

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

Meeting Sustainability Objectives:
The Industrial Perspective
PLM Market & Industry Forum
A CIMdata PLM Leadership Event
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Stan Przybylinski, Vice President
Email: s.przybylinski@CIMdata.com
Tel: +1.734.668.9922

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Our Mission...

Strategic management consulting for competitive advantage in global markets

CIMdata is the leading independent global strategic management consulting and research authority focused exclusively on PLM and the digital transformation it enables.

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

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Key Takeaways

Meeting Sustainability Objectives: The Industrial Perspective

- Company motivation for sustainability is driven by regulatory requirements, customer demand, and financial/investor demand from the top down
- While sustainability goals are important to meeting regulations, companies need to build sustainable solutions that can address changing requirements and deliver products that fully meet sustainability requirements
- Our survey shows that the essentialness of PLM, Digital Thread, and Supply Chain is recognized and shows Simulation & Analysis, MBSE and Digital Twins are important but not as essential to supporting sustainability initiatives
- Support for industrial sustainability programs appears to have many opportunities for PLM solution providers



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Agenda

Meeting Sustainability Objectives: The Industrial Perspective

- Demographics
- Survey Results
- Concluding Remarks



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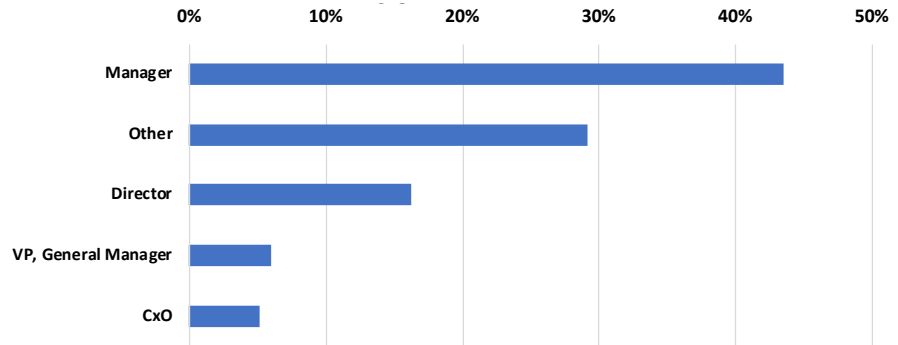
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Demographics

(1 of 5)

What is your title/role?



CIMdata comment:
Almost 60% managers and directors, those responsible for program implementation.

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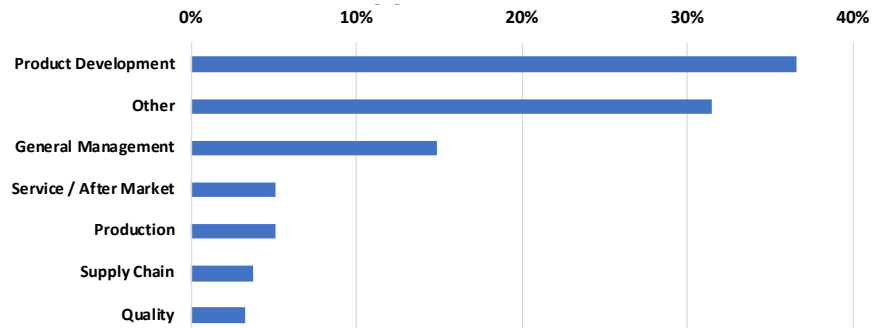
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Demographics

(2 of 5)

In which function do you currently work?



CIMdata comment: The top function is Product Development, the function responsible for implementing sustainability within product.

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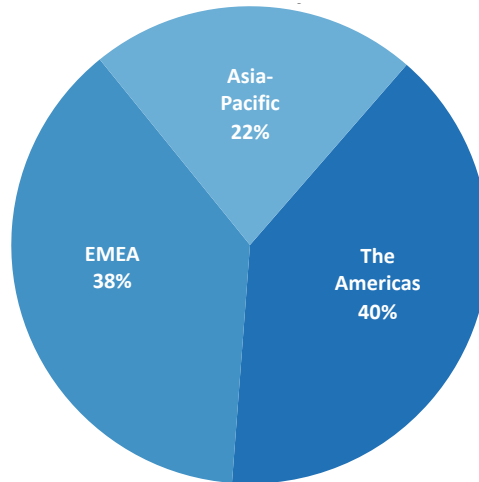
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Demographics

(3 of 5)

In which geographic region do you currently work?

CIMdata comment: Similar geographic split to where cPDm is sold. So, the survey had global reach.



