



Opening Speech – James E. Matthews III, Corning Inc.

Well, thank you Gary and good morning.

I want to thank you for the opportunity to share a few thoughts about standards, conformity assessment and trade in today's meeting. The thoughts and observations I am about to share with you though don't really represent the views necessarily of my company, but rather, my experience, my observations of many years in formulating groups at the national and international level, as well as serving as a technical committee Secretary and ITU Rapporteur and a number of volunteer management roles in ANSI and the IEC as well. So I hope to offer a little bit of perspective on broader issues affecting standardization and trade. Steven warned me to be careful of alphabet soup so I am hoping that everybody understands that ITU is the International Telecommunications Union, IEC is the International Electrotechnical Commission, and ISO is the International Organization for Standardization but please throw me a question if I leave you with an acronym that you don't follow. It's also important to note that we're talking about standards and it's important to understand which kind of standards. Really what I am talking about are voluntary industry standards created in a consensus process that comply to the WTO and TBT requirements. Now, regulators also have regulatory standards that are made through the regulatory process as well so standards is a broad category but we're really talking about the voluntary industry standards.

As Gary noted earlier, we'll have four panels that will talk about various aspects of trade, standards and conformity assessment and I hope from these sessions, we'll get some understanding of some best practices and some of the gaps and how similar problems are solved in other sectors and industries and might be transferred to our experiences and challenges.

So, today I'm going to share some thoughts with you about the impact and reality of alternatives, some conformity assessment challenges, and some needs and opportunities in the interaction of the standards organizations and regulators as each tries to fulfill their mandates.

So, one thing is obvious: that no two sectors of industry and trade face the same circumstances. Some are highly regulated and involve extensive issues of public health and safety, while others involve lightly regulated activities and serve mainly to form the basis for trade and commerce. And there's a lot in between. Some sectors are challenged by mature technologies and others are challenged with fast-emerging technologies and rapidly changing markets. So one size doesn't really fit all.

So, in the industry, we often say we want "One standard, one test, accepted everywhere". You've heard that many times from lots of places. And it's also used to describe the ideal situation. So it's a lot like those of us that are engineers who want to

describe the ideal battery that never loses power, the ideal lamp that never burns out, and the ideal wires that never have any loss. But while that represents the ideal, let's explore the real world that's boxed around that ideal that we all have to operate in. That "One Standard" is a lot more elusive than we think.

So many people think one standard means one ISO, IEC or ITU Standard or Recommendation, and many times that's really the case. That's the practical result that many of us put in order to get a standard at the international level through those organizations. But, we also know that some sectors of industry choose a particular venue other than the three mentioned and for the sake of efficiency, or for the consideration of standards that matter for their industry sector. So, the aerospace industry is a good example of that. Some industries and markets are driven by rapid technology changes, so standards are done on an ad-hoc or consortia basis, driven by speed to market. And in today's market there's many choices. While one standard is an ideal, the reality is that that one standard can come from a wide range of places. No single organization or standards body fits the needs for everybody, all the time. And when I am asked which one of the many possible standards our businesses should use, I do have a ready answer that I can guarantee is always 100% accurate – what I say is that the only standard that really matters is the one that our customer specifies and uses. That standard can be a national standard, a global standard, a regional standard, but, regardless, the real important bottom line is that we have to meet that customer's expectations.

The second important point about the mythical one standard is that customers are different and they value different things when it comes to purchasing similar products - functionality, versatility, reliability, first costs, life costs, and many other things are all weighted differently in the customer's philosophy. So he thinks that the priorities and the choices that are made in creating a specification or purchase decision is made often arriving at different standards or expressions of the same standard because of those differences.

