INSIDER
INDUSTRIAL AUTOMATION & PROCESS CONTROL

VOLUME 18
NUMBER 7
ISSN2334-0789
July
2014

Your key to the latest industrial automation and process control information

Inside this issue:

Siemens Automation Summit

Amid rumors of shakeups, Siemens hosts the largest user conference since 2008

Steve Morales, director of Siemens User Community did the welcome and obligatory safety moment, as the Siemens User Group Automation Summit for 2014 got underway at the Disney Contemporary Resort in Disney World. That's the semi-pyramidal building that the monorail goes right through.

Walt Boyes "Passes the Baton"

As they did in previous years, Siemens' welcome reception included a networking process. This year's was called the "Connect Event."

"Last night's Connect event," Morales noted, "developed over 1000 connections, and each of those connections 'Passed the Baton.'"

Pass the Baton is a Stand Up to Cancer event that Siemens supports. At their events, there is an actual baton, and when it passes, until September 5th, Siemens will donate $1 for every pass of the baton. Siemens' goal is $1 million by September 5, 2014.

The theme of the event, Morales said, was "Smarter, Safer, More Secure," and in fact, the safety and security presentations were among the best of the conference.

Morales noted that this year's conference was the largest Automation Summit since 2008 and the economic melt-down.

Dave Alzheimer from Conoco-Phillips, and Nigel Hough from Columbus Brick, chair and co-chair of the User Advisory Board welcomed the attendees. Alzheimer said that there were greater than 120 first time participants, the largest number ever. "We want you to return to work better prepared to add value to your business unit," he said. "So use the mobile apps, gain knowledge from the technical presentations, ask questions of the experts in the Tech Café and take advantage of the free training classes on Thursday."

Nigel Hough, UAB co-chair

Alzheimer went on to talk about the importance of networking. "Strengthen your personal network," he said, "Go get uncomfortable. Introduce yourself to Siemens executives, meet and talk to your peers and solution providers

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Health Watch

This month's Health Watch discusses the fact that Abenomics appears to be working in Japan's economy. Find the *INSIDER* Health Watch on page 18 in this issue.

...and a whole lot more!!

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Cover Story: Siemens Automation Summit

and learn about user community work groups by talking to a UAB member— and volunteer to help!" He urged attendees to stay connected after the event using forums, LinkedIn and other social media, and said, "Oh, and thank your boss for allowing you to come."

Nigel Hough from Columbus Brick talked about empowerment. "Everyone here is empowered to make changes in the world," he said.

Last, Alzheimer talked about the relationship of Siemens products to process automation. "Process automation is the benefactor of the S7 development program," he said.

Anton S. Huber, CEO Industry Automation Division

Summit Keynote

This year's keynote was delivered by Anton S. Huber, CEO of the Industry Automation Division. Having grown up in Siemens' automotive group, he was selected to lead the process automation initiative, which he did very well, especially considering his background.

"Siemens is an automation company," Huber said, "but also one of the biggest manufacturing companies in the world, operating over 290 plants worldwide and employing more than 27,000 engineers and researchers. We are a leader in discrete and process automation serving an installed base worth more than 30 billion Euro."

Industry, and manufacturing, Huber said, are getting more complex. There are huge challenges we have to face, including accelerating time to market, competitive pricing pressures, ever higher quality, and at the same time reducing consumption of natural resources. Huber went through the well recognized litany.

The Internet is driving and accelerating business. It is enabling B2C, B2B, M2M (what is now called the Internet of Things– IoT) and what Siemens calls Industrie 4.0. The technology of the Internet is increasingly impacting automation and IoT is itself an accelerator of Industrie 4.0.

"This is a very complex process," he said, "and only a holistic approach including the whole value add chain will yield long term competitive automation solutions."

"Only through seamless support by software tools can the ever increasing complexity of industrial value add processes be managed safely, securely, and professionally," he said. "One part of the chain will not make the difference we need to make. Only the holistic approach will work."

He pointed out that new manufacturing technologies like direct machining in mass production, additive manufacturing and 3D printing, and safe Human-Robot collaboration will play an important role in Industrie 4.0.

"For example," he said, "the manufacturing process of smart phones and tablet PCs changed to direct machining in order to accelerate development. Agility is required. We need a process where we can change dramatically within two days."

"The Internet is changing our business processes and our products— changing constantly," he said. "The current S7 has 16 Mb of memory, and the TIA Portal, v13, has over 55 million lines of code. That's high complexity."

New manufacturing techniques and technologies are critical. Even in China, he noted, wages are rising— 15% per year.

"This is the reason for the TIA (Totally Integrated Automation) Portal development— to try to control the cost of engineering by integrating all the automation engineering tasks. We have spent 1.6 billion Euro to create TIA Portal. We could have spent much less by orphaning our legacy products. We chose not to do that. You can use your legacy products in TIA Portal. This is a huge investment for us, but this is just the beginning."

"Only a holistic approach including the whole value chain will yield long term competitive automation solutions. One part of the chain will not make the difference we need to make."

Software technologies and tools will be at the center of Industrie 4.0, Huber said. "We will see digitization of all work along the entire value add processes chain. We will really have the extended enterprise, deeply supplier-integrated production networks. We will have autonomous production, and cyber physical systems."

He discussed the Siemens Digital Enterprise Platform, calling it a best in class digital representation of the physical world. The centerpiece of the Digital Enterprise

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Cover Story: Siemens Automation Summit

architecture is an expandable cPDM system, a collaborative product design and management system. "A powerful cPDM system is the best starting point for the Digital Enterprise," Huber said. "We are mitigating ever growing product complexity by developing model -driven product systems ment using activity, based design loop temes, integrated verification." tidisciplinary and with closed-loop performance

Huber talked of Industrie 4.0

Huber said, "Commercial/transactional and technical data will be managed by a different backbone than we have today, because of the size and complexity of the data. Big Data will change the way we move data collaboratively and seamlessly."

Huber talked about a Siemens customer, a camera manufacturer, who began by trying to produce new products in 50% less time. They felt they needed to do that because their competitors were reverse engineering their designs and coming out with lower cost products, faster. "They reduced time to market by 40%, all right," Huber said, "but the product data increased from 1.8Tbytes to 296 Tbytes of data for one camera, in just six years."

"They reduced time to market by 40%, all right," Huber said, "but the product data increased from 1.8Tbytes to 296 Tbytes of data for one camera, in just six years."

He also talked about another customer. "Siemens Industry Software supports the entire design, build and maintenance processes for a manufacturer of turbines for airplanes," he said. "Of course it is not GE."

Huber went on to remind his audience of what he'd said at the beginning of his address, about Siemens being one of the biggest manufacturing companies in the world.

"Siemens is working on the same changes in our own plants, and like everybody else, it costs money. It doesn't happen overnight either. Our Simatic plants in Amberg, Germany, and in Chengdu, China, will be showplaces where we can show customers what we are doing, so they can do it themselves. In China, we have sold millions of software licenses, and we are just getting started."

Huber continued to show that Siemens is using its own technology. "We are on the way to making Siemens a digital Enterprise, itself," he said. "Teamcenter, which is the largest IT project within Siemens, connects 100 locations, 10,000 users, and 16 Tbytes of data." Siemens' automation technology, he said, is enabling Industrie 4.0.

Marc Ayala of Cimation

Smart Plant

Under the title, "Enabling the Smart Plant of the Future using Siemens COMOS" Chris Schwander of DuPont discussed how DuPont is using what is probably the most underrated *cPLM* software suite being used today. From the ***INSIDER'***s point of view, it is a pity that Siemens hasn't figured out how to market COMOS effectively, or there'd be a lot more people using it.

Cyber Security

The best attended and most interesting track in the conference was the cyber security track.

