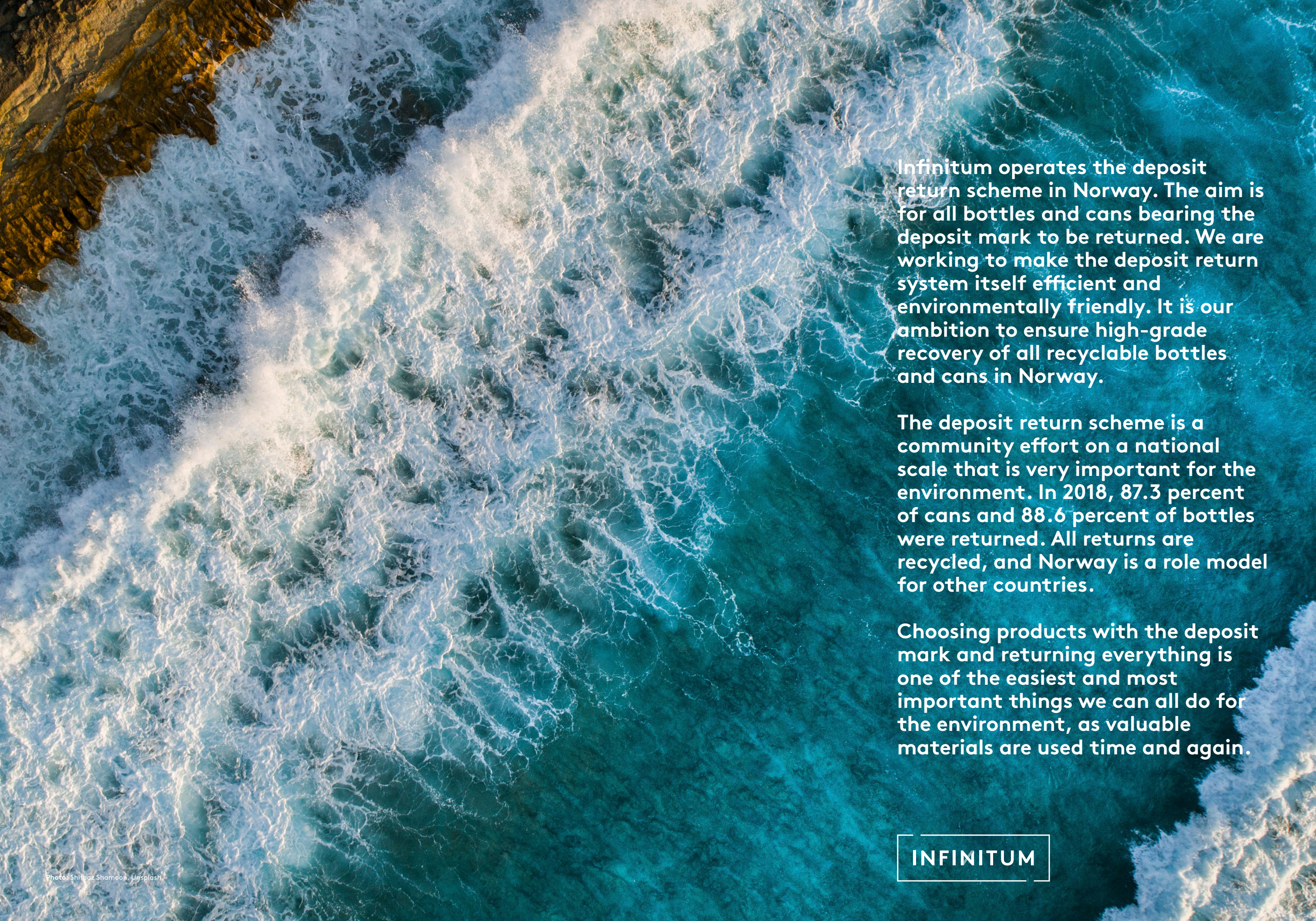


# Annual Report

INFINITUM

2018





Infinitum operates the deposit return scheme in Norway. The aim is for all bottles and cans bearing the deposit mark to be returned. We are working to make the deposit return system itself efficient and environmentally friendly. It is our ambition to ensure high-grade recovery of all recyclable bottles and cans in Norway.

The deposit return scheme is a community effort on a national scale that is very important for the environment. In 2018, 87.3 percent of cans and 88.6 percent of bottles were returned. All returns are recycled, and Norway is a role model for other countries.

Choosing products with the deposit mark and returning everything is one of the easiest and most important things we can all do for the environment, as valuable materials are used time and again.

INFINITUM



# Contact

1

Head office  
Skøyen, Oslo

**Kjell Olav Maldum**  
CEO  
+47 909 63 999  
kjell.olav@infinitem.no

**Tor Guttulsrud**  
CFO  
+47 930 96 486  
tor@infinitem.no

**Sten Nerland**  
Director of Logistics and Operations  
+47 975 98 558  
sten@infinitem.no

**Randi Haavik Varberg**  
Director of Information and Markets  
+47 913 54 773  
randi@infinitem.no

**Vesna Cakarevic**  
Chief Accountant  
+47 916 68 479  
vesna@infinitem.no

**Svein Rune Haugsmoen**  
Controller  
+47 917 76 517  
svein.rune@infinitem.no

**Roger Hushovd**  
Controller  
+47 414 06 029  
roger@infinitem.no

**Marlene Bergh**  
Accounts Assistant  
+47 916 45 176  
marlene@infinitem.no

**Janna Friis**  
Accounts Assistant  
+47 951 45 414  
janna@infinitem.no

**Vibeke Kj le Scansani**  
Accounts Assistant  
+47 917 46 734  
vibeke@infinitem.no

**Plamena Nikolaeva**  
Accounts Assistant  
+47 948 86 985  
plamena@infinitem.no

**Gina Rojahn**  
Accounts Assistant  
+47 916 80 547  
gina@infinitem.no

**Oscar Zio**  
Logistics Coordinator  
+47 984 82 684  
oscar@infinitem.no

2

**Production facility**  
Heia, Fetsund

Serves: Southern Norway  
35 employees

Department Manager:  
St le Maldum

Address:  
Heiasvingen 59  
1900 Fetsund

Tel: +47 22 81 31 00

3

**Production facility**  
Bjerkvik, Narvik

Serves: Northern Norway  
4 employees

Department Manager:  
Ole-Rolf Dahlberg

Address:  
Salomonsvei 25  
8530 Bjerkvik

Tel: +47 986 30 059

4

**Production facility**  
Heimdal, Trondheim

Serves: Central Norway  
6 employees

Department Manager:  
 ge Skagen

Address:  
Torg rdstr a 5  
7072 Heimdal

Tel: +47 920 51 399

5

**Transportation Office**  
Heia, Fetsund

Serves: Norway  
3 employees

Manager:  
Yngvar Aarnes

Address:  
Torg rdstr a 5  
7072 Heimdal

Tel: +47 920 51 399

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Part 1

# Environment



# Kjell Olav Maldum on 2018 – and the future



Kjell Olav Maldum,  
administrerende direktør i Infinitum.  
Photo: Katrine Lunke. Apeland.

Norway has the most efficient deposit return scheme in the world, and Infinitum has seen an increase in the number of bottles and cans being returned for the tenth year in a row. In 2018, we returned nearly 1.2 billion cans and bottles.

### Higher deposits boosted collection

The deposit on bottles and cans finally went up last year, contributing to the increase. It was the first time the deposit on small bottles and cans, which is now NOK 2, had increased since 1986. Aided by the deposit on large bottles also rising to NOK 3, this led to 94 million more bottles and cans being returned in 2018 than in the previous year. A total of 29,000 tonnes of plastic and aluminium were recovered instead of ending up in the garbage or nature.

### Plastic and politics

2018 was the year in which plastic litter was recognised in practical policies. The EU passed a ban on disposable articles made of plastic and strict recycling requirements in record time. In the United Kingdom and France, it looks like taxes and levies are going to be used to ensure that more plastic is recycled.

Things are starting to move in Norway too. There is more talk of a circular economy, and I am confident that Norwegian politicians, maybe even in the coming year, will take us closer to a real circular economy for plastic. Plastic bottles, though not the largest category, are perhaps the area where a real circular economy can be created fastest using simple measures.

### Ambitions for 2019

Thanks to higher deposits and communication aimed at getting more people to return their empties, we managed to achieve a collection rate of 87.3 percent for cans and 88.6 percent for PET during the year, something we are proud of. We are also able to document that we control more than 95 percent of all bottles and cans. We have our sights set on the future, however, and want to increase the return rate further. Infinitum is sure that we will pass 90 percent, the EU's target for 2029, as early as 2019.

In 2019, we are going to build a brand-new recycling facility for PET bottles in Heia. This means that Infinitum will be the first deposit return system in the Nordic region to recycle both plastic bottles and cans. The cans will continue to be recycled by Norsk Hydro in Holmestrand. The EU has set a target to the effect that bottles must contain 30 percent recycled material from 2030. With the new facility in Heia, the industry in Norway will achieve this target in a couple of years. This will be an important milestone for us and a key element in a circular economy for plastic bottles. The best deposit return system in the world is also the world's best starting point for creating a circular plastic system.

