



“BE BOLD”: SIEGWERK ON SUSTAINABLE TRENDS IN THE INKS SECTOR

When looking at the packaging industry, it becomes clear that the question of sustainability has become much more than simply a “buzzword”. Most global brand owners have sustainability commitments set in stone for their packaging. Consequently, sustainable packaging has moved centre stage in many discussions, although much of the talk focuses on manufacturing and end-of-life. This begs a set of obvious questions: How are other sectors, like inks and colours industries acting in sustainable ways? What are the drivers of this activity? What will the future of sustainability in these industries look like? To find out, Fin Slater spoke to Alina Marm, head of a specially established unit to serve the transition towards a circular economy across Siegwerk – one of the industry’s largest manufacturers of printing inks and coatings.

FS: To give our readers a bit of an introduction into the topic, as far as you see it, what roles do inks and colours actually play in packaging sustainability?

AM: I always like to look at it from two sides. The first important one is how can inks enable sustainability and the circular economy? This was really an eye-opener for me when I first joined Siegwerk, to see that inks are much more than simply colouring – they have a high degree of func-

tionality that enables sustainable packaging. Just to dive into that a little bit, if you think about reducing overall plastic consumption, which is one of the big topics, inks and coatings play a huge role when switching to paper while maintaining the functionality of the packaging.

If we think about another trend in sustainable packaging, reuse models, then each use cycle has different ink requirements, especially if you want to manage them at scale as a project like TerraCycle’s Loop does. For example, ▷



the best-before date might have to change with each use, while the brand design itself has to stay on the packaging for multiple use-cycles. So, inks play a crucial role here in providing that at scale and with maximum cost-efficiency.

Another trend in this field is obviously recyclable packaging. Ink plays a key role here too –for example, can we use a PVC-free ink that can then be printed onto PVC-free packaging, making the pack recyclable overall? Inks and coatings can also help with the move towards monoplasic structures, by keeping the functionality of the original packaging.

I think we should be pushing these aspects as much as possible, because they can really contribute to the change that is needed. The other side we can look at this from is the reality that inks do hinder the sustainability aspects of packaging. In terms of the recycling process, I think it's common knowledge that if I have plastic packaging, for example, that is covered in colours, this leads to lower quality recyclate output. With this reality comes the responsibility to look at de-inking as a solution, making sure that ink won't hinder the recyclability of packaging.

There will never be packaging that is not printed on at all. We can discuss how much branding we need on packaging, but there is some crucial information that must always remain. For example, I'm sure that someone with a severe nut allergy wouldn't appreciate packaging that doesn't have allergy information.

FS: In this context, could you tell us a bit more about your role specifically and what it entails?

AM: Siegwerk very seriously looked at how it could turn the concept of a circular economy from an ambition into becoming an actionable driver for change. This idea was centre stage for Siegwerk in 2019, and there was a big strategy project encompassing it. One of the biggest results of this is that Siegwerk has committed to becoming a circular solutions packaging company and to really drive this change. The company also recognised that it had to equip the organisation for this change.

This then led to the creation of the Circular Economy Hub, which has a threefold role. It's our responsibility to spark interest, so that everyone understands why we need this transformation so that they can engage with it. This has both an internal and an external component.

Another part of our role is support, which means we equip the organisation with the knowledge it needs on things like creating new solutions and



engaging with brand owners on the circular economy. The final part of the Circular Economy Hub's role is sorting, because we have an ambitious agenda that needs focus and efficiency in its execution.

FS: You spoke about the “three Rs” earlier, and anyone who is involved in packaging hears these a lot. We've gone over the concepts, but how does Siegwerk put them into practice?

AM: In terms of “reduce”, we're currently working on some promising ink and coating solutions for the switch to paper. If you look at the reuse aspect, Siegwerk has been a player in this for a long time through providing inks for labels on glass bottles that, in Germany for example, are in a deposit scheme. We're thinking about how we can take this idea to the next level by working with start-ups, for example.

Lastly, in terms of recycling, we have a lot of PVC-free inks already on offer. We were partly responsible for putting fully recyclable pouches on the market with ink solutions that adhered to “cradle to cradle” principles and were also PVC-free. The same holds true for switching to monoplasic structures, which we're trying to push further with other market players.

FS: The challenge of implementing sustainable practices can seem quite daunting. Could you break down the challenges that the inks industry faces in its efforts to do this?

AM: I think one of the biggest opportunities and challenges is collaboration. This challenge isn't just ink specific – it applies to the entire value chain. In order to make packaging more sustainable, we have to know what happens to it along the value chain. So, if you start by thinking about packaging at the design and manufacturing stages, where the ink component comes into play, I can only make a truly sustainable solution if I know what happens with that packaging in the use cycle and at end of life. We need to know that the people beyond our core of expertise understand what happens, we need the willingness to share information, and we need to come up with new ways of working in terms of inviting other members of the value stream into our inner circle.

For example, if a brand owner, an ink manufacturer, and a converter work on a sustainable packaging product and bring it to the market, what kind of business model is behind that? One of the biggest challenges is to figure that out, to be bold enough to try new things and learn at rapid speeds from those modes of collaboration.

