

#### Please tell us about your professional background.

I have been working for HTV for I3 years and in the meantime became responsible for the commercial operations 6 years ago. I participated in the development of the TAB long-term storage process, and my daily contact with customers made it obvious that obsolescence is a big concern within our industry.

# What trends in obsolescence management have you been observing in your industry?

Our customers come from all kinds of industries, especially the automotive, avionics, space, and medical sectors, and we see an increasing requirement for storing obsolete devices and finding solutions to manage obsolescence proactively – for example, special software and controlled storage. Obsolescence groups take care of this issue, and special meetings and interchange with other companies help to get a better overview of this critical topic. The huge challenge is the life cycle of the single components on the one hand and the life cycle of the product -the assembly-on the other, intensified by changes in the structure of components: miniaturization, material changes, and reduction of layer thicknesses on the pin level.

# Are there any industry practices around obsolescence that you would like to see improved? Please explain.

There is still a huge lack of understanding of the seriousness of obsolescence and the consequences of storing electronic devices in the wrong manner. I believe that the industry needs more training to increase awareness and sensitivity.

# What changes would you like to see chip manufacturers make to address future obsolescence challenges?

Chip manufacturers require huge quantities [of materials] in comparison with customers in the automotive and especially space and military industries. However, it would be appreciated if they committed at least a bit more to these markets that require long availabilities.

#### Specifically, what effect will the wave of chip manufacturer consolidations have on obsolescence?

Manufacturer consolidations can be considered highly critical, since the industry will be forced to buy from fewer manufacturers with a smaller variety of components. Thus, they will be more dependent on the manufacturers because there will be less competition on the market. Last-time buys will be performed more easily and faster than before, as there will be fewer replacements available.

# What impact do government regulations have on your obsolescence purchasing practices? Please explain the differences.

This issue is actually not applicable to us, as we are only a service provider; the customers always provide the goods, and we do not have to purchase components. However, based on our experience with customers, regulations such as RohS or REACH drastically complicate the processes of finding the appropriate components.

### From your viewpoint, what should the future of obsolescence look like?

Sensitizing will be essential, and early notifications would help to define the way of handling obsolete devices and finding the appropriate model of storing. This would at least turn this "stomachache" into a small "twitch."

# Do you have any advice or suggestions you would like to share based on your experience with obsolescence?

Obsolescence is a complex topic that doesn't have a one-size-fits-all solution. However, we see that a long-term storage process should be part of handling obsolescence. This includes controlling the storage parameters, reducing aging mechanisms such as oxidation and diffusion processes, and keeping the processability of components. In any case, obsolescence will be a very exciting topic in the next years, and we all can improve our ability to find and define obsolescence management.