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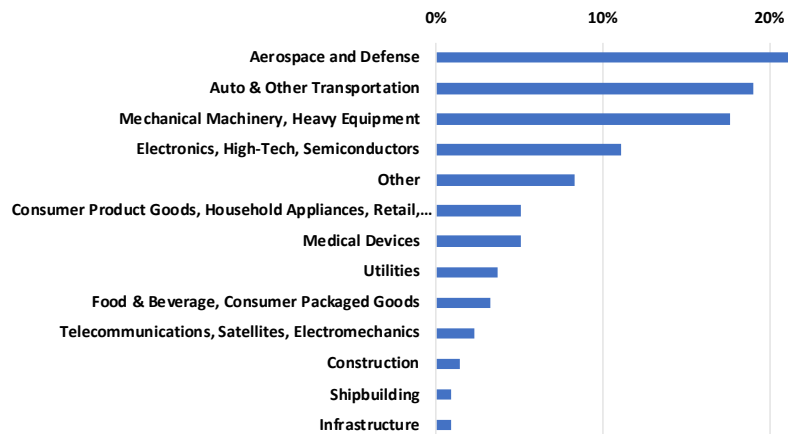
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Demographics

(4 of 5)

What is the primary industry your business unit serves?

CIMdata comment: Respondents align with the industry market share splits for cPDm/PLM.



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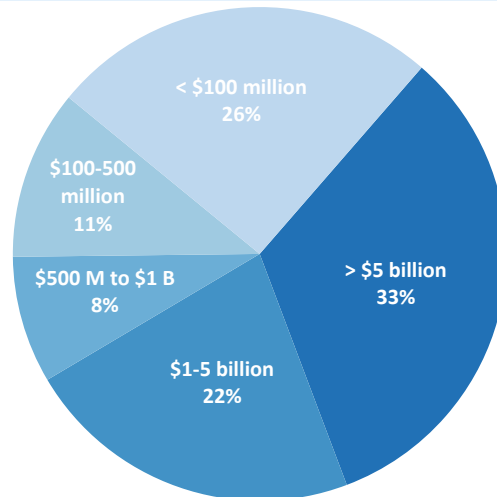
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Demographics

(5 of 5)

What were your company's revenues for the most recent fiscal year?

CIMdata comment: Broad mix of company size by revenue, again aligns with cPDM/PLM spend.



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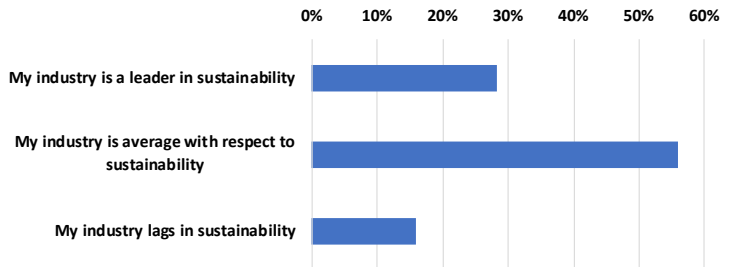
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Industry Comparison

CIMdata Sustainability Survey 2022

Some industries are more advanced than others in their definition of sustainability objectives and implementing the necessary actions. In your opinion, where does your industry rate in comparison with other industries in their progress?

CIMdata comment: More than half are from traditional industries (Auto A&D, Machinery) which have sustainability programs.



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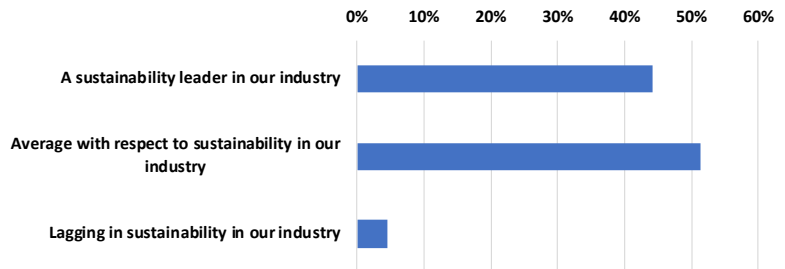
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Company Comparison

CIMdata Sustainability Survey 2022

Where does your company rate in comparison with other companies in your industry?

CIMdata comment: Over 40% see their companies as leaders. The 55% that see themselves as average or worse should be targets for sustainability related software and services as pressures to comply grow.



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Leaders in Sustainability

CIMdata Sustainability Survey 2022

In your opinion, who are some of the leaders in sustainability in your industry?

CIMdata comment: Aerospace companies were more prominent than auto, even though the number industry respondents was similar. Many learnings from aerospace should be applicable to other manufacturers- when they are ready.



