VDM international report

Würzberger and Nagl in charge of the quality association Cable Dismantlers

The VDM quality association Cable Dismantlers met under new leadership for the first time on 2 October 2018 in Munich. VDM president Petra Zieringer – who runs a cable dismantling facility and a plastics production herself – congratulated the new supervisor Johannes Würzberger (Metallverwertung München) as well as his substitute Manuel Nagl (Salzburger Metall- und Kabelverwertung) and was happy about the successful generation change. At the same time she thanked the former supervisor Dr. Michael Liesegang for his great commitment, who had presided over the quality association since 2005. He left the group due to professional changes. His former deputy, Helmuth Nagl, forewent a reappointment since in his capacity as a member of the managing board he is not only responsible for Austria, but also the treasurer of the association.

The quality association, founded in 1987, represents the interests of the big cable dismantling facilities in Germany and Austria. They recover high-quality aluminum and copper granulate from old cables; lead is also obtained in an environment-friendly way. Modern companies have high environmental standards and are an important factor of the recycling industry. In the VDM magazine 674 you will find detailed information about cable dismantling (www.vdm.berlin).

A current issue is the misguided plastics policy of the European Union. On the one hand the EU wants to encourage recycling, on the other badly thought out requirements hamper environment-friendly recycling. "The EU has to think about the whole chain of recycling, from an urgently required product design to reasonable recycling paths. Waste politicians think too dogmatically where this is concerned, more pragmatism would be preferable," Würzberger emphasised.

The managing board appointed Michael Diekmann, co-shareholder and managing director of Wachtmann Rohstoffhandel GmbH in Herford, as the new head of the Metal Academy. Diekmann has been a member of the managing board since May 2014.

Change in the VDM Metal Academy

After many years of dedicated work in the executive committees of the association, Heiko Neuffer resigned from the managing board of the VDM on 19 September 2018. Projects of his company, the Otto Müller GmbH & Co. KG in Hannover, will take up more of his time in the coming months than originally planned. "I loved being active for the VDM, especially the Metal Academy held a special place in my heart," Neuffer said. "If you notice that there's no time to push forward important things in the association the way you might want to, it is time to pass on the baton." For many years Neuffer was president of the waste management association ESN, which had been co-initiated by the VDM, and later joined the managing board of the VDM, where he was responsible for the education of the young generation.

Heiko Neuffer
Michael Diekmann
VDM Position
Considering recycling from the beginning to the end

Metal recycling implies environmental protection and securing raw materials

Recycling is the safest and most ecological form of securing raw materials in Europe. The processing of the european scrap is efficient and saving energy. The unlimited recycling of metals without any loss of quality and using only a fraction of the energy required for primary production improves the energy balance dramatically.

- In 2017, 2,634,000 tonnes of raw metal were produced just in Germany. 1,272,000 tonnes of these are derived from primary raw materials (ores, concentrates) and 1,362,000 tonnes from secondary raw materials (scrap, residues). In German, therefore, more metals are extracted from recycled raw materials than from primary production.

- Recycling saves energy and CO2. For example, recovering one tonne of aluminum from secondary raw materials requires only about 5 % of the energy needed to produce one tonne of aluminum from the ore bauxite.

- For metals, there is no downcycling. The copper recovered from scrap is absolutely identical to the copper produced from ore. In the case of aluminum, recycling cannot always recover the original alloy, but the secondary aluminum can be used for the production of new alloys without loss of quality.

If you want recycling, you have to permit recycling

Metal recycling is a core competence of our member companies. The spectrum ranges from conventional metal scrap recycling to specialist areas such as recycling of cable or waste of electrical and electronic equipment. The recycling methods used are state of the art and subject to the strictest environmental regulations. Germany and Austria have the highest environmental standards worldwide. Nevertheless, the regulations for recycling in Europe, but especially in Germany and Austria, are being continuously tightened. Limits and control regulations go beyond a rationally comprehensible measure in many places and thus hinder economically sensible recycling. But if you want recycling, you must permit recycling. The term recycling must finally be filled positively again.

