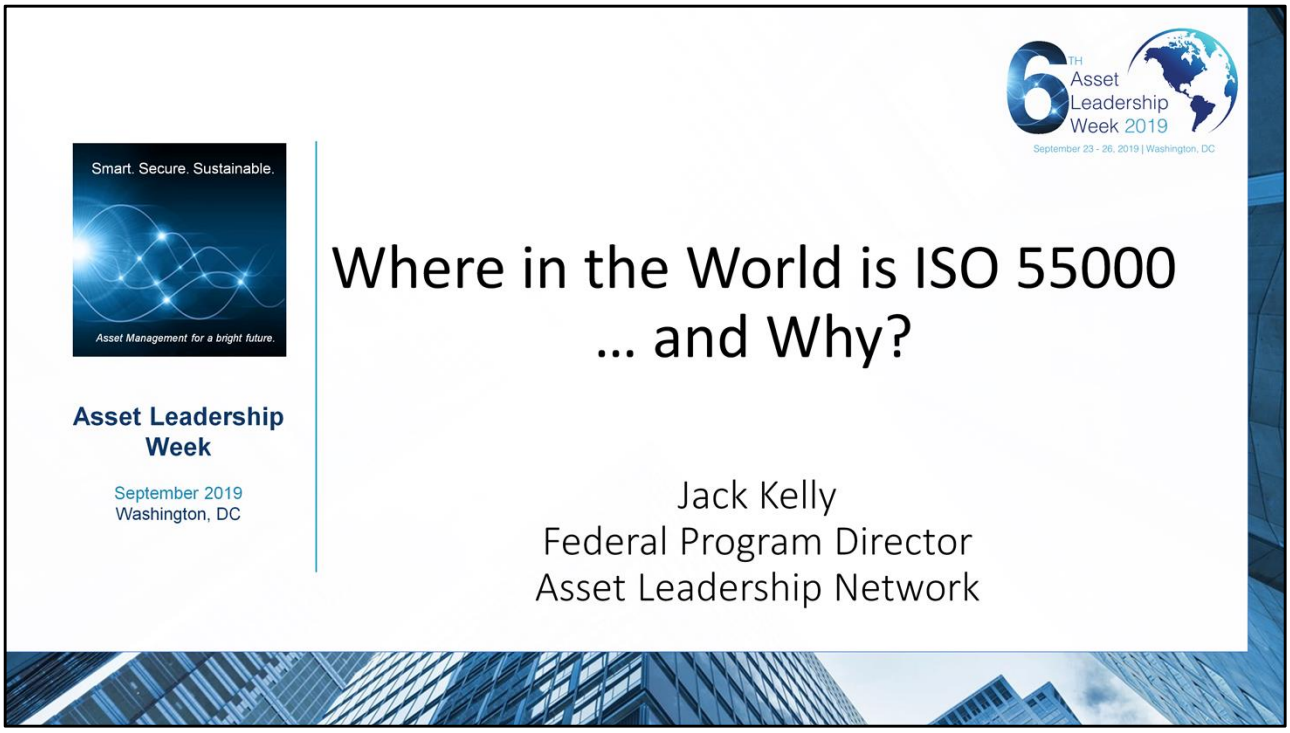

When Michael Hardy and I were finishing up our white paper on "Asset Management in High Performance Organizations" in early 2018, we decided to include a chapter on "Who's Using ISO 55000." We also included an Appendix summarizing the ISO 55001-certified organizations around the world by country and sector.

Six months later, I became curious as to how that situation might have changed over time. I compared the new numbers with our original numbers and generated an earlier version of this presentation. I based the title on a 1990s children's show called "Where in the World is Carmen Sandiego?" It was a fun way for children to learn about geography. Have any of you seen it?

When I noticed the dramatic differences in certifications between some countries, I began looking for reasons. This presentation is what I learned…the WHY!

Where in the World is ISO 55000 … and Why?