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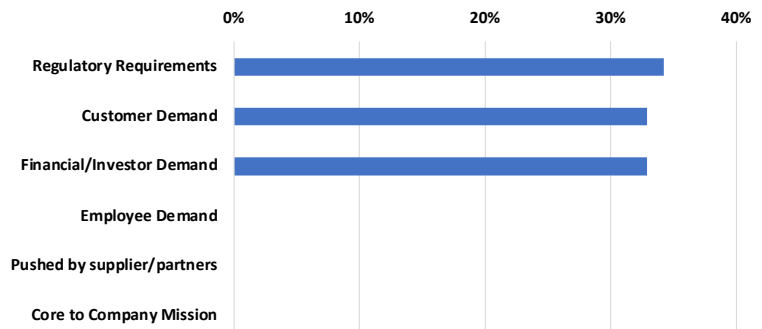
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Sustainability Program Motivators

CIMdata Sustainability Survey 2022

There are many possible motivations behind a company's sustainability efforts. In this question we would like you to rank the top three reasons you think your company is acting on sustainability issues.

CIMdata comment: Regulatory requirements are the top reason. Likely due to the traditional manufacturing company focused responses, treated as a cost of doing business. Sad to see no responses in core to company mission or employee demand.



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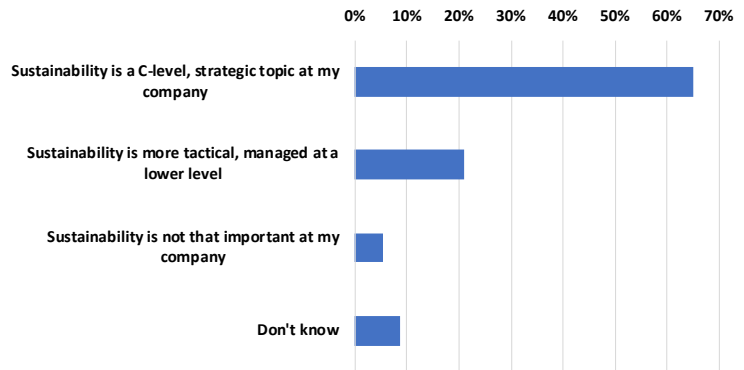
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Core Sustainability Responsibility

CIMdata Sustainability Survey 2022

Where does responsibility for your company's sustainability efforts reside?



CIMdata comment: This aligns with the motivators from the previous slide. External drivers create C-level issues, which typically lead to top-down programs. Middle management will need support to define and implement sustainability programs.

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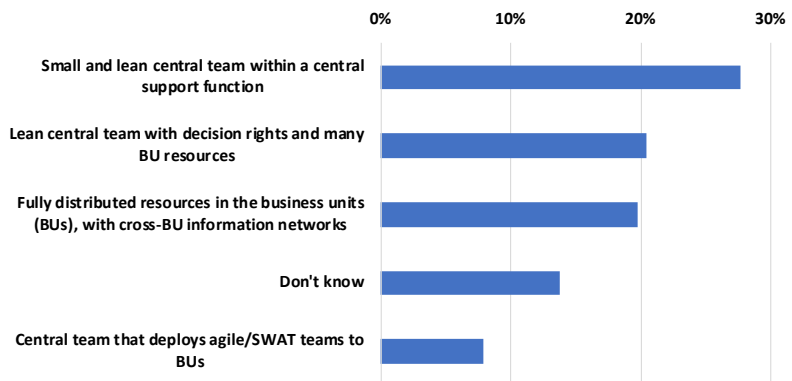
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Sustainability Organization

CIMdata Sustainability Survey 2022

How is your company organized to achieve its sustainability objective?



CIMdata comment: Lean centralized teams indicate adoption in core design processes will be weak. Only 20% within BUs indicates adoption is happening. Help is clearly needed.

