PDT Europe 2015







Conference program | PDT Europe 2015 October 13-14 2015 | IVA, Stockholm, Sweden

The Perfect Storm for PLM The Product Innovation Platform





Organizer:

Co-organizer:



**CIMdata** 

### **Welcome to PDT Europe 2015**

#### The Perfect Storm for PLM - The Product Innovation Platform

PDT Europe 2014 addressed "the PLM Platform of the Future." Attendees reacted with great interest to the concept of a Product Innovation Platform, as presented by CIMdata and Gartner. Most PLM software providers now talk about their offerings as platforms with new subscription-based delivery models and functionality that addresses emerging business requirements in this age of smart products, digital business, through life support and circular economy.

Much of what has been missing to realize the PLM vision is becoming available and as many key technologies are about to mature simultaneously this could well the Perfect Storm for PLM. The Product Innovation Platform includes building blocks like Cloud, Mobile, Social, Big Data, IoT, Analytics, Standards and Systems-based approaches to defining, developing, delivering and supporting products. These are all important for the end-to-end data and process connectivity that is required to stay competitive. Also, roles outside of engineering increasingly need access to PLM content.

The key to success is openness. No single application or vendor can deliver all what is needed for the Product Innovation Platform to work across all of the business roles that will use it and across the supply chain. We will discuss what openness really means. What are the most important standards for PLM openness? And what else do we need for end users to gain control and maximize their return on PLM related investments over time.

PDT Europe 2015 looks to investigate and report on the status of the Product Innovation Platform and its components. What is it and how to use it short and long term. We will do so by using examples of what the industry is using today of the building blocks and planning to use. What are the trends 2015 that will deliver real value to PLM within the next 5 years? What are the critical PLM decisions you should take now or at least 2016? How to gain control and be proactive and less reactive? We will look into technology readiness and equally important, the organization and people readiness.

PDT Europe 2015 should help you to understand where to focus your PLM efforts for the next 3-5 years and to survive and thrive in the Perfect Storm.

#### We look forward to seeing you in Stockholm, Sweden!

Peter Bilello, CIMdata, USA
Frederic Feru, Airbus, France
Sune Horkeby, Siemens Energy, Sweden
Håkan Kårdén, Eurostep, Sweden
Franck Ramaroson, Heme, Germany
Nigel Shaw, Eurostep, UK
Trond Zimmerman, Volvo AB, Sweden

Programme committee for PDT Europe 2015.

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## Agenda PDT Europe 2015 | Day 1 - October 13

08.00-08.45	Registration for PDT Europe 2015 open		
08.45-09.00	Opening of PDT Europe 2015 Welcome by the Organizers - Introduction of sponsors		
	The Product Innovation Platform – by CIMdata and Gartner		
09.00-09.45	The Product Innovation Platform: Where we are and what is missing		
	Many industrial companies and software providers no longer believe that a single monolithic enterprise information technology application is sustainable and robust enough to serve all of their business functions. In many ways the complexity of extended enterprise processes, organizational requirements, and information constructs cannot be addressed by any single solution provider—an open and robust business platform is required.		
	The emergence of the product innovation platform is clear, but not complete. Its vision is to enable applications from multiple providers to be seamlessly deployed using an architecture that is resilient and can withstand rapid changes in individual business functions or delivery modalities. The platformization of PLM is well underway, but what is left to be done? This presentation will describe what industrial companies and software providers have to do to reach the vision where apps from platform and non-platform providers are downloaded and instantly available for use, just like we experience with our smart phones.		
	Peter Bilello, President CIMdata, USA		
09.45-10.30	Enabling Product Innovation Platforms		
	IT enablement for business is evolving from specialized enterprise applications to plug-and-play "apps" supported by mega-vendor technology platforms. Product Innovation Platforms reflect this trend for the PLM software market. This trend has a significant impact on factors such as implementation priorities, business practices and processes, individual and organization performance metrics, and criteria for selecting software and service partners. This presentation focuses on making the transition from today's PLM IT environment to the emerging world of Product Innovation Platforms.		
	Marc Halpern, Vice President, Research, Manufacturing Advisory Services Gartner, USA		
10.30-11.00	Break in the exhibition area		
	Innovation power and a great example of innovative systems thinking		
11.00-11.30	Unleashing the innovative power within your organization		
	It's a brutal world. Despite extremely fierce competition and rapid market transformation most organisations do not increase their innovation activities. They head for death!		
	In a recent study by Kairos Future, top executives highlight that it is time and process – not money – that obstruct a life critical focus on innovation. This presentation will help you to unleash the innovation power within your organisation.		
	<ul><li>What is trend spotting and analysis and how can you apply it?</li></ul>		
	• How to co-create for ideas?		
	• Tips and tools for tapping into the collective genius of colleagues, customers or experts		
	<ul> <li>Establishing a forward-thinking innovation culture in your organization</li> </ul>		
	Trond Bugge, Director of Collaborative Innovation Kairos Future, Sweden		

