

The Global Leader
in PLM Consulting



CIMdata

A World of Opportunity

CIMdata PLM Transformation Consulting Services for Industrial Organizations

*“We are dedicated to maximizing our clients’ ability to
design, deliver, and support innovative products and services
through the application of PLM.”*

Why Product Lifecycle Management (PLM)?

Today's global business environment exposes companies to challenges of a magnitude that have never been experienced before, and there appears to be no end to these challenges. New markets are evolving at a rapid pace, creating an almost infinite number of new opportunities. On the other hand, global competition is fierce, demanding that you be "better" than your competitors, better than you were yesterday. You need to outperform your competitors in bringing new products and services to the market; you need to be greener in multiple aspects of the lifecycle; you need to outperform them in customer service and price/quality ratio; and you need to meet an ever-growing multitude and diversity of local, national, and international regulations—the list of challenges goes on almost without end.

In today's business environment, innovation is key. Companies that have the ability to improve their innovative capabilities—not only in product innovation but in process innovation—have a good chance of being successful. How to capitalize on the wealth of knowledge and experience that is available in your company and all the business partners in your value chain? How to find and extract knowledge from the wealth of data that exists in the public information domain? How to optimize collaboration both internally and externally? How to maximize re-use of available product, service, and process-related knowledge and experience? How to define and deliver greener processes and products? Welcome to the world of Product Lifecycle Management!

PLM is the strategic business approach that puts your products and services and the processes by which they are defined at the heart of your company, directly linked to your business strategy. PLM empowers the business, enables product and process innovation, and enhances both top and bottom line business performance. In its early days, PLM created competitive advantages. In today's global economy, PLM is a competitive necessity.

Global investment in PLM and related technologies was about \$51.5 billion in 2019, and it continues to be viewed as critical to business success as companies worldwide experience the benefits that PLM can provide. When will your company start to benefit from PLM?

A World of Expertise

More than 35 Years of Experience in PLM

CIMdata's Unique Position *Services for Industrial Organizations and Solution Providers*

CIMdata is a non-biased, independent, global management consulting firm that has established itself as a world-leading source of information and guidance for both suppliers of PLM technologies and services, as well as for industrial organizations. The advantages to our clients are significant, since we can leverage what we learn from one group to help the other navigate an ever-changing environment. The fact that we are completely independent assures the highest level of confidentiality and objectivity.

CIMdata works with industrial companies—analyzing their operations, assessing their information needs, educating their staff, and helping them integrate research, engineering, procurement, manufacturing, in-field service, and other product lifecycle functions with appropriate, cost-effective, and productive solutions that enable PLM.

CIMdata also works with PLM solution providers who rely on our strategic consulting and research services to gain insight into user needs and requirements, to identify new market opportunities, and to improve market strategies and product programs. CIMdata provides quantitative data on revenue, forecasts, and market segmentation and publishes reports about state-of-the-art technology, commercial systems, market developments, competitive information, and pricing. CIMdata serves clients worldwide from offices in the United States, Europe, and Japan.

CIMdata's Industry Role *Guidance for Business Success*

As the world's leading strategic consulting and research firm fully dedicated to PLM, CIMdata helps enterprises improve their effectiveness and competitiveness. Through defining, implementing, and consistently applying a strategic PLM business approach, we help our clients increase both top and bottom line business benefits. Our services are focused on improving innovative capabilities over the full product lifecycle. In that respect, we help our clients optimize collaborative product-related processes, enhance the value of intellectual assets, reduce total product lifecycle costs, and leverage resources throughout the extended enterprise. In short, we help our clients successfully im-

plement a strategic PLM business approach in their companies.



CIMdata's Business Model

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Consulting, Education, Research: A Range of Complementary Services

Since our founding in 1983, CIMdata has become a major resource in the use of PLM best practices and associated technologies in support of major engineering and manufacturing enterprises worldwide. CIMdata's strategic consulting, in-depth research, and educational services are based on proven methodologies for suppliers of PLM-enabling technologies and services and industrial organizations globally.

