



**VII** LOOKING  
FORWARD

# WELCOME

Hello, and welcome to our latest edition of Looking Forward!



Looking back for a moment, it's fascinating to see the growth of the FOM community in the past few years. When our latest FOM event concludes in Washington, D.C., on October 11 this year, we'll have learned from over 30 expert speakers across four years and five events, and we'll have shared ideas from almost 700 attendees from 300 companies. Truly an impressive movement, reflecting the dedication our community has to making things better - and to the future.

What's interesting, though, is the development in topics we're finding from our customers. This year, our FOM2018 event focuses on two tracks - data intelligence and the secure supply chain. Both topics stand alone in terms of criticality and interest, yet both are inescapably linked when we look to understand where we need to focus for the future, how our risks develop, and what strategies we can employ - together - to keep moving forward.

Our team is excited to welcome all our attendees to Washington for our fifth, and largest, FOM worldwide event.

Let's continue writing the future of obsolescence management together.

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# FUTURE OF **OBSOLESCENCE** **MANAGEMENT**

**4**  
YEARS

**5**  
EVENTS

**32**  
SPEAKERS

**400**  
COMPANIES

**40**  
INTERVIEWS

**7**  
MAGAZINES





**HENRY LIVINGSTON**

Technical Director  
at BAE Systems



**ROBIN BROWN**

OSD Obsolescence  
DMSMS Program Manager  
at DASD(SE) EE



**SANWONG**

Director of Technology  
at GE Electronics Center  
of Excellence



**RON CATES**

Director, Worldwide Sales  
Channel Enablement  
at Microchip Technology Inc.

# FOM 2018 SPEAKERS



**ROB PICKEN**

Director FOM-EMEA  
at Converge



**STEPHANIE MELONI**

Consultant Market Intelligence  
at immixGroup



**SULTAN LILANI**

Director of Technical Support  
at Integra Technologies



**ENDA RUDDY**

Global Director EMEA, FOM,  
and Computing at Converge



**ROB PICKEN**

Global Director - FOM  
at Converge



**BILL FLIEGEL**

Americas Director  
FOM at Converge



**STANISLAVA PETROVA**

Marketing Manager FOM  
at Converge



**GLENN BASSETT**

Managing Director and Founder  
at NuVentures Limited

**FOM 2018  
TEAM**

STEPHANIE  
MELONI

immixGroup



### ***Please tell us about your professional background?***

I graduated from the University of Maryland, College Park in 2004 with a degree in Communications. I knew that I wanted to pursue a career using research and writing skills, I was looking for something that would allow for some creativity, and I knew I wanted to stay in the Washington, D.C., area. After interning at a few public relations agencies and initially focusing on marketing, I ended up doing what so many in this area do: I worked for a government contractor. I worked for two different systems integrators for about eight years total, supporting proposal, capture and business development efforts. This definitely allowed me to use my writing, editing and research skills, but I wanted something a bit more collaborative and fast-paced, which led me to my role as an immixGroup Market Intelligence analyst, which I started in 2014. immixGroup enables technology manufacturers and IT solution providers to grow their public-sector business while offering government agencies reliable access to the enterprise software and hardware solutions they need to achieve mission success. It was a bit of a shift in terms of company culture, customer focus and research methodology, with interactions being much closer to the customer.

### ***What role does analytics play at immixGroup?***

The idea of leveraging analytics to mine our data for opportunities was something my

team has wanted to do predating my time at immixGroup - we wanted to be able to provide the company with better insight into our suppliers' install bases, understand partner footprint and expertise, and recognize our customers and what products they were purchasing. Oftentimes, our own suppliers struggled to understand their own footprints with customers and needed our help configuring install-base data in a way that allowed them to re-engage for cross-sell opportunities, and those campaigns were very successful. That was a quick win when it came to analytics, which inspired us to see what else we could do with our data. So we embarked on a long and arduous journey to clean up data in our internal systems so that we could use it for analytics. Our transactional data and processes needed some serious work before we could use our data, particularly when it came to inputting the end user or government program associated with the order. This has been an ongoing process, but with the clean data, we were able to set up a business intelligence dashboard that allows us to see which kinds of technologies we sell to which customers and through which partners. Having this data at our fingertips allows us to be more strategic. We ultimately want to use advanced analytics to predict and proactively sell solutions to customers before our competition does.