This presentation discusses:

- Overview of ISO 55001-certified organizations around the world. [NOTE: Certification is an imperfect measure of ISO 55000 adoption, but the only one readily available publicly. However, the available data isn't always complete.]
- The adoption of ISO 55000 around the world, by number of ISO 55001-certified organizations
  - By country
  - By sector
  - By leading country and sector

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Where in the World is ISO 55000 … and Why?

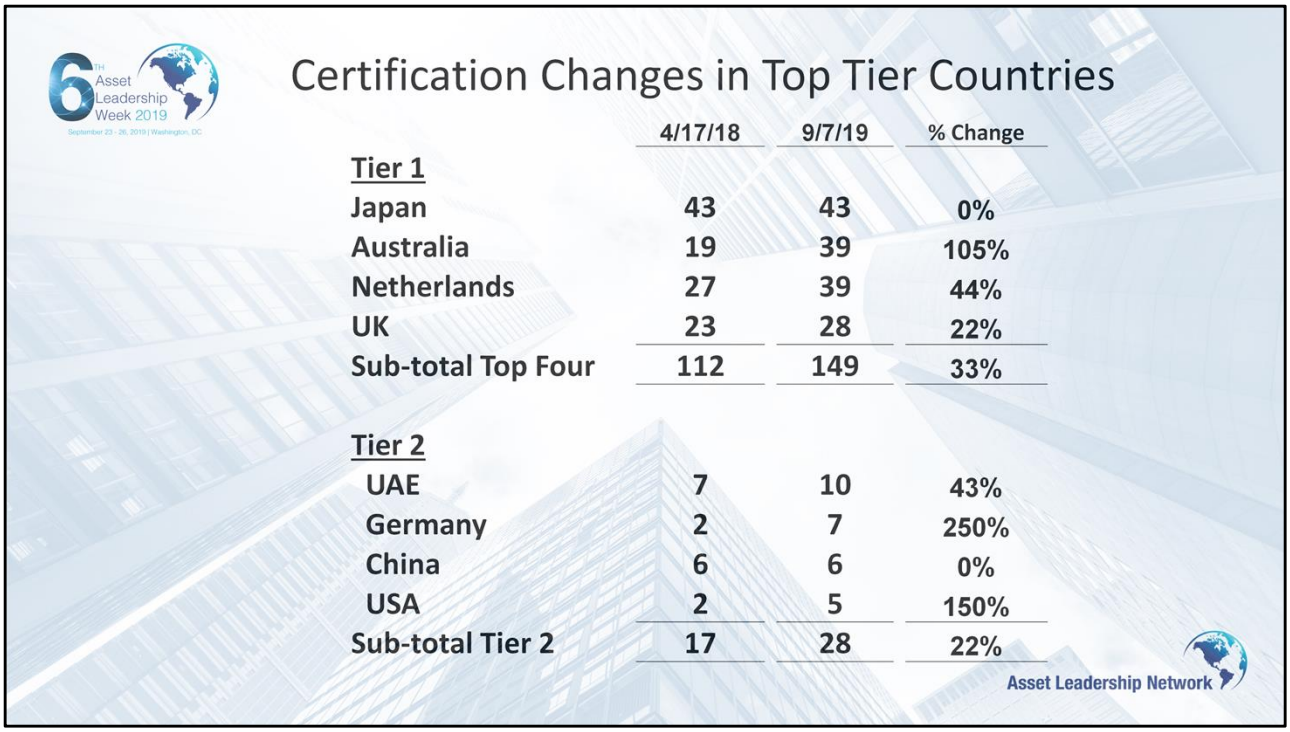
This presentation also discusses:

- Why certification rates in some countries are much higher than in others
  - Government policies
  - Other factors
  - General conclusions
- Lessons for the US government
- How certain international companies are affecting certification rates.
- Unreported adopters of ISO 55000.

The initial list of ISO 55001-certified organizations was created from data on the TC251 website pulled on April 17, 2018, as Michael Hardy and I were finishing up our white paper.