The price of excellence is vigilance. We know that our hard-won leadership in consulting can only be maintained by continually expanding our knowledge base and

increasing our value to each and every client. We achieve those objectives in several ways.

Consulting

CIMdata's primary business focus is **consulting**. Because our expertise is anchored in extensive experience and continuous vigilance, we are able to provide excellent support to our clients in strategic direction and vision, linking business to technology and solutions and best practices.

Education

Education has always been one of our top priorities. We deliver education through international conferences, seminars, and events; roundtable discussions; dedicated PLM education programs tailored for particular target audiences; and an assessment-based PLM Certificate Program—the core component of the CIMdata PLM Leadership offering.

Research

As part of the total CIMdata support package, we conduct in-depth research on a broad spectrum of technologies and market developments with particular emphasis on those that address PLM. The intensive research conducted by our own consultants and the resulting information is channeled directly into current consulting services, our reports and publications, and the continuous contact with clients through membership in the CIMdata PLM Community.

CIMdata's Consultants

Senior, Experienced, and Professional

The core of CIMdata's business is our consulting organization. Our expertise is unrivaled, and we have been leaders in the industry for more than thirty-five years. CIMdata consultants are senior, experienced professionals with diverse backgrounds. Having worked in manufacturing, engineering, management, and technology (i.e., software) based companies; we have firsthand appreciation of the problems our clients face. Through direct contact with organizations worldwide, we have developed an understanding of the impact exerted by culture on business decisions and the particular stresses that this places on organizations struggling to operate globally.

CIMdata consultants employ world-class best practices-based strategic PLM consulting methodologies and associated tools and techniques. Our expertise is anchored in solid industry research and is proactively

transferred through comprehensive educational programs. Our professionalism assures that trust and confidentiality are the cornerstones of every client relationship.

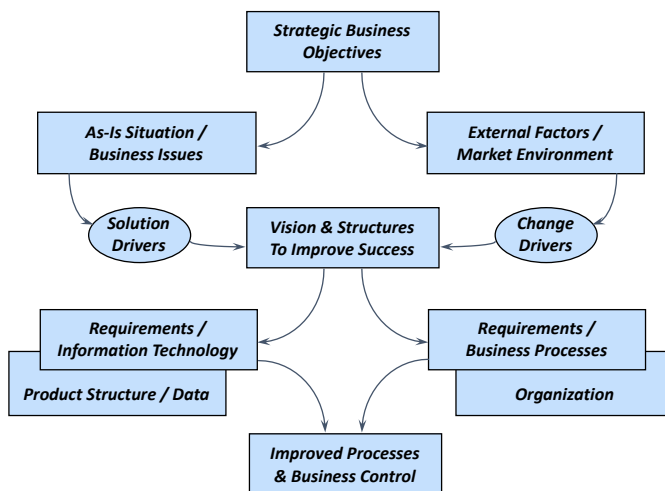
CIMdata's Consulting Approach

Business-Driven, Client-Focused

CIMdata takes a business-driven consulting approach that starts with our client's strategic business objectives and uses them to drive the definition of process and information technology requirements. CIMdata believes that it is impossible to maximize the benefits received from business-process-enabling technologies without tightly linking an organization's strategic business objectives with all aspects of the solution's strategy, requirements, evaluation, selection, implementation, and continuous improvement process.

CIMdata takes a proactive approach to its consulting engagements—transferring knowledge throughout. As much as possible, we act as part of our client's team. However, our style is to educate the team members well enough that they feel comfortable making decisions themselves. We never dictate a solution, but rather we provide guidance, concrete recommendations, and action plans that the client executes.

CIMdata works with its clients to customize a program that is based on their unique requirements and will best achieve their goals. We have a proven track record of providing high-quality, experienced, and skilled consulting services to many industrial organizations around the world for more than thirty years.



