



From Recycling Operator to Raw Materials Supplier

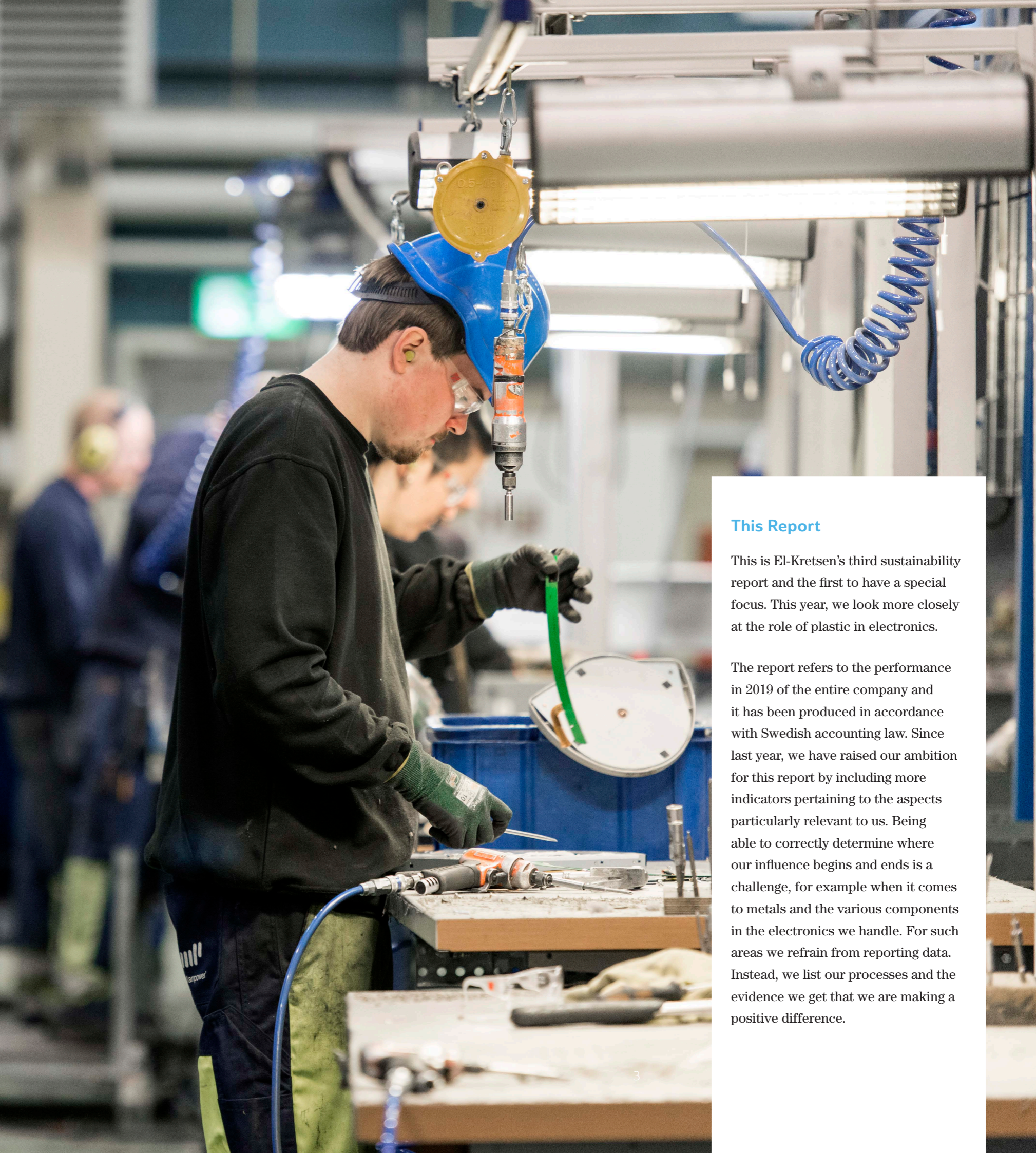
– plastic and electronics

El-Kretsen 

Sustainability Report 2019

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This Report

This is El-Kretsen's third sustainability report and the first to have a special focus. This year, we look more closely at the role of plastic in electronics.

The report refers to the performance in 2019 of the entire company and it has been produced in accordance with Swedish accounting law. Since last year, we have raised our ambition for this report by including more indicators pertaining to the aspects particularly relevant to us. Being able to correctly determine where our influence begins and ends is a challenge, for example when it comes to metals and the various components in the electronics we handle. For such areas we refrain from reporting data. Instead, we list our processes and the evidence we get that we are making a positive difference.



Heading for Circular Flows

What does “customer care” mean to a company like El-Kretsen? We deal with paying customers, producers and those who supply services, municipalities, transport companies and recycling operators. Then, there is the Swedish population, which should ideally perceive recycling WEEE as both simple and important. From this perspective, customer care is more than merely doing well in a survey or an index or just being silent. Customer care means wanting to take charge and lead and show new possibilities.

In 2019, we were among those who took plastic recycling to new heights. Our cooperation with Stena Recycling has re-established who does what. Now, those who used to handle waste create a new raw material ready to serve the manufacturing industry. The plastic comes from WEEE and the process handles sorting, categorizing and producing materials that are Reach and RoHS compliant.

Starting and running projects that start off as non-sustainable requires clear-cut roles and responsibilities. One example of this is the plastic recycling facility, where we at El-Kretsen and Stena Recycling have both stuck our necks out considerably. What we now need to see is producers asking for this recycled plastic. Producers wishing to and being able to use it in their products. Here, we have a role to play. This is customer care from yet another perspective.

In 2019, the climate debate topped the list of environmental issues. All kinds of activities which negatively affect the climate have been targeted and debated. Since most virgin materials are now being replaced by recycled materials, recycling is also a key feature in relation to the climate issue.

In the next few years, we need to strengthen the cooperation between us, the collector, and the recycling operators – or maybe should we call them the raw materials producers. The old days are past, when most of the waste was recycled in Asia. Maybe the recycling industry is heading in the same direction as energy production, where the vision for the future is a greater number of small facilities. We have no clear answer just yet, but we know that it is up to us producers and recyclers.

The past year, El-Kretsen accumulated over 2,000 affiliated producers for the first time ever. Most of these are still Swedish companies, but there is a growing number of European producers who sell directly to their end consumers. We are very happy about this, but also note the growing pressure on the number of issues we need to deal with.

Martin Seeger, CEO



“The old days are past, when most of the waste was recycled in Asia.”

What is El-Kretsen?

El-Kretsen works with producer responsibility and collection and recycling of WEEE and batteries. We are a nationally approved collection system and as such a non-profit making organization, focusing all our efforts on creating efficient systems and benefitting the environment.

El-Kretsen was set up in 2001 as a combined effort by several trade organisations that represent importers and manufacturers of electronic products. El-Kretsen's affiliated customers regularly report how many kilos of products as well as the number of individual products they put on the market. Different products fall into different fee brackets.

The reason for this is that the collection and handling processes vary for different kinds of WEEE. El-Kretsen's affiliated customers can refer their own customers to our national collection system. This is outlined in greater detail on our website, and is based on the municipal recycling centres. El-Kretsen cooperates with all Sweden's 290 municipalities.

What does El-Kretsen do?

The service we offer is simple and self-explanatory: we take responsibility for the collection and recycling of things that no longer work. Consequently, a lot of our activity focuses on logistics and product flows,

but we have also gained extensive knowledge about electronic products: what they contain, how they can be taken apart and above all how we can make them more circular. We are a source of knowledge and competence for any electronics producer who wishes to endow their products with greater environmental performance.

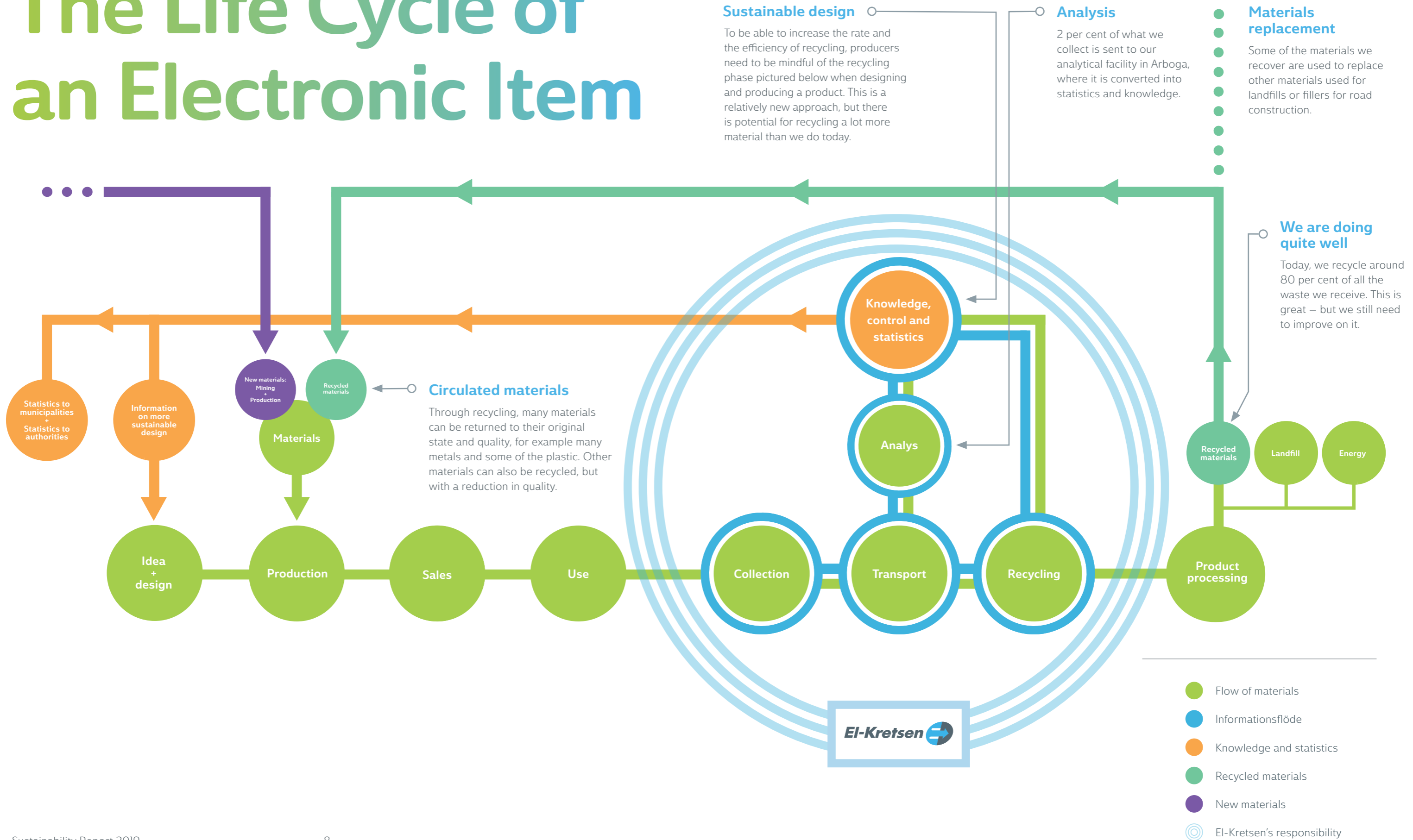
We look forward to working even more closely with our customers in the years to come and to developing even more efficient product flows which result in less waste of both materials and chemicals.

290

All of Sweden's 290 municipalities have signed cooperation agreements with El-Kretsen.



The Life Cycle of an Electronic Item





Producer Responsibility

2,000

producers are today affiliated to El-Kretsen.

The Polluter Pays Principle became an international political impetus in the years following the 1992 Rio Conference. According to this principle, anyone who pollutes or causes damage should pay for it. In Sweden, the principle has had a large impact on producer responsibility, which was introduced early on. Initially, it only covered newspapers and packaging, but it has since been extended to cars, tyres, electronics and batteries. The main object of this system is to shift the responsibility of collecting and recycling from the end users to those who sell the products..

Electronic products, luminaires and batteries are regulated in Swedish ordinances based on EU directives. On El-Kretsen's website there are links to the Swedish ordinances. When producer responsibility was introduced, producers could either join an existing collection system or manage their own producer responsibility. However, the latter proved both difficult and expensive as a product sold on one market could end up anywhere in the world. Nowadays, the law stipulates that anyone importing or producing consumer electronics has to be affiliated to a national approved collection system.

National coverage

There are a number of requirements to live up to before you can become a national approved collection system. You have to have collection points throughout the country

and accept all kinds of WEEE. You also need affiliated producers, and naturally, all the waste collected must be handled in an environmentally safe way. The desired recycling rate has also increased over time.

Today, El-Kretsen is Sweden's largest electronics collection system. The organisation is a non-profit-making limited company and any profit made is paid back to the customers (the producers). We now have over 2,000 affiliated producers, most of whom are importers of electronics or batteries. A majority of these are also brand owners. There are also some Swedish manufacturers. The final producer group represents foreign companies who sell their products directly to retailers or Swedish end-users.

A producer is anyone who makes or imports an electrical or electronical product. A producer becomes part of the national collection system by being affiliated to El-Kretsen, reporting every product sold on the Swedish market and paying its environmental fees. The affiliation means that El-Kretsen handles all reporting to the supervisory authority, the Swedish Environmental Protection Agency (EPA).

El-Kretsen has been certified according to ISO 14001:2015 and 9001:2015. We require our transport companies and recyclers to be certified by the European standards organisation Cenelec, and our Code of Conduct sets the levels for our performance with relation to quality, the environment and safety aspects.



Electronics Industry Challenges

WEEE is a challenge on a global level. Worn-out products and gadgets lying unused are a growing global problem. Far too few of these are recycled. Most end up in the bin. This is a problem, partly because toxic substances become major environmental hazards when they end up in nature, and partly because not recovering valuable metals and other important raw materials is a terrible waste. Consequently, the next major challenge for this industry is creating closed-loop recycling systems.

Electronics industry responsibilities

For many appliances, the production phase is what causes most of the environmental damage. A result of low collection rates and inefficient materials recovery is that unnecessarily large amounts of new materials are used in production, which has a negative impact on local as well as global eco systems.

Today, WEEE is the fastest growing waste stream. As the world's population keeps growing and people's standard of living improves, so do the number of electronic products. We are talking about some 50 million tonnes of WEEE every year. From a global perspective, Sweden is a small but important player. With El-Kretsen leading the way, Sweden has created a system which according to statistics recovers materials from over 80 per cent of the WEEE collected. This is a world-class achievement, but even so it must still be improved further. Also, we need to work on recovering every single item produced. We won't rest until every scrap of WEEE is collected and recycled. At the same time, it's not enough simply collecting as much WEEE as possible; we also need to recycle as much WEEE as possible.

You may wonder why we don't recycle everything. The two main reasons can be found within the areas of technology and finance. Today, almost all metals are recovered, albeit not always in their original form. You might say that certain metals are recovered, but with a reduction in quality. This is often metals used in small quantities and mixed with other metals into what is known as "alloys", which are common in circuit boards, among other things. The same thing goes for plastic, where every new additive changes the properties of the product. This also affects the possibility for the material to be recovered and restored to its "pure" original state.

