

# GRASS ROOTS

## 2017

## Materials Matter:

Educating AIA members on healthy, sustainable materials selection

*Lisa Richmond, AIA Seattle*

*Melissa Wackerle, AIA*

*Brad Guy, Materials Knowledge Work Group*

*Heather Burpee, UW*

an **AIA** leadership event



**MM**

**MATERIALS MATTER**

# Materials Matter

Strategic initiative

Knowledge working group

Online education

In-person education



2017

an **AIA** leadership event

# Learning objectives

Member need

Materials impact

Strategic alignment

Tools for chapters



# About you

Leader or staff?

S, M or L?

Materials education yes or no?



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**GRASS  
ROOTS**

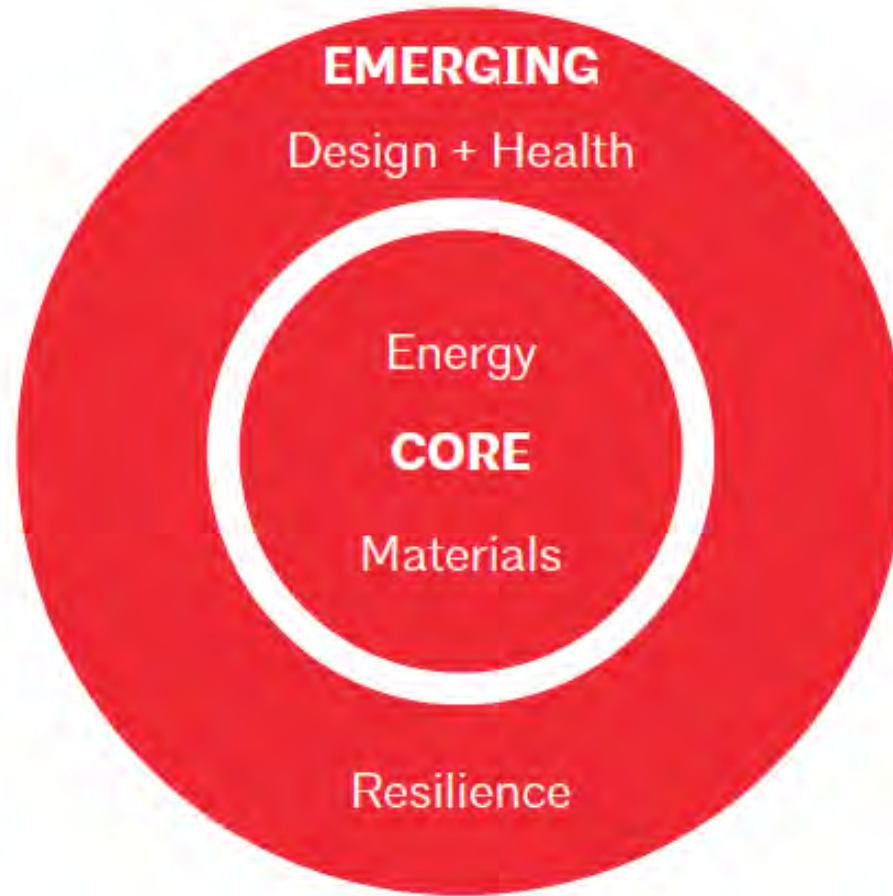
**2017**

Background

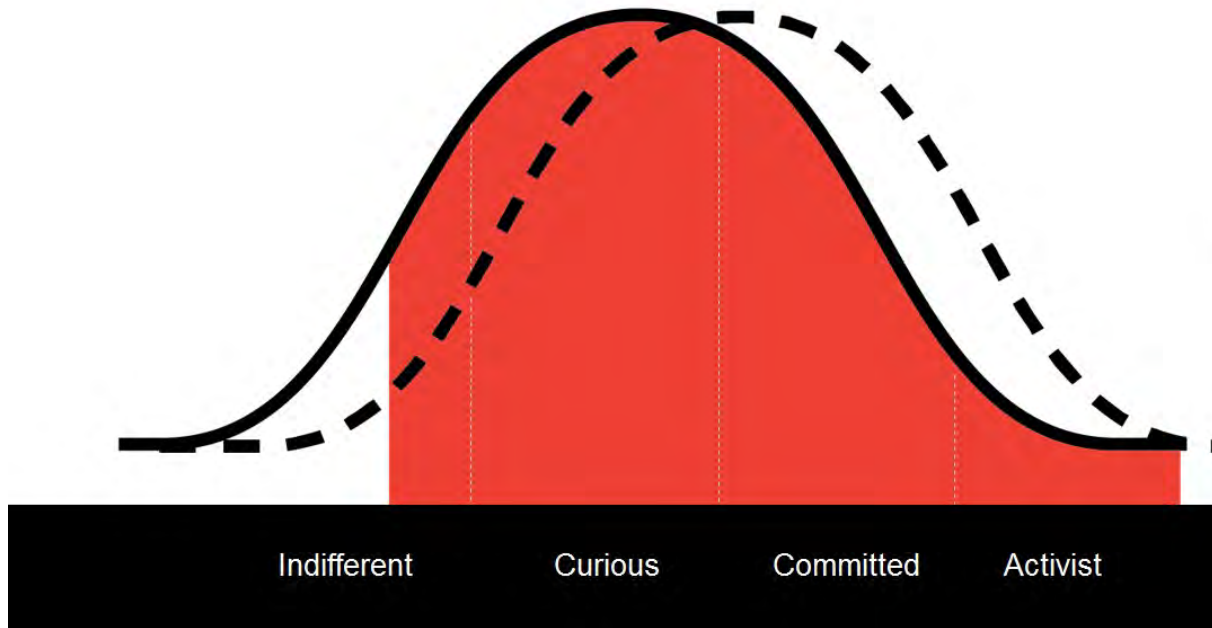
*Melissa Wackerle*

an **ATA** leadership event

# Sustainable Leadership Opportunity Scan



# Own & propel the bell





# Materials Knowledge Working Group

*The AIA recognizes that building materials impact the environment and human health before, during, and after their use. Knowledge of the lifecycle impacts of building materials is integral to improving the craft, science, and art of architecture. The AIA encourages architects to promote transparency in materials' contents and in their environmental and human health impacts.*



