grans Brewery has set itself the goal of being carbon-neutral by 2030.

“Beer production requires a lot of energy. In order to achieve our goal, we will have to either invest in a different type of boiler system, have more energy recovery in production or make better use of what we have in the way of emissions in order to generate energy and heat. We are pursuing a lot of approaches, and since we are called Gran, which is Norwegian for spruce, we are thinking about growing spruce trees alongside our brewing activities as our contribution to carbon capture,” says Morton Gran.



# The DRS is important for achieving global climate targets

It is Coca-Cola's ambition to achieve net zero emissions by 2040. The deposit return system and recycling of plastic packaging will play an important role in reaching that goal.

Coca-Cola Europacific Partners (CCEP) wants to reduce its climate emissions by 30 percent globally by 2030, with the further ambition of achieving net zero emissions by 2040.

"We have a lot to do in order to achieve our goals. Packaging accounts for more than 40 percent of our carbon emissions, and we have set up a separate unit to work exclusively on projects aimed at reducing climate emissions from our packaging. The aim is to remove all unnecessary plastic and reduce plastic consumption, among other things by making lighter bottles and caps. And then we have to collect the plastic so that we can recycle more and produce less new plastic," says Per Hynne, CCEP's Head of Communication.

## 'World Without Waste'

Plastic litter is one of the great environmental challenges facing the globe, and packaging has a large climate footprint. Therefore, according to Hynne, good collection systems for plastic packaging are needed, and an effective deposit return system is crucial.

"We are a big actor who puts a huge amount of packaging into circulation. So we also have a great responsibility to take that packaging back. In 2018, the Coca-Cola Company launched its

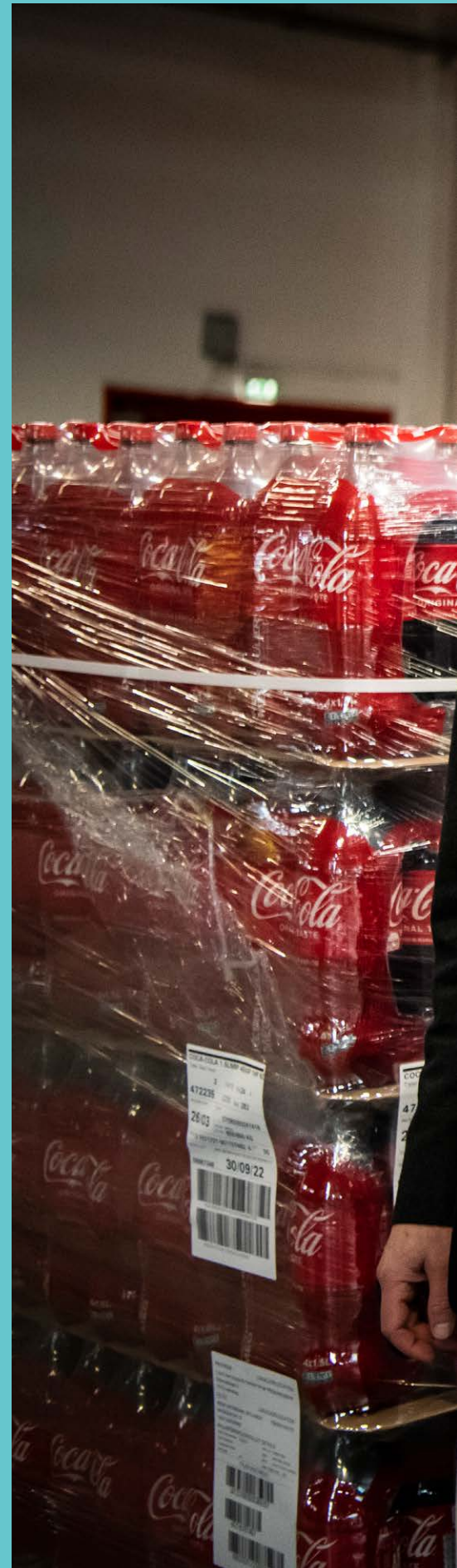
ambitious 'World Without Waste' plan, which states that they aim to collect as many cans and bottles as they send out into the world by 2030," says Hynne.

## An active driving force in many countries

This ambition applies not just to Norway, but globally. In order to achieve its goal, Coca-Cola understands that in many countries it will have to be a driving force behind systems being put in place.

"As things stand, a deposit return system like we have in Norway is the most effective means of achieving our goal. Norway leads the way by a large margin, and many people are familiar with the Norwegian deposit return system and look to Norway to learn. Infinitem has been, and remains, an important source of information and knowledge for other markets that are working to establish deposit return systems," Hynne explains.

"We are especially active in Western Europe, the most mature market in this area. In order to establish a deposit return system that works, countries will have to get retailers, suppliers and the authorities to work together, which is what happens in Norway. Such cooperation is demanding, but both the UK and Scotland have made good progress," says Hynne.







NET ZERO EMISSIONS: Per Hynne has faith in the ambition to achieve net zero emissions by 2040.



# First to have recyclable festival cups

**Bergen Live were the first event organisers in Norway to use recyclable plastic cups covered by Infinitem's DRS in summer 2021. "It worked really well for us last summer, and now we are keen to test things out at full-capacity events in 2022," says Frida Rød, Bergen Live's Environment Manager.**

"It was great fun to be the first event organisers in Norway to use these cups. The calculations for the Norwegian Beer and Soft Drink Producers show that this solution has the smallest carbon footprint compared with the alternatives," says Rød.

Plastic drink cups have been an environmental challenge for Norwegian concert organisers. Plastic cups litter the festival sites, and in many places the valuable plastic material has been burned as waste after use.

In 2019, Hansa Borg Bryggerier took the initiative and set up a cooperation project in the industry to find a sustainable solution for festival cups in Norway.

"The analyses show that recycled plastic cups put much less of a strain on the environment than the alternatives. This

is the most sustainable solution," says Kjell Olav Maldum, Managing Director of Infinitem. With Infinitem and Veolia's new recycling plant at Heia outside Oslo, which opened recently, all bottles and festival cups collected by Infinitem will also be recycled in Norway.

