Conference programme

PDT Europe 2018

October 25, 2018 | Hotel Le Méridien
Stuttgart | Germany

Collaboration in the Engineering and Manufacturing Supply Chain – the Extended Digital Thread and Smart Manufacturing.

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WELCOME TO PDT EUROPE 2018

Collaboration in the Engineering and Manufacturing Supply Chain – the Extended Digital Thread and Smart Manufacturing.

Business is increasingly performed in networks. These can involve the supply chain, partners, joint ventures and customers. There are many reasons for networked business, such as global access to markets, access to skills, time to market and time to volume production. Sometimes the driver is access to data and information.

Many companies have transformed into system integrators with a majority of the end product created externally. The high level of complexity, number of partners and business speed are challenging the classic model of data exchange in a supply chain and sharing becomes more relevant. Sharing also resonates with the way we communicate in social media.

The dynamic and global market also calls out for smart manufacturing. Advanced information and manufacturing technologies are used to enable flexibility in physical processes. Smart manufacturing, industrial internet and industry 4.0 all make use and benefit from the rapid development in IT and communication.

The digital twin, digital thread and smart manufacturing have the potential to move the enterprise towards better performance, manageable cost, controlled risk and support for agile and future business. The vision is here but how about the details? How can we make best use of the cloud, industry 4.0, systems engineering, model based, IoT, additive printing, block-chain, edge computing etc. and what standards should be in focus?

PDT Europe 2018 will look into strategies, tactics and implementations moving towards the Networked Model Based Enterprise and Smart Manufacturing, the Extended Digital Thread, the anticipated and realized risks as well as business benefits.

08.10-08.30	**Opening of PDT Europe 2018** Welcome by the Organizers. Sponsor Vignette—10-minute presentation by a sponsor.
08.30-09.00	**Model-based X: What is it and what is its status?** There are so many overlapping definitions, i.e., Model-Based Engineering (MBE), Model-Based Enterprise (MBE), Model-Based Systems Engineering (MBSE), Model-Based Design (MBD), Model-Based Definition (MBD), etc. So, how do we make sense of it all? The alphabet soup of acronyms being used in industry today to define the digitalization of product related processes and information is confusing and becoming counterproductive as industries move towards the adoption of model-centric processes and enabling technologies. Many of these well-intentioned naming conventions originated from industry groups, as well as from government/DoD, often based on the specific interests and objectives of those organizations. This presentation will attempt to highlight the differences and overlap of these different viewpoints and discuss the challenges and standards-related opportunities, with an additional focus on industry status with regards to their adoption. **Peter Bilello, President, CIMdata, USA**
09.00-10.00	**Smart Manufacturing – 3 presentations:** **Smart Manufacturing using existing standards.** Smart Manufacturing is a subpart of the new Smart Industry domain utilizing new Internet of Things (IoT) technologies. These technologies enable new processes in industry, new partnerships as well as larger customer involvement in all parts of the product's life cycle. This is based on intelligent devices, modern telecom and information standards. This presentation will discuss the need for information standards in Smart Manufacturing and the benefit of adopting already existing standards that are in use. **Kenny Swope, Senior Manager, Business Capability Integration, Boeing, USA** **The VDMA view on Smart Manufacturing.** German machinery production companies have more than 1 million employees and a turnover of more than 200 Billion EURO. They will potentially play a very important role in the future Smart Manufacturing, in Germany called Industrie 4.0. The interaction between smart devices, smart machinery and smart products is of large interest to make Industry 4.0 real. VDMA will present their view of Smart Manufacturing and how it step by step can be realized without jeopardizing market positions and return on investments. **Meinolf Gröpper, Referent of Department Informatics, VDMA, Germany** **Prototyping Smart Manufacturing – a testbed project.** The Smart Factory producing Smart Products using Smart Manufacturing technologies is the scope of the DigIn project in Sweden. It is a project funded by the Produktion2030 program under the leadership of KTH in Stockholm involving Scania CV, Solme, Swerea and Eurostep. It demonstrates the possibilities to realize Smart Manufacturing using twittering bus communication and the ISO 10303-239 PLCS information standard. This presentation will show how a prototype is realized in the Scania Smart Factory environment where agile production processes are enabled using the Smart Manufacturing concepts. **Gunilla Sivard, Professor, KTH - Royal Institute of Technology , Sweden** **Hampus Wranér, Consultant, Eurostep, Sweden**
10.00-10.30	**BREAK IN THE EXHIBITION AREA**
10.30-11.00	**Enabling digital continuity in the Factory of the Future.** Industrie 4.0 will enable management of customer individual manufacturing, but also the usage of new technologies in the shop floor. IoT will be used to link physical assets and real objects. However, the integration of different technologies, especially in the supply chain, is challenging due to diversity in IT-solutions and IT-governance. Within this presentation, current approaches for digital continuity in the supply chain and the vision of usage in operative production, are presented. **Alcibades Gonzalez-Noval, R&T leader of the "virtual factory" portfolio** **Airbus Operations GmbH, Germany**

