

# Starting up under the Shadow of Corona

## Current Challenges and Options for Action in the Plastics Industry

For almost two decades, an expert committee, meeting once a year, has supported **Kunststoffe** magazine in determining the state of play in the plastics industry and identifying current technical developments. This time, the traditional spring meeting gave it an opportunity to debate the consequences of the Corona virus.

Taking new paths: during the Corona crisis, certain technical obstacles were also overcome by the **Kunststoffe** publisher advisory committee, who held a round table discussion by video conference for the first time. Present by video link were, among others, (top, from left) Dr. Guiscard Glück, Prof. Christian Hopmann (bottom, from left) Martin Würtele and Dr. Achim Eggert © Hanser/K.Klotz



There were a lot of things different at this 18th session of the **Kunststoffe** editorial advisory board. It is not only that Dr. Rüdiger Baunemann, who had supported us for a decade as advisor, was not able to take part any more (see Box p.12), but also that, in this time of Corona, the meeting had to be held by video conferencing for the first time (Title figure).

**Kunststoffe:** *First the crisis in the automotive industry and the worsening image of plastics, now the Corona crisis as well. How is the plastics industry faring?*

→ **Michael Weigelt (TecPart):** Suppliers to the automotive industry are in a very dire position, not least because automotive manufacturers have closed down their production without warning, and so far have not given any precise information about how things will continue. As a result, many processors no longer knew how they were supposed to plan and manufacture. The suppliers currently face huge difficulties in adapting their material planning to actual customer demand and their own manufacturing. It still remains unresolved whether the

material supply will remain secure, or a situation like that ten years ago will arise, when the polyamide plants and crackers were shut down.

→ **Dr. Guiscard Glück (BASF):** The Lehmann crisis, which led to the collapse of entire supply chains, taught many companies a lesson. Suppliers who at that time couldn't supply their customers when the conveyor belts started up again are now taking great care to be well prepared for any event. However, this sensitivity stands and falls with the extent of the crisis. If it lasts for several months, it

could lead to the failure of particular stages in the supply chains and to domino effects, and ultimately to a scenario that we can hardly imagine at present.

**Will the supply chains now become more regional as a reaction to global problems?**

→ **Dr. Glück:** The supply chains were also in a critical state after Fukushima, and companies tried to develop alternatives. However, these considerations were pretty quickly dropped, since companies are always looking for the optimized process chain. Globalization has contributed so much to optimization that I would be very cautious in predicting whether the current crisis will lead to greater regionalization, since that could mean additional costs. The entire economic system will rather try to find a way back to the optimized globalized mode. There will certainly be attempts at regionalization, but since that comes at a price, I am skeptical whether it will be tenable in the long term.

**After all, the automotive industry was already ailing before Corona, and was then hit again. Are there also winners in the plastics industry, such as the medtech sector?**

→ **Dr. Glück:** I wouldn't talk of winners. Even companies that are showing a strong peak in demand now and are expected to provide capacities are experiencing a difficult situation. And it can be expected that sooner or later they will have to deal with reduced demand. That is a very difficult balancing act – such demand peaks are certainly very welcome in the short term, but are difficult to manage and usually not sustainable.

→ **Prof. Dr. Christian Hopmann (IKV):** Even in the medical field, though some protective products, for example, are in very great demand, there is suddenly only very low demand for many other products, as the admission rate to hospitals has fallen drastically, since many less urgent operations have been postponed. So we can't speak of a boom in medical technology in general.

→ **Martin Würtele (KraussMaffei):** That is also the feedback we have received from our customers, such as in Switzerland in the area of high-speed injection-molding machines – basic instruments and disposable diagnostic articles, for example, are still selling well, but fewer medical articles are being consumed at

present, since fewer people are going to their doctor or into hospital.

→ **Dr. Achim P. Eggert (VDI):** Hospital utilization is low throughout Germany, since beds are being reserved for Corona patients, and fewer operations are therefore being performed, so that many medical products are no longer in demand in the usual quantities.

**What does the packaging sector look like? Can it profit from the fact that people are more conscious of hygiene, i.e. currently appreciate packaging more and the advantage of disposable products in medical applications is becoming clear?**

→ **Dr. Glück:** What will be sustainable is the discussion we were having before about the circular economy. Here, we will continue to set standards in recycling and top quality recyclates with chemical recycling. The positive image of plastics in the context of protective clothing will not roll back the discussion about the carbon footprint, but I can imagine the two complementing one another.

→ **Weigelt:** Yes, we are now discussing in many areas how we can introduce more recyclates into the supply chain, which criteria could be used to standardize them, etc. The Corona crisis, by dominating the current news, could perhaps help us to continue this work in peace, so that we will be able to present advances when there is an interest in environmental issues again. But those who have argued against plastics in the past – not only NGOs, but also companies offering competing materials, which are under pressure from the success of plastics – will fuel the debate again even after Corona. It is now up to us to show in which direction the next steps must be taken.

