Product Innovation Platforms: Enabling Product Design and PLM in the Digital Business Era

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Key Issues

- 1. Why do you need Product Innovation Platforms to enable products and "things" for digital business?
- 2. What is a Product Innovation Platform and how will it impact you, your company, and your value chain?
- 3. How should you strategize adoption of Product Innovation Platforms?





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Product and "Thing" Design Must Combine OT With IT to Enable Digital Business







Product Needs Evolve With Digital Business: A Case Study in Climate Control





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Digital Business Demands Systems and Systems-of-systems Thinking to Design Products

Complex Machines

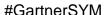












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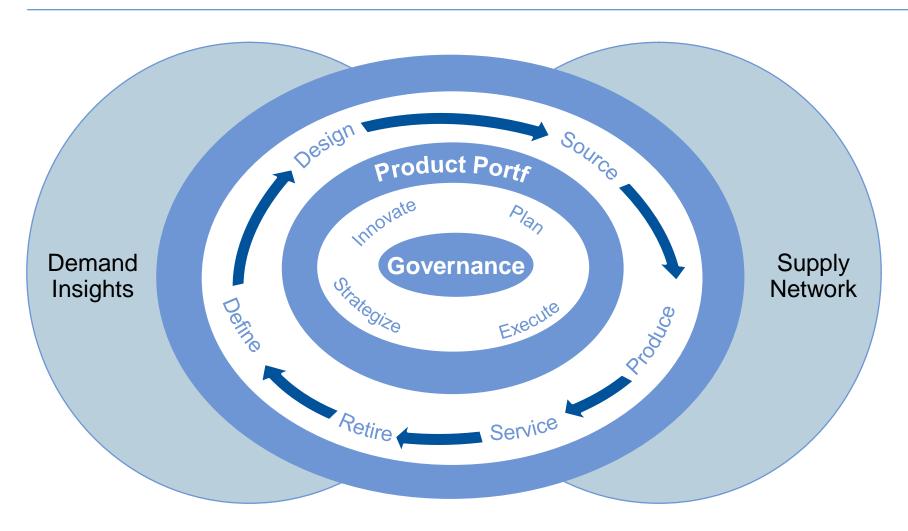
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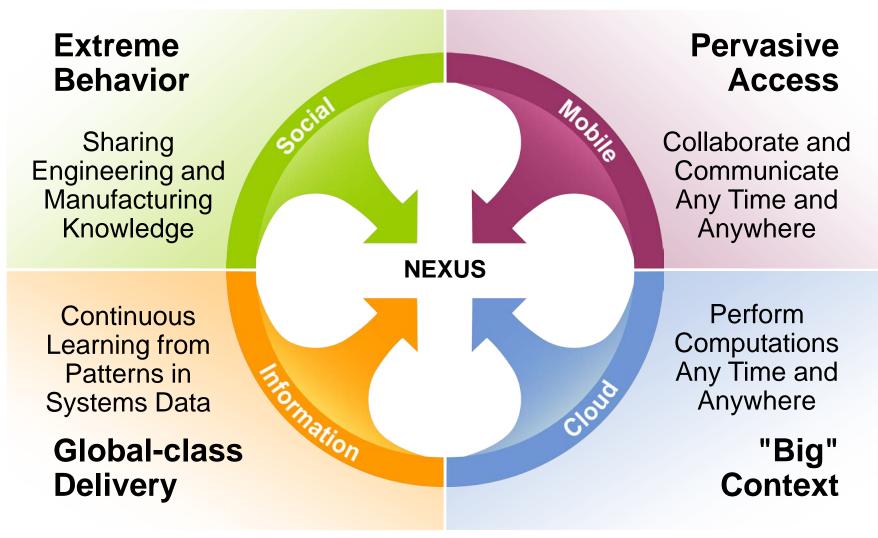
Product Innovation Platforms Continuously Enhance PLM Discipline