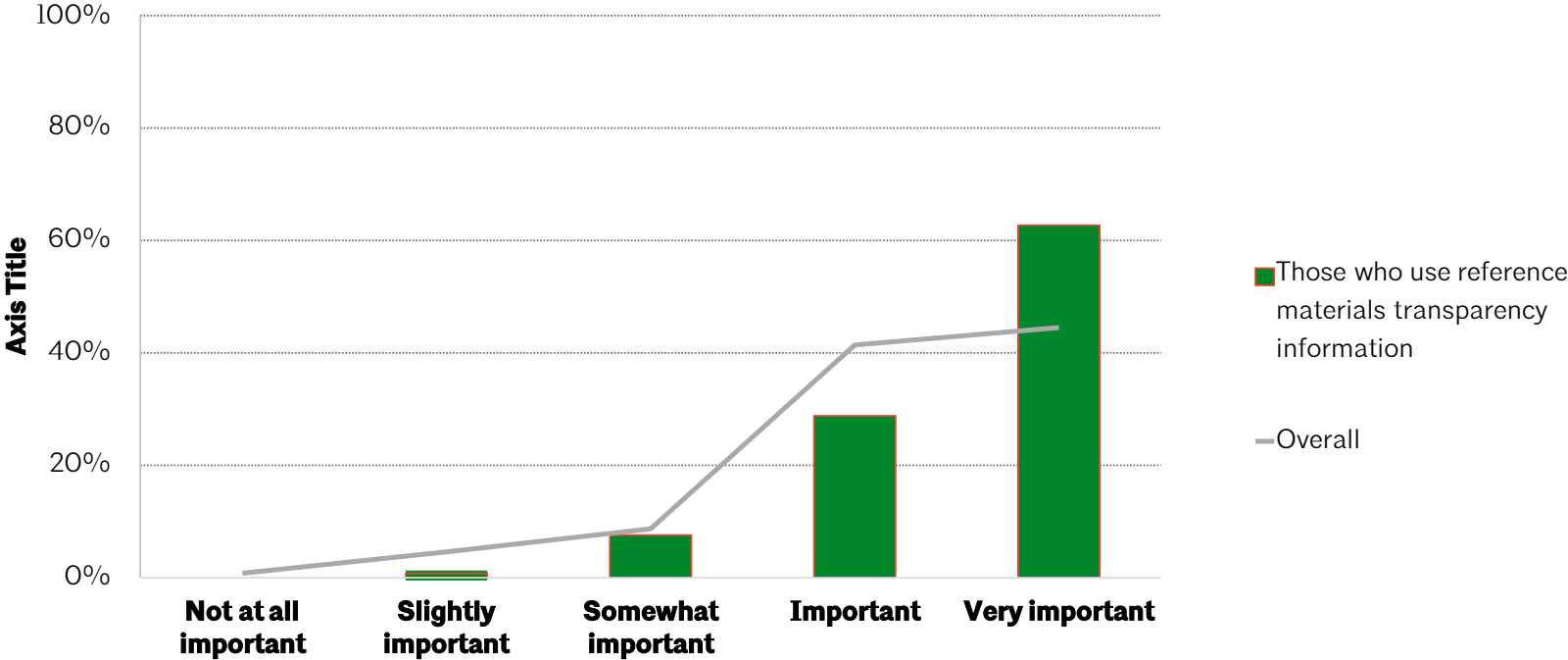
an **AIA** leadership event

# Materials Knowledge Working Group

- Support the AIA in driving greater materials transparency in the built environment to positively impact human and environmental health and well-being.
- Provide direction to help the AIA transform practice to incorporate materials transparency in their design process.
- Encourage greater knowledge sharing among architects and throughout the market.