CIMdata's Consulting Approach

A World of Resources and Support Services for Industrial Organizations

CIMdata PLM Transformation Consulting Methodology Transforms Your Business for a Competitive Advantage

CIMdata's expertise and experience helping engineering and manufacturing companies around the world with their PLM initiatives is unmatched. Our list of clients is extensive, international, and cross-industry. Companies have sought out CIMdata's support and guidance at every stage of their PLM implementation—from defining a PLM vision and strategy, to evaluating and selecting a solution, to implementing that solution, monitoring its progress, and ensuring its quality.

CIMdata's PLM consulting methodology for industrial enterprises—PLM Transformation—is based on more than thirty years of PLM consulting best practices and experience. Education (i.e., the transfer of knowledge) is an integral and core element of our methodology. It is embedded in every step in every phase of PLM-related business process and technology transformations. This greatly enhances our ability to rapidly and consistently transfer knowledge to our clients.

PLM education, along with all the other elements of CIMdata's PLM Transformation methodology, is anchored in a balanced mix of knowledge, best practices, and real-life experiences to maximize the value for our clients.

Fundamentally, PLM Transformation is designed to support your organization in its PLM-related business process and technology transformation. It is comprised of a comprehensive set of customized services and delivered

through activities that address your organization's target of achieving a competitive advantage. CIMdata's methodology recognizes that the successful planning, selection, and implementation of a business solution is an ongoing, cyclical process comprised of six phases. This process applies to every organization—whatever the industry, whatever the particular requirements or application, and whatever the final result. Each of the six stages is separate and unique. Each is equally important, and for the final outcome to be successful, each requires a set of targeted services. CIMdata is ready to provide support at each and every phase as defined in the following sections.



CIMdata's PLM Transformation Consulting Methodology for the World's Industrial Organizations

Strategy Development

Developing a consistent and well-thought-out strategy is critical. CIMdata delivers on this because of its extensive experience with industrial organizations around the world—experience that includes helping formulate PLM strategies based on unique business situations, strengths and weaknesses, competitive positioning, industry segment, and future business direction and vision.

CIMdata's help developing an appropriate strategy is enabled through implementation of PLM to support both top- and bottom-line business growths. Our services range from PLM education sessions

that include a comprehensive, assessment-based PLM Certificate Program to the facilitation of multiple strategy sessions. CIMdata offers a number of focused PLM seminars designed to introduce specific PLM-related topics, such as PLM for Executives, an introduction to PLM technology, and others to ensure that the

organization is made aware of what PLM is and what it can mean to the company. All of our services are tailored to the specific needs of our clients. CIMdata also provides client-specific support to meet our client's PLM strategy development needs.

Solution Definition

CIMdata's consulting methodology includes a number of tailored activities that support the development of a detailed PLM solution definition. This definition is based upon our client's specific PLM strategy. During this phase of a PLM project, CIMdata leverages a number of proven templates and associated approaches to gather the detailed technical and process-related requirements for our client's PLM solution. CIMdata's methodology in this area is both deep and broad. CIMdata takes a business-centric approach to ensure that business needs are met with the most appropriate combination of PLM-enabled business processes to support the client's product lifecycle management needs.

CIMdata deploys a number of best-practice-oriented tools, such as PLM-focused technology, process, and organizational maturity models and a benefits appraisal model. The benefits appraisal model and its associated methodology have been used by companies around the world to identify potential PLM costs and benefits and to support the development of comprehensive PLM project justification material. As with all PLM Transformation phases, CIMdata provides client-specific support to meet our client's PLM solution definition needs.

Solution Evaluation & Selection

CIMdata's extensive understanding of commercially available PLM solutions dramatically reduces the time to evaluate and select the most appropriate PLM solutions. CIMdata's evaluation and selection approach helps a company focus on the business and technical issues that are most critical to achieve its PLM strategy and vision. By leveraging CIMdata's knowledge of the available solutions and our client's specific requirements, we are able to provide a short-list of appropriate PLM solutions for further evaluation. This list of three to six solutions is then evaluated with the help of a number of technical and business-oriented templates and associated methodologies.

