STENA RECYCLING

Recycled: a premium buying decision

Developing new circular commodity markets

Whether you're a manufacturer or a consumer. Your car, your electronics, or the like, might soon be fully circular, produced by recycled material. Many are the companies that publicly already have declared that they will use more reused raw material in their processes. Making circular products, made from recycled, the business success of tomorrow.

We had a chat with **Kristofer Sundsgård**, Group CEO at Stena Recycling, about the new emerging commodity markets. And about what possibilities that come with them.

PLASTIC IS ON EVERYONE'S AGENDA

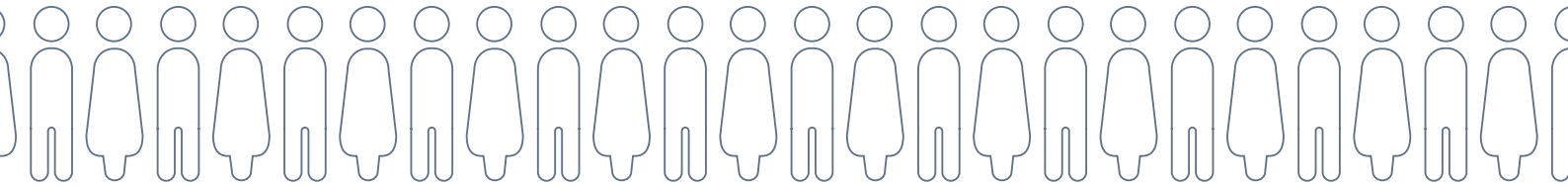
– The whole world is talking about plastic in the oceans, you can find plastic-reduction guides for your home and so on. The debate often gets very polarized, with pros or cons constantly being pointed out. It is a giant problem that enormous amounts of plastic pollute our oceans, break down into microplastics and damage animals and nature for decades to come. Or when plastic is lost in landfills or to incineration. It is easy to forget that plastic is a fantastic material, with a huge possible capacity to reduce climate-impacting carbon dioxide emissions, in a variety of products. Plastic can, for example, allow cars to weigh less and thus reduce emissions. Everyone also predicts a significant increase in the future production and consumption of plastic. The plastic will not be omitted, but it needs to be circulated or we won't be able to defend its very existence.

DEVELOPMENT IN RECYCLING PLASTIC

– We continuously initiate processes to handle different types of plastics. New plastic recycling processes are started in both Sweden and Poland at a fast pace. And the electrification wave around the world also has an influence. With more electric vehicles, tools and others being produced, it is time to make sure we can take care of a fast-growing amount of used electric batteries. They contain cobalt, lithium and many other substances there is a shortage of in the world. It is important to secure access to these materials to be able to manufacture electronics in the future. Today, much of the materials in batteries are recycled, but not so much of the substances that are scarce. It is an important challenge to solve for manufacturers and recyclers around the world.

A MARKET FOR RECYCLED PLASTIC

– A lot must happen at about the same time. No one will invest in a well-functioning, full-scale recycling process, until someone else wants to buy the recycled plastics. And no one wants to buy and use recycled plastic until you know that there are stable volumes of recycled plastic of the right quality and price. It could easily be a game of “wait-and-see”. That is why it is so gratifying to see alliances and large companies announcing their increased use of recycled raw materials. By September 2019, a hundred EU companies and organizations had signed up for the use of at least ten million tons of recycled plastic by 2025. That initiative alone can make the EU market grow 150%. Such initiatives are important game changers.



”A new market is a puzzle, solved by many at the same time.”

THE CHALLENGE OF QUALITY

– The development of standards for recycled plastics is a work in progress, for example by the certification organization CIS. Quality standards are needed to create a common material language, among manufacturers, subcontractors, and recyclers. Serious, long-term manufacturing companies never take a chance with the quality of their products. Mistakes can become extremely expensive, as a failing product can cause massive complaints and/or must be recalled in large numbers. This can adversely affect the share stock value and brand, create disloyal customers etc. And it takes a long time to repair. Nobody wants such a mega-failure. It is fascinating and inspiring to see when new commodity markets are created as it also brings new kinds of collaborations and partnerships. A new market is a puzzle, solved by many at the same time. It often starts off slow, before taking off.