## From composting to recycling

Bergen Live report that audiences are committed and quick to learn when it comes to sorting the cups correctly. They are working across the board to reduce the amount of general waste at their events. The previous solution they used for drink cups was bioplastic, which was composted.

"Composting is all well and good, but we think it is better for the plastic to be given a new lease of life. We are happy

about phasing out the other solution," Rød relates.

## Excited about full-scale testing

In 2021, Bergen Live put on a series of outdoor concerts featuring BigBang, CC Cowboys, Sondre Lerche and Boy Pablo, among others. In summer 2022, the scene is set for lots of large concerts and festivals featuring national and international artists.

"We are very much looking forward to trying out the recyclable festival cups when our events are back to full capacity. I have a great deal of faith in this solution, which is part of the work to minimise our environmental footprint," says Rød.

Bergen Live are pursuing an integrated environmental strategy, which includes waste, food packaging and energy efficiency.

"It is great that organisers are keen to use recyclable festival cups. There is enormous potential for getting much more plastic recycled than before. By recycling the cups into new cups and bottles, we reduce the amount of plastic we need to sell the same quantity of drinks. This represents a substantial resource and environmental gain," says Maldum.



LIMITED AUDIENCE: In 2021, Bergen Live organised a series of concert with a limited number of people in the audience owing to Covid-19. They are ready to operate at full capacity from 2022.





END



Jeg er resirkulert

**Resirkuler meg**



**LAGET AV PLAST**





KEYKEG

KEYKEG  
tap into the  
circular economy



Storage

- Do not use for drinking water
- Do not use for food storage
- Do not use for hot liquids
- Do not use for chemicals
- Do not use for flammable liquids
- Do not use for corrosive liquids
- Do not use for toxic liquids
- Do not use for volatile liquids
- Do not use for flammable gases
- Do not use for toxic gases
- Do not use for corrosive gases
- Do not use for flammable solids
- Do not use for toxic solids
- Do not use for corrosive solids
- Do not use for flammable liquids (over 60°C)
- Do not use for toxic liquids (over 60°C)
- Do not use for corrosive liquids (over 60°C)
- Do not use for flammable gases (over 60°C)
- Do not use for toxic gases (over 60°C)
- Do not use for corrosive gases (over 60°C)
- Do not use for flammable solids (over 60°C)
- Do not use for toxic solids (over 60°C)
- Do not use for corrosive solids (over 60°C)

Unboxing & Preparing

After





# Eco-friendly global innovation

**In autumn 2021, KeyKeg plastic beer kegs were included in Infinitum’s deposit return scheme. The beer kegs are now recycled into new bottles or beer kegs, time after time.**

“We got this scheme up and running because we want to utilise and develop our efficient DRS to ensure effective collection and documented recycling of all beer kegs sold in Norway,” says Kjell Olav Maldum, Managing Director of Infinitum.

The work to find a recycling solution for the plastic kegs got under way in early 2020 in collaboration with Hansa Borg Bryggerier.

“Together with Infinitum and KeyKeg manufacturer OneCircle, we looked at alternatives for collecting KeyKegs and

the possibility of using the raw material in new kegs. Our collaboration has borne fruit and we are delighted that a deposit return solution is in place,” says Stina Kildedal-Johannessen, Head of Communications and Sustainability at Hansa Borg Bryggerier.

The KeyKeg is a plastic beer keg used by both large and small breweries to package their drinks.

“The aim is for all brewers, importers and producers of KeyKegs to join this scheme. This is part of our plastic promise objective. Not least,

it contributes to UN Sustainable Development Goal 17, ‘Partnerships for the Goals,’” says Kildedal-Johannessen.

DraughtMaster from Ringnes, another type of plastic beer keg, is already in the DRS.

“It is exciting for Infinitum to work with drinks manufacturers who attach importance to ensuring effective collection and recycling, and who challenge us to develop the DRS further,” says Maldum.

## How the new scheme works

A deposit has been set for each type of keg (10, 20 and 30 litres). The deposit is paid when the kegs are purchased and invoiced by the producer together with the products. The deposits are NOK 26.70, NOK 40 and NOK 53.30 respectively.

Bars and restaurants that want to participate in the scheme and are already Infinitum members through the ordinary DRS for cans and plastic bottles do not need to register again. Otherwise they have to take out membership with Infinitum (free of charge). Empty kegs are then collected in separate sacks.

When a sack is full, collection can be booked. The sacks are then collected within five working days of booking (also free of charge).

For bars and restaurants that fill more than five sacks a week, Infinitum offers to set up a fixed collection time/schedule for the sacks. The sack’s unique barcode is scanned, and the sender receives an email receipt for the collection. The email contains the name of the collection location, the collection date and the barcodes collected.



# Small breweries big on environmental engagement

**The Lofotpils and Austmann microbreweries were founded at a time in the 2010s when small breweries were popping up in every little town. Both are built on friendship and solidarity, and have the environment high on their list of priorities.**

Are you an Austmann, meaning someone from eastern Norway? If so, you may enjoy a Tre Gamle Damer (Three Old Ladies) from the microbrewery in Trondheim's Sluppen neighbourhood on a regular basis. The simple, unpretentious pale ale was called that from the outset, having been named after the three people who made Austmann's birth possible when three pals had to phone home to mum to get the financial backing for their idea and dream of setting up their own brewery.

## **Great attitude to recycling**

Their range now offers nine different flavours and beer types. The Austmann story is about friendship, generosity and community.

“We are three enterprising pals who have worked their fingers to the bone to establish their brand. But we would never have made the journey without innumerable contributions from friends, neighbours and the business community

around us. We have been surrounded by yes people,” says Marketing Manager Thomas Sjue.

Environmental measures large and small are important to the company.

“We operate in an industry that challenges the environment. We are dependent on imported grain, yeast and hops. Our production also involves a lot of water. So it is important for us to make a big contribution where we can. We are great at recycling,” says Sjue.

Austmann is also committed to aluminium cans for both the grocery trade and the hospitality sector.

Its collaboration with infinitem is invaluable.

“Infinitem is easy to get on with. The guidelines are clear, they provide good information, and the threshold for seeking help is low,” says Sjue.