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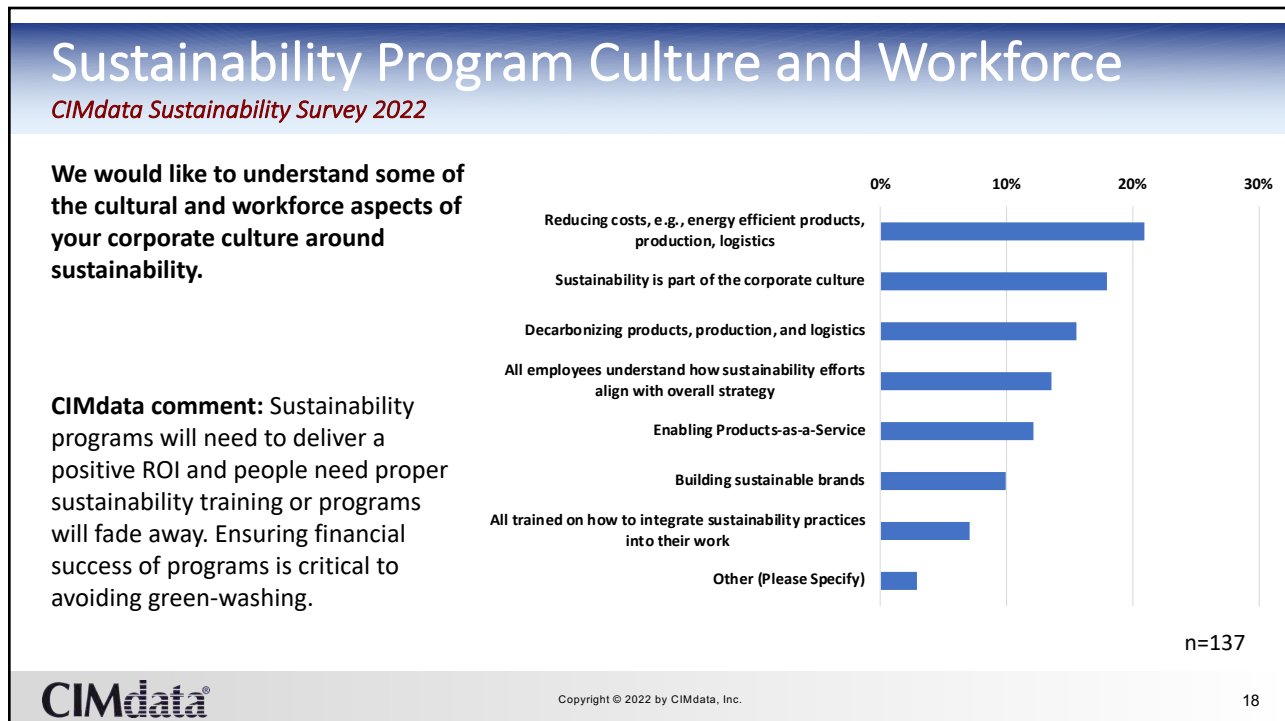
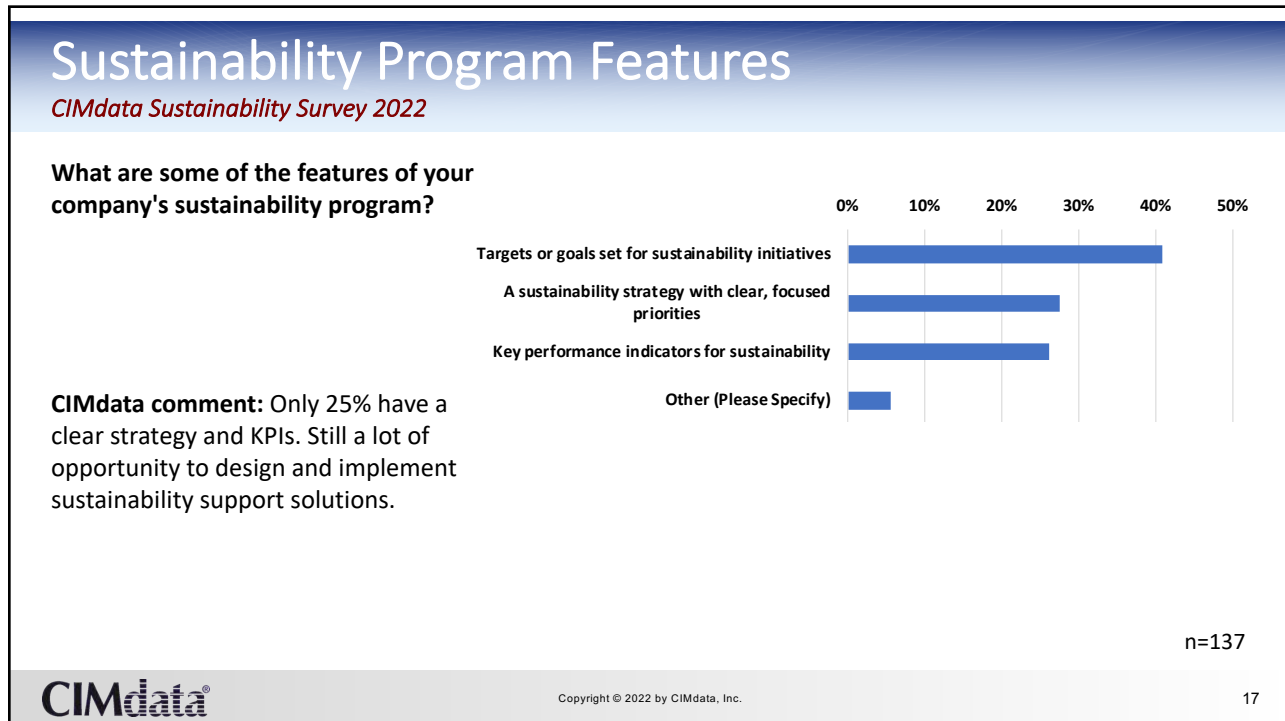


