

30 years and not even slightly tired

2020 Annual Report

In its 30 years of operations, SENS eRecycling has achieved a great deal. All in all, 1.2 million tonnes of used electrical and electronic appliances have been collected and recycled with the help of specialist retailers, collection points and recyclers. By employing environmentally friendly and professional methods, a great many tonnes of recyclable materials have been recovered, such as iron, copper and aluminium. This also prevented some 3,700 tonnes of hazardous emissions from being released into the atmosphere through the incineration of these materials. We have to thank our well-functioning take-back system and all its partners for these positive figures. Professional recycling operations ensure that waste does not remain worthless, but rather becomes valuable once again.

SENS – From us for you

Although the healthy collaboration with our partners makes it possible to implement a take-back system, it is the enthusiasm of everyone involved in the eRecycling cycle that makes this system a success, with new exciting developments inspiring us every year.

Read on and find out what we have achieved together in the past year.

Foreword by the Foundation Honorary President 30 years of SENS eRecycling

“Even when I was young, I already had great respect and an appreciation of what Native Americans had done with the environment. Closing cycles was a concern of mine from an early age.”

I opened the anniversary film celebrating 30 years of SENS eRecycling with this statement. The development of the SENS vision has spurred me on since the 1980s and I am proud that the basic principles that we developed back then are still adhered to 30 years later.

We are now focusing our attention more than ever on the actions that the Native Americans took as a matter of course all those years ago. The holistic approach of the circular economy is (I would almost like to say “Finally!”) an issue that everyone is talking about and is encouraging every sector to give some thought to the recovery of raw materials as well as the design, production, distribution, use and even the recycling of a product. In so doing, it is setting the course so that every sector is on the right track going forwards.

When we look at our return rates for waste electrical equipment, we are at the top of the international rankings with an average of 95 per cent. People in Switzerland are active supporters of professional disposal and in terms of closing the cycles of materials – with 16 kilograms of electronic waste returned per person per year, we can assume that waste electrical equipment will find its way back in the cycle in Switzerland as secondary raw materials. These 16 kilograms of electronic waste also tells us a great deal about our consumption and lifestyle – as the amount of electronic waste increases year on year. Electronic waste is the fastest-growing waste stream in the world. The United Nations (UN) estimates that an unbelievable 74.7 million tonnes of electronic waste will have been generated by 2030. This highlights the significance of professional recycling and thus the recovery and reuse of recyclable materials. The figures are clear and impactful.

My fascination with closing cycles inspires me as much today as it did in my youth and I am still not at all tired of developing new ideas aimed at protecting our environment. After 30 years, it is with a little pride and a lot of gratitude that I can hand over the responsibility to the next generation. Handing over the presidency to my colleague on the Board of Trustees Dirk Hoffmann is by no means an ending for SENS, but rather an impetus for further development in a dynamic market with major and new challenges. Dirk Hoffmann is a man of action who passionately promotes sustainability and circular economy, is a people person and is convinced of the power of visions. With his experience, expertise and creativity, he is precisely the right person for us and our partners.

I would like to say thank you for 30 exciting, inspiring, challenging and most notably rewarding years with SENS eRecycling. The future of SENS is in good hands.

Andreas Röthlisberger

Foreword by the Managing Director

We're the place to be!

Zoom, Teams, GoToMeeting – digital is the new normal – and this has definitely thrown some people over the last year. The fact that we in the SENS eRecycling team held our meetings, maintained daily contact with our partners and were even able to enjoy our 9.00 a.m. coffee together virtually on the first day of the home-office recommendation highlights our agility and flexibility in terms of digitalisation.

Do not get me wrong, the coronavirus pandemic also impacted us and after my words on the pandemic in the last Annual Report, who would have thought that we would still be dealing with this difficult situation today. However, the variety of projects that we have successfully completed together – even in these extraordinary times – shows me that we are on the right track. Because once again this is proof of how valuable a collaborative partnership is – digitally and in the real world.

For example, the SENS CITY anniversary tour that we had planned was quickly arranged to be held virtually. With various stops and promotional campaigns across Switzerland, we had wanted to meet you all in person, say thank you for the joint milestones we reached and forge plans for the next 30 years. And then everything changed in March 2020, as you already know. Our SENS CITY tour was widely appreciated, with the numerous instances of positive feedback we received showing that we can also apply a personal touch online.

On 14 October 2020, which is International E-Waste Day, we sent out 100,000 letters – each accompanied with a recycling bag – to households in Zurich and Bern to find out whether there was a demand among our population for electronic waste to be collected from individual post boxes by post. We had already received the first positive feedback on home collection in 2019, and so were floored by the positive feedback we gained in our second pilot test. With more than 7,000 filled recycling bags and more than 9,000 kilograms of electronic waste collected, we were totally overwhelmed by the number of “Yes” votes we received to this question, not to mention the positive posts on social media, the lovely telephone calls and the comments on our website. We will definitely revisit this campaign in 2021 – or even immediately!

In our voluntary system, the contractual partners make the decision themselves as to whether they want to support us or not. The fact that we concluded more than 100 new contracts in the last year alone and in doing so gained an additional 100 supporters for the SENS take-back system is sensational. Working together constructively with our partners, we are developing eRecycling further with a constant focus on sustainability and the conservation of resources. This is a success model that puts us in a good position for the next 30 years.

It gives me great pleasure to be able to shine a light on the highlights of our 2020 in this Annual Report. I know which is my favourite project, as that was where everything was really happening! I am interested to hear about which is your favourite.