I updated this information four other times, the most recent being on Sept. 7, 2019.

You can see that over that 17 month period there was a dramatic 40% increase in the number of certified organizations as well as a 26% increase in the number of countries with certified organizations.

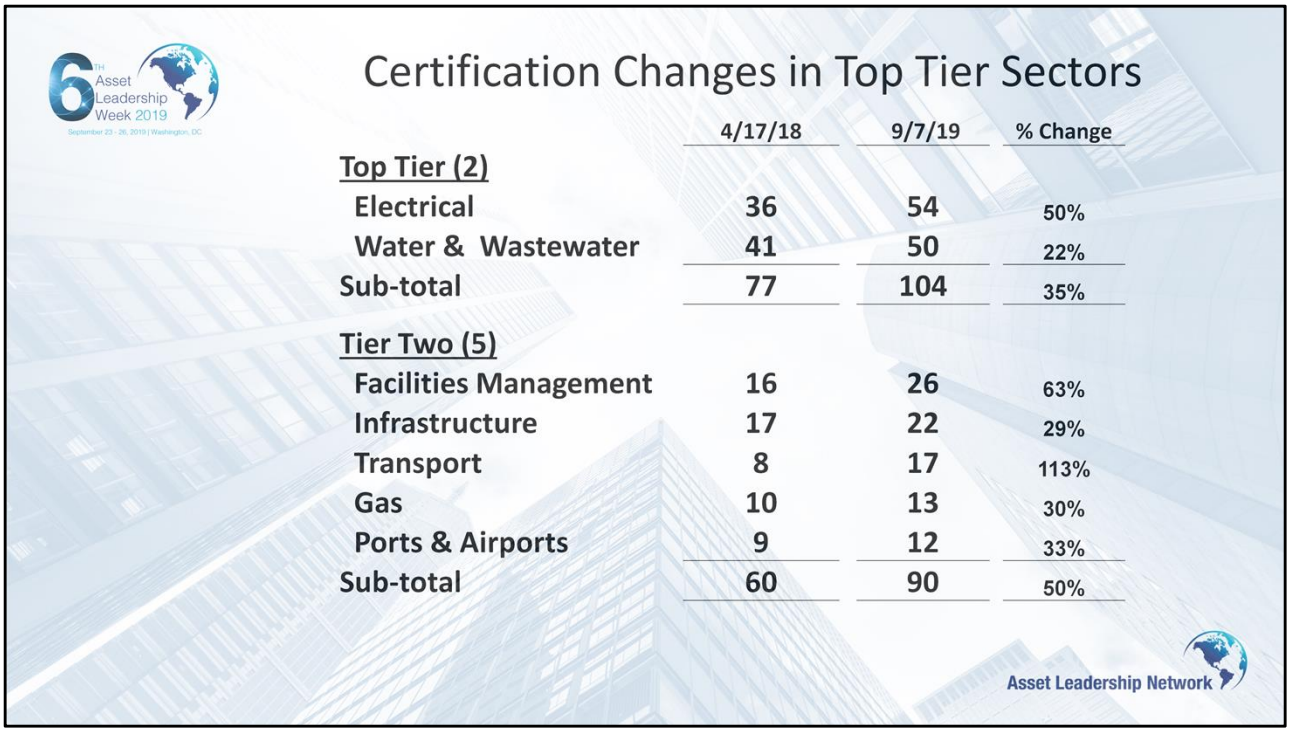


This chart is a bit busy and I apologize for that. I decided that this was the best way to show the dramatic difference between the number of certified organizations in the top four countries (Tier 1) and the next four countries (Tier 2).

These eight countries currently account for 75% of all certified organizations in the world. They also accounted for 71% of the increases in certified organizations from 4/17/2018 to 9/7/2019 (last 17 months). Basically, this is where the action is.