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Top Sustainability Driver

CIMdata Sustainability Survey 2022

There are many possible reasons why companies address sustainability topics. Please choose the reason that most reflect the situation at your company.

CIMdata comment: Diversity of reasons indicates lack of strategy. Does not align well with regulatory, customer demand, and financial investor demand identified earlier. Sustainability strategy consulting, and tools aligned with drivers can help customers succeed.



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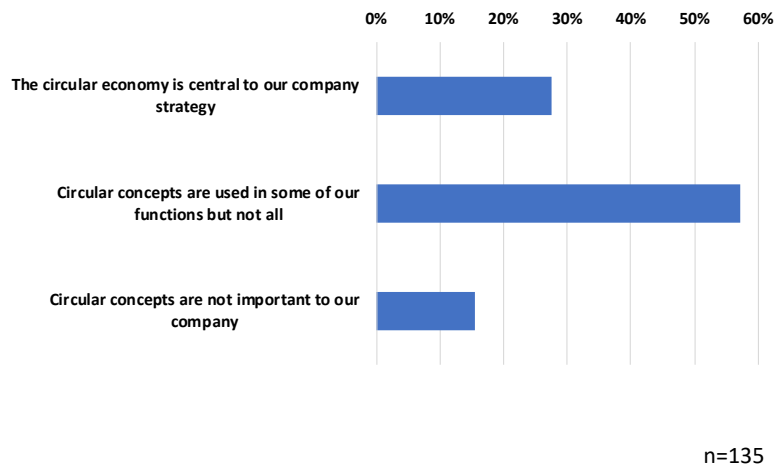
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Circular Economy

CIMdata Sustainability Survey 2022

How important are circular economy concepts and approaches (e.g., green product lifecycles) to your company's product development, manufacturing, and deployment strategies?

CIMdata comment: We are a strong believer in Circular Economy concepts and run into the concept regularly at clients. Over 25% rate central to strategy, over 55% using concepts is huge. Incorporation of CE concepts in products and services should sell.



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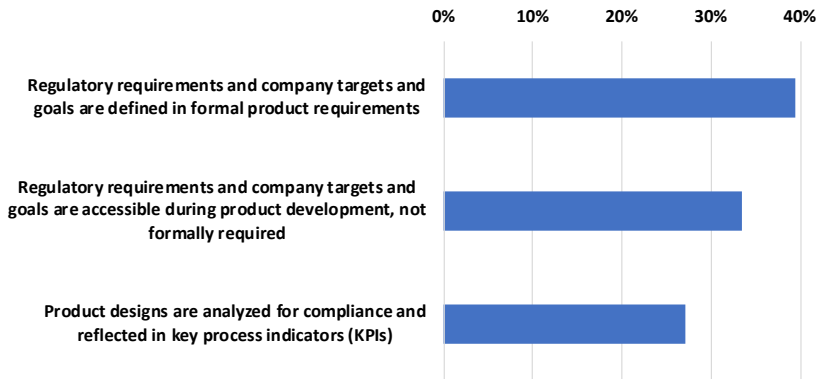
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Capturing & Tracking Sustainability

CIMdata Sustainability Survey 2022

How do you capture sustainability regulations, requirements, and company targets and goals in your product design?

CIMdata comment: Still a lot of opportunity to institutionalize sustainability tools and processes across organizations.



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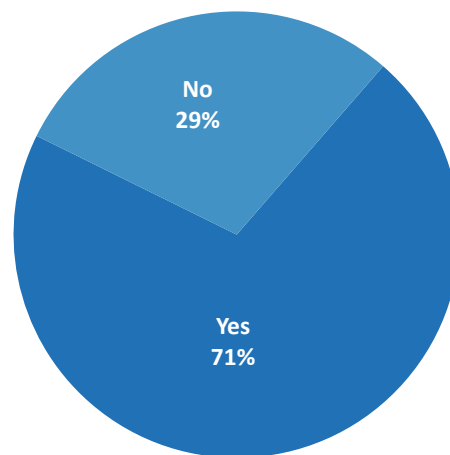
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CO2 Calculation Support

CIMdata Sustainability Survey 2022

Would you like to add a base material (substance) object that can be linked to a part within a product for use by the sustainability system(s) to calculate the full CO2 footprint using the product structure?