New methods

There is a lot of research into metals and plastics, and projects and tests are being carried out to find new, more efficient ways of solving this. And once a technical solution has been found, the processes must be financially viable.

For example, the cost of the energy required to recover a small quantity of metal from an alloy may actually exceed the value of the material recovered, so the financial aspect can't be overlooked. Even if we are all agreed that it's better to use recycled materials, we need the financial incentive to actually get there.

In Sweden, where district heating is largely produced using household waste, at least the plastic and other waste we collect contribute in some way. But even if energy recovery is making the most of the energy content of a product, it isn't a viable part of tomorrow's circular society. In a circular society, materials have to be recycled to as large a degree as possible. The only reason to escape the circular loop should be because the material no longer constitutes a useful material resource. As the recycling rate of plastics is still low, this makes the increasing proportion of plastic in electronics a particularly difficult challenge. In cooperation with the rest of the value chain, the electronics industry has to develop better and more efficient methods of recovering the growing amounts of plastic – and it needs to start at the design and production phase.

El-Kretsen – ready to inspire

We are constantly improving our own processes. This forward drive is deeply rooted in politics, with those who set targets and in the world of standardization. But our efforts can only reach a small proportion of the global WEEE, no matter how far we get, which is why being a source of inspiration to others is also a vital part of our job. Our ability to influence others is what truly decides whether we make a difference or not.

Producer responsibility has become a popular tool all over the world, and has been introduced in all EU countries. In Sweden this is a well-established concept, and many countries that are now introducing producer responsibility look at the Swedish model. Sweden's reputation as an avid recycling nation with a focus on environmental concerns is well established and backed up by recycling statistics.



El-Kretsen's chairman Bo Thunberg speaks at the Green Electronics Summit.

International Cooperation and Knowledge Building

Internationally, Sweden has long been regarded as a forerunner when it comes to environmental issues and sustainability and recycling is no exception. Compared with other countries, collection rates are high and handling processes have become more advanced in order to remove hazardous substances and recover as much of the materials collected as possible.

At the same time, this brings great responsibility. We import and use a great deal more resources than the global average. For this reason, it is good to see that our developing efforts resonate with the rest of the world and that many are interested in considering everything from recycling techniques and legislative texts to the way different participants interact. And Swedish researchers turn to El-Kretsen when they need a starting point for future studies.

Below are some examples of exciting issues for the future:

- How do we handle materials that are new to the electronics sector, for example cellulose-based materials?
- What are the processes and techniques available for plastic recycling today and in the future?

- How can we increase the supply and improve the prospects of extracting rare metals from electronic goods?
- How can we increase the supply and improve the prospects of reusing components in electronic goods?
- How do we motivate and inform people to make sure waste collection and recycling carry a positive charge?

As a national collection system, we keep an eye on the flows. Driving progress towards the most efficient processes possible lies in our own interest as well as in that of society. One of the consequences of having a lot of knowledge based on data and conclusions drawn from studies is being able to have opinions on what methods would be most efficient when trying to reach specific results. We have already mentioned politics as an important means of applying policy steering. Our knowledge and our statistics are available to anyone who wishes to propose changes for the future. If you want to create change, you need to start with a grasp of the current situation. Over the years, El-Kretsen has built a knowledge bank which we freely offer to anyone who wants to pursue the same issues, be it researchers, politicians or simply the rest of the world.

Green Electronics Summit

On 2nd-3rd October 2019, El-Kretsen hosted a conference for sustainable development of electronics and batteries. Time is in short supply for most of us, so the fact that the 24-hour conference took place somewhat outside most people's normal environment was a valuable bonus. On the water's edge at Saltsjöbaden, with the archipelago backdrop, participants were able to pause for a while and focus. Despite the meaty programme, there was still time to talk and for our guests, who all work with El-Kretsen's issues from different perspectives, to initiate conversations across boundaries. Producers, recycling operators, municipality representatives, researchers and many others had shown up. Our aim was to create a place where people from different sectors could meet and speak freely. The post-event appraisal indicates that

we are on the right track, and we welcome all visitors, old and new, to the next Green Electronics Summit in 2021.

"Recycling" – what does it really mean?

In 2019, Radio Sweden ran a series called "Prylarnas Pris" ("The Price of Stuff"). The programme was given a lot of media attention, partly because it questioned both recycling statistics and what is meant by the terms used. What is really meant by "materials recycling"? For example, certain residual material from car scrap yards is used to cover old landfills. In other words, the residual material replaces some other material and is thereby formally classed as "material recycling", but this is not how people normally understand this concept. Most people would probably imagine this to mean something much more circular – that the material is used once more for the same thing. One thing we have learnt at El-Kretsen from the above example is that we need to become better at explaining what is really meant by the terms we use, and to stop using legal terminology as a matter of course. Instead, we have to translate this into more understandable words and concepts. You find one of the results of this on page XX, where we write about our result for 2019 and what happens to the material.

El-Kretsen – a knowledge hub

There are political targets for Sweden's collection and handling of WEEE and batteries. The statistics on which these decisions are taken ought to be based on facts and analyses from different stakeholders in the recycling industry. It's important that the contributory data is backed up by real evidence; that the changes proposed relate to the current situation (including normal deviations, temporary incidents and technology shifts), and that we have a common understanding of the terminology we use. If we lack any of these things, the risk is having goals that are either toothless or unrealistic and impossible to reach. Our data collection, which draws a picture of the past, the present and current trends with respect to collection and handling of WEEE and batteries, makes El-Kretsen a centre of knowledge and information.

Electronics are plastic

When El-Kretsen was established 19 years ago, electronics tended to be heavy and contain a lot of metals. Since then, a lot of progress has been made in replacing metals with plastic to make the products smaller and lighter. At the same time, today's electronics contain more composite materials, like alloys and laminates.

The use of plastic is growing steadily. This means that the recycling of electronics is to a large extent focused around plastic and the options open for recycling different kinds of plastics. This is a challenge. Separating composite materials and recreating them in their original form is often both difficult from a technical point of view and energy-intensive. These are major issues for the entire industry, and crucial for us to discuss and investigate so that we can design an efficient materials recycling process for the products of tomorrow.

Today's plastics are virtually 100 per cent fossil-based* and often difficult to recycle. There are methods for producing and recycling bioplastics, but we have far to go before these methods become cost-efficient and are widely implemented in the electronics industry. Right here, El-Kretsen has an important role to play.

With our 19 years of experience of collecting and recycling, we have built up a substantial knowledge base. So far, we have used this knowledge to refine the recycling processes for existing materials. In order to be able to take the next step, this knowledge also needs to reach the producers.

We know what is needed to increase both recycling rate and efficiency. Getting producers to consider the recycling stage of their products is a new concept, but there is an obvious potential for recycling more materials than we currently do.

*Today around 0.6 per cent is bio-based while 99 per cent is fossil-based.
Source: Ellen MacArthur Foundation, New Plastic Economy (2016), p. 94

Plastics are oil

Plastic is an oil-based product, historically and today. In the last 100 years, something that has been concealed underground for thousands of years has ended up as an ingredient in virtually every product we make. Not only does oil have a high energy value, it is also very pliable and easily adapted for many different purposes. A common purpose is making plastic.

To give a material the properties and looks we desire, we use additives. We have colourants and glossing agents for the finish, softening agents to make it pliable, flame retardants to minimize the risk of the plastic catching fire if it overheats, and antioxidants to extend its life-cycle.

The list of additives is endless. Many of them have also proved to have considerable negative effects on our environment and health. Certain brominated flame retardants can't biodegrade when they end up in nature. Toxic substances bioaccumulate and spread between species and generations of animals.

For the last 20 years, the EU has worked to reduce the spreading of these hazardous substances. After the Reach Regulation (2007), finding information on the chemical content of materials and products has become easier. The RoHS Directive (2012) limits the chemicals allowed in production. And the POP Regulation (2004) limits the use of persistent organic pollutants.

Parallel with the more stringent legislation, many electronics producers have initiated their own programmes for reducing or replacing chemicals (hazardous metals in particular). Substances that are commonly recognized as being hazardous, like cadmium,

lead, mercury and many of the brominated flame retardants have disappeared from many products.

There are still numerous substances whose effect on the environment we have not yet fully grasped, but which producers have listed as ones to be phased out. Some examples are PVC, beryllium and brominated flame retardants.

Laws and directives decide the rules for product manufacturers. There are also different types of standards to aid them with procurements and other purchases. But things can also go in the other direction: We may receive products which include chemicals that have been banned.

Results from analyses made by the Swedish Chemicals Agency show that almost 50 per cent of the products imported over the Internet from non-EU countries contain banned substances, most commonly lead, cadmium and brominated flame retardants. Companies in Sweden and the EU also sell products containing banned substances, but to a somewhat lesser degree. The same conclusion was drawn by the National Electrical Safety Board, which investigated products with respect to safety (with a primary focus on health and flammability).



The kinds of plastic most commonly used in electronics are:

Polypropylene (PP)

Durable, transparent, resistant to chemical stress. Commonly used for: toys, textiles, food containers and electronics.

Polyethylene (PE)

Durable, elastic, does not absorb water. Commonly used for: cables and pipes, plastic bags and cling film, toys, kitchen utensils and electronics.

Polystyrene (PS)

Hard and rigid with heat-insulating properties. Simple plastic products such as single-use plastic cutlery and packaging are made from PS.

Acrylonitrile butadiene styrene (ABS)

Easy to shape and vary for different uses. Commonly used for: electronic products such as keyboards and chassis for computers and printers.

The different plastics come in as a mixed fraction from all the products we collect. To be recyclable, the different kinds first need to be separated from one another. If this process delivers a mixture of plastics, the post-recycled material will be of inferior quality. Read about the process in detail in the report on the joint project with Stena Recycling on page 20.

Photographer: Robin Lundin

Feature

Stena Recycling

Plastic waste is traded all over the world. Generally, it tends to be rich countries exporting their waste to primarily Asian countries. Only three years ago, most of Sweden’s plastic waste was exported to China, as recycling plastic in Sweden was simply not profitable. Recycled plastic competes with oil and oil-based plastics, and as long as the price of oil is so low that oil-based end products are cheaper than the same products made from recycled plastic, it is difficult to make plastic recycling profitable.

In 2018, the picture changed as China decided to stop its import of unsorted plastic waste. This was a challenge for the entire recycling industry, but also created possibilities for developing new operations at home.

This challenge brought Stena Recycling and El-Kretsen together in a new joint venture. As the price of oil is still comparatively very low, building a recycling plant that can handle all the plastic waste generated in Sweden still is still a risky undertaking. The investment may never pay off, as we don’t know today what policy instruments and subsidies will be in place in the future governing the trade with oil products.

Today we can see advertisements and commercials claiming that their products have been made from partially recycled plastic. This is regarded as a marketing advantage and a step in the right direction towards more circular products. However, development is at an early stage and producers have expressed concern over three parameters: price, quality and volume.

- Since the cost is higher than that of virgin plastic, using recycled plastic must give a competitive advantage.
- Plastic is made for different uses and each has its specific qualities and finish. Ensuring this is much easier when using virgin materials totally free from pollutants.
- Global producers need large volumes and predictable deliveries to be able to plan their production. The market for recycled plastic has not yet reached the point where it is as reliable as the market for virgin plastic with respect to supply and quality.

12,000

the facility’s capacity in tonnes/year.



As things stand, something more is required to create a market for recycled plastic. It could be the requirement of particular producers. Alternatively, it could be done through legislation, either through financial subsidies or through demanding that a certain percentage of the materials used in production are recycled materials. In 2018, none of these incentives existed.

At El-Kretsen, we didn't have the time to wait for the right market economy conditions. The recycling has to happen somewhere, and both we and Stena Recycling saw great possibilities for doing it in Sweden. Our long-term financial stability and the fact that we don't have to chase an ever-increasing profit enabled us to step in and guarantee the investment needed for Stena to build the facility in Sweden.

The move towards a more circular use of plastic is still at an embryonic stage, but we know it will have a firm place in our future society. Today, we find plastic everywhere: in products and packaging and discarded as waste in the oceans. Being able to halt these flows and take things one step further by being able to use the waste as a fully competitive alternative to oil or bioplastics must surely be the best action to take to push the development in the right direction.

The facility currently in operation outside Halmstad in southern Sweden can:

- Secure a circular flow of the plastic used in electronics
- Handle the import restrictions initiated by China and now observed by many other countries
- Produce unpolluted plastic fractions
- Turn plastic waste into plastic feedstock
- Reach local and international buyers of plastic
- Deliver a product that works as a substitute for virgin plastic (oil)

The facility's capacity is 12,000 tonnes per year, or 3 tonnes per hour. This is needed. What we at El-Kretsen label "Small Appliances" is the largest of all the fractions we collect. It comprises everything from mobile phones and leads to microwave ovens and TV sets. We collect around 70,000 tonnes of small appliances per year, and 21 per cent of this is plastic.

The Process

The WEEE is tipped onto a sorting belt for an initial manual sorting. Hazardous waste like batteries and parts that contain oil, mercury, etc are removed for separate treatment. Also removed for separate treatment are parts that contain small amounts of valuable materials, like circuit boards. The waste left on the belt is moved along for fragmentation, which means crushing the products into small pieces. The pieces are then sorted into material categories: metals, glass, plastic and other materials. After this, the plastic is transferred to be sorted separately.

First, the plastic is split into two categories using a wet process. The plastic chips are tipped into a water tank where almost 40 per cent of the chips sink. This is the plastic that contains brominated flame retardants. The chips containing no flame retardants are then put through a second, more refined, process for division into PP/PE, PS and ABS.

The Result

The end result are grains of what is now definable as raw material. The recycled plastic undergoes continuous quality checks to ensure that it does not contain a higher level of chemicals than is permitted by Swedish and international legislation (e.g. RoHS and Reach).

The plastic yielded by this process can be divided up into 30 percent PP/PE, 15 per cent PS, 35 per cent ABS and finally 20 per cent reject materials (as in laminates, rubber, plastic that has not been separated from other materials like wood, cloth, etcetera).



Photographer: Robin Lundin

Roughly speaking we are today able to recycle around 50 per cent of the plastic in WEEE and turn it into feedstock. This is a good start, but needless to say a figure that needs to increase considerably in the coming decade. El-Kretsen looks forward to being a part in this task.

