



“The world has a plastic problem - Plastix has a solution”

Plastix has taken on the fight against a waste problem that has finally caught the attention of the whole world.

Out of sight, out of mind. This strategy has broadly characterised Western countries’ handling of plastic waste, which for decades has been sent far away to countries such as China. Until now! On 1 January 2018, China stopped all imports of plastic waste, excluding only waste with a purity of 99.5 percent. This means that Western countries now have to take the plastic problem seriously. The cleantech company Plastix has a solution, says CEO Hans Axel Kristensen:

“Reusing plastic and producing high quality green plastic is a complex process, which requires a lot of resources. At Plastix, we have learned this from a six-year development process, which has turned our company into the only post-use, post-consumer plastic recycling company in Denmark. Over the past five years, we have invested more than 25 million euros in a ground-breaking plant in Lemvig, through which plastic waste is fractionated, divided, washed, dried and moulded to plastic raw materials. Here, we can reduce the CO₂ load by as much as 95 percent.”

The goal, according to Hans Axel Kristensen, is to get as much plastic as possible back in the circular loop:

“Plastic has two side effects: it takes a lot of resources to produce, and it is only fully biodegraded after hundreds of years. We are simply left with a problem if we fail to integrate plastic back into the loop. Since 1950, the world has produced 8.2 billion metric

Sustainable Development Goals at play

SDG 12: Responsible consumption and production

Target 12.5: Substantially reduce waste generation



By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

tons of plastic, and it is only going one way. By 2050, the industry expects to use 1.2 billion metric tons of plastic a year, some of which will replace aluminium and steel. If we do not act, this has unimaginable consequences."

The EU has recently developed the world's first plastic strategy and for the first time in Danish history, Denmark now has an action plan for plastic. Denmark has previously taken the lead in green energy and is now a global knowledge centre for the wind turbine industry. According to Hans Axel Kristensen, Denmark now has the opportunity to expand those ambitions to include the production of green plastic, which is an area of explosive growth. But the implementation of real solutions is slow:

"Plastic is simply a multi-functional wonder material, no doubt about that. It can be hard, it can be soft, it can be a foil, a fibre, it can withstand extreme heat and cold degrees, and it is lightweight. The problem is that it can only be recycled with its own type of plastic. That creates complexity in the processing itself. A brand-new infrastructure needs to be built systemically, and the demand for green plastic needs to be expanded."



Participating in the SDG Accelerator for SMEs is a natural part of working with the Sustainable Development Goals, according to Hans Axel Kristensen, naming it the "world's most important plan":

"No one can solve the challenge of creating a circular economy themselves. We have to meet across all sectors and all industries, public and private. Therefore, we joined the SDG Accelerator for SMEs to find best-practice models for how these new partnerships can work. It was Dag Hammarskjöld who said that the UN was not created to take man to heaven but to save man from hell - in this case, a plastic hell."

Specifically, Plastix, as part of the SDG Accelerator process, has entered into two new public-private partnerships with the municipal resource company Nomi4S and QuantaFuel. Nomi4S sorts the hard plastic from domestic household waste and delivers the cleanest fraction to Plastix. The non-recyclable fractions go to QuantaFuel where it is converted into diesel with a minimum content of sulphur.

"With this new business model, we are trying to create a chain integration where there is no circular model today," says Hans Axel Kristensen. "It is a strong partnership around the Sustainable Development Goals where all parties win, and, at the same time, there is a great potential for scaling the model both in Denmark and internationally.

"At the broader level, however, we will not reach our goals without the help of politicians and new legislation. In the future, any component of any product should either be reused or sent for recycling, the so-called "design for disassembly". Alternatively, we face an escalating problem that we will never be able to solve."

The good story is that all types of plastic can theoretically be recycled - and that countries such as Denmark have a unique opportunity to take the lead:

"Denmark may well become a best-practice hub for the technology and infrastructure that can help solve the global plastic challenge. However, that calls for us to invest in both collection and sorting plants, just as all companies will have to support responsible production. Worldwide, the lack of plastic recycling costs close to 100 billion euros each year so the economic potential is significant. As individuals, as companies and as societies, we are all responsible for turning the Sustainable Development Goals into reality. At Plastix, we are doing our very best to succeed," concludes Hans Axel Kristensen.

This is how Plastix contributes to the Sustainable Development Goals

- Plastix is one of the only companies in the world to produce green plastic based on used fishing nets, trawls, ropes, and other plastic waste from the maritime industry. In addition, Plastix produces green plastic from post-consumer hard plastic waste.
- Plastix has invested more than 25 million euro over the last five years in a ground-breaking plant in Lemvig, through which the plastic waste is fractionated, divided, washed, dried and extruded into plastic raw materials - green plastic!
- The plant is just the first step towards building a whole new infrastructure that supports circular recycling of plastics - one of the world's greatest resources but also environmental challenges in the coming decades.

Facts about Plastix

- Founded in 2012.
- Approximately 30 employees.
- Owned by private investors.
- Geographical presence in Denmark.



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Hans Axel Kristensen, CEO, Plastix