CIMdata comment: A significant interest in CO2 calculations, but almost 1/3 don't need it or are doing it satisfactorily. Calculating full CO2 footprint requires data across the lifecycle and from the supply chain, which won't be OOTB solutions.



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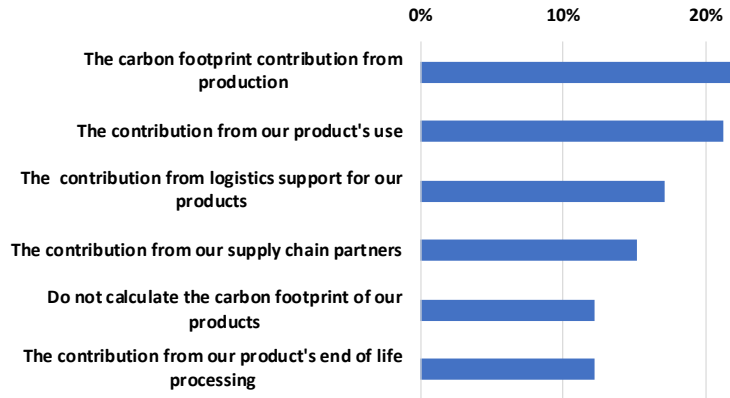
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Carbon Footprint Contributors

CIMdata Sustainability Survey 2022

There are many contributors to a product's carbon footprint over its intended lifespan. Which elements are included in calculating your product's carbon footprint?

CIMdata comment: Not many companies are calculating their carbon footprint, so there is a big opportunity to institutionalize carbon calculation/sustainability tools and processes across the organization.



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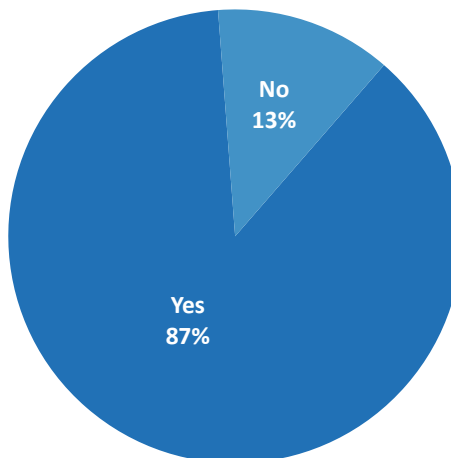
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Digital Transformation Program

CIMdata Sustainability Survey 2022

Is your organization pursuing a digitalization strategy or undergoing digital transformation?

CIMdata comment: This indicates there is a lot of change happening and where there is change there is opportunity.



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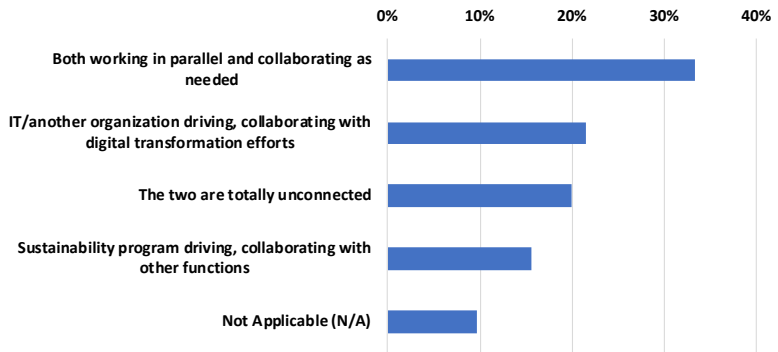
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Digital Transformation and Sustainability

CIMdata Sustainability Survey 2022

How connected is your digitalization or digital transformation to your sustainability efforts?

CIMdata comment: 55% of companies have connection between sustainability and digital transformation efforts so, they will need tools and support. Those with programs not connected to PLM will need to as that is where designs are developed, and data is stored.