## **The beer should taste of pure nature**

In Svolvær in Lofoten, Lofotpils has become a fairytale. With seven employees, the brewery is the largest in the County



INVALUABLE COLLABORATION: Austmann's Marketing Manager Thomas Sjue is extremely happy with their collaboration with Infinitem.





of Nordland. It is a small family business started by Thorvardur Gunnlaugsson. His son, Andreas Thorvardarson, has now taken over as general manager.

The first beer was brewed in 2014. Since then, thousands of litres of beer have been tapped into kegs and cans, and now into aluminium bottles too, a new departure.

The company has had environmental ambitions since day one. It is part of its identity.

“Lofotpils should taste of pure nature. We cannot put the name to shame,” says Thorvardarson.

The brewery was the first in Norway to be certified under the Eco-Lighthouse scheme, and Lofotpils also helped to develop the environmental standard for the industry.

Lofotpils has taken a number of steps to make production more environmentally friendly, and to get breweries and private individuals to prioritise deposit return.

“Among other things, we supply a lot of beer to micro-festivals in North Norway. We had several work meetings with Infnitum last year to discuss solutions for reducing plastic use in such arenas,” says Thorvardarson.

Last summer, Infnitum rolled out good solutions for returning plastic cups at a number of festivals. Another solution that has been put in place in dialogue with the industry is returning plastic kegs that Lofotpils, Austmann and other breweries supply to bars and restaurants.

The two brewery owners are in agreement that consumers in Norway are quick to learn and aware when it

comes to returning empties, something that benefits everyone.

“With good deposit return figures, there is no environmental levy on drinks packaging, making the beer cheaper for consumers. What is more, one bottle collected means one bottle less in nature, so recycling is win-win,” says Sjue.



ENVIRONMENTAL STANDARD: Andreas Thorvardarson is General Manager of Lofotpils, which helped to develop the industry’s environmental standard.



# Aiming for a new record

**At OBS Lillestrøm, staff no longer have to handle cans and bottles in the back, as the bottles and cans you return are sucked through a pipe that goes straight into a container outside the store.**

“We are constantly working to make the deposit return system even more efficient. I gave a lot of thought to how we might improve it and came up with this vacuum solution,” says Sten Nerland, Infinitem’s Head of Logistics.

## **Most resource-efficient solution**

In the majority of stores with reverse vending machines, the bottles and cans end up in plastic sacks, which are then stacked on return lorries. This is taken care of by the store staff. At OBS Lillestrøm, the process is now fully automated.

When a can or bottle is put in the reverse vending machine, it is crushed. Then it is sucked into a metal pipe and blown straight out into a large container behind the store. This is collected once a week and driven straight to Infinitem’s facility at Heia.

“Using resources in the most efficient manner is at the core of what we at Infinitem are working for. We save a lot of carbon emissions by ensuring that transport is efficient, that we operate with full trucks, and return transport. This innovation helps achieve just that,” says Sten.

The vacuum has been developed by Infinitem, but cannot be used in all stores for now.

“They have to be within a certain distance of our facilities. But just get in touch with us to check if your store is suitable,” says Nerland.

## **More than seven million bottles and cans**

OBS Lillestrøm is the store that collects by far the most empties in Norway. In 2021, they racked up 7.7 million bottles and cans, a new Norwegian record. Store Manager Marcus Løkkeberg is extremely happy to have this solution.

“It is a much smoother process in the back. With the huge quantities of cans and bottles we receive, handling the sacks and taking them out for collection had got to be a lot of work. We no longer have to do any of that, as everything is automatic. It also means less mess for the people working here, and makes things even more efficient for the customers. I think some people come here because this is where they have the very best deposit return experience,” says Løkkeberg.



INNOVATION: The new deposit return vacuum means that there is no mess from drinks in the back at OBS Lillestrøm.





# Obs

*"I think some people come here because this is where they have the very best deposit return experience."*

*Marcus Løkkeberg, Store Manager at  
OBS Lillestrøm*





RETURNING EMPTIES FROM HOME: Rune Berg, Meny Bjølsen franchisee, displays one of the sacks.





# Covid-19 doubled returns from home

**The Covid-19 pandemic boosted returns through Meny's online stores. "More and more customers are wanting us to collect their bottles and cans," says Kevin S. Johansen, Operations Coordinator at Meny Netthandel.**

"Everything to do with online shopping grew as a result of the pandemic, something we felt too. Both sales and returns through our online stores grew tremendously," says Johansen.

Figures from Infinitem show that Meny's online stores collected three times as many bottles and cans from customers in 2021 as when they launched in 2018.

## Customers asked for deposit return scheme

Meny's online stores began collecting returns as a result of inquiries from customers. Customers who mainly shop online found that the empties were

piling up. So Meny set up a collection scheme, with the proceeds going to the Church City Mission.

"Donating the deposits to a charitable organisation was a great solution. A lot of customers like the fact that the money goes to the Church City Mission locally, that is to say in the municipality where the online store in question is based," says Johansen.

"We are delighted with Meny's deposit return scheme. The deposit money we get from them is turned into hot meals and nice places to be for people in need," says Senior Adviser Ragnhild Hårem Østmo of the Church City Mission.

## Available in 46 online stores

In 2021, 46 of Meny's brick and mortar stores had an online store, and all of them belong to the deposit return scheme. The customers do the work of sorting the empties into separate sacks. When the sacks come into the local online stores, they can be forwarded straight to Infinitem.

"It is great to see people asking for a deposit return scheme from online stores and Meny responding by putting one in place quickly. Such schemes are important when it comes to achieving our goal of collecting all empty bottles and cans," says Randi Haavik Varberg, Infinitem's Communications and Marketing Director.

# “Infinitem fascinates me”

**In summer 2021, Karsten Warholm became Olympic champion in the 400 metre hurdles in Tokyo, Japan. In the same race, he also took the world record, which he still holds. His recipe for success has been blood, sweat and tears of course, plus systematic work. He is now helping Infinitem in its quest for the deposit return world record.**

After all, Karsten Warholm has some good tips when it comes to world records. But first we have to rewind.

The 26 year old became an Infinitem ambassador in autumn 2020. A role that came quite naturally to him.