I also grouped the remaining 32 countries into tiers associated with their certification counts (e.g., 4s, 3s, 2s, and singles). The only thing I found interesting from looking at the sector profiles for these lower tier countries was the relatively large number of electrical organizations and ports & airports in some of these tiers.

Also note the USA the bottom of this chart. It wouldn't have made the chart in 2018, but it's now at the end of the second tier. Plenty of room to catch up.



I then sorted the numbers of organizations by sector into tiers to see whether there was a "clumping" pattern similar to the sort by country. There was, but with a slight difference. There's a smaller difference in the percent of organizations in the top two tiers of sectors than there was for countries.

What you don't see here is that these two tiers of sectors together currently account of 82% of the electrical and water/wastewater sector organizations that have achieved ISO 55001 certification. They also account for 85% of the increase in these certifications since 4/17/2018.

I thought some of you might be curious as to what the remaining sectors look like. The numbers are the most recent count of certified organizations.

Collectively, these 10 sectors only account for 18% of all certified organizations.


6TH Asset Leadership Week 2019
Adoption of ISO 55000 by Leading Country and Sector
• Japan – 43 organizations, same as 2018
• Water & Wastewater – 25
• Infrastructure – 10
• The Netherlands – 39 organizations, up from 27 in 2018
• Electrical, Facilities Management and Infrastructure – 6 each
• Water & Wastewater – 5
• Ports & Airports, Government, Gas, Transport, and Engineering & Construction – 3 each
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Read chart


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Adoption of ISO 55000 by Leading Country and Sector
• Australia – 39 organizations, up from 19 in 2018.
• Facilities Management – 10
• Transport – 8
• Water & Wastewater – 6
• Engineering - 5
• Electrical – 3
• Infrastructure, Oil & Gas, and Mining – 2 each
• Housing Association - 1
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Read chart


6TH Asset Leadership Week 2019
Adoption of ISO 55000 by Leading Country and Sector
• The UK – 28 organizations, up from 23 in 2018
• Water & Wastewater and Gas – 6 each
• Electrical – 5
• Facilities Management - 3
• Infrastructure, Ports & Airports, and Transport – 2 each
• Engineering and Manufacturing – 1 each
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Read chart


6TH Asset Leadership Week 2019
Factors Affecting Certification Rates
Japan – 43 organizations
Government Activities
• The Sewerage Division of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) released non-mandatory guidelines in 2015 for applying ISO 55001 to the field of wastewater management.
• This guide influenced organizations in the wastewater sector to become certified as well as other industries.
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Read chart