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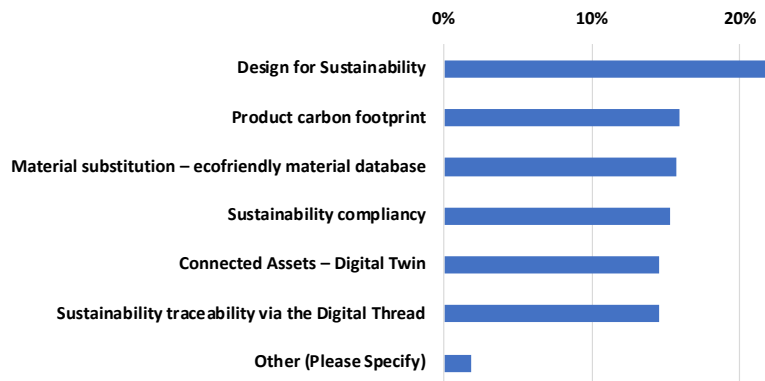
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Use Cases to Support Sustainability

CIMdata Sustainability Survey 2022

What are the use cases where PLM could help in attaining your company's sustainability goals.

CIMdata comment: Many opportunities exist for advanced applications built on a PLM Platform to support common use cases. 15% noted general need for digital thread and digital twin.



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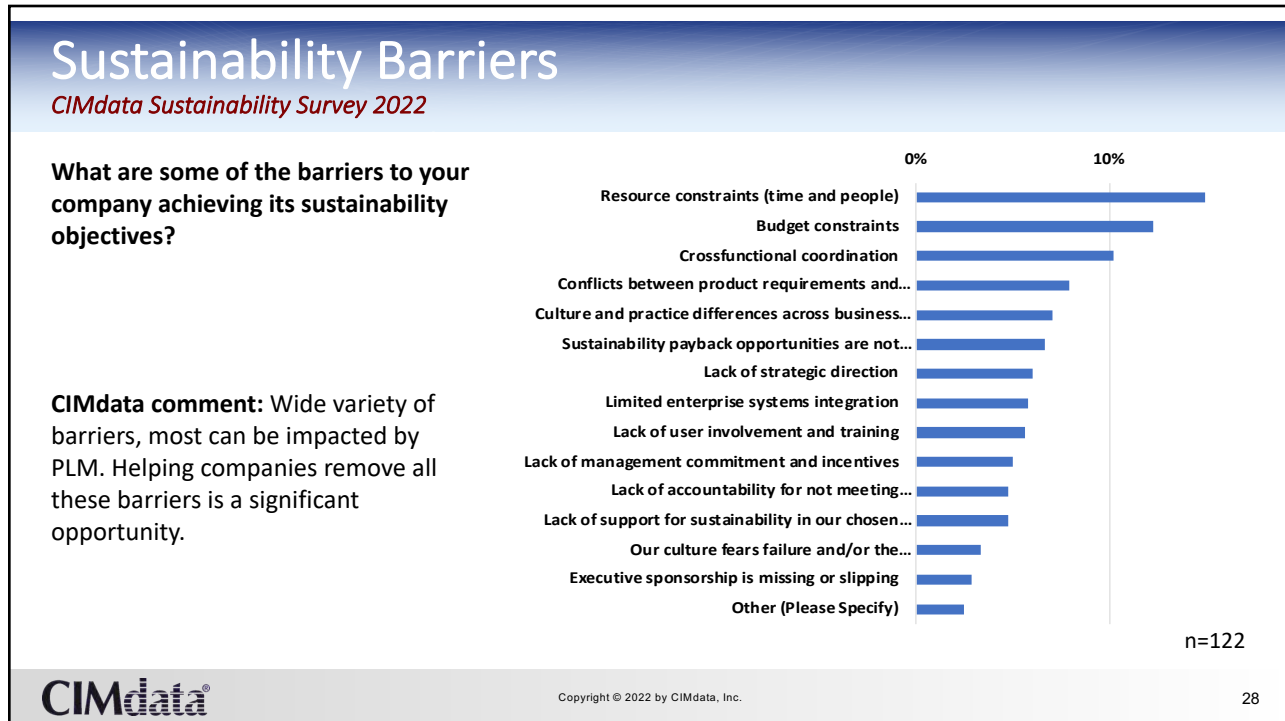
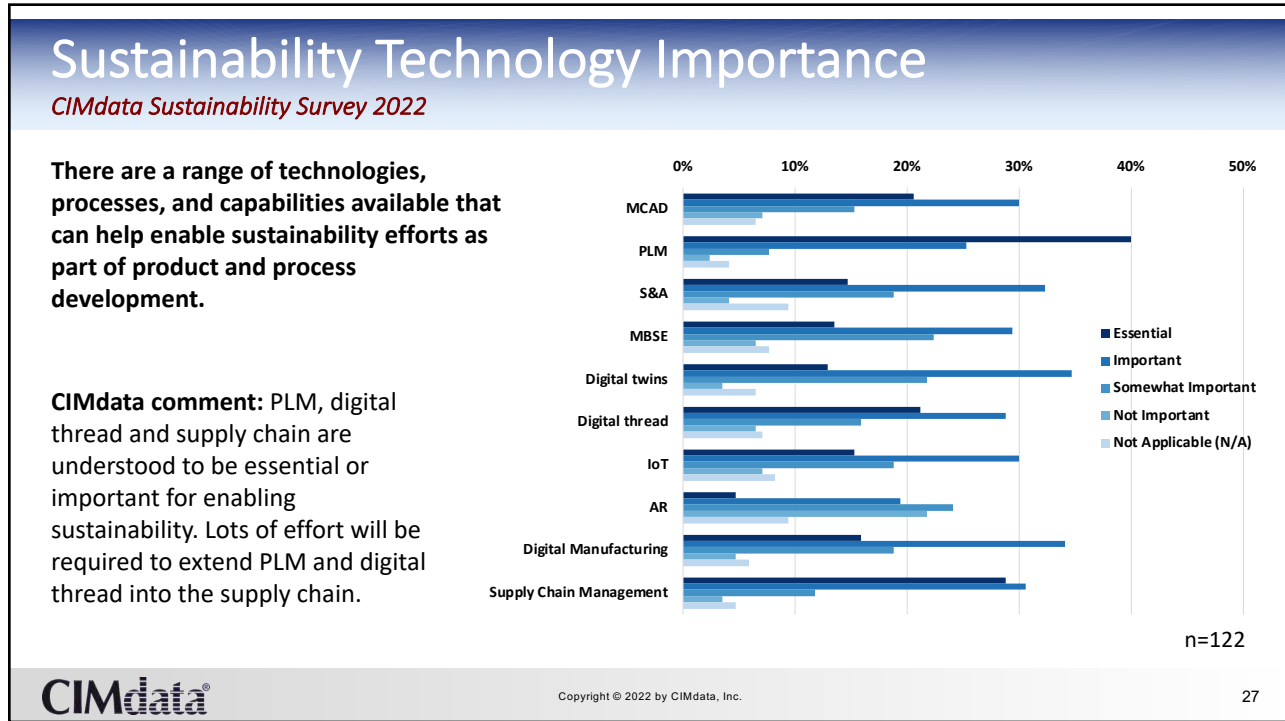