“Infinitem has a profile that fascinates me. They have managed to do something cool and innovative with a scheme that is actually pretty solid,” says Karsten Warholm.

Environmental engagement also came quite naturally to Warholm. He believes it has something to do with his generation. But he stresses that environmental mea-

sures have to be simple and accessible in order to engage people. This is something that Infinitem has found too. Young people are harder to get on board, despite the fact that by far the majority of them are very much environmental ambassadors.

“The deposit return concept is quite brilliant. Getting money back appeals to us. We humans are simple that way. Over time, we become more aware and more dedicated, and then the carrot is no longer as important perhaps. But I have a lot of faith in it as a way of getting people started.”

## Calling his friends out

The best thing he does for the environment

personally is running. A lot. Which he says without irony. But he also does other things for the environment. “I sort my rubbish of course. And when the pandemic started, I had to cut down on travel, which introduced me and my coach, Leif Olaf Alnes, to a whole new world. You can achieve a lot without getting on a plane,” he says.

He also admits that he has started calling his friends out.

“I drink a lot of Red Bull, Farris and sports drinks. And I return everything of course, always. I am quick to point the finger if I see my pals popping a bottle or can in the bin. After all, it is my job now,” he says with commitment.

## Engaging his entire home town

In autumn 2021, he went back to Ulsteinvik, the town he grew up in, to film a commercial. He knocked on doors and invited the local inhabitants to help Infinitem in its quest for the world record.

“It was so cool. I came home and realised that I had been oblivious to my surroundings. There are so many hidden treasures and such fantastic nature in Ulsteinvik. And it is precisely that heritage, our beautiful nature, that Infinitem wants to preserve. It was a perfect backdrop for the filming. And the response from the locals was tremendous.”



PROUD PARTNER: Randi Haavik Varberg and Kjell Olav Maldum are delighted to have Warholm as a deposit return ambassador.



He is quite sure that the deposit return figures rose dramatically in his home town after the filming. His task now is to engage the rest of the country.

### **Bit by bit**

As things currently stand, 92.3 percent of all bottles and cans covered by the deposit return scheme are collected. At the same time, we find 104 million bottles and cans in household waste, and around 12 million cans and 1.6 million bottles in the form of litter and commercial waste, for example. Infinitem has a bold target of 100 percent returns.

Which brings us back to the world record holder's tips.

"The key is always to search for solutions that make you a little bit better. In my case, that might be honing my running stride, for example. For Infinitem, it is about continuing to innovate and searching for solutions that make it even simpler for us to return empties," says Warholm.

He adds a final piece of advice.

"You have to have subgoals. It is so important to have checkpoints along the way that you can enjoy and celebrate. One bottle and one can at a time. A percentage increase, and then another," says the Olympic champion before heading off in quest of new tenths to conquer.







pa a skape et bedre miljø gjennom sirkulærøkonomi

  
KLEMFARE



# DRS growler tour is a roaring success

**There has been many a long growl from the popular DRS growler that Infinitem donated to the Vitenparken science park in Ås. It has become so popular that, in 2021, Infinitem sponsored a mobile version, which the Norwegian Guide and Scout Association took on a national tour.**

The DRS growler is a complex installation with a concrete message. It is designed to make people aware of just how important it is to return empties.

“It looks like an enormous hamster wheel that children can run on. The wheel is connected to a computer, which calculates how much energy the runner is using. That energy is measured in bottles collected. The more bottles the runner manages to ‘return’, the more the DRS growler grows,” says Nina Croft, Vitenparken’s Head of Sales and Marketing.

## Hamster wheel on a trailer

Infinitem sponsored the development and production of the DRS growler, which has been at Vitenparken in Ås since summer 2020. It was the guides and scouts themselves who asked if it was possible to borrow the hamster wheel for their national camp, Agenda 21, last summer.

“We thought it was such a good idea that we sponsored production of a new, mobile DRS growler on a trailer,” says Randi Haavik Varberg, Infinitem’s Communications and Marketing Director.

And the DRS growler on wheels has already been well used. There were 7,500 guides and scouts at the national camp during the summer, and many of them gave the hamster wheel a go.

“The DRS growler is a physical activity where you achieve something by your own efforts. Sound effects reward you for your exertions, and a counter measures your results. These are good ingredients for arousing the guides and scouts’ competitive instinct. In other words, we have a winning formula,” says national camp manager Harald Schytz.

## All records broken

The guides and scouts also broke all the records. It used to be possible to return a maximum of 100 bottles in the DRS growler per go. This was increased first to 1,000 bottles, then 4,000 bottles. The feedback from the guides and scouts is that this is still not enough. They want to run more. The DRS growler is now going to be upgraded again to make it possible to return an infinite number of bottles.

The mobile DRS growler was at twelve guide and scout camps in the summer.

“Young people’s environmental awareness is completely different to what it was 20-30 years ago. They also have a good attitude when it comes to returning empties. All the same, this is a great way of getting an important message across,” says Schytz.

Since the guide and scout tour, the DRS growler on wheels has also visited festivals and shopping centres. Right now, it is back in storage at Vitenparken. But the plan is for the DRS growler to go on new adventures during the year.

“We do not know yet who we will be lending it to this year. We therefore encourage anyone with a good idea for the DRS growler’s next adventure to get in touch,” says Nina Croft.

She also reveals that another mobile DRS growler is in production. This too has been sponsored by Infinitem.

The DRS growlers were designed by inventors Skjalg Molvær from Inspire to Action and Hermann Tandberg from Ogle Noor.



# “Great to see how it works!”

After reading about sustainability and recycling, three 9th grade classes got to see it in practice at Infinitem. “It is great to get to see how it works,” says Gabriella Slørdahl.

“It is a good scheme. I already knew that it was smart to return empties, but here I learned more about why it is important for the environment,” says Leon Fosland, who stresses that he always returns all his empties.

Together with their classmates, Slørdahl and Fosland were given a guided tour of Infinitem’s facility by Managing Director Kjell Olav Maldum in autumn 2021. They got to see how plastic bottles and aluminium cans form part of a circular economy.

## “We want to help achieve 100 percent”

“What percentage of deposit bottles and cans are collected in Norway?” Maldum asks.

It takes the school students several attempts to guess high enough.