Kjell Olav A. Maldum  
Adm. Direktør







# The Norwegian example

The world is like a supertanker.  
But we're turning it around.

There is little doubt that Aksel Lund Svindal's skiing golds loom large in his mind. But mention "returning empties", and he talks as if an Olympic gold medal were at stake.

By: Kjetil Østli



“It’s not rubbish, but materials that need to be reused. We can start by regarding all packaging as being ‘on loan.’”

“Look. My calendar is already full.” The man who, until recently, was Norway’s best alpine skier, holds up his phone. Engagements are highlighted in blue. He scrolls through April, May, June: blue, blue, blue. His diary could cause chronic fatigue syndrome. It gives Aksel Lund Svindal enthusiasm and motivation for the next stage in his life. Finally. Finally answering old inquiries, finally evaluating entrepreneurial ideas and doing more work on the Greater Than A clothing line.

“Now that I’ve retired, I can tackle all the things outside alpine skiing that have interested me,” says Lund Svindal. He books meeting after meeting in order to get up to speed, as he puts it, and to sort out what he is going to focus on.

“Will you end up as a TV sports pundit and appear on Strictly Come Dancing?”

He laughs. “Not yet. I have some other things I’d rather spend my time on.” The Olympic gold medallist, world champion and Infinitum ambassador has just sat down in a café behind the Royal Palace in Oslo. The proprietor, who knows him, comes over and says: “So, it’s the pensioner!” Lund Svindal smiles. “I’m 36. Pensioner?” he says, trying the word out.

“The end of a career. Silver in your last race, two one-hundredths behind teammate Kjetil Jansrud. What was it like?”

“I was tense. I always am before a race, so that was normal. Then I usually think: ‘Relax, you’ll get another chance.’ But I couldn’t this time, because it was my last race. It was my only chance.”

“Did you feel it was going well during the race?”

“When you’re skiing well, you’re in the zone. You live entirely in the moment. You don’t think about finishing times and errors, you just exist in those fractions of a second. It’s an amazing feeling. And in Åre I was there in the moment, completely in the zone. But I had no idea how well I was skiing. But what is so tough about alpine skiing is that we, the athletes, are the last to know the result. Everyone else has seen the splits and finishing time. So no alpine skier celebrates before looking at the leaderboard. Then and only then. When I saw the board, I felt relieved and happy. The atmosphere was great, with hordes of fans who had travelled from Norway. The area was carpet-bombed with Norwegian flags. When I heard the roar from the crowd, I felt proud. I get shivers up my spine just thinking about it.”

“How have the first days been?”

“It probably hasn’t sunk in that it’s all over. I have so much to do that I don’t notice the difference. But one thing has already changed.”

“What’s that?” “I usually get stressed about not training enough. Now, if doing squats, for example, hurts and I have to make do with 80 percent of my training programme, it’s fine. As a pro, I would have worried about being 20 percent down. I would have imagined my competitors doing 20 percent more that day. Now I think I’m 80 percent up. That’s a big mental difference and quite delightful.”

“We have to talk about returning empties. Not many people in Norway are more passionate about it.”

The ski star leans across the table. “Unfortunately, bad habits, like nicotine, are addictive. But good habits can be even more addictive. Because good habits have a double bottom line.”

“What does that mean?” “It means that returning empties makes sense both for you as an individual and for something bigger than you, the environment or the planet. When the logistics of returning empties are simple, it soon becomes a habit. The system in Norway is so well established that people just do it. For many years, we just got a krone back, but the return rate still went up. Why? Norwegians know instinctively that a bottle or cola can isn’t rubbish. The bottle was worth a chewing gum when I was little. So it meant a sweet! That’s how we learned to see rubbish as a resource. Which brings us to the heart of the matter: We humans are failing to put all the squalor and destruction of nature right of our own accord. It has to be made easy for us to make the world better.”

“How?” “Take me as an example. I learned that a bottle was a sweet. Imagine if we had that attitude about everything: It’s not rubbish, but materials that need to be reused. We can start by regarding all packaging as being ‘on loan.’”

“Everything is on loan?” The time when things could just be thrown away is past. But we still throw a lot away, even clothes. We live on a planet with serious problems, and we have to get rid of our throwaway mentality. This is where Infinitum can become even more of a spearhead.”

“Change seems to take such a long time, doesn’t it?” “The world is a supertanker, not a nimble canoe. It takes time to turn a ship around. But Infinitum has proved that deposit return works. Now other countries are following the Norwegian example. All the same, we should do more. When we have long seen that it works, why on earth haven’t we created similar schemes for a lot of other things? With big countries coming here to learn from Norway, we can really have an impact. So we have to be ambitious. I’m not scolding, but I think that the country with the best deposit return system should think much bigger. It’s a no-brainer if you ask me.”

“Does the person on the street, the individual, have a say?” “I like consumer power. Here’s what I think: Let’s change the system where volume can be achieved. Volume is possible if people will buy sustainable products. Yes, if you choose not to buy something, you’re small seen in isolation. But imagine if everyone on Facebook in the course of the day tells people about a sustainable choice they have made and encourages everyone else to make a sustainable choice too. Imagine the ripple effect. Together, individuals have power. Then you have the next level up, the companies selling consumer goods: newspapers, jackets, food, whatever. If more consumers want more sustainable production, these companies will notice and adapt accordingly. Ultimately, this will have an impact on what subcontractors can supply.

“You’re getting more and more into the environment and sustainability. Can you use sports psychology in this work?” “Yes, I’ve learned that you mustn’t be afraid to try. When you’re up against the best in the world, you often wish you were better prepared. But if I didn’t turn up at the start, I wouldn’t be in with a chance. Reading new climate reports and articles about abandoning the 1.5-degree target leaves you feeling weary and disheartened. But we can’t allow that to happen. We have to try harder, we have to turn up at the start! The planet and all living things need us to win gold, but it’s okay to be satisfied even if we don’t come

first. We’ve got to have tough goals, because the fact that we’re not kind to the planet is a pressing problem. But if we achieve 90 percent of our targets, we haven’t failed. It’s not a binary thing, not win/lose. The very fact that we’re acting means something. And I’m dreaming of more cheering.”

“More cheering?” “Yes. Some people say that electric cars aren’t the solution. Maybe not, but cheer on the people who are trying. People make mistakes, and not everything is the solution. But I still feel that we should support the attempt instead of looking for faults.”

“It used to be said that greed is good, whereas ‘sustainability’ is seen as a bit idealistic. What do you think?”

“That it’s an old-fashioned and slightly outdated attitude. There is now a lot of evidence that companies that invest in sustainability do well on the stock market. But the most important thing is that the people who create value are extremely clever. Young people today aren’t just interested in pay. The job also has to be meaningful at a deeper level. Large companies have to exercise social responsibility in order to attract the best people. And it’s happening. The supertanker is changing course.”

“Why did you become an Infinitum ambassador?” “I was doing research to find the world’s most environmentally friendly packaging for boxer shorts and discovered that 87 percent of Norwegian aluminium cans are recycled, and we get 99 percent of the previous can back. That’s how I learned about Infinitum’s work. Like-minded people find each other.”

Kjetil Østli (43) is the editor of the Norwegian nature magazine Harvest. He has worked for Aftenposten/A-magasinet for 17 years and is an author. He is currently working on a book about Norwegian adventurer Lars Monsen. Østli is one of Norway’s most acclaimed writers.





# Ahead of the climate crisis

**“We have to make cuts where it does some good, but at the same time work on how we organise our society.”**

Kristin Halvorsen believes that we should manage to deal with the climate crisis, but it will require social changes.

**“We have to be ahead, not trailing behind,” says Kristin Halvorsen.**

Photo: Katrine Lunke. Apeland.





“In order to achieve the 1.5-degree target set by the UN, we will have to halve carbon emissions by 2030. That will require some big changes.”

When Kristin Halvorsen left the Norwegian cabinet, no one expected her to be quiet. As director of CICERO, Kristin Halvorsen is a prominent voice in what is at times a pessimistic debate on the future of the planet. But does she personally believe that it is possible to save the world?

“It’s no small task that we’ve taken on. In order to achieve the 1.5-degree target set by the UN, we will have to halve carbon emissions by 2030. That will require some big changes.”

**A society that demands fewer resources**

Halvorsen is focused on the fact that the largest cuts will have to happen in the biggest emission sectors, which in Norway are transport and oil & gas.

“I’m delighted that so many people are choosing to drive electric cars in Norway. In a way, Norway has become the world’s electric car laboratory. But it’s just as important that we look at how we organise society. We have to reduce transportation demand and develop public transport. It has to be easier to choose public.”

Halvorsen highlights growing interest in a circular economy and the need to develop new business models.

“It’s about how we organise use, and about reuse. To reduce litter of course, but also because resources are in short supply. So I think we’re going to see lots of new business models based on nothing being rubbish: everything can be used in new production to make something we need.

**The financial sector as a climate advocate**

Has the climate debate changed since you left politics?

“In my view, politics hasn’t changed enough. It remains the case that many people say the climate issue is important to them, but unfortunately it’s not the most important thing for the major parties, although change is happening there too. I think politicians always have to lead the way, dare to do what is a bit unpopular. But it’s about finding a balance of course. That’s where the challenge lies.”