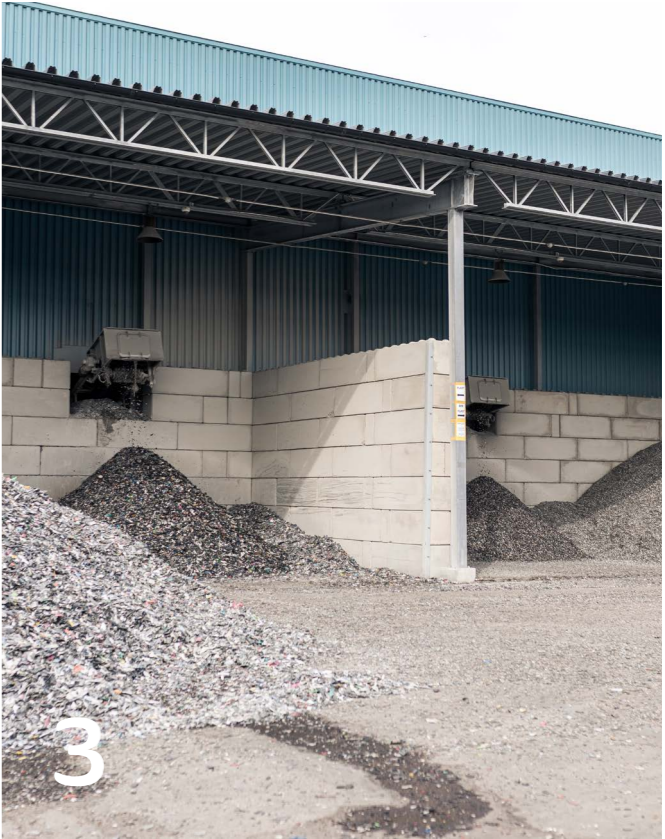
The Future

We need to see more "eco design", which means taking into account a product's need for recyclability at the design stage. At the same time, we need to improve the recycling process so that we, with the minimum use of energy, can recycle as many materials as possible to a quality that is on a par with virgin materials. Once we get that far, there's no longer any need for economic instruments. But we are not there quite yet. To speed progress up, we need clear, long-term political rules of

50%

of plastic recycled from WEEE is turned into new raw materials.

play. The next level of recycling could be promoted by politically introduced economic instruments relating to many different fields in society: education, research, tax alleviation, information campaigns to increase demand and many others. This issue does not just exist between producer and consumer – it is relevant to society as a whole.



The Process

1. Different kinds of electronics are collected in crates (as in this picture), or in certain cases in skips. When the containers are full, they are transported to one of our pre-treatment facilities. Ei-Kretsen has some 50,000 WEEE containers, all with their individual ID tags with EAN codes. In this way, we can trace the material as it travels from the collection point to the recycling facility.
2. The first stage of manual sorting.
3. The wet process has separated the plastic containing brominated flame retardants from the rest of the plastic, which is able to undergo a second, more refined, process.
4. Here the plastic undergoes both a wet and a dry separation process, which sorts it into different qualities.
5. The new raw material. This plastic has been tested and quality assured with respect to its ability to withstand blows, bending and pulling; its density, and its levels of cadmium, lead and chromium.

Photographer: Robin Lundin

What's being collected?

The WEEE that businesses and private individuals want to get rid of can be taken to designated collection points or collected by us. We take it all, from large refrigerators and electric vehicle batteries to small leads and light bulbs. The time of year and seasonal changes tend to be reflected in the WEEE we collect. At Christmas time, many people trade their old decorations and lights in for new ones. In 2019, we handled a total of 147,627 tonnes of WEEE.



Lighting

There are seasonal changes in our collection containers for lighting. Around Christmas, many people replace their advent stars and Christmas lights, and it is not only old products at the end of their life that end up in the bins. Many of these products serve as decorations rather than luminaires, and so they are replaced according to personal taste or when new products outshine the old ones. Another aspect is the shift to LED technology, which is even more energy-efficient than low energy luminaires and which lasts around 50 times as long as an old-fashioned light bulb. Since LED lighting also works in small light fittings, decorative lighting (such as Christmas lights) is now almost exclusively LED-based.

Stereo

When it comes to VCR and stereo equipment, the innovation rate is high. New models quickly become outdated. Nowadays, you hardly see the old stack systems which often required a whole shelf unit to themselves. While they are no longer in fashion, they are statistically viable: the median age of the systems we collect is 27 years.

Sewing machine

Different products have different life spans, both in theory and in practice. The sewing machine is one of the most long-lasting household products there is. The median age for a discarded sewing machine is 30 years, and many live much longer than that.

Electric tooth brushes

An electric tooth brush has an average life span of 8 years before it ends up in the recycling bin. It is one of the many electrical products that is largely made out of plastic. The oldest electric tooth brush at our assessment facility was 21 years old – and the youngest one was 1.



Knowledge for Better Design

Small, clever products. They light up, make noises, remember things, tell you where you are and connect you to the world. They are often made up of many different materials that have been refined and assembled into the components that form the product in your hand.

Manufacturing

Things progress fast – new materials are combined and the alloys conducting electrical currents become thinner and thinner. Some of these materials can only be found in a handful of places on the planet, and sometimes in such low concentrations that we have to mine thousands of kilos of rock to get one single kilo of a certain chemical element. Then, the raw materials have to be transported from where they are mined to factories to be made into new products. Against this background, it is easy to see that the production phase of many electronics is the phase that is most harmful to the environment.

Usage

Using a product for as long as possible is very wise. The longer a product's life cycle, the less it burdens our environment. This is a general rule, but there are exceptions. For old products that have a very high energy consumption (like old refrigerators), the usage phase takes a bigger toll on the environment than the production phase.

Analysis

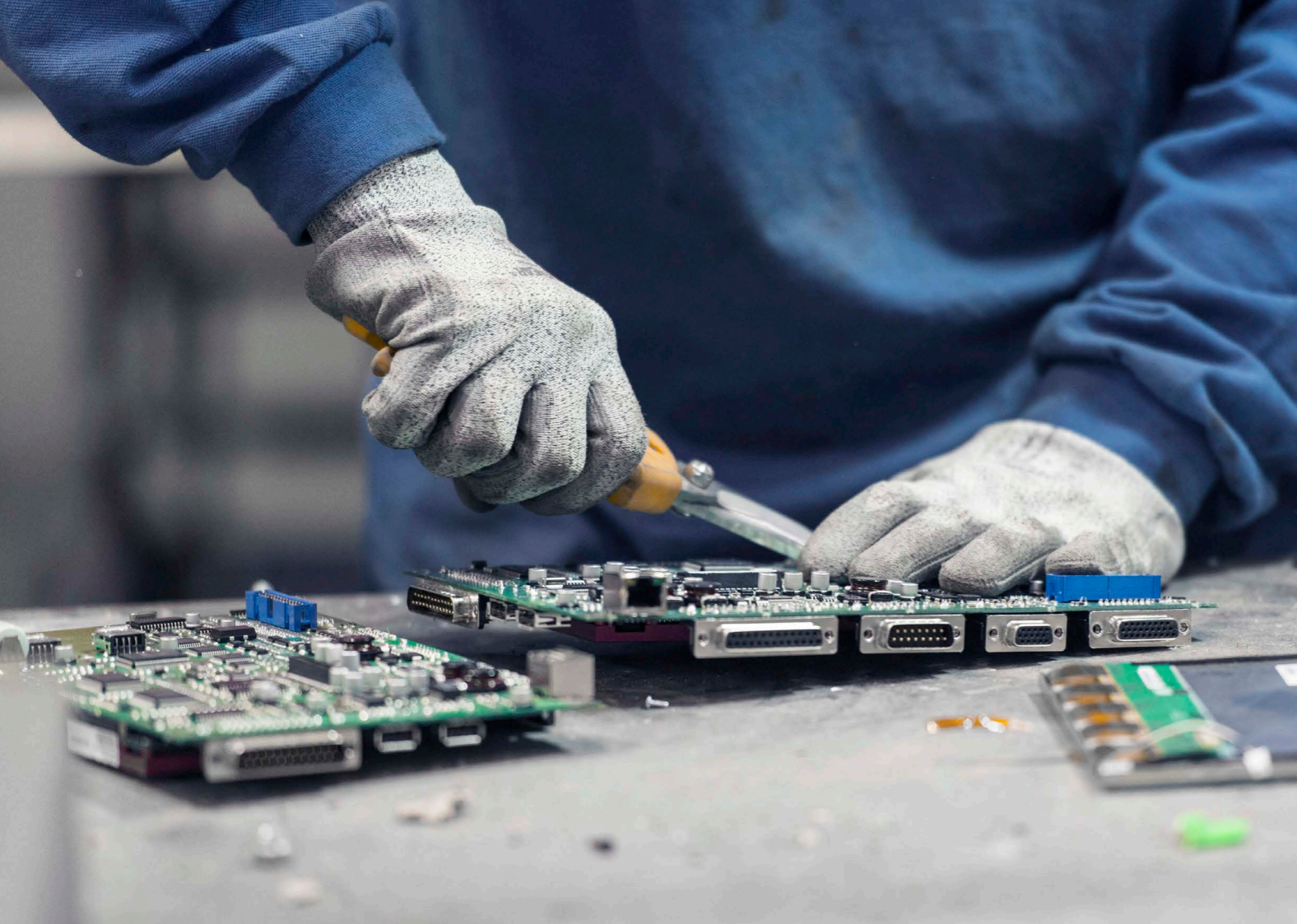
We identify what products we collect, how old they are and what they contain. This provides us with important recycling statistics. We know both what is harmful to the environment and what we need to keep an extra eye on.

Transport

When your adapter plug can no longer be held together by tape and when the old CRT television is too clunky even as a second set, said item will find its way to a recycling centre or another collection point. El-Kretsen collects large volumes, often from a few select places in each municipality. The actual recycling process takes place at different locations in Sweden depending on the product. Our role is to connect it all up, to know what's going where and make sure things are transported to the right place. This can occasionally mean long transport distances, but from an environmental perspective it is still always worth it. The reason for this is in the recycling process.

Recycling

We know that the production phase of many appliances is the phase that is most harmful to the environment. We also know that pure metals can be used indefinitely without losing their quality. Plastics also have recycling potential. Naturally, the recycling process also requires energy, but nowhere near as much as the actual mining. The greatest positive effect of recycling is a reduction of all the negative aspects of mining and oil drilling.



Stakeholders and Supporters

El-Kretsen exists to benefit our main stakeholders. Our business model was created to suit their needs. These are trade associations, electronics producers and Swedish municipalities. The producers and trade associations are our customers, our owners and along with the Swedish municipalities they are also important partners.

Producers

El-Kretsen provides producers with a service. We are often asked how El-Kretsen can ensure that the materials collected don't simply disappear onto the illegal market. There is a growing requirement for specific standards and controls regarding how materials are handled. Our customers' internal sustainability efforts constitute a driving force, but requirements from end customers on procurement procedures and suppliers also play a part. The number and extent of such requirements is clearly increasing.

Municipalities

Sweden's municipalities play a key role in our value chain. Through Elretur, a collaboration between the municipalities and El-Kretsen, we get running reconciliation statements from individual municipalities, the Swedish Association of Local Authorities and Regions and the Swedish Waste Management Association. Service and safety at collection points are among the central concerns. The environmental aspects tend to relate to local issues, such as there being no leakages at collection points. One security issue relates to break-ins and thefts from recycling centres where WEEE tends to be the item most likely to be stolen. This can potentially make recycling centres unsafe workplaces which can make employees feel stressed about their circumstances. This is a core issue for the employer, i.e. the municipality or the municipal subcontractor. And since El-Kretsen is the owner of this WEEE, we maintain a dialogue about what methods and measures are most efficient when it comes to reducing break-ins and thefts. Municipalities are key actors when it comes to informing citizens and businesses about the local waste collection system. El-Kretsen helps out with this when it comes to the parts that lies within its area of expertise, like how we recover and recycle WEEE and batteries.

Authorities

A nationwide approved collection system has to comply with regulations SFS2014:1075 and SFS2008:834. The sustainability requirements stipulated by our supervisory authority the Swedish EPA first and foremost link directly to the requirements in these ordinances. Likewise, the collection and transport of hazardous waste must comply with current legislation. Consequently, this is less of a dialogue and more of a list of obligatory requirements.

Other supporters

Schools, researchers, information officers, trade associations and media also make contact and want to know more about how collections and recycling actually works and what role El-Kretsen plays in creating more circular flows. We notice a marked increase in the general interest in our operations, which is both satisfying and something of a challenge given our limited resources and time.

21

El-Kretsen is owned by 21 trade associations.



Logistics

All the collection centres in Sweden are managed by the relevant municipality or by a municipal sub-contractor. They are experts in handling waste in the most efficient way for their particular region. Swedish municipalities collect all kinds of waste and are required to provide a location for waste collection. They also have a responsibility to keep their citizens and businesses informed.

El-Kretsen's co-operation with Sweden's municipalities starts with the 589 recycling centres that constitute the first port of call in Sweden's efficient and stable WEEE recycling flow. In addition to these, all municipalities offer parallel collection systems like mobile collection points or collection points relating to individual housing areas. Swedish retail stores have also been given a greater degree of responsibility for collecting end-of-life electronics. All in all, this means better service for us citizens.

Transport

A well-functioning recycling system relies heavily on logistics, which is why we regard logistics as an important area of competence. A "circular flow" means that materials are not simply sent in one direction, but also end up in a new product – all without contaminating nature in the process.

Together with the municipalities, we aim to offer those who want to get rid of WEEE and batteries the best service possible. Doing it right should be simple. We also want our collection system to have the smallest impact possible on the environment.

In reality, this means removing waste from collection points at the right time and transporting it to the correct sorting and dismantling facilities. Without well-functioning logistics, Swedish recycling would grind to a halt. The recycling centres would overflow and the WEEE would end up in the wrong place. We make sure the collected WEEE is transported to the correct facility.

We have tuned our logistics system to traffic the shortest possible distances with the greatest possible fill rates. El-Kretsen monitors some 50,000 collection containers for WEEE and luminaires and some 5,000 battery bins. We also rent out skips to serve the larger recycling centres. Every container is ID-tagged. This means that we can trace every single container from its collection point to the sorting facility; weigh and measure it and make sure no container disappears along the way.

589

recycling centres are El-Kretsen partners.

Sorting

El-Kretsen's 20 or so sub-contracted transport companies drive the waste and batteries collected from the collection points to the sorting facilities. Here, the waste products are sorted, sanitised and processed and transformed into materials fractions. At this point, El-Kretsen hands over possession of the materials to the sorting facilities which sells it on for further processing, e.g. to a smelter, or directly to the raw materials market. This is where the final recycling takes place, giving the materials a new lease of life. El-Kretsen receives feedback on the materials flows in the shape of the proportions between materials recovery, energy recovery and landfill.

All El-Kretsen's sub-contractors are situated in Sweden. A lot of the material is recycled here, but some is sold abroad. We require all waste recipients to be certified in accordance with an international standard (Cenelec). The recycling and sorting of the collected WEEE takes place in accordance with the standards and revisions that fall inside the relevant framework. At El-Kretsen, we work closely with our partners; we have a structure for deviation management and we are constantly running projects to improve our quality and efficiency, from an environmental as well as a financial perspective.



Recycling Facts

Almost all metals can be recycled, and we strive to achieve the highest possible degree of recycling. This provides the greatest benefit for the environment, as producing new materials requires vast amounts of energy. The energy required for recycling only corresponds to a few percent of the energy required in mining.

