Design Creation & Collaboration Knowledge Council

Strategic Decision Analysis & Support for Product Development and Collaboration

Enterprise Membership

CIMdata’s Product Lifecycle Management (PLM) Knowledge Councils conduct in-depth research for both industrial organizations and PLM solution providers. They emphasize strategic as well as practical, tactical options for companies to follow as they further adopt PLM. The research defines best practices for topics of interest to industrial companies who use PLM to support their ongoing product development business strategies and for PLM solution providers interested in understanding and defining their PLM strategies and directions, and associated offerings.

CIMdata currently offers six PLM Knowledge Councils, as shown in the figure above. Council topics are developed from CIMdata’s PLM Community as technology evolves and industry requirements dictate. Additional information related to CIMdata’s PLM Community is located at www.CIMdata.com.

Design Creation & Collaboration Knowledge Council

The Design Creation & Collaboration (DCC) Knowledge Council represents the authoritative industry source for defining architectures and implementation roadmaps for digital product design and design collaboration between disciplines and across the supply chain. Numerous organizations, many of them among the world’s largest product manufacturing companies, and an extensive range of commercial solution providers, collaborate with CIMdata as equal partners to define an evolving engineering framework for PLM. The DCC Council charter is to help lead and focus these efforts.

Design creation and the way people work are changing rapidly, offering an enormous competitive advantage to those who embrace the new tools and processes that enable contextual, agile, and simplified information exchange and collaboration by distributed workforces and networks of partners and customers. A set of new collaboration applications and information infrastructures is enabling radical collaboration.

In addition to its focus on the architecture, implementation, and methodologies of CAD and traditional design collaboration, the DCC Council addresses collaboration and decision making issues through the application of emerging social media technologies and processes. The DCC Council explores how these new collaboration technologies, collectively known as social technologies, can be applied to product development.

Product development companies are finding that co-location, when all product development team members are working in the same room, is no longer a sufficient or affordable alternative for developing complex products. To be profitable, products must be developed for global markets which demands knowledge be sourced from locations and regions where it is most cost effective. Competitive advantage is achieved by bringing together knowledge and capabilities from different places.

Evolutionary shifts in product development collaboration are complicated by the expanded choice of product modeling methodologies now prevalent in the industry. The reemergence in the last decade of direct modeling approaches working side by side with the more traditional history-based approach offer unparalleled opportunities for product developers to optimize their processes. The DCC Council provides deep technical expertise in the full range of computer-aided modeling methodologies and guidance in their use.

The DCC Council program applies CIMdata’s structured methodology to the evaluation of new products and processes and to current projects in client organizations. The DCC
Council was designed to help client organizations harness the power of technology and to achieve its bottom-line benefits. Necessary changes in the ways in which people work and the impacts of new technologies create compelling reasons to join the DCC Council.

**DCC Knowledge Council Member Deliverables**

**Design Creation & Collaboration Workshops**

To facilitate open dialogue and advance industry’s adoption of PLM and design creation and collaboration technologies, the DCC Council provides a highly regarded forum for face-to-face discussions and knowledge sharing among industrial companies and PLM and design creation solution providers.

CIMdata’s workshops and conferences encourage and enable leading industrial companies and solution providers to discuss the major issues involved with implementing design creation and collaboration solutions. With both industrial companies and solution providers actively engaged, these workshops provide an opportunity for the solution providers to identify and prioritize critical technology gaps that limit true design collaboration and other factors that need to be considered when designing a product as a system of systems.

With the co-operation of leading industrial users participating in the DCC Council, case studies are shared to provide guidance on strategies for the utilization of design creation and collaboration concepts in the product development process, and for successful deployment to overcome organizational resistance to change.

**Current DCC Knowledge Council Research Areas**

Under the guidance of collaborative members, the Design Creation & Collaboration Knowledge Council’s agenda concentrates on specific issues within the following critical areas:

- **Design modeling methodologies and technologies:** Advances in 3D geometric modeling technology have led to a more balanced suite of modeling construction tools from the CAD solution providers. Solutions range from traditional history-based model construction to recent advances in direct modeling technology, such as Synchronous Technology provided by one solution provider. An additional consequence of these varied modeling methodologies is the ability of users to more easily manipulate 3D models imported into their design application from non-native CAD data sources, opening up better interaction and collaboration with development partners and the supply chain. However, product developers face numerous challenges concerned with when and to what extent to apply each modeling methodology and the impact those methods have on their product development processes. The DCC Council workshops provide a forum for promoting advice and examples of best practices in adopting these modeling techniques and guidance in how companies can adjust their internal processes to take advantage of the range of possibilities.

- **Horizontal integration and validation of designs across product development domains:** The best architectures and practices for integrating designs across the full PLM process are important to company profitability. As product development companies outsource more and more subsystem engineering into their supply chains, the need increases dramatically for improved model content quality and leveragability, better subsystem analysis, and validation of manufacturing processes. Tools and techniques to better prepare geometry for simulation and analysis and manufacturing process planning are explored by the DCC Council. In addition, technologies for better integration of 3D geometry in a full systems engineering environment are considered, as well as improved model validation against requirements and that improve a company’s standards in design practice.

- **Global collaboration across the extended enterprise:** Technologies in product data sharing for organizations engaged in “follow the sun” product development and design supply chain processes are evaluated and reviewed. In order to fully utilize workgroups distributed throughout the world, and extending to global supply chain partners, global corporations are looking for improved data transmission and data management solutions to sequence in-process product development across time zones and with partners. The use of direct geometry access and manipulation, data translation technology, XML alternatives, and 3D lightweight options such as JT, 3D PDF, and proprietary implementations are assessed. These will be analyzed for their ability to deliver interoperability across the diverse and disparate business and technical applications that users draw upon for full product planning, design, manufacturing, sales and marketing, and service.

