molok NEWS

Molok® Customer Magazine **1/2018**

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RECYCLING *made easier in Lithuania.*

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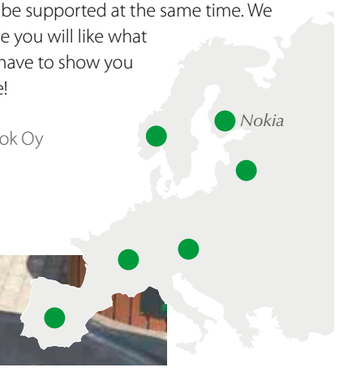
Solutions for waste management challenges

Worldwide volumes of waste continue to grow, even though the European Union, for example, is making efforts to set limits on this and to increase levels of recycling. New and innovative ways of making people's everyday lives easier, and doing the same for waste collection and recycling practices, are needed.

The original Deep Collection system is bringing in more and more satisfied users worldwide. This system of space-saving, odourless, safe and environmentally-friendly waste collection, developed in 1991, is continually accompanied by new innovations utilising modern and ever more user-friendly design, as well as the newest smart technology.

In this magazine, we will provide a few examples of how groups around the world responsible for waste management have worked together with Molok to overcome regional challenges in waste collection and recycling. Block collection, which is becoming more and more common in the Nordic countries, is a new indication of how waste collection and sorting can be organised efficiently and in a way that increases convenience, and how new forms of community participation can be supported at the same time. We hope you will like what we have to show you here!

Molok Oy



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IMPROVEMENT OF RECYCLING AND SORTING in the Baltic region requires systematic action. The European Union is financing the renewal of waste collection. There will soon be over 3,000 Deep Collection® containers in Lithuania.

Lithuania renews its waste collection system

Molok is becoming more and more familiar in the urban milieus of Kaunas and Vilnius. There will soon be over 3,000 Deep Collection® containers in Lithuania.

LITHUANIA has received 50 MEur from the EU for renewal work connected with its waste collection system.

In the cultural city of Kaunas, waste sorting is being launched with 1,521 Molok containers. The deliveries began a little over a year ago, and all containers will be in use by the summer.

Jurgita Petrauskiene, representative of the Lithuanian VSA waste management company, explains that the Deep Collection system in Kaunas will serve approximately 160,000 residents.

The majority of the containers will be installed in the centre of Kaunas, home to 300,000 inhabitants, but also to various-sized suburbs to some extent. In Kaunas Molok-Domino containers are used to collect mixed waste, plastic, paper and glass. "I believe the savings engendered by this investment will rise to about the level of 20%," Ms Petrauskiene calculates.

Vilnius next in the queue

Vilnius, Lithuania's green capital, is also switching to the Deep Collection method. The installation of MolokDomino containers in Vilnius was launched in April.

Half of the inhabitants of idyllic Vilnius – i.e. approx. 200,000 – will be using such containers. Systems will be installed in three-container groups in 310 separate locations. The waste types will be sorted in five varieties: mixed waste, paper, glass, plastic and biowaste. Altogether about 1,500 Molok containers will arrive in Vilnius.

Jurgita Petrauskiene

There are already good experiences in Lithuania of the Deep Collection system from previous years. In the small southern city of Druskininkai, Deep Collection containers were installed over the years 2006–2009 in about 100 locations.

Improvement of recycling and sorting in the Baltic region requires systematic action.

Recycling still proceeding slowly

Most of the debris ending up in the maritime environs in the central Baltic region is plastic – for example, various product packaging and related parts.

Recycling has developed slowly in Lithuania. For example, a deposit system for drinking bottles and cans was only adopted a couple of years ago.

"It's rather difficult to convince Lithuanians of the importance of recycling. Moreover, we've got two kinds of problems: the waste containers are too far from the residents, and expansion of the network isn't easy," Jurgita Petrauskiene relates.

At the moment, mixed waste, paper, plastic and glass are being sorted in the country. Biowaste remains unsorted. In Vilnius the collecting of biowaste will begin in 2019.

In some Lithuanian towns, semi-underground containers have been in use, but one cannot speak of a comprehensive system.

Over the next few years, Lithuania will have to resolve which sort of system the nation wants.

"We are gathering information about containers and the experiences of inhabitants. We want to increase the number of Molok containers in Lithuania quickly," Ms Petrauskiene emphasises. ●

Molok® cleans up the urban landscape

In Slovakia, Molok® containers have changed the street milieu to make it neat and pleasant. Semi-underground containers melt into the landscape and, in addition, tell their users how full the containers are by means of an application.