Batteries

Lithium batteries account for the vast majority of today's rechargeable batteries. While the lithium-ion replacements are not toxic, they are very sensitive to heat and if they do catch fire, the fire is very difficult to put out. As lithium mining is extremely hazardous to the environment, an important challenge for the future is developing methods for recycling lithium on a large scale. El-Kretsen also administers the collection of the large lithium batteries used in electric cars, forklift trucks and other modern industrial machines. Industrial batteries are collected separately and every battery is inspected prior to transport. Damaged batteries require special handling. So far, we handle very few industrial batteries but as the number of electric vehicles increases, they will become an increasingly common item in the next few years.

Precious metals

Electronic products contain a number of pure metals, as well as some rare earth elements. These have exceptional properties and only appear in very small quantities, generally as part of an alloy. Recovering and recycling these into their original form may be technically very challenging and require vast amounts of energy. This needs to be researched further. New processes and methods are needed to make it profitable to recover these metals as well as more common ones.

Energy

Waste that is not recycled for materials is treated as a combustible fraction and largely used to produce district heating. Sweden needs a lot of heating and today there is a shortage of combustibles. This is basically positive as it signals a high recycling rate. To deal with this shortage, many municipalities import waste. Using waste as fuel is efficient, as long as the recyclable materials have already been recovered and there are few remaining pollutants.

Pre-treatment

The fewer and purer the components in our electronics, the simpler the recycling process. The end result is high-quality recycled materials. Over time, the recycling industry has created a process based on beating or crushing waste products into bits and then separating the materials. Iron, aluminium, copper, plastics, glass etc. are separated through different processes based on magnets, optics, density, machines and sorting by hand. This is becoming more and more difficult as laminated plastics and ever-thinner metal alloys are becoming increasingly common. We also see more electronic components integrated in new materials like textiles.

80%

Today, we recycle over 80 per cent of all waste we collect.

Electronics Analysis

Approximately 2 per cent of all WEEE collected in Sweden is transported to our analysis facility, which is situated in Arboga and managed as a joint venture together with Arboga municipality. All these products are classified and weighed. The amount of WEEE we analyse is large enough to guarantee that the results are a fair

representation of the Swedish average. Thanks to our analysis facility, we know we collected around 850,000 mobile phones last year; that the average laptop is 18 years old and that one third of all the cables we collect is electric wiring rather than connecting leads for items like amplifiers and loudspeakers.

Landfill

One waste management method we strive to avoid is using waste in landfills. Some substances (like mercury) have to be disposed of as landfill as they are required by law to be withdrawn from circulation. Stone and concrete, which can be used as weights in white goods, are other materials that may be disposed of as landfill.

Challenges

In order to be recycled, all WEEE has to be sorted and dismantled. As products grow smaller and lighter, their plastic content increases while the metal content decreases. This creates new recycling challenges. The current trend is a lower amount of pure material per product. As we have already stated, the many additives found in plastics also constitute a challenge as they make it difficult to recycle plastic without a reduction in quality.



Risks and Top Priority

Collecting and recycling waste is risky business. We are not trying to rate which of these risks is the most hazardous, but we have divided them into two groups: indirect and direct risks.

Indirect risks

Indirect risks include electronics that are not properly recycled. These products are either not recycled at all, or processed in a manner that is hazardous to people's health and/or the environment. It is vital that all products containing metals and other components have more than one life cycle. Equally vital is a recycling process free from unnecessary risks. The fact that the informal sector handles a large part of the world's WEEE comes with a major and obvious risk that this waste is not processed with a focus on sustainability, but to produce the highest possible profit.

Direct risks

The direct risks relate to our own operations. At El-Kretsen, we work with some twenty different transport companies. Insufficient fill rates, old fleets and aggressive driving styles all contribute to unnecessarily high levels of CO2 emissions, so we work hard to make sure this is avoided. As we do handle hazardous waste, another direct risk is that of accidents involving staff or the environment. Most of our collecting is done in co-operation with Swedish municipalities and their recycling centres. Re-sorting is handled by El-Kretsen's sub-contractors. There are different containers for WEEE. This handling poses direct risks to the natural environment. Some measures

are now regulated by special legislation, such as the requirement for weather proofing at collection points or the requirement for special containers for battery transport. Precise regulations lessen the risks, but they do not affect the scope for human error. Carelessness and ignorance obviously increase the risks when loading and transporting WEEE. This also applies to personal injuries. These can be direct accidents like falling, crushing or transport-related accidents, and indirect harm can be caused through contamination or inhaling hazardous substances such as asbestos or mercury.

Corruption is a threat to any business, ours included, as it can lead to illegal handling.

Electrical and electronic products are constantly evolving. One substance that has increased a lot in the last few years is lithium, which is used in many kinds of battery. Efficient and rechargeable, lithium is also very sensitive to heat, and as such it is a fire hazard. In this context, El-Kretsen faces risks at the time of collection, during transport and in the recycling process. There have been few accidents so far, but as the use of lithium batteries increases, so obviously does the risk of accidents.

Top priority

Our biggest contribution to a sustainable development is our core operation. The more materials El-Kretsen recovers, the greater the environmental gain as it reduces the pressure to mine new raw materials and the risk of hazardous substances leaking out into nature. Consequently, our top priority is recycling and materials recovery.

Safe handling

WEEE and batteries may contain a number of substances harmful to both people and nature. For this reason, having safe processes for handling this material is a fundamental requirement. The waste generated in Sweden should be processed in Sweden, not disappear along the way and risk ending up in an environment over which we have no control. Sweden is a long, thin country, and collecting waste involves long transport routes. We have an on-going dialogue with the transport companies we use on the subject of making our logistical arrangements more efficient and reducing CO2 emissions. El-Kretsen's operations have a direct and substantial impact on the environment.

Us people

In Sweden, we know that you do not throw batteries in the bin. We are good at sorting our household waste – at least in comparison with other countries. But we still put things in the wrong container and we buy far more products than we recycle. Old stuff hangs around even though it no longer works or has long since been replaced. We can become even better at this. Understanding why collecting and recycling is so very important is crucial if we want to establish long-term circular flows.

Co-workers

In 2019, El-Kretsen employed 13 people (5 men and 8 women). Their contracts include a certain degree of flexi-time, regular health check-ups and further training opportunities. El-Kretsen has established a systematic Health and Safety management system based

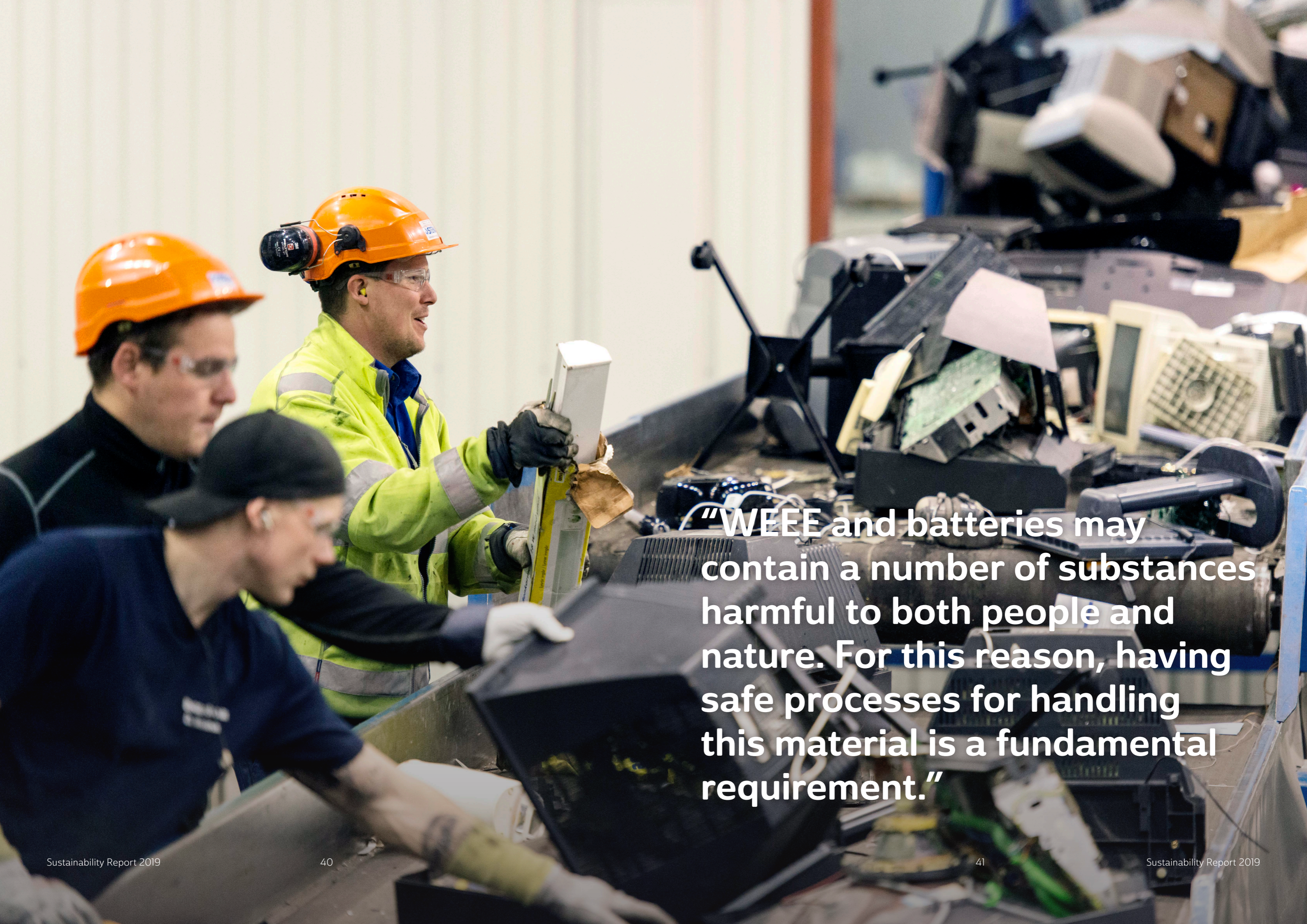
on Swedish labour legislation and ISO standards. We apply an Equal Opportunities plan which continually measures and pursues the employees' view of El-Kretsen as a work place. This Equal Opportunities plan includes policies on gender-neutral wage setting, anti-harassment, etc. No work injuries were reported in 2019. The number of days of paid sick leave amounted to 34, of which women accounted for 30 and men for 4.

Anti-corruption

Our procurement processes include a requirement for international standards that uphold a clear position on anti-corruption as well as methods for preventing corruption. In our latest procurements, our requirements followed the anti-corruption guidelines set by CECED (the European Committee of Manufacturers of Domestic Equipment). CECED's policy covers a vast array of environmental, social, ethical and health-related issues, two of which are corruption and human rights. The CECED policy is a well-established and well-prepared model for placing specific demands on European co-operation projects.



El-Kretsen has 13 employees.



“WEEE and batteries may contain a number of substances harmful to both people and nature. For this reason, having safe processes for handling this material is a fundamental requirement.”



What We Recycle

The items we collect are sorted, dismantled and fragmented in order to produce the purest material flows possible.

1. Collected and recycled in 2019

1.1. Collected (in tonnes)

The collection covers seven fractions: Small appliances; Refrigerators and freezers; White goods; Batteries; Fluorescent lamps (compact and straight); LED and incandescent light bulbs; Other/professional electronics.

148

thousand tonnes of WEEE was collected in 2019.

62

million devices (small appliances) was collected in 2019.

1.2. Collected (in comparison)

The table below shows a comparison for the last two years.

7%

increase in the amount of batteries collected in 2019.

9%

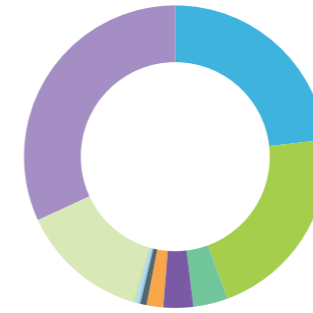
decrease in the number of LED and incandescent light bulbs collected in 2019.

Collected (weight in tonnes)	2018	2019
Small appliances	78,730	80,245
Refrigerators and freezers	25,363	24,662
White goods	34,113	35,805
Batteries	3,170	3,383
Fluorescent lamps (compact and straight)	1,734	1,878
LED and incandescent light bulbs	680	624
Other/professional electronics	2,438	1,030
Total	146,228	147,627

2. Materials content per fraction

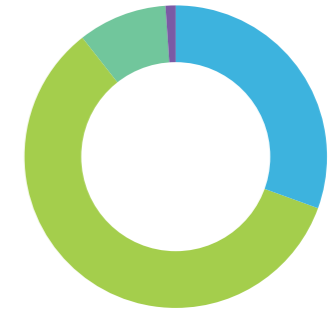
This is an illustration of what the different fractions contain and how the materials are treated. The lists could be made longer and have even more detailed materials specifications.

Our aim is to be able to detect and separate each individual element (no matter how small the quantity) and recover it.



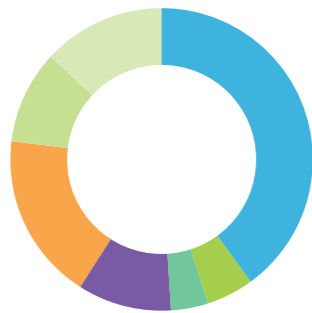
Batteries

Material	Processing	%
Iron	Material recycling	23.2%
Zinc	Material recycling	21.2%
Lead	Material recycling	3.7%
Nickel	Material recycling	3.1%
Cadmium	Material recycling	1.9%
Lithium	Material recycling	0.6%
Other metals	Material recycling	0.3%
Cobalt	Material recycling	0.3%
Aluminium	Material recycling	0.2%
Other combustible materials	Energy recovery	13.6%
Not recyclable or combustible material	Landfill	31.9%
Total		100%



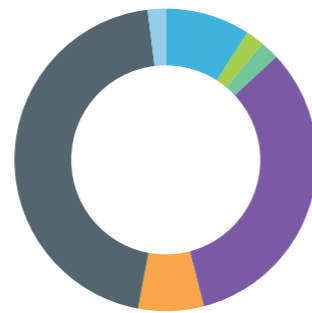
Luminaires

Material	Processing	%
Aluminium	Material recycling	30.5%
Glass	Material recycling	59%
Other combustible materials	Energy recovery	9.5%
Not recyclable or combustible material	Landfill	1%
Total		100%



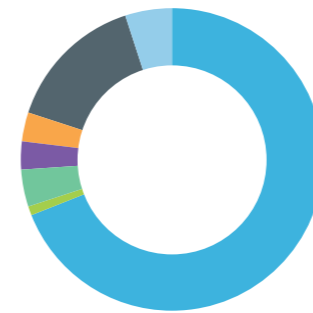
Small appliances

Material	Processing	%
Iron	Material recycling	40%
Copper	Material recycling	5%
Aluminium	Material recycling	4%
Plastic	Material recycling	18%
Silver	Material recycling	0.012%
Gold	Material recycling	0.001%
Palladium	Material recycling	0.0005%
Other metals	Material recycling	10%
Other combustible materials	Energy recovery	10%
Not recyclable or combustible material	Landfill	13%
Total		100%



