

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

Meeting Sustainability Objectives: The Industrial Perspective

PLM Market & Industry Forum

A CIMdata PLM Leadership Event

31 March 2022—Ann Arbor, MI USA

Tom Gill, Senior Consultant, PLM Enterprise Value & Integration Practice Manager

Email: t.gill@CIMdata.com

Tel: +1.734.668.9922

CIMdata[®]

Global Leaders in PLM Consulting
www.CIMdata.com

#plm4um

Copyright © 2022 by CIMdata, Inc.

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.

CIMdata[®]

Copyright © 2022 by CIMdata, Inc.

2

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

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



Copyright © 2022 by CIMdata, Inc.

3

Agenda

Meeting Sustainability Objectives: The Industrial Perspective

- Demographics
- Survey Results
- Concluding Remarks



Copyright © 2022 by CIMdata, Inc.

4

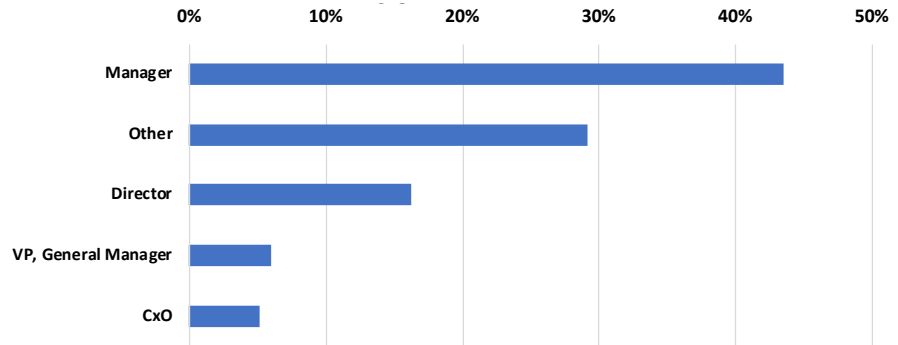
Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

Demographics

(1 of 5)

What is your title/role?



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

n=216



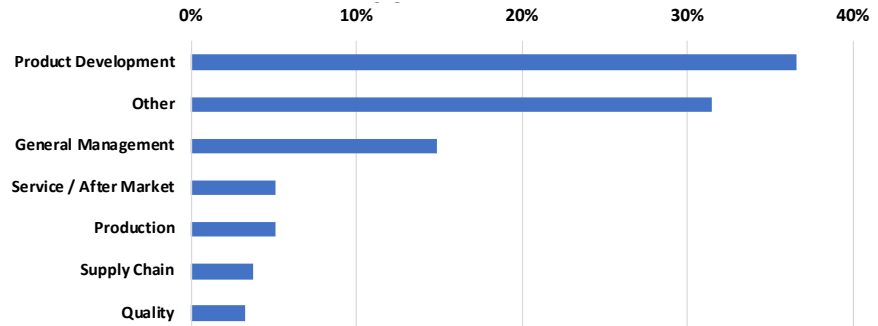
Copyright © 2022 by CIMdata, Inc.

5

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.

n=216



Copyright © 2022 by CIMdata, Inc.

6

Meeting Sustainability Objectives

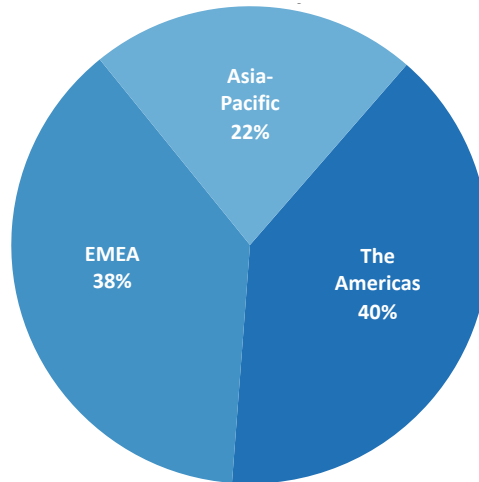
CIMdata 2022 PLM Market & Industry Forum

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.



n=216

CIMdata®

Copyright © 2022 by CIMdata, Inc.

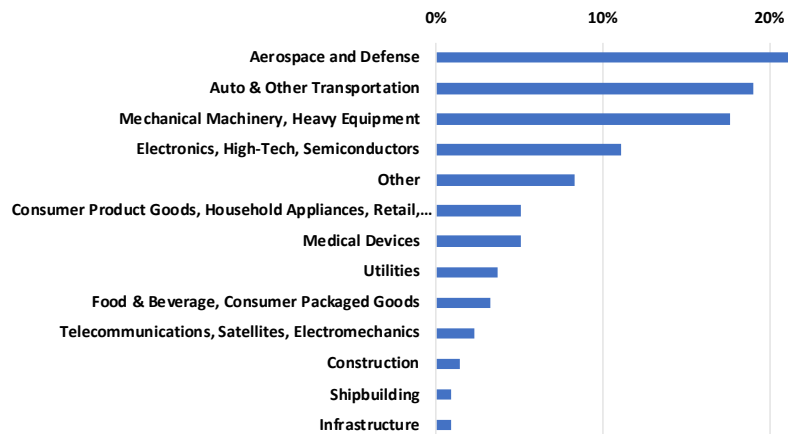
7

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.



n=216

CIMdata®

Copyright © 2022 by CIMdata, Inc.

8

Meeting Sustainability Objectives

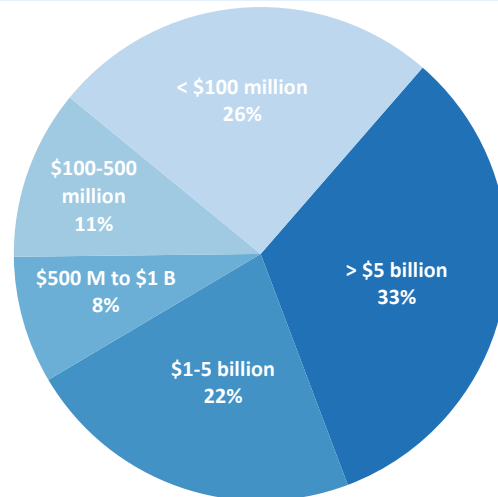
CIMdata 2022 PLM Market & Industry Forum

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.



n=216

CIMdata®

Copyright © 2022 by CIMdata, Inc.

9

Agenda

Meeting Sustainability Objectives: The Industrial Perspective

- Demographics
- Survey Results
- Concluding Remarks

CIMdata®

Copyright © 2022 by CIMdata, Inc.

10

Meeting Sustainability Objectives

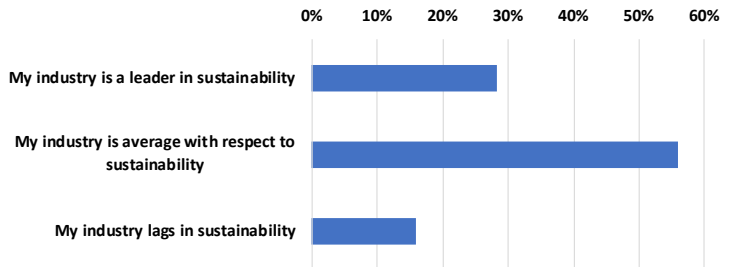
CIMdata 2022 PLM Market & Industry Forum

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.



n=152



Copyright © 2022 by CIMdata, Inc.

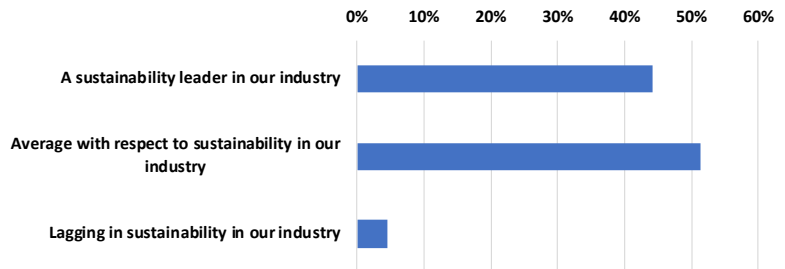
11

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.



n=152



Copyright © 2022 by CIMdata, Inc.

12

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

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.



n=152



Copyright © 2022 by CIMdata, Inc.

13

PLM Foresight Poll

What industrial companies do you believe are leaders in sustainability?

What industrial companies do you believe are leaders in sustainability?