It began with a presentation from former Siemens staffer, Marco Ayala, now with Cimation, LLC as senior technical advisor, called ICS Security Today; Awareness and Practice," which was about protection.

"We are trying to protect people, production, property, environment and the economy," he said.

Ayala quoted from a study that Walt Boyes and Joe Weiss did a few years ago. We concluded that while there were around 50,000 people who understood IT security, there were less than 500 who understood Industrial Control System Security (ICS security), or OT security.

He believes that the industries most likely to be targeted are energy and transportation.

Ayala, assisted by Eric Forner, ICS/SCADA security engineer at Cimation, described threat and risk, and how to deal effectively with them.

Forner did a demo in which he bypassed a firewall, took control of a system, spoofed the HMI and overflowed a tank. As an extra added insult, he downloaded a game of Solitaire to the HMI screen.

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Cover Story: Siemens Automation Summit (continued)

Alexander Benitez, from Comsource, Inc., gave a presentation about securely configuring SCALANCE S wireless systems using industry best practices.
DuPont engineers contributed several papers about cyber security, and Charlie Stibitz from Dow Corning gave an excellent presentation on the age-old struggle between IT and OT, called "How IT and Process Control Can Work Together for an Effective Cyber Security Program," which didn't rely on getting rid of IT.

AES' John Cusimano

Air Products' Chris Da Costa

A seriously brilliant discussion of actually doing cyber risk assessments and doing them properly was presented by Air Product and Chemicals' Chris Da Costa and AE Solutions' John Cusimano, called "Measure Twice, Cut Once! The Value of Conducting Cyber Risk Assessments." Cusimano is another Siemens alumnus, who recently left exida to become practice lead for cyber security at AE Solutions.
Siemens' Ming Ng delivered a paper detailing what every engineer needs to know about industrial security, and Siemens' Washington lobbyist, David McIntosh, gave an illuminating and informative presentation on the current state of the NIST Cyber Security Framework, and how it is likely to change— and how industrial plants will need to adapt to it.

David McIntosh, Siemens VP for Government Affairs

The final presentation in the cyber security track was a panel discussion moderated by Ken Keiser, Principal Cyber Security Consultant at Siemens, with McIntosh, Cusimano, and Da Costa, among others. Unlike many other such panels, this one was practical and down-to-earth in commentary and advice.

Siemens' Ken Keiser

Tanmoy Basu

More Than Cyber
Of course, the Automation Summit had much more than just cyber security. Presentations were given on batch and procedure controlled automation, alarm management design, best practices for selecting and working with a solution partner, and many more.
One extremely interesting presentation was "Industrial Wireless— Selecting the Best Technology for your Application," presented by Tanmoy Basu, business development manager for industrial communications, and Don Mannon, automation network consultant from Siemens. Interestingly, this presentation concentrated on how to build a WiFi (IEEE 802.11) network and didn't mention very much about field device wireless networks like WirelessHART.
Upgrading and migrating control systems and safety systems were also on the minds of several presenters, as were interesting concepts like "SIMATIC Virtualization as a Service," and the creation of a "Cost-Effective Operator Training Simulator."

The Rumor Mill
As with other user group meetings, the Automation Summit rumor mill was working overtime. It is an open secret that Siemens' governing board has not been happy with the results of the company as currently structured. The four "sectors" including the one into which the automation business is shoe-horned, the Industry Sector, do not seem to be doing what was intended. At the meeting, the rumor was that there was a game of musical chairs going on about who was going to lead the new businesses. One of the business names bruited about was "Digital Factory," and Anton S. Huber's impassioned keynote speech appears to give it currency and immediacy. Whether it winds up that way is as yet unannounced. There is always the tension between organizing the company based on the customers, the industry verticals, the applications, or the products themselves. Many large companies go through re-organizations like this as if they were on a slowly turning merry-go-round. Generally speaking, however, these re-organizations tend more toward sound and fury than solidly positioning the company for the future. The ***INSIDER*** hopes for a better outcome here.

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Yokogawa European Meeting concentrates on wireless systems

The Yokogawa European Users Group conference was held 2-4 July in Berlin, some 20 months after the previous meeting in Nice in November 2012 (See the ***INSIDER*** for that month). With the next such event scheduled for 2016, it seems Yokogawa are leading the biennial trend - also adopted by ABB for the North American market.

However, for Yokogawa this 20 month provided the breathing space to make the business structure changes needed and re-establish the financial health of the group – evidenced by their recent results. In his opening address, Takashi Nishijima, President and COO of Yokogawa Electric, explained that net sales increased 11.6% in the year to March 2014, mainly thanks to some major projects. Quoted elsewhere were projects like Yamal LNG, Ichthys LNG, Sabine Pass LNG and USGC Petrochemicals, with forecast current year sales totalling Y400Bn ($4Bn). Their new business structure concentrates more on industrial automation – now 86% of sales.

CEO Takashi Nishijima

Yokogawa was founded by Dr Tamisuke Yokogawa in 1915, so celebrates 100 years of operations next year. The basis for the company was, and remains, technical excellence, driven by a pioneering spirit. So they were among the first to enter the analyzer market in 1964, had the world's first DCS and Vortex flowmeter in 1975, and (perhaps significantly) Nishijima san added the claim of being the first to offer fully ISA100 certificated wireless systems - last year. It was really appreciated to hear the official company line modified in this way.

Yokogawa was founded by Dr Tamisuke Yokogawa in 1915, so celebrates 100 years of operations next year.

Major markets

Global expansion started in 1957, with entry into the USA markets in 1960: although regions like Asia (at 25% of sales), Middle East (9.6%) and Europe (9.7%) still exceed North American sales volume (6.7%). Revenue from the Japanese market dropped last year, and reduced in significance to 33% of the Group total, down from 38% the year before, possibly mainly attributable to Test & Measurement products. However, it was the pioneering spirit behind the company that led to the conference theme of "The Power of Innovation": Nishijima san mentioned future developments in corrosion detection sensors, micro-magnetic detection, and augmented reality on their DCS - partnered with the need for 'Sustainability' for the next 100 years, in terms of energy saving, safety and the environment; and also 'Best Value' in terms of lifecycle cost, reliability and high quality.

Major end-user markets – upstream oil and gas, chemicals, downstream oil and gas and power – made up the audience assembled in Berlin: many of these were from Southern Europe, Turkey and the Mediterranean area, with only a few from the UK oil industry. More interesting from the UK were the speaker and delegates from Sellafield, identifying a whole new market area for wireless sensors in control systems on decommissioning operations in the nuclear industry.

Herman van den Berg

Yokogawa in Europe

Herman van den Berg, appointed President of Yokogawa in Europe just over a year ago, introduced the press conference and expanded a little on the comments made by Nishijima san on the European operations. Last year European sales totalled Euro347m ($473m), and Yokogawa employed 1650 people in Europe, in 31 separate sales operations, plus operational support centres, production and development sites. Analyzer systems, MID approved custody transfer metering systems, and even portable flowmeter calibrators are produced in Europe: one such calibrator covering flow rates of 20Litres to 32tonnes/hour was installed in the Hotel foyer during the conference, attracting much interest from the elderly tourists from the Viking River Cruise boats who passed through.