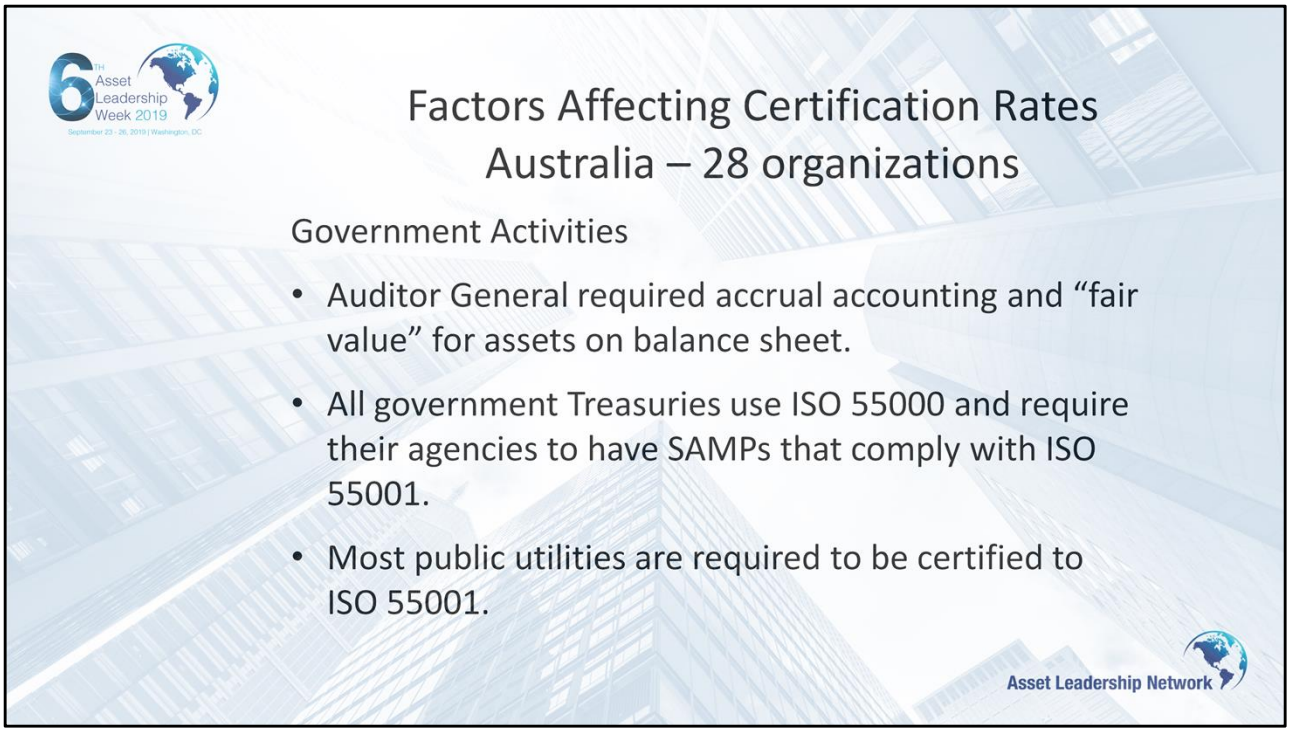
I'm speculating about the impact of the strong engineering culture, but I have good evidence of the rest. Read chart

Mention consultancies

I've actually talked to a couple of people about this and… read chart.

Read chart.

Mention consultancies.



I've spoken to several people from Australia and … read chart.


6TH Asset Leadership Week 2019
Factors Affecting Certification Rates
Australia – 28 organizations