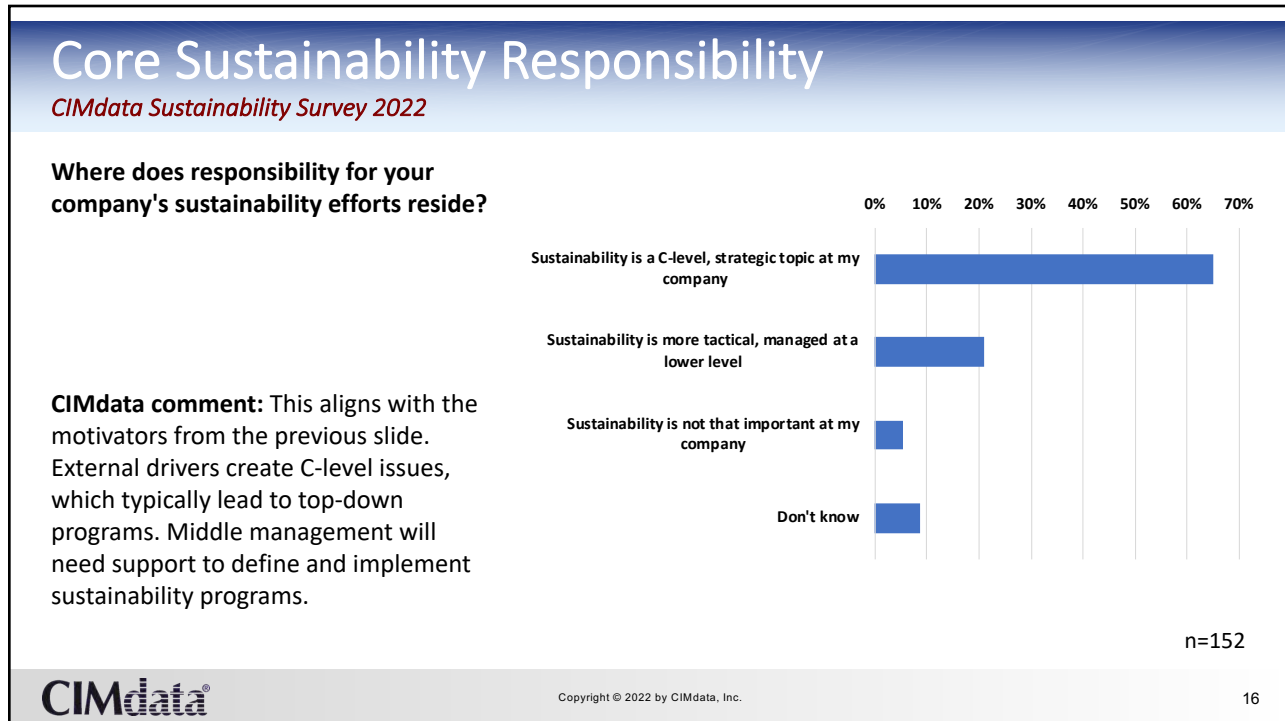
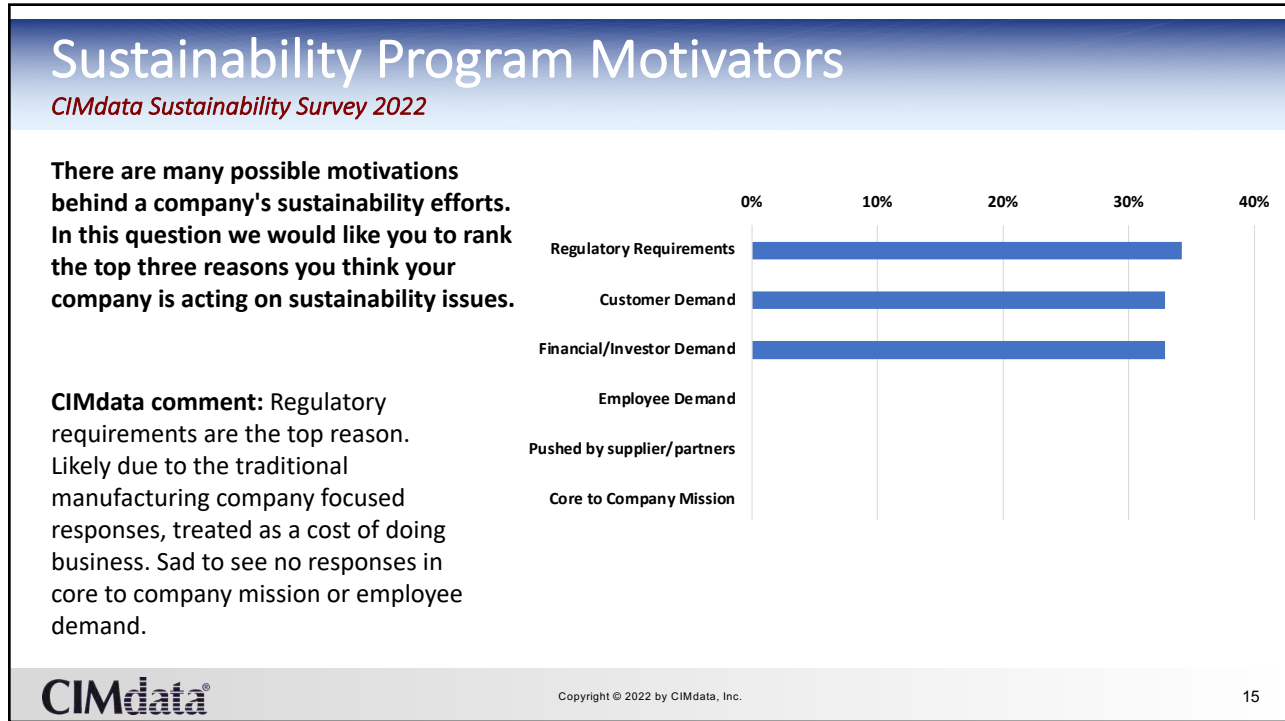


Copyright © 2022 by CIMdata, Inc.

