

PI Congress 2013 Featuring PLM Road Map 2013: PLM Past, Present, and Future

CIMdata Commentary

Key takeaways:

- *CIMdata and MarketKey collaborated on the first-ever combined PI Congress and PLM Road Map, 9-10 October 2013 at the Indian Lakes Resort, Bloomingdale, Illinois*
- *As many as five parallel tracks kept the 340+ attendees moving to hear the many informative speakers*
- *The PI Congress “Main Tent” sessions included several provocative speakers, and many highlights*

On October 9 and 10, 2013, over 330 delegates attended the Product Innovation (PI) Congress 2013 and PLM Road Map™ at the Indian Lakes Resort in the Chicago suburbs. For the first time, CIMdata delivered its annual PLM Road Map conference in conjunction with this event, helping to draw the large crowd, populated with business and technical professionals from multiple manufacturing and process industries and countries. Stan Przybylinski, CIMdata’s Vice President of Research, acted as the PI Congress Chair while Peter Billello, CIMdata’s President chaired the PLM Road Map

Day one began with an exciting talk by Brenna Berman, the CIO for the City of Chicago, a very challenging position with a huge mandate: to turn the “City of the Big Shoulders,” as termed by poet Carl Sandberg, to the city of Big Data. Many in the audience could relate to her challenges in having to do with very little support or being forced to use ancient infrastructure to achieve 21st century aims. Harnessing the vast trove of city data, Ms. Berman’s team has delivered a platform, based on standards and solid application programming interfaces (APIs), for others to build Web and mobile apps to deliver that data to the citizens of Chicago. Her initial results are impressive.

Much of the rest of the day focused on sharing key lessons learned from PLM implementations—the reason why many people attend such events. Bjorn Henriksson of Etac AB followed with “12 things to consider” when implementing PLM. Building on his work at Etac AB and Arthur D. Little, Mr. Henriksson’s guidance focused on getting the “people, process, and technology” right, very consistent with best practices and sociotechnical systems, a framework that originated in Scandinavia that had the same focus. Martina Mauzy of Boeing Digital Aviation hit that same theme, and highlighted how her organization brought in skilled consultants at key points in the project lifecycle to provide needed expertise. She also echoed something CIMdata sees often in our industrial consulting work: return on investment (ROI) models built to capture small incremental savings often add up to very large savings numbers, easy for financial skeptics to question. Sara Surya and Rob Teiss from Shure described their PLM journey—one with several twists and turns. While earlier PLM efforts resulted in some legacy systems that must now be replaced, unfortunately people often learn what they really want and need only by seeing and using an initial system, one that shows the next path for their PLM journey. Paul Nelson and Nathan Christensen from ATK described a very different path: a long-time, deep partnership with their PLM solution provider, Siemens PLM Software, one in which both parties collaborate to bring needed functionality to end users. Greg Smith from Rolls-Royce presented a very broad vision, covering not only PLM, but also enterprise resource planning (ERP), manufacturing execution

system (MES), and enterprise asset management (EAM). James DellaNeve from Boeing presented a very different vision: how can he change the paradigm for PLM across Boeing, heavily leveraging cloud-based solutions, which deliver the necessary functionality at a much lower per user cost (he mentioned numbers that might typically be seen in a monthly cable bill). Tom Saunders from the Waters Corporation spoke about their application of SAP's "visual enterprise" solutions to use design and engineering data to support manufacturing, and after-sales services that are vital to their business. With many industries facing similar requirements to support service after sales, this information was timely indeed.

The last two sessions of Day One of the PI Congress had a much different focus. Dr. Lee Shorter from GlaxoSmithKline (GSK) described an interesting charter: helping one of the world's largest drug companies to innovate differently. He and his small team of "Disruptive Technology Seekers" use a range of methods, from seeking analogs from other domains to solve pharma problems, to "open innovation" that is popular in pharma and other industries. In an industry that spends billions annually to fail 97% of the time, new methods are certainly in order. Finally, the closing talk was given by Peter Bilello, President of CIMdata, who focused on "social product development," a focus area for a CIMdata Knowledge Council, led by Dana Nickerson, who also spoke on the topic in the PLM Road Map sessions. Mr. Bilello stressed that the "Social savvy" workforce will make new demands of both their organizations and the PLM-enabling solutions that are used there. The PLM solution providers are starting to offer solutions that support these social use cases, but there is much more work to be done.