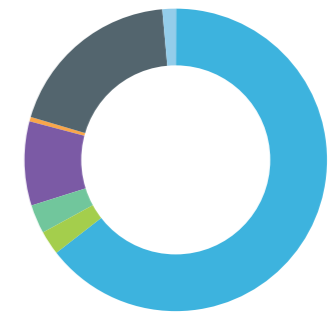
Televisions and monitors

Material	Processing	%
Iron	Material recycling	9%
Aluminium	Material recycling	2%
Copper	Material recycling	2%
Plastic	Material recycling	33%
Glass	Material recycling	45%
Other combustible materials	Energy recovery	7%
Not recyclable or combustible material	Landfill	2%
Total		100%



Large appliances

Material	Processing	%
Iron	Material recycling	69%
Aluminium	Material recycling	1%
Nickel	Material recycling	4%
Other metals	Material recycling	3%
Other combustible materials	Energy recovery	15%
Not recyclable or combustible material	Landfill	5%
Total		100%



Refrigerators and freezers

Material	Processing	%
Iron	Material recycling	64.5%
Copper	Material recycling	2.5%
Aluminium	Material recycling	3%
Plastic	Material recycling	9%
Glass	Material recycling	0.5%
Other combustible materials	Energy recovery	19%
Not recyclable or combustible material	Landfill	1.5%
Total		100%

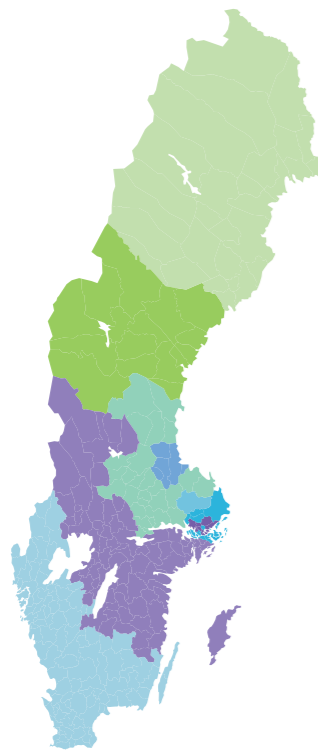


3. Catchment areas

Recycling collection is divided into six fractions. The maps below indicate where the items collected in each fraction are handled and by which partner. When describing the collection process, the most straight-forward category is luminaires, which all go to the same place regardless of where in Sweden

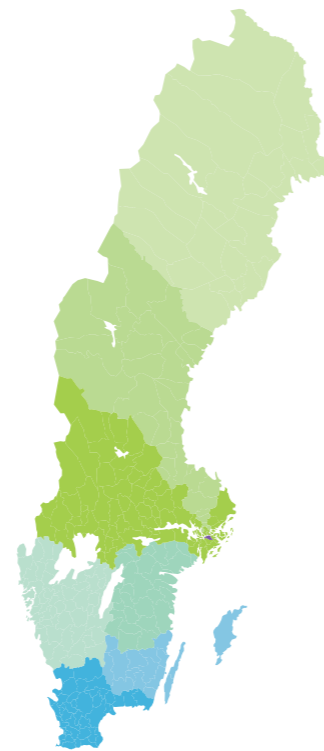
they are collected. Some products, like white goods, are handled in several different locations while products such as refrigerators and batteries require more closed and specialized processes. Consequently, the latter are only handled in one or a few locations.

El-Kretsen procures services for sorting, sanitation and fragmenting every few years. Long-term contracts and partnerships give the industry an incentive to invest in progress-driving processes that make both financial and environmental sense.



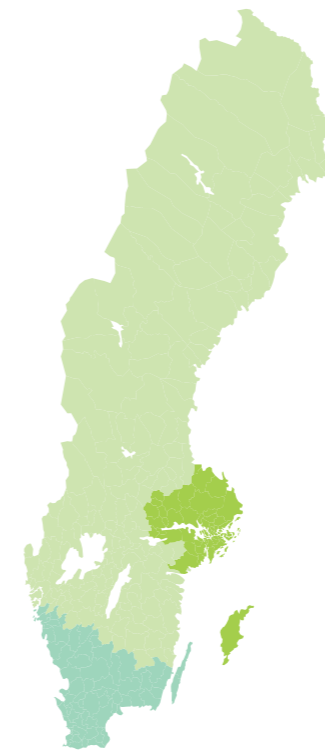
Small appliances

- Kuusakoski: Skelleftehamn
- Kuusakoski: Timerå
- Stena Recycling: Västerås
- Sims Recycling Solutions: Katrineholm
- Lindberg & Son: Forsbacka
- Kuusakoski: Spånga
- Lantz Järn&Metall: Sollentuna
- Stena Recycling: Halmstad



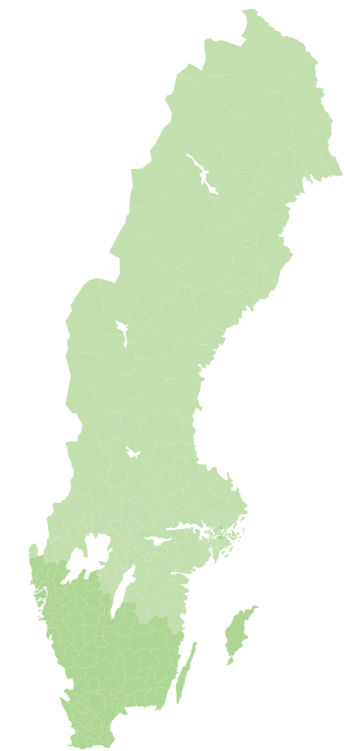
Large white goods

- Kuusakoski: Skelleftehamn
- Kuusakoski: Gävle
- Rang-Sells: Västerås
- Svensk Freonåtervinning: Hässelby
- Lantz Järn&Metall: Norrköping
- Skrotfrag: Göteborg
- Skrotfrag: Oskarshamn
- Stena Recycling: Malmö



Refrigerators and freezers

- Revac: Hova
- Svensk Freonåtervinning: Hässelby
- Stena Recycling: Halmstad



Batteries

- uRecycle: Karlskoga
- Renova: Göteborg

About the Statistics

The statistics provide an overall picture of the amount of WEEE, luminaires and batteries handed in for recycling in EI-Kretsen's collection systems in Sweden in 2019. The total amount of collected WEEE and batteries amounted to 147,627 tonnes, which corresponds to around 1.4 kilos per person.

Remember this when reading the statistics:

1. It only covers WEEE collected through EI-Kretsen's systems

The amounts collected only relate to the waste recycled through our own nationwide collection system. No waste collected separately by municipalities has been included.

2. Municipalities co-operate and citizens travel

When comparing the results of different municipalities, please remember that certain recycling centres are used by people from several municipalities. Some municipalities may not have their own recycling centre, and so may co-operate with a neighbouring municipality and use their recycling centre. Some cells below are empty. This does not necessarily mean that no items were collected, but may have to do with the regional economic structure and/or collaboration with other municipalities.

3. The Swedish EPA's guidelines for luminaires

This reports luminaires in accordance with the Swedish EPA's guidelines: gas discharge lamps (fluorescent lamps), light sources that contain mercury and non-gas discharge lamps.

Collected materials 2019

	Total		Small Appliances (excl Built-in Batteries)		Refrigerators and Freezers		Large Appliances		Batteries (incl Built-in Batteries)		Flourescent Lamps		Other Luminaries		Professional Electronics	
	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Sweden	147 626 680	14,31	80 244 830	7,78	24 661 927	2,39	35 905 186	3,47	3 383 250	0,33	1 877 685	0,18	623 753	0,06	1 030 050	0,10
Of which is professional*	18 255 752		15 985 083		1 252 427		1 018 242		0		0		0		0	
Blekinge county	2 174 966	13,61	1 161 321	7,27	409 650	2,56	495 194	3,10	61 801	0,39	27 896	0,17	9 954	0,06	9 150	0,06
Karlskrona	532 359	16,40	273 884	8,44	94 600	2,91	137 330	4,23	13 842	0,43	6 592	0,20	2 361	0,07	3 750	0,12
Karlskrona	754 036	11,30	433 796	6,50	148 700	2,23	136 489	2,04	18 588	0,28	9 643	0,14	3 320	0,05	3 500	0,05
Olofstöm	175 736	13,06	90 253	6,71	32 100	2,39	47 655	3,54	2 868	0,21	1 640	0,12	870	0,06	350	0,03
Ronneby	433 881	14,61	226 209	7,62	85 750	2,89	100 334	3,38	10 589	0,36	7 862	0,26	2 287	0,08	850	0,03
Sölvesborg	278 953	15,97	137 179	7,85	48 500	2,78	73 386	4,20	15 913	0,91	2 159	0,12	1 116	0,06	700	0,04
Dalarna county	4 885 725	16,97	2 207 474	7,67	939 450	3,26	1 504 581	5,23	134 495	0,47	55 817	0,19	20 808	0,07	23 100	0,08
Avesta	341 586	14,72	150 919	6,50	81 950	3,53	94 914	4,09	7 624	0,33	3 237	0,14	1 142	0,05	1 800	0,08
Borlänge	691 524	13,18	288 762	5,50	137 900	2,63	218 057	4,16	24 889	0,47	14 835	0,28	4 231	0,08	2 850	0,05
Falun	930 000	15,66	440 094	7,41	155 050	2,61	298 664	5,03	20 693	0,35	9 223	0,16	3 676	0,06	2 600	0,04
Gagnef	162 330	15,75	76 841	7,45	29 650	2,88	49 078	4,76	4 569	0,44	1 291	0,13	651	0,06	250	0,02
Hedemora	243 081	15,72	97 664	6,32	57 300	3,71	74 811	4,84	8 208	0,53	2 798	0,18	1 000	0,06	1 300	0,08
Leksand	348 049	22,01	174 587	11,04	55 850	3,53	102 234	6,46	10 076	0,64	2 791	0,18	1 261	0,08	1 250	0,08
Ludvika	468 154	17,39	186 840	6,94	100 450	3,73	162 726	6,05	10 424	0,39	4 149	0,15	1 615	0,06	1 950	0,07
Malung-Sälén	307 204	30,46	117 961	11,70	70 500	6,99	105 713	10,48	5 890	0,58	3 296	0,33	1 244	0,12	2 600	0,26
Mora	435 306	21,32	218 766	10,71	65 400	3,20	132 560	6,49	9 642	0,47	4 496	0,22	1 492	0,07	2 950	0,14
Orsa	114 327	16,51	62 507	9,03	19 650	2,84	26 923	3,89	2 698	0,39	1 362	0,20	537	0,08	650	0,09
Rättvik	209 170	19,04	95 305	8,67	40 000	3,64	60 908	5,54	8 721	0,79	2 225	0,20	1 211	0,11	800	0,07
Smedjebacken	160 598	14,74	76 057	6,98	25 400	2,33	50 102	4,60	6 330	0,58	1 162	0,11	497	0,05	1 050	0,10
Säter	161 449	14,52	80 057	7,20	29 500	2,65	43 456	3,91	6 025	0,54	1 367	0,12	594	0,05	450	0,04
Vansbro	115 725	17,03	56 842	8,37	24 850	3,66	26 676	3,93	4 417	0,65	1 397	0,21	793	0,12	750	0,11
Älvdalen	197 222	28,01	84 271	11,97	46 000	6,53	57 758	8,20	4 290	0,61	2 186	0,31	867	0,12	1 850	0,26
Götlands county	994 014	16,67	454 323	7,62	196 050	3,29	291 760	4,89	31 432	0,53	9 973	0,17	5 176	0,09	5 300	0,09
Gotland	994 014	16,67	454 323	7,62	196 050	3,29	291 760	4,89	31 432	0,53	9 973	0,17	5 176	0,09	5 300	0,09
Gävleborgs county	4 795 316	16,69	2 167 851	7,54	970 700	3,38	1 440 667	5,01	112 020	0,39	50 459	0,18	16 719	0,06	36 900	0,13
Bollnäs	602 074	22,38	258 296	9,60	121 600	4,52	197 020	7,32	12 915	0,48	5 230	0,19	1 663	0,06	5 350	0,20
Gävle	1 397 210	13,66	616 735	6,03	276 200	2,70	417 203	4,08	47 378	0,46	22 928	0,22	6 966	0,07	9 800	0,10
Hofors	174 011	18,11	75 381	7,84	39 750	4,14	55 319	5,76	1 606	0,17	1 157	0,12	348	0,04	450	0,05
Hudiksvall	585 809	15,60	310 602	8,27	125 000	3,33	123 565	3,29	13 150	0,35	6 437	0,17	2 455	0,07	4 600	0,12
Ljusdal	407 732	21,53	211 750	11,18	66 450	3,51	110 302	5,82	8 389	0,44	2 536	0,13	1 205	0,06	7 100	0,37
Nordanstig	179 074	18,92	78 773	8,32	32 900	3,48	61 700	6,52	3 146	0,33	821	0,09	434	0,05	1 300	0,14
Ockelbo	104 053	17,49	39 958	6,72	25 550	4,29	34 749	5,84	2 391	0,40	447	0,08	158	0,03	800	0,13
Ovanåker	130 890	11,18	61 089	5,22	25 550	2,18	39 243	3,35	2 954	0,25	948	0,08	506	0,04	600	0,05
Sandviken	744 183	18,97	355 333	9,06	139 400	3,55	231 799	5,91	7 266	0,19	4 869	0,12	1 566	0,04	3 950	0,10
Söderhamn	470 283	18,32	159 933	6,23	118 300	4,61	169 768	6,61	12 824	0,50	5 088	0,20	1 420	0,06	2 950	0,11
Hallands county	5 007 878	15,05	2 651 227	7,97	844 300	2,54	1 280 029	3,85	131 333	0,39	54 815	0,16	19 424	0,06	26 750	0,08
Falkenberg	704 500	15,59	366 575	8,11	130 450	2,89	178 509	3,95	14 804	0,33	7 415	0,16	2 397	0,05	4 350	0,10
Halmstad	1 600 531	15,62	837 995	8,18	243 450	2,38	426 497	4,16	52 329	0,51	23 999	0,23	7 211	0,07	9 050	0,09
Hylte	172 937	15,93	68 910	6,35	42 050	3,87	56 869	5,24	3 286	0,30	1 225	0,11	497	0,05	100	0,01
Kungsbacka	1 162 048	13,83	672 719	8,01	180 400	2,15	270 432	3,22	21 895	0,26	8 627	0,10	4 475	0,05	3 500	0,04
Laholm	423 674	16,43	226 787	8,80	71 550	2,78	109 183	4,24	9 166	0,36	3 433	0,13	1 255	0,05	2 300	0,09
Varberg	944 186	14,65	478 241	7,42	176 400	2,74	238 539	3,70	29 852	0,46	10 116	0,16	3 588	0,06	7 450	0,12
Jämtlands county	2 546 914	19,49	1 209 275	9,25	472 350	3,61	736 985	5,64	52 407	0,40	31 939	0,24	10 808	0,08	33 150	0,25
Berg	151 936	21,54	67 512	9,57	28 950	4,10	48 196	6,83	3 471	0,49	1 639	0,23	818	0,12	1 350	0,19
Bräcke	149 546	23,55	77 981	12,28	23 800	3,75	43 282	6,81	2 413	0,38	961	0,15	309	0,05	800	0,13
Härjedalen	331 002	32,80	135 565	13,43	72 150	7,15	108 191	10,72	4 850	0,48	2 241	0,22	955	0,09	7 050	0,70
Krokom	214 698	14,35	103 897	6,94	42 750	2,86	59 931	4,01	4 708	0,31	1 817	0,12	795	0,05	800	0,05
Ragunda	89 367	16,81	39 567	7,44	20 250	3,81	24 510	4,61	2 176	0,40	964	0,18	300	0,06	1 600	0,30
Strömsund	223 819	19,21	83 084	7,13	54 150	4,65	75 542	6,48	6 699	0,57	2 441	0,21	753	0,06	1 150	0,10
Åre	263 198	22,77	118 854	10,28	43 850	3,79	86 982	7,52	4 941	0,43	2 502	0,22	1 269	0,11	4 800	0,42
Östersund	1 123 345	17,63	582 814	9,15	186 450	2,93	290 351	4,56	23 148	0,36	19 374	0,30	5 608	0,09	15 600	0,24
Jönköpings county	4 856 789	13,37	2 369 781	6,52	878 050	2,42	1 343 940	3,70	145 825	0,40	84 390	0,23	25 253	0,07	9 550	0,03
Aneby	118 789	17,38	67 271	9,84	18 150	2,66	29 348	4,29	2 692	0,39	785	0,11	343	0,05	200	0,03
Eksjö	283 249	15,98	122 547	6,91	60 850	3,43	89 781	5,06	5 510	0,31	2 604	0,15	1 107	0,06	850	0,05
Gislaved	468 116	15,61	245 456	8,18	67 450	2,25	130 659	4,36	14 661	0,49	6 669	0,22	2 371	0,08	850	0,03
Gnosjö	158 144	16,23	73 572	7,55	27 250	2,80	49 728	5,10	4 267	0,44	2 363	0,24	564	0,06	400	0,04