A third point about the mythical one standard is it's often assumed to be a box that's checked off. It's a destination. It's a point in space. And really, instead of a destination, I suggest to you that it's more of a journey. Because historically, if you look back, technical standards were often written once a technology was mature, and so the market choices made, and it served really only to document the history of that technology. And when that happens, we in industry and the market are not well served. That type of standard also begins to stifle innovation and new technologies, and it's wrapped around a single solution. Today however, I'm happy to say there's a new paradyne. Products change and evolve through their life cycle, markets emerge and evolve, and new technologies and new materials come and bring function and value, and reliability to the users. The "One Standard" also has to be something that's changing with time. It starts with a loose set of essential requirements. So you have a

big box that goes around the set of the functional space. But, as time passes, it gets updated and evolves and, in a sense, shrink wraps around the consensus solution for that application and that market. So, really it is a dynamic standard over its useful life.

The final point about one standard is that it sometimes and, really, often companies say they want one standard, but fail to do just that. Companies could resource one venue and designate that as the venue of choice and provide the engineering and participants needed to accomplish the standards writing. And this would nurture the chosen venue and effectively starve other venues from lack of resources. However, that Desert and Oasis approach is rarely used in the real world. And why is that? Well, for several reasons:

First, it 's not easy to get all the stakeholders to agree that *that* one is the one or *this* one is the one

Another reason is the haves and have nots - if a faction loses out in a standards body, sometimes they'll go to an alternative body and seek to write a standard embracing their choice.

Another reason is sometimes speed to market. One group thinks path A is faster. One group thinks path B is faster. They go their separate ways and meet up with two standards that are competing for the same activity.

And the final point is still legacy venues and competing technologies. One industry traditionally uses a specific venue and path and another uses a different one. So, as technologies converge, these paths join together and competing standards emerge through different venues addressing the same applications or products. You see this today in some aspects of telecommunications, Information Technology and Consumer Electronics.

The bottom line for industry is that when we say "one standard" we regularly and readily resource numerous alternatives for a lot of the reasons we previously cited. But in the end it seems to be better to have multiple standards than to ignore venues where your competitor may disadvantage your products. So you have to go there. As we say: "you must be present to win".

So One standard really means as few standards as possible, from any venue valued by my users and customers, and one that continues as a dynamic rather than a fixed standard with time.

If that describes the one standard, it is also worth taking a few minutes to discuss the essential characteristics that a standards venue should have to develop an efficient standard for industry and getting to that one standard. So I want to share with you six essentials that I think are important:

Number one is flexibility - allow the standards making process to change and evolve as products and markets go through the life cycle. Having a variety of deliverables and alternatives with a range of speeds and levels of consensus ensures that the

appropriate tool can be chosen from the tool box.

The second essential is what I call a "quality" consensus. By "Quality" consensus, I mean the ability for consensus to be reached on a globally relevant level. Where the market is addressed by a single solution, the needs of all markets are reflected in the standard describing that solution. Where the market is addressed by different solutions, representing real differences due to technical infrastructure or climatic reasons, those solutions should be fully embraced on a parity level in the standard. Finally by quality consensus, I mean that on a global level, the standard is not hijacked and held hostage by one interest group to the disadvantage of other regions or other technology solutions that are recognized and legitimate in the markets they serve.

The third essential is openness and accessibility. New markets and technologies bring new players. Standards venues have to be open and accessible to small, medium and large enterprises, with as low barriers to entry as possible allowing them to function effectively.

The fourth essential is diversity. Good standards come from having the broadest range of stakeholders at the table. These stakeholders have to represent the users and producers, they have to include the voices of industry, academia, government, and consumers. And it has to be done with balance and freedom of dominance by any one party or interest.

The fifth essential is having capable tools and processes. Are the e-tools available to allow discussion and consensus building to take place through the web? We talked a little bit about this yesteryear in some of our discussions. Many of us use software allowing teleconferencing with file sharing in real time at meetings at the National or at the Regional level. As we found during the trials in one of my technical groups, these tools work well when you're dealing with one or two time zones or one or two regions. But they're really difficult to scale up on a truly global level because of the time that somebody is going to have to be up during the middle of the night. Instead, we need to seek tools that allow full discussion in non real time, that allows thinking during working hours and also accommodates the added challenges of the non-native English speakers. We have to rethink and restructure the work to make this successful. We have to define problems into modules that can be easily discussed and agreed. We need to have the ability to complement non-real time work with the occasional face to face meeting, using the scarce and expensive time to resolve critical points of contention. And rather than reading minutes and reviewing non-value added process details, time should be spent on the essential things that cannot be accomplished otherwise. Standards venues provide functional e-tools, but more importantly, provide the training, sharing of best practices, and minimize the bureaucracy for bureaucracy's sake will be ultimately rewarded the venues of choice.