Other Factors
• Strong engineering community formed the Asset Management Council (AMC) and the Institute of Public Works Engineering Australasia (IPWEA).
• The AMC maintains the Asset Management Body of Knowledge (AMBoK), runs an AM certification program, and provides AM training.
• IPWEA publishes the International Infrastructure Management Manual (IIMM).
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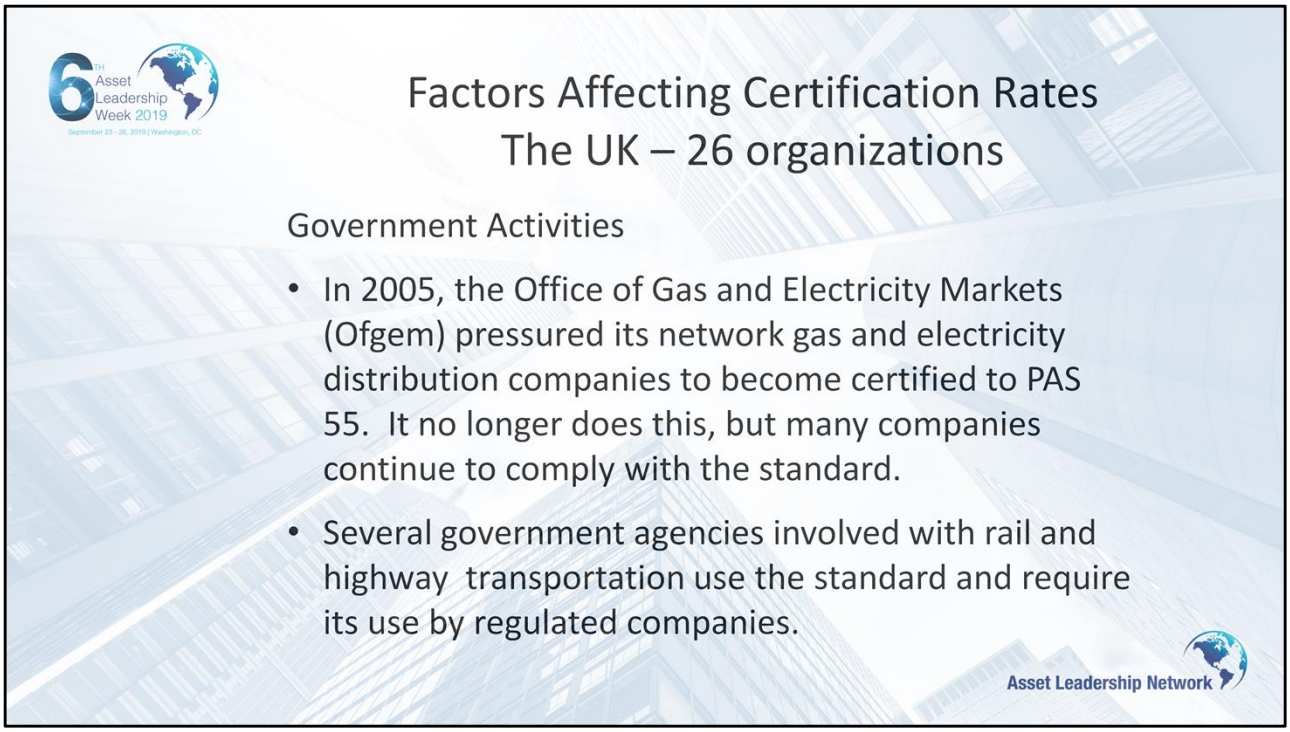
Read chart