11.30-12.00	We are all PeePoople – innovation for the bottom of the pyramid	
	The development of Peepoo directly addresses the fact that more than 2.6 billion people lack access to basic sanitation. At this very moment in time, 40 out of every 100 people in the world do not have their own toilet.	
	Peepoople's mission is that all people who so desire shall have access to dignified and hygienic sanitation — with a long-term goal to reach 150 million people daily.	
	This presentation is an inspiring real life example of systems thinking, creativity, out-of-the-box, problem-solving and eco systems.	
	Camilla Wirseen, Co-Founder PeePoople, Sweden	
12.00-13.30	Lunch	
	PLM with suppliers and partners	
13.30-14.00	Product data based external collaboration at Volvo Cars - Strategic and pragmatic approach	
	The automotive industry is evolving towards collaboration to leverage the huge investments in technology like new platforms and powertrains. At Volvo Cars the number of external partner project has been growing the last 15 years. During this period the ownership of Volvo Cars has changed from Ford Motor Company to Geely Holding and the challenges are getting more complex. Handling of product data is one of the key elements in controlling the complexity.	
	Irene Gustavsson, Senior Manager Business Development, VolvoCars, Sweden Hans-Owe Sjöö, Senior Management Consultant CMC, Ekan Management AB, Sweden	
14.00-14.30	Enterprise capabilities for an agile OEM partner	
	To be an agile OEM partner requires flexibility in terms of managing a wide range of collaboration scenarios.	
	This puts emphasis on the interface between an OEM's as-is processes and legacy information systems, and on	
	protecting any partners' existing way of working. Ensuring process efficiency calls for abilities to receive infor-	
	mation rather than transferring existing ways of working towards the partner.	
	This presentation will provide an overview of typical industrial footprints in the commercial vehicle manufacturing industry, connect to typical collaboration scenarios, and highlight process efficiency, quality and lifecycle aspects. It will conclude with a set of core enterprise capabilities for an agile OEM partner.	
	Patrick Langton, External Collaboration Manager	
	Volvo Group Trucks Technology, Sweden	
14.30-15.00	Information Exchange Challenges in Supply Chain Lifecycles – moving beyond MCAD exchange	
	Modern supply chains have multiple, global, and constantly changing participants. In spite of vastly improved model practices and quality, critical information from multiple sources must be associated with model data to successfully manufacture the product. Requirements for digital quality and completeness have grown; however in large programs, the types of information that must be brought together represents many use cases. Much work has been applied to the MCAD area by industry solutions, but these are often inadequate outside their domain and this is problematic when used with ECAD and software artifacts.	
	This presentation will discuss how Honeywell Aerospace are addressing the situation described above. It will also elaborate on issues as well as opportunities with the multi-tier supply chain and feedback from early supplier engagement.	
	John Russell, Staff Engineer PLM Strategy, Honeywell Aerospace, USA	