Halvorsen highlights the financial sector as a part of society that is facing up to climate change much more than before.

Laughing, she tells the tale of a meeting that she initiated in her capacity as Minister of Finance. Environmental organisations and the financial sector were going to meet to discuss management of the oil fund.

“It was a disaster. It was two different worlds, and they didn’t speak the same language at all. That has changed. If there is one sector that has opened its eyes to the climate threat, then it’s the financial sector. They understand risk, and they know that change can bring opportunities too. So I have faith that the financial sector will be an important advocate for change in the future.”

But does the business community understand that, or will they have to be compelled?

“Everyone will have to be compelled to some extent. Many people are probably searching for ideas and new options for getting this right. But we also need to have levy systems that pull in the right direction and encourage change. I don’t believe the market will sort this out by itself. There have to be regulations. Carrots will not be enough. We need fearless politicians who dare to do what is unpopular. Politics must always be ahead of the curve.”

We have talked about large-scale measures, big cuts and social changes. What are the most important steps that each and every one of us must take?

“The starting point must be that every little helps. Do the best you can, where you live, every day. Think about how much you travel, and how much you consume. And, not least, return all your empties!

Kristin Halvorsen, a former Minister of Finance and Minister of Education, is now director of CICERO, the Center for International Climate and Environmental Research – Oslo. The centre produces climate reports both nationally and internationally, and is a force to be reckoned with in the global research environment. CICERO is represented on the Intergovernmental Panel on Climate Change by a total of 11 researchers.



# EU moves towards a circular economy for plastic

Economic growth, employment and competitiveness are the starting point for the EU's work to bring about a circular economy. "That's why the work enjoys broad support, even in the business community," says Hege Rooth Olbergsveen, Counsellor for Environment at the Mission of Norway to the EU.

Photo: Katrine Lunke. Apeland.

In 2015, the EU adopted an action plan comprising 54 different measures aimed at bringing about a circular economy. One of the measures was the EU's plastic strategy, which is best known for the ban on some types of disposable plastic. This strategy is intended to turn today's challenges into new opportunities, and reduce all the negative effects on the environment and climate linked to plastic, by changing the way plastic products are designed, produced, used and recycled.

"The work towards a circular plastic economy has a high priority in the EU compared with other issues. It's important for elected representatives in the EU to show voters that they are delivering on plastic," says Olbergsveen, who is Counsellor for Environment at the Mission of Norway to the EU. The mission looks after Norwegian interests in relation to the EU's institutions and member states.

### Circular economy provides a basis for growth

Unlike a linear economic model based on extracting resources, producing, using and discarding, a circular economy uses and recycles materials for as long as possible in a circle with the smallest possible loss of resources. A circular economy therefore has both economic and environmental benefits.

"The work towards a circular economy is the foremost example of the European Commission succeeding in anchoring policy on a broad front and working intersectorally. The EU is really driving development towards a circular economy forward," says the Counsellor for Environment.

Tackling the challenges presented by growing amounts of plastic are an important part of the EU's work towards a circular economy. Both the production and incineration of plastic generate substantial global emissions, in addition to which stray plastic causes pollution on land and at sea.

"The EU's answer is not to do away with all plastic. Plastic has too many positive effects for that, such as its weight reducing emissions from transport and plastic helping to cut food waste," Olbergsveen explains.





In areas where plastic articles are used briefly and often end up going astray, i.e. various types of disposable plastic, the EU has taken steps to reduce use.

Rules are now being introduced that will address nearly 90 percent of the plastic that ends up on Europe’s beaches. We are talking about various types of disposable plastic and plastic equipment from fishing and fish farming, and plastic that quickly breaks down into tiny pieces in nature. There will be comprehensive requirements for what countries have to do. “They will have to ensure an ambitious and permanent reduction in the use of disposable cups and food containers made of plastic, and introduce national bans on other types of disposable plastic,” says the Counsellor for Environment.

**Greater producer responsibility**  
One of the goals of the plastic strategy is to ensure there is a market for recycled material. The EU has set strict, long-term requirements for material recycling. Reporting requirements are also being tightened up, so that more really will be recycled than is the case today.

The use of recycled material is to be increased by the business community undertaking to use more secondary raw materials. PET bottles will have to contain 25 percent secondary raw materials by 2025, increasing to 30 percent in all plastic bottles by 2030. As far as other plastic products are concerned, the EU wants the business community itself to act, with the EU imposing requirements if it is not active enough.

“Many people point out that extended producer responsibility is a key instrument in the move to a circular economy, and requirements are now being brought in that will introduce producer responsibility for new products. In the case of disposable plastic, producer responsibility is being extended even further to include responsibility for litter,” says the Counsellor for Environment. “What is new is that the producer is now being given defined responsibility for clearing up in nature.”

**Large-scale collection will require a deposit return system**  
The EU is also imposing new and stricter requirements for separate collection of plastic. The main benefit of this is that it will result in purer fractions, making the materials more suitable for reuse, like plastic bottles, for example.

The collection target adopted for plastic bottles is 77 percent by 2025 and 90 percent by 2029, and everything that is collected must be recycled. By way of comparison, Infinitum’s collection rate in 2018 was 88.6 percent.

“If the collection targets for beverage packaging are to be achieved, the introduction of deposit return systems in the various countries will be very relevant. The Norwegian model, with its environmental levy and deposit return scheme, gives consumers, producers and retailers strong incentives. This makes it unique, and we are happy to share information on our solutions. All the member states will benefit greatly by learning from Norway and Infinitum, and they frequently have questions, especially with regard to funding the system,” the Counsellor for Environment explains.

**Economic instruments, carrots and sticks**  
The EU will lose revenue for its budget in the event of Brexit and is currently looking into how revenue can be increased in the context of the long-term budget. One proposal that has come up is that member states should make an annual payment for plastic packaging that is not recycled. Countries with a low recycling rate will have to pay more than countries that do a lot and have a high recycling rate for plastic packaging.

“This will impact how plastic is handled. The proposal will have to be passed unanimously by the EU’s member states, however, and, if passed, will only apply to the EU countries – not Norway,” says Olbergsveen.

More than 90 percent of the measures in the circular economy action plan have been followed up on. Early March 2019 saw the publication of a new report on the circular economy that highlighted areas where work remains to be done.

“The countries are struggling to achieve the environmental targets. But the prevailing trend is for the EU to make less use of sticks and provide for capacity building instead. The waste legislation, which is also part of the circular economy action plan, includes an early warning system to ensure that strugglers are caught early, for example. The Commission helps these countries and shows them what can be done. This is a new approach, and a key measure in establishing a single circular economy,” the Counsellor for Environment concludes.

# Levies reward good climate behaviour



Hanne Lerche Raadal, PhD and Senior Research Scientist at Østfoldforskning.  
Photo: Nora Homleid

**“Norway has the best deposit return scheme in the world. But, because it’s cheaper to make new bottles than recycle, we’re continuing to pour new plastic into circulation. Which means that we’re contributing to global warming for no reason whatsoever.”**

**So says Hanne Lerche Raadal, Head of Research at Østfoldforskning.**

Østfoldforskning, a leading centre of expertise specialising in waste and

the environment, has calculated that we could save around 40,000 tonnes in carbon emissions annually if beverage manufacturers opted to produce bottles containing 60 percent recycled material and the present return rate was maintained.

“It’s more profitable to make new bottles than to recycle them, so only 10 percent recycled materials is currently used in bottles. In order to increase use of recycled plastic, the producers have to be motivated to choose recycled. One way to achieve this is with a levy on new plastic that decreases in line with the percentage of recycled material used,” says Lerche Raadal.

## The reward system behind the deposit return scheme

All beverage packaging is subject to very high levies, which decrease in line with the proportion of packaging collected. If the industry had failed to collect some cans, the levy on a can would have made it at least NOK 8 more expensive in the shops. The collection rate is now so high that consumers only have to pay around NOK 1.50 per can to the Treasury.

While the deposit motivates consumers to return packaging, it is the levies that motivate the industry to install reverse vending machines and collect the returned empties. What benefits the

environment and climate is also profitable for the beverage manufacturers and retailers.

“The deposit return scheme limits the amount of litter in the countryside and sea, and has a considerable climate impact. As things stand, the collection and recycling of Norwegian cans and bottles result in an annual saving in carbon emissions of approximately 120,000 tonnes compared with them being incinerated to generate energy,” says Lerche Raadal.

## Cheap oil prevents a circular system

The deposit return scheme is reserved for beverage cans and bottles, creating a pure flow of recyclable plastic and aluminium. This facilitates high-grade recycling, which is rare with ordinary waste collection, where different materials are mixed. A new bottle can contain up to 80 percent recycled plastic, and the same plastic can be recycled many times. Nevertheless, Norwegian beverage manufacturers largely put soft drinks and water in bottles made from brand-new plastic.

“The reason is simple,” says Lerche Raadal. “The price of oil is low, so new plastic costs less than recycled plastic. The companies choose the cheapest solution, and pure, recyclable plastic leaves the country, frequently ending up in products of lower quality than the material deserves.”

Smart levies have made Norway best at collecting packaging. A levy that rewards the use of recycled material could make Norway a pioneer in utilising these resources too.