The major European activity is with oil and gas related users, and within this there are various joint developments being undertaken with customers, supplier partners, and Universities. An example quoted was a metering system for bunkering ships with fuel oil, which enables accurate delivery metering, without any errors introduced by froth or air entrainment. Local offices have been established over the past year or so to support customers and provide after sales service and solutions, for example in Marl (Germany) in the Czech Republic, in the Port of Rotterdam, in Chemelot (France) and Aberdeen. After

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Yokogawa European Meeting concentrates on wireless systems (continued)

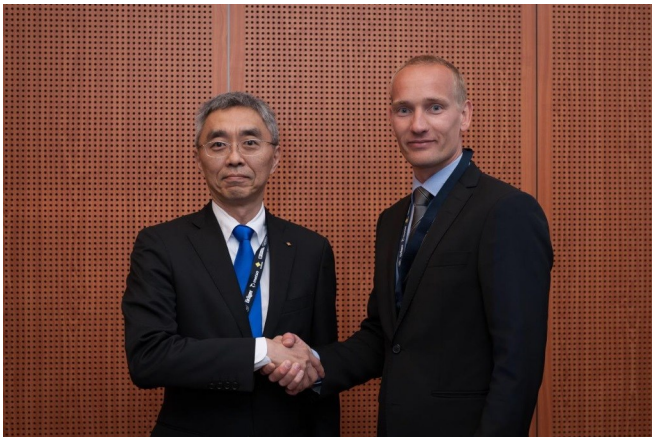
sales support and lifecycle services are seen as offering areas for future business growth in these mature markets. A major order for the Gazprom Yamal peninsula LNG megaproject, situated in Northern Russia is also being engineered by Yokogawa in Europe, on behalf of the Yokogawa sales organization in Russia.

Whilst the overall market share for Yokogawa is relatively low, they have a significant share in chemicals and oil & gas, and are working hard to develop this further. The power industry in Europe has not been significant for Yokogawa recent business, but with the March 2013 acquisition of Soteica VisualMesa of the USA, who have operations in energy monitoring and efficiency projects in Spain, this will be an area for future development.

Yokogawa signs deal with GasSecure over ISA100 gas detectors

The major event at the press conference was the announcement that Yokogawa and GasSecure of Norway have signed a global agreement to promote and sell the GasSecure ISA100 based wireless hydrocarbon gas detectors. This means Yokogawa gains access to the GasSecure sensors, strengthening their line-up of plant field wireless solutions, and enhancing the support of health, safety, security and environmental (HSSE) management applications, an area Yokogawa wishes to develop further. For GasSecure, this deal will provide access to the global Yokogawa sales and service network, and support their sensor offering.

Previously GasSecure sensors or presentations have been seen – and reported on by the ***INSIDER*** - at the Invensys OpsManage User Group meeting in Paris in 2012, on the Yokogawa stand at the Offshore Europe exhibition in Aberdeen in 2013, and at the Honeywell User Group meeting in Nice in 2013. It appears that the Yokogawa wireless offering, with the capability of fully redundant wireless gateway and access points, suited the desire for GasSecure to be able to offer cost effective systems to deliver critical safety data to oil and gas installations. In fact most of their initial installations have been joint projects with Yokogawa.



Nakahara and Sandven celebrate the agreement

GasSecure installations

In co-operation with Satiesh Muniandy, a senior engineer at Petronas in Malaysia, Knut Sandven of GasSecure explained how this retrofit application of gas detectors on pump rooms was only viable by using wireless transmission. In fact this project had arisen from a first meeting with Petronas at the Yokogawa User Group meeting in Southeast Asia, after Petronas had identified some areas needing further gas detector installations, but adding the site cabling made the task impossible. Another retrofit installation with Shell Sabah, offshore in Malaysia, enabled Sandven to discuss how the typical 70% of the total installation cost of a gas detector offshore is in the cabling, which can be reduced to 15% with a wireless sensor. The total cost saving to the operator can be 60% or more, compared to the historic cost. Plus platforms have around 1000 gas detector points typically, so this is a major market potential. His systems offer equivalent sensitivity to wired sensors, and a one second update rate with a 200 sensor system, dropping to 5 seconds for 500 sensors. The sensor uses infra-red absorption measurements, with a different wavelength automatic calibration loop on the same light path to compensate for any dirt on the reflector and windows, and no recalibration of the gas sensitivity needed within its quoted 15 year life.

Knut Sandven of GasSecure explained how this retrofit application of gas detectors on pump rooms was only viable by using wireless transmission.

Other existing GasSecure installations, mainly made in co-operation with Yokogawa, have been made at Gassco BP in the UK, Statoil in the North Sea, BP Alaska, Exxon R+D and CVX R+D in the USA, and in LNG liquefaction projects in Australia, for Woodside R+D and BP Australia. While the slides showed the potential for an operator mounted portable version of the gas detector, this seems to be on hold for the moment while GasSecure sorts out the current interest in static sensors.

The Yokogawa future is in wireless systems

Probably of major interest to everyone in the industry is what Yokogawa will do next in wireless systems. The deal with

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Yokogawa European Meeting concentrates on wireless systems (continued)

GasSecure is fine, and a good addition to their sensor capability, but that's not what they have been working on for the past two years.

The nearest the User Group meeting moved towards revealing any further steps in the Yokogawa wireless business was to mention corrosion detection as an area of interest. Plus there was the previously launched, earlier this year, a multi-protocol wireless adapter, enabling packets of sensor data to be passed through the ISA100 network, and delivered to an analyzer at the base station. This is excellent for sending the (GE) Bently Nevada vibration waveforms back to the GE condition monitoring unit designed to analyse this sort of 'proprietary' waveform. It seems this relationship is working well, but getting GE to actually provide any sensible answers to the press is always difficult. From the other point of view, obviously GE have worked out that Yokogawa offers the best engineered wireless system, that has been fully tested.

The next area where Yokogawa has pushed wireless system development proving is in big networks, and one of the claims made for their 'WirelessAnywhere' system was that they were first to demonstrate a reliable field wireless system with 500 devices and 20 subnets in July 2012. [OK, so I did not see it, but I believe it].

GX20W SmartDAC Recorder

Wireless touch-screen data recorder

To find the next development, you had to recognize it, sitting there on a display stand, and then wonder whether someone had actually sneaked it in to the exhibition hall without telling Yokogawa. To be fair, Andreas Dobratz, VP of Instrumentation in Europe, did mention it, the GX20W, in his presentation, briefly: the GX20W is a SmartDAC touchscreen data recorder, with an antenna and a wireless gateway incorporated, enabling 50 wireless sensors to transmit data direct to the recorder. The prototype was on display: several of the users present wanted to buy it on the spot. The product is a moulding of technology from one divisional area grafted on to another product area and producing a neat and effective product advance. Plus the operator can write on the touch-screen just as he would have done with a paper chart, and save or send that display to wherever he wants!

One of the enthusiastic customers was a straight-talking guy from Sellafield (previously known as British Nuclear Fuels), working on the decommissioning of some of the oldest nuclear power stations in the world: three different types on one site. Tom Nobes, a Principal Engineer at Sellafield, and their process instruments capability leader, explained that the nuclear industry is classically slow to adopt new technology: it took them 23 years to accept the use of HART systems on site. But in fact they were possibly the first UK user of ISA100 wireless systems, with one installed to control and monitor the steam use from a CHP plant, now providing the steam supplies to the site, replacing steam from all the reactors, after they were shut down at their life-end. On Sellafield laying new cables is not viable, and the use of a wireless link into a gateway and then recorded on a SmartDAC saved them around GBP185k ($320k) and around 16 weeks in time.

Experience leads to future uses for wireless in decommissioning

Nobes explained that the installations placed wireless transmitters inside thick concrete walled rooms, inside buildings that had metal sheeted walls, and worst of all, inside the earthed mild steel casing surrounding an 11KV electric motor used to drive a large compressor. They expected problems getting the signals out. Not only did they not have signal reception problems, they did not see any significant electrical

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Yokogawa European Meeting concentrates on wireless systems (continued)

noise problems on the wireless link from the sensor near the motor! The next project will involve the transmission of data from 40 legacy level transmitters installed on cooling ponds to a new remote monitoring centre, again through several concrete walls.