With warm regards
Heidi Luck

Foreword by the President of the SENS Foundation

An impressive start

Over the course of my career, I have been able to meet, support and shape many large, successful and sustainable companies. Receiving the international IF Design Award for our SENS City campaign just as I am taking over the presidency of SENS eRecycling has made my start with SENS twice as impressive an experience as it already was.

Firstly, I have big shoes to fill: those of our freshly appointed honorary president, Dr Andreas Röthlisberger. He spent the past 30 years making SENS what it is and paving my way with admirable ambition, imagination and courage. I find the Foundation's achievements incredibly impressive from an ecological and entrepreneurial point of view, and I look forward to leading it further along its path.

This brings me to my second point. To me, the IF Design Award represents what SENS eRecycling already is and what it will continue to be: ambitious, independent and confident. Every day, we overcome new challenges, set ourselves ambitious goals and grow as we strive for the goal we share with our customers and partners: to become even better.

I look forward to my time with SENS eRecycling and cannot wait to meet you all in person soon.

Yours
Dirk Hoffmann

30 years of SENS eRecycling

The key milestones

What are your fondest memories of the last 30 years? At SENS eRecycling, there are a couple of key milestones that we would like to reminisce about before focusing on the joint projects from 2020.

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|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1990 | Founding of Swiss Disposal Foundation (Stiftung Entsorgung – S.EN.S). Aim: a disposal system for appliances and batteries which allows for a reasonably optimised cycle of materials – from production to disposal. |
| 1991 | Introduction of a nationwide disposal service for refrigerators in Switzerland using a disposal sticker. |
| 1992/93 | The Swiss Interest Group for the Disposal of Electrical Appliances (Interessensgemeinschaft Elektroapparate-Entsorgung Schweiz – IGEE) is founded to develop a concept for a nationwide recycling system. Its ideas remain in effect to this date. |
| 1998 | With the ORDEE, the Swiss Federal Council enacts an ordinance on the return, taking back and disposal of electrical and electronic equipment. An overall system is set up. |
| 2002 | Founding of the WEEE Forum (Waste Electrical and Electronic Equipment). The laws, targets and standards set out in Switzerland are adopted by the European members. |
| 2003 | The advance recycling fee (ARF) is introduced and the take-back and disposal obligations for manufacturers and importers are extended to include all electrical and electronic household appliances. Number of S.EN.S contractual partners: 65. |
| 2005 | The construction, garden and hobby equipment and toys sectors join the disposal system. In the same year, S.EN.S is commissioned by the Swiss Lighting Recycling Foundation (SLRS) with the operational management of the disposal of lamps and lighting equipment. |
| 2008 | The disposal system now has more than 600 manufacturers and importers as members. The number of waste electrical and electronic appliances taken back and processed is rising constantly. eRecycling goes international with SENS International (now known as the Fair Recycling Foundation). |
| 2010 | SENS launches the e-Recycling.ch quality label, which it awards to partners that meet the highest quality standards. |
| 2013 | Collaboration with the Swissolar industry association: photovoltaic equipment is now accepted in the recycling programme. |
| 2015 | SENS eRecycling celebrates its 25th anniversary. |
| 2018 | The first International E-Waste Day takes place. The aim of this day is to promote the recycling of electrical and electronic appliances. SENS eRecycling participates in celebrating this day. |
| 2020 | SENS CITY – 30 years of eRecycling. SENS goes on an anniversary tour of Switzerland. |

eRecycling – just my thing

The promotional film for the 30th anniversary

The eRecycling system in Switzerland is one of the most successful in the world. The return rates are two to three times higher than in most other European countries. The benefits for the environment are impressive. Where does this success come from?

During the past 30 years, SENS eRecycling has succeeded in developing a take-back system for electrical and electronic appliances in Switzerland that sets pioneering international standards. Who are the players who make this successful system possible? How exactly does the recycling process work? How is everything financed? And what does the future look like? Will electrical and electronic appliances soon dispose of themselves?

The five-part film series by the Lucerne film-maker Till Gmür shows the exciting journey of 30 years of eRecycling in Switzerland. With spectacular images, each episode tells of the power of innovative ideas – and the efficiency of solutions that are based on the principle of voluntary participation and taking personal economic responsibility.

Conclusion

The world of electronic waste is fascinating, interesting and motivating – as is shown by the contributions from our partners as well as from the feedback provided by the world of research, the population and the SENS team.

SENS City

On the anniversary tour of Switzerland

To mark its 30-year anniversary, SENS eRecycling is saying thank you to its contractual partners, collection points, logistics companies, recyclers and, of course, the consumers. We carried out a virtual tour of Switzerland – without visiting any of the stops in person – and showcased what we have achieved together and what we have in store for the future.

The SENS CITY tour was planned completely differently – with various stops and promotional campaigns across Switzerland, we had wanted to meet you all in person, say thank you for the joint milestones we reached and forge plans for the next 30 years. During the planning of the SENS CITY tour, it quickly became apparent that a trip through Switzerland would not be possible. We still wanted to say thank you to everyone and the SENS CITY tour was thus transformed into a virtual tour in just a few weeks. Anyone who was interested was able to join us on the tour of Switzerland and find out all about the fascination of eRecycling. Our ARF and disposal partners enhanced the regional stops with insights into their industries and we provided people with information about eRecycling and the motivation to take it up as we moved across Switzerland.

Conclusion

You can never say thank you too many times and this makes people happy, even when it is done virtually.