	PLM future – Circular Economy, Modularization and Gamification
15.30-16.00	PLM to support the Circular Economy
	Circular Economy is rapidly gaining ground and there are many reasons such as resource scarcity but also the fact the people are nowadays less concerned with owning their equipment. The sharing and pooling economy can be seen everywhere today.
	Circular Economy is mentioned as one of the drivers why PLM need to change from what is being used today. This presentation will give the current status of the ResCoM project where a ResCoM PLM Platform is developed. The presentation will also explore the importance of key concepts in the Product Innovation Platform.
	Amir Rashid, Associate Professor KTH, Sweden Torbjörn Holm, Senior Advisor Eurostep, Sweden
16.00-16.30	PLM and Modularization – the key to success
	Most organizations are looking to provide a wider product offering while at the same reduce the number of parts that builds them. This is an attractive route to improving the bottom line by increased sales in combination with less cost. The tool to address this is Modularization.
	But a Modular Product Architecture alone is not good enough. To realize the full effect the IT-system needs to utilize the Modular Product Architecture. Modularization can be applied to the various types of Information, primarily to identify stable interfaces and to group critical functions. This will allow a company to optimize its IT-landscape by combining best-in-breed tools for each company function such as Creating, Supplying and Selling.
	Jakob Åsell, Partner Modular Management, Sweden
16.30-17.10	Make PLM fun – the why and how with Gamification
	Well done! You deserve an award and are now only two steps from the level: "Master" Is this what happens when you use your PLM systems today? Probably not. How can we make PLM more fun and how can we reward people for creating information with high quality and fit to be consumed and reused downstreams as well as upstreams? As PLM is very much about integration, collaboration and sharing we need to find ways to make this happen and the best way is when good behavior is rewarded. This presentation will provide ideas and inspiration using examples from other areas than PLM.
	Jonas Hammarberg, Vice President & Senior Partner Awesome Group, Sweden
17.10-18.30	Socializing - Welcome Reception in exhibition area
19.00	Socializing – PDT Dinner

# Agenda PDT Europe 2015 | Day 2- October 14

08.15-08.30	Opening of Day 2
	Total Lifecycle Management
08.30-09.00	The Perfect Storm –
08.30-09.00	An opportunity to launch a Total Lifecycle Systems Management Solution
	The Department of Navy is faced with significant growth in weapon systems lifecycle costs budgetary restrictions. A number of converging technologies and process solutions have resulted in a way to break out of technology solutions limited to one functional area or even a subdivision of one functional area.
	This presentation will describe a PLM application, ePLM IDE, with the principal objective to provide an enter- prise-wide Total Lifecycle Systems Management Solution with benefits at the enterprise level and across pro- grams.
	David Franck Naval Surface Warfare Center, Port Hueneme Division, USA
09.00-09.30	Using product data from different life cycle stages to support customers at Scania
	In the start of the customer product life cycle, operational data is used in combination with technical product specification data when defining an optimized specification for the customer in the quotation phase. Later on, when the vehicle is in use the operational data is also used in combination with the technical product data to offer optimized and correct service to a customer, even during an "vehicle off-road" incident.
	This presentation will give examples of how product data is used well beyond design. It will also demonstrate the power of linking information created in different stages of a product's lifecycle to deliver superior customer experience.
	Magnus Lidström, Senior Business Analyst, CAD/PDM, Scania, Sweden
	Owe Lind, Senior Business IT Architect, Vehicle Service Information, Scania, Sweden
09.30-10.00	3D printing – Opportunites and Threats
	Additive manufacturing technology has vastly evolved over the past years with desktop 3D printers to high-end professional production systems for small-batch production. This enables consumers as well as companies to manufacture individualized products cost-effectively. Additionally, the increasing production quality and availability of additive manufacturing systems facilitate new business models: Distributed production of individualized parts directly at the customer site or need-based production in target markets including pay per use scenarios.
	This presentation will look into opportunities with this new technologies but also into the protection of additive manufacturing information and how to capture its use including a proposed solution concept.
	Marco Grimm, Department of Computer Integrated Design Technische Universität Darmstadt, Germany
10.00-10.30	Break in the exhibition area