Further consideration is now being given to adding wireless adaptors to the air and particulate monitoring and safety alarm systems: where these are typically installed there is no chance of laying new signal cables, they do not wish to disturb any of the dust. The prime safety function here is the audio and visual local alarm beacon, advising all personnel to evacuate immediately. But the remote monitoring of this equipment will improve the efficiency and safety of maintenance, and provide external monitoring after the evacuation in the event of a problem.

Moving on further, as a control room itself becomes the subject of decommissioning work, a second, remote control room will be needed for the remaining monitoring and control functions: this will most easily be provided by fitting legacy sensors with wireless adaptors, or even installing new wireless sensors, which can then be monitored from wherever the replacement control room is situated. A similar portable temporary/emergency capability was quoted in the ***INSIDER*** in May (page 18), built by Thales for use by EDF in the UK in the event of a nuclear power station emergency. This they described as a containerized DCIS (Deployable Communication and Information System) – it might be useful to have such DCIS equipped with similar wireless systems to monitor some of the critical sensors in these power plants!

In the longer term Viswanathan sees ISA100 growing to encapsulate WirelessHART, and to do this ISA100 would need to include some of the WirelessHART functionality

Presentations from external industry bodies

The Yokogawa conference also featured several presentations from industry experts and advisors. Glenn Schulz gave an explanation of how device packages produced according to the new FDI standard, due for release in around a month, will be able to interface into FDT networks, as shown at the Hannover Fair earlier this year. Then from the Frost and Sullivan marketing consultants, Muthukumar Viswanathan, head of their industrial team, reviewed their latest market research report entitled "Global Wireless and Technical Solutions Market Study". They see the market total growing at around 18%pa, worth $1Bn in 2013 and likely to be worth $3.2Bn by 2020. Within this total the current split by technologies was reported by F&S as 35% in WirelessHART, and 24% in ISA100: with Zigbee next at 17% and low power WiFi down at 6%.

In the longer term Viswanathan sees ISA100 growing to encapsulate WirelessHART, and to do this ISA100 would need to include some of the WirelessHART functionality. There was then the inevitable F&S award made to Masatoshi Nakahara, Head of the Yokogawa Industrial Automation business, in recognition of the "Global Enabling Technology Leadership" shown by Yokogawa, in developing their plant wireless solutions.

Whose market estimates are believable?

So what did Yokogawa think of the F&S market analysis? There was no comment on that. In a later presentation by Andreas Dobratz, already mentioned above, which discussed the Yokogawa new developments over the past few years, the number of Yokogawa wireless system installations made - up to December 2013 - was quoted as 750, which involved the supply of 4177 wireless transmitters. Emerson Process Management is undoubtedly the market leader in the supply of WirelessHART sensors, and from there Bob Karschnia quotes that the total installed base of their WirelessHART networks to date totals around 18,000 worldwide. When you work out that these are working systems, not evaluation installations, the average sensor number on each network must lie between 8 and 20: using a mid figure of 12 sensors per network, this would imply over 200,000 Emerson WirelessHART sensors installed.

Such numbers as those above would tend to make an 18% market growth rate since 2013 (as suggested by F&S) unlikely, when the business maybe really started in earnest only in 2010. Plus the F&S market share figures imply that Honeywell would have to have produced maybe 125,000 ISA100 sensors, just to balance the Emerson figure in the proportions F&S suggest. Even counting back 15 years, to include their OneWireless systems installed before ISA100.11a was conceived, this is difficult to believe. Then they would need to have produced a lot more to balance off the WirelessHART sensors produced by ABB, E+H, and many other manufacturers. Market estimates are maths: just units sold, numbers, growth rates and orders of magnitude. There seems to be an order of magnitude error in their result, or some wishful thinking for the benefit of clients.

The ***INSIDER*** would love to hear other views!

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Yokogawa weathers the storm OR Yokogawa re-emerges as a major player, both are true

Yokogawa is back to full health, so the major players will need to move over. The group has had a hard time over the last five years, following the world-wide recession and then their poor financial results in 2009. Then Japanese factors affected the Group badly, with the rise of the Japanese Yen reducing the competitive position - because of local production and group HQ costs – and the country then faced the impact and aftermath of the Fukushima disaster. Some of the Test and Measurement Division businesses were sold off, realizing some capital, and the company structure has been rearranged: jobs and resources were re-allocated. Wound around this, the wireless standards 'war' between ISA100 and WirelessHART, where Yokogawa for a long time took the brunt of the problems, and presumably had to help in the process of finalizing the ISA100 standard into a workable form: at least this is now completed, and consequently Yokogawa is the leader in the ISA100 field.

> Japanese factors affected the group badly, with the rise of the Yen reducing the competitive position because of local production and Group HQ costs...

Chairman Shuzo Kaihori and New President and COO Takashi Nishijima

Perhaps the major market factor that aided the Yokogawa recovery was the growth of the LNG liquefaction and shipping activity around the world, since is this an area where they have significant expertise and have a large market share compared to the other majors. Currently there are continuing LNG projects, the Japanese Yen has returned to the historic level of ¥100=$1, and over some years the production facilities have been diversified. While the flow company, Rota, has always been headquartered in Europe, and the special custom assemblies of complete analyzer houses are now also built in Europe and the USA, plus the latest LNG project on the Yamal peninsula in Russia will be engineered from Europe. In a discussion at their Berlin conference, Yokogawa president and COO Nishijima-san reminded me that they have two established manufacturing joint venture companies in China, manufacturing transmitters and flowmeters, and the DCS systems plus other measuring instruments are built in Indonesia, with general pcboard manufacturing in Singapore. Nishijima san also commented on the need for local manufacture in the USA to provide the fast lead times required in that market, so we might see investment in a new venture there.

The current conference shows Yokogawa is building on their ISA100 position, and is seeking other add on wireless sensor technologies to increase their 'in-house' capability. This might be by using their add-on wireless adaptor/interface, to existing mains powered sensors. It looks like a good relationship has developed with GE Bently Nevada, and corrosion and intrusion detection sensors might be next, with maybe fire detection sensors to go alongside the Gas-Secure flammable gas detectors on offshore platforms. Dräger, the specialists in oil and gas safety technology, were one of the major sponsoring partners of the Berlin conference, and also presented a talk discussing fire detection, using visual flame detection systems.

Herman van den Berg

Simon Rogers

Chet Mroz

Nishijima was appointed President in February 2013: in April 2013 Herman van den Berg was appointed European President, and in December 2013 Simon Rogers was recruited as the head of the UK operation. Van

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Yokogawa weathers the storm OR
Yokogawa re-emerges as a major player, both are true (continued)

den Berg, probably in common with Chet Mroz, CEO of Yokogawa USA, and others in the USA, has been burning up the air miles to Japan over the past 18 months, as a part of planning the recovery of the business. In fact there was an acquisition in March 2013 of Soteica Visual Mesa, marking an entry for Yokogawa into energy management IT services. Nishijima-san sees further alliances and even acquisitions as an important route for Yokogawa to consider to achieve the future growth his shareholders expect to see, and the current improvement in debt/equity ratio and normalization of the company share status makes this much more possible.

Nishijima-san sees further alliances and even acquisitions as an important route for Yokogawa to consider to achieve the future growth his shareholders expect to see…

The major existing DCS developments have involved cyber-security improvements, probably in conjunction with McAfee after the February 2013 announcement, and ***ISAsecure*** certification for ProSafe RS. Additions to expect in this area are augmented reality added onto the displays, and compatibility with virtual servers. Yokogawa sees major business expansion potential in providing IT techniques and services for their IA customers, as a continuing service activity. Examples quoted were CMMS in the cloud, which is already being offered as a service in Japan, and a software service called iMaintain, jointly developed and installed with Akzo Nobel in Germany: plus there is also their RigRider drilling procedure software, as reported from the Offshore Europe Expo last September. iMaintain enables client engineers to access device live data and history via a tablet on site, after reading the device ID locally using OCR. The iMaintain server accesses the DCS via an OPC link, to get current data, but can also call up device notes previously recorded, and also the instruction manual. A similar service offering is the Sotieca VisualMesa energy management system, which can suggest fuel and operational changes that will run plants such as refineries at minimal cost. An example of this is a recent project for the BP Lingen refinery in Germany: the system is in use in around 70 sites in refineries and petrochemical plants in the EU and North America.