RECYCLED MATERIAL BY POPULAR DEMAND

– There is a fast-growing number of companies wanting to reduce their climate footprint. Going for drastic reductions. They want to reduce their carbon dioxide emissions to build credibility, to show that they are doing something. Among these are many large companies, also acting as catalysts. Their decisions are extremely important to others. For example, when Volvo Cars declared the ambition to use 25% recycled plastic in its cars from 2025, it is a signal that strongly affects lots of subcontractors, as well as us as a recycler.

Many companies now want to reduce their carbon dioxide footprint throughout the product cycle: during design, manufacture, usage, reusage and recycling. That's a fairly new perspective. In the past, people were more focused on the properties of the products, such as how much fuel or energy a car, a grass trimmer or a refrigerator consumed. Now the focus is on reducing the climate impact throughout the value chain.

– There are many that believe that companies need to be leaders in the transition to a more circular economy. The survey about which stakeholder has the biggest role in increasing the use of recycled material was conducted ahead of the business leader event Circular Initiative, in the autumn 2020. As many as 2/3 (or 67 percent) answered that the biggest role is that of the industry. Only 24 percent of the more than 1,000 responders said that it is the politicians who have the biggest role.

RECYCLED AND CLIMATE FOOTPRINT

– Using recycled materials is normally of great importance to drastically reduce a manufacturer's carbon dioxide emissions, from design to product end-of-life. The choice of using a circular material is becoming an important brand value, in marketing and in market competition. More are realizing this, and things are developing quickly. And companies also understand that their own recycling might contribute to the market, sometimes with recycled materials of the kind they themselves need.

– Many companies also realize that they already are using a lot of recycled materials – as iron, other metals, and paper. It may have been going on for decades, but earlier on it hasn't been valued or even discussed. Some companies have even been afraid to talk openly about using recycled materials, as it could have been considered flawing their products in one way or another. Now the tables are turned. Naturally, recycled materials have the same variation in quality and purity as virgin materials. It's the same, but different. Either way, recycled is becoming a premium choice for buyers, adding value to everything from sustainability efforts to marketing.

The fact that companies expect to use more recycled raw materials shows in two answers from a survey held during a larger webinar on circular products, in April 2021. Among the participants, we firstly asked how much recycled material they use in their products today and then what they thought would happen in just three years' time. Just over half answered that none or less of half of the material in their products is from recycled raw material today. Only 16, 1 percent said the products contain more than half recycled materials. At the same time, as many as 39, 2 percent believed that the products would contain more than half recycled material in three years – a significant increase.

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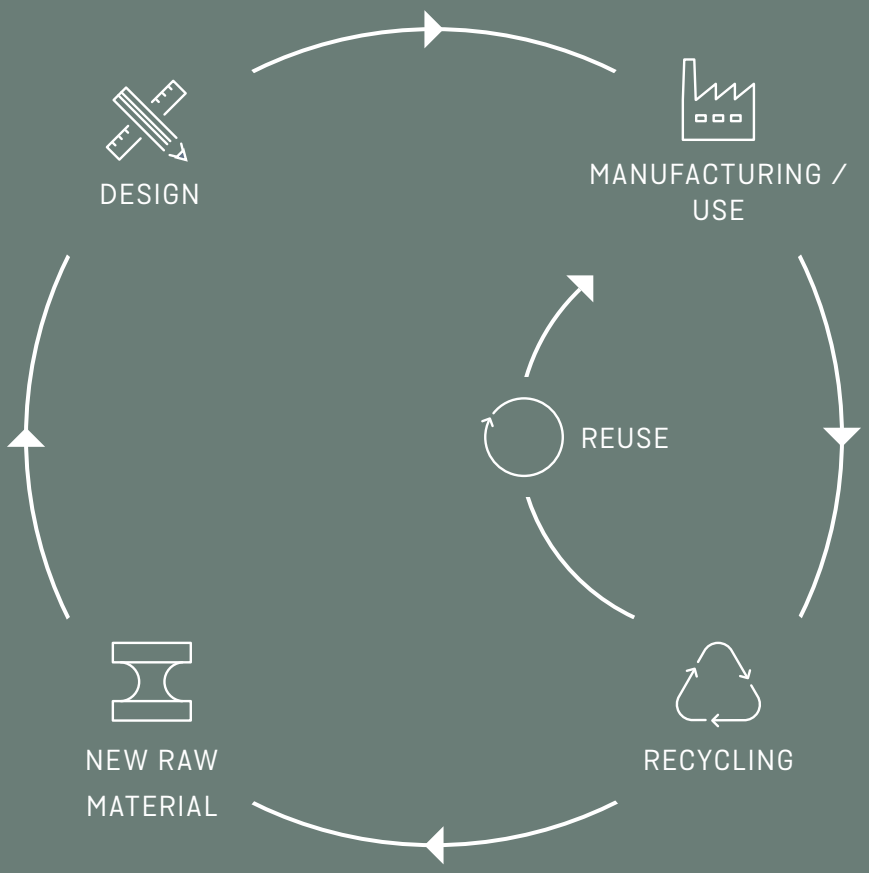