	Total		Small Appliances (excl Built-in Batteries)		Refrigerators and Freezers		Large Appliances		Batteries (incl Built-in Batteries)		Flourescent Lamps		Other Luminaries		Professional Electronics	
	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Habo	108 504	8,74	58 237	4,69	12 150	0,98	34 298	2,76	2 257	0,18	1 204	0,10	308	0,02	50	0,00
Jönköping	1 686 995	11,98	767 973	5,45	331 100	2,35	472 233	3,35	62 072	0,44	39 754	0,28	10 763	0,08	3 100	0,02
Multsjö	109 283	14,93	59 831	8,17	15 900	2,17	29 884	4,08	1 801	0,25	1 327	0,18	340	0,05	200	0,03
Nässjö	416 607	13,22	216 137	6,86	76 150	2,42	107 266	3,40	10 150	0,32	3 921	0,12	1 883	0,06	1 100	0,03
Sävsjö		0,00		0,00		0,00		0,00		0,00		0,00		0,00		0,00
Tranås	300 667	15,80	154 840	8,14	65 550	3,45	70 593	3,71	4 982	0,28	2 687	0,14	1 025	0,05	1 000	0,05
Vaggeryd	198 811	14,00	99 817	7,03	33 350	2,35	57 344	4,04	5 456	0,38	1 862	0,13	832	0,06	150	0,01
Vetlanda	509 444	18,51	250 476	9,10	100 050	3,64	137 783	5,01	11 801	0,43	6 401	0,23	1 983	0,07	950	0,03
Värnamo	498 183	14,42	253 624	7,34	70 100	2,03	135 034	3,91	20 177	0,58	14 812	0,43	3 736	0,11	700	0,02
Kalmar county	4 079 367	16,63	2 058 124	8,39	747 150	3,05	1 043 874	4,25	114 960	0,47	67 965	0,28	19 594	0,08	27 700	0,11
Borgholm	253 525	23,33	125 697	11,57	56 950	5,24	60 702	5,59	3 971	0,37	2 255	0,21	850	0,08	3 100	0,29
Emmaboda	180 793	19,11	94 492	9,99	28 650	3,03	49 467	5,23	5 213	0,55	1 512	0,16	609	0,06	850	0,09
Hultsfred	220 196	15,44	98 981	6,94	37 950	2,66	71 740	5,03	7 174	0,50	2 195	0,15	1 056	0,07	1 100	0,08
Högsby	111 348	18,69	54 039	9,07	23 750	3,99	29 426	4,94	1 872	0,31	658	0,11	353	0,06	1 250	0,21
Kalmar	866 064	12,52	441 004	6,37	165 100	2,39	218 167	3,15	24 505	0,35	8 449	0,12	3 739	0,05	5 100	0,07
Mönsterås	204 104	15,17	92 581	6,88	40 850	3,04	62 264	4,63	4 890	0,36	2 106	0,16	663	0,05	750	0,06
Mörbylånga	308 856	20,32	155 359	10,22	58 700	3,86	82 081	4,40	5 809	0,38	2 537	0,17	1 020	0,07	3 350	0,22
Nybro	370 800	18,20	173 623	8,52	59 950	2,94	91 692	4,50	18 334	0,90	20 867	1,02	3 684	0,18	2 650	0,13
Oskarshamn	374 869	13,84	195 328	7,21	73 350	2,71	74 243	2,74	14 985	0,55	11 871	0,44	2 742	0,10	2 350	0,09
Torsås	163 895	23,05	85 874	12,08	30 600	4,30	41 433	5,83	3 287	0,46	1 212	0,17	539	0,08	950	0,13
Vimmerby	308 956	19,75	161 529	10,32	48 350	3,09	86 028	5,50	5 863	0,37	4 569	0,29	917	0,06	1 700	0,11
Västervik	715 958	19,49	379 615	10,33	122 950	3,35	176 629	4,81	19 059	0,52	9 732	0,26	3 423	0,09	4 550	0,12
Kronobergs county	2 716 481	13,49	1 347 646	6,69	511 700	2,54	700 245	3,48	87 191	0,43	44 923	0,22	13 476	0,07	11 300	0,06
Alvesta	285 907	14,16	160 919	7,97	47 650	2,36	66 065	3,27	6 975	0,35	2 739	0,14	1 209	0,06	350	0,02
Lessebo	109 424	12,51	58 358	6,67	21 250	2,43	24 038	2,75	2 483	0,28	1 941	0,22	654	0,07	700	0,08
Ljungby	397 511	13,91	215 219	7,53	70 400	2,46	91 261	3,19	12 899	0,45	6 053	0,21	1 679	0,06		0,00
Markaryd	173 421	16,85	83 655	8,13	32 450	3,15	50 825	4,94	3 684	0,21	2 161	0,21	646	0,06		0,00
Tingsryd	220 924	17,82	101 585	8,20	48 250	3,89	62 870	5,07	4 966	0,40	1 240	0,10	563	0,05	1 450	0,12
Uppvidinge	91 418	9,50	39 072	4,06	20 100	2,09	26 808	2,78	3 086	0,32	1 259	0,13	443	0,05	650	0,07
Växjö	1 122 995	11,97	537 939	5,73	224 200	2,39	309 263	3,30	28 884	0,31	11 473	0,12	3 436	0,04	7 800	0,08
Älmhult	314 881	17,85	150 900	8,55	47 400	2,69	69 114	3,92	24 214	1,37	18 057	1,02	4 846	0,27	350	0,02
Norrbottens county	4 049 660	16,18	1 952 864	7,80	817 750	3,27	1 060 887	4,24	116 270	0,46	58 352	0,23	21 187	0,08	22 350	0,09
Arjeplog	44 788	16,06	32 070	11,50	4 900	1,76	5 351	1,92	1 246	0,45	550	0,20	171	0,06	500	0,18
Arvidsjaur	130 594	20,94	60 417	9,69	33 900	5,44	28 093	4,50	5 738	0,92	1 187	0,19	459	0,07	800	0,13
Boden	317 785	11,32	195 370	6,96	95 800	3,41		0,00	13 703	0,49	6 817	0,24	2 645	0,09	3 450	0,12
Gällivare	371 230	21,16	185 084	10,55	69 350	3,95	99 731	5,68	8 168	0,47	6 017	0,34	1 630	0,09	1 250	0,07
Haparanda	130 327	13,45	62 665	6,47	21 700	2,24	41 084	4,24	3 201	0,33	1 305	0,13	372	0,04		0,00
Jokkmokk	87 983	17,85	40 854	8,29	15 650	3,18	27 108	5,50	1 971	0,40	1 002	0,20	498	0,10	900	0,18
Kalix	265 246	16,65	126 691	7,95	55 350	3,48	72 056	4,52	5 951	0,37	3 396	0,21	1 152	0,07	650	0,04
Kiruna	388 065	16,94	197 223	8,61	68 800	3,00	100 020	4,37	11 254	0,49	6 251	0,27	2 267	0,10	2 250	0,10
Luleå	1 158 931	14,83	531 646	6,80	234 100	3,00	321 295	4,11	36 760	0,47	18 571	0,24	6 409	0,08	10 150	0,13
Pajala	120 210	19,76	55 881	9,19	26 650	4,38	33 169	5,45	2 898	0,48	1 121	0,18	491	0,08		0,00
Piteå	702 939	16,62	332 585	7,86	127 900	3,02	213 372	5,04	15 170	0,36	9 074	0,21	3 588	0,08	1 250	0,03
Älvsbyn	166 302	20,56	61 553	7,61	33 600	4,15	62 386	7,71	5 388	0,67	1 499	0,19	726	0,09	1 150	0,14
Överkalix	70 444	21,33	29 913	9,06	12 150	3,68	24 640	7,46	2 752	0,83	651	0,20	338	0,10		0,00
Övertorneå	94 816	21,94	40 907	9,47	17 900	4,14	32 583	7,54	2 073	0,48	911	0,21	442	0,10		0,00
Skåne county	17 089 322	12,42	9 142 769	6,65	2 477 700	1,80	4 591 675	3,34	439 374	0,32	216 754	0,16	73 850	0,05	147 200	0,11
Bjuv	75 064	4,78	43 238	2,75	13 600	0,87	15 067	0,96	2 009	0,13	640	0,04	210	0,01	300	0,02
Bromölla	114 441	8,89	47 609	3,70	25 250	1,96	33 902	2,63	3 909	0,30	1 832	0,14	689	0,05	1 250	0,10
Buröv	2 376	0,13	0	0,00		0,00		0,00	2 376	0,13	0	0,00	0	0,00		0,00
Båstad	59 733	3,96	33 563	2,23	9 700	0,64	13 327	0,88	1 455	0,10	703	0,05	285	0,02	700	0,05
Eslöv	536 863	15,90	302 054	8,94	71 400	2,11	128 823	3,81	21 160	0,63	6 832	0,20	3 194	0,09	3 400	0,10
Helsingborg	1 452 104	9,87	853 385	5,80	117 600	0,80	382 677	2,60	48 998	0,33	29 958	0,20	8 886	0,06	10 600	0,07
Hässleholm	790 801	15,15	371 589	7,12	141 900	2,72	241 446	4,63	22 639	0,43	6 337	0,12	2 990	0,06	3 900	0,07
Höganäs	345 626	12,86	180 315	6,71	53 250	1,98	98 555	3,67	6 843	0,25	2 716	0,10	1 097	0,04	2 850	0,11
Hörby	326 348	20,80	153 625	9,79	55 550	2,54	109 954	7,01	2 543	0,16	2 204	0,14	722	0,05	1 750	0,11
Höör	336 391	20,12	172 485	10,32	51 750	3,10	101 442	6,07	4 010	0,24	2 070	0,12	684	0,04	3 950	0,24