CIMdata's comprehensive Request for Proposal (RFP)/Request for Quotation (RFQ) template has been proven to be an excellent way to transform a company's business requirements into technical requirements. Our multiple and proven benchmarking templates have helped numerous companies gain an appreciation of the solutions

under consideration without going into a seemingly endless loop of analyses. Finally, CIMdata helps facilitate final selection by ensuring that all strengths and weaknesses, whether technical or business-oriented, are measured and considered so that the best business solution is recommended. As with all PLM Transformation phases, CIMdata provides client-specific support to meet our client's PLM solution evaluation and selection needs.

Implementation Planning

After selection of the appropriate PLM-enabling solutions, CIMdata's support continues throughout the implementation planning phase of our client's PLM project. Over the years, CIMdata has provided a significant amount of strategic advice and counsel during the implementation planning phase of both large and small PLM projects. We offer best practice support in a number of areas, including implementation rollout, statement of work development, contract negotiation, implementation team structuring, "to-be" process definition, systems definition, cultural/organizational change management, and training, to name a few. Our best practices cover a number of PLM-related business processes, such as configuration management, engineering change, data modeling and classification schema development, and others. As with all PLM Transformation phases, CIMdata works with its clients to define the optimum support offering—filling in where needed and always adding value. As a result, CIMdata provides client-specific support that is totally customized to our client's PLM implementation planning needs.

Implementation Support

CIMdata's implementation support services are extensive. As an independent and unbiased PLM management consulting firm, CIMdata is able to provide strategic implementation consultants, as well as program managers who always place the client's interests first. During this phase of our client's PLM project, CIMdata's strategic consulting services focus on delivering cultural or organizational change management education and communication and quality assurance support. Our strategic consulting resources also provide best-practice support related to process implementation and implementation assessments.

In the area of education, CIMdata's methodology recognizes that it is a critical factor for the success of PLM-related business transformation processes. It also recognizes that it is essential for those who manage or own the process, for those benefiting from the outcome

of the process, and for those responsible in realizing the project be educated and supported by the execution of a comprehensive set of educational activities. Ultimately, education is required at all levels of an organization undergoing a PLM-based transformation.

In the other core support area of PLM quality assurance, CIMdata offers a comprehensive set of tailored services. Since PLM programs must be tightly linked to strategic objectives, it is extremely important to continuously measure the quality and progress of the implementation program so timely and appropriate adjustments can be made. CIMdata's PLM Quality Assurance (QA) program is designed to provide evidence that quality-related activities are being performed effectively and to proactively provide improvement recommendations where and when appropriate.

During this phase of a PLM initiative, CIMdata also provides program management support to our clients. Our program managers are well versed in project management methodologies (e.g., PMI) and have been involved in multiple PLM implementations. During this phase, CIMdata's program managers primarily act as facilitators, always ensuring that the client's best interests are in the forefront and that the project moves forward on a sound and consistent basis. As with all PLM Transformation phases, CIMdata provides client-specific

assistance to meet the client's PLM implementation support needs.

Monitoring & Continuous Improvement

During this final and perhaps most critical PLM project phase, CIMdata provides a robust set of services designed to maximize the client's ability to gain the greatest advantage from the PLM solution. Maximizing a client's return on investment (ROI) is at the core of these services. CIMdata leverages a set of assessment techniques and other best-practice experiences to identify areas requiring improvement and recommends roadmaps to move forward. CIMdata's extensive PLM industry experience plays a vital role during this PLM project phase. Our consultants, who have an average of more than twenty years of experience in the PLM business, leverage their knowledge of hundreds of PLM implementations in numerous countries, companies, and industries to help our clients succeed. CIMdata takes a practical approach that ensures our clients know not only where improvement is required but also what course of action is recommended. This helps streamline the steps forward and quickly places the company on the most beneficial path. As with all PLM Transformation phases, CIMdata provides client-specific support to meet our client's PLM monitoring and continuous improvements needs.

Select CIMdata Clients

Businesses in every industry segment are being challenged to rethink, reshape, and reinvent their major product-related processes, always with an eye toward increased global competitiveness. Industrial organizations, as well as PLM technology and service suppliers, are being pressured as never before to strategically plan, design, market, and provide support. CIMdata has the expertise to provide valuable guidance and effective assistance to both these groups. The following is a short-list of CIMdata's past and present clients.

