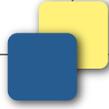# Tech-Clarity Insight:

The Business Value of Product Data Management

Achieving Rapid and Extendable Benefits with Preconfigured PDM

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Executive Overview

Manufacturers today face challenging markets and an uncertain global economy. To survive they are trying to improve the speed of product development despite reduced headcount and budgets. One positive note is that many manufacturers are gaining significant value by implementing product data management (PDM) solutions. Tech-Clarity interviewed several small to midsize manufacturers (Table 1) to understand their experiences. Each of these companies implemented PDM for different business reasons, although several common themes were repeated. These themes are consistent with previous research on the topic, and include:
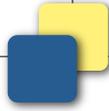
- Control and secure product-related data
- Improve the ability to quickly find and reuse information
- Share product knowledge and collaborate with other departments

Manufacturers turn to PDM to take control of their product information and get more value from it. These solutions help companies manage their data and processes and make them accessible to their Engineering peers and downstream departments. As a result, PDM helps companies achieve business benefits including increased efficiency, improved quality, reduced cost, and the ability to bring products to market much faster. PDM also serves as a foundation to support more advanced capabilities including advanced configuration management, multi-CAD support, and a broader product lifecycle management (PLM) implementation offering even greater business value.

Company	Description
Veeraja Industries	Total solutions provider of coolant filtration, chip removal and coolant management
Flovel Energy	Fully integrated hydro power equipment supplier
Weir Valves & Controls	End-to-end whole plant solutions to nuclear, fossil-fired and renewable power stations

Table 1: Companies Interviewed

Discussions with these manufacturers reveal a lot about their PDM implementations. For example, implementing the software without significant modifications helps companies achieve benefits more rapidly. Companies can accomplish this by using preconfigured, or "out of the box" PDM solutions. These solutions offer predefined settings and data such as roles, reports, attributes, and forms to allow manufacturers to get up to speed quickly. They also provide best practices embedded in predefined workflows so manufacturers don't have to invent processes from scratch where they currently have manual or outdated processes. This preconfigured approach allows companies to get up to speed quickly and expand their capabilities over time to gain further benefits.

Conclusion

The companies interviewed for this report use PDM to improve their ability to control, find, reuse, and share product-related information. The driver for many companies to implement PDM is to gain control over their information. As Mr. Mate of Veeraja explains, "*PDM helps get control of versions and revisions, it is very important. Otherwise it is just a file management system*." This control, coupled with search capabilities found in the solutions, provides an enhanced ability to get the right information when it is needed. "*We have made a drastic change in the time needed to find information*," confirms Mr. Gupta of Flovel. PDM also helps companies better communicate and share information within Engineering and with downstream departments that rely on engineering data to serve customers.

Expanding PDM's foundation of control, access, and sharing capabilities to a broader PLM implementation can extend business benefits significantly.

These improvements, in turn, help drive efficiency, reduce cost, and improve time to market. They also help to streamline processes across the business by sharing information with downstream departments. "*The best compliment we got on our PDM systems was by our commissioning engineer, who said that the software tools (including 3D CAD) resulted in the first time he could assemble our system without doing modification on site*," shared Mr. Mate of Veeraja. Mr. Mills of Weir Valves describes similar benefits, including "*...reduction in engineering errors, efficiency, time savings through not having to search for data*." Expanding PDM's foundation of control, access, and sharing capabilities to a broader PLM implementation can extend these business benefits significantly and offers numerous opportunities to improve value.

We keep our PDM as 'vanilla' as possible to keep it simple, very little has been changed from the standard.
Jonathan Mills, Engineering Manager, Weir Valves & Controls

Perhaps most importantly, these benefits can be achieved quickly with preconfigured PDM solutions. "*The solution was relatively easy to implement, it took a few weeks to load the software, create the users, and make some initial flowcharts. It didn't take too long*," Flovel's Mr. Gupta recalls. Of course implementations can take longer without using preconfigured solutions or if significant software changes are made. "*We keep our PDM as 'vanilla' as possible to keep it simple, very little has been changed from the standard*," describes Weir Valves' Mills. In the end, PDM becomes a strategic asset to the business. "*If we didn't have our cPDM now it would be a disaster for us*," concludes Mr. Mate of Veeraja. Companies that have PDM recognize how critical controlling data,

making information accessible, and sharing knowledge is to their business and can't imagine living without it.

Recommendations

Based on industry experience and research for this report, Tech-Clarity offers the following recommendations:

- Use PDM to secure intellectual property and control product data and processes in a central location
- Enable rapid retrieval of product information to improve efficiency and enable reuse
- Share product information and collaborate with downstream functions such as Manufacturing to improve quality and reduce costly errors
- Take advantage of PDM systems with preconfigured, best practices for security, part numbering schemes, and other common information required to set up a the system
- Leverage standard best practice workflows such as "release to manufacture" and "engineering change control" to speed implementation
- Limit customization of PDM in order to achieve rapid time to benefit and simplify future maintenance and upgrades
- Take advantage of the business benefits that PDM has to offer, including speed to market, improved efficiency, and reduced cost
- Achieve benefits quickly, and grow the value over time by including more processes, integrating to ERP, incorporating more people, and leveraging additional functionality as needed
- Look for PDM solutions that can grow to accommodate future functional and technical needs including multi-CAD data management, advanced configuration management, and performance scalability
- Grow value over time by leveraging PDM as a foundation to implement high-value PLM processes and capabilities

About the Author

Jim Brown is the President of Tech-Clarity, an independent research and consulting firm that specializes in analyzing the business value of software technology and services. Jim has over 20 years of experience in software for the manufacturing industries. He has a broad background including roles in industry, management consulting, the software industry, and research. His experience spans enterprise applications including PDM, PLM, ERP, quality management, service lifecycle management, manufacturing, supply chain management, and more. Jim is passionate about improving product innovation,

product development, and engineering performance through the use of software technology.

Jim is an experienced researcher, author, and public speaker and enjoys the opportunity to speak at conferences or anywhere he can engage with people with a passion to improve business performance through software technology.

Jim can be reached at jim.brown@tech-clarity.com. You can read additional research, watch Tech-Clarity TV, or join Jim's *Clarity on PLM* blog at www.tech-clarity.com. You can also follow Jim on Twitter at @jim_techclarity, watch him as a "dueling analyst" in the Tech4PD web show on Engineering.com, or find Tech-Clarity on Facebook as TechClarity.inc.

About the Research

Tech-Clarity interviewed three manufacturers and published the results in a 2011 paper titled Tech-Clarity Insight: The Business Value of Product Data Management – Achieving Rapid and Extendable Benefits. This paper is an updated version of the findings from that research.