“I did not know that as much as 92 percent of deposit empties are collected. I was also surprised that not many other countries have a deposit return system,” says Kristina Malling.

She and classmate Gabriella Slørdahl are in the habit of returning all their empties and felt motivated to return even more after the visit.

“We want to help get us to 100 percent,” says Slørdahl.

## Norway is well ahead

The fact that Norway is well ahead of many other countries also comes as a surprise to Elise Harlem and Ylva Emilie Johnson.

“They do not have deposit cans in the Netherlands. I cannot see the point of that when they have a deposit return system for bottles,” says Elise Harlem. Sustainability, recycling and natural resources were on the science curriculum for the 9th graders last autumn.

“It was inspiring to see some of what we learn in school in practice, both in order to remember it better and to have more respect for recycling and the deposit return system,” says teacher Marta Grotheim.











# A circular deposit return system

**For us Norwegians, the deposit return system is a given. For specialists from all over the world, it is brilliant and remarkable.**

Climate, recycling and plastic in the world's oceans are attracting increasing attention around the world. Huge quantities of drinks packaging are part of the problem, and commerce, industry and the authorities are looking for solutions. The best solution they have found is in Norway. No other country is quite as good at collecting and recycling cans and bottles. The key to this success is eco-thinking and efficiency in every link of the chain, and thinking circular.

Once the consumer has treated them-

selves to something refreshing to drink, they take the empty bottle or can back to collect the deposit. They can do this wherever deposit return drinks are sold.

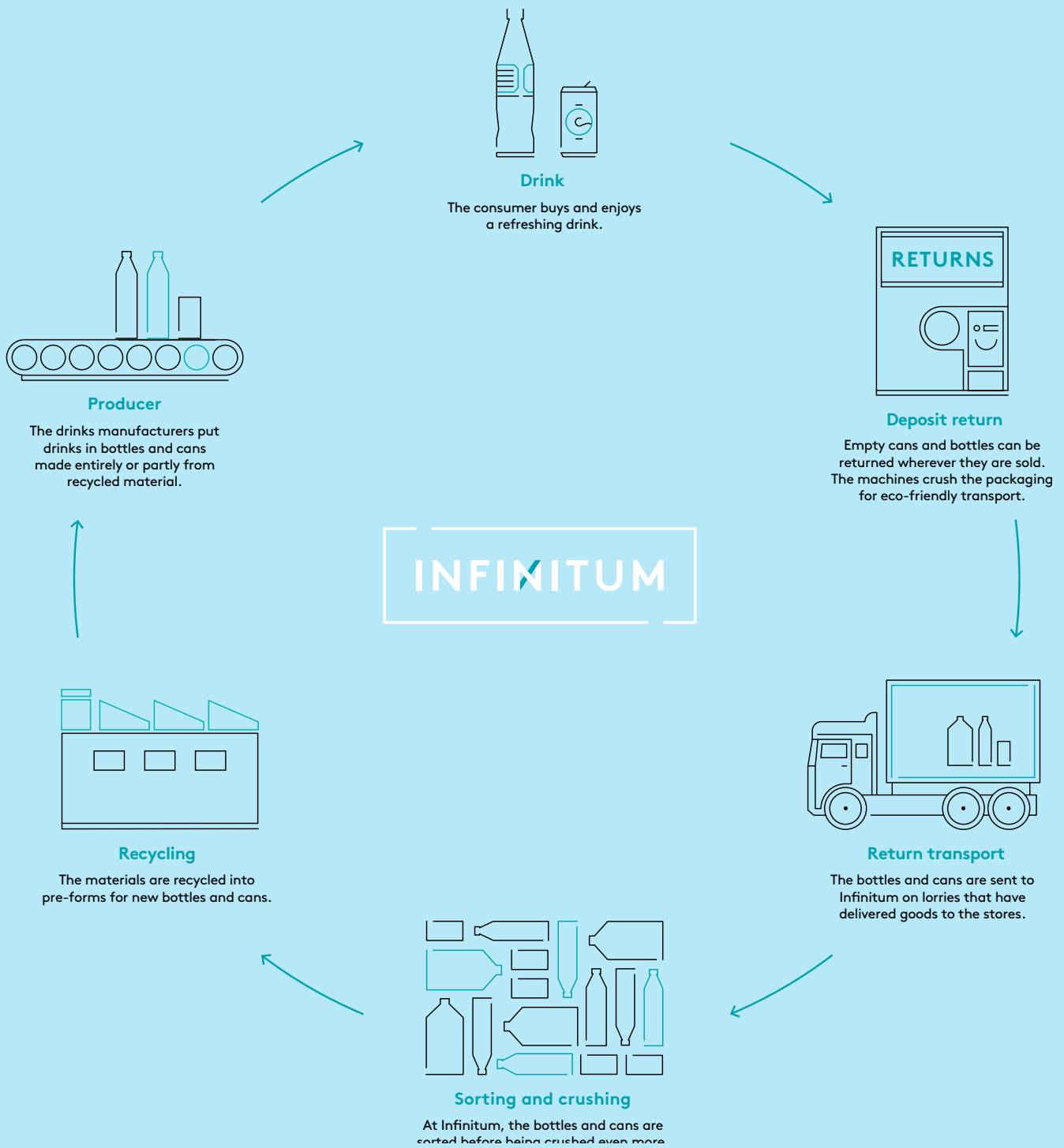
The reverse vending machine crushes cans and bottles so that they take up as little room as possible when transported.

Onward transport from the store uses empty space on the lorries that are already at the store. Then the empties are collected at haulage terminals before being transported to one of Infinitum's three facilities.

Sorting is done at Infinitum's three facilities in Bjerkvik, Trondheim and Fetsund. Plastic and aluminium are separated before being crushed further for volume-efficient transport for recycling.

The materials are recycled into pre-forms for new bottles and cans. At the drinks manufacturer, they are filled with another drink and land back on the shelf in store until someone is thirsty again. And so the cycle continues, from bottle to bottle and can to can.





# The deposit return story

Norway's first plastic bottle recycling plant opened in 2021. Norway's deposit return scheme for reusable bottles was set up in the early 1900s. When, in the 1980s, retailers wanted recyclable disposable packaging that could be crushed before being collected, it became the start of the present deposit return scheme. Jan Tore Sanner, the current Minister of Finance, returned the very first bottle for recycling in 1999.