### ***How do you see market intelligence as helping with the challenges of obsolescence management?***

I think market intelligence can help serve as a strategy for those struggling to understand their customers or the broader market they're trying to





operate in. Market intelligence combined with analytics should be of particular interest to those who work in the aerospace and defense (A&D) environment—understanding the broader goals of what a customer is trying to accomplish for the Department of

Defense, paired with programmatic and budget information, will give insight into the obsolescence obstacles that customers will encounter along the way. Market intelligence allows a company to anticipate how their particular component fits into the larger picture of the customer's mission. For obsolescence roles outside of A&D, a company may need to rely more on their own data, as well as third-party data, to extract meaningful information to help anticipate part obsolescence. From these data outputs, a company could help optimize inventory, determine product pairings for future sales or components replacements, or profile customers and suppliers. Market intelligence, no matter the customer type or industry, can ultimately lead to a supply chain where decisions can be made based on authoritative data.

***What challenges have you experienced in implementing analytics projects that you think would apply to obsolescence?***

The main challenge that we've experienced has been with collecting, cleaning and transforming our data so that we can use it for analysis, which will come as no surprise to anyone who has ever started a data analytics project. Data quality is the most important piece to get right.



For anyone who might be interested in improving the data they collect and use in order to turn this information into market intelligence, I'd recommend thinking about a few things. First, what is the end goal, or what question do you want to answer with your data set? Answering this question will help you determine exactly what data you need and where it's coming from. Second, think about how you collect your data. You may be unintentionally creating information silos between sales teams and order processing, and you want to make sure you're sharing the right kinds of information between all business functions. You also need to think about what kinds of data analytics resources and what kind of expertise you need to execute your vision. I've found it works best to start with a smaller analytics effort -where you pretty much already have all the resources you'd need- and then grow your success incrementally by slowly adding more advanced analytics.

***Is there any advice or suggestions you would like to share based on your experience with obsolescence?***

Obsolescence management isn't quite my area of expertise, but I do think how our market intelligence team collects, analyzes and manages internal and external data carries over as a concept for obsolescence experts. Proactively helping both your sales teams and customers understand how to prepare inventory and supply chain based on budget and timing is something I relate to in my role in enabling government software sales. In both cases, I'd recommend staying closely engaged with your customer. Look at all the data you have available to you, both internally and externally, as a way to stay informed in your market so that you're best prepared to help your customer manage obsolescence as part of their overall mission.



# RON CATES

Microchip



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

I have a BS in Electrical Engineering and an MBA in Management and Finance. I worked in the military electronics industry at General Dynamics, Ft. Worth Division, on the F-16 program in radar and stores management simulations and intelligence-gathering systems. Then, I moved into the semiconductor industry and gained experience in computers and communication systems for mainframe computers. I transitioned into marketing for embedded processing and marketed the ARM processor during the RISC versus CISC debates.

Today, I work with our semiconductor sales team to improve their business acumen skills to help our customers improve their business results in a maturing industry. Managing obsolescence is a current topic for our customers and sales team.

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

Working in the semiconductor industry, we have seen quite a bit of obsolescence lately. Most obsolescence is driven by one issue: product unprofitability. Because the semiconductor industry has a revenue growth of 2-5% annually and a unit growth of 8-10% annually, capacity can no longer be applied to unprofitable products.

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

Semiconductor users need to understand their supplier's product life cycle and supply strategy for goal alignment between product longevity needs and the ability to supply over longer component life cycles. Component life cycles vary widely depending on many factors in product design, process selection and profitability. Applying some statistical analysis tools predicts a typical component life cycle of seven years. Blindly applying averages to all components potentially disguises the components with longer product longevity. Spending the time to understand your supplier's supply chain strategy should yield a better answer than applying the averages because the suppliers we seek are the outliers, not these who support typical component product life cycle.

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

We must challenge the purchase price variance (PPV) purchasing mindset and adapt to the mature market of low revenue growth. We need to remove the idea of shared "cost reduction," because we share revenue, not cost, with our customers. Sharing cost is impossible because revenue is the only relationship between suppliers and customers.

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

Financially strong companies will acquire the financially weak companies because the weak companies have limited ability for capital investment. Acquisition integration is a perfect time to obsolete unprofitable products in the acquired company. The acquiring company is in control, so if you have obsolescence concerns, you should work with profitable semiconductor suppliers even if their prices are higher.