Continuing R+D activity

In the area of field instrumentation, continuing development will be seen following their strategy of having a two tier offering, featuring a top of the range unit backed up with a lower cost unit aimed at lower specification requirements. This has been seen with the EJX and EJA-E pressure transmitter, and the Admag AXF flowmeter, with the RXF unit typically for water industry applications. A new version of the TDLS combustion gas analyzer will also be launched soon. The activity level in this area of R+D is significant, with typically 400 to 500 new patents generated in a year.

Some *INSIDER* Commentary

Yokogawa continues to face significant issues as it attempts to become a global player, instead of a Japanese company that markets outside of Japan. There is no doubt that they are superb engineers, scientists, and technologists. The list of Yokogawa "firsts" now is close to 100 years long.

Yokogawa has historically had a strong "not invented here" issue. They've also had real difficulty working with partners who are not Japanese, and integrating acquisitions of companies from outside Japan.

Yokogawa, like other companies from Japan, also does a strange thing— typically, they deliberately de-rate their performance specifications on field devices like flow meters, pressure transmitters, temperature transmitters, and the like. While this is seen in Japan as politeness and customer oriented ("We do not want a customer to use the product at the extreme edge of performance.") in the rest of the world, it simply loses orders because other companies' specifications are not so de-rated.

What this boils down to, is that Yokogawa is, in its soul, a Japanese company. That is emphatically not a bad thing, but it does limit them. It doesn't need to, and in the past it has not. They need to remember what they did when they first came into the US market with the vortex shedding flow meter. They bought understanding of the local market, and whether they believed it or not, they followed that advice and were wildly successful.

More Research and Development, especially product development, needs to be done outside of Japan, because the products will be different and more universal. More customer research needs to be done outside of Japan, so they understand what their wider customer base wants and will buy. They can do this, and the ***INSIDER*** doesn't doubt they will.

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SMLC Announces New Chair as Jim Wetzel

Previous Chair Dean Bartles, Now Executive Director of UI LABs, Remains Active with SMLC in New Role as Chair Emeritus

The Smart Manufacturing Leadership Coalition (SMLC) has announced that the organization's Board of Directors has elected Jim Wetzel, Technical Director of General Mills, to succeed Dean Bartles as Chair, effective immediately.

New SMLC Chair, Jim Wetzel

In search for a new Chair, the Executive Committee and Board sought a candidate who could build on SMLC's leading position in Smart Manufacturing and continue to accelerate SMLC's technology development and commercialization plans as SMLC is gaining momentum in this important next phase.

CEO Denise Swink, said, "Jim Wetzel is well-recognized for his ability to strategize, lead large teams and drive technology growth and innovation at great scale. With 35 years of experience in the manufacturing industry, Jim understands exactly the critical need for SMLC's existence and mission to tap into uncharted territories in today's manufacturing space. Wetzel is uniquely qualified to lead SMLC to the next level of the coalition's juncture. There is no doubt that Jim Wetzel is the right person to lead SMLC at this important time, and he has the unanimous support of our Board."

"Jim understands exactly the critical need for SMLC's existence and mission to tap into uncharted territories in today's manufacturing space."

Wetzel is currently the Technical Director – Platform Center of Excellence at General Mills Inc. He has 35 years of industry experience, starting with 6 years in the Plastics Industry and 29 years in the Food Industry with GMI. While at General Mills, Jim has had roles in proprietary machine design, Manufacturing System Improvement and Optimization, Product Improvement, Project Management, System Engineering, Control and Information Systems, MES Application Development and Platform Reliability.

In Wetzel's current role he is responsible for optimizing the existing asset base in GMI Manufacturing Plants. Specifically centered on GMI's strategic operating platforms, this function is responsible to improve, extend and sustain the assets of Manufacturing through reliability/ maintenance, system optimization, and technical innovation. In Jim's most recent role he was responsible for Manufacturing Execution Systems, Enterprise Manufacturing Intelligence, Maintenance Applications, Engineering Tools (Enterprise project and portfolio management, Process Simulation and Sharepoint /Collaboration for the Technical Community), Control and Information Technical Innovation and Next Generation Application Architecture.

Hazardous area lighting

The new line of light fittings from R Stahl for use in Ex zone 1/21 and 2/22 hazardous areas achieves better energy efficiency than comparable devices and provide approximately 10% more luminous flux. These new ExLux 6001 luminaires also feature a design that is more compact, stable, and torsion-resistant than their ExLux 6000 predecessors. While more than one million of the ExLux 6000 lights have been deployed worldwide over the last twenty years, the new generation now meets increasing user demand for a similarly economic, yet enhanced product with improved technical features.

Appleton Group, a division of Emerson Industrial Automation, is bringing increased energy efficiency to hazardous locations with its new Viamaster Linear LED Luminaire, the latest groundbreaking addition to its expanding line of LED lighting fixtures. The Appleton Viamaster provides up to four times more energy efficiency than a standard HID or fluorescent fixture, plus offers minimal maintenance, with an IP66 and NEMA4X rating. The Viamaster delivers clean, high lumen lighting in areas classified as NEC Class I, Division 2 or IEC Zone 2, such as onshore and offshore petrochemical operations, chemical processing plants, or mining and waste water treatment plants.

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SMLC Selects Wetzel as Chair

(continued)

In 1993 Wetzel led the development of General Mills' MES system. Today it is installed throughout GMI's plants globally. It has driven significant productivity and quality improvements. This system captures more than 100 Million data points a day across the enterprise and delivers many of the KPI's for GMI Supply Chain as well as core MES functionality.

"It is an honor to Chair the coalition at this important moment in the organization's journey", said Wetzel. "SMLC brings together thought leaders from across the nation to take action, and develop the nation's first open smart manufacturing platform that will revolutionize the manufacturing industry. I look forward to realizing this vision that many of us have shared."

Vice-chair John Bernaden

Vice Chair John Bernaden said, "On behalf of the entire membership, we thank Jim Wetzel for his unwavering leadership, remarkable vision and forward-looking focus that has been instrumental to SMLC's industry-driven direction and success."

On February 25, President Obama announced that UI LABS, a nonprofit research and development organization won the Digital Manufacturing & Design Innovation (DMDI) Institute solicitation. Dean Bartles was selected as Executive Director of the new Institute. To assume this newly created position in UI LABS, Dean took an early retirement from General Dynamics

Former chair Dean Bartles

and has transitioned as SMLC's Chair into an active advisory role.

CEO Swink said, "Dean's new role with UI LABS is well-deserved given his leadership, strong advocacy for U.S. Manufacturing competitiveness and his drive to create change. We are excited for Dean, a champion for the SMLC and advanced manufacturing, in leading the nation's third National Network for Manufacturing Innovation institute. We are pleased Dean will stay actively involved with the SMLC in this new, important capacity as Chair Emeritus."

SMLC CEO Denise Swink

"It has been an honor to work with our members to move SMLC on a clear path toward continued long-term growth and collaboration," said Bartles. "I believe SMLC is on the right track, and I'm excited to engage and support the SMLC in my new advisory role as Chair Emeritus to the Board. I'm confident that under Wetzel's leadership, SMLC's comprehensive vision for manufacturing will come to fruition."

About SMLC: Smart Manufacturing Leadership Coalition http://www.smartmanufacturingcoalition.org/.