Hygiene station

Get to know our new contractual partners

More than 100 new contractual partners have joined the SENS take-back system in the past year. Particularly in times in which environmental protection is met with barely any interest in the media, it is all the more pleasing that we have gained so many supporters for eRecycling. For example, have you heard of the company RUOSSTECH AG? Maybe you haven't yet, but you should be familiar with company's products by now.

Household appliances, lighting equipment and refrigerators are the most well-known appliance categories in our take-back system. We have become so well established in this area that consumers often ask about the ARF when making a purchase. What many people don't know is that we regularly update our appliance list of electrical and electronic appliances that are subject to the ARF and proactively approach companies that manufacture, import or sell new electrical or electronic appliances commercially.

We are extremely delighted to gain a new contractual partner in RUOSSTECH AG (sheet metal working and electrical engineering), which has just celebrated its 100-year anniversary. With their latest proprietary product – a hygiene station with an infrared thermometer – they are selling a state-of-the-art electrical appliance for which there wasn't widespread interest only a few months ago.

In the company's mission statement, the employees describe quality as being a company trademark and that their ambition is to protect the environment. When consumers pay the advance recycling fee when purchasing the new proprietary product, this ensures that professional disposal has already been paid for and thus makes an important contribution to the protection of the environment. Thank you, RUOSSTECH AG, and welcome to SENS eRecycling!

We want to place our new contractual partners in the spotlight and publish a profile for each of them on our website. Get in touch with us and we would be more than happy to write about you and your company.

Conclusion

Every new contractual partner is a win for SENS eRecycling – we would be delighted to provide you with information about our new partners via our communication channels.

Collection points

Huge rush in demand during the first lockdown

What did the average person in Switzerland do during the lockdown? That's right, they had a clear-out! Our collection points felt the effects of this primarily in the spring. Three people who experienced this rush in demand tell us about what happened at the collection points and how they coped with the situation.

Heidi Oswald

Managing Director at The Association of Local Authorities of the Canton of Zug for Waste Disposal Administration (ZEBA)

The Swiss Federal Council declared an "extraordinary situation" on 16 March 2020 and Switzerland was placed in lockdown. How did this affect your collection point?

In addition to hygiene measures, dosing systems were introduced as well. This resulted in longer waiting times at collection points. It was clear that the population had more time to have a clear-out from both the longer waiting lines and the amount of waste collected. We collected a great deal more glass and cardboard in particular.

We were presented with a number of challenges owing to the fact that social institutions had to temporarily suspend their services. This led to a backlog in the flow of goods. It was also difficult to procure masks during the first lockdown.

How did you overcome the challenges?

To ensure that we could implement the metering system, we had to bring in additional security staff. We also offered TWINT as a payment option to ensure that direct contact between people was kept low. In addition, employees were prompted to take their breaks in shifts.

COVID-19 brought about a wide range of problems. Were there any positives you could take from the situation?

Despite all of the fuss with the introduction of the hygiene measures and the huge rush, we noticed that our day-to-day lives slowed down during the lockdown. The panic buying of fee-based waste disposal bags had a positive impact on the association's finances. We sold 47 per cent more fee-based waste disposal bags during the lockdown in March 2020 than we did in the previous year.

This Schwendimann

Entrepreneur

The Swiss Federal Council declared an "extraordinary situation" on 16 March 2020 and Switzerland was placed in lockdown. How did this affect your collection point?

Due to our public service function in the waste cycles, the "brings!" collection points did not have to shut down. There was, however, a huge rush in demand at the disposal centres, as people now had the time to have a clear-out. Added to this was the fact that other collection points in the region were closed, which was another circumstance that resulted in the huge rush in demand at our collection points.

How did you overcome the challenges?

The challenge was to fulfil the public service function on the one hand and the restrictions set out by the Federal Office of Public Health (FOPH) on the other. In order to overcome these challenges, a booking system and an app was developed. These made it possible for people to book time slots at collection points and drop off their waste without making contact with other people. This innovative idea allowed us to keep our operations running without any problems or waiting times – despite the restrictions set out by the FOPH.

COVID-19 brought about a wide range of problems. Were there any positives you could take from the situation?

What made us really happy was that more than 90 per cent of the people who took part in a survey said that they were satisfied with the new booking system and the app and will continue to use them both. Secondly, the app also proved successful in solving the Saturday rush. COVID-19 has definitely been a game changer in speeding up digitalisation. The app works well and has been met with approval among the population – we have already sold it to an external collection point in St. Niklaus (Canton of Valais).

This Schwendimann handed over the reins of "brings!" AG to his two sons Kilian and Demian on 30 October 2020.

Werner Gossen

Head of the Stationary Collection Service Division, ERB

The Swiss Federal Council declared an "extraordinary situation" on 16 March 2020 and Switzerland was placed in lockdown. How did this affect your collection point?

The first measure that we took for our two collection points was to draw up and implement a safety concept. This was mainly based on the concepts of maintain your distance (introduction of a drip system), hygiene measures (provision of dispensers with disinfectants) and informing people that they should only use the collection point to drop off items that need to be disposed of immediately. These measures ensured that both our customers and our employees were protected.

How did you overcome the challenges?

We were successful in overcoming these challenges. Although the drip system resulted in a huge backlog and long waiting times, the population understood and endured the situation with a great deal of patience. Here, we were additionally supported by the transport service. Our employees worked hard and played their part to ensure that we were able to successfully deal with a situation that was not always easy.

COVID-19 brought about a wide range of problems. Were there any positives you could take from the situation?

It provided proof that the waste disposal service in the city of Bern can continue running seamlessly at all times, even in crisis situations.

THE FUTURE – Making progress together

Robots, the Internet of Things (IoT), artificial intelligence (AI) – these are all buzzwords that crop up everywhere in our everyday lives. But, how do we benefit from these technologies?