Recycling starts at the beginning - product design

Anyone who wants to recycle already has to set the right course in the production of a product. While legislators and authorities almost exclusively focus on the regulation of the recycling industry, the placing on the market of products remains largely unnoticed. The result: there are increasingly products on the market that are very difficult or - in extreme cases - not to recycle at all.

- A test has shown that cables purchased in the hardware store - whose country of origin could not be determined - have significantly higher pollutant values in the plastic than the materials that you can usually find in a recycling plant. When the relevant waste authority was confronted with these facts, it succinctly stated that it was not responsible for products.

The VDM calls for an ecological product design for all products that are launched in the EU. Anyone who places a product on the market must ensure that a proper and harmless recycling is possible later on. At the same time, it would be welcome if imported goods were also checked for substance content, at least on a random basis; this would be a meaningful prevention for European producers and the recycling industry.

- The problem with many mobile phones or tablet is that the battery can not be removed; this makes recycling much more difficult. Even voluntary take-back systems of the manufacturers do not change this, they only shift the problem. Such products should not be allowed to be placed on the EU market.

Recycling needs an honest life cycle assessment

Environmental policy measures make no sense if they achieve the desired goal at first glance but cannot withstand an honest life cycle assessment. If you want to recycle, you have to be honest. Not only must we keep an eye on the positive results, but we must also ensure that the measure is environmentally compatible overall.

- Wind turbines produce electricity and therefore replace nuclear power and coal mining. On the other hand they are marketed without paying attention to their recyclability. For a long time, it was not possible to recycle the swingarms made of glass-fiber or carbon-reinforced plastics. In the meantime laborious efforts are being made to utilize them. According to the Fraunhofer Institute, wind turbines made of steel or aluminum would be much more eco-friendly, but initially more expensive. Since it was a political goal to install many wind turbines as quickly as possible, they chose the cheap but ecologically much worse plastic variant.

- Electromobility only makes sense if the life cycle assessment, that is, the systematic analysis of all environmental effects of an electric car, from raw material pro-
curement through production and energy consumption to recycling, is right. Lithium batteries are much more a problem than conventional lead-acid batteries, which are almost 100 percent recyclable. Cobalt is poisonous, limited in availability and also from high risk areas. In addition, the recycling of these batteries is difficult (remain the residual charge very long / flammable) and expensive. Investing in new recycling technologies is hardly worth it, because the composition of the accumulators is constantly changing, there is no standard.

Recycling must be possible

Products that are recycled today sometimes contain substances whose limit values no longer comply with current laws or regulations. These substances were usually legally placed on the market because the limit values used to be higher or did not apply or now apply to products. The fact is that this material exists today and must be recycled in an environmentally compatible way.

- In the context of the CLP Regulation, the EU is discussing the classification of cobalt metal as carcinogenic, mutagenic and reprotoxic. There should be a limit of 0.01% in alloys. A higher concentration is already required for metallurgical reasons very often. Thus, the cobalt content in stainless steel cutlery is generally well above 0.01 percent. Quite apart from the fact that there is still no suitable measuring method for the desired limit value, the bioavailability of cobalt in alloys is also called into question. If the limit of 0.01% becomes reality, it is to be feared that this limit value will be incorporated into waste legislation. This would mean that almost all scrap would become hazardous waste, with immediate effects on existing permissions (eg storage capacity under BImSchG) or export (notification according to AbfallVerbrVO). Similar discussions also exist with other metals, such as lead.

- For electric devices placed on the market 1000 ppm of flame retardants are accepted, and only 500 ppm for recycling. Does this make sense?

Both of these examples show how essential their own limits for recycling are. Interestingly, so far no study is known, which assumes a risk to the environment or people at higher limits in recycling. Most of the limit values are set for new commodities and are transferred unthinkingly without convincing justification to recycling.

We need a secondary raw material policy again

In the past, secondary raw materials were part of the commodity policy; there was a separate unit for non-ferrous metals in the Federal Ministry of Economics. Recycling was securing resources. Today metal recycling belongs to the Federal Environment Ministry, valuable raw materials and waste are equated indifferent.