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	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Klippan	345 464	19,46	174 347	9,82	65 950	3,71	87 871	4,95	9 018	0,51	4 545	0,26	2 033	0,11	1 700	0,10
Kristianstad	1 147 304	13,40	657 906	7,69	169 350	1,98	262 840	3,07	34 411	0,40	17 065	0,20	5 732	0,07		0,00
Kävlinge	396 723	12,50	223 750	7,05	50 450	1,59	105 971	3,34	8 687	0,27	1 960	0,06	1 005	0,03	4 900	0,15
Landskrona	581 972	12,65	306 855	6,67	98 500	2,14	147 776	3,21	11 891	0,26	7 529	0,16	2 271	0,05	7 150	0,16
Lomma	1 210	0,05	0	0,00		0,00		0,00	1 210	0,05	0	0,00	0	0,00		0,00
Lund	1 334 512	10,70	757 563	6,07	178 900	1,43	328 865	2,64	34 907	0,28	12 892	0,10	6 585	0,05	14 800	0,12
Malmö	3 407 732	9,92	1 696 080	4,94	499 500	1,45	949 272	2,76	116 272	0,34	80 584	0,23	23 024	0,07	43 000	0,13
Osby	122 182	9,21	64 926	4,90	25 850	1,95	27 251	2,05	2 328	0,18	1 199	0,09	588	0,04	100	0,01
Perstorp	106 013	14,10	59 671	7,94	18 650	2,48	25 053	3,33	2 521	0,34	48	0,01	70	0,01		0,00
Simrishamn	524 875	27,30	243 183	12,65	94 050	4,89	171 580	8,93	7 587	0,39	3 830	0,20	1 345	0,07	3 300	0,17
Sjöbo	402 413	20,91	193 090	10,03	68 950	3,58	129 399	6,72	5 387	0,28	2 341	0,12	696	0,04	2 550	0,13
Skurup	332 100	20,93	161 713	10,19	58 350	3,68	98 025	6,18	5 980	0,38	2 020	0,13	712	0,04	5 300	0,33
Staffanstorps	454 625	18,11	273 775	10,90	58 250	2,32	107 720	4,29	8 380	0,33	2 077	0,08	823	0,03	3 600	0,14
Svalöv	246 504	17,29	136 394	9,56	38 650	2,71	63 300	4,44	3 630	0,25	2 460	0,17	820	0,06	1 250	0,09
Svedala	428 901	19,42	295 435	13,38	39 100	1,77	80 902	3,66	6 969	0,32	2 015	0,09	830	0,04	3 650	0,17
Tomelilla	242 716	17,88	118 065	8,70	39 750	2,93	75 088	5,53	5 413	0,40	1 762	0,13	738	0,05	1 900	0,14
Trelleborg	610 474	13,47	328 233	7,24	87 500	1,93	174 788	3,86	9 578	0,21	3 166	0,07	1 259	0,03	5 950	0,13
Vellinge	475 329	12,99	347 258	9,49	36 650	1,00	74 618	2,04	7 066	0,19	1 861	0,05	1 026	0,03	6 850	0,19
Ystad	495 031	16,23	246 165	8,07	76 100	2,50	153 145	5,02	8 549	0,28	3 987	0,13	1 085	0,04	6 000	0,20
Åstorp	221 799	13,84	123 992	7,74	36 300	2,26	55 081	3,44	3 028	0,19	1 735	0,11	613	0,04	1 050	0,07
Ångelholm	693 054	16,34	343 399	8,10	98 400	2,32	222 920	5,26	15 799	0,37	6 045	0,14	2 241	0,05	4 250	0,10
Örkelljunga	197 679	19,15	93 707	9,08	36 750	3,56	63 086	6,11	3 936	0,38	0	0,00	0	0,00	200	0,02
Östra Göinge	280 969	18,69	139 398	9,27	61 750	4,11	61 930	4,12	10 887	0,72	4 406	0,29	1 598	0,11	1 000	0,07
Stockholms county	21 294 648	8,98	10 957 715	4,62	3 595 850	1,52	5 404 082	2,28	572 767	0,24	346 287	0,15	125 697	0,05	292 250	0,12
Botkyrka	497 163	5,28	244 460	2,60	91 850	0,98	142 672	1,51	9 746	0,10	3 484	0,04	1 851	0,02	3 100	0,03
Danderyd	11 672	0,35	10 250	0,31		0,00		0,00	1 229	0,04	133	0,00	60	0,00		0,00
Ekerö	327 390	11,45	177 087	6,19	48 850	1,71	86 433	3,02	8 176	0,29	3 442	0,12	1 502	0,05	1 900	0,07
Haninge	1 041 084	11,40	398 300	4,36	314 700	3,45	295 353	3,24	12 554	0,14	6 423	0,07	2 604	0,03	11 150	0,12
Huddinge	2 438 143	21,62	1 129 855	10,02	535 950	4,75	604 984	5,36	65 002	0,58	43 690	0,39	14 362	0,13	44 300	0,39
Järfälla	496 576	6,21	248 279	3,11	51 450	0,64	109 843	1,37	42 293	0,53	12 607	0,12	9 654	0,12	2 450	0,03
Lidingö	508 423	10,56	316 881	6,58	53 450	1,11	114 913	2,39	12 215	0,25	3 776	0,08	2 338	0,05	4 850	0,10
Nacka	889 093	8,46	501 707	4,77	109 250	1,04	228 607	2,17	27 091	0,26	7 007	0,07	4 267	0,04	11 100	0,11
Nortälje	1 221 308	19,57	514 019	8,24	290 150	4,65	357 463	5,73	23 398	0,38	7 660	0,12	3 668	0,06	24 950	0,40
Nykvam		0,00		0,00		0,00		0,00		0,00		0,00		0,00		0,00
Nynäshamn	414 945	14,52	211 663	7,40	75 600	2,64	113 268	3,96	5 530	0,19	3 780	0,13	1 504	0,05	3 600	0,13
Salem	159 366	9,48	77 643	4,62	25 400	1,51	50 826	3,02	2 986	0,18	1 112	0,07	699	0,04	700	0,04
Sigtuna	472 746	9,71	243 906	5,01	75 450	1,55	119 636	2,46	12 959	0,27	12 805	0,26	3 440	0,07	4 550	0,09
Sollentuna	6 480	0,09	931	0,01		0,00		0,00	5 025	0,07	288	0,00	236	0,00		0,00
Solna	57 908	0,71	53 267	0,65		0,00		0,00	4 641	0,06	0	0,00	0	0,00		0,00
Stockholm	5 774 726	5,94	3 265 890	3,36	730 400	0,75	1 490 300	1,53	135 623	0,14	70 351	0,07	27 612	0,03	54 550	0,06
Sundbyberg	278 673	5,37	164 340	3,16	31 250	0,60	72 627	1,40	4 885	0,09	3 072	0,06	1 349	0,03	1 150	0,02
Södertälje	822 220	8,32	285 680	2,89	217 250	2,20	265 664	2,69	18 527	0,19	15 006	0,15	5 093	0,05	15 000	0,15
Tyresö	561 130	11,61	283 002	5,86	96 150	1,99	153 907	3,18	15 631	0,32	5 068	0,10	2 122	0,04	5 250	0,11
Täby	2 490 555	34,72	1 475 976	20,58	379 750	5,29	497 167	6,93	51 942	0,72	26 545	0,37	11 975	0,17	47 200	0,66
Upplands-Bro	383 835	13,11	170 693	5,83	40 550	1,38	86 382	2,95	36 724	1,25	35 267	1,20	10 419	0,36	3 800	0,13
Upplands Väsby	807 821	17,39	437 491	9,42	114 600	2,47	223 240	4,81	13 663	0,29	8 700	0,19	3 227	0,07	6 900	0,15
Vallentuna	116 048	3,40	52 223	1,53	13 300	0,39	20 634	0,61	8 242	0,24	15 870	0,47	5 179	0,15	600	0,02
Vaxholm	88 823	7,39	45 662	3,80	13 600	1,13	23 980	2,00	3 598	0,04	536	0,03	347	0,03	1 100	0,09
Värmdö	775 848	17,27	312 334	6,95	182 250	4,06	165 682	3,69	35 979	0,80	34 228	0,76	9 875	0,22	35 500	0,79
Österåker	652 674	14,39	336 175	7,41	104 650	2,31	180 502	3,98	15 107	0,33	5 378	0,12	2 312	0,05	8 550	0,19
Södermanlands county	4 166 744	14,02	1 981 395	6,67	790 750	2,66	1 230 628	4,14	68 468	0,23	42 935	0,14	15 218	0,05	37 350	0,13
Eskilstuna	1 358 592	12,73	625 188	5,86	271 600	2,54	419 392	3,93	10 217	0,10	12 758	0,12	5 237	0,05	14 200	0,13
Flen	284 842	17,18	116 998	7,06	61 300	3,70	95 712	5,77	4 964	0,30	3 009	0,18	859	0,05	2 000	0,12
Gnesta	196 079	17,29	111 046	9,79	30 350	2,68	46 472	4,10	4 083	0,36	1 828	0,16	700	0,06	1 600	0,14
Katrineholm	584 849	16,84	259 178	7,46	109 850	3,16	196 015	5,64	7 928	0,23	7 913	0,23	1 515	0,04	2 450	0,07
Nyköping	704 434	12,45	359 468	6,35	121 600	2,15	185 511	3,28	18 249	0,32	9 283	0,16	3 023	0,05	7 300	0,13
Oxelösund	173 594	14,53	64 084	5,36	51 300	4,29	50 039	4,19	3 428	0,29	1 889	0,16	904	0,08	1 950	0,16

	Total		Small Appliances (excl Built-in Batteries)		Refrigerators and Freezers		Large Appliances		Batteries (incl Built-in Batteries)		Flourescent Lamps		Other Luminaries		Professional Electronics	
	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Strängnäs	439 198	12,07	225 037	6,18	77 750	2,14	119 052	3,27	9 128	0,25	3 498	0,10	1 433	0,04	3 300	0,09
Trosa	266 041	19,49	139 037	10,19	39 450	2,89	75 532	5,53	5 703	0,42	1 709	0,13	1 010	0,07	3 600	0,26
Vingåker	159 118	17,44	81 358	8,92	27 550	3,02	42 904	4,70	4 770	0,52	1 049	0,12	537	0,06	950	0,10
Uppsala county	4 361 519	11,40	2 130 487	5,57	778 200	2,03	1 213 635	3,17	105 367	0,28	64 215	0,17	22 515	0,06	47 100	0,12
Enköping	577 755	12,82	284 189	6,31	95 850	2,13	169 940	3,77	8 551	0,19	6 292	0,14	1 983	0,04	10 950	0,24
Heby	238 295	16,97	111 284	7,92	45 200	3,22	69 978	4,98	6 288	0,45	2 541	0,18	754	0,05	2 250	0,16
Häbo	370 125	16,93	198 575	9,08	44 950	2,06	114 279	5,23	5 281	0,24	2 571	0,12	1 269	0,06	3 200	0,15
Knivsta	210 425	11,15	101 814	5,39	21 350	1,13	47 922	2,54	17 843	0,95	17 001	0,90	4 045	0,21	450	0,02
Tierp	294 680	13,95	131 199	6,21	61 050	2,89	88 308	4,18	6 446	0,31	3 361	0,16	1 117	0,05	3 200	0,15
Uppsala	2 150 473	9,35	1 050 130	4,57	396 450	1,72	590 683	2,57	51 237	0,22	28 961	0,13	11 982	0,05	21 050	0,09
Älvkarleby	140 247	14,82	66 640	7,04	26 650	2,82	42 445	4,48	2 039	0,22	886	0,09	387	0,04	1 200	0,13
Östhammar	379 520	17,09	186 658	8,41	86 700	3,90	90 079	4,06	7 682	0,35	2 602	0,12	999	0,04	4 800	0,22
Värmlands county	4 287 262	15,18	2 097 265	7,43	844 000	2,99	1 154 084	4,09	108 695	0,38	48 649	0,17	17 019	0,06	17 550	0,06
Arvika	448 731	17,18	186 297	7,13	97 400	3,73	146 713	5,62	11 009	0,42	4 075	0,16	1 537	0,06	1 700	0,07
Eda	121 640	14,14	62 176	7,23	23 250	2,70	31 669	3,68	2 940	0,34	859	0,10	296	0,03	450	0,05
Filipstad	194 072	18,17	99 851	9,35	36 400	3,41	49 883	4,67	5 618	0,53	1 254	0,12	516	0,05	550	0,05
Forsgåa	160 266	13,91	86 915	7,54	25 500	2,21	41 204	3,58	3 608	0,31	1 589	0,14	500	0,04	950	0,08
Grums	176 472	19,50	87 402	9,66	35 350	3,91	47 447	5,24	3 747	0,41	1 048	0,12	328	0,04	1 150	0,13
Hagfors	228 649	19,63	111 858	9,60	46 950	4,03	62 572	5,37	4 221	0,36	1 951	0,17	747	0,06	350	0,03
Hammarö	195 199	11,76	107 175	6,46	29 650	1,79	49 204	2,96	6 316	0,38	2 007	0,12	647	0,04	200	0,01
Karlstad	1 228 552	13,12	647 327	6,91	251 750	2,69	257 252	2,75	35 923	0,38	21 349	0,23	7 301	0,08	7 650	0,08
Kil	186 444	15,48	81 707	6,78	38 550	3,20	55 933	4,64	6 031	0,50	2 721	0,23	852	0,07	650	0,05
Kristinehamn	463 360	19,10	235 306	9,70	89 300	3,68	122 303	5,04	8 723	0,36	3 954	0,16	1 224	0,05	2 550	0,11
Munkfors	91 837	24,48	32 226	8,59	24 800	6,61	30 887	8,23	2 712	0,72	782	0,21	280	0,07	150	0,04
Storfors	66 668	16,64	28 965	7,23	12 450	3,11	23 112	5,77	1 235	0,31	482	0,12	224	0,06	200	0,05
Sunne	266 416	20,04	123 273	9,27	44 350	3,34	91 565	6,89	4 577	0,34	1 770	0,13	881	0,07		0,00
Säffle	1 353	0,09	0	0,00		0,00		0,00	1 124	0,07	180	0,01	49	0,00		0,00
Torsby	255 746	21,95	102 434	8,79	57 000	4,89	86 741	7,44	5 778	0,50	1 861	0,16	932	0,08	1 000	0,09
Ärjäng	201 863	20,02	104 354	10,35	31 300	3,10	57 600	5,71	5 134	0,51	2 769	0,27	706	0,07		0,00
Västerbottens county	4 312 032	15,88	2 050 734	7,55	876 100	3,23	1 178 134	4,34	101 024	0,37	62 367	0,23	20 523	0,08	23 150	0,09
Bjurholm	47 462	19,52	21 859	8,99	13 450	5,53	10 127	4,16	861	0,35	620	0,25	195	0,08	350	0,14
Dorotea	41 921	16,43	23 852	9,35	7 550	2,96	8 499	3,33	1 338	0,52	474	0,19	208	0,08		0,00
Lycksele	217 817	17,76	103 261	8,42	58 550	4,77	47 707	3,89	3 855	0,31	2 173	0,18	771	0,06	1 500	0,12
Malå	49 731	16,09	19 481	6,30	15 350	4,97	12 570	4,07	1 138	0,37	540	0,17	202	0,07	450	0,15
Nordmaling	107 793	15,06	59 306	8,28	28 800	4,02	14 996	2,09	2 719	0,38	1 388	0,19	534	0,07	50	0,01
Norsjö	69 304	17,34	25 434	6,36	22 500	5,63	18 976	4,75	869	0,22	1 156	0,29	369	0,09		0,00
Robertsfors	112 927	16,71	48 749	7,21	24 500	3,62	35 115	5,20	2 361	0,35	1 616	0,24	586	0,09		0,00
Skellefteå	1 153 170	15,89	579 283	7,98	215 650	2,97	305 987	4,22	28 310	0,39	13 446	0,19	5 494	0,08	5 000	0,07
Sorsele	54 042	21,60	27 047	10,81	6 750	2,70	18 290	7,31	1 256	0,50	499	0,20	150	0,06	50	0,02
Storuman	142 670	24,38	63 094	10,78	30 100	5,14	44 327	7,57	3 006	0,51	1 384	0,24	459	0,08	300	0,05
Umeå	1 799 355	13,99	836 435	6,50	350 300	2,72	510 152	3,97	46 691	0,36	33 999	0,26	9 778	0,08	12 000	0,09
Vilhelmina	171 440	25,66	78 369	11,73	37 100	5,55	49 713	7,44	3 274	0,49	1 961	0,29	573	0,09	450	0,07
Vindeln	116 759	21,56	55 890	10,32	24 000	4,43	31 869	5,88	1 367	0,25	1 051	0,19	282	0,05	2 300	0,42
Vännäs	150 477	17,05	66 184	7,50	31 950	3,62	46 693	5,29	2 966	0,34	1 452	0,16	682	0,08	550	0,06
Asele	77 166	27,60	42 488	15,20	9 550	3,42	23 113	8,27	1 016	0,36	606	0,22	243	0,09	150	0,05
Västernorrlands county	3 975 971	16,19	1 982 775	8,07	787 000	3,20	974 530	3,97	120 733	0,49	58 772	0,24	17 461	0,07	34 700	0,14
Härnösand	465 088	18,47	261 868	10,40	73 500	2,92	106 968	4,25	10 634	0,42	5 825	0,23	2 593	0,10	3 700	0,15
Kramfors	364 285	19,84	185 866	10,12	67 250	3,66	100 606	5,48	4 526	0,25	2 628	0,14	609	0,03	2 800	0,15
Sollefteå	468 881	24,33	238 227	12,36	79 650	4,13	136 943	7,10	6 268	0,33	3 893	0,20	1 000	0,05	2 900	0,15
Sundsvall	1 272 069	12,80	663 258	6,67	275 550	2,77	267 868	2,70	29 869	0,30	16 047	0,16	5 127	0,05	14 350	0,14
Timrå	169 764	9,43	54 020	3,00	52 700	2,93		0,00	40 564	2,25	17 651	0,98	3 979	0,22	850	0,05
Ånge	199 693	21,41	81 353	8,72	46 900	5,03	63 407	6,80	4 871	0,52	968	0,10	344	0,04	1 850	0,20
Örnsköldsvik	1 036 190	18,48	498 183	8,89	191 450	3,42	298 738	5,33	24 001	0,43	11 759	0,21	3 809	0,07	8 250	0,15
Västmanlands county	3 942 266	14,31	2 050 095	7,44	715 350	2,60	967 092	3,51	84 890	0,31	43 644	0,16	13 845	0,05	67 350	0,24
Arboga	310 178	21,93	155 666	11,01	63 200	4,47	78 717	5,57	6 781	0,48	2 323	0,16	941	0,07	2 550	0,18
Fagersta	260 716	19,48	110 386	8,25	50 500	3,77	91 627	6,84	4 378	0,33	1 734	0,13	541	0,04	1 550	0,12
Hallsthammar	219 002	13,47	113 372	6,97	40 350	2,48	55 958	3,44	4 273	0,26	2 181	0,13	668	0,04	2 200	0,14