UK wave and tidal power projects

The Crown Estates, as the landlord of the seabed in the UK territorial waters, has agreed to the use of 11 new sites for developers to test out and commercialize wave and tidal power devices.

In the latest round of leases Crown Estates has agreed to five new project sites for the development of 10-30MW projects, and six new locations for demonstration project proving work.

At one of these project sites, Siemens MCT will develop three tidal stream commercial arrays: one at Portland Bill in Dorset, one at Strangford Lough in Northern Ireland, and one at the Mull of Galloway in Scotland. Minesto has also secured a lease to develop a tidal stream project at Holyhead Deep in Wales, while the European Marine Energy Centre (EMEC) won the rights to develop a tidal stream project at Stronsay Firth in Scotland.

The wave and tidal stream demonstration project sites approved included two for EMEC: Wave Hub will develop demonstration zones in North Cornwall, North Devon, and Pembrokeshire. Another company, Mentor Mon, will develop a tidal demonstration zone off Anglesey, in North Wales.

The UK now has more than 40 wave and tidal projects, with a total potential capacity exceeding 2GW. The government has pledged significant levels of subsidy support for marine energy projects.

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SMLC chooses General Mills' Wetzel

(continued)

The SMLC is a non-profit organization comprised of manufacturing practitioner, supplier, and technology companies; manufacturing consortia; universities; federal agency and government laboratories.

SMLC is building the nation's first open Smart Manufacturing Platform for collaborative industrial-networked information applications through at-scale demonstrations.

The SM Platform enables manufacturing companies of all sizes to gain easy, affordable access to modeling and analytical technologies that can be tailored to meet cross-industry business-case objectives without having to retrofit existing systems. SMLC envisions a 21st century SM enterprise (from suppliers, OEMs, and companies to supply chains) that is fully integrated, knowledge-enabled, and model rich.

Such visibility across the enterprise (internal and external) would radically improve the ability to inform decisions and drive action.

SMLC member organizations and companies include Advanced Manufacturing Partnership for Southern California (AMPSoCal); American Council for an Energy-Efficient Economy (ACEEE); Alcoa; American Institute of Chemical Engineers; American Society of Quality (ASQ); Association of State Energy Research & Technology Transfer Institutions (ASERTTI); Association for Manufacturing Technology (AMT); ARC; CalTech - Jet Propulsion Laboratory; Carnegie Mellon University; Corning; DOE; **Emerson**; Electric Power Research Institute (EPRI); General Dynamics; **General Electric**; General Mills; General Motors; Manufacturing Enterprise Solutions Association (MESA); MTConnect Institute; National Association of State Energy Officials (NASEO); North Carolina State University (NCSU); Nimbis Services, Inc.; NIST; NSF; **OSIsoft**; Owens Corning; Pfizer Inc.; Praxair; Purdue University; **Rockwell Automation**; Rensselaer Polytechnic Institute (RPI); **Savigent Software**; **Schneider Electric**; Society of Manufacturing Engineers (SME); Southwest Research Institute (SWRI); **Spitzer and Boyes LLC**; Sustainable Solutions; Tulane - Center for Polymer Reaction Monitoring and Characterization; UCLA; University of Texas – Austin

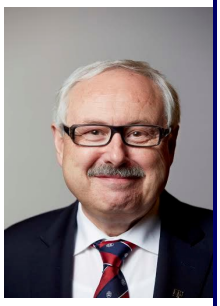
Automation vendor companies, boldfaced above, have contributed greatly to SMLC in its formative years. In order for the fully integrated knowledge-enabled platform to become a reality, a significant majority of the large automation vendor companies and system integrator companies will need to sign on and become part of the coalition.

> "Spitzer and Boyes LLC believes strongly in this effort, and we are the smallest member company."

Spitzer and Boyes LLC believes strongly in this effort, and we are the smallest member company, but we are dedicated to the next generation of smart manufacturing because it will make it possible to re-invigorate North American manufacturing, as well as spread 21st century manufacturing technologies around the world. This can only raise the standard of living at home and in the developing world.

We strongly encourage the automation companies, as well as other end user and asset owner companies to become members of the Smart Manufacturing Leadership Coalition.

E+H executive takes the helm at ZVEI



Michael Ziesemer

At its delegates meeting held in Munich on 25 June, the German Electrical and Electronic Manufacturers' Association, ZVEI, named Michael Ziesemer, CEO of Endress+Hauser, as its new president.

ZVEI boasts 1600 member companies which employ 1.5 million people around the world, and represents a highly-technical industry with a product portfolio that covers a wide spectrum. The 63-year-old Ziesemer will be tasked with representing ZVEI at the highest levels of business and politics.

"Assuming the association's top honorary office will be a wonderful task for me given that this industry is marked by so many innovations," says Michael Ziesemer. "ZVEI represents around 10 percent of the German manufacturing industry. Every third innovation from the manufacturing sector has its roots in the electrical and electronics industry, creating jobs and prosperity in Germany. The energy revolution and the Internet of Things bring radical changes that touch many areas of our daily lives and transform entire business models. ZVEI can help companies and society

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Fieldbus Foundation Board and the HART Communication Foundation Board Support Joining to Create a New Industry Organization

The Boards of Directors of the Fieldbus Foundation and the HART® Communication Foundation are pleased to announce that they have approved unifying the two Foundations into a new industry organization dedicated to the needs of intelligent devices and their integration in the world of Process Automation.

The combined power of both organizations will serve to protect the investments that end users in Process Automation have made in HART® and FOUNDATION™ fieldbus communication technologies.

The mission of the combined organization will be to develop, manage, and promote global standards for integrating devices into automation-system architectures, providing functional solutions for process automation suppliers and end users. Suppliers will also profit from the increased efficiencies in resource utilization, procedure consistency, and member service and support improvements.

The Fieldbus Foundation and HART Communication Foundation have a long history of cooperation. For example, the two worked together to develop common international standards, such as Electronic Device Description Language (EDDL) specifications and Field Device Integration (FDI) technology. Combining the organizations offers significant potential for harmonizing the procedures and efforts supporting the two protocols, as well as simplifying each technology's implementation while better delivering their full benefits in plant operation and maintenance.

The FOUNDATION fieldbus and HART specifications will continue to exist individually, and to evolve into the future.

Each protocol will retain its own brand name, trademarks, patents, and copyrights.

The new organization will continue development, support, and promotion of the two existing protocols, and will direct the development, incorporation, and implementation of new and overlapping technologies. Thus, the new organization will eventually serve as the single source for FDI, the sole integration tool for HART and FOUNDATION fieldbus technologies. The name of the proposed organization is not yet finalized.

The next step will be to complete the membership ballot by the end of summer 2014. Following a successful membership vote, legal filings for the creation of a new not-for-profit entity will take place in September 2014. As a final step, it is expected that the new organization offices will be consolidated and located near Austin, Texas, in early 2015.

Editor's note: Maybe it's time to include Profi, Modbus, DeviceNet, etc., and OPC in a combined organization with HART and FF?

Eaton biogas analyzers

In a shift of brand emphasis, the press release issued to launch a new gas analyzer from Hitech Instruments does not actually mention the name Hitech: it is only when burrowing down through layers of websites that the product information is provided on the Hitech Instruments branded website. The ATEX certified GIR5500 is designed to detect the gases found in anaerobic digester and landfill applications, and can be supplied as a single or four gas analyser version used for the continuous monitoring of CH_4, CO_2, O_2 and H_2S. It was introduced as coming from "power management company Eaton." "With more than 30 years of experience in gas analysis" said Iain Gordon, the Gas Analysis product line manager at Eaton's Crouse-Hinds Division. The unit was on show at the UK's 'AD and Biogas Show' early this month, on the Eaton Crouse -Hinds business stand, labeled as an MTL Model GIR5500 Gas Analyzer. MTL products were explained as part of the portfolio from Eaton's Crouse-Hinds business. Key applications include intrinsic safety, fieldbus, industrial networking, surge protection, HMI and visualization, gas analysis and alarm management.