We can also look to other industries that collaborate much more – IT, for example. Twenty or thirty years ago, open-source was something nobody really thought about, and now big companies engage in open-source models.

FS: I'm wondering how Siegwerk will measure success in terms of its sustainability efforts – are there any certifications or processes that it will use to do this?

AM: You raise a good point, one that I'm trying to wrap my head around at the moment. I want to get to the point where Siegwerk can measure our impact on circularity – that's my objective. So, how do we get there? The main challenge is that, compared to a brand owner or a converter, it's diffi- ▶

cult for us to measure how many packages that are brought into the market that weren't recyclable before are now recyclable – thanks to ink solutions. We deliver ink that is designed for recyclable packaging, but it's hard for us to know exactly how many packages this results in. So, it would be really difficult for us to use the standard ways of measuring for our own purposes, which means that they're not right for our situation.

For us, it's about seeing how many solutions we can bring to the market that enable others to translate that into more sustainable packaging. We can also measure success by analysing collaborations that we engage in, and that produce totally new solutions.

Ultimately, there are lots of factors that we have to join to make these things measurable, because standard measurement methods don't work for a company that is this early in the value chain.

FS: The packaging industry has become a lot more focused on sustainability in the last five years. What do you think has driven this change?

AM: There is certainly a lively debate around what has been the driver for change in this regard. The conclusion I've come to is that there isn't a single most important driving force, but a whole system of drivers. This is great because it multiplies the effects.

One of these drivers is consumer awareness, which has massively changed within the past two years across a lot of areas. Brands obviously market to consumers so, they are much more interested in switching to sustainable packaging solutions because they see a market emerging.

Politics and legislation also come into play, and governments find it easy to introduce new policies when there's a general receptiveness towards the topic. At the same time, policy and policymakers have a huge impact on putting things on the agenda. The EU Green Deal is a good example of how policymakers took up a topic and put it centre stage. This creates a reinforcing loop, from consumers to brand owners to regulation.

I think another part that plays a role is that we're now at a point where it's impossible to ignore the negative consequences the industry produces. I think, for a very long time, we could turn a blind eye, because the problem wasn't that prevalent yet if you think about emissions or leakage, for example. Also, the speed of transmission of information has rapidly changed in the past two to five years, if you think about the impact of social media and consumers having more access to information.

FS: Are there any particular areas that you envisage the industry putting more focus on in the next couple of years in terms of sustainability?

AM: One model that will have more focus is de-inking. We see that it has relevance in two areas – post-industrial and post-consumer waste. De-inking is something that we have to focus on, because there will always be a certain degree of print jobs on each packaging.

We're getting more and more customer requests for de-inkable inks, and in terms of making it more mainstream, the next step is to see how we can combine ink solutions with more standardised de-inking processes. At the moment, this works well for post-industrial waste especially, because it's

usually very clear which kind of de-inking technology is used and what the parameters of the de-inking process are.

But, in order to achieve true scale, we have to translate this into post-consumer applications. The de-inking landscape here is so different, depending on factors like region and recyclers and so forth. The next step will be to collaborate with recyclers in order to make this solution scalable.

I think this is another great example of how we need to share knowledge – we can only make de-inkable ink if we have some understanding of what the parameters in the recycling process are. Otherwise, we put a solution onto the market that doesn't really have a system effect. You might then have a bottle that is printed on with de-inkable ink, but it never ends up in the right waste management stream.

Transparency in terms of measurement of sustainability is another trend that I expect to develop. There is a huge legislative push on this coming from the EU. This is something I'm really excited about and I think it will lead to yet more collaboration across the value chain. □

Alina Marm



REDEFINING SUSTAINABILITY



WE LOVE GOING ROUND
IN CIRCLES.
FOR MORE THAN 25 YEARS.

Ideas that drive progress: innovations and benefits in the circular economy

The circular concept has been the core of our innovation strategy for more than 25 years. From the very first IBC plastic pallet made of recycled plastic to the development of our unparalleled Infinity Series, an extensive range of packaging products made from recycled plastic. Beside that we developed and expanded our service portfolio with our global network for collecting and reconditioning of empty packaging. Learn how our products and services can make a positive contribution to your business too!

www.redefiningustainability.com



INK, HEART & SOUL

PREFERABLY GREEN!

We add color to sustainable packaging.



At Siegwirk we care about the environment. We believe through recycling, reusing and reducing packaging in line with the Circular Economy – our environment can be protected.

That's why we make your packaging fit the needs of today: we offer customized inks, coatings and services for circular packaging

solutions. With our products we promote reusability and recyclability – with perfect color results every time.

Would you like to shape the future of the packaging industry?

Then join us in becoming a pioneer for the Circular Economy!

www.siegwerk.com



Siegwerk Druckfarben AG & Co. KGaA · Alfred-Keller-Straße 55 · 53721 Siegburg · Germany · Tel.: +49 (0) 2241-304-0 · info@siegwerk.com