Market basket analysis with artificial intelligence

“Provide me with 1,000 images of yourself and I will tell you what you are.”

Approximately one to two per cent of the electrical and electronic appliances collected are analysed every year for our market basket analysis. Up until now, this has been done by hand – clearing out the pallets, weighing the objects individually and then recording their details in a document. This is very time-consuming, thus raising the question of how we could optimise this process. Our solution: artificial intelligence.

In the market basket analysis, several pallets of electrical and electronic appliances are chosen at random and analysed in closer detail. As part of this analysis, information about each product is recorded in the categories of weight, brand, quantity, etc. This process takes up a great many resources, but is indispensable for the analysis and forecast of goods flows. The demand for a more efficient process with the optimal use of the available resources thus came as no surprise. One possible approach offered was image recognition with artificial intelligence. This bold idea was tested in a pilot test.

To enable artificial intelligence to be able to recognise objects in pictures, it must first learn what these objects look like. Within the pilot test, the aim was for the artificial intelligence system to learn 10 different product categories. To achieve this aim, a camera installed over a conveyor belt was used to record a video of various appliances. This resulted in a wide range of images being generated that were used by the artificial intelligence system to learn what a hairdryer, an electric toothbrush, a toaster and other appliances look like. The artificial intelligence system needs around 1,000 images until it can identify an electrical or electronic appliance with a workable success rate. The artificial intelligence system can now correctly identify electrical and electronic appliances with a success rate of up to 90 per cent. And it is constantly getting better – it can identify electrical and electronic appliances with greater success with every additional picture it learns. The pilot project can be said to be a complete success and

highlights the potential of artificial intelligence in the market basket analysis. In the meantime, we are continuing to press ahead with the further development of this technology. To date, 54 product categories can already be identified – with varying levels of probability that the identification is correct. In future, the analyses will be supplemented with the average weight or even the average material compositions. This will ensure that valid forecasts can be made as regards the quality of the electrical and electronic appliances collected and the market basket can be analysed in more extensive detail.

Conclusion

Image recognition with artificial intelligence offers a great many opportunities – and not just in terms of market basket analysis.

The SENS portal

Greater user friendliness and independence – our new ERP system

With the introduction of the new SENS portal, we are equipping SENS eRecycling for the future and offering our customers an improved overview of the recorded declarations and the collection orders carried out.

Would you like to be able to access your data at any time and from any location? This has been possible since the launch of the new SENS portal, via which our partners can manage their customer data, make declarations, issue collection orders, place orders in our online shop, and much more – independently and whenever they want. For many people, the most interesting new feature is probably the overview of invoices and documents that can now be viewed directly in the SENS portal. This creates transparency and a real added value for our partners.

The new SENS portal was officially launched in October 2020 and got off to a successful start without any limitations or problems. With the new SENS portal, we have taken a huge step towards customer-oriented digital solutions that reflect the current trends and the needs of our partners.

Conclusion

Successful launch of the new, platform-neutral SENS portal with an improved user-friendliness and greater data transparency.

Umbrella campaign with Swiss Recycling

Saving the world as a “square”

To coincide with the Global Recycling Day on 18 March 2020, Swiss Recycling unveiled its nationwide “Become a square” (“Werde Bünzli”) poster campaign.

In the umbrella campaign supported by all Swiss Recycling members, the benefits of recycling are highlighted and the good, “square” recycling habits of the Swiss population are reinforced. Even though Switzerland is among the front runners in Europe in terms of recycling, it is important that we continue to raise awareness of this subject. This is because this is the only way in which to motivate more people to recycle in the long term.

The cult song “Jerk trophy” (“Tubel Trophy”) by legendary Swiss rock band Baby Jail was recycled specially for this campaign. The song was rerecorded and now tells the story of a person who doesn’t behave in an environmentally friendly conscious manner and still believes that climate change is a huge lie, despite all of the evidence to the contrary. Another well-known person was called in for the TV advertisement – Swiss film-maker and director, Michael Steiner, who is famous for films such as Sennentuntschi and Wolkenbruch.

You can still take the “square test” at www.werde-bünzli.ch. The test uses humour to show you how well you recycle, i.e. how much of a “square” you are. This platform also serves as a market place for recycling products. Interested parties can learn more about products made from recycled materials as well as the companies here.

Conclusion

The umbrella campaign was well received by the Swiss population and will be continued in 2021.

International E-Waste Day

Raising awareness across all channels

The third instance of International E-Waste Day was held on 14 October 2020. SENS eRecycling was one of the 40 organisations around the world who supported the event launched by the WEEE Forum (Waste Electrical and Electronic Equipment) by holding a wide range of activities.

There's a recycling hero in every single one of us – a film by Till Gmür

In a humorous TV advertisement, the Lucerne-based film maker revealed a genuine hero to the world and encouraged us all to properly dispose of our waste. The advertisement showed us how easy and effortless it is to dispose of electronic waste. The catchy music, the exciting editing and the likeable female character will certainly encourage many people to realise their hero potential and recycle their electronic waste properly.

Electronic waste? Put it in your parcel box!

To mark International E-Waste Day, irons and other appliances were able to be disposed of from the comfort of your own home for a period of three months. All you had to do was place defective or unwanted appliances in your parcel box, where they were collected by the Swiss Post and handed over SENS eRecycling for recycling. Not only is this convenient, but it is also sustainable. Further information on this topic is available in the "Innovation" section.