“I hope the government sees that a smart levy on new plastic could be the best way of creating a green, circular economy,” Lerche Raadal concludes.





# Inspired by the Norwegian deposit return model

Scotland has approved the introduction of a deposit return scheme for beverage packaging. Member of the Scottish Parliament Angus MacDonald and the rest of the committee working for a deposit return scheme are looking to Norway for inspiration.

Photo: Katrine Lunke. Apeland.



In 2018, Infinitum received visits from all over the world.

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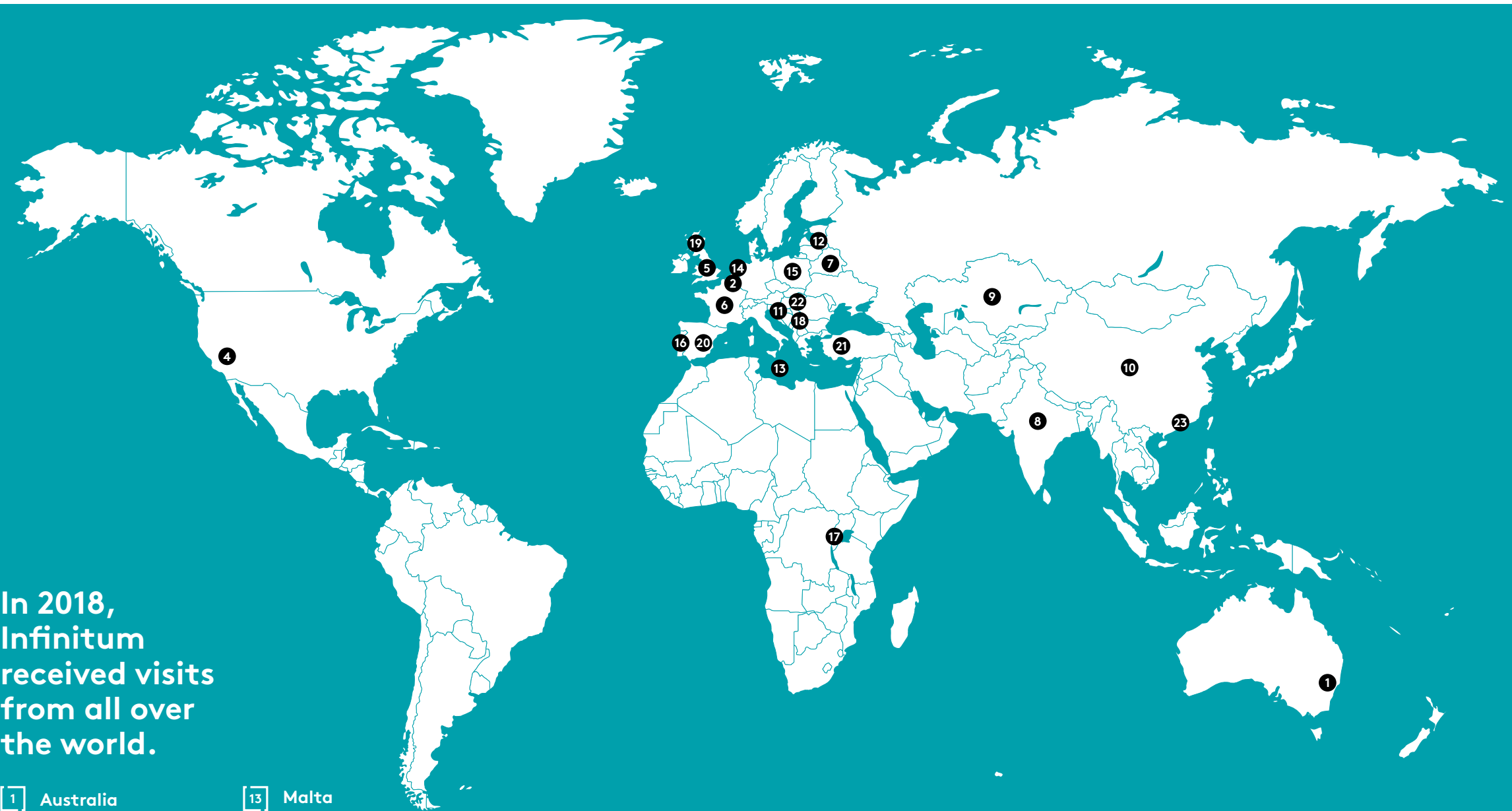
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Hong Kong



“We’ve been working long and hard to get a decent recycling system in Scotland. Personally, I think it’s about time we set up a deposit return scheme along the lines of the Norwegian system,” says a committed Angus MacDonald during his fifth fact-finding visit to Norway.

MacDonald first became aware of the Norwegian scheme back in the early 80s and he does not conceal the fact that he thinks the Norwegian system is the best in the world.

The Norwegian model please

“Scottish MPs have looked at several different models, but, in my opinion, the Norwegian deposit return model is the best I’ve seen so far. I’m convinced that the Norwegian system would work very well in Scotland,” says MacDonald.

In 2017, the Scottish Government decided that its future Programme for Government should step up the focus on implementing a recycling programme in Scotland.

“We’ve been working to introduce a deposit return system for bottles and cans for many years. As things stand, such a system is non-existent in Scotland and it’s high time one was put in place.”

Delegations from all over the world

In 2018, Infinitum received delegations wanting to find out about the Norwegian deposit return system from all over the world. In August, MacDonald was part of a delegation made up of members of parliament and environmental organisations from Scotland that visited the facility at Heia in Fetsund in order to gather inspiration for a system of their own.

“I’m very impressed with what I saw at Infinitum’s production facility. What they showed us is precisely what we want in Scotland. We will incorporate all the good advice we received from Kjell Olav and his colleagues in our ongoing work,” MacDonald concludes.





## Part 2

# Infinitum in the year just ended



# Higher deposits boosted return rate

Nearly 1.3 billion cans and bottles bearing the deposit mark were sold in Norway in 2018. Nearly 9 out of 10 were returned and recycled.

Photo: Katrine Lunke. Apeland.

The deposit and a desire to do what is right for the environment made consumers return 87.3% of cans and 88.6% of bottles. These figures are for the whole of 2018 and conceal a healthy increase at the end of the year after the deposit rates went up to NOK 2 for cans and small bottles, and NOK 3 for large bottles.

“It’s a bit early to say how large the impact of higher deposit rates is, but it’s quite clear that they’ve had a positive effect. People are noticing that every bag of empties is worth more,” says Tor Guttulsrud, Director of Economics and Finance at Infinitum.

The impact is greatest for the small units, where the deposit was doubled from NOK 1 to NOK 2. The deposit on bottles larger than 500 ml used to be NOK 2.50. Here, the impact of the change to NOK 3 will probably be smaller.

“The return rate for large bottles has always been very high, and the new deposit rate will probably give it a further boost. But the most important thing is that we are now receiving more mineral water and energy drink cans, which have always had a relatively low return rate. We’re seeing a definite increase here, much to our delight,” says Guttulsrud.

Infinitum collected cans and bottles from 11,000 machines and manual return points all over the country, and prepared the materials for recycling. In total, 7,918 tonnes of aluminium and 20,568 tonnes of plastic were recycled. The high recycling rate is unique in the world, and delegations from 23 countries visited Infinitum in 2018 to learn how to set up and operate a good deposit return system.







# Higher deposit – less plastic litter

**“Plastic litter is one of the biggest environmental problems of our time. After we increased the deposit, even more bottles and cans were collected,” says Ola Elvestuen, Norway’s Minister of Climate and Environment.**

Photo: Katrine Lunke. Apeland.

In 2018, the Ministry of Climate and Environment increased the deposit rates for beverage packaging. Increasing the deposit contributed to 94 million more bottles and cans being returned than in the previous year. The return rate in Norway is very high.

“The vast majority of deposit bottles in Norway are returned, and we increased the deposit to ensure that this continues. I think deposit rates of NOK 2 and NOK 3 are at a level that will lead to even more bottles being collected in the future,” says Minister of Climate and Environment Ola Elvestuen.

## A solution to the environmental problem

The high collection rates in Norway are attracting attention in countries that have serious problems with plastic litter, including bottles. Every year, Infinitem receives delegations from all over the world. They come to learn more about the Norwegian scheme, which rewards the consumer for returning empties and the producers for taking responsibility for the deposit return system.

“I hope that a lot of other countries are able copy our deposit return system, ensuring that plastic bottles are no longer discarded in nature,” says the cabinet minister.

## Major climate benefits

In total, 88.6 percent of bottles and 87.3 percent of cans are currently returned. This adds up to more than one billion bottles and cans every year, and all of them are recycled. Infinitem expects the higher deposit to push the return rate above 90 percent. Every increase in the return rate for plastic bottles by one percentage point means a reduction in carbon emissions of 990 tonnes a year, while the same figure for cans is 620 tonnes.

“We expect the higher deposit to bring about a reduction of at least 5,000 tonnes of carbon a year, in addition to which fewer cans and bottles will end up in nature. Returning empties has never been so profitable and so important for the planet,” says Kjell Olav Maldum, Infinitem’s Managing Director.