14

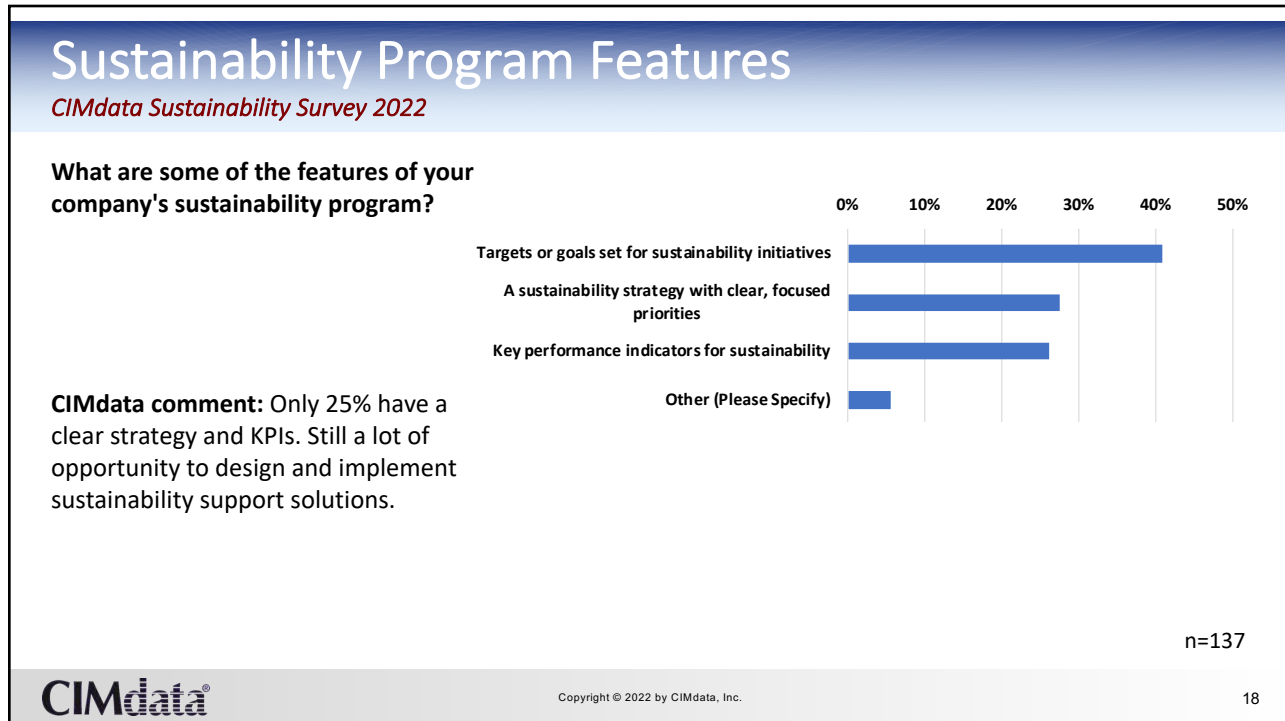
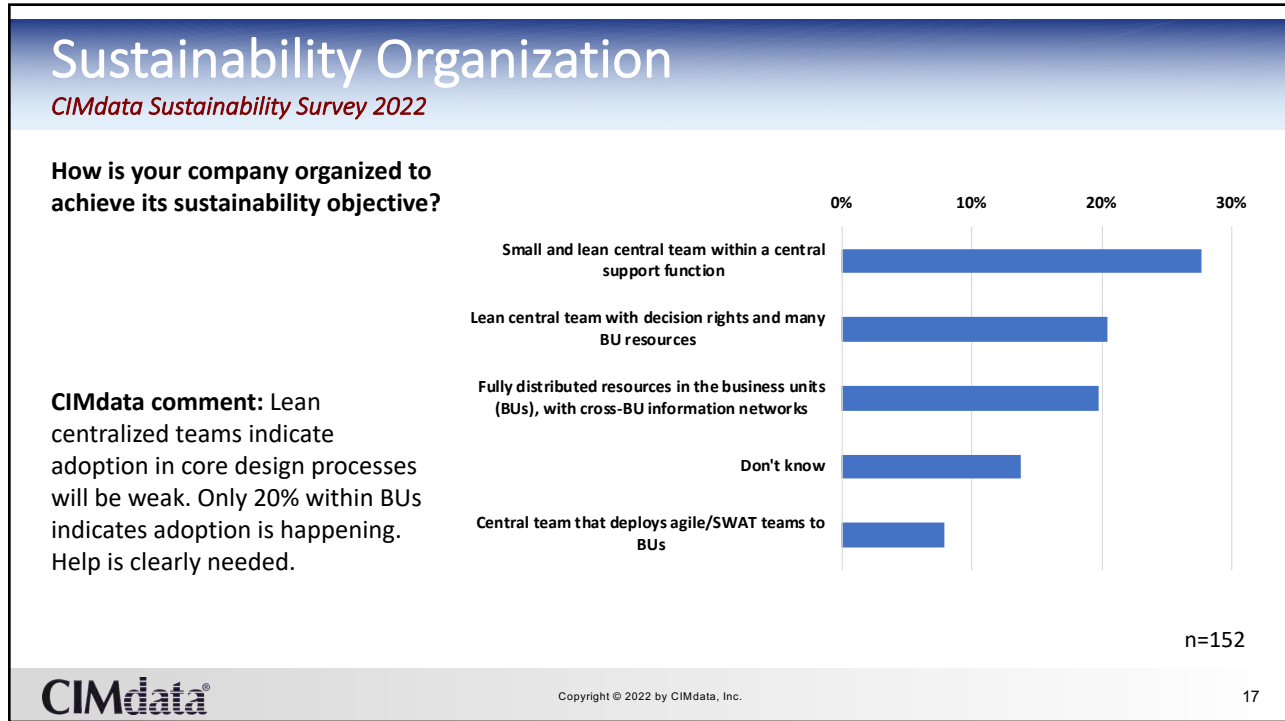
Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum



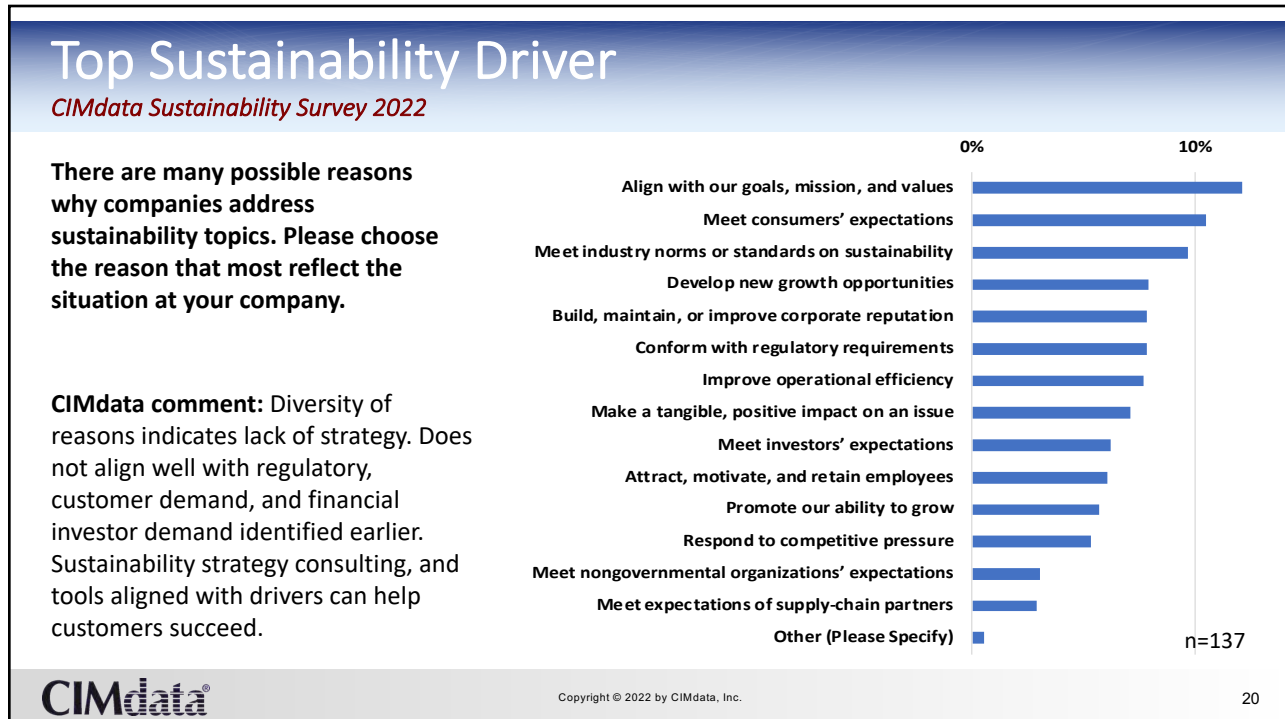
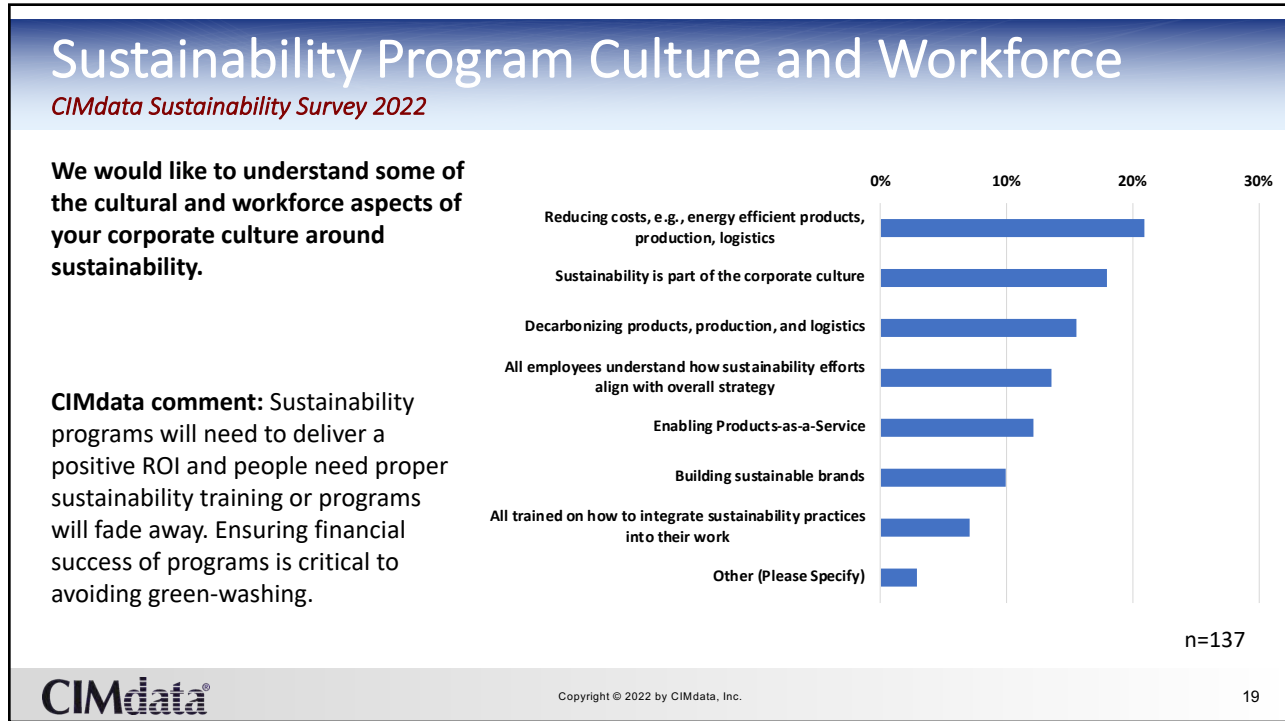
Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum



Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum



Meeting Sustainability Objectives

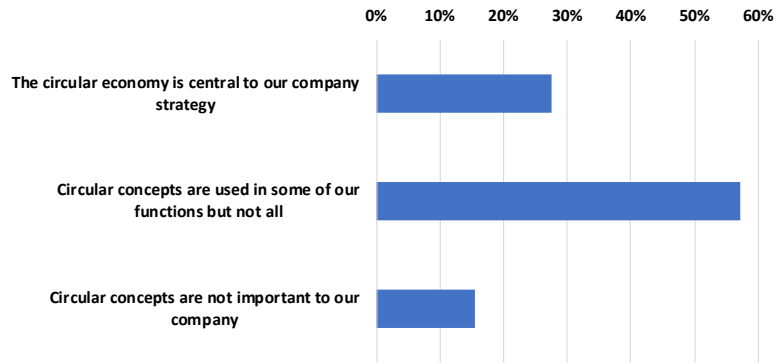
CIMdata 2022 PLM Market & Industry Forum

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.



n=135



Copyright © 2022 by CIMdata, Inc.

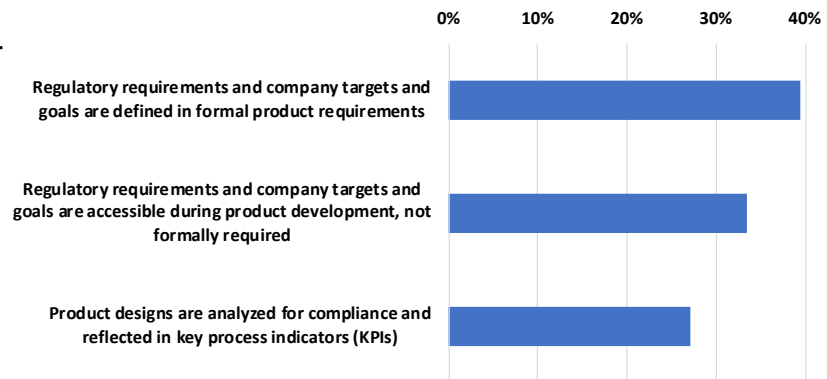
21

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.



n=117



Copyright © 2022 by CIMdata, Inc.

22

Meeting Sustainability Objectives

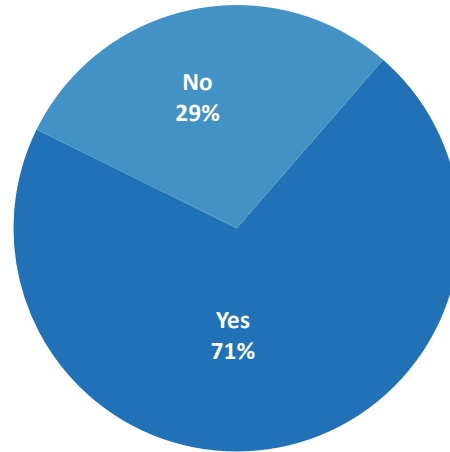
CIMdata 2022 PLM Market & Industry Forum

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.



n=135



Copyright © 2022 by CIMdata, Inc.

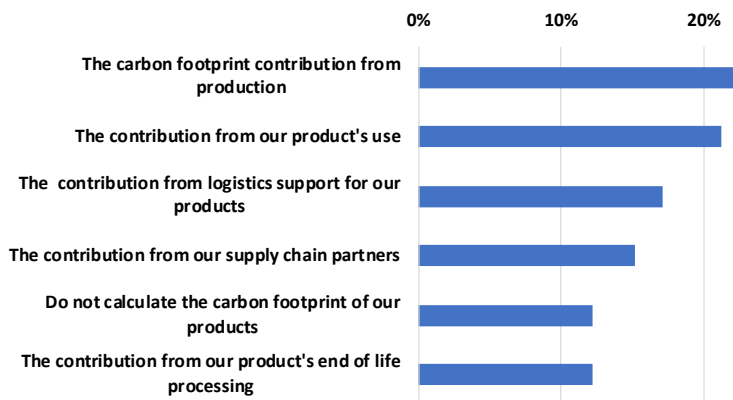
23

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.



n=122



Copyright © 2022 by CIMdata, Inc.

24

Meeting Sustainability Objectives

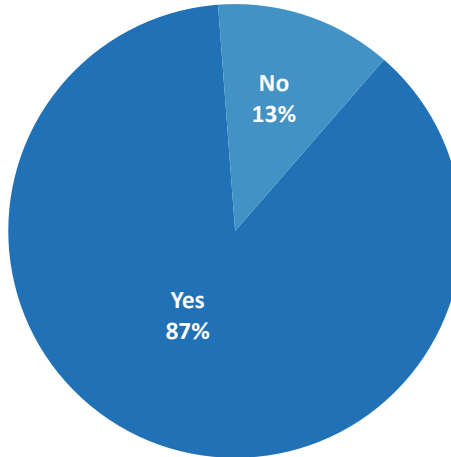
CIMdata 2022 PLM Market & Industry Forum

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.



n=135

CIMdata®

Copyright © 2022 by CIMdata, Inc.