11.00-11.30	**Cross-Discipline Lifecycle Collaboration Forum – Setting up the digital thread across engineering and the value chain.** Today's challenge is to ensure efficient collaborative development processes within an organization and with the extended enterprise. Interdependencies between different engineering disciplines and with partners are increasing as products become smarter, more interconnected and feature complex yet individually configurable functions. For these increasingly complex products to function properly at affordable cost, real-time and cross-discipline coordination is a must. While collaboration works well and artefacts are linked within a given domain, the situation looks different across domains and company borders. This presentation is summarizing work performed since 2016 in the frame of the ProStep Ivip CDLC Forum with the contribution of OEMs, Tier1, software vendors and PLM experts. **Peter Gerber, Chairman of CDLC Forum and Data Exchange & Integration Leader Schaeffler, Germany** **Pierre Bodin, Senior Manager Mews Partners, Germany**
11.30-12.15	**A Digital Thread based on the PLCS standard. Why PLCS is a good fit for the MBEE (Model Based Extended Enterprise) and Systems Lifecycle Management.** The starting point for the PLCS standard was as its title suggests: Product Life Cycle Support. What it really addresses is management of the information used for product support which includes information coming from early life cycle phases: design and systems engineering. With the increased emphasis on model-based methods, PLCS has the capability to handle the diversity of models and their associated activities such as simulations that contribute to the Digital Thread. The presentation will address this, the recent efforts around related standards and also how PLCS can be applied to a Digital Thread that crosses organization boundaries and involves export controlled products and data. **Nigel Shaw, Managing Director Eurostep Limited, UK**
12.15-13.30	**LUNCH**
13.30-14.15	**Investing in Industry 4.0? Hard Realities of the Grand Vision.** Industrie 4.0 delivers a beautifully stunning vision for the future of manufacturing companies. Yet, little of it is being fulfilled quickly. This presentation explores the reasons for that and how manufacturers must adopt "systems-of-systems" thinking to fulfill the Industrie 4.0 dream over the long term. **Marc Halpern, VP Research Gartner, USA**
14.15-14.45	**How to deal with the incompatible future?** Digital Transformation is everywhere today. It deals with the future but as a transformation process it also has to accomodate legacy information moving into future digital. In particular in the domain of PLM it is a challenge to deal with the incompatibilty of current and future required data. This presentation will focus on lessons learned from the field and discuss data quality and data continuity (MBD/MBE as an example) combined with a "bimodal" approach. **Jos Voskuil, PLM Consultant, coach & blogger The Netherlands**
14.45-15.00	**BREAK IN THE EXHIBITION AREA**
15.00-15.45	**Panel discussion**
15.45-16.00	**Closing remark — End of PDT Europe 2018**