# Deposit rate change successful

“The changeover to new deposit rates was very successful. We have Infinitum to thank for involving the whole deposit return chain in the process.” So says Gunnar Gravalid from grocery wholesaler and retailer NorgesGruppen, who took part in Infinitum’s ‘Deposit Increase’ project.

In January 2017, Infinitum took the initiative to start a project that would follow up on the authorities’ work to increase deposit rates. The aim was to support the proposed increase, and to be ready to introduce a good transition solution when the Ministry of Climate and Environment approved the increase.

“Changing all the deposit packaging in such a short time is challenging. No one had done it since the 90s, when the 500 ml size was still a glass bottle and there were no barcodes or computer systems. So it was groundbreaking work in many respects,” says Leif Eliassen, Aas Brewery’s Product Manager and a member of Infinitum’s project group.

The project participants came from the big chains, a selection of large and small manufacturers, Tradesolution and Infinitum. Tradesolution is a joint product database where the manufacturers provide barcodes and order numbers for the chains to use when ordering.

### New and old rates in parallel

The project explored various alternatives. It finally recommended a transition period that allowed the manufacturers to use up existing packaging, while 80 percent of the unit volume would be relabelled with a new barcode and deposit marks during the period.

“The key to ensuring a smooth transition was the large suppliers taking responsibility for moving high-volume products over as quickly as possible. This could be done quickly because they have a high turnover rate too. At the same

time, Infinitum was concerned that the peripheral assortment, products that are more niche and have a long turnover time, should not be given the same priority. The main point was that we saw the transition for 80 percent relatively instantly,” says Eliassen.

All products had to have a NOK 2 or NOK 3 deposit mark with effect from 1 September 2018, however. Packaging with the old deposit will be on the shelves for a while yet, but because the barcodes are being changed too, there is no risk of consumers paying or receiving the wrong amount.

### United industry

The project united actors who are usually competitors around a common goal. In the project evaluation, the participants point out that untoward consequences were avoided because the solutions were discussed in advance. This involvement ensured the necessary commitment from all parties.

“The fear was, of course, that a file of new barcodes would not arrive on time, preventing us from selling the goods, or that the reverse vending machine would not accept the empties. That didn’t happen.

Infinitum produced a good implementation model, and a big effort from the actors ensured that the transition exceeded expectations. Considering the large volume of goods and high turnover rate, we can say that implementation was a resounding success,” Gravalid concludes.

“No one had done it since the 90s, when the 500 ml size was still a glass bottle”





# Building a recycling facility for all Norway's bottles

Every year, we export 18,000 tonnes of plastic bottles for recycling.

Infinitum and Veolia are now investing NOK 200 million in a recycling facility so that bottles no longer need to take a trip to Sweden or Germany to be given a new lease of life.

"This is an important step towards bringing about a circular economy for plastic," says Managing Director Kjell Olav Maldum.

Photo: Katrine Lunke. Apeland.

Infinitum operates the deposit return scheme in Norway. At Heia in Fet Municipality, the company sorts and processes more than one billion plastic bottles and cans recovered through the deposit return scheme annually. Infinitum now wants recycled PET raw material to be produced there too.

"A recycling facility like this will create nearly 30 jobs, as well as helping to develop expertise and a specialist community for plastic recycling in Norway," says Kjell Olav Maldum, Infinitum's Managing Director.

### Norway's missing link

Packaging from bottles can travel in a circular loop, from being returned to the PET material being used in new bottles. The plastic currently has to be sent to recycling facilities in Sweden, Germany or the Netherlands in order to pass through the link in the chain where the PET material from used bottles is turned into new raw material.

Because oil is so cheap, the beverage manufacturers prefer to use new plastic to make bottles. The plastic bottles that are collected in Norway therefore frequently end up as simpler products that are discarded and incinerated after being used once instead of becoming new bottles.

"If 80 percent of the raw material in new bottles was recycled material, the material in the bottles would, on average, be used five times in the closed loop. This would result in an annual reduction in climate gas emissions of 77,500 tonnes," says Maldum.

### Circular economy

In this way, plastic bottles would form part of a circular economy. Whereas a linear economic model is based on producing, using and discarding, a circular economy uses and recycles materials in a circle with the smallest possible loss of resources. This has both economic and environmental benefits.

"The EU is currently leading the way in this area because they see the opportunities for increased competitiveness. The EU has set tough

plastic recycling requirements for bottles and is providing a market for recycled PET. If Europe succeeds in this, demand for recycled plastic raw material will be considerable," says Maldum.

With the backing of its owners, Infinitum has proposed a change in the current levy system to bring about the move to a circular economy for plastic in Norway.

"Beverage packaging is already heavily taxed, but not all the levies have an environmental impact. Flat-rate levies maintain the status quo and an old-fashioned throwaway attitude. We'd prefer a levy that rewards manufacturers who choose to use recycled plastic material instead of brand-new plastic, which both requires more new oil and causes higher emissions than recycling," says Maldum.

### Savings at every point

Infinitum will own the new building, but has signed a contract with Veolia regarding operation.

"The new facility will save on transport and operation, benefiting everyone involved in the cycle," says Sten Nerland, Infinitum's Director of Logistics and Operations.

Transport costs will be reduced when the links in the supply chain are close to each other in Heia, and lower costs will in turn mean lower charges for members.

"Reduced costs at one point in the chain lead to better prices both for and on the part of the recycler. Although we know that one of the challenges in increasing the use of recycled raw material is price competition from new plastic, this facility is important in terms of creating a closed loop bottle to bottle. The facility will ensure a stable, local supply of raw material at a competitive price," says Nerland.

The volume and market are large enough for such recycling to be established in Norway. Construction will start in spring 2019, with production of recycled PET getting under way in Heia in the second half of 2020.







# From glass to plastic

“Eco-smart packaging has a twofold environmental impact. It is more environmentally friendly to produce and less carbon-intensive to transport, so it reduces our carbon footprint more than anything else.” So says Rolf E. Eriksen of Vinmonopolet.

Photo: Katrine Lunke. Apeland.





“We want to be ahead of the game if the aluminium trend takes off.”

Vinmonopolet, Norway’s state-owned alcoholic beverage retailer, is imposing lightweight packaging requirements for all new wines in its basic range costing less than NOK 150. This includes lighter glass bottles, plastic bottles (PET), cardboard and aluminium. A deposit will also be charged on all new PET bottles and aluminium cans. This means that deposit bottles will gradually start appearing on the wine shelves.

“This is our most important climate measure. Heavy glass bottles are an environmental bad boy. Glass production is resource-intensive and has a large climate footprint. We are therefore switching to eco-smart packaging, such as lighter glass or, best of all, PET with a deposit,” says Rolf E. Eriksen, who heads up Vinmonopolet’s environmental work.

**New climate strategy**

Vinmonopolet’s attention was previously focused on climate measures in its retail outlets. The stress was on waste separation at source and the sensible use of resources, with the stores being certified under the Eco-Lighthouse scheme.

Analyses carried out by Vinmonopolet in 2016 revealed that its biggest footprint is in the area of packaging, an area we actually can do something about. The emissions related to the actual production of the packaging constitute the largest part, and in addition we get a climate gain in the transport when the packaging has a lower weight. In the wake of the analyses, Vinmonopolet shifted its focus and adopted a new strategic goal of reducing its environmental impact throughout the supply chain, and offering eco-smart products.

At the same time, the environment became an important part of its new overall corporate strategy.

“Vinmonopolet is going to increase the percentage of eco-smart packaging and has already set requirements for its suppliers and producers. This will help us to achieve our ambitious target of a 40-percent reduction in carbon emissions by 2030,” says Eriksen.

**Well received**

“Our decision to introduce lightweight packaging for products costing less than

NOK 150 was amazingly well received by the wine producers. I think they want to contribute to a better environment too,” says Eriksen.

“By clearly labelling products as having eco-smart packaging, we want to make it easier for customers to make eco-smart choices. At the same time, we hope it will boost awareness of the environment and packaging in general. We can then switch a much large proportion of our products over to lighter packaging and have far fewer heavy glass bottles on our shelves.”

**Recycling is crucial**

According to a packaging study carried out by Vinmonopolet in collaboration with the Nordic alcohol monopolies in 2018, 1,000 litres of drink in 750 ml glass bottles generate 609 kg of CO<sub>2</sub> equivalents in emissions. By way of comparison, carbon emissions from the same volume of drink in plastic deposit bottles will, according to Infinitem’s own environmental study, only be between 123 kg and 6.6 kg, depending on the percentage of recycled material in the bottles.

“Being part of the deposit return scheme and a member of Infinitem is important in our work to reduce our footprint. Deposit bottles in a deposit return system that ensures bottles are recycled are one of the very best environmental solutions,” says Eriksen.

**Aluminium is coming**

Vinmonopolet wants to lead the way in helping to cut emissions in the years ahead, and is therefore monitoring both research and different packaging trends in Norway and abroad. It is currently carrying out climate calculations for aluminium as a packaging material.

“We want to be ahead of the game if the aluminium trend takes off. We see that it may suit several of our products, and analyses show a better climate account than for glass, with cans made from recycled material having as little as a tenth of the climate footprint,” Eriksen explains.







# Giving young people what they want

Return points in more places and information on why it is important to return empties. These are measures that young people say will get them to return empties more, and Infinitum is already implementing projects that give them what they want.