WASTE COLLECTION and recycling are undergoing a huge transition in Slovakia. Many collection points have already changed areas formerly bulging with rubbish into neat and pleasant Molok centres. In many cities, such as Banska Bystrica in the country's midlands and in Trnava to the west, plans are underway to install Deep Collection systems.

"At the moment, there are almost 500 containers in use in Slovakia. The target this year is to raise the total to 1,000," relates Ján Hricko, Managing Director of Redox Enex.

Almost 500 containers in the use of a growing group of customers

Molok Oy and its local partner, Redox Enex, offer many sorts of services to municipalities, cities and enterprises. These services include, for example, the installation and maintenance of Molok containers, project management, and assistance with municipal engineering.

Molok containers are an increasingly popular alternative for waste collection and recycling. At the moment, there are almost 500 containers in use in Slovakia. "This year the aim is to raise the number to 1,000 containers," relates **Ján Hricko,** Managing Director of Redox Enex.

Mobile application and other innovations as a benefit

In Slovakia, Molok containers have changed the street milieu to make it neat and pleasant. The old waste collection containers filled quickly, and the overflowing rubbish made the surroundings dirty and contaminated. Molok Deep Collection containers melt into the urban landscape and offer, in addition, a smart application by which users can check how full a container is.

Lenka Kabatova, who has arrived from Slovakia as a trainee at Molok Oy's head office in Finland, lists many advantages. "Collection intervals have been minimised, which reduces the noise detriment. Moreover, the Deep Collection points take less room and facilitate emptying. The work of the waste collectors is neater when collection does not require physical contact with waste."

Recycling rate on the rise

Even if recycling has spread in Slovakia, the recycling rate is still one of the lowest in the European Union. Molok systems, however, may provoke a rise. Deep Collection containers have already obtained considerable positive feedback from customers. Materials collected thereby are cleaner and the amounts larger.

Redox Enex supplies all Molok Oy's products, of which the most popular are the MolokClassic and MolokDomino Global systems. ●

Deep Collection® containers have already obtained considerable positive feedback from customers.

Slovakian Lenka Kabatova has worked as a trainee at Molok Oy's head office.

Deep Collection® managed well in comparisons in Slovakia

Slovakian **Lenka Kabatova** arrived as a trainee at Molok Oy's head office, having graduated as an environmental engineer in the Bachelor's programme at the Slovak University of Technology. She has returned to Slovakia in April to complete her Master's degree.

Ms Kabatova became interested in Molok Oy while doing her thesis, the purpose of which was to plan a waste collection point for an urban area. "In my work, I compared various dustbin housings as well as underground and semi-underground containers. Semi-underground containers proved to be the best," Ms Kabatova says.

Ms Kabatova describes Molok Oy as an internationally renowned yet relaxed firm. "It's an incredible opportunity to be part of the Molok team. I believe that as a result of this experience I will not have any difficulties in the future in finding work in the field." ●

SLOVAKIA

In Sweden

city block collection brings collection close to residents

Swedes want to look after their living environs by recycling more effectively. A fresh example is Falun in central Sweden in which, according to an implemented experiment, cleanliness increases as a result of combined collection points and tidy lift-based collection. Modern waste containers are considered suitable for the environment. City block collections save both time and money.

TO COLLECT A CERTAIN TYPE OF WASTE, the collection vehicles stop only once at the city block collection point for the residential area concerned. "It's important that the collection point is located at the edge of the residential area along people's natural travel routes," emphasises project manager **Jonas Lindahl** for Molok Oy's representative, San Sac Ab.

It is easy for residents to take wastes along when they leave for work, for instance, and collection vehicles do not need to travel inside residential areas.

"The biggest problem in households is the large volume of recyclable waste, so it's important to make recycling easy. City block collection brings the service close to people."

Mr Lindahl believes that city block collection will become common in Sweden. "Molok containers are a perfect solution for collection, because they are economical and do not demand much space."

Research showed clear economical and environmental benefits

In the research conducted at Linköping University, city block collection, a double-container system, optic sorting in which there were differently coloured bags for various waste fractions, and a four compartment bin system were all compared. According to the research, city block collection was the most economical, and its impact on the environment was the best.

Investment costs are higher in the beginning but the total lifecycle cost is lower as compared to the other system.

Many Swedish localities such as Central Sweden's Kristinehamn, which is home to 24,000 inhabitants, is considering city block collection and adopting the Molok Deep Collection system. The municipality is interested in introducing collection in several districts. "Eight waste fractions will be collected during the implementation in Kristinehamn."

The environment and recycling are important for the Swedes

Currently, there are almost 9,000 Molok containers in Sweden. Sweden wants to minimize the dependency on fossil fuel in home-heating, so a large part of the wastes are incinerated as renewable energy.