– Companies want to design for recycling and to develop sorting and recycling to simplify the availability of recycled materials. They just cannot turn a blind eye to customers wanting recycled material in the products they buy. Today you can buy a car with, for example, vegan clothing or something else that links to lifestyle and values. In the same value-driven way, to many customers recycled materials are becoming a premium selling point. Products are largely bought based on lifestyle and what you personally believe in. And the companies are either in the match or at risk of dropping the ball.

RECYCLED WITH QUALITY

– Maintaining quality is all that matters. For many producers it is necessary that we supply circular, recycled raw materials that are of at least the same quality as the raw materials from virgin resources — from mines, forests, or oil wells. The higher the grade, the more plastic and other recycled materials can be used for premium products. But also, recycled materials can be used for many components or packaging products that don't require the highest market grade. There is nothing strange about that, as it is the same with metals and other materials that we have been recycling for a long time now. Materials already are in a loop, in constant reuse in different kinds of products in society.

EMERGING MARKETS

– The major development over the last ten years has been to upgrade the extraction of the waste and to produce an ever-cleaner and higher-grade raw materials of iron and other metals. This is due to investments in increasingly refined recycling processes. More recycled material can compete with virgin, ore-based raw materials, all in accordance with the steel industry requirements. Some 50% of the EU steel production is based on recycled material, but there are significant differences around the world. The US has a high number, about 70% is scrap-based. China is remarkably lower, due to many newly built, ore-based smelters. I am convinced that we now, for example, also will have a growing market when it comes to plastic recycling.

THE REST OF THE WORLD HAS AN IMPACT

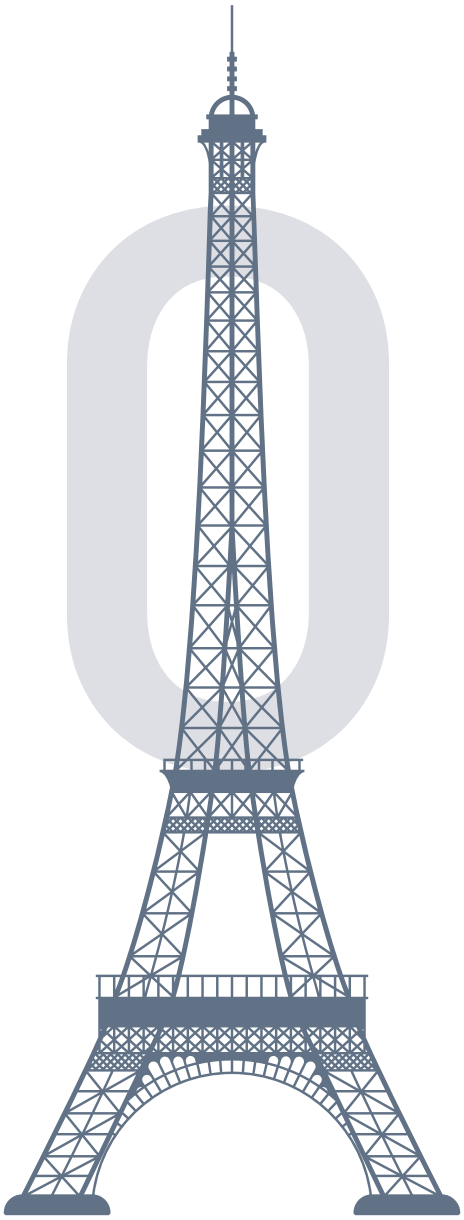
– I particularly want to mention National Sword; a Chinese import stop for 24 complex wastes. That decision hit like a bomb and has shaken all stakeholders: industry, recyclers, politicians, and governments. Previously, some 60% of the world's plastic waste went to China. Obviously, it was an uproar when they suddenly denied access. In Poland, for example, there has been a lot of fires in large plastic mounds dumped in the wild. There used to be no plastic recycling solutions in Europe or elsewhere. So, someone simply set fire to the problem. An extremely upsetting situation. At the same time, it is a strong signal that we just must deal with our more challenging wastes at home. Rather than sending it to distant, often developing countries. National Sword and other regulations may cause increased costs for waste, costs that consumers need to pay for in the future. Manufacturers can, by doing smart material choices and by using sustainable product design, ensure that the effects are mitigated.