## 1995:

The DRS is approved by the Norwegian Pollution Control Authority, now the Norwegian Environment Agency.

## 1996:

Norsk Resirk is founded with retailers and industry as equal shareholders through their industry associations.

## 1999:

Norsk Resirk's deposit return system for drinks cans and bottles is set up. The system is open to all. The first can is collected through the system on 3 May 1999.

## 2000:

The first recyclable bottles are registered in the DRS. Norsk Resirk opens its own facility at Alnabru in Oslo.

## 2003:

In what is just the fifth year of operation for the company, 92 percent of all cans and 77 percent of all drinks bottles are collected through the DRS.

## 2004:

Norsk Resirk has another successful year with an increase in the number of both drinks cans and recyclable plastic bottles collected, leading to a reduction in the environmental levy of 93 percent on cans and 80 percent on PET.

## 2006:

A production facility opens in Bjerkvik to serve North Norway.



In 1999 the current Minister of Finance Jan Tore Sanner returned the very first can to Norsk Resirk's new return scheme for bottles and cans. The then chairman Øyvind Winther and Managing Director Jarle Grytli were also present.



**2007:**

Kjell Olav Maldum takes over from Jarle Grytli as Managing Director.

**2008:**

TINE, Norway's largest producer, distributor and exporter of dairy products, launches drinks bottles for the first time in 40 years. The decision to use bottles is down to the DRS.

**2009:**

The Norwegian Climate and Pollution Agency gives its approval for DRS-labelled bottles and cans used in waste-to-energy recovery to count towards Infinitum's collection rates as well. The share of these drink containers accounts for around 4 percent of the overall collection rate for cans and around 8 percent for bottles.

**2011:**

The environmental levy on bottles is removed because the collection rate has exceeded 95 percent of packaging sold.

Small importers are invited to join the DRS.

**2012:**

The environmental levy on cans is removed because the verified return rate has exceeded 95 percent of packaging sold.

Mack Bryggerier, Ringnes and Coca Cola Enterprises switch from refillable bottles to recyclable PET. The other drinks manufacturers follow suit.

A new production facility opens in Heimdal, just outside Trondheim, to serve Central Norway.

**2013:**

A new production facility opens in Heia in Fetsund to serve Southern Norway. A new production facility opens in Bjerkvik to serve North Norway.

**2014:**

Norsk Resirk changes its name to Infinitum. The name and logo are inspired by the infinite number of times bottles and cans can be recycled in the DRS.

**2017:**

Producers worldwide change their mind and take a positive view of deposit return systems and their responsibility as producers. Sky News broadcasts a piece on the Norwegian DRS, generating an influx of visitors from all over the world wanting to learn more about Infinitum's deposit return scheme.

The Ministry of Climate and Environment decides to increase deposit rates from NOK 1 and NOK 2.50 to NOK 2 and NOK 3.

**2018:**

Infinitum achieves its highest ever collection figures, with 88.6 (95.1) percent of bottles and 87.3 (98.9) percent of cans collected. Vinmonopolet, Norway's state-owned alcohol retailer, requires manufacturers to switch to PET and deposit cans.

The EU is pushing towards a circular economy and adopts ambitious targets and strict requirements for both collection and material recycling. PET bottles must be made from at least 25 percent recycled plastic by 2025 and 30 percent by 2030. The collection rate for drinks bottles must be at least 77 percent by 2025 and 90 percent by 2029.

The deposit on bottles and cans is doubled from NOK 1.00 to NOK 2.00, the

first increase since 1986. The deposit on bottles and cans larger than 500 ml also increases from NOK 2.00 to NOK 3.00.

**2019:**

**Infinitum celebrates the 20th anniversary of the current deposit return scheme and achieves a collection rate for both bottles and cans of 90 per cent, ten years before the EU requires 90 per cent.**

Construction of the recycling plant at Heia in Lillestrøm Municipality begins. Extended producer responsibility becomes an increasingly important element in the EU's efforts to create circular economies for packaging. Deposits on DraughtMaster beer kegs are introduced.

**2020:**

In the year of Covid-19, Infinitum sets a record with a deposit return rate of 92 percent and more than 1.4 billion cans and bottles for recycling. Deposits on festival cups and recycling at Infinitum. Deposits on KeyKeg beer kegs are introduced.

**2021:**

New partnership with Novelis for aluminium, plastic bottle recycling plant opens at Heia, and recyclable plastic beer cups introduced.



The then Minister of Finance Jan Tore Sanner opens Veolia's plastic bottle recycling plant in June 2021.

