

“Plastics Experts are the Solution – Not the Problem!”

Educational Work between Political Demands and Corporate Objectives

The plastics industry is currently struggling to raise its profile with positive headlines. The **Kunststoffe** editorial team discussed the present status of the plastics industry with representatives from industry, universities, and trade associations. Besides topics such as recycling and sustainability, the main focus was on recruiting young talent and the image issue.

The **Kunststoffe** advisory committee: top Erwin Bürkle, Thomas Seul, and Martin Würtele; center Guiscard Glück, Stefan Hofmann, and Ingemar Bühler; bottom Christian Hopmann, Achim Eggert, and Michael Weigelt (from left to right in each case) © Hanser



Kunststoffe: *The politicians are demanding considerably higher recycling quotas over the next few years, especially for plastics packaging. Mr. Weigelt, how actively is your association involved in this?*

Michael Weigelt: With GKV/TecPart (German Association of the Plastics Manufacturing Industry/Association of Technical Plastics Products), we are currently represented in 35 different working groups concerned with the plastics tax and the circular economy: in standardization committees, Brussels organizations, national authorities and environment ministries. The discussions are currently very difficult because there are many new actors who just do not understand plastics at all: who do not understand that plastics are energy

storers that store carbon provided they are not incinerated; who believe that all post-consumer recyclates can be transformed into a new bumper or a technical component. This is not usually the case, so much educational work is needed.

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Kunststoffe: *How is the work of the association going at the European level, Mr. Bühler?*

Ingemar Bühler: As a trade association, we must be politically active. Today, we are facing our greatest opportunity so far to tackle the acceptance problem in the European political environment. In many areas we have the arguments on our side. To give one example: without high-performance plastics, we will not be able

to implement the energy revolution and meet climate targets. Every material needs its own recycling process. European policy-makers are exerting tremendous pressure: we must commit to how the future will look in ten or twenty years' time. There is no single answer – we must develop a compelling vision.

Kunststoffe: Have milestones been defined? What happens if the political demands are not met?

Ingemar Bühler: So far, there have been no clear demands for milestones. If we are only halfway there, this has not worried anyone so far. But we should pursue the matter proactively and not wait until the lawmakers try to profit at the expense of the plastics industry.

Prof. Dr. Thomas

Seul: The political demands are one thing – but on the other hand image also plays an important role here. So long as “plastics” is a pejorative word and plastics are seen as a cheap and nasty raw material, nothing will change. If plastics are considered of low worth, they will not be treated as a valuable raw material.

Kunststoffe: Which brings us on to the question of image. Dr. Eggert, how is the VDI (Association of German Engineers) handling this issue?

Dr. Achim Eggert: Over the last few years, our image has been badly damaged by the packaging waste in the world's oceans. Now we are confronted with widespread hostility. We are trying to tackle this issue at various VDI events, including roundtable discussions with regional and federal politicians. In October of this year we are planning an experts forum that will take up the issue. We are also going to offer a plastics engineering sustainability award in conjunction with the VDI Technical Committee on Injection Molding Technology. This award will be aimed at students who are writing a Bachelor's or Master's thesis on the subject of the circular economy.

Kunststoffe: Mr. Seul, how are you getting across the image issue to your university students?

Prof. Dr. Thomas Seul: We must take this issue very seriously and not talk it down. What I always tell my students is: “You are the solution!” To solve problems arising from the use of plastics, you need plastics experts. This cannot be done by legislators. We must make ourselves aware that we are the solution to the problem. If this gets through to the students, then I feel reassured about the future.

Kunststoffe: What contribution can the trade associations make, Mr. Bühler?

Ingemar Bühler: It is a scientifically measurable fact that if an industry sector has a negative image, this is followed by corresponding political decisions – and regulation greatly increases. Often these knee-jerk political decisions are purely symbolic to show consumers that they are being protected. Here, it doesn't matter whether there really is a problem or how serious the problem is. The only way we can counteract this is by communi-

cating openly and answering all the questions raised by critics and sceptics.