Collection drive at schools in Zurich and Bern

In celebration of International E-Waste Day, four classes in Zurich and Bern focused on the topic of eRecycling in their lessons and launched a collection drive for electronic waste – and put in a massive effort doing so. School cellars were cleared out, attics rummaged through and a large amount of electronic waste was separated out, even at home. For example, projectors and even cooking stoves were collected in addition to numerous small electrical and electronic appliances. The enthusiasm of the children was reflected in the figures recorded, with a sensational 1.5 tonnes of electrical and electronic appliances having been collected. With this collection drive, we wanted to raise awareness of eRecycling among young school children and encourage them to properly dispose of electrical and electronic appliances. We think that this drive was an absolute success.

Generating interest on all channels

International E-Waste Day was promoted to various target groups on a wide range of channels. Whether it be at school, when filling the electronic waste recycling bags at home or on YouTube, there was a great deal of publicity surrounding International E-Waste Day. This was also complemented by numerous posts on social media, such as those of blogger, storyteller and photographer, Andrea Monica Hug. More than 20,000 people were informed about this event by her post alone.

Conclusion

The publicity surrounding International E-Waste Day is increasing every year – a global movement with regional highlights.

ENVIRONMENT – Naturally sustainable

Protecting the environment is behind everything we do. This is reflected in the environmental impact points saved through our work every year. We calculate this saving in our life cycle assessment. This is how eRecycling helps the environment. The figures are impressive!

2021 life cycle assessment

151,000 billion environmental impact points saved over 31 years of SENS eRecycling

We look back on 31 years of eRecycling today. One year after our grand anniversary, the results of our life cycle assessment are as impressive as ever: we were able to reclaim enough materials for four Eiffel Towers, 2.53 million bicycles and 43.5 million trumpets in the past twelve months. Our cumulative achievements of 31 years are even more exciting.

In 2021, around 15 kilograms of electronic waste was amassed per person in Switzerland. In the last 31 years, 1.3 million tonnes of electrical and electronic appliances were introduced to the SENS eRecycling cycle. This amounts to 100,000 tonnes of electrical and electronic appliances last year alone. Viewed in the context of the amount of waste produced, the level of utilisation of this professional, environmentally sound recycling system for electrical and electronic appliances is impressive. The figures from the 2020 life cycle assessment demonstrate this.

Enough materials for 70 Eiffel Towers, 2.53 million bicycles and 43.5 million trumpets

Since SENS eRecycling was founded in 1990, we have recovered 890,000 tonnes of recyclable material through eRecycling. Steel and iron make up the largest portion of this, accounting for about 80 per cent. 705,000 tonnes out of this amount would be enough to build 70 Eiffel Towers. The 38,000 tonnes of aluminium would be enough to make 2.53 million bicycles and the 43,500 tonnes of copper would be enough to make 43.5 million trumpets. These are astounding quantities. They make it clear just how important it is to recover recyclable material.

An additional 1,000 billion environmental impact points saved in one year

To protect the environment, it is also crucial to prevent pollution by ensuring that hazardous substances such as mercury, coolants, refrigerants and PCBs are disposed of correctly. Over 91 per cent of the environmental benefit is accounted for by the proper disposal of PCBs, which is commonly found in the capacitors of older electrical or electronic appliances and does not break down easily. In the life cycle assessment, this benefit is quantified in terms of the number environmental impact points (UBP) that were saved by the SENS take-back system. In total, this figure amounts to 151,000 billion: 1,000 billion more than we had saved after 30 years. This corresponds to the annual environmental footprint of about 7.5 million Swiss citizens.

See the environmental benefit for yourself!

Our digital life cycle assessment now shows our cumulative achievements from 31 years of eRecycling. It gives a clear picture of what we have achieved together and what we can do better in the future. Have a look at the benefits of eRecycling and continue to help us do right by the environment. We think that 31 years are a good start. We will keep working hard and hope to achieve a lot more with your help.

INNOVATION – Trends and technology

As an important success factor for a sustainable and prosperous future, innovation is a key part of our philosophy. Find out more about innovative ideas from the world of recycling.

We're the place to be!

A sensation 9 tonnes of electronic waste was collected with the electronic waste recycling bags

For approximately three months, defective irons and discarded hairdryers were able to be disposed of directly from the comfort of your own home. All you had to do was place faulty or unwanted appliances in your parcel box, where they were collected by the Swiss Post and handed over to SENS eRecycling for recycling. A large number of people made use of this new offering. More than 7,500 electronic waste recycling bags were collected and thus more than 9 tonnes of electronic waste were recycled in an environmentally friendly manner.

In Zurich and Bern, there was a real outbreak of collecting fever. Cellars were cleared out, boxes emptied and drawers turned upside down. This resulted in 9,189.3 kilograms of defective or no longer wanted electrical and electronic appliances were sent back in the electronic waste recycling bags. This is a sensational achievement and a huge success for the new offering from SENS eRecycling. The success of this campaign was not corroborated by just the excellent figures, but also by the great deal of positive feedback received from the population.

In order to gain a deeper insight into the recycling habits of the Swiss population, the filled recycling bags were analysed in closer detail in our hub in Olten. A lot of interesting things came to light in these analyses. For example, the average electronic waste recycling bag weighed 1.29 kilograms and typically contained electric toothbrushes, razors, irons and mixers. A fact that proved particularly pleasing was that the amount of incorrectly disposed of waste was very low, standing at slightly over one per cent.

The collection campaign will be further expanded in 2021 and will once again kick off on International E-Waste Day. Pre-orders can now be placed at www.erecycling.ch/en/e-kreislauf/kommunikation/recycling-bag.html.