Day Two started with a very interesting talk from Isha Datar, the Director of New Harvest, a non-profit organization seeking alternatives to conventionally sourced meat products. Their first effort: a tasting of a lab grown hamburger in August 2013 that was covered in the popular press. The verdict was it looked like meat (mostly), had the right consistency, but little flavor. All for the bargain price of more than 300,000 British Pounds for one patty. Ms. Datar and her colleagues are undeterred, and she highlighted some other examples that may come to a haberdasher near you in designer leather shoes made from lab-grown leather (a simpler problem than meat for human consumption).

As in Day One, most of the talks featured implementation experiences, but this time from a broader set of industries. Paul Nelson, another ATK speaker, focused on the vast expansion of their consumer business, which has quickly become 50% of revenues for this aerospace and defense veteran. They find that the PLM solutions and processes in use within ATK create a useful framework to quickly bring their many acquisitions into the ATK fold. Korhan Sevenler, the Director of PLM at Xerox, pleaded for more simplicity and transparency, correctly reasoning that many bad experiences result from process and technology overreach. Echoing Heraclitus, Mr. Sevenler said that the only constant is change, and long-term implementation projects will be overcome by events, limiting their effectiveness. Having long-term solution providers (a 20 year partnership) and service providers (15 years) has helped smooth their path. John Bayless from Mercury Marine showed how his firm leveraged enterprise data to bring an innovative, very profitable new product to the market. Their laser focus on target cost and replacing their Microsoft Excel-heavy infrastructure with a new "single source of truth" was essential to their success. Kim Karweik from Hillshire Farms posed a new problem, at least to that point in this track: food products need a very different set of solutions. Formulation or process PLM offerings are available from the usual providers, as well as a talented set of niche providers that often have more industry-expertise than their broad-based PLM competitors. Ms. Karweik relied on a common tactic to succeed, in her case using in-house subject matter experts to drive an ingredients-focused solution,

addressing a long-time company pain point. Sassan Khoubyari from Space Systems/Loral brought the audience back to mechanical PLM, again focusing on the services and as-maintained side of the lifecycle.

Day Two also included two lively panels. The first focused on supply chain transparency and traceability. This issue occurs at the intersection of PLM and ERP, and is critically important to firms that must increasingly compete on a global basis. The panel agreed there was a need for a common dataset on compliance issues, a common problem when selling in many countries. They recognized that PLM solution providers are challenged to provide this information in a timely fashion, and challenged the audience to help find or create new alternatives. The second panel focused on mobility in PLM. This is an area explored by CIMdata at our PLM Market & Industry Forums, and in subsequent research. While there are a number of applications available, most are for consuming enterprise data and participating in some workflow processes. While these offer some value, the panel agreed that most of the existing solutions do not fully leverage the bundle of technologies that most smartphones or tablets provide.

The final session of the PI Congress 2013 was focused on the future, in this case the future of science, technology, engineering, and mathematics (STEM) education. Dr. Joseph Zinter, Assistant Director of the Yale Center for Engineering, Innovation and Design (CEID), who is responsible for educating this aforementioned social savvy workforce and is working with them on innovative educational approaches. How do you teach students who, of their own volition, built a balloon to capture data and video at 50,000 feet just for fun? Their workspace is just that: plenty of space to work, using a wide range of design, prototyping, and manufacturing technologies that would be the envy of many industrial companies. Innovative students often lead others in group learning, again mostly in intellectual pursuits that are not part of their stated curriculum. Yale has 300 engineering students; the CEID has over 1,400 members from the Yale community. With only one year under their belt, there are still growing pains, but the future looks bright, with the continued support from the “greybeards” in both Yale and industry who know the current paradigms cannot hold.

The PI Congress 2013 brought together practitioners, and over 30 solution and service providers, to help all the attendees learn about product lifecycle issues, and the best way to address them. This year’s attendance was up about 30% over last year, and the exhibit space was full, and business seemed to be good, based on the amount of activity on the floor. We look forward to the PI Congress 2014 sessions in Berlin and San Diego for another opportunity to advance the state of the art and practice in the PLM Economy.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata’s services, visit our website at <http://www.CIMdata.com> or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.