# Board of Directors



**Svein Serck-Hanssen**  
Director  
BS (Ringnes AS)



**Svein Sollie**  
Deputy chairman  
DMF (Asko Norge AS)



**Helge Hasselgård**  
Board member  
DLS (DLF)



**Hans Petter Fossum-Piene**  
Board member  
BS (Coca-Cola Enterprise European  
Partners Norge AS)



**Tore Nygaardsmoen**  
Board member  
CNH (Coop Norge SA)



**Benno Graser**  
Board member  
DMF (Engrospartner AS)

## Deputy board members 2021:

**Jens Olav Flekke**  
DMF (DMF)

**Torgeir Løftingsmo**  
CNH (CNH)

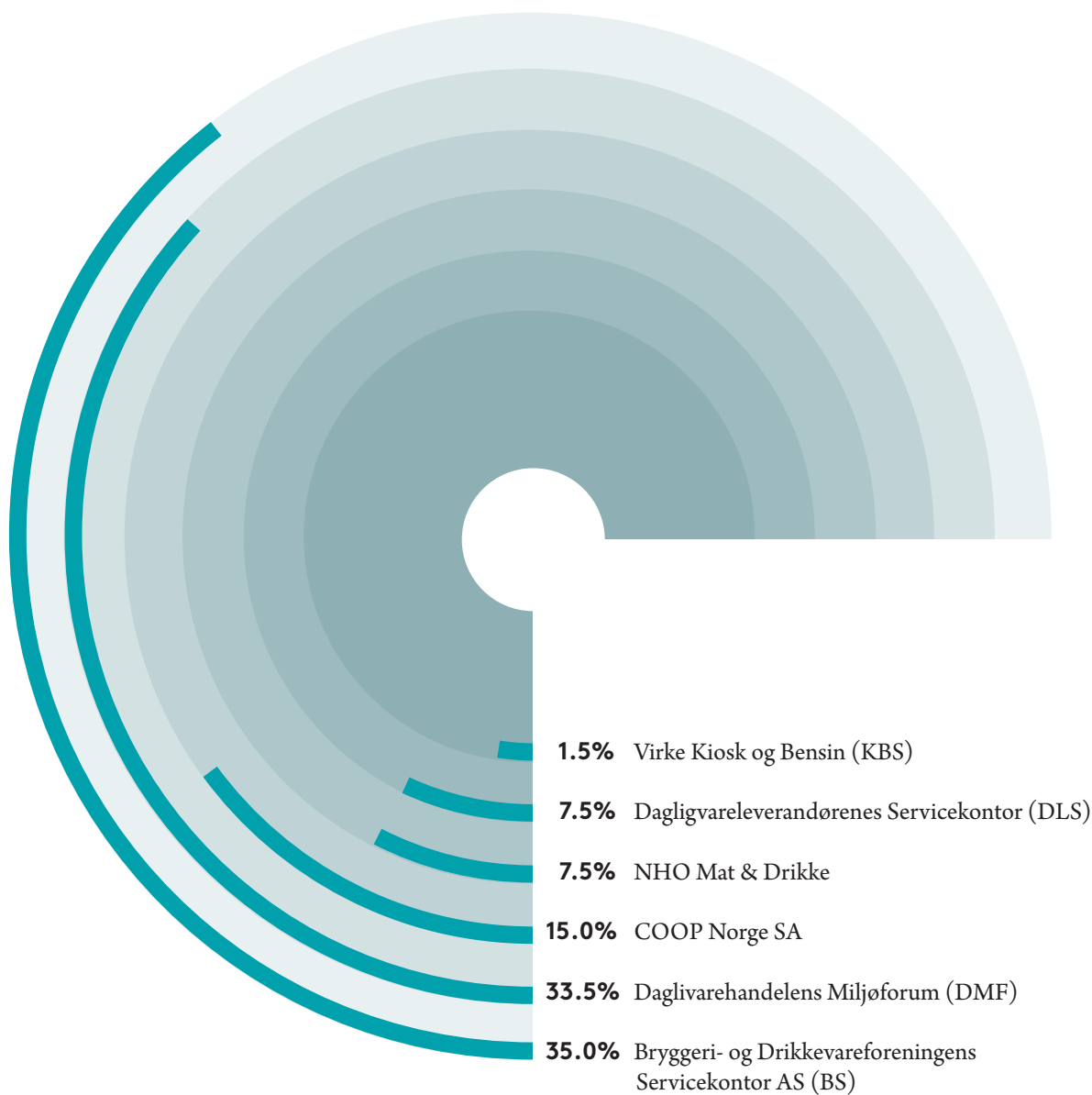
**Siv Grønning**  
BS (Ringnes AS)

**Christian Aass**  
BS (Aass Bryggerier AS)

**Thomas Weihe**  
DLF (DLF)



# Infinitem's owners



# Financial statements

## Infinitum AS - Income statement (figures in NOK 1,000)

Operating revenues and costs	2021	2020
EPR revenues	37,257	11,012
Deposit return revenues	3,827,089	3,471,196
Sale of collected materials	315,768	205,176
Other operating revenues	47,931	64,889
<b>Net operating revenues</b>	<b>4,228,045</b>	<b>3,752,273</b>
Deposit return expenditure	3,535,526	3,290,755
Handling fees	332,149	298,240
Transport costs	174,334	142,088
Other production costs	89,067	86,532
<b>Total operating costs</b>	<b>4,131,076</b>	<b>3,817,614</b>
<b>Profit from operating activities</b>	<b>96,969</b>	<b>-65,341</b>
Admin, marketing and depreciation	75,527	67,307
<b>Operating profit</b>	<b>21,442</b>	<b>-132,648</b>
<b>Net financial items</b>	<b>2,248</b>	<b>3,303</b>
<b>PROFIT AFTER FINANCIAL ITEMS</b>	<b>23,690</b>	<b>-129,345</b>

## Key figures

Supply chain	No. of cans	Tonnes of cans	% of added	No. of PET	Tonnes of PET	% added to the market
Total sales	1,036,269,691	14,217	-	669,906,808	25,047	0 %
Value chain	-7,245,434	-101	-	-6,509,218	-158	0 %
Added (sales + value chain)	1,029,024,257	14,116	100 %	663,397,590	24,889	100 %
<b>Total collected through reverse vending machines</b>	<b>941,122,743</b>	<b>12,921</b>	<b>91.5%</b>	<b>611,361,319</b>	<b>23,092</b>	<b>92.8%</b>
From central sorting plant	6,893,362	95	0.7%	1,223,713	41	0.2% *
From slag sorting	37,788,566	520	3.7%	-	-	0.0% *
From materials sorted at source	6,331,165	85	0.6%	1,839,336	65	0.3% *
Waste-to-energy	9,226,532	127	0.9%	40,487,548	1,366	5.5%
<b>Total recycled from waste</b>	<b>60,239,625</b>	<b>828</b>	<b>5.9%</b>	<b>43,550,597</b>	<b>1,472</b>	<b>5.9%</b>
<b>Total recycled</b>	<b>1,001,362,368</b>	<b>13,748</b>	<b>97.4%</b>	<b>654,911,916</b>	<b>24,564</b>	<b>98.7%</b>
Incineration waste in bottom ash	13,842,565	191	1.4%	-	-	-
Energy recycling incineration	1,679,259	23	0.2%	6,862,430	232	0.9%
Unknown allocations	12,140,066	153	1.1%	1,623,244	93	0.4% **
<b>Total not collected</b>	<b>87,901,514</b>	<b>1,195</b>	<b>8.5%</b>	<b>52,036,271</b>	<b>1,797</b>	<b>7.2%</b>
<b>Total</b>	<b>1,029,024,257</b>	<b>14,116</b>	<b>100%</b>	<b>663,397,590</b>	<b>24,889</b>	<b>100%</b>
Foreign items	12,979,325			1,483,307		