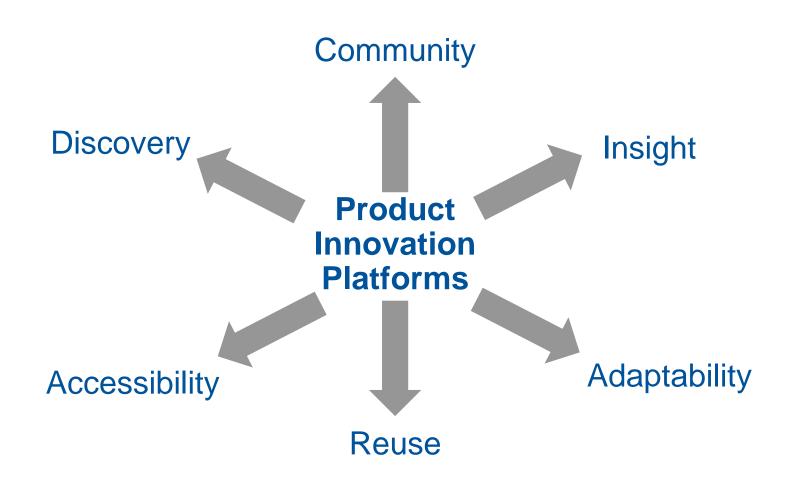
"Nexus of Forces" Underpins the Promise of Product Innovation Platforms



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Designing for Digital Business Requires IT Capability Beyond Current PLM Software







Innovation Enabler

Insight

Today's Design and PLM Software

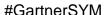
Marginally interfaced simulation/analytics

Product Innovation Platform

Integrated "big data" analytics and simulation



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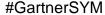


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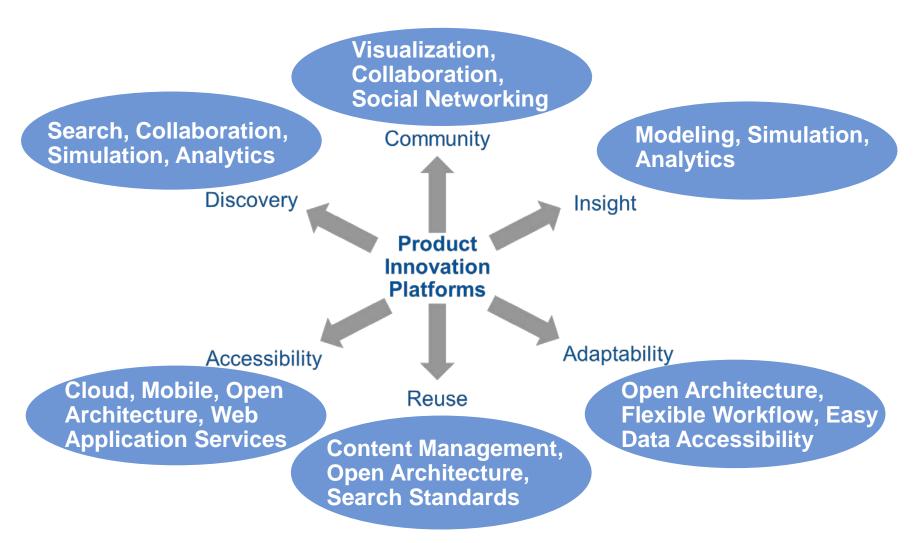


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Community	Human networking or directories	Social networking paradigm





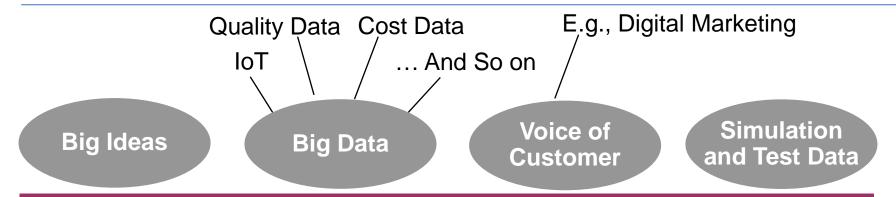
Product Innovation Platform — Some Key IT Requirements







Product Innovation Platforms: Functional Layering for Continuous Product Innovation



Requirements Management

Portfolio Planning and Management

Product Life Cycle Management (Strategy, Planning, PDM, and Governance)

Systems-centric Design (Software, Electronics, Hardware, Recipes, and So on)

Simulation and Test



The Major Design, PLM, and Business Suite Vendors Will All Offer Product Innovation Platforms by 2017

By 2020, 25% of large discrete manufacturers and formulated goods producers will use Product Innovation Platforms for design and PLM

Reasons SPA will be true:

- Emergence of digital business
- Increasing acceptance of cloudbased advantages
- Changing product requirements

Reasons SPA could be false:

- Concerns about IP protection in the cloud
- The systems-based learning curve is too steep
- Needed standards for data sharing will evolve too slowly