Hitech GIR5500

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PwC report on capital projects and infrastructure spending

From the UK, Pricewaterhouse-Cooper (PwC) have issued an analysis report on the future growth and shape of the global capital project and infrastructure market (CP&I) , giving some detailed descriptions.

The global market they define was around $4 Trillion in 2012, and will grow to $9 Trillion by 2025. Their report, in which Oxford Economics provided research support, estimates the scale of current infrastructure investment and assesses the prospects for future investment from now to 2025, across 49 of the world's largest economies. This represents a growth of 6-7% annually, but the UK growth rate will be lower.

In the UK, power and transport account for a third of CP&I spending currently, but this will grow to 50% by 2025, when total spending will be GBP106Bn. The UK fiscal squeeze will restrict growth between 2014 and 2019 to around 2.4%pa, but this will accelerate to 4.5% after 2020. Current 2014 spend total is around GBP70Bn, not significantly higher than the 2008 total of GBP65Bn.

Global comparisons

Globally, the recovery in infrastructure spending will be geographically uneven, led overwhelmingly by emerging Asia, as spending overall shifts from West to East. The Asia-Pacific market will represent nearly 60 % of all global infrastructure spending by 2025, driven by China's growth.

In contrast to Asia-Pacific's success, investment in western economies has been more constrained by the legacy of banking crises, fiscal austerity and a shallow economic recovery. Western Europe's share will shrink to less than 10% from twice as much just a few years ago. While the rate of growth will be less for mature economies, North America is expected to fare better than Western Europe, where total infrastructure spending in nominal dollar terms is unlikely to reach pre-crisis levels until at least 2018.

Richard Abadie, PwC's global leader, Capital Projects & Infrastructure practice, commented: "Emerging markets, especially China and other countries in Asia, without the burden of recovering from a financial crisis, will see much faster growth in infrastructure spending than in advanced economies in Europe. Growth in emerging markets, together with increasing urbanization and shifts in demographics, will drive the majority of investment globally".

UK forecasts

In the UK, CP&I spending will fall from the current level of 4.2% of GDP to 3.6% by 2025. Within this total, the current boom in Oil & Gas spend at GBP9Bn will fall to GBP7Bn, but Power and Water will grow from GBP11Bn to GBP27Bn: within this total the power generation spend will triple to over GBP17Bn. Substantial investment in rail and air transport upgrading will lead to a doubling of spend there, to GBP23Bn. Slower growth will be seen in Hospital, School and College spending rising to GBP28Bn, and 'Other' sectors like Telecoms, Chemicals, Metals, rising to GBP21Bn.

Richard Abadie continued: "It is telling that social infrastructure spending accounts for about a third of total [UK] spending currently despite the perception of cutbacks in this area. Nevertheless, we expect transport and power to be the growth sectors up to 2025 with transport doubling and power generation nearly tripling. This spending will be critical to ensuring economic growth in the UK and global competitiveness. Private investment, whether from pension funds, insurance companies, sovereign wealth funds for example, will be the dominant financing source".

The PwC report '*Capital project and infrastructure spending: Outlook to 2025*' is now available from PwC in London.

Emerson ValveLink Mobile

With the release of version 3.8 for the 475 and 375 Field Communicators, users gain a powerful new way to run valve diagnostics for both HART and FOUNDATION fieldbus Fisher FIELDVUE digital valve controllers directly in the field.

Users can now analyze and review valve assembly condition and performance without affecting the process. Additional capabilities include performing and analyzing advance diagnostics such as valve signatures, dynamic error band, step response, and stroke speed testing. The user-friendly interface uses intuitive icons and can be easily run with just a finger and thumb - no stylus required. Users can use the touch screen to easily scroll through the diagnostic test results.

The full color display on the 475 Field Communicator presents valve signature data in an easy-to-understand graphical form. For a more detailed view, simply select a portion of the plot and zoom in. Easily transfer diagnostics from ValveLink Mobile to a PC using Bluetooth, IrDA, or an SD card reader and integrate with AMS Device Manager for additional analysis. *ValveLink Mobile on the 375 Field Communicator requires a 1 GB system card. Color display and Bluetooth capabilities are not available on the 375 Field Communicator.*

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THE WAY I SEE IT
Editorial

So, Tell me, How Are We Doing So Far?

You are reading the sixth issue of the ***INSIDER*** since I took over as Editor. It's time to take stock of what we've done, what we want to do, and whether what we are doing is serving you, our readers, in the best way we can.

We have grown from a small newsletter that covered the UK and Europe, with excursions to North America to covering the global automation industries. We have correspondents in Europe, in Asia, and in Latin America, and we are actively looking for more. We have covered stories like our unique coverage of the plight of SMAR in Brazil, and what that means for other automation companies investing and doing business in Brazil.

We have introduced you to several novel and interesting products, including a couple of flow meters that are unique.

We have grown from 12 pages to close to 30 on an average month— the same editorial quantity as other magazines in this space, but without advertising.

Comments? Talk to me!
waltboyes@spitzerandboyes.com

Read my Original Soundoff!! Blog:
http://waltboyes.livejournal.com

We've introduced a unique Industry Health Watch— an index for the automation industries that details the financial health of the industry by tracking over 75 companies from around the globe.

We have begun a major research project: to develop a profile of what makes a good automation leader by interviewing a large sample of them. We will be reporting our preliminary results soon.

We are trying to make this the "magazine of record for the automation industries." Tell us how we are doing!

We have other projects in the works— it's only been six months.

This is a unique periodical. It is the only magazine in the automation industries that does not accept advertising— and the editorial compromises that entails. We are trying to make this the "magazine of record for the automation industries."

If you think this is a good idea, and workable, please let us know. You can do that two ways. One is by letting us know via email to insider@spitzerandboyes.com. The other, of course, is to subscribe, renew, and get your associates to subscribe.

If you would like to see us do something different, let us know that, too. But please, tell us what that "something different" would be.

Of course, the ***INSIDER*** is not the only thing we do at Spitzer and Boyes LLC. We provide content for many different companies, and we can do it effectively and economically because we have the subject matter experience to write about the entire automation product and system range.

We help companies with the technical aspects of mergers and acquisitions.

We act as forensic engineers in law cases involving automation technologies.

We help companies with their customer research, both qualitatively and quantitatively, and we are uniquely qualified to produce research with both qualitative and quantitative bases.

We help companies with their distribution channels, and with their marketing and social media marketing.

This breadth of knowledge and experience is what makes the ***INSIDER*** unique, too. We are proud of what we've done and we hope you are too.

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Insider Profile by Joy Ward

INSIDER
INDUSTRIAL AUTOMATION & PROCESS CONTROL

Profile

The Insider Profile column will resume next month. Joy and I were consumed by the requirements of hospice care for her mother, the eminent physiological psychologist, Dr. Jeannette P. Ward. Dr. Ward passed away on July 20, at home. Next month's column will feature a look at Dr. Helmuth Ludwig, of Siemens Industry. —Walt Boyes

Joy Ward is Qualitative Market Research Practice Lead for Spitzer and Boyes, LLC. She spent more than 25 years doing qualitative research for companies like Hughes Satellite, General Motors, Purina, Waste Management, Abbot Labs and others. A past master of the qualitative research interview, she showcases the capabilities of Spitzer and Boyes' qualitative research department each month with these interviews. She is compiling a profile of automation executives.