\* Materials recycling

\*\* Also represents uncertainties in the analysis



## Balance sheet (figures in NOK 1,000)

Assets	2021	2020
<b>Non-current assets</b>		
<b>Plant and equipment</b>		
Land, buildings and other real property	157,708	123,033
Plant and machinery, equipment, fixtures, etc.	50,624	43,919
<b>Plant and equipment</b>	<b>208,332</b>	<b>166,952</b>
<b>Financial non-current assets</b>		
Net plan assets	145	473
Financial non-current assets	145	473
<b>Total non-current assets</b>	<b>208,477</b>	<b>167,425</b>
<b>Current assets</b>		
<b>Receivables</b>		
Trade receivables	347,247	349,018
Other receivables	28,024	12,945
<b>Total receivables</b>	<b>375,271</b>	<b>361,963</b>
<b>Cash at bank and in hand, etc.</b>	<b>353,837</b>	<b>317,767</b>
<b>Total current assets</b>	<b>729,108</b>	<b>679,730</b>
<b>TOTAL ASSETS</b>	<b>937,585</b>	<b>847,155</b>
<b>Equity and assets</b>		
<b>Equity</b>		
<b>Contributed equity</b>		
Share capital (200 shares in denominations of NOK 7,500)	1,500	1,500
<b>Total paid-in capital</b>	<b>1,500</b>	<b>1,500</b>
<b>Retained earnings</b>		
Other capital	-53,827	-77,518
<b>Total retained earnings</b>	<b>-53,827</b>	<b>-77,518</b>
<b>Total equity</b>	<b>-52,327</b>	<b>-76,018</b>
<b>Liabilities</b>		
<b>Current liabilities</b>		
Trade payables	208,863	188,467
Unpaid government charges and special taxes	3,442	3,356
Other current liabilities	8,865	7,608
Provision for deposit liability	768,742	723,742
<b>Total current liabilities</b>	<b>989,912</b>	<b>923,173</b>
<b>Total liabilities</b>	<b>989,912</b>	<b>923,173</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>937,585</b>	<b>847,155</b>

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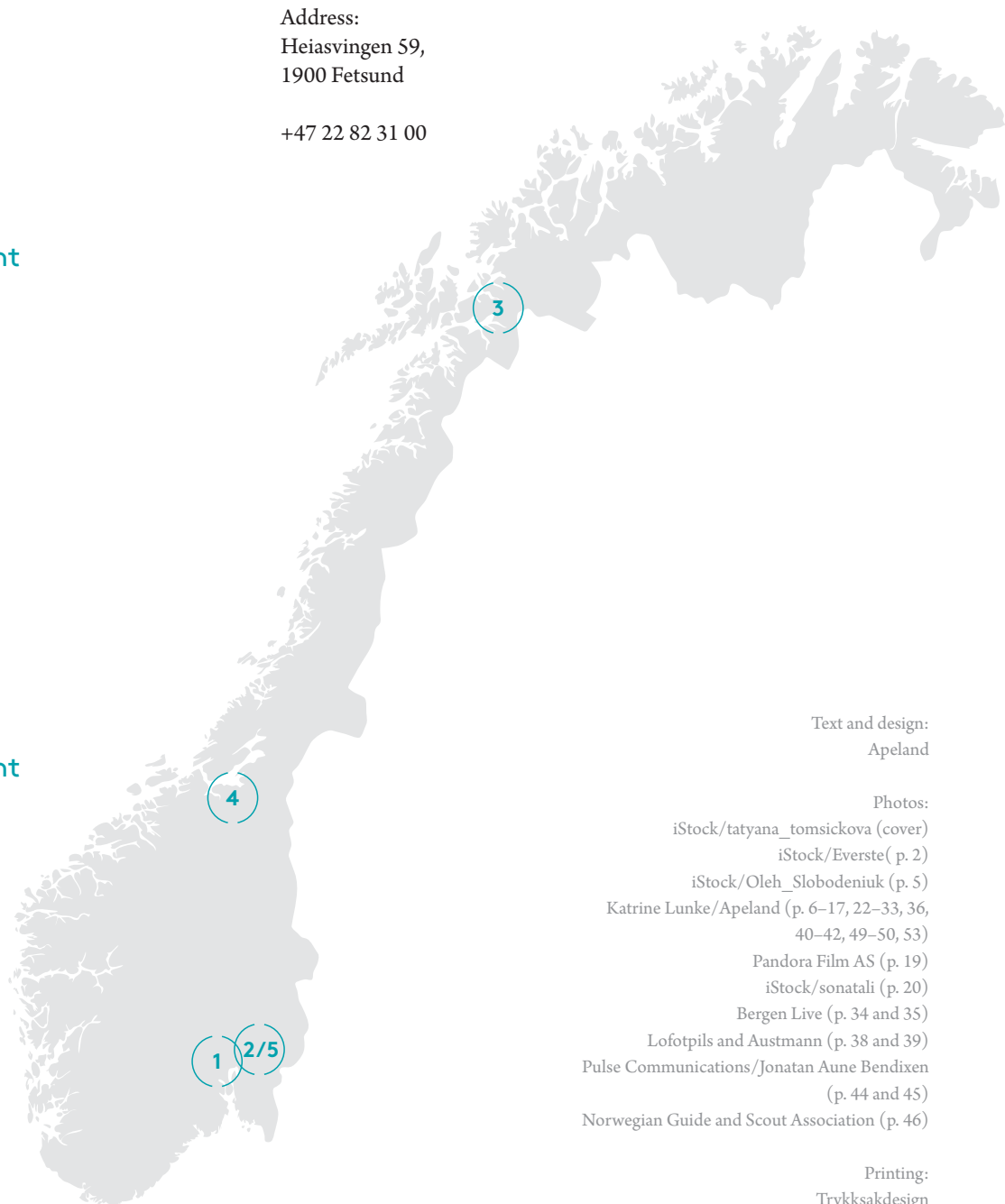
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