→ **Prof. Hopmann:** Plastics recycling will remain a burning issue in the coming years. We are aware that, due to the Corona epidemic, plastics are in great demand, because consumers are increasingly welcoming disposable packaging, but I have not noticed from the public media that plastics are therefore presented more advantageously than just a few months ago. The somewhat more positive or less critical publications will very quickly fade away again. We will be left with the discussion about sustainability. Whether, and how, the appraisal will change here is closely linked with the question of whether and how the in- »

## The Discussion Participants

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**Prof. Dr. Christian Hopmann**, Institute of Plastics Processing (IKV) at RWTH Aachen, Germany

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dustry is capable of plausibly offering transparent and independently verifiable solutions. The Corona crisis can certainly give us a few months' breathing space, but no more than that.

→ **Weigelt:** But what does "a few months" mean? Politicians are very cautious in withdrawing the restrictions – the question will be how long we can continue along this road. But as long as this issue is simmering, everyone will enthusiastically buy packaged foods and goods because they want to protect people. It will certainly push back the "withdrawal effect" of avoiding plastics.

→ **Würtele:** My hope is that the Corona crisis will make the differentiation more precise, and that plastics in general will not be demonized, but the insight will grow that plastics can be very useful. I already believe that the Corona crisis will contribute to people seeing plastics as

we have to solve together with the politicians.

→ **Weigelt:** The crucial thing is how sustainably we dispose of plastics. Our problem is that plastic wastes are lightweight, float and that there are too many obscure issues in disposal. And that is used against us. I support a complete ban on plastics exports with exceptions for companies that dispose of the material in a certified way. However, within Germany, we are very well placed in plastics recycling. Unfortunately a backdoor was opened for waste management with the help of the German Federal Environment Ministry, since plastics wastes are counted as recycled if they are exported for recycling – no matter what actually happens to them. And the fact that most of them disappear in dubious ways in remote countries is less a failing of the plastics industry than, first and foremost,

*To return to the Corona situation – what would you advise as companies?*

→ **Dr.-Ing. Erwin Bürkle (ThiM):** The situation is very difficult regarding the procedures and financing, but we must make use of the breathing space for new developments, especially as regards digitalization. In recent years, we have strongly advanced productivity, but placed less value on innovation. Because of the growing competition from the USA and Asia, we have to develop products in this country that will still earn us revenue in the future.

→ **Weigelt:** To ramp up the economy, we will have more time available than we would like. It's exacerbated by the fact that it will not be a V-shaped recovery as ten years ago, since not only one branch of industry is affected but the entire economy on a scale that hardly anyone has seen before. Many small companies in the hospitality sector or trade-show services will simply no longer exist anymore. Consequently there will be a shortage of money in the economy and also among consumers, which will mean a huge drop in purchasing power in this year and the next. As for catch-up effects in the field of consumer or investment goods, I don't see any signs of that yet. Most companies therefore don't have the money for innovations at present.

→ **Prof. Hopmann:** The dilemma is that you either have no time for innovations because business is going so well, or no money because business is not going well. We have to find a way out of this quandary. It goes without saying that the challenges companies face are huge, but nevertheless they not only have to focus on the ramp-up in the coming months but also prepare for the time after that. And I agree completely with Mr. Bürkle – the topic of innovation has fallen by the wayside in the recent, predominantly very very good years. If we lose even more time due to the crisis, there is a very high risk we will fall behind.

→ **Dr. Bürkle:** Paving the way for innovation will require a very delicate balancing act. But, here in Europe, we must concentrate on innovations. Since in the long term, that is our chance of survival.

→ **Würtele:** However, in some companies it will be increasingly difficult to implement innovations, since com-

## On the Death of Dr. Rüdiger Baunemann

Just a few minutes before the beginning of the meeting with our publisher advisory committee, on April 21, 2020, the news reached us of the unexpected death of Dr. Rüdiger Baunemann. He was Managing Director of the association of the plastics-producing industry from 2002 and, from 2011, General Director of PlasticsEurope Deutschland, as the association was renamed, and in this capacity, member of our publisher's advisory committee. He was also a sought-after press spokesperson for the emerging issues of plastic waste and marine littering. He will also be remembered for his commitment to national and international standardization work: he was appointed Chairman of the sponsor



Dr. Rüdiger Baunemann © PlasticsEurope

group of the DIN standards committee plastics (FNK) in 1997 and, in 2003, Chairman of the FNK; in 2016 he received the DIN Ehrennadel (pin of honor).

valuable materials and a wider popular approval emerging. But that will not spare us the discussion about marine litter – and that is good, since it must remain an issue. The challenge of coming years and decades will thus be to establish these circular streams.