"We're good at recycling, but we could also be a lot better," Mr Lindahl says. Many Swedes want to do the right thing and believe that recycling is good for the environment. "The easier recycling is, the more people will participate in it." ●

Many areas of detached homes do not have recycling possibilities. The merger of city block collection and the Deep Collection® method may arise as a solution, also in Finland.

*"It's important that the collection point is located at the edge of the residential area along people's natural travel routes," emphasises project manager **Jonas Lindahl** for Molok Oy's representative, San Sac.*

SWEDEN

Oulu starts a pilot in Hiukkavaara

Contrary to Sweden, Finland is still clearly behind with regard to the recycling targets established by the European Union. Two million people in Finland live in areas of detached homes where recycling potential does not exist. The merger of city block collection and the Deep Collection method may arise as a solution, also in Finland.

In Oulu, an experiment involving city block collection of waste is underway, in which about 60 households and 200 residents in the Hiukkavaara Soittajankangas residential area are collecting household waste at four mutual collection points. Altogether, six types of waste are being collected. Through mutual collection points, reduced 'rubbish rally' has been obtained and both money and the environment have been spared.

Many who live in detached homes are distressed over the troublesome nature of recycling, and frequently transport cardboard boxes and milk cartons by car to the city's eco-points, or assign them to be incinerated with the other waste. In city block collection, the recycling of household wastes is also easier for a detached home dweller. Excessive traffic declines and the safety of the area increases. Valuable raw materials can be recovered more effectively.

At the Hiukkavaara point, in addition to combustible refuse and biowaste, carton-, cardboard-, paper-, metal- and glass-based wastes can be collected. There the maximum distance to the collection point is 100 metres. ●

Access control makes Molok® even smarter

MOLOK ACCESS CONTROL enables complete management of the operation of waste containers. The user identification and opening happens with tag or smart card. The reader in the container has led signals making it easy to find and open the filling lid also in dark evening time.

There is an internet portal called eGate which collects various data like amount of openings, identification of users and emptying times. The administrator can even remote lock selected containers in a case of such need.

eGate provides wide information for the operator with strong visualization of the data.

The access control can be installed to MolokDomino and MolokClassic containers including the new Molok DrumLid 2G. ●

Molok® awarded **for its innovation**

MOLOK HAS WON AN AWARD for the most innovative enterprise in the waste management sector in 2017. The choice was made by The New Economy magazine. Molok Deep Collection technology is enabling a significant change in the sector as a whole, by helping to preserve a cleaner environment for future generations as well. The New Economy magazine gives special recognition to companies whose solutions create durable and sustainable long-term innovations and are leaders in their field.

THE NEW ECONOMY AWARDS 2017
Most Innovative Waste Management Company
Molok

New Molok® DrumLid 2G
No matter what the weather

Molok Oy launches an innovative lid solution for heavy-duty use. All mechanical parts are situated weather protected under the lid.

THE USER only sees the inside of the drum lid. There is no direct sight in to the waste container. The main lid is designed to prevent water accumulation inside the lid or container. Rainfall remains outside the waste container. The solution is safe, there is no possibility to climb inside the waste container.

The volume of the drum cylinder is 65 liters. This avoids people to put other trash than domestic waste in the MolokClassic container. It is suitable for collection of mixed waste, glass, metal, paper and clothes.

More safety and usability

You can add a locking system to new drum lid, either mechanical or electrical. The Molok DrumLid 2G closes automatically by its own weight and wind can't lift it. A magnetic catch for the filling lid is available as an optional accessory.

The Molok DrumLid 2G has service hatch as standard. This enables observation of inside space and changing of battery in case access control is in use. The amount of waste accumulated can be seen through the service hatch and, if necessary, be leveled.

Durable manufacturing material HDPE makes the lid strong, yet light to use. It is easy to clean and to maintain. It doesn't rust and is suitable for different weather circumstances. ●

THE COLLECTION OF BIOWASTE in Spain must be developed. This is a challenge since biowaste is not collected separately in most of Spain, apart from areas such as in Catalonia, the Basque Country and Asturias. Anyhow, Molok offers a solution!

Biowaste – a challenge for Spain

The separate collection of biowaste in Spain must be developed, in order to achieve the objectives set out by the EU.

SPAIN

"We have completed a lot of calculations and been able to prove the savings and advantages involved in the use of Molok containers. The savings are greatly dependent on, what waste collection system is actually in use", says Molok Oy´s Spanish representative Luis Cestero.