	Collaboration and Innovation Case studies	PLM and ALM Openness and Standards	Product Innovation Platform technologies
10.30-11.00	A Common Product Language as an Enabler for Innovation  This presentation outlines how Saab Kockums established an innovative environment to develop and life cycle manage their products by a "Backbone Architecture" using ISO10303 AP239 (PLCS) as information model. Product innovation today requires many different stakeholders to efficiently share information. This Saab Kockums Concept Model was created to establish the essential minimum set of shared company "Product Language". The purpose is to significantly improve the quality in the interdisciplinary communication internal and external, methodology descriptions and in engineering training. It also allows for an effective use of existing software applications. This paper summarizes lessons learned.  Torbjörn Pettersson, Deputy Information Business Officer, Saab Kockums, Sweden  Ulf Carlsson Senior consultant Syntell, Sweden	Achieving Sustainable Though Life Cycle Interoperability despite Emerging technology  A new trend for PLM is related to emerging Dynamic Manufacturing Net- works (DMN) supporting collaboration. Such DMNs are composed of enterpris- es, cross organizational processes, in- ternal private processes and all related applications including Information and Communication Technologies (ICT). These DMNs are heterogeneous by nature. Implementing exchange of Product & Process Data between them in an effective way is a challenge, in particular with new trends related to Internet of Things and Cloud. The presentation concerns results of two research projects, IMAGINE and Stand- ard Interoperability PLM, both propos- ing a new way of dealing with PLM standards based interoperability. Both projects take advantage of Cloud and Model based engineering. Illustrations will be provided concerning assessment of OSLC for PLM, PLCS, STEP AP242, Reference Data Libraries and their con- sistent usage.  Nicolas Figay, Airbus Group Innovation, France	Partner Collaboration as a Service  To be the best innovator you need to collaborate with the best. Finding your innovation partner and connect is not easy. And when you have connected with the right partners there are still some hurdles to jump over before you can get the full potential out of the relationship.  As one of the largest system integrators in the world CGI has looked into possibilities to provide Partner Collaboration as a Service. This will respond to much of what is in the Product Innovation Platform and will provide the tools and the processes to share information with partners in a fast, agile and secure way, through the whole value chain.  The idea is that such a service should be quick and easy to connect to, no upfront investments needed, and with the capabilities of rapidly connecting and disconnecting partners as business requires.  Peter Norstedt, Director Manufacturing Industry, CGI, Sweden
11.00-11.30	On the way to cross-company collaborative Product Lifecyle Management  The development of more complex and more functional products in- creases the demand of cross- company partnerships. In addition, the expanding Asian markets will be developed by establishing joint ven- tures. This requires new concepts for cross-company collaboration over the product lifecycle. A single vendor PLM platform to fulfill all collabora- tion requirements is not enough. Furthermore, there is the need to include different domains with best- in-class applications, to establish collaboration in a short time sup- porting different PLM systems, and to enable data exchange. These re- quirements demand open and stand- ardized interfaces and solutions.  Mirko Theiss, PROSTEP AG, Germany	OSLC and PLCS - Architectural perspectives for the Enterprise.  With OSLC and PLCS being implemented in many projects worldwide, a question that repeatedly gets asked is which one to use where. This presentation explores various aspects of the possible solutions: application across different stages of the lifecycle, the "state of the union" in the respective Standards bodies, the perspectives on data modeling and representations like Linked Data, REST, and contrast it with typical enterprise wide architectural concernsthe "ities" (evolvability, scalability, reliability, deployability).  Jay Ganguli Lead Enterprise Architect-Data Integration, SOA, Boeing, USA  Gray Bachelor, IBM, UK	Multidisciplinary multimodel design optimization from an enterprise perspective  Industries like automotive are challenged by numerous complex and often conflicting requirements such as compress vehicle design cycle time, lower the weight and cost of vehicles, and improve product performances, e.g., safety, NVH, durability, quality, fuel economy, reliability etc.  Traditionally, Multidisciplinary design optimization (MDO) is conducted by a MDO subject matter expert with specific knowledge, process and tools but ideally the work should be distributed to avoid this bottleneck.  Matteo Nicolich, Product Manager, Esteco, Italy

#### **Parallel tracks**

	Collaboration and Innovation Case studies	PLM and ALM Openness and Standards	Product Innovation Platform technologies
11.30-12.00	Supporting different maturity levels of collaboration in the extended enterprise focusing on ease of use  The need for collaboration across domains and organization borders continues to increase. The Product Innovation Platform encompasses a product's complete lifecycle(s) as well as supporting business networks where collaboration partners contribute with unique skills. Multi SW, multi process, openness, ease of use, IP protection and reuse of collaboration solutions are key for collaboration to move into mainstream use. Ideally the same solution should be possible to use for publishing documents all the way to sharing fine granular data.  This presentation will look at requirements gathered from several collaboration projects. It will discuss what a collaboration solution should do to be accepted and useful not for a few but to many in the extended enterprise. Examples from projects will be used.  Magnus Färneland, Manager Product Unit, Eurostep, Sweden	PLM as a platform for Collaboration – Role of technology and standards A well matured PLM system has all the needed ingredients (product data, processes, portfolios and interconnected minds), which if used in a right conjunction with the next generation of digital forces, can enable its users to be creative leading to innovation and yield improvements year on year to the products already being designed and delivered.  Currently PLM is being used as more of an enterprise wide digital back bone but PLM can be transformed to an innovation back bone. To achieve this, PLM systems needs to connect with the next generation digital forces - cloud, mobile, social, big data and internet of things (IoT).  This presentation will examine the role of PLM as an innovation platform and look at key challenges ahead with adoption of technology, standards and openness.  Syed Rahman, PLM Consultant, Tata Consultancy Services, India	Paradox or Paradigm? Managing more Product Variants with less Development Complexity  Top-line revenue growth is driven by satisfying today's informed consumers who expect ever greater product ranges and seek variants that suit their own particular, sometimes unique, needs. This creates a difficult challenge for manufacturers as product development complexity can explode exponentially. Managing the paradox of increasing product diversity and at the same time reducing product development complexity provides both an opportunity and a challenge.  This presentation describes and illustrates an approach to product configuration management that makes it possible to rein in product development complexity while addressing an ever-widening envelope of product diversity requirements using clever marketing features and optimal modularization of the product variants.  Barry Elledge Business Process Consultant, Dassault Systemes, France  Badari Panuganti, Principal Consultant, Geometric China
12.00- 13.00		Lunch	