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

Being part of a global industry, semiconductors are continuously evolving the supply chain to meet government regulations on various materials used in the manufacturing processes. Past initiatives such as RoHS and REACH have changed materials used in our products, sometimes at a huge industry expense. Legislation on conflict minerals means constant monitoring in the supply chain for compliance, resulting in an extra cost that lowers profitability unless it is passed along to the end customer.

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

If you require product longevity, please find suppliers that want to manufacture products longer so there's goal alignment between the customer and supplier. Stop quoting the financially weak suppliers that will retire devices much faster than the financially strong suppliers. When revenue growth is high, companies have revenue to provide capital expansion. With lower revenue growth, the only source of capital is profit. Therefore, profitable suppliers are the best vendors if you have product longevity concerns, even if their price is higher. Semiconductor users must consider the total cost of a component over the entire product life cycle of the system, not just the original price quoted during design.

***Is there any advice or suggestions you would like to share based on your experience with obsolescence?***

Minimize hardware and use general-purpose components that have a wide usage across industries and applications. Embrace technology earlier in the product life cycle to trade off product performance risk for obsolescence risk, as both technology risk and technical obsolescence risk have changed. New leading-edge fabrications cost US \$10B or more, leading-edge process development costs US \$2B+ and product development costs US \$400M, so every asset needs a long product life cycle to get maximum returns. Huge capital investments in fabrication, process development and product development have lowered early technical risk and increased pressure to keep assets productive longer.



# Dr. PHIL ZULUETA

Chairman Emeritus  
SAE G-19 Committee



***In 2015, Dr. Zulueta was the keynote speaker at the first FOM event in Amsterdam. Three years later, we asked him what has changed in the industry in terms of obsolescence management since then. Here is his response.***

The mitigation of counterfeit electronic parts continues to be an important element in an overall obsolescence management program in both commercial and noncommercial electronic hardware systems. In 2016, organizations such as DoD, JEDEC, SAE International, ERAI, and IPC continued to release a number of standards and regulations that support detection and mitigation of counterfeit electronic components. In 2017, the prime focus was on government operations against potential counterfeit risk, as well as on guidance and reporting on already existing and successful programs.

In 2018, obsolescence issues continue to directly impact the marketability and profitability of counterfeit parts and create an incentive for counterfeiters to make and distribute such parts. Currently, obsolete electronic parts are usually available only from the gray market, where counterfeiters sell their product alongside legitimate unauthorized sources. Robust obsolescence management helps to avoid the introduction of counterfeit parts because the program is more likely to deal with authorized suppliers or with unauthorized suppliers that have robust anti-counterfeit measures in place. The most reputable suppliers are extremely sensitive to the risk of counterfeit





parts and seek to buy only authentic products; they expend considerable effort in identifying other reputable sources and may even conduct or subcontract tests to verify the integrity of parts. They accomplish this by aggressively monitoring parts databases, trace history, industry blogs, and purchasing history, and by participating in industry forums. For example, the SAE G-19 committee focuses on preventing the proliferation of counterfeit electronic parts; standardizing practices, such as certification to SAE AS 6081 for unauthorized independent distributors or SAE AS6496 for authorized/franchised distributors; and to DLA's QTSL – qualified testing supplier list – program or QSLD – qualified suppliers list of distributors –

program. In addition, those suppliers maintain lists of sources that are not trusted to ensure they do not purchase from them, and they verify their supplier does the same.

Parts integrity testing and verification incur costs that may (or may not) be quite substantial and may take a certain amount of time. Use of test laboratories accredited to ISO/IEC 17025 to perform specific AS6171 tests are invoked in the purchase contract, and AS6171 base document general requirements also apply. However, please be aware that at this time, some laboratories that conduct electronic parts integrity tests may not be accredited yet.





## FUTURE OUTLOOK

The outlook is 'Good' despite a range of  
risks for a change, average

Global companies need the best  
manpower to make the most of  
the opportunities. The future is full of  
opportunities for the skilled  
and motivated workforce.



# EMO



**ANNEMARIE**  
**MALETIC**

HTV



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

I have been working for HTV for 13 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.







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FOM  
Future of Obsolence Management