Kunststoffe: Mr. Hofmann, are image and the environment also important issues in toolmaking?

Stefan Hofmann: For toolmaking, the raw materials are not an issue. But for us as a company, sustainability has great importance and so we meet high requirements through environmental and quality certification, e.g. for energy management and environmental protection. I think it is very important, however, that we in the plastics industry are ourselves all prepared with sufficient arguments. We should be best informed about which regulations apply.

“The aim is to reform industry not to defend the status quo.”

Ingemar Bühler, PlasticsEurope Deutschland

Kunststoffe: Dr. Glück, what approach does a chemical company take with regard to the image issue?

Dr. Guiscard Glück: As a chemicals company

and plastics producer, we hear the concerns and take our responsibility here very seriously. For example, as part of the Alliance to End Plastic Waste, we are committed to stopping plastics waste entering the environment. If we broaden the discussion somewhat and talk about the great human concern of climate change, it is clear that plastics can help reduce CO₂ emissions in the transport, construction, and consumer sectors. We are continually striving to increase the value of plastics over their entire lifecycle and minimize their CO₂ footprint. So we are concentrating, for example, on the efficient use of raw materials and the pur- »

The Interviewees

Ingemar Bühler, PlasticsEurope Germany

Dr.-Ing. Erwin Bürkle, Innovation mentor, Benediktbeuern, Germany

Dr. Achim P. Eggert, VDI – The Association of German Engineers, Plastics Engineering Section, Düsseldorf, Germany

Dr. Guiscard Glück, R&D Engineering Plastics, Performance Materials Europe, BASF SE, Ludwigshafen, Germany

Dipl.-Ing. Stefan Hofmann, Siegfried Hofmann GmbH, Lichtenfels, Germany

Prof. Dr.-Ing. Christian Hopmann, Institute for Plastics Processing at RWTH Aachen University, Germany

Prof. Dr.-Ing. Thomas Seul, Applied Plastics Engineering Department at Schmalkalden University of Applied Sciences, Germany and VDWF (Association of German Tool and Moldmakers) e. V. Schwendi, Germany

Dipl.-Ing. Michael Weigelt, GKV/TecPart (German Association of the Plastics Manufacturing Industry/Association of Technical Plastics Products), Frankfurt am Main, Germany

Dipl.-Ing. Martin Würtele, KraussMaffei Technologies GmbH, Munich, Germany

All the participants belong to the advisory committee of **Kunststoffe**.



“We must bring recycling technologies to where the waste is.”

Martin Würtele, KraussMaffei

chase of renewable energy for manufacture. BASF has set itself tough targets in this respect. Our CEO, Martin Brudermüller, who is a member of the Economic Advisory Committee of the German Green Party parliamentary group, makes himself very clear on this issue both within the company and outside. Just recently he announced a tightening of our sustainability targets, committing the company to a 25% cut in its CO₂ emissions by 2030 and worldwide CO₂-neutral production from 2050. These are very ambitious targets and also apply to the production of our plastics.

Kunststoffe: Another topic much discussed at present is the recruitment of young talent. What ideas does the trade association have on this, Mr. Bühler?

Ingemar Bühler: We need many clever minds to overcome the upcoming challenges. If our industry does not attract young people, we have got a problem. We must move away from just defending ourselves against political pressure. We must work towards a goal. And that consists not in defending the status quo but transforming a whole industry. If we explain that boldly and with vision, then we can also inspire people.

Dr. Guiscard Glück: I completely agree with Mr. Bühler. Change can only be brought about by people. And we need young people!

Kunststoffe: Can the industry persuade people if the set recycling targets are achieved? In the case of plastics packaging this means doubling the previous recycling target to 50% by 2025 and even 55% by 2030.

Ingemar Bühler: We are losing the educated middle class and young

people – we currently have a large acceptance problem with both groups. They will not be won back with some recycling target to be reached in ten years' time. We have to participate in this debate in a whole different way.

Kunststoffe: What framework conditions can tackle the recycling issue better than quotas, Dr. Bürkle?

