

GUIDE – HOW TO OPTIMIZE THE PLASTIC FLOW

The handling of plastic in the industry holds a variety of hidden values that can be released. In the pursuit of a sustainable company profile, there are several parts of the industrial process that are important to analyse.

With the right insights and a proper analysis of the entire production process, it is possible to develop the plastic handling, save time and money and also take a step towards a more efficient production with a more sustainable company profile.

“Consumers will set higher standards that are more relevant to the industry. We will see special requirements for more products, like the ones we have for food today. The same thing will happen to plastic in the manufacturing industry,” says Christoffer Wahlborg, Key Account Manager at Stena Recycling.

From an environmental perspective, a returnable packing material, for example, can generally travel

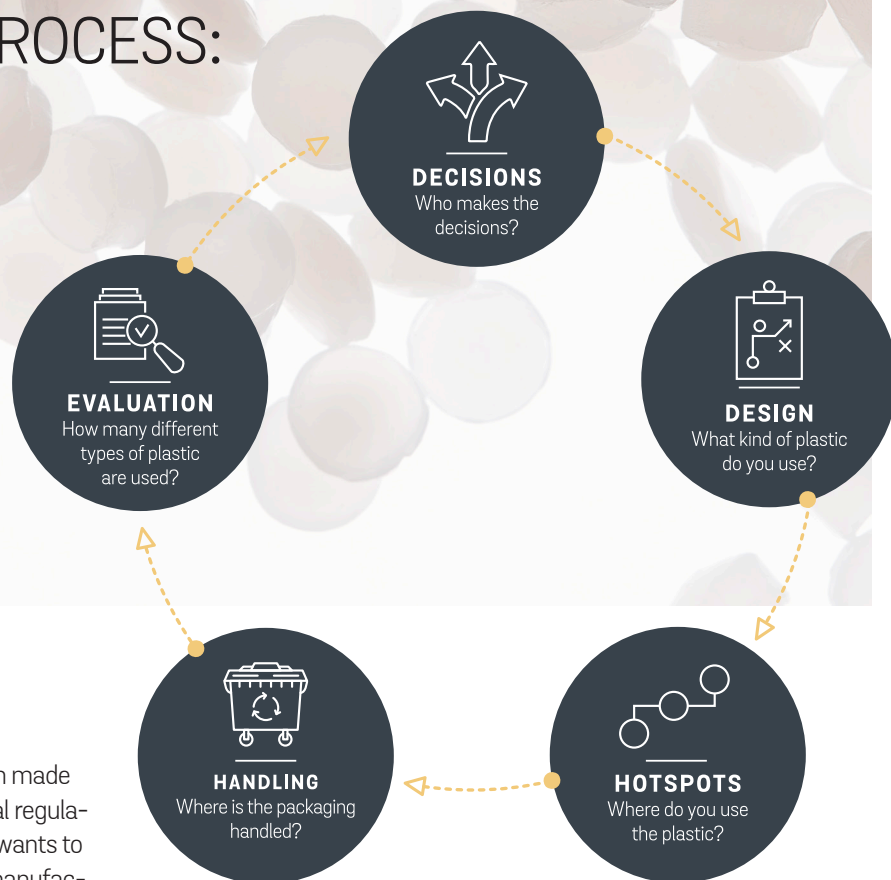
close to 1,000 kilometres in a truck and still get a better CO₂ value than if it was only used once.

For some industries, it can be a matter of hundreds of tonnes of clean, usable plastic that is incinerated instead of being used as a new resource, all because the assembly line has no time to handle it.

“If you do it the right way, plastic is an excellent material for recycling. Currently, there are often too many types of plastic along the assembly line, from packing material to finalised products. In order to be able to recycle the plastic in an efficient way, it needs to be separated properly from the beginning,” says Christoffer Wahlborg.

It starts here.

STEP-BY-STEP – OPTIMISE THE PLASTIC FLOW IN YOUR MANUFACTURING PROCESS:



DECISIONS

Decisions about a manufacturing process are often made years in advance. In general, this means that crucial regulations for 2025 are formed right now. If a company wants to use a certain percentage of recycled plastic in its manufacturing, the company should know where the plastic will come from long before the transition takes place. Often, there are unused plastic resources in the own manufacturing process.

DESIGN

With identification and planning already in the early stages of the manufacturing process, one can minimise waste in recycling stations and waste bins. R&D and the design and purchasing divisions should set as clear requirements as possible. For example, always specify plastic type and colour, also for packing material. In that way, you can control your waste. If everything is made of the same type of plastic, the packing material can be a part of a circular flow.

HOT SPOTS

In order to take care of overspill and reject it is important to secure a workflow that intercepts the plastic that will otherwise be lost. Where in the manufacturing process do you manage packing material and overspill, and where does it go? Incoming goods, for example, come together with a lot of packing material. It can be disposable packing material or packing material that is a part of a return flow.

HANDLING

Either goods go directly to the assembly line or are stored for later. It is possible in both cases to secure that a minimum of packing material reaches the manufacturing process. Often, packing material and transport protection are made of all types of plastic, some can be removed in incoming goods, but some are needed to protect parts and products until assembly. However, it is possible to integrate routines and waste equipment immediately at the assembly line, in order to make use of the remaining plastic from the packing material.

EVALUATION

How does the plastic handling currently look in your factory? Perform random samplings in your collection vessels and compile the results in a report. By executing evaluations of the handling regularly, it is possible to identify areas for improvement. The evaluations results should be presented to those who make the crucial manufacturing decisions, in order to implement the results as a natural part of your company's long-term sustainability work.

It starts here.

RECYCLED PLASTIC

– SAVE NEW VALUE AND TELL THE WORLD ABOUT IT

With the right insights, it is possible to develop methods of handling plastic that save time and money and lead to more efficient production and a more sustainable company profile.

Plastic swallows up resources

The way plastic is handled affects decision making and requires different types of resources in the manufacturing industry. This applies throughout the production process – from purchasing and design to fitters and truck drivers. Ultimately, value is measured in terms of purchase costs, incineration costs and time spent dealing with employees, machinery and other resources. Managing plastic wisely throughout the entire chain allows for progress and makes it possible to create circular solutions that retain value – avoiding linear solutions where value is lost.

The majority of plastic is incinerated

Today, a high percentage of plastic is incinerated as part of its life cycle. This is despite the fact that the purchase value of plastic can sometimes be as high as the cost of copper – a highly valued material, where everything is recycled. In other words, plastic is a valuable material which loses most of its value during handling.

The report “*Retaining value in the Swedish materials system*” shows that in Sweden the purchase value of plastic amounts to 10 billion SEK per year – in the rest of Europe, this amount is of course much higher. 84% of plastic packaging, production waste and discarded plastic products is incinerated or ends up in landfills. The rest is recycled. This shows there is great potential in re-evaluating plastic as a resource.

Global buzz around plastic

– a chance to lead by example

During the last year, plastic has perhaps become the world’s most widely discussed material. Making advances in the way your business handles plastic can make a powerful impression on sustainability reports and other communication aimed at your stakeholders. It can also contribute to the new emerging market of recycled plastic. Who knows, maybe you’re thinking about increasing the use of recycled plastic in your products?

INTERESTED IN DEVELOPING YOUR PLASTIC MANAGEMENT?

Contact our experts to discuss developing the way your business manages plastic – from choosing plastics to designing products for recycling, or how plastic can be handled and materials recycled more efficiently.

[CLICK HERE TO CONTACT US](#)

It starts here.