Conclusion

The new offering was widely used and well received. With 7,500 bags returned, 1,500 repeat orders placed and more than 9 tonnes of materials collected, the results exceeded the set targets by a large margin.

Battery extractor

A proprietary development of Immark Ltd Schattdorf allows for the efficient extraction of batteries

Previously, the only way to remove batteries from small electrical appliances was manually by using a hammer and other tools. In appliances in which batteries are firmly built into the appliance, for example electric toothbrushes, this is a time-consuming work step. Our recycling partner, Immark Ltd Schattdorf, is now setting new benchmarks with the only machine of its kind in Europe.

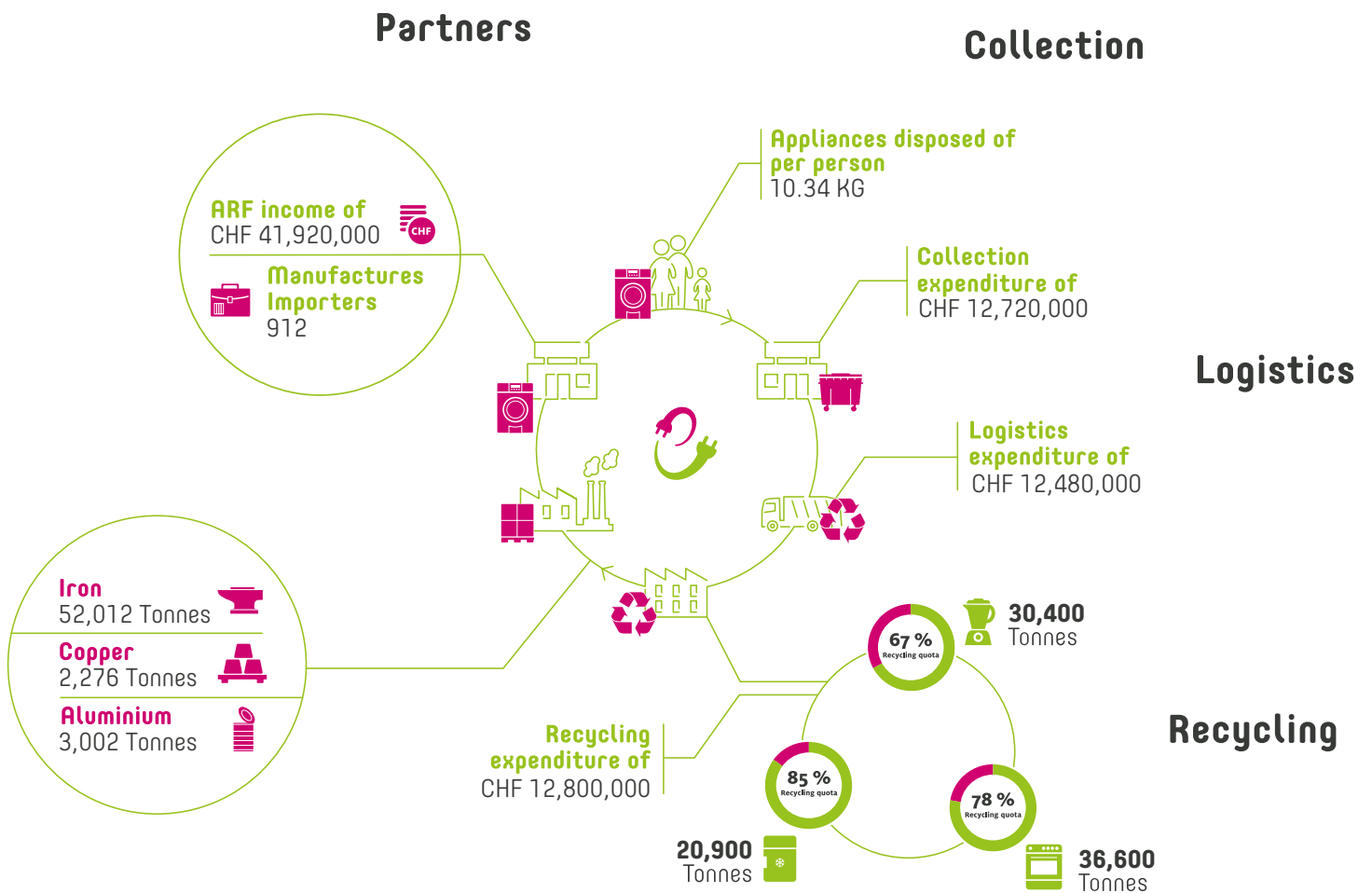
In order to make the process of removing batteries from small electrical appliances more efficient, Immark Ltd Schattdorf worked together with mwn GmbH to develop a machine that is the only one of its kind in Europe and which simulates the process of manually breaking the appliance, thus allowing for the automated removal of various types of battery and fractions. After being developed and tested for two years, the system has been in operation since June 2020 and has successfully processed the first tonnes of small electrical appliances with built-in batteries. The result – the processing and clean removal of undamaged batteries is now 25-times faster.

The different types of batteries are currently separated from the broken-down materials by hand. However, Immark Ltd Schattdorf is already testing an automated sorting process to make this operation even more efficient. With the development of the battery extractor, Immark Ltd Schattdorf is making additional capacity available, can process batteries faster and is also making work safer for its employees.

Conclusion

The battery extractor allows Immark Ltd Schattdorf to remove batteries from small appliances more efficiently.