Photo: Katrine Lunke. Apeland.



“Returning empties is a small thing that contributes to something big”

In 2018, Infinitum conducted a survey of young people in which 15-18 year olds in different parts of the country were interviewed in order to gain a better understanding of what can be done to get young people in this age group to return empties and recycle more.

“Young people’s answers about returning empties and the environment, gives us an impression of what young people think is important,” says Randi Haavik Varberg, Infinitum’s Direct of Information and Market.

**A world champion who returns empties**

Last year and in the early part of this year, Infinitum has been collaborating with Aksel Lund Svindal.

“Aksel Lund Svindal has great credibility, not just among young people, but with all age groups. We are delighted that he is demonstrating his environmental commitment by influencing Norwegians’ habits when it comes to returning their empties. He is conscious of his responsibility as a role model and means it when he says that we should get even better at returning empties,” says Randi Varberg.

The collaboration takes the form of three films, which were initially shown in cinemas and on television in 2018, but are also going to be put out on social media in spring 2019.

**They recycle at home, but not out and about**

Infinitum has been monitoring the proportion of people who think it is important to return empties over several years. The figures show that more adults than under-30s think returning empties is important, but the proportion of young people saying this has increased in recent years.

Infinitum’s surveys have revealed that the respondents have good recycling habits at home, but many are not good at keeping them up when out and about. So this time they were asked what would get them to return empties more. The answers given were more places to return empties other than shops and more information on why it is important to return empties.

**“Throwing energy away”**

Through the medium of commercials, and talks organised by Infinitum Movement, Infinitum has explained why it is important to return empties, giving young people more information as requested. The ‘Stakkars Peder’ commercials shown in 2016 and 2018 had a good impact.

“In the ‘Stakkars Peder’ commercials, we remind people that, when they throw an empty bottle away, they are throwing energy away too. In the wake of the commercials, surveys showed that more young people were returning empties because it’s good for the environment, so the ads seem to have had a positive effect. Our surveys also show that, after seeing an Infinitum commercial, young people felt more than other age groups that they had learned about saving energy by returning empties,” says Haavik Varberg.

**Flåkløya times three**

For the third and final time, Infinitum collaborated on its commercials with the Flåkløya films, which are a national institution in Norway. The commercials are good family fare that appeal to children, young people and adults alike in a unique and humorous Flåkløya way.

“These Flåkløya commercials have had a great impact every year. Maybe the deposit return message was so well received because the concept of being mindful and recycling fits in so well with Reodor Felgen’s world,” says Haavik Varberg.

**Returning empties at school**

In order to make it easier to return empties, Infinitum has also started a school deposit return scheme.

“Schools are sent bins in which to collect empties and can then decide for themselves what to spend the money on. A large number of new schools joined the scheme in 2018, and we are still receiving inquiries from schools where people want to do more to take care of the environment. Half the schools in Oslo are already in the school deposit return scheme,” Haavik Varberg explains.

**Good for the environment**

Through Infinitum Movement, Infinitum



has provided recycling bins at festivals and on ski slopes. In future, Infinitum wants to be present in even more arenas where young people under 30 gather. Infinitum Movement is a meeting place, a movement for environmentally aware young people, and is owned by Infinitum.

“We want to highlight that returning empties is not just about a few kroner,

but about doing something good for the environment. Returning empties is a small thing that contributes to something big,” says Randi Haavik Varberg.

Infinitum’s annual surveys show that the message is reaching young people, who say more than any other age group that they return empties because it is good for the environment.



# Engaging young people throughout Norway

Infinitum Movement inspires young people to engage and act more consciously for the sake of the environment. In 2018, Infinitum Movement’s ambassadors met young people throughout Norway and brought important voices together for the Think In conference.

Photo: Katrine Lunke. Apeland.







Since 2014, Infinitum Movement has been working purposefully to create engagement and awareness regarding the deposit return system, climate and the environment. In 2018, it was more active than ever. Infinitum Movement is owned by Infinitum, and the aim is to create a movement whereby a whole generation of young people become more environmentally aware – and return all their empties.

“The original idea for Infinitum Movement came from our consultants at Omnicom, led by Maria Jartman. Infinitum gave them a specific brief, which started the whole thing off,” says Randi Haavik Varberg, Infinitum’s Direct of Information and Market.

**More than 200 talks**

The eight Infinitum Movement ambassadors are responsible for many of the movement’s activities. In 2018, they gave over 250 talks and seminars in schools. More than 30 of these were held in Northern Norway as part of Den Kulturelle Skolesekken (The Cultural Rucksack).

“It’s important to exert influence at grass-roots level, and we’re proud that our ambassadors have visited lots of schools, where they’ve talked to young people,” says Maria Jartman.

Infinitum Movement’s ambassadors are people who are passionate about the environment and want to help inspire others to be environmentally aware in their actions. Three new ambassadors joined the team in 2018. They are marine biologist Pia Ve Dahlen, technologist Christine Spiten and environmental enthusiast Troels Rosenkrantz Andersen.

**Inspiring conference**

Infinitum Movement’s biggest single event in 2018 was the Think In conference in October. The 250 participants included Crown Prince Haakon, Frederic Hauge from the Bellona Foundation, Simen Knudsen from Nordic Ocean Watch and Lan Marie Nguyen Berg, Oslo’s Vice Mayor for Environment and Transport.

“This was a big event for us, and 2018 was the first time we had held it. The

aim of the conference was to help nudge the world in a more sustainable direction, and to position Infinitum as a key actor in the Norwegian business community when it comes to the environment. Important voices concerned with environmental issues shared their experiences in talks and workshops, inspiring others,” says Jartman.

**‘Pant for pudder’**

During 2018, Infinitum Movement’s ambassadors attended more than 20 different festivals, including Øyafestivalen, Lydbølger and Ekstremsportveko. The movement also launched the ‘Pant for havet’ (Recycle for the Sea) and ‘Pant for pudder’ (Recycle for Powder) campaigns, because recycling really does have an impact on skiing conditions.

‘Pant for pudder’ is a collaboration project with 20 or so ski resorts, which received material and recycling bins. Infinitum Movement is also collaborating with the Norwegian Snowboard Association.

**Video featuring Terje Håkonsen**

Plastic bottles are made from oil. It takes two kilos of oil to produce one kilo of plastic. Oil extraction also requires a lot of energy and results in substantial emissions of climate gases. Incinerating plastic instead of recycling it also causes emissions.

“We want to make people aware that global warming is making the winter shorter. Unless climate gas emissions are reduced, more places with skiing will increasingly have no snow. In the ‘Pant for pudder’ video, professional snowboarder Terje Håkonsen argued that more people need to be aware of the gravity of the situation. The video has been watched half a million times on YouTube, and has been shown in cinemas too,” says Maria Jartman.





# Infinitem membership is cost-effective

**The Mack Brewery has been involved in the deposit return scheme right from the start and is very happy with its working relationship with Infinitem.**

**"The 'Product Registration Portal' makes interaction with Infinitem efficient and straightforward," says Mack's Marketing Manager.**

Photo: Katrine Lunke. Apeland.

Norway leads the way when it comes to returning empties and recycling, and the Norwegian deposit return scheme is a success story. Infinitem members pay a reduced environmental levy, with the validated collection rate determining how much the levy is reduced by.

"Infinitem now has such a high collection rate that it is definitely worth our while to be part of the scheme. A single actor on their own could never achieve such a high collection rate, but having the whole industry behind the scheme generates big cost savings. And that's good for the environment," says Cathrine Giæver, Marketing Manager at Macks Ølbryggeri AS.

## **"Bottles expected to be returnable"**

Mack finds that Norwegian consumers are environmentally aware and have requirements with regard to packaging and recycling.

"There is great engagement among consumers. If, for example, someone finds that one of our products cannot be scanned in a reverse vending machine, they are quick to get in touch. Consumers expect cans and plastic bottles to be returnable, and we think it's great that Norwegians are environmentally aware," says the Marketing Manager.

## **Control and oversight in the 'Portal'**

Much of the contact between the beverage manufacturers and Infinitem relates to new or modified products. Last year, Infinitem launched the 'Product Registration Portal,' a new member platform where this interaction takes place.

"We find contacting Infinitem easy, and it has become even easier since the 'Product Registration Portal' was launched. It enables us to keep tabs on how far new packaging has got in the approval process," Giæver explains.

Mack's experiences with Infinitem's scheme for approving new packaging have been positive.

"Infinitem is flexible when things happen unexpectedly. When we built a



new brewery a few years ago, we changed a lot of packaging in a short time. We found that Infinitem was very quick to approve our new packaging," says Giæver.





# Efficient for employees and customers

“The deposit return scheme is efficient and painless, both for us and for our customers,” says Assistant Store Manager Ida Anette Høyeseven. At the Coop Mega supermarket in Aker Brygge, plastic sacks of returned bottles are picked up daily.

Photo: Katrine Lunke. Apeland.





Most supermarkets used to have a conveyor belt in a room behind the reverse vending machine where the returned bottles could pile up. Now more and more stores are installing new reverse vending machines where the bottles are crushed and collected in plastic sacks.