The sixth and final essential is the courage to change at the grass-roots level. As a community, we are very good at setting up technical groups and committees, and working groups and launching these as we address a perceived need. Where we all fail ourselves and the markets is that we are too slow to combine, evolve, and obsolete some of these technical groups once their useful life has peaked. We should place more emphasis on the work and how to facilitate it, and less on the power, prestige and legacy of a long standing technical structure, that becomes less efficient as its markets and technologies evolve. We have to develop the courage to lower the walls, combine working groups, sunset groups when they become obsolete and more importantly get different groups to work with each other on a common goal. We should explore the issues and concepts around things like term limits, automatic sunsets, periodic resets in more depth and simply just say so when a technical group has outlived its usefulness in its present form.

If all six of these essentials are realized, then the standards process can be considered a success. However, as we know, there is more than just a good standard needed for trade and commerce. How well products and services meet those standards is equally important.

### **Conformity assessment**

For many of us who come from the standardization part of the world, conformity assessment is an activity that is one step removed from the standardization process. And this is really unfortunate, because as we move forward with more complex management systems and processes, technologically advanced products, and interdependent markets and regulations, there needs to be more interaction between the world of conformity assessment and the world of standards. Not in the sense of one driving each other, but instead, a partnership of collaboration. This means that people writing the standards should better understand the process to determine compliance with their standards. It means that the people working to assess compliance should clearly understand the intent and purpose of the requirements written in the standards and the process benefits when there is timely and constructive feedback between the two groups about the degree of success they achieve in trying to reach their goals.

There also has to continue to be a dialog between all parties, accepting that in general, the options of first, second and third party conformity assessment are accepted on an equivalent basis. Flexibility is key, and no single approach meets all needs. But of course where a specific need can be demonstrated, then more restrictive choices can be applied to protect the public interest, welfare and safety.

Of course, regulators at all levels have a real responsibility to fulfill their mandates in the interest of the constituency they serve. How they interact with and use, adapt, or do not use, the standards processed by industry through consensus bodies affects the markets and the public.

### **Regulation and Standards - the chicken and the egg**

It is clear that standards makers and regulators both play an important part of the trade process. If there is little or no interaction between the two, then markets are confused and as a result really grow more slowly.

Consensus based standards offer the foundation for effective regulation. So industry-developed consensus based standards offer markets the result that addresses the needs of buyers and sellers. They contain the needed compromise and balance forged through the consensus process. The needs of all stakeholders are heard about inputs relating to the critical safety and market issues that are included in the mix, rather than imposed after the fact. If a regulatory process proceeds with requirements that differ from or vary from those established in the relevant consensus standards... and here I'm really talking about a case where it's due to lack of knowledge of the standards, not due to additional or new requirements... then the market will be forced to carry the added costs and the inefficiency involved.

However, the opposite is also true. If the standards makers are slow to act, leave large areas undefined or produce standards that are vague or do not meet the needs of all the stakeholders, then regulators have to proceed to fill the mandate in spite of the standards gap. We have to work together.

So, the best case happens when the industry developed consensus based standards are timely, proactive, and take into consideration the broad inputs of the affected constituents. And it works best when all stakeholders are at the table. This means that in addition to users, consumers and producers, industry and academia and government must all be engaged as participants in the standards development process.

### **Conclusion**

So we discussed, it seems that all interests are served when we have a standards process, a conformity assessment process and a regulatory process that are transparent, open to inputs from all stakeholders, balanced and free of dominance. These processes have to allow flexibility in the type of solutions used, and over time, they have to allow markets and technologies to evolve. And most importantly, these three activities have to be collaborative and engaged with each other to allow the feedback and continuous improvement needed to grow markets and foster trade.

Thank you very much.