Financial year 2020 – Figures, figures, figures



In Switzerland last year, the average resident disposed of 10.34 kilograms of electrical and electronic appliances in the SENS system. The total volume of SENS appliances disposed of thus stood at 89,514 tonnes (incl. lamps and photovoltaics). You can find impressive values, useful figures and information on important changes relative to the prior year here.

Key Figures for the Take-back System

Key figures	2019	2020	Change
Manufacturers/importers subject to ARFs	832	912	10%
Official SENS recycling companies	19	19	0%
Official SENS collection points	495	501	1%
Customers in the SENS OnlineSystem	3 315	2 306	-30%
Collection orders via the SENS OnlineSystem	31 712	30 974	-2%
Credit notes for recycling services	7 720	7 700	0%

Recycling

Small household appliances including toys, games and lamps	2019	2020	Change in %
Volume in tonnes	29 029	30 378	5%
Via official SENS collection points	82%	85%	3%
Through retail	13%	11%	-2%
Direktanlieferungen bei SENS Recycler	5%	4%	-1%
Large household appliances			
Volume in tonnes	33 698	36 604	9%
Via official SENS collection points	74%	79%	5%
Through retail	17%	16%	-1%
Returned directly to the official SENS recycling companies	9%	5%	-4%
Refrigerators and freezers			
Volume in tonnes	19 893	20 923	5%
Via official SENS collection points	56%	58%	2%
Through retail	13%	13%	0%
Returned directly to the official SENS recycling companies	31%	29%	-2%
Lighting equipment			
Volume in tonnes	1 076	978	-9%
Via official SENS collection points	47%	50%	3%
Through retail	2%	2%	0%
Returned directly to the official SENS recycling companies	51%	48%	-3%
Lamps			
Volume in tonnes	3 068	3 159	3%
Photovoltaics			
Volume in tonnes	352	208	-41%
Total volume recycled within the SENS system	84 049	89 514	7%
Total volume recycled per head in kilograms	9.51	10.34	9%

Balance Sheet Assets

Assets	Annex	2019 in CHF	2020 in CHF
Cash and cash equivalents	3.1	16 648 837	13 186 316
Receivables from services	3.2	1 489 283	2 712 420
Other current receivables	3.3	447 566	641 104
Accrued and deferred income	3.4	8 903 234	9 725 149
Operating assets		27 488 920	26 264 990
Securities	3.5	21 283 959	21 375 284
Assets from participations	3.6	80 588	80 588
Loans	3.7	550 000	450 000
Investments	3.8	39 000	39 000
Tangible assets	3.9	161 254	299 665
Intangible assets	3.10	0	0
Fixed assets		22 114 801	22 244 536
Total			
Total assets		49 603 721	48 509 526

Balance Sheet Liabilities

Liabilities	Annex	2019 in CHF	2020 in CHF
Liabilities from services	3.11	3 472 636	3 611 077
Other liabilities		34 205	183 822
Accrued and deferred liabilities	3.12	1 784 289	888 045
Current provisions	3.13	60 000	0
Current liabilities		5 351 131	4 682 944
Recycling funds		42 944 242	42 511 611
Fund capital		42 944 242	42 511 611
Foundation capital		320 000	320 000
Reserves	3.14	988 349	994 971
Organisational capital		1 308 349	1 314 971
Total			
Total liabilities		49 603 721	48 509 526

Operating Account

Take-back system revenue	Annex	2019 in CHF	2020 in CHF
Revenue from recycling fees	4.1	46 139 646	45 765 273
Compensation for partner systems	4.2	4 446 134	3 841 533
Total take-back system revenue		41 693 512	41 923 740
Take-back system expenditure			
Collection expenditure		12 052 508	12 721 790
Transport expenditure		12 178 090	12 477 468
Recycling expenditure		10 738 495	12 801 002
Standards (WEEELABEX, CENELEC, ISO)		37 437	16 984
Collection, dismantling and recycling checks	4.3	511 981	471 846
Manufacturer/importer checks		107 800	95 350
Market basket analysis		493 412	215 711
Publicity campaign	4.4	442 491	1 009 570
Total take-back system expenditure		36 562 214	39 809 720
Total			
Take-back system result		5 131 298	2 114 020
Head Office revenue			
Contribution to administrative costs	4.5	332 424	303 478
Revenue from services/consulting		0	0
Other revenue		870	0
Extraordinary and prior-period revenue		101 843	66 796
Total Head Office revenue		435 138	370 274
Head Office expenditure			
Personnel expenditure	4.6	1 208 320	1 355 935
Board of Trustees and ARF Committee	4.7	160 963	162 317
Office and administrative expenditure	4.8	286 306	311 634
IT expenditure		327 292	364 092
Accounting, business and legal consulting	4.9	61 669	109 704
Studies and projects		428 465	354 307

Auditing		10 900	13 650
Public relations	4.10	76 900	176 737
International		53 452	41 625
Other expenditure		13 972	8 535
Depreciation, amortisation and value adjustments		52 236	54 063
Extraordinary and prior-period expenditure		60 176	7 727
Total Head Office expenditure		2 740 650	2 960 327
Total			
Head Office result		-2 305 513	-2 590 053
Operation			
Operating result		2 825 785	-476 933
Financial income	4.11	131 513	50 025
Annual result			
Annual result before allocation		2 957 298	-426 008
Change in recycling funds		2 951 021	-432 631
Change in organisational capital		6 276	6 623
Annual result after allocation		0	0