Potential Product Innovation Platforms Vendors Will Evolve Differently

Autodesk, Aras, Dassault Systemes, PTC, Siemens

Product Design and PLM

Big Lever, Gensight, Jama Software, Planisware, Sopheon, Mathworks

Niche Contributors

Product Innovation Platforms

IFS, Infor, Oracle, SAP

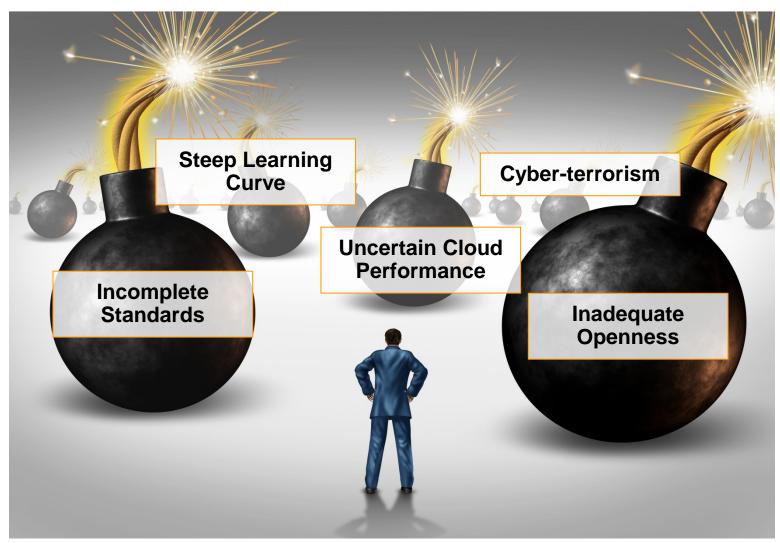
Business Suite

Gartner

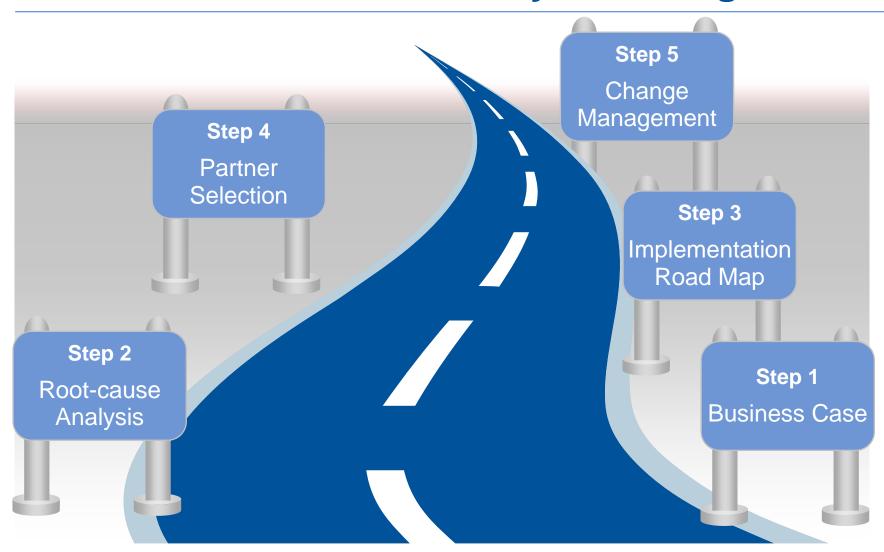
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Perceived Risks



Road Map to Enabling Product Innovation Platforms for Product Life Cycle Management



Key Messages

- You need the next generation of design and PLM IT to support the emerging digital business world.
- Product Innovation Platforms, the next generation of IT for design and PLM, improves today's PLM and more.
- Enabling Product Innovation Platforms starts with the business case and addressing risks with the road map.

Recommended Gartner Research

- → Product Innovation Platforms: The Foundation of Product Design and PLM in the Digital Business Era Marc Halpern (G00264008)
- → Hype Cycle for Discrete Manufacturing and PLM, 2014
 Marc Halpern and others (G00263257)
- → Hype Cycle for Process Manufacturing and PLM, 2014
 Janet Suleski and others (G00263399)
- → <u>Lessons Learned From Cloud in Manufacturing Industries</u>
 Dale Hagemeyer, Thilo Koslowski and others (G00259827)
- Survey Analysis: Why Manufacturers Still Struggle to Modernize Collaboration Michael Shanler and Marc Halpern (G00238925)
- → Innovation Insight: Exploiting Cloud Services to Improve and Transform Your Supply Chain Innovation
 Michael Dominy (G00261032)

For more information, stop by Gartner Research Zone.