**Knowledge Council Offerings**

**2017 Events**

- **PLM Road Maps™ 2017**
- **US Workshop**

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1 Selected presentations and audio from all of CIMdata’s PLM Knowledge Council activities are available to DCC Council members for download.
Publications

- Publications and reports related to the DCC Council, including archived reports
- Any maturity models developed from the research of the DCC Council

PLM Presentations and Audio from PLM Road Map

All presentations from PLM Road Map events are provided.

Enterprise Membership

Corporations who sponsor the Knowledge Council include both industrial companies and solution providers. Enterprise members receive the following benefits:

- **Knowledge Council Participation**—participation in Council surveys and discussions that help drive and shape the critical issues that are researched.

- **Knowledge Council Registrations**—two free registrations to CIMdata-organized Council events (e.g., Council workshops, webinars, briefings, and teleconferences). Additional registrations for the Council Workshops are available at a discount.

- **CIMdata 2016 PLM Market Report**—one market analysis research report (MAR), selected by the Knowledge Council leader, that provides CIMdata’s estimates of PLM solution provider revenues for 2016 and 5-year forecasts for the overall PLM market and its key segments, including Tools, ePDM, and Digital Manufacturing. Tools sub-segments include MCAD, CAM, S&A, EDA, and AEC.

- **Two Named Users**—Named Users are designated contacts who receive direct mailing of the Late-Breaking News and other publications, and who are authorized to contact the Knowledge Council leader. Two named users receive all Council deliverables. Additional Named Users may be added for a fee.

- **Corporate Use License**—members receive a worldwide license to distribute CIMdata-provided news and authorized publications throughout their organization for internal use. Named Users may forward or post these to colleagues within their company. This license does not imply nor include any right to perform language translations of CIMdata copyrighted materials as any translation must be performed, approved, and released by CIMdata.

- **One CIMdata Commentary**—commentaries are CIMdata-authored papers on mutually agreed upon topics that provide CIMdata’s independent review of some aspect of the member’s activities related to the Knowledge Council’s research areas. CIMdata will present comments and opinions on why the selected topic is noteworthy to the larger market. The objective, topic, theme, outline, and promotional plan of the commentary shall be developed in collaboration with the member. Each commentary will be up to three pages in length and will jointly be published, distributed, and promoted.

- **PLM Road Map™ Conference**—members are entitled to two registrations to a CIMdata PLM Road Map conference held within the membership year. These registrations are limited and may not be used by sales and marketing personnel. Additional registrations are available at a discount.

- **PLM Late-Breaking News**—a daily newsletter that provides breaking news on PLM market activity, product announcements, industry events, financial investments, solution providers, and industrial users, along with CIMdata’s latest commentaries providing insight and analysis.

- **PLM Industry Summary**—a weekly compilation of news that is the most comprehensive and longest running digest focused exclusively on the PLM industry. Extensive archives of industry news and product announcements are maintained online at CIMdata.com.

- **Market Update Webcasts**—quarterly members-only broadcasts provide CIMdata’s insights on notable developments in the many technology market segments within PLM, along with updates on CIMdata research and member support resources.

- **PLM Community Participation**—members are invited to participate in CIMdata’s PLM Community, which includes the ability to add content or comment in CIMdata’s social media channels. Members may be selected periodically throughout the year to participate in opinion polls or leadership interviews that can provide additional visibility and recognition.

- **PLM Certificate Program Attendance**—members receive one no-cost registration to attend the first two days of a regularly scheduled public PLM Certificate Program. The CIMdata PLM Certificate program is an assessment-based PLM training class for industrial companies, software providers, consulting services firms, value added resellers, and system integrators. This registration is non-transferable and is subject to the availability of space for the desired class. After the program, CIMdata will request that the attending student provide a short statement as to the value of the class for their organization. Attendees may upgrade to the full five-day class at an incremental cost.

- **PLM Certificate Program Discounts**—members enjoy special rates of 10% off list price in addition to volume discounts for multiple participants in PLM Certificate Programs.

- **Presentation at a CIMdata Event**—members may nominate a speaker or panelist in a CIMdata event or conference during the membership term, including CIMdata’s PLM Road Map conferences and Knowledge Council workshops.

- **Annual Strategy Session**—an annual one-hour web conference with CIMdata consultants to cover specific
ongoing issues critical to the member company within the context of the Council’s research and purpose.

- **Publications Discount**—members receive 15% off the list price when purchasing CIMdata research reports and publications not included in the Council membership.

**About CIMdata**

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM) solutions. Since its founding over thirty years ago, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM-enabling technologies.

CIMdata works with both industrial organizations and solution providers of technologies and services seeking competitive advantage in the global economy. CIMdata helps industrial organizations establish effective PLM strategies, assists in the identification of requirements and selection of PLM technologies, helps organizations optimize their operational structure and processes to implement solutions, and assists in the deployment of these solutions.

For PLM solution providers, CIMdata helps define business and market strategies, delivers worldwide market information and analyses, provides education and support for internal sales and marketing teams, as well as overall support at all stages of business and product programs to make them optimally effective in their markets.

In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific.

To learn more about CIMdata’s services, visit our website at www.CIMdata.com or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.