“Our store got this reverse vending machine in 2015 and it gave us more control in the backroom. The store’s storage capacity improved immensely, as the plastic sacks in which the crushed bottles are collected take up much less room than all the racks we used to stack returned bottles on. Apart from which, the plastic sacks are picked up daily,” Ida Annette Høyeseven, Assistant Store Manager at the Coop Mega supermarket in Aker Brygge, explains.

**Customers don’t have to wait**  
Previously, the conveyor belt could fill up and customers had to wait for employees to put bottles on racks and in boxes. Now it takes just a few minutes to change the plastic sack behind the reverse vending machine, and it is easy to teach new employees how the machine works.

“The new reverse vending machines save both us and our customers time. The plastic sacks can hold a lot, so it

takes a while before they need to be changed. This is great for customers, who can come in with a bin bag full of deposit bottles, put everything through the machine, and very rarely have to stand and wait,” says Høyeseven.

**It brings in customers**  
All stores with a reverse vending machine are members of Infnitum. The deposit return data is downloaded from every single store twice a month. The store then has the deposits refunded, as well as receiving a handling fee of NOK 0.20 per can and NOK 0.25 per bottle.

“We want customers to choose us when they return empties because it’s quick and easy. We know, of course, that most people also shop when they come into the store to return empties, so it’s important and profitable for us to be a member of Infnitum,” says Høyeseven.

**No need for contact**  
Cooperation between the Coop Mega supermarket in Aker Brygge and Infnitum works so well that there is rarely a need for direct contact with Infnitum.

“We meet the drivers who collect the sacks. Otherwise, the deposit return scheme is easy to deal with and works very well,” says Ida Anette Høyeseven.

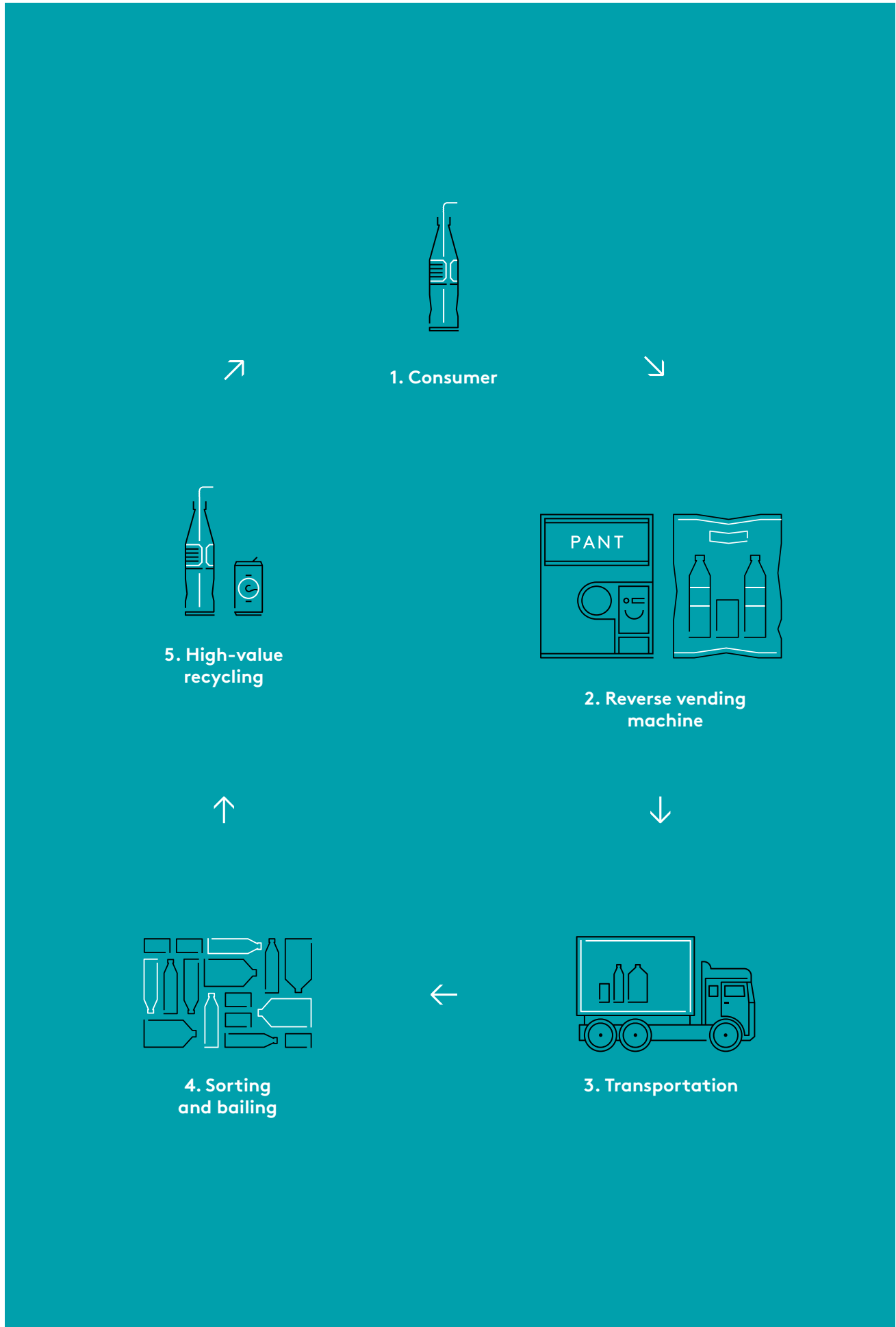




## Part 3

# Facts and figures





# The deposit return system

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

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

The first link is the consumer, who takes their empties with them when they go back to the store. This is much less energy-intensive than other forms of collection, with large lorries driving around just to pick up.

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

The third link is transport from the store. Empty space on lorries that have

delivered goods and are returning to the wholesaler's warehouse is used for this purpose.

The fourth link is transport from the wholesaler to Infinitum's facility, where plastic and aluminium are separated, and everything is compressed even more.

The fifth link is most important of all: plastic and aluminium are given a new lease of life by one of Infinitum's selected recyclers.

Because the deposit return scheme is a closed system, all the materials are of the same high quality. Only cans and bottles that satisfy Infinitum's technical requirements can enter the system. This means, for example, that all the plastic from the bottles is suitable for new bottles. This makes Infinitum's deposit return system much more eco-efficient than systems that collect mixed waste in various ways.



# The deposit return story

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 on return, it became the start of the present deposit return scheme, which celebrates its 20th anniversary in 2019.

## Timeline

**1995:**  
The deposit return scheme 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 beverage cans and bottles is set up. The system is open to all. The first can is returned through the system on 3 May 1999.

**2000:**  
The first recyclable bottles are registered in the deposit return system. 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 beverage bottles are collected through the deposit return system. Norwegians already lead the world when it comes to returning empties.

**2004:**  
Norsk Resirk has another successful year with an increase in the number of both beverage 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 is opened in Bjerkvik to serve Northern Norway.

**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 beverage bottles for the first time in 40 years. The decision to use bottles is down to the deposit return system.

**2009:**  
The Norwegian Climate and Pollution Agency gives its approval for bottles and cans with the deposit mark that are used in energy recovery to count towards Infinitum’s collection rate as well. Around 4 percent of the total collection rate for cans and around 8 percent for recyclable bottles is used in energy recovery.

**2011:**  
The environmental levy on bottles is lifted because the collection rate is in excess of 95 percent of packaging sold.  
  
The registration process for producers and importers is changed so that small importers are also able to join the deposit return system.

**2012:**  
The environmental levy on cans is lifted because the verified return rate is in excess of 95 percent of packaging sold.

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

A new production facility is opened at Heimdal, just outside Trondheim, to serve Central Norway.

**2013:**  
A new production facility is opened at Heia in Fetsund to serve Southern Norway.

A new production facility is opened in Bjerkvik to serve Northern 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 deposit return system.

**2017:**  
Producers worldwide change their mind and take a positive view of deposit return systems, and their responsibility as producers.

Sky News features a report on Norway’s deposit return system and uses it to launch Sky Ocean Rescue, a campaign that focuses on sea pollution and efficient waste management. Following the Sky News report, Infinitum experiences a huge influx of visitors from all over the world wanting to learn more about how the deposit return system works.

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) per cent of cans collected.

Vinmonopolet, Norway’s state-owned alcoholic beverage retailer, launches wine in PET deposit bottles for the first time.

The EU drives forward development towards a circular economy, and adopts high 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 beverage 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 to NOK 2, the first increase since 1986. The deposit on bottles and cans larger than 500 ml also increases from NOK 2 to NOK 3.