I've read a lot about the situation in the UK and … read chart.


6TH Asset Leadership Week 2019
Factors Affecting Certification Rates
The UK – 26 organizations
Other Factors
• Strong engineering community created the British Standards Institution (BSI) in 1901 and Institute for Asset Management (IAM) in 2004.
• The IAM convinced the BSI to publish PAS 55 in 2004 and to work with the ISO to publish ISO 55000 in 2014.
• The IAM also provides AM certification services and training materials.
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Read chart


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Factors Affecting Certification Rates
General Conclusions
• Strong engineering communities can play important roles in supporting national adoption of good AM practices and ISO 55000 by sharing best practices and providing AM training and professional certification programs.
• Government regulators have used compliance with ISO 55000 to assure that regulated entities, particularly those involved in critical infrastructure services, meet basic safety, capacity, and reliability requirements.
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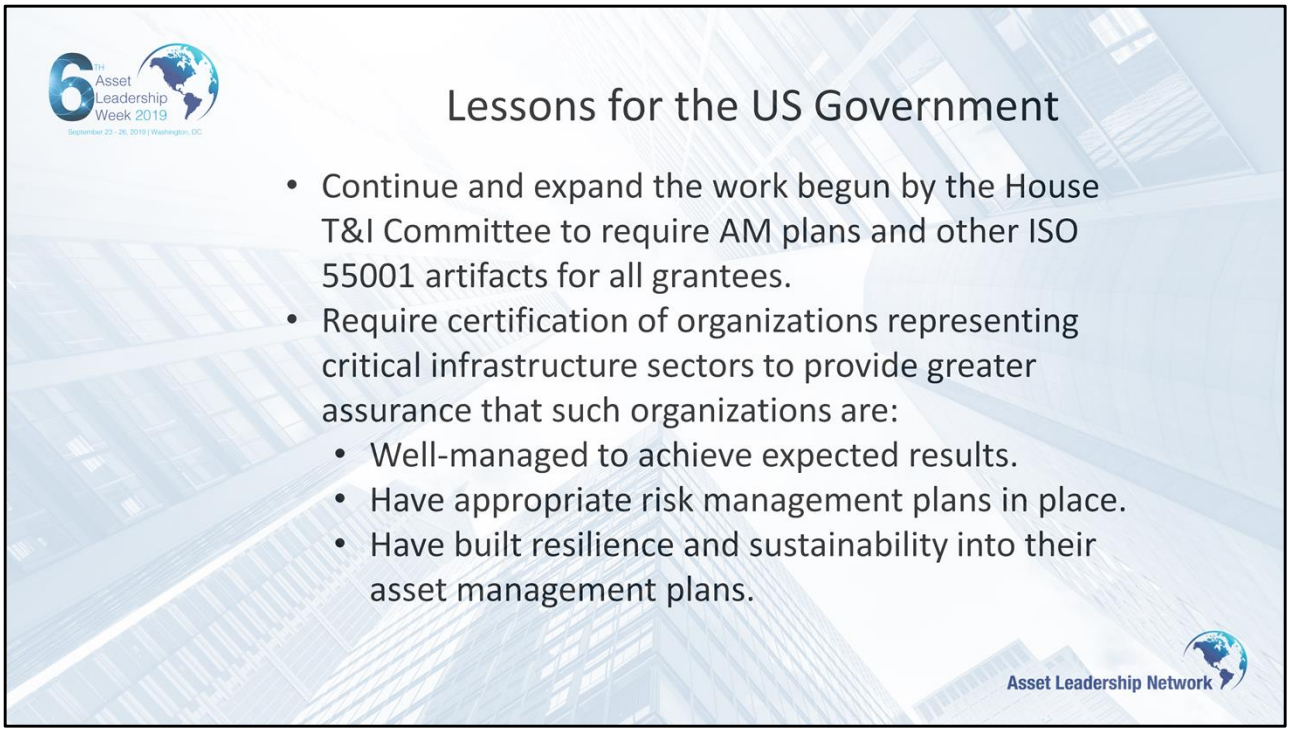
Read chart



In a minute, I'm going to let you know about some Federal agencies that have already begun to adopt ISO 55000 to guide their asset management programs.

I've only recently learned that legislation sponsored by the House T&I Committee over the last several years has been requiring state and local governments that receive federal highway and transit grants to have asset management plans. There's more to successful asset management than having something called an "asset management plan," but it's a very good first start.

There's also a bill being considered (Senate?) that would require all pipeline operators to have a "pipeline safety management system," very similar to ISO 55001.

I think it makes sense to follow the lead of other countries who've already seen the value of having their regulatory agencies require certification by public and private sector organizations that own and operate infrastructure assets, particularly in critical areas such as water & wastewater, electric and gas generation & distribution, and others.

We identified three international companies that have embraced ISO 55000 and have obtained certification for some of their international activities.

- AES - an energy generation and distribution company – 6 countries
- Sodexo – a facilities management company that spoke at our conferences four years ago – 3 countries
- Babcock International Group – an international conglomerate providing a variety of services – 3 countries

It's very likely that these companies have other clients that have implemented ISO 55000, but have not sought formal certification.

There might be opportunities for international consulting companies with expertise in asset management to showcase their expertise by convincing at least some of their clients to seek formal certification in ISO 55001. Jacobs assistance to AATC might be such an example. ALN's partners Booz-Allen-Hamilton and Grant Thornton might consider this path.

As we mentioned at the very beginning of this presentation, our main focus has been on organizations that have been certified compliant with ISO 55001 and have reported that fact to TC251. We believe that there are two other US companies that have been certified, but have chosen not to report this to TC251.

We said then that certification is an imperfect and incomplete measure of the extent to which organizations have actually adopted ISO 55000 or are in the process of adopting it. I've listed some organizations that we know have begun adopting ISO 55000, but don't show up on any formal list.

We're also aware that CREG, the power and gas regulator in Colombia has announced that all Colombian power utilities will have to be IOS 55001 certified within the next 5 years.

Over the past several days, several of our presenters have shared stories about their use of ISO 55000 to guide their asset management efforts. The panel that follows this presentation will share more such stories.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Questions?
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