

# In conversation with



## storaenso

With 60 years of experience in the waste sorting and recycling sector, the Bollegraaf Group owns unparalleled expertise in the design of sorting processes, manufacture, installation and commissioning of turnkey recycling solutions. Our worldwide reputation is based on the customer-centric approach, aiming to maximize the performance and return on investment for our customers. Bollegraaf's solutions and services are the result of continuous innovation, they are based on cutting-edge design and engineering as well as integrated, advanced technologies, such as robotics or artificial intelligence.

**Today, the Bollegraaf team is in conversation with Stora Enso >>>**

## STORA ENSO'S PAPER SORTING LINES OF THE FUTURE

Stora Enso develops and produces solutions based on wood and biomass for a range of industries and applications worldwide, leading in the bioeconomy and supporting their customers in meeting demand for renewable eco-friendly products. Stora Enso is committed to the development of products and technologies based on renewable materials. Their products, in many cases, provide a low-carbon alternative to products made from fossil-based or other non-renewable materials.



Wim Schauvliege, Project Engineer of Stora Enso's paper division, talks about Stora Enso's experience with Bollegraaf and takes us into Stora Enso's reasons for choosing Bollegraaf as their solution supplier.



Continue reading for the interview >>>



**We know that Stora Enso specializes in the recycling of paper and cardboard.**

Yes, that is true. In Ghent we produce PfR (paper for recycling) as a raw material for our low carbon circular products. We receive unsorted paper stream (mainly based on used newsprint and magazine paper) that is contaminated by cardboard. The sorted paper (cleaned out from cardboard) is sent over to the de-inking process and the recycled pulp is used to make new recycled paper for printing activities.

**Can you tell me more about the sorting challenges that you face?**

There are multiple challenges we face. One of the challenges is that cardboard is more and more resembling paper in its properties. Cardboard has become lighter, thinner and smaller. This makes it more challenging to sort it from paper with conventional methods.

Another challenge that we face is the increased ratio of cardboard compared to paper. In 2017 this was about 70% paper and 30% cardboard, while now it is close to 50% paper and 50% cardboard. This cannot be seen apart from the digitalization trend that is being sped up due to the corona pandemic. The rise in e-commerce and delivery at home has led to a great increase in cardboard packaging, while at the same time we see the effects of digitalization through a decrease in traditional physical media, such as magazines, newspapers and letters.

**You have recently decided to upgrade four of your paper lines. What triggered this project?**

The change in the composition of the paper waste stream is seen as a threat

in terms of our future ability to meet our recycled paper quality standard, based on the process we had in place so far. We want to anticipate on these changes, as we believe that digitalization is a trend to remain.

For us, brightness is one of the key factors when producing recycled paper. To reach a high level of brightness, it is important to be able to properly separate the brown/grey fibers of the cardboard from the paper fibers, before the de-inking process starts.

When this is done successfully, then we have the guarantee that the required level of brightness of PfR will be reached. For us it is crucial that our end quality satisfies our customer's standards.

**You have chosen to run this project with Bollegraaf Recycling Solutions. What factors were important in your decision-making?**

We started our investigation with a study of different process suppliers. Bollegraaf was one of these process suppliers. What struck us about Bollegraaf, was their expertise and knowledge of paper recycling.

We also had the ability to visit some Bollegraaf reference installations and conduct some preliminary testing sessions at the TOMRA test center in Germany. The outcome of these testing sessions played a major role in our decision making.

**Interview continued >>>**



That is great to hear. Anything else that helped you making the decision to cooperate with Bollegraaf?

It is essential to us that the right properties of the PfR will be reached in the present, but also in the future; we needed a future proof installation and Bollegraaf could provide us with one.

**“We needed a future proof installation and Bollegraaf could provide us with one”**

We really enjoyed the cooperation with the Bollegraaf engineering and project management team. They were able to think along with us and provide us with the best technologies for our specific requirements. For us Bollegraaf provided the best solution.

The corona pandemic had a lot of consequences and limitations for the way everyone works. What was your experience with the Bollegraaf employees during the installation of the new lines?

The installation was made more complicated due to the corona restrictions. At Stora Enso safety is essential. We had several daily meetings with the project managers and the safety manager about how we can safely install the new lines within the boundaries of corona.

At first this led to some challenges, but we saw that Bollegraaf managed to quickly react to the challenges and they instituted the necessary changes to reach the tight deadline. We were very pleased with the flexibility of the Bollegraaf crew and their drive to finish before the deadline.

**“Bollegraaf managed to quickly react to the challenges and they instituted the necessary changes to reach the tight deadline”**

The first two sorting lines have been finished more than two months ago. What is your experience thus far with the Bollegraaf sorting installation?

The quality and output is living up to our expectation. We also have multiple improvements ongoing. The speed of implementation is great. There is no

6-month discussion, but the changes are implemented in short term. We have good contact with the

project management and engineering team of Bollegraaf; We have a good feeling about Bollegraaf.

On your website we see that you offer many circular products and that you are working on an eco-revolution. What does this mean for your recycling processes?

Our goal is to close as many loops as possible. Compared to 15 years ago, we are seeing a steady rise in the percentage of PfR being used in our products. With the use of New Technologies and this upgrade of the paper sorting lines by Bollegraaf, we strive to have a good deinking input material and also to sort out the cardboard fraction, which is being sold to the nearby packaging industry in Belgium as well as in other countries, such as the Netherlands.

Aside from the paper loop, we also intend to be self-sufficient in our energy needs, while we are already self-sufficient for electricity. We do this with the help of two power plants and three windmills. We strive to close the energy loop and be self-sufficient in the near future.