



Questions

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Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the National Institute of Standards and Technology, Attn:

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DIRECTIONS: Please numerically identify your level of agreement with the following barriers and solutions to sustainable manufacturing. The format of your response will use a Likert scale from 1 to 7, with 1 indicating you “strongly disagree” and 7 indicating you “strongly agree.”

An open comment section is provided below each statement that you may use for providing additional information regarding your level of agreement. Please do not include details in any open comment section that may be linked to your identity.

You may choose to not respond to any statement, or to leave any open comment section blank.

We thank you for your time spent taking this survey.
Your response has been recorded.



Do you agree with the following suggested solutions to overcoming barriers in sustainable metric and indicator selection?

Neither agree

Strongly agree Agree Somewhat agree Somewhat disagree Disagree Strongly disagree

Orient standard metrics to explicitly state cost value to appeal to high level management

Make metrics and indicators standard industry wide

Comments

Do you agree with the following identified barriers to adopting sustainable metrics and indicators?

Strongly agree Agree Somewhat agree Somewhat disagree Neither agree nor disagree Disagree Strongly disagree

Sustainability metrics included in standards do not explicitly address quality

Identify environmental impact drivers using on-the-line data

Demonstrate an allocation method for system-level indicators

Comments

Do you agree with the following suggested solutions to overcoming barriers in adopting sustainable manufacturing tools at the system level?

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Engage shop floor personnel by showing real-time feedback on the sustainability performance metrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporate process modeling into the manufacturing step of LCA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plan for the introduction of new top-down regulations and their impact on product manufacturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Future standards development should integrate UMP models back into LCA methods and tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make models and data generated by a standard or government accessible to all	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Comments

	Strongly agree	Agree	Somewhat agree	neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Current tools do not emphasize usability with their steep learning curves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No standard method exists for combining process and system level indicators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current tools and methods do not always show immediate practical change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recertification of a manufacturing process after modification is a financial barrier to wider standards adoption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Companies and suppliers hesitate to share sensitive process data or models	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incorporating new methods, tools, or standards requires large time investments before showing practical results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current research lacks a cohesive theory on how to evaluate and close the design-for-manufacturing gap	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments

Strongly agree Agree Somewhat agree Somewhat disagree Disagree Strongly disagree

Make tools with an easy entry version to highlight small improvements

Any sustainable manufacturing tool should be usable on current equipment

Create a "light" version focusing only on primary process drivers to alleviate initial investment concerns

Develop a library of materials and UMPs to aid design-for-manufacture decision making



Do you agree with the following identified barriers to adopting sustainable manufacturing tools at the unit process level?

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
Tools and methods will not be widely adopted if they require the upgrade or replacement of analogue machinery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulatory change inhibits adoption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Commercial software packages are costly and fragmented	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proposed process models risk sub-optimization occurring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standards cannot readily address the difficulty of sharing process models and linking them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments