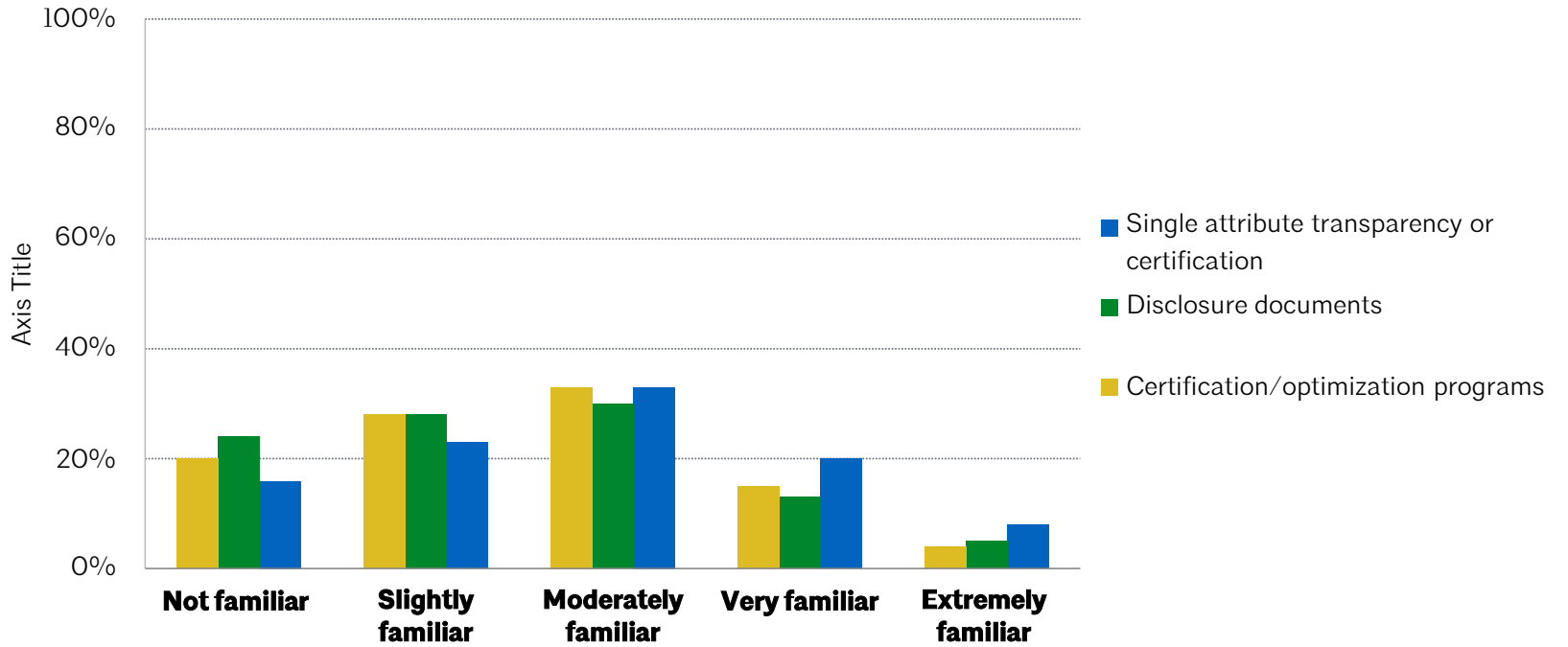


Importance Health/Ecological Impacts of Materials  
Base: 391

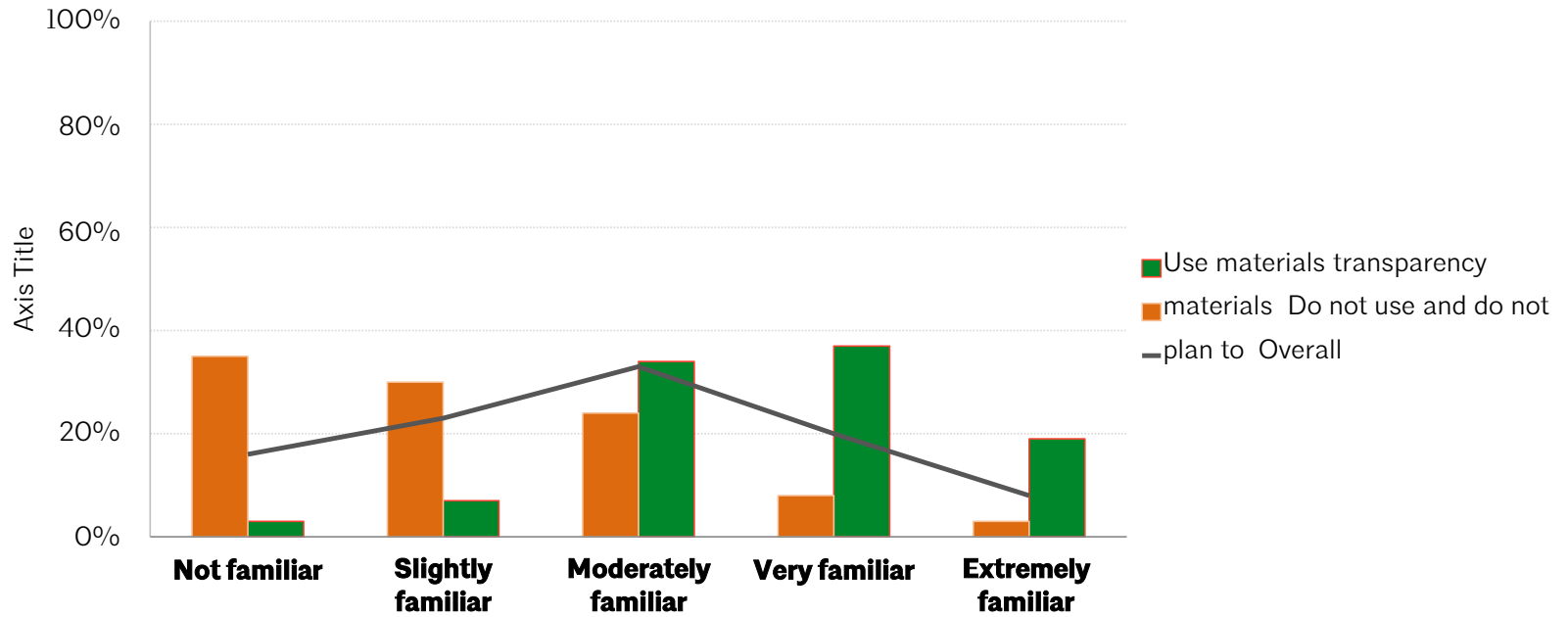


# Familiarity with Trends in Materials Transparency

Base: 391



Familiarity with Trends in Materials Transparency:  
Single attribute transparency or certification  
Base: 391