	Riding the Waves of Change
13.00-13.45	Doing more with less – together Information technology and digital business is becoming a major force in any business. New companies are entering traditional industries and within years they are dominating. Networks of companies or individuals are challenging the large previously dominant enterprises as well as regulations. This goes for manufacturing industry but many others too such as banking, fund raising and more. The office and ways of working and being employed is more diverse today than we could have imagined 50 years ago. Today everyone and everything is connected. This presentation will take us on a tour to learn about some of the significant development taking place.  All this development will have an impact on PLM but smart PLM and the Product Innovation Platform should also play an important role in shaping this future.
	Robin Teigland, Associate Professor Stockholm School of Economics, Sweden
13.45-14.30	Industry 4.0 versus Industrial Internet
	Industry 4.0 is a collective term for technologies and concepts including cyber-physical systems, the Internet of Things and the Internet of Services, and it facilitates the vision of the Smart Factory. In a similar way, the Industrial Internet aims to bring together the advances of two transformative revolutions: the myriad of machines, facilities, fleets and networks that arose from the Industrial Revolution, and the more recent powerful advances in computing, information and communication systems brought to the fore by the Internet Revolution.
	This presentation will elaborate on the above, what are the implications and opportunities for the PLM community and if we will see "The Perfect Storm".
	Martin Eigner, Professor
	Technical University of Kaiserslautern, Germany
14.30-15.00	Break in the exhibition area
15.00-15.30	The perfect storm for PLM or a fatal tsunami
	We are entering turbulent times with dramatic change ahead. The classic linear product lifecycle is going to be outdated and replaced by a more iterative approach of continuous improvement. Changing from systems towards platforms - a product innovation platform or business innovation platform could be the answer.
	However there is more, currently under the sea-level, that might be as important for this transformation. The presenter will discuss the perfect storm for PLM and why it could turn into a tsunami, destroying classical concepts of PLM and ERP.
	The main points in the presentation will lean upon the following concepts:
	<ul> <li>PLM is changing – from linear to fast and circular – adapting the software delivery approach.</li> <li>Changing business models to become customer closer to the customer – digitalization –</li> <li>IoT / Services instead of products.</li> </ul>
	- Changing business models means changing organizations – hierarchy or matrix.
	And all in context of the tsunami – using modern Artificial Intelligence – what will be our future job
	Jos Voskuil, Blogger, TacIT The Netherlands
15.30-16.00	Panel discussion
	- The Product Innovation Platform
16.00	Summary – closing the conference

#### Venue and dates

Conference venue is IVA, Stockholm, Sweden October 13-14 2015

#### Conference Fees

Early bird (until Sept 14) 795 EUR
Business delegate 995 EUR
Academic delegate 295 EUR
PDT Dinner evening Oct 14 60 EUR

### Who will attend PDT Europe 2015

PDT Europe brings focus on user needs. Participants are typically managers and decision makers, programand project managers, architects, technical leaders and technical specialists from different industries who meet up and exchange ideas.

We expect to attract 150 delegates from Aerospace, Automotive, Building and Construction, Defence, HighTech, IT/PLM, Telecom, Shipbuilding, Energy, Pharmaceutical, Process & Plant and Manufacturing as well as from Research and Academia!

#### If you have any questions about PDT Europe, please contact:



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