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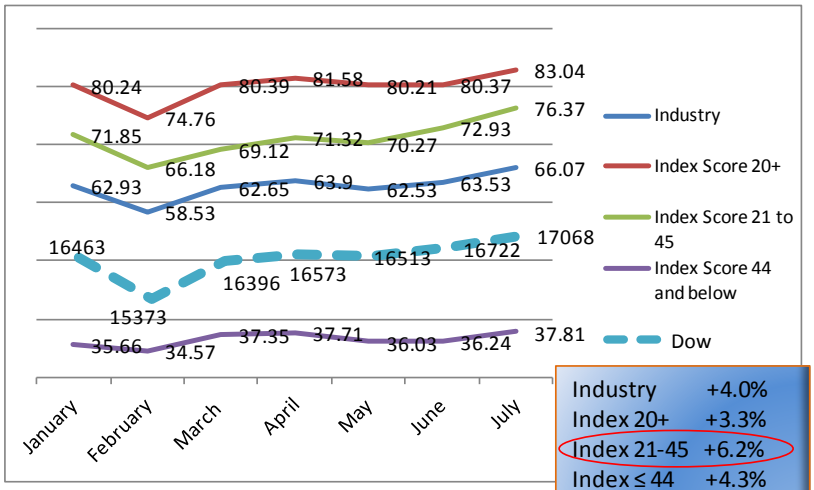

Industry	+4.0%
Index 20+	+3.3%
Index 21-45	+6.2%
Index ≤ 44	+4.3%
Dow	+2.1%

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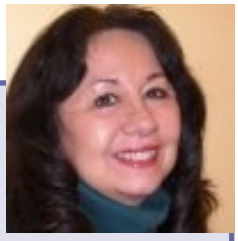
INDUSTRIAL AUTOMATION & PROCESS CONTROL

Health Watch

By Mary Samuelson



The *INSIDER* Health Watch (tm) is written by Mary Samuelson, Quantitative Research Practice Lead at Spitzer and Boyes, LLC. Ms. Samuelson was director of research at Maritz Research, and vice president at Rockhopper Research, and a Senior Project Manager with The Right Brain People.

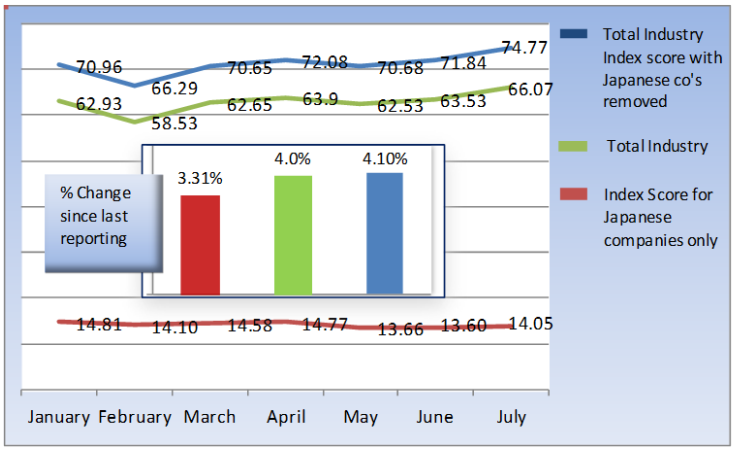
"The Health Watch shows what we are capable of, in quantitative research, at Spitzer and Boyes, LLC.," she said. "If you are looking for research that is different from the kind you get from the usual suspects, give us a call."

Spitzer and Boyes, LLC has a complete qualitative and quantitative research capability, focused on the automation industries.

For more information, contact David Spitzer dspitzer@spitzerandboyes.com.

Great news this month all around for the Industry! Not only did all segments of the Automation Control Industry perform well, but all outperformed the DJIA. Midrange companies (Index 21-45) posted an average increase of 6.2%, pulling ahead of the Dow by over 4%. The Industry giants lagged a bit behind their smaller compatriots, but still posted a fairly impressive gain of 3% since last reporting.

Japan appears to be recovering from the slump seen in previous months, as Abenomics takes hold. Dubbed the "three arrow" approach to economic reform, the arrows Shinzo Abe is shooting appear to be hitting the bull's eye. The Economist reported in June that after countless false dawns, Japan may at last have the combination of political circumstance and economic exigency to make reform inevitable and, in Mr Abe, a leader with the nous to bring it about.



His reforms are certainly showing promise for the ACI. In May, Japanese companies in our sector showed an average loss of 7.5%, which began to even out in June with a loss of only .5%. This month Japanese companies are still a bit behind the rest of the industry, but not by much; a very impressive rebound over a relatively short period of time.

It will be interesting to continue to track the progress of the Industry in Japan, as well as taking a look at how European and US markets compare. But we'll save that for the next issue.

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The Industrial Automation and Process Control INSIDER is published by Spitzer and Boyes LLC.

The INSIDER is edited by Walt Boyes. Nick Denbow is the European Editor. Rajabahadur V. Arcot reports from India. Joy Ward is a columnist. Mary Samuelson is a columnist. Additional reporting is done by David W, Spitzer PE.

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Send comments to insider@spitzerandboyes.com. We want to hear from you!

Rajabahadur V. Arcot: Invest time and efforts to succeed in the expanding Asian automation market

The automation industry has been evolving in response to user demands and to technological developments. It began with mechanical gauges and electrical meters; then came pneumatic and electronic panel mounted instruments in central control rooms. Later the industry introduced distributed control systems, programmable logic controllers, and supervisory control and data acquisition systems.

With Europe and North America in the lead in industrialization, these geographies not only accounted for a large share of the automation market but also for the largest number of automation supplier companies. The expansion of the Japanese economy resulted in the growth of the automation market and Japanese companies joined established European and North American companies to make control and instrumentation products and systems. Yamatake and Honeywell came together to create the joint venture company Yamatake-Honeywell (now Azbil Corporation) and Yokogawa signed a technical assistance agreement with Foxboro for making industrial instruments. The automation supplier companies' challenge has been to adapt and compete. While some companies have flourished and expanded, a few others such as Bailey Controls, George Kent, and Leeds & Northrup find a mention only in history. Buy-outs, mergers, and technological changes have taken a heavy toll. In addition, the market for control and instrumentation products and systems has expanded beyond the traditional markets, into Asia. It is not only a growing market for automation products and systems but also the home for new automation companies. HollySys Automation and Supcon Group are examples of homegrown Chinese companies that are emerging as suppliers of control systems. In India, BHEL, a state owned enterprise, is the leading supplier of DCS. However, BHEL makes DCS under a license agreement with Metso, which has gained immensely by correctly assessing the advantages of collaborating with BHEL. BHEL enjoys a near monopoly in India; and the procurement practice in the country is to bundle control systems with the boiler – turbine equipment. Maximum investment in India is in the electric power industry! BHEL, however, is not leveraging its position as the largest supplier of DCS in the country to further expand its business in the automation market. Whether the automation supplier companies are responsive to the ever-evolving industry landscape is the question companies must consider while strategizing their growth . Often, companies tend to operate in their comfort zones and treat all markets alike, ignoring the emerging market needs, compulsions, and ways of doing business. Most often, they tend to rely on strategies that worked on their home turf, which doesn't work. For example, many Japanese companies ignored the Indian market for too long and now they seem to be making amends. They may succeed, if they take into account the need to fight for share in a price sensitive market. Many of the global players in the Indian market also follow a flawed approach trying to compete merely on prices. China and India offer excellent growth. Massive investments and large greenfield projects in almost every sector are in the pipeline. Companies that evolve appropriate strategies will succeed. Investment in deep market research will pay for itself. Qualitative and quantitative research is required to identify evolving market and customer needs, competitors' activities, and emerging opportunities and threats, and ensure success and minimize risks.

Rajabahadur V. Arcot is an Independent Industry Analyst and Business Consultant with 40 years of senior management experience. Until recently, he was responsible for ARC Advisory Group's business operations in India.

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