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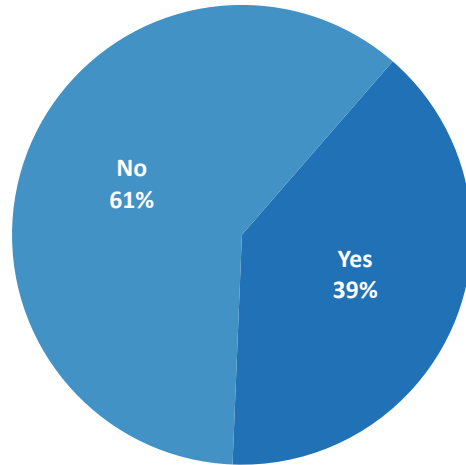
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KPI Management

CIMdata Sustainability Survey 2022

Does your company have a system or systems that supports calculating key sustainability metrics to support product development?

CIMdata comment: The majority do not have a solution to calculate and monitor sustainability metrics but will need one.



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Concluding Remarks

Meeting Sustainability Objectives: The Industrial Perspective

- Sustainability requirements being driven top down into companies
- Most survey respondents need help in most aspects of their sustainability programs—strategy, processes, and tools all have big gaps
- PLM, Supply Chain, and Digital Thread are recognized as important or essential capabilities to enable sustainability programs
 - Advanced capabilities such as Digital Twin, MBSE, and S&A are seen as important and somewhat essential
- Industrial companies will need significant support to meet sustainability requirements effectively
 - Providing tools and support should provide big opportunities for solution providers



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- Check out the webinar I delivered on Digital Twin – Why the big deal?
 - <https://www.cimdata.com/en/events/plm-industry-events/event/684-webinar-digital-twin-why-the-big-deal>
 - A digital twin as an interface to sustainability data
- Circular Economy resources
 - <https://www.epa.gov/recyclingstrategy/what-circular-economy>
 - <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>



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World Headquarters
Ann Arbor, Michigan USA
Tel: +1.734.668.9922

Main Office - Europe
Weert, NL
Tel: +31 (0) 495.533.666

Main Office - Asia-Pacific
Tokyo, JAPAN
Tel: +81.47.361.5850

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