Cash Flow Statement

Operating activities	2019 in CHF	2020 in CHF
Annual result	2 957 298	-426 008
Depreciation on furniture and fixtures	24 245	33 765
Depreciation on IT hardware	23 378	20 298
Depreciation on software	4 613	0
Appreciation on securities	4 795	114 875
Increase/decrease in receivables from services	-104 780	-1 223 137
Increase/decrease in other current receivables	-27 019	-193 538
Decrease/increase in accrued and deferred income	-437 826	-821 915
Decrease in liabilities from services	392 538	138 440
Increase in other liabilities	-63 440	149 617
Increase/decrease in accrued and deferred liabilities	-99 497	-956 245
Cash inflow/cash outflow from operating activities	-282 994	-2 737 840
Investment activities		
Divestment/investment in securities	-5 223 380	-206 200
Divestment of loans	50 000	100 000
Investment in participations	-401	0
Investment in furniture and fixtures	99 768	-186 877
Investment in IT hardware	131 292	-5 597
Cash inflow/cash outflow from investment activities	-4 942 721	-298 673
Financing activities		
Increase/decrease in organisational capital	0	0
Increase/decrease from financing	0	0
Cash inflow/cash outflow from financing activities	0	0
Business activities		
Cash inflow/cash outflow from business activities	-2 268 417	-3 462 521
Cash and cash equivalents as at 1.1.	19 151 403	16 648 837
Cash and cash equivalents as at 31.12.	16 648 837	13 186 316
Change in cash inflow/cash outflow	-2 502 566	-3 462 521

Statement of Changes in Capital

	Foundation capital	Reserves	Annual result	Total
Balance as at 1.1.2020	320 000	988 349	0	1 308 349
Annual result			-426 008	-426 008
Allocation to reserves		6 623	-6 623	0
Withdrawals from reserves		0	0	0
Allocation to recycling funds			432 631	432 631
Balance as at 31.12.2020	320 000	994 971	0	1 314 971

	Small appliances	Large appliances	Toys and games	Photo-voltaics	Welding equipment	Annual result
Balance as at 1.1.2020	6 189 351	32 608 670	2 557 774	1 426 355	162 093	
Annual result						-432 631
Contribution to administrative costs	46 384	95 116	-70 000	-70 000	-1 500	0
Withdrawal/allocation	-1 088 250	-409 771	244 368	812 649	8 373	432 631
Balance as at 31.12.2020	5 147 484	32 294 015	2 732 141	2 169 004	168 966	0

	Foundation capital	Reserves	Annual result	Total
Balance as at 1.1.2019	320 000	982 072	0	1 302 072
Annual result			2 957 298	2 957 298
Allocation to reserves		6 276	-6 276	0
Withdrawals from reserves		0	0	0
Allocation to recycling funds			-2 951 021	-2 951 021
Balance as at 31.12.2019	320 000	988 349	0	1 308 349

	Small appliances	Large appliances	Toys and games	Photo-voltaics	Welding equipment	Annual result
Balance as at 1.1.2019	6 860 916	29 243 801	2 567 946	1 153 768	166 789	
Annual result						2 951 021
Contribution to administrative costs	43 370	98 130	-70 000	-70 000	-1 500	0
Withdrawal/allocation	-714 935	3 266 738	59 828	342 587	-3 197	-2 951 021
Balance as at 31.12.2019	6 189 351	32 608 670	2 557 774	1 426 355	162 093	0

ARF fund for lighting equipment

Revenue	2019 in CHF	2020 in CHF
ARF for lighting equipment	2 802 569.83	2 749 989.97
Expenditure		
Payments for disposal services	-2 992 018.15	-2 833 499.12
Contribution to SENS for system costs	-166 666.67	-166 666.67
Marketing/public relations	-84 918.97	-85 923.00
Proportion of administrative expenditure for SLRS	-165 142.83	-170 193.80
Proportion of other expenditure for SLRS	-30 673.37	-30 420.51
Proportion of depreciation for SLRS	-	-
Proportion of the financial result	101 673.62	24 772.13
Proportion of the neutral result for SLRS	0.00	0.00
Proportion of the result carried over for SLRS	-535 176.53	-511 940.99
Disbursement of the ARF fund for lighting equipment	-200 000.00	-200 000.00
ARF fund for lighting equipment as at 31.12.	12 021 100.00	11 821 100.00

Comments: The volume of lighting equipment in circulation in Switzerland requiring disposal decreased by 1.81 % compared to the previous year. Expressed in kilos, the total volume of lighting equipment disposed of decreased by 9.17 %. Assuming an average weight of 120 grams, almost 8.352 million items of lighting equipment were disposed of via our system.

ARF fund for lamps

Revenue	2019 in CHF	2020 in CHF
ARF for lamps	1 849 104.72	1 897 425.20
Expenditure		
Payments for disposal services	-1 433 251.29	-1 464 721.12
Contribution to SENS for system costs	-83 333.33	-83 333.33
Marketing/public relations	-42 459.48	-37 628.12
Proportion of administrative expenditure for SLRS	-82 571.42	-85 096.90
Proportion of other expenditure for SLRS	-15 336.68	-15 210.25
Proportion of depreciation for SLRS		
Proportion of the financial result	50 830.64	12 386.07
Proportion of the neutral result for SLRS	0.00	0.00
Proportion of the result carried over for SLRS	242 986.17	223 821.54
Disbursement of the ARF fund for lamps	-100 000.00	-100 000.00
ARF fund for lamps as at 31.12.	5 433 000.00	5 333 000.00

Comments: The volume of lamps in circulation in Switzerland decreased by 2.54%. In addition, the volume of appliances disposed of decreased by 2,96%. Disposal costs decreased by 2,91%. The fund disbursement was made on a pro rata basis at a ratio of two-thirds for lighting equipment and one-third for lamps.