- Strict waste and environmental regulations must be in place if action is needed and the environment and health regulations are protected. Today's waste legislation focused on "garbage", but not on secondary raw materials. The Basel Convention of 1989 created a new definition of waste that includes both waste and secondary raw materials. Since then, the same rules apply to both areas, without concern for their meaning. Thus Recycling is made unnecessarily difficult, but not encouraged.

- The disposal of traditional waste (garbage, used oil, used tires, etc.) costs money. Here is the danger of illegal disposal - there was a need for action for the legislature. Metal scrap, on the other hand, has a high positive market value. Examples: One tonne of bright copper wire scrap was traded between 5,190 and 5,350 euros at the beginning of February 2019, a ton of soft-lead scrap between 1,630 and 1,700 euros. Scrap metals have been in demand for thousands of years; they are collected and recycled, but are not disposed of illegally. Nevertheless, the legislature treats them like garbage.

Further necessary conditions

- Politicians must not only commit to recycling, they must also provide the recycling industry with a reasonable legal framework.

- Our regulations need to be differentiated.

  - What applies to new products often does not make sense in recycling.

  - What is right with traditional waste ("garbage") can be counterproductive for secondary raw materials.

- We need cross-border recycling. Especially more specialized recycling processes are expensive and require input material. There should be no obstructive notification procedures within the EU.

- We need a minimum level of investment and planning security again. The pace of changing regulations already prevents investment in important projects.

- Unnecessary bureaucracy must be abolished. Why does it require proof procedures and documentation requirements for each stream? This might be comprehensible for garbage, but not for copper.
Being actively involved in the work of the VDM:
Marc Affüpper – Sims M+R GmbH

The VDM quality association Old Electrical Equipment was founded 26 years ago. Its members are experts in e-scrap-recycling and cover more than 70 per cent of the market in Germany. They not only concern themselves with metals, but also with other materials such as plastics. In the summer of 2018 the VDM managing board appointed Mr. Marc Affüpper as the new assistant supervisor of this group.

"The numerous rules and standards, the continuous further development on a national and international level as well as the complexity make it extremely difficult for managers to keep up during day-to-day business and make the right decisions. The quality association helps with that and provides the opportunity to ask questions, exchange experiences and if necessary get into contact with political bodies and administrations in the name of the industry without putting the focus on one special company," Affüpper stated.

One of the reasons the Wuppertal resident had for taking the office is that this exchange and possible contact to respective political bodies only works if the meetings of the quality association are led with content and dedication. "I think it’s fair to put responsibility on many different shoulders and within the possibilities show support to the more dedicated colleagues, who as a rule do the essential work together with the employees of the VDM." The reason for why it is generally important to take the work being done in the association seriously and to get involved and connect with people, Affüpper sees in the current political situation. "I think that in a world where companies are getting ‘slimmer’, the aspect of working on problems and sharing the resources with our customers, suppliers, competitors and partners will gain importance."

With regards to content the trained industrial engineer thinks there are several tasks and areas which could be changed or improved in the future: "Education, the young generation and image cultivation are topics which offer potential in our industry, things which have gained great importance since the current unemployment rate in Germany has been pleasantly low."

But he also has institutional approaches: "The quality association Old Electrical Equipment of the VDM is a committee which can communicate with the similarly structured work groups of other associations like for example the BDE or BVSE. The topics discussed there are often similar, merely the companies have other focuses or histories, they are rather found in waste management or secondary raw material trade. However, from my point of view dialogue has already improved in this respect, something that hopefully makes it possible for the industry to be heard more, for example in matters of legal adjustments."

Marc Affüpper has been the managing director of the SIMS M+R GmbH in Bergkamen since 2009. Since 2012 he’s also been the managing director of the SIMS German Holdings GmbH and since 2017 has also been responsible as SRS Europe, Middle East and Africa (EMEA) director for SIMS Recycling Solutions.

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Next VDM networking meetings:
> 16th of May: Rostock-Warnemünde General Assembly
> 6th of June 2019: Cologne
> 27th of June 2019: Freiburg together with VSMR
> 5th of September 2019: Hamburg
> December 2019: Munich
> 23th of April 2020: Berlin General Assembly

For more information please ask the VDM office: vdm@vdm.berlin