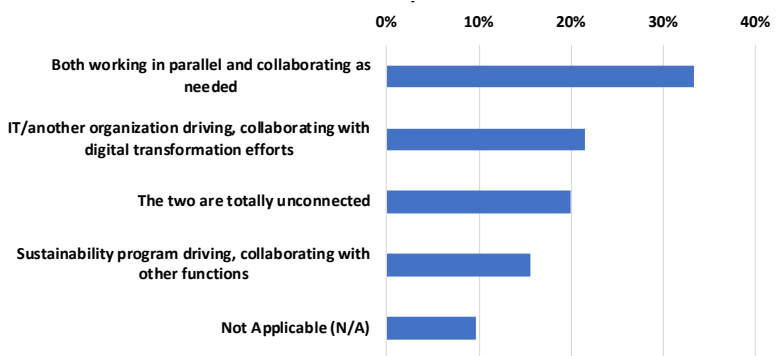
25

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.



n=135

CIMdata®

Copyright © 2022 by CIMdata, Inc.

26

Meeting Sustainability Objectives

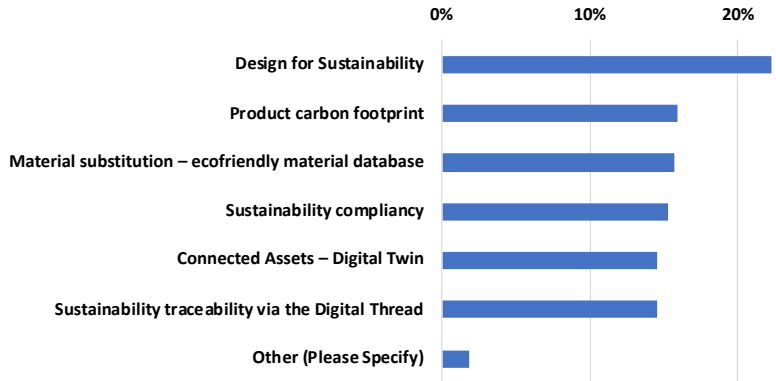
CIMdata 2022 PLM Market & Industry Forum

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.



n=122



Copyright © 2022 by CIMdata, Inc.

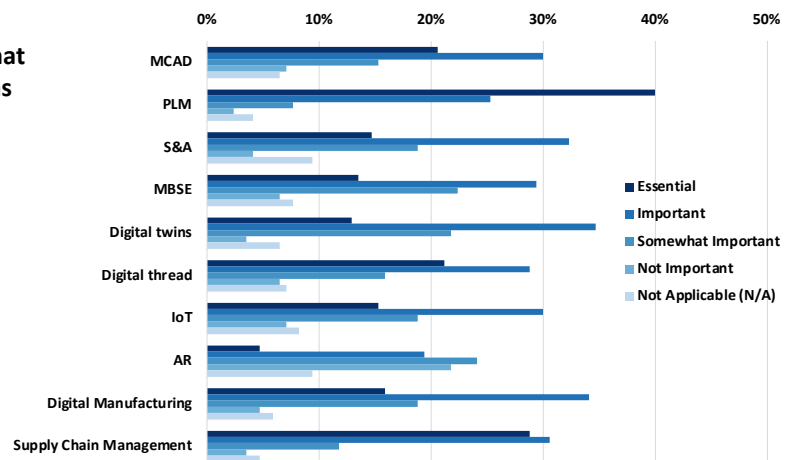
27

Sustainability Technology Importance

CIMdata Sustainability Survey 2022

There are a range of technologies, processes, and capabilities available that can help enable sustainability efforts as part of product and process development.

CIMdata comment: PLM, digital thread and supply chain are understood to be essential or important for enabling sustainability. Lots of effort will be required to extend PLM and digital thread into the supply chain.



