

# WELCOME TO OUR NEWSLETTER



SEPTEMBER, 2021

Dear Toraphene Friends and Investors,

#### **Business Update**

We are delighted to report that our latest run of home compostable carrier bags is in production and we are partnering with eco-conscious retailers eager to make the switch from plastic to sustainable packaging solutions. Our carrier bag is unique in that our scientists disperse graphene, the world's strongest material, uniformly into otherwise delicate biopolymers. The result is economically viable bags with the strength to withstand the rigour of general commercial use. This is an industry game changer and we are excited to announce our plans to launch with an innovative grocer this year. More details to come once we are able to share more!



Moreover, we are pleased to announce that the Company has on this Friday September 3rd, 2021, received an Intention to Grant notice from the European Patent Office ("EPO") for our previously filed patent application "Multilayer film for packaging and method of

manufacture thereof". Formalities will be completed in due course enabling us, if we secure all of them, to potentially offer patent protection for us in 36 countries for our 3-layer high barrier recyclable and/or compostable thin films.

### **Market News**

Our CEO, Gaute Juliussen, had the pleasure of being featured in an interview with Packaging Insights where he discusses and explains the composition of our graphene and biopolymer bases material and how it has comparable performance properties to conventional oil-based plastic. He also describes how we recently commercialised our first product, a single-layer thin flexible film out of which we are first making carrier bags.

Additionally, the biggest challenge to our scaling up is discussed, this being the state of global biopolymer being currently much smaller than that of plastics, therefore creating a cost disadvantage for biopolymers. Although this can be mitigated through government regulation or economies of scale. Lastly, Gaute explains that government policy can be an enormous contributor to help the expansion of companies that are creating plastic alternatives, thereby allowing more of the market to make the switch.

To watch the interview, click <u>here</u>.

# **Industry Commentary**

On July 3rd this year, the European Union's single-use plastics ban came into effect. It bans several categories of plastic products including, to name a few: cutlery, straws, cotton bud sticks, and sticks for supporting balloons.

That sounds pretty great, right? Well, although this is a good step in the right direction, these product categories play a relatively small part in plastic pollution. Thus, the impact that this ban will have on the plastic problem is in practice not going to be that significant when compared to the potential impact of banning other product categories that together make up the bulk of single-use plastic pollution, ones like carrier bags, coffee cups, and so on.

But there is a good reason why the EU did not ban plastic in these larger more important categories: they do not really yet have commercially-viable alternatives. In other words, for these categories, there are not yet alternatives that can be produced and distributed at the comparable scale and cost required to make the transition away from plastics a smooth and painless one for businesses. These are the categories that Toraphene is targeting, where we can have the highest initial impact.

# How can you help?

We ask for your assistance in helping us connect with businesses that want to make the switch away from plastic carrier bags to our home compostable solution. Whether they prefer our universal Toraphene bag or would like to commission custom printed production runs, we offer and easy way for businesses to achieve their sustainability goals and reduce the amount of plastic in the world. Send any suggestions and/or introductions to us at hello@toraphene.com

That is all from us for now, and thank you again for your support.

Best regards,

Gaute





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