MOLOK OY'S REPRESENTATIVE Luis Cestero lives in the city of Pozuelo de Alarcón, (Madrid) where 32 Molok containers were installed at the outset of the new millennium. At the moment, the installation of 26 Molok Deep Collection containers in the centre of the city is in progress – with important advantages. In Pozuelo, five waste types – cardboard, paper, glass, bio and mixed waste – are currently being sorted.

In 2008-2009, approximately 10,000–12,000 'fully underground' containers were installed in Spain. The maintenance of the fully underground system has proven to be costly. In addition, their metal construction conducts heat to each waste container, increasing bacteria activity and objectionable odours. Accidents have also occurred with these containers. Improvement is nevertheless on the way. "Molok containers stay cool, and their costs of upkeep are much lower than the fully underground models," Mr Cestero emphasises.

Biowaste is an opportunity for Molok Oy

Biowaste is not collected separately in all areas of Spain but, in Catalonia, the Basque Country and Asturias, for example, biowaste is recycled. For the objectives set out by the EU to be met, biowaste must, in practice, be separately collected. This is a challenge for the local authorities, but a great opportunity for Molok Oy.

"There is tremendous interest at the moment in Spain in various biowaste collection solutions. In Pozuelo, we have been able to increase the capacity 2.5 times with this installation.

We must get the decision-makers on our side

Luis Cestero has done a lot of work in convincing the decision-makers of the advantages of the Deep Collection system.

"The process has taken time. Spain is a very challenging market, because the waste management companies have inveterate habits, steady partners and – because of all that – very little desire for change. ●

Molok® containers have been in use in A Coruña since the 1990s

THE CITY OF A CORUÑA is one of Molok Oy´s oldest and largest customers abroad. The first Deep Collection containers were installed in 1992. A Coruña has approximately 250,000 residents and about 600 Molok containers are in use across the city. A total of 45% of paper and glass is collected with the Deep Collection system. In the old town, a lot of rear cargo containers for organic and inorganic waste were replaced with Molok containers. Deep Collection is also used alongside roads such as Avenida de Oza and Rua Orillamar. The containers have also helped to improve other urban environments: for example, the areas of Ángel Senra and Riazor Stadium.

The ingenious structure of Molok containers makes them extremely durable and maintenance-free. Molok containers are appreciated in A Coruña for several reasons. "The containers boast excellent design compared to standard rear cargo containers. The Deep Collection system also reduces the disadvantages of waste odours, and the containers blend well with the environment," says **Diego García Rubiera,** Molok Oy´s Spanish representative. ●

The world's largest recycling point is a real space miracle!

In Norway, close to the Olympic village of Lillehammer, there is the world's largest recycling point with MolokDomino® containers. Easy access is assured for residents residing in cottage areas.

NORWAY

THE TOTAL CAPACITY of the recycling point, hosting 26 Deep Collection containers, is approximately 120,000 litres, and it serves over one thousand leisure homes. Efficiency is at its peak in the area, as the rows of containers take only 20x3 metres of space.

Norwegian Strømbergs Plast has acted as Molok Oy's partner in the recycling point delivered by Molok and ordered by the GLØR waste treatment company, which is owned by the municipalities of Lillehammer, Gausdal and Øyer . "We drive through the centre both going into and leaving the area, which makes it quite convenient," Managing Director **Svein Strømberg** points out.

The containers are located in the fell area of Nordseter on both sides of the access way, and it is easy to park one's car close to them. Functionality and safety are also improved by the bright lighting effective during the night and evening hours, and complemented by camera surveillance.

The popularity of recycling is increasing in Norway

There is demand for large recycling points in Norway, because the popularity of recycling has increased. The rise in the degree of recycling has been supported systematically.

In Norway, state-supported recycling targets have been set, whose achievement is the responsibility of the municipalities and cities. "Various containers as well as advanced sorting techniques are utilised in the recycling," Mr Strømberg declares.

Everything started from the MolokClassic® model

Established in 1996, Strømbergs Plast has already belonged to Molok Oy's partner network since 2012. At the outset of co-operation, Molok and Strømberg Plast concentrated on increasing the market share of the MolokClassic model. Several thousands of the original Molok containers based on the MolokClassic model have already been installed in Norway. The solution has demonstrated itself to be operationally reliable and particularly practical with regard to the Norwegian climate.

MolokDomino has also received a positive reception in Norway. In addition to the MolokClassic and MolokDomino containers, MolokDomino Global and surface containers can be found.

Customers include municipalities, designers and housing companies. Due to this smoothly functioning partnership, the Norwegian market is advancing continuously.