n=122

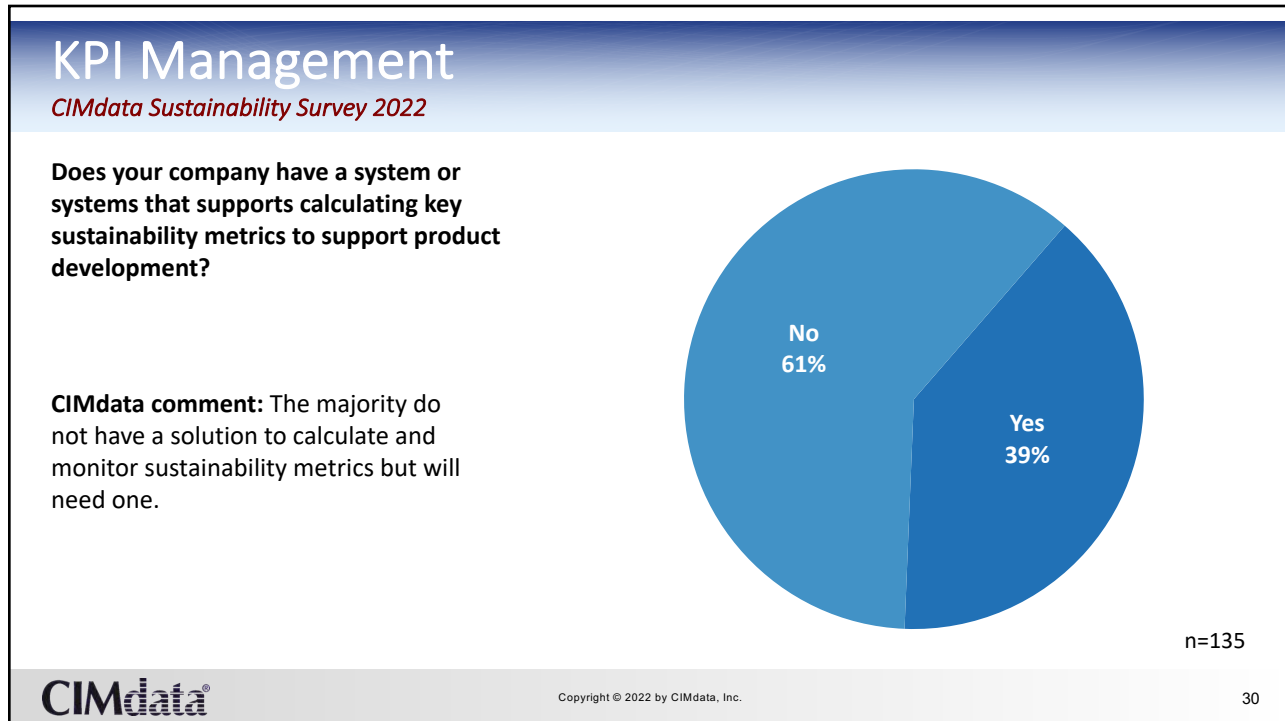
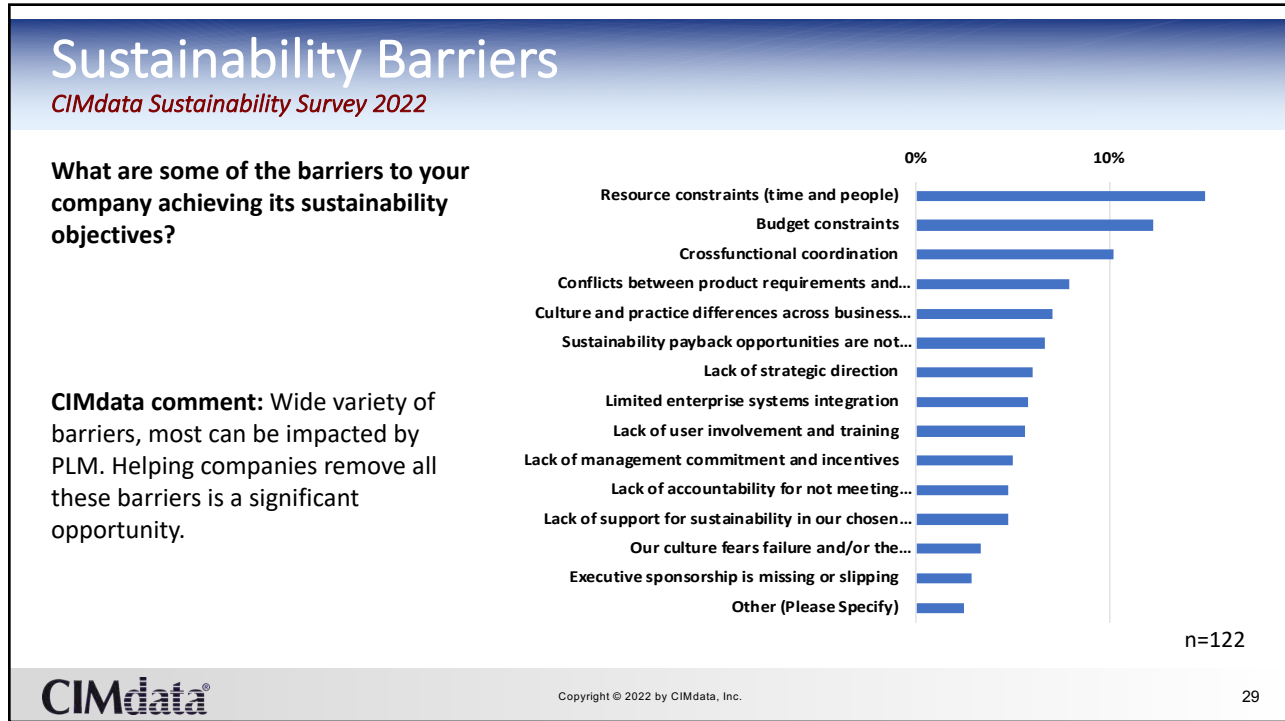


Copyright © 2022 by CIMdata, Inc.

28

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum



Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

Agenda

Meeting Sustainability Objectives: The Industrial Perspective

- Demographics
- Survey Results
- Concluding Remarks

CIMdata[®]

Copyright © 2022 by CIMdata, Inc.

31

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

CIMdata[®]

Copyright © 2022 by CIMdata, Inc.

32

Meeting Sustainability Objectives

CIMdata 2022 PLM Market & Industry Forum

To Learn More...

- Contact me, Tom Gill t.gill@cimdata.com
- 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>

CIMdata[®]

Copyright © 2022 by CIMdata, Inc.

33

CIMdata

Strategic consulting for competitive advantage in global markets



CIMdata[®]

Copyright © 2022 by CIMdata, Inc.

34