→ **Eggert:** The main problem we have with plastics wastes is a logistical one. There is a great need to catch up. In Germany, we have good collection systems in principle, but abroad, no one can trace the paths, and that is something

of those who are paid for this, namely the waste management sector. As an industry, we have to curb this and find a solution in our own country for about a million tons per year of often heavily contaminated plastics. We have to work to ensure that energy recycling is also possible even if it is often unjustifiably frowned upon, because in principle the material could be repelletized – even though that makes neither environmental nor economic sense with these waste categories.



## In Demand

**The *Kunststoffe* advisory committee member Dr. Marco Wacker is responsible for the field of head protection at uvex Arbeitsschutz GmbH, Fürth, Germany, and was not able to take part in the round table discussions. We therefore spoke to him on the phone afterwards.**

***Kunststoffe:* Mr. Wacker, you are going through turbulent times at present. How long has this been the case?**

It started in December with the bushfires in Australia, which had impacted the distribution of respirators for firefighting. After that, the crisis started. We had already been aware of it in January as we have our own factory in China for sales of safety products in the Chinese market, and quickly realized what was happening. Demand has now been picking up in Europe, too. Although we predominantly supply industrial customers, we have suddenly experienced a huge demand from the public sector, hospitals and other medical institutions, which we weren't prepared for.

***How do you respond to sudden surges in demand?***

We manufacture the goggles here in Fürth, and had to increase the capacity by working overtime, including on Sundays, and even that isn't enough at the moment. That is to say, we are restructuring the work yet again after a few weeks. Shortly we will have significantly increased our capacity again within about four months. The expansion itself would be OK, but we have to manage it all under difficult circumstances – some employees are working from their home of-

fice, and shouldn't meet in person if possible, etc. It is thus not only a question of expanding capacities, but at the same time protecting against viral infection, and keeping operational.

***How quickly can you obtain additional tools or production lines?***

In this respect, the automotive crisis is playing into our hands. Tool and plant manufacturers currently have free capacities. Injection-molding machines can be delivered almost immediately. It is more difficult to free up space in our buildings, and to adapt our own infrastructure. We therefore have many external companies on the company grounds. Nevertheless, we have to ensure that the virus is not introduced, since it would be fatal if we had to completely shut down a shift.

***Have you taken on new staff?***

At first, we distributed simple injection molding orders to affiliated companies and outsourced orders to our factory in China. But now we also work with 7 x 3 shifts per week in Fürth, so Sundays as well, and that is not possible without temporary staff, and we are also looking for cooperations. Under these stressful circumstances, I'm trying to motivate people by telling them that in other companies, people are worried about their jobs, but despite that, with such a heavy workload, even working on holidays, the employees sooner or later become burnt out.

***Indeed, many companies have free capacity, while your company is inundated with demand.***

We have to make a distinction. Uvex is mainly known in the sports sector, which



Dr. Marco Wacker © uvex

has not only suffered from the extremely mild winter, but of course from the faltering demand due to the Corona restrictions. There is short-time working here in the non-operational area and, even in our industrial safety area, demand is much lower, e.g., for protective clothing and shoes, which we supply to the automotive industry – where there is also short-time working. But everything worn on the head – respirators, visors and goggles – as well as disposable suits and disposable gloves – is in huge demand.

***Do you see yourselves as winners in the crisis?***

I would say it is ambivalent, we will have to see the figures at the end of the business year. If we have a global recession, then, despite appearing positive at first, it will not have turned out to have been a sustainable development. The crisis is threatening, for example, many processors and mold manufacturers, and that would be bad for the entire industry if companies go under. We are left with the challenge of securing the production capacities that are now planned in the medium and long term.

*Interview: Dr. Karlhorst Klotz, Editor*

panies have to keep hold of their money. That is quite clearly a question of priorities. If we are arguing that innovations are important in the long term, half a year is neither here nor there at the moment.

→ **Weigelt:** Where would the fields of innovation lie? The typically German navel-gazing often reaches the conclusion that we are not really very good. At present, for example, we have 4800 effective patents on autonomous driving, 2000 of them, i.e. almost half, come from German

companies. It's undeniable that it would sometimes be desirable to be faster in addressing this or that issue. But here, too, there is global competition, which allows innovative companies to achieve higher margins, though they are permanently on trial, and by far no longer in such a comfortable position as they used to be. The big sellers today are digital products, which our industry doesn't manufacture.

→ **Prof. Hopmann:** Autonomous driving is a good example, since there are many

patents about this in Germany, though these are not innovations yet, but inventions at best. Innovation means building them into a business – and often that does not take place in Germany. We have very good ideas and develop them, but are often too slow to realize them on the market. The issue of digitalization illustrates this perfectly. There is a lot that can be digitalized, the potential is there for the asking. ■

*The discussion was led by Dr. Karlhorst Klotz, Editor.*