# The Board of Directors



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BS (Coca-Cola Enterprises Norge AS)



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



**Helge Hasselgård**  
Director  
DLS (DLF)



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



**Tore Nygaardsmoen**  
Director  
CNH (COOP Norge Handel AS)



**Benno Graser**  
Director  
DMF (Rema 1000 Distribusjon AS)

## Deputy directors in 2018:

**Jens Olav Flekke**  
DMF (DMF)

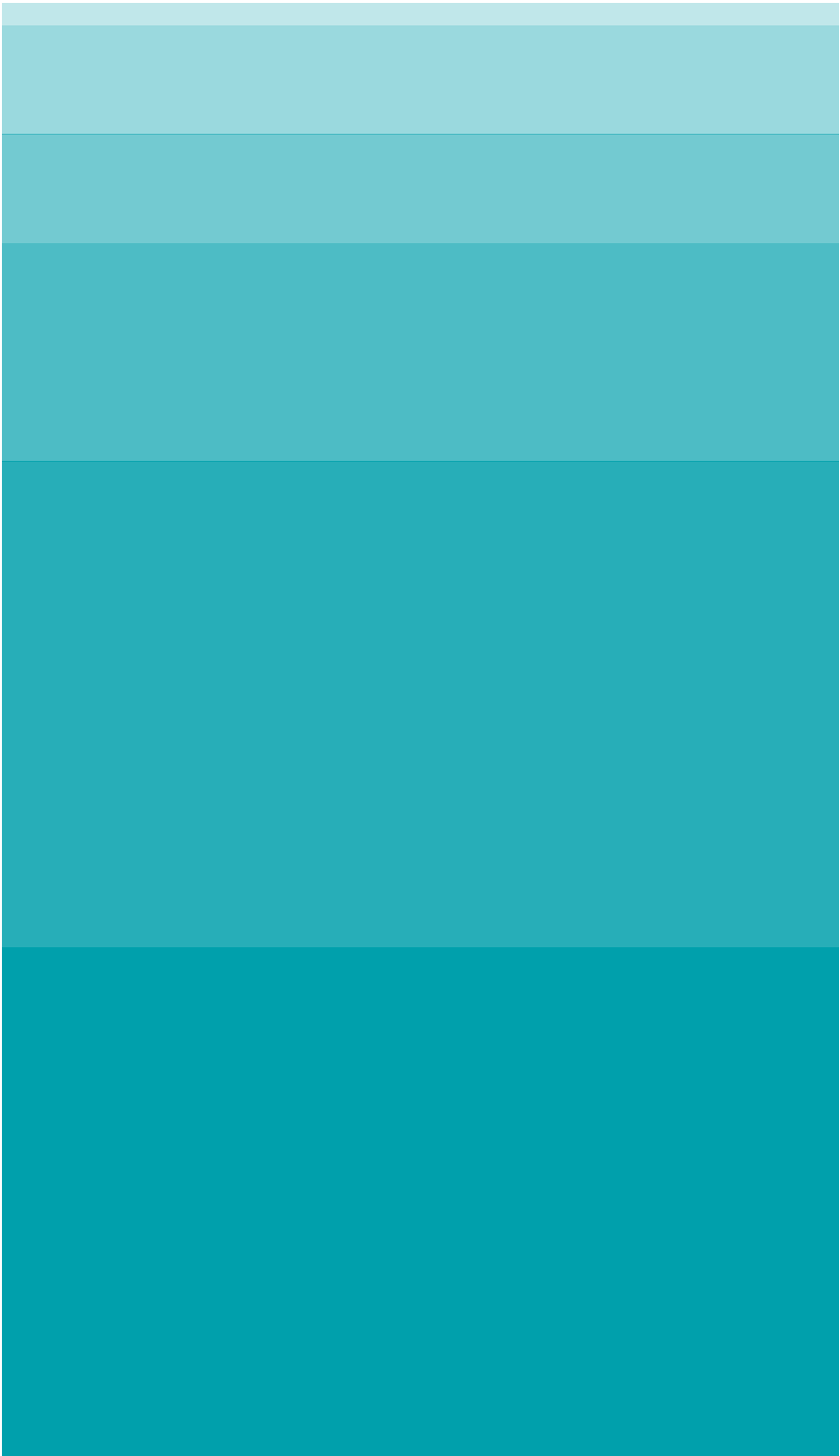
**Torgeir Løftingsmo**  
CNH (CNH)

**Siv Grønning**  
BS (Ringnes AS)

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

**Thomas Weihe**  
DLF (DLF)

# Infinitum's Owners



**1,5 %**  
Virke Kiosk og Bensin

**7,5 %**  
Daglivareleverandørens Servicekontor

**7,5 %**  
NHO Mat og Drikke

**15,0 %**  
COOP Norge AS

**33,5 %**  
Dagligvarehandelens Miljøforum AS

**35,0 %**  
Bryggeri- og Drikkevareforeningens Servicekontor AS



# Statistics for 2018

\* Total returned via reverse vending machines.



567 763 101

returned cans\*

87,3 %

of all cans sold

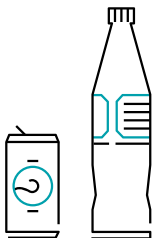


564 117 169

returned bottles\*

88,6 %

of bottles cans sold



1 131 880 270

total collected

7 918

tonnes of aluminium were recycled

20 568

tonnes of plastic were recycled

# Financial statements

Infinitum AS – Income Statement (figures in NOK '000)

Operating revenues and expenses	2018	2017
Administration fees	118 075	99 843
Income from deposit-return scheme	2 206 991	1 705 685
Sale of collected materials	182 503	140 943
Other operating revenues	36 413	31 686
<b>Total operating revenues</b>	<b>2 543 982</b>	<b>1 981 157</b>
Deposit-return scheme expenses	2 031 246	1 512 411
Handling charges	243 089	224 593
Transport costs	114 929	105 813
Other production costs	75 533	76 409
<b>Total operating expenses</b>	<b>2 464 797</b>	<b>1 919 226</b>
<b>Operating profit/loss</b>	<b>79 185</b>	<b>61 931</b>
Admin., marketing and depreciation	62 426	61 509
<b>Operating profit/loss</b>	<b>16 759</b>	<b>422</b>
<b>Net financial items</b>	<b>1 986</b>	<b>787</b>
<b>Profit/loss after financial items</b>	<b>18 745</b>	<b>1 209</b>

Tall i NOK 1000

## Key figures

Supply chain	Cans	Tonnes	% added	PET	Tonnes	% added
Total sales	652 256 153	9 054	—	632 804 520	22 647	—
Supply chain storage	1 800 000	17	—	13 200 000	556	—
Added (Sales + supply chain storage)	654 056 153	9 071	100 %	646 004 520	23 203	100 % *
<b>Total returned via reverse vending machines</b>	<b>567 763 101</b>	<b>7 918</b>	<b>87,3 %</b>	<b>564 117 169</b>	<b>20 568</b>	<b>88,6 %</b>
Via centralised sorting	5 926 413	81	0,9 %	704 583	22	0,1 % **
Via slag sorting	52 236 195	717	7,9 %	—	—	0,0 % **
Via materials sorted at source	7 301 178	99	1,1 %	1 890 816	69	0,3 % **
Energy recovery	11 279 135	155	1,7 %	47 328 406	1 411	6,1 %
<b>Total recycled from waste</b>	<b>76 742 920</b>	<b>1 053</b>	<b>11,6 %</b>	<b>49 923 805</b>	<b>1 502</b>	<b>6,5 %</b>
<b>Total recycled</b>	<b>644 506 021</b>	<b>8 971</b>	<b>98,9 %</b>	<b>614 040 974</b>	<b>22 070</b>	<b>95,1 %</b>
Bottom ash residues	11 118 802	153	1,7 %	—	—	—
Loss on energy recovery	2 159 804	30	0,3 %	8 727 874	258	1,1 %
Unknown disposal	3 728 473	83	-0,9 %	23 235 672	876	3,8 % ***
<b>Total not returned</b>	<b>86 293 052</b>	<b>1 153</b>	<b>12,7 %</b>	<b>81 887 351</b>	<b>2 635</b>	<b>11,4 %</b>
<b>Total</b>	<b>654 056 153</b>	<b>9 071</b>	<b>100 %</b>	<b>646 004 520</b>	<b>23 203</b>	<b>100 %</b>
Foreign units	33 433 860			5 217 718		

\* Collected rate based on tonnage – different for different sizes

\*\* Recycled material

\*\*\* Also represents uncertainty of analysis



Balance Sheet (Figures in NOK '000) pr. 31.12

Assets	2018	2017
Non-current assets		
Property, plant & equipment		
Land, buildings & other real property	55 821	54 629
Machinery, movables, fixtures, etc	44 108	47 160
Property, plant & equipment	99 929	101 789
Non-current financial assets		
Net pension assets	577	269
Non-current financial assets	577	269
Total non-current assets	100 506	102 058
Current assets		
Receivables		
Trade receivables	261 797	211 514
Other receivables	21 573	18 143
Total receivables	283 370	229 657
Bank deposits, cash, cash equivalents		
	263 076	86 937
Total current assets	546 446	316 594
TOTAL ASSETS	646 952	418 652

Equity and liabilities	2018	2019
Equity		
Paid-in equity		
Shareholders' funds (200 shares @ NOK 7,500)	1 500	1 500
Total paid-in capital	1 500	1 500
Retained earnings		
Other equity	42 418	23 673
Total retained earnings	42 418	23 673
Total equity	43 918	25 173
Liabilities		
Current liabilities		
Trade payables	139 178	102 145
Public charges payable	2 839	2 619
Other current liabilities	6 275	10 973
Provision to deposit-return liability fund	454 742	277 742
Total current liabilities	603 034	393 479
Total liabilities	603 034	393 479
TOTAL EQUITY AND LIABILITIES	646 952	418 652

Tall i NOK 1000