**MATERIALS MATTER**

December 2

## **TOOLS OF THE TRADE**

Assessment + Implementation



# Defining the Need

*Brad Guy*

an **AIA** leadership event



# Curriculum Development for Materials Matter

*Heather Burpee*

University of Washington,  
Center for Integrated Design

an **AIA** leadership event





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# Program Goals

## ***AIA Materials Position Statement:***

*“The AIA recognizes that building materials impact the environment and human health before, during, and after their use. Knowledge of the lifecycle impacts of building materials is integral to improving the craft, science, and art of architecture. The AIA encourages architects to promote transparency in materials’ contents and in their environmental and human health impacts.”*

## ***Topics to be covered by Curriculum (per RFP):***

*Materials Matter should specifically address all aspects of materials selection. Learners should develop a proven ability to understand, make informed decisions about, and implement materials transparency and optimization, considering embodied carbon, lifecycle analysis, and health.*

# Curriculum Development - Scope

1. Curriculum Development – framework for “Materials Matter” curriculum
2. Pilot delivery of **in-person series** in Seattle 2016/2017 (in the fall/winter)
  - With applicability for national roll-out
3. **Online modules** to support curriculum
  - To be offered by AIAU – at least 5, 60 minute modules

# Program Goals (per RFP)

- Identify the impact of specific building materials on human health and the environment;
- Recognize why materials impact is critical to design excellence;
- Use existing and emerging tools and resources to inform materials decisions;
- Prioritize materials selections based on available information; and,
- Incorporate the selection of high quality, low-impact material footprint into architectural practice.

# Curriculum Development - Feedback Mechanisms

- Interviews
- Charette
- Advisory Group
  - national representatives from AIA Materials Knowledge Working Group
- Ongoing MM Advisory Group
  - local representatives

# Curriculum Development – Interviews

## *Interviewees included:*

Alicia Daniels Uhlig – GGLO, Beth Stroshane – Applied, Building Information, Chris Helstern - Miller Hull, Ed Clark - ZGF Architects, James Connelly – ILFI, Joe David - Point 32, Margaret Montgomery – NBBJ, Nicole DeNamur - Pacific Law Group

## ***Common Themes (examples):***

- **Interest in both Health and Environment aspects of materials**
- **High interest in HOW to implement healthy materials into design practice – tools, verification, etc.**
- Get people up to speed / Definitions / What defines a healthy material?
- Clarification on competing criteria and definitions
- How to work toward transparency
- How to use marketing & purchasing power to change the market
- Green your Library & Project
- Current riskiest things we should avoid re: health impacts
- Environmental Life Cycle / product stream / equity / manufacturing
- Connect with people / brainstorm / participate
- Encourage more research