Industrial Organizations

ABB, Adidas-Salomon, ACCO Brands, Agfa, Airbus, US Air Force, Aisin, Alcatel Space, Alcon Laboratories, Allison Transmission, American Axle & Manufacturing, Apple, Applied Materials, US Army Materiel Command, Aston-Martin, AT&T, Autoliv, AVL, Bacharach, BAE Systems, Baxter Healthcare, Becton Dickinson, Bettis Laboratory, Bissell, BMW, Boeing, Bombardier, Bosch, Bouwdienst Rijkswaterstaat, Caterpillar, Coca-Cola, Curtiss-Wright, Damen, Delphi, DURA Automotive, EDF, Edwards Lifesciences, Embraer, Ericsson, Fisher Controls, Ford, Furukawa, General Electric, General Motors, Giat, GIGABYTE Technology, Goodyear, Grupo Bocar, Gulfstream Aerospace, Harley-Davidson, Hewlett-Packard, Huawei, Hypertherm, Iberinco, IBM, IHC Merwede, Inergy Automotive, Irving Shipbuilding, ITG, JCB, Jaguar Land Rover, John Deere, Johnson Controls, Johnson & Johnson, Keurig Green Mountain, Kimball, Kimberly-Clark, KONE, Konecranes, Lear, Lego, Lennox, LG, Liebherr Aerospace, Magna, MAHLE Powertrain, MANN + HUMMEL, Marel, Matra Automobile, Mattel, McCormick & Company, McLaren, Medrad, Metaldyne, Meyn Food Processing, Microsoft, NCR, NEC, Newport News, NextEV, Nissan, Nokia, OKI Europe, Omnicell, Oshkosh, Otis, Patek Philippe, PBMR, Philips Consumer Communications, Playtex, Procter & Gamble, Pulse, Rafael, Reliance Electric, Renault, Rolex, Ricardo, Rockwell, Rolls-Royce, Royal DSM, Schindler, Schlumberger, Sextant In-Flight Systems, Shell, Shure, Sidel, Siemens Automotive, Siemens Healthcare, SKF, Smith & Nephew, Solar Turbines, Sony Ericsson, Steelcase, Standard Products, Swagelok, Simpson Strong-Tie, Tellabs, Texas Instruments, Toro, W.L. Gore, Xerox, United Defense, United Technologies Automotive, Video Gaming Technologies (VGT), Visteon, Wärtsilä, Waters, Whirlpool, Yazaki, and many others.

Software & Service Providers

Accenture, ANSYS, Altair, Aras, Arena Solutions, Atos, Autodesk, Auto-trol, Baan, BlueCielo ECM, Capgemini, Centric Software, CENIT AG, Cimmetry, CIMPA, CoCreate, Configit Software, CONTACT Software, Dassault Systèmes, Delcam, Eurostep, ECS, EDS, EMC², eQ Technologic, Federation, gedas, Geometric Global, Golden Gate Capital, HCL, Hewlett-Packard, Hexagon, IFS, i2, IBM, Infor, Intergraph, ITC Infotech, IQxpert, Jotne EPM Technology, Lascom, L&T, Oracle, Mackevision, MatrixOne, Mentor Graphics, Microsoft, Modultek, MSC, NEC, Neoris, OpenBOM, Oracle, Paradine, PARTsolutions, PDM technology, PricewaterhouseCoopers, Productivity Engineering, Proficiency, Propel, PTC, Rand, Rulestream, SAP, SDRC, Selerant, SGI, Siemens IT Solutions, Siemens PLM Software, SmarTeam, Sparta Systems, SofTech, SolidWorks, Spring, Surfware, Syntegra, Tata Consultancy Services (TCS), Tata Technologies, Tebis, Technia, Telcordia, think3, T-Systems, Unigraphics, Upchain, Variantum, Wipro, and many others.



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