

DEBRIEF 10th Smartlab Exchange Conference – Philadelphia 2015

This year the Smartlab Exchange celebrated its 10th anniversary. But it was also a new start. Belgium chocolates and German beer were replaced by American hamburgers. In addition to the USA premiere of Smartlab, we also celebrated another significant software industry milestone. Sixty years ago, two ex IBM employees started their first company to sell software separately from computer hardware. Their CUC (Computer Usage Company) initiated what is now known as the software industry, which currently employs globally over 10 million software engineers.

In a nutshell, the Smart lab Exchange event has a unique non-traditional concept in our scientific world. It balances a mixture between good quality presentations, well prepared panel discussions from industry experts: multiple effective peer to peer networking moments and focussed one-on-one tailored business meetings with world class solution providers. The challenge the IQPC organisation and me as a chairman was to find out if the concept would also work overseas. Despite the extreme snow, extreme cold weather, over 80 delegates and 16 solution providers were able to find the venue at the Delaware riverbanks at the convenient Hyatt facility. The exchange concept will only show its power if you are well prepared. To facilitate this process, the SmartLab Exchange team, surveyed the delegates to understand their biggest challenges. What keeps them awake at night? Which challenges are on top, and should be prioritized over the 6-12 months? What are the pains? Can we correlate the results with the ones found in Europe? During **this year's program** three particular trends triggered my attention as a chairman of the exchange.

At first, the need to drive change in our industry has been never higher before, and they are not only related to technologies. During my chairman introduction I summarized 4 areas of change. At first change related to behavior of people **and mindset**. During the panel discussion **"LIMS & ELN: overlap and restructuring of the vendor market"**, Carmen Nitsche, executive director of the Pistoia Alliance and co-chair of the exchange, highlighted how this market is undergoing a tremendous change. Products emerge. The delegate survey showed that the highest desire is the integration between LIMS, ELN, LES and SDMS. Interesting observation is that PLM (Product Lifecycle management, is mentioned more frequently. Yan San, Associate Director, Bioanalysis operations at Abbvie, stated that a formal budget should be planned to support change management processes. He continued to explain how the three laws of change management 1) Be provocative and confront the brutal facts and 2) **don't be shy** and 3) then align change **complexity and finally cultivate growth"** are the key ingredients for a sustainable new mindset. It created a basis for a good lively discussion.

The next topic which was highlighted in several presentations, think tanks and roundtable session, is close to my heart. It is all about the willingness to adopt standards. Why is it that we accept new ways of working in when we transfer monies in our electronic banking application? Why are we not afraid using the cloud when we check-in for our next flight? Why are we submitting millions of messages on social media and chat services without any major fear? We are geniuses to find excuses not to use the same technologies and processes when we perform our daily work in our corporate scientific life. While several presentations highlighted the great new technologies including the use of tablets, wearables, cloud and BIG DATA processes, I challenged the audience by stating **"why do we need still programmers and expensive and complex software to enable a simple data transfer like a pH or weight measurement from a balance to a tablet or computer? So why is it that hard and software vendors are telling the world that mobile computing is the way to go, but to get a simple data transfer seems a bridge too far."** I like to challenge the hard and software vendors to seriously look around to other industries and address this paradigm. If a phone using Bluetooth can be connected to almost all devices in our personal life, why **can't** we use this widely accepted, secure, technology in our scientific life? On a positive note, I have sensed a significant acceptance in understanding the need to adopt data standardization. Adopting data and integration standards was challenged during the fire chat session on the 2nd day. Dana Vanderwall, Associate director Cheminformatics at Bristol-Myers Squibb, Patrick Chin IT specialist in Research lab platforms (Merck) and Wolfgang Colman CTO of Osthus GmbH, all representing the Allotrope Foundation initiative. The audience was in agreement that to prepare us for this change, data standardization is a key element to pave the road to our future. The industry should endorse Allotrope Foundation and other similar initiatives to wake-up the industry.

The need to capture data and its meta data at the source will create a quality Culture by Design (CbD) and reduce mandatory manual boring steps to describe our experimental data. Lloyd Colegrove, Data services director at DOW shared his journey how to create knowledge and wisdom from data and information. **"We used a napkin to describe the overall process."** He continued **"the real mess is how to use the data"**. In two outstanding short videos the overall message became loud and clear! **"Data should work for us instead of just sitting in file directories"**. This dark data phenomenon, refers to a type of unstructured, untagged and untapped data that is found in data repositories and has not been analyzed or processed. **He continued to bring meat on the bones by stating that "data and analytics results in in the intelligence; collaboration and intelligence will result in knowledge"**. That should be the ultimate goal to create competitive advantage. Ryan Sasaki (ACD/Labs) shared several concrete examples how technologies available today, can create light in this "darkness".

Finally, the notion towards avoiding to think products and technology is starting to resonate. The delegate survey showed that LIMS, ELN, SDMS or LES are seen as one integrated suite, very similar to how we perceive Office application. The scientist is no longer in the laboratory, but integrated in the overall quality process. Adoption of an integrated Product Quality Lifecycle Process facilitates innovation, continual improvement and strengthens the link between development and manufacturing activities. Integrated Lab processes enables organizations to create start-to-finish knowledge management repository to adopt cross functional collaboration between management, scientists and engineers responsible for products in development and manufacturing, processes, equipment and facilities. Laboratory information is critical since it will provide significant detail and evidence for the overall process. **That's the value we need to share with overall management. Wasn't that the devil is in the details?** I myself certainly look forward to next year's meeting. **I like to propose a** venue location with less snow and cold weather!

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