	Total		Small Appliances (excl Built-in Batteries)		Refrigerators and Freezers		Large Appliances		Batteries (incl Built-in Batteries)		Flourescent Lamps		Other Luminaries		Professional Electronics	
	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Kungsör	110 826	12,80	57 735	6,67	21 950	2,54	25 595	2,96	3 324	0,38	819	0,09	403	0,05	1 000	0,12
Köping	414 620	15,80	205 405	7,83	83 250	3,17	107 298	4,09	9 041	0,34	4 548	0,17	1 628	0,06	3 450	0,13
Norberg	93 421	16,33	49 064	8,57	16 150	2,82	24 722	4,32	1 769	0,31	629	0,11	287	0,05	800	0,14
Sala	397 556	17,39	202 651	8,86	63 500	2,78	116 779	5,11	6 817	0,30	2 724	0,12	985	0,04	4 100	0,18
Skinnkatteberg	82 249	18,78	38 067	8,69	16 000	3,65	24 015	5,48	1 962	0,45	428	0,10	177	0,04	1 600	0,37
Surahammar	123 795	12,28	69 307	6,87	19 350	1,92	30 319	3,01	2 429	0,24	803	0,08	337	0,03	1 250	0,12
Västerås	1 929 904	12,55	1 048 442	6,82	341 100	2,22	412 062	2,68	44 115	0,29	27 455	0,18	7 880	0,05	48 850	0,32
Västra Götalands county	19 310 751	11,20	9 167 311	5,32	3 841 450	2,23	5 250 152	3,05	528 718	0,31	331 074	0,19	105 146	0,06	86 900	0,05
Ale	289 023	9,23	155 153	4,95	41 200	1,32	80 682	2,58	8 425	0,27	2 272	0,07	891	0,03	400	0,01
Alingsås	490 607	11,88	195 031	4,72	132 950	3,22	139 581	3,38	14 296	0,35	5 369	0,13	2 350	0,06	1 050	0,03
Bengtstors	172 954	17,63	87 572	8,93	33 700	3,44	46 081	4,70	3 308	0,34	1 409	0,14	384	0,04	500	0,05
Bollebygd	157 448	16,59	71 989	7,59	26 950	2,84	51 736	5,45	3 521	0,37	1 824	0,19	728	0,08	700	0,07
Borås	1 457 513	12,91	807 003	7,15	231 850	2,05	330 383	2,93	50 644	0,45	26 643	0,24	7 840	0,07	3 150	0,03
Dals-Ed	86 861	18,01	38 013	7,88	17 050	3,54	29 692	6,16	540	0,11	1 230	0,26	236	0,05	100	0,02
Essunga	80 737	14,26	38 826	6,86	16 500	2,91	23 112	4,08	1 500	0,26	497	0,09	202	0,04	100	0,02
Falköping	522 709	15,75	255 612	7,70	102 350	3,08	144 484	4,35	11 019	0,33	5 837	0,18	1 957	0,06	1 450	0,04
Färgelanda	101 021	15,28	45 145	6,83	18 750	2,84	32 686	4,94	2 985	0,45	670	0,10	285	0,04	500	0,08
Grästorp	89 955	15,80	37 522	6,59	13 500	2,37	33 501	5,89	2 364	0,42	1 569	0,28	399	0,07	1 100	0,19
Gullspång	104 049	19,67	47 131	8,91	19 150	3,62	32 941	6,23	3 022	0,57	928	0,18	327	0,06	550	0,10
Göteborg	3 486 895	6,03	1 615 173	2,79	714 200	1,23	834 258	1,44	121 695	0,21	128 405	0,22	38 914	0,07	34 250	0,06
Götene	196 451	14,85	99 667	7,53	29 150	2,20	60 166	4,55	4 782	0,36	1 409	0,11	577	0,04	700	0,05
Herrljunga	129 522	13,59	57 145	5,99	23 050	2,42	44 904	4,71	2 328	0,24	959	0,10	486	0,05	650	0,07
Hjo	196 176	21,30	88 089	9,57	32 650	3,55	69 656	7,56	3 542	0,38	1 191	0,13	598	0,06	450	0,05
Härjeda	376 550	9,91	201 922	5,32	59 100	1,56	99 550	2,62	9 155	0,24	3 904	0,10	1 469	0,04	1 450	0,04
Karlsborg	171 395	24,67	82 582	11,89	28 000	4,03	53 133	7,65	4 407	0,63	1 677	0,24	546	0,08	1 050	0,15
Kungälv	629 960	13,68	296 104	6,43	120 150	2,61	188 822	4,10	13 552	0,29	5 740	0,12	2 342	0,05	3 250	0,07
Lerum	529 901	12,47	316 726	7,45	81 300	1,91	116 697	2,75	9 090	0,21	2 932	0,07	1 506	0,04	1 650	0,04
Lidköping	578 352	14,41	287 468	7,16	95 100	2,37	168 022	4,19	18 190	0,45	5 557	0,14	2 165	0,05	1 850	0,05
Lilla Edet	156 943	11,12	78 289	5,55	31 500	2,23	42 379	3,00	2 572	0,18	1 265	0,09	488	0,03	450	0,03
Lysekil	243 741	16,67	105 766	7,23	48 500	3,32	78 299	5,35	5 576	0,38	3 329	0,23	771	0,05	1 500	0,10
Mariestad	436 153	17,79	200 733	8,19	105 350	4,30	113 362	4,62	9 899	0,40	3 773	0,15	1 536	0,06	1 500	0,06
Mark	484 260	13,90	261 653	7,51	76 000	2,18	128 509	3,69	10 116	0,29	5 280	0,15	1 452	0,04	1 250	0,04
Mellerud	150 587	16,16	63 520	6,82	41 850	4,49	38 164	4,09	3 640	0,39	1 721	0,18	742	0,08	950	0,10
Munkedal	194 341	18,43	91 364	8,67	35 250	3,34	61 128	5,80	4 476	0,42	1 592	0,15	481	0,05	50	0,00
Mölnådal	896 914	12,97	366 653	5,30	288 150	4,17	215 615	3,12	15 859	0,23	7 371	0,11	3 266	0,05		0,00
Orust	300 392	19,69	140 757	9,23	60 150	3,94	88 520	5,80	6 155	0,40	2 202	0,14	1 008	0,07	1 600	0,10
Partille	280 893	7,19	136 202	3,49	89 300	2,29	48 158	1,23	3 571	0,09	2 321	0,06	991	0,03	350	0,01
Skara	254 854	13,54	115 200	6,12	42 600	2,26	84 716	4,50	5 730	0,30	3 765	0,20	1 393	0,07	1 450	0,08
Skövde	612 760	10,92	335 105	5,97	68 200	1,22	162 234	2,89	20 122	0,36	22 013	0,39	4 336	0,08	750	0,01
Sötenäs	329 142	36,35	181 905	20,09	56 450	6,23	69 997	7,73	10 819	1,19	4 491	0,50	1 980	0,22	3 500	0,39
Stenungsund	339 982	12,73	127 989	4,79	81 650	3,06	113 016	4,23	8 156	0,31	6 565	0,25	2 006	0,08	600	0,02
Strömstad	224 555	16,98	72 328	5,47	64 750	4,90	74 330	5,62	6 130	0,46	3 395	0,26	1 022	0,08	2 600	0,20
Svenljunga	183 733	17,06	90 727	8,42	36 200	3,36	45 234	4,20	8 527	0,79	1 507	0,14	788	0,07	750	0,07
Tanum	256 954	19,99	97 642	7,60	58 300	4,54	94 013	7,31	1 990	0,15	2 281	0,18	528	0,04	2 200	0,17
Tibro	210 870	18,81	91 535	8,17	42 900	3,83	66 628	5,94	6 958	0,62	2 203	0,20	596	0,05	50	0,00
Tidaholm	188 549	14,64	86 737	6,74	38 300	2,97	55 693	4,33	5 364	0,42	1 501	0,12	804	0,06	150	0,01
Tjörn	200 225	12,49	91 514	5,71	39 650	2,47	61 956	3,87	4 001	0,25	1 767	0,11	637	0,04	700	0,04
Tranemo	207 145	17,38	108 383	9,10	33 600	2,82	56 737	4,76	4 356	0,37	2 205	0,19	1 014	0,09	850	0,07
Trollhättan	620 427	10,51	262 224	4,44	123 500	2,09	191 972	3,25	23 456	0,40	13 675	0,23	4 050	0,07	1 550	0,03
Töreboda	120 631	12,99	57 929	6,24	22 700	2,45	34 078	3,67	3 925	0,42	1 263	0,14	586	0,06	150	0,02
Uddevalla	655 114	11,55	301 797	5,32	136 300	2,40	181 079	3,19	22 203	0,39	8 421	0,15	2 714	0,05	2 600	0,05
Ulricehamn	319 845	13,01	141 391	5,75	66 550	2,71	95 994	3,91	9 726	0,40	3 806	0,15	1 478	0,06	900	0,04
Vara	284 482	17,74	127 291	7,94	62 450	3,89	78 531	4,90	8 008	0,50	6 028	0,38	1 424	0,09	750	0,05
Vårgårda	153 645	13,04	69 590	5,91	34 900	2,96	41 150	3,49	4 537	0,39	1 689	0,14	779	0,07	1 000	0,08
Vänersborg	445 463	11,25	202 281	5,11	98 150	2,48	125 823	3,18	11 176	0,28	5 263	0,13	1 520	0,04	1 250	0,03
Ämål	511 991	40,54	242 423	19,20	88 500	7,01	160 268	12,69	9 303	0,74	8 586	0,68	1 911	0,15	1 000	0,08
Öckerö	198 100	15,31	94 512	7,30	33 100	2,56	62 506	4,83	4 008	0,31	1 780	0,14	644	0,05	1 550	0,12

	Total		Small Appliances (excl Built-in Batteries)		Refrigerators and Freezers		Large Appliances		Batteries (incl Built-in Batteries)		Flourescent Lamps		Other Luminaries		Professional Electronics	
	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/ inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants	Kilos	Kilos/inhabitants
Örebro county	4 219 860	13,86	2 129 979	7,00	701 200	2,30	1 126 574	3,70	120 566	0,40	94 728	0,31	24 413	0,08	22 400	0,07
Askersund	213 600	18,80	100 433	8,84	49 800	4,38	53 480	4,71	5 898	0,52	1 750	0,15	1 139	0,10	1 100	0,10
Degerfors	143 243	14,81	70 521	7,29	28 250	2,92	38 020	3,93	4 092	0,42	1 623	0,17	587	0,06	150	0,02
Hallsberg	227 097	14,24	117 651	7,38	42 500	2,67	55 636	3,49	5 956	0,37	2 427	0,15	627	0,04	2 300	0,14
Hällefors	131 581	18,85	69 165	9,91	29 200	4,18	28 122	4,03	2 538	0,36	828	0,12	328	0,05	1 400	0,20
Karlskoga	534 299	17,57	229 008	7,53	98 450	3,24	187 256	6,16	9 144	0,30	7 314	0,24	2 277	0,07	850	0,03
Kumla	317 355	14,62	155 967	7,18	44 650	2,06	84 966	3,91	13 459	0,62	14 485	0,67	2 978	0,14	850	0,04
Laxå	109 974	19,31	54 142	9,51	22 250	3,91	29 619	5,20	2 770	0,48	716	0,13	227	0,04	250	0,04
Lekeberg	120 363	14,62	58 924	7,16	19 600	2,38	37 076	4,50	3 045	0,37	738	0,09	280	0,03	700	0,09
Lindesberg	314 960	13,35	137 972	5,85	62 200	2,64	101 924	4,32	7 885	0,33	3 241	0,14	888	0,04	850	0,04
Ljusnarsberg	94 533	19,85	46 446	9,75	18 000	3,78	27 670	5,81	1 309	0,27	669	0,14	139	0,03	300	0,06
Nora	201 670	18,80	98 325	9,16	33 250	3,10	62 732	5,85	4 314	0,40	1 774	0,17	875	0,08	400	0,04
Örebro	1 811 186	11,66	991 423	6,38	253 050	1,63	420 073	2,70	60 155	0,39	59 166	0,38	14 069	0,09	13 250	0,09
Östergötlands county	6 303 443	13,56	2 989 335	6,43	1 214 750	2,61	1 798 196	3,87	144 914	0,31	81 732	0,18	25 666	0,06	48 850	0,11
Boxholm	79 775	14,62	39 348	7,21	12 000	2,20	24 941	4,57	2 078	0,38	842	0,15	366	0,07	200	0,04
Finspång	377 605	17,25	169 345	7,74	69 500	3,18	124 978	5,71	7 345	0,34	2 897	0,13	1 240	0,06	2 300	0,11
Kinda	168 123	16,90	78 775	7,92	32 400	3,26	51 088	5,14	3 198	0,32	1 679	0,17	433	0,04	550	0,06
Linköping	1 836 583	11,28	884 419	5,43	340 050	2,09	509 890	3,13	45 066	0,28	28 084	0,17	9 024	0,06	20 050	0,12
Mjölby	472 053	17,06	229 242	8,28	83 750	3,03	144 027	5,20	8 172	0,30	4 754	0,17	1 258	0,05	850	0,03
Motala	621 632	14,23	346 796	7,94	91 000	2,08	153 912	3,52	14 706	0,34	8 585	0,20	2 583	0,06	4 050	0,09
Norrköping	2 040 604	14,29	932 868	6,53	433 300	3,03	573 570	4,02	47 850	0,34	28 512	0,20	8 154	0,06	16 350	0,11
Söderköping	162 413	11,08	79 118	5,40	31 400	2,14	44 577	3,04	3 957	0,27	1 183	0,08	828	0,06	1 350	0,09
Vadstena	124 423	16,65	61 733	8,26	21 800	2,92	36 528	4,89	1 829	0,24	1 003	0,13	380	0,05	1 150	0,15
Valdemarsvik	170 449	21,57	68 821	8,71	38 900	4,92	56 950	7,21	3 337	0,42	1 251	0,16	340	0,04	850	0,11
Ydre	35 791	9,48	21 301	5,64	12 100	3,20		0,00	1 647	0,44	511	0,14	182	0,05	50	0,01
Åtvidaberg	138 706	12,06	47 457	4,13	32 550	2,83	51 530	4,48	4 256	0,37	1 460	0,13	503	0,04	950	0,08
Ödeshög	75 287	14,10	30 110	5,64	16 000	3,00	26 207	4,91	1 474	0,28	970	0,18	376	0,07	150	0,03

*=Not part of the municipal collection. Waste delivered straight to a pre-treatment facility.



El-Kretsen 

Sustainability Report 2019