Molok® a familiar sight in the Olympic city

Molok already became familiar to the residents of Lillehammer in 2016, when the waste management was arranged using Molok containers for the Youth Winter Olympics and its thousands of young athletes. The system's good collection capacity, possibility for precise sorting, and clear, internationally understandable signage proved to be highly workable at the big event. After the competition, the Molok containers remained to serve the city locals in waste management. ●

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Deep Collection® showing strong growth in France

The popularity of the Deep Collection® method is growing in France. Already at this point in time, Molok® containers can be found at recreation stops near the motorway as well as along the coastline. Molok Oy's retail sales are now co-ordinated in France by H2D.

FRANCE is a highly potential market for Molok Oy, and now, with its new corroborated partner, the conquest of France will be accelerated.

In France, Molok Deep Collection containers are in use at the sides of motorways; for example, at Total and Shell petrol stations as well as at beach holiday destinations such as Hyères and Toulon. Containers are also found in the Alps and Pyrenees. Altogether, Molok containers already total nearly 15,000 in France.

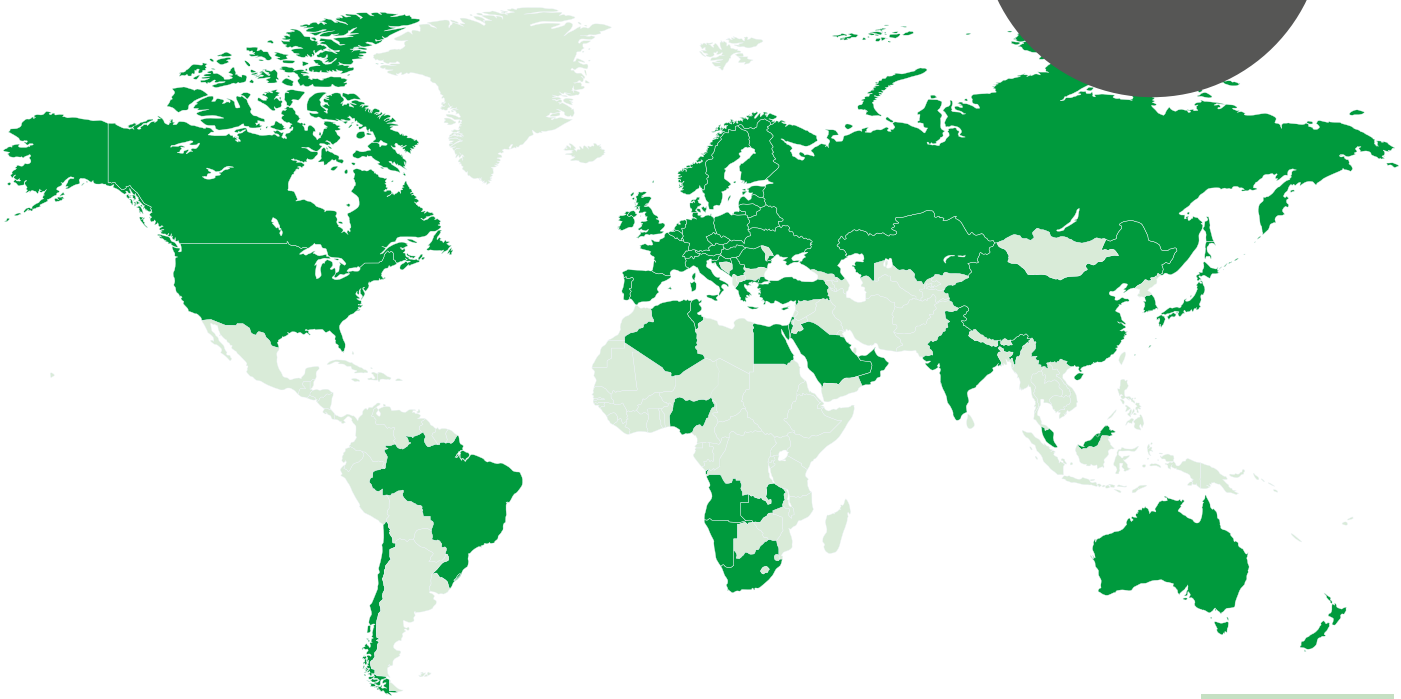
According to **Christophe Chauvel**, a Tercol representative working under the direction of H2D, the popularity of Molok products in France is the high quality of the products, their wide selection, large production capacity and fast delivery times. ●

MolokClassic containers can be found in, for instance, the French Pyrenees at Capcir.

FRANCE

Molok® worldwide

140 000+ containers
40+ countries



Molok® since 1991

ORIGINAL

MOLOK®

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