Dr. Erwin Bürkle: The currently high global volume of waste from vaccination equipment such as syringes, vials, and packaging is forcing the plastics industry in particular to launch initiatives for material recycling as soon as possible. Of course, in so doing, the specific regulatory requirements should be heeded and the entire value chain taken into consideration. That means new framework conditions must be created. Ultimately, however, our plastics products should be recycled in a closed loop. This recycling potential of valuable raw materials must be realized and translated into new material streams and recycling chains. I think that a whole range of recycling methods have already been developed that can be used, albeit in modified and expanded form. We should not just

accept these valuable materials being incinerated with the household waste.

Kunststoffe: Prof. Hopmann, what part does the subject of the circular economy play in student education?

Prof. Dr. Christian Hopmann: Recycling is not really a new subject. The IKV (Institute for Plastics Processing) was concerned with this subject way back in the 1980s. For years there has been a separate lecture on plastics recycling. But in recent times, students have been asking a lot of questions about it. The subject has developed in an evolutionary way over the last few years. That is why, in the early semesters, we now deal with the subject in depth to show that plastics are indispensable in many sectors. Without plastics, there would be no face masks and to a large extent no food packaging today. Nevertheless, plastics present us with great challenges. We have many exposed flanks when it comes to sustainability.

Kunststoffe: Mr. Bühler, how do you as a trade association deal with the “exposed flanks”?

Ingemar Bühler: It feels like a stretch. We have many members who take the subject very seriously. But on the other hand, there is the practical business perspective. Ideally, through strategic objectives, we would usher in the new era of the circular economy. Without a raw material shortage and with good-quality recyclates at an acceptable price, we would have one problem less, namely

“We are losing the educated middle class and young people. Recycling targets alone will not be enough to win them back.”

Ingemar Bühler

our dependence on fossil fuel-based raw materials. But from a business viewpoint, this is not easy. It must remain financially feasible.

Kunststoffe: Does the plastics industry feel it is taken seriously by politicians?

Michael Weigelt: More and more. At least technical interest is increasing, since we have to get across the fact that recycling for technical parts is not as easy as for PET bottles. Contaminated parts that do not comply with present chemicals legislation cannot simply be recycled. We now have a huge opportunity with products that are used everywhere in the pandemic such as syringes, masks or other personal protective equipment.

Kunststoffe: What role does machinery manufacture play in environmental protection matters?

Martin Würtele: We need to differentiate between climate protection and environmental protection. We have a great opportunity to create a circular economy for plastics and achieve the energy revolution. But for machinery manufacture, ecology is not the only important topic. Our aim is to think holistically and also take into account social concerns. The efforts made as part of corporate social responsibility address both areas. And here we can play a leading role in Europe – I see this as an opportunity to distinguish ourselves from the competition. In low-wage countries, a manufacturer perhaps does not know exactly how, for example, the liquids from the pickling tank of his electroplat-

ing plant are disposed of. We are in a position to determine that. I am sure that we will find ways and means to solve environmental problems. We must bring recycling technologies to where the waste is so that waste can be returned back into the loop on the spot.

Kunststoffe: Is recycling the solution to the problem? What is your view, Mr. Weigelt?

Michael Weigelt: It must be made clear that recycling is not the all-embracing solution. But every ecologically and economically sensible recycling operation contributes to eliminating the problem.

Kunststoffe: Ecology is an enduring issue. Mr. Würtele, in conclusion, look into the future for us. How will this problem develop?

Martin Würtele: I recently read a report about the German Ruhr area from the 1970s. At that time the sky there was a sulphurous yellow and it was obvious to everyone that things could not continue in this way. In fact, a change of thinking then took place. Now you can breathe fresh air in the Ruhr area and swim in the rivers. In exactly the same way, we will get to grips with the problem of plastics waste. We must face this task. We are all challenged to take responsibility for this. If we show the public positive examples, we will also raise political awareness of our issues. ■

The interview was conducted by Dr. Clemens Doriat, Susanne Schröder and Florian Streifinger



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