National Sword

CHALLENGES DEVELOP US

– This is of course the right development for us, as everyone involved are put under hard pressure to quickly resolve the growing mountains of complex waste. For Stena, it is more of a sustainable business opportunity than a problem. This gives us more incentive to invest in solutions, where we can process customers' waste and contribute to a circular materials market. Locally, close to where the waste is produced and preferably near where the demand for recycled raw materials is developing. China will award recyclers who can supply the purest raw materials. We like this, as it supports our investments in new recycling technology. If we look at it from both a climate and a business perspective, you can say that the National Sword and other regulations whipped up a perfect storm.

– An example is the investments in our flagship operations at Stena Nordic Recycling Center in Halmstad. It is today one of Europe's leading recycling facilities. The plant is probably the only industrial plant in the world with the rank of Dark Green by an independent certification organization. The facility attracts investors to our green bonds. The green bond program allows us to increase the pace even further, with earmarked money for new sustainable recycling processes. Today we have a constant flow of visitors to the facility, showing us a remarkable interest! Many visitors also come from top management in industry; important decision makers in everything from product design to recycling. Their decisions can quickly change the game and favor new emerging commodity markets.



”We annually recycle wastes equivalent to the mass of 900 Eiffel towers.”

ONE PRODUCT, ONE ECOSYSTEM

– We have 80,000 customers in all segments of industry, annually recycling wastes equivalent to the mass of 900 Eiffel towers. We have operations in seven countries, with 160 facilities that we’ve developed over decades. We also invest in new technology and expertise through constant research and development. All this adds to the benefit of scalability. We sustain a complete ecosystem, where we have the influence over the use of materials throughout the life of a product. We help customers design products for recycling, provide them with circular raw materials, help with proper material handling in their factories, support with smart transport, recycle in better than adequate processes and deliver high-quality raw materials to end users. Over and over again. We have the business strength of being present throughout the value chain when it comes to developing new circular commodity markets.

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CONSTANT DEVELOPMENT

– To us and our customers, everything can be improved and trimmed. It’s a never-ending process. We will never be finished, and keep on refining processes or building new ones, researching, building our skills, collaborating in new ways and more yet. The opportunities in automation and digitalization open new fantastic opportunities for us, just as it does for other industries. It’s a simultaneous multi-approach action thing. And design for recycling and advanced recycling in the business environments will be red-hot business actions for customers and for us for many years to come.

PROCESS WASTE POTENTIAL

– In Sweden alone, there are millions of tons of production waste (in addition to mining waste) that is not recycled at all. Yet. There is a potential to connect industrial interests where costly, challenging process waste for one industry can become an important raw material resource for another industry. These are difficult materials such as ash, sludge, lye, and slag. Enormous amounts of virgin materials can be replaced if process waste can be productized instead of being incinerated or put in landfill to no avail. We can simply create new kinds of raw material “recipes” from several process waste, creating sustainable products. This would reduce the need for virgin materials — that also are much more climate-impacting to refine. There are many similar opportunities to combine different kinds of process waste to manufacture new products and significantly reduce the climate impact.

NEW CHALLENGES, NEW SOLUTIONS

– When we succeed, there are many winners onboard and together we can contribute to a circular economy in a whole new way. It would be fantastic for Stena Recycling to be the bridge between waste and circular materials for different industrial segments. We are at a very good starting point, as we cooperate with many of these companies, even if it today mainly is about more traditional waste. There is also no real need for drastic political decisions or policies to gain momentum in the market. That is why we started the Circular Initiative ourselves. It is an action-oriented collaborative forum, put together with various companies from the Investors sphere. It is together that we can make all of this possible.