# MM MATERIALS MATTER

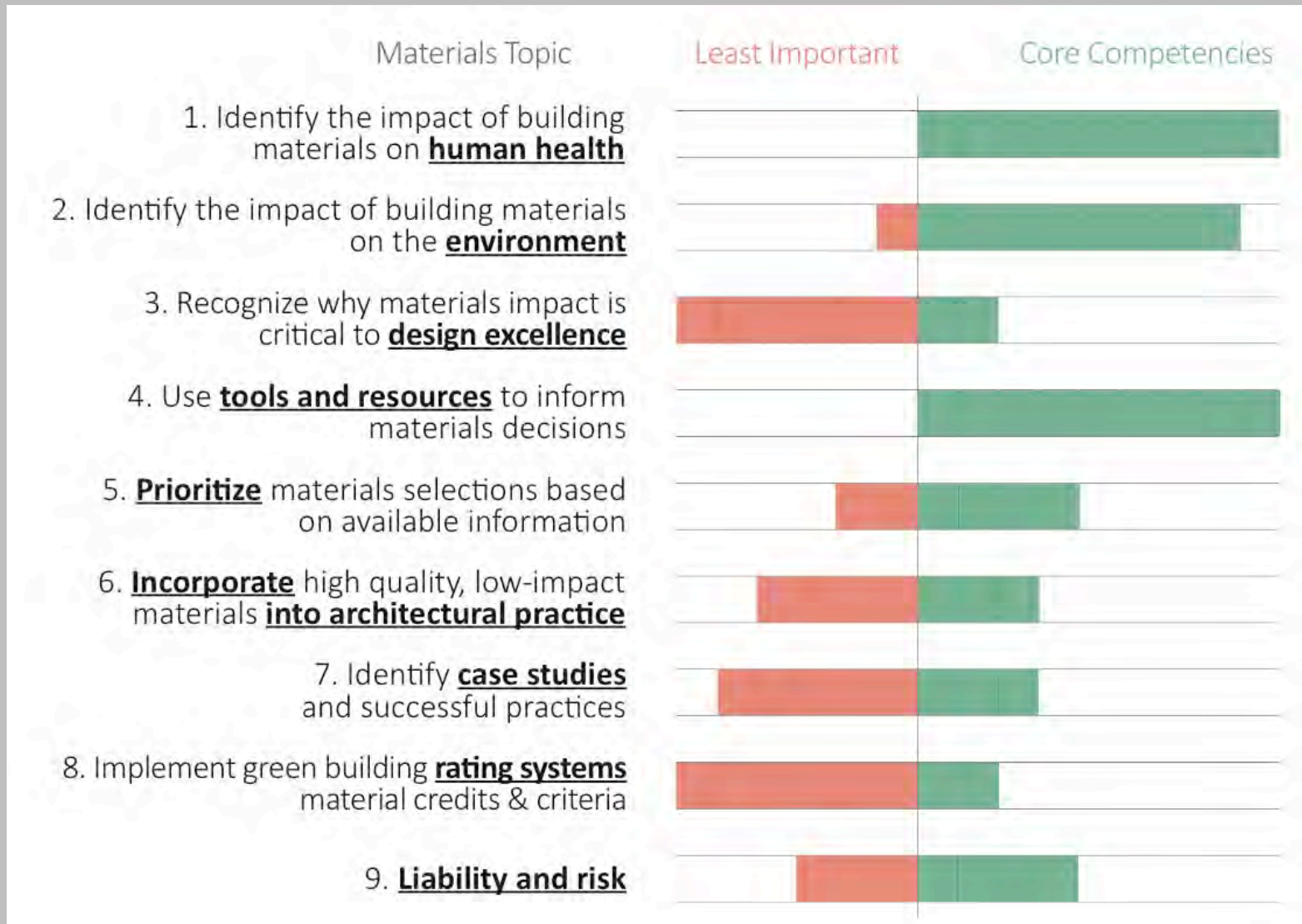
IN PERSON CURRICULUM DEVELOPMENT

# Curriculum Development – Pre-Charette Survey

- Thinking about the in-person curriculum for Materials Matter in Seattle, select the top five (5) core competencies you think are most critical to develop:
- Thinking about the in-person curriculum for Materials Matter in Seattle, select the least important (3) topics to develop:



# Survey Says ...



# Curriculum Development – Other Topics Suggested

- **Case studies** highlighting projects implementing their own system and/or **agnostic to rating systems.**
- Different ways to deal with **incomplete information**
- Explain how actions of parties in the buildings practice can contribute **to larger scale change in the materials supply chain**
- **Research and Development**
- **End-consumer expectations**
- Identify key materials impacts on **human social conditions**
- Identify **the life cycle paths** for end-of-life of materials and how materials and design decisions can positively or negatively impact the ability to extend the lives of whole buildings
- Know the **regulatory landscape** that affects the production and qualifications of materials contents and lifecycles

# Other Comments

*“Show how to **simplify finding information** and make it happen within the current work-flow.”*

*“**Approach the subject holistically** to appeal to those interested in reducing toxicity of materials and those focusing on low-carbon materials. **Identify synergies and barriers** to specifying non-toxin AND low-carbon building materials.”*

*“Make the case that can be **clearly communicated to clients**. Point to resources that will give people step-by-step examples.”*

*“Put the complex language of human health and material chemistry into as much **plainspeak** as possible **without diminishing the validity** of the details and proper terms.”*

*“**Raise awareness** of the issues relevant to materials - human health, social supply chain, environmental. Communicate risks of **NOT** addressing these issues.”*

*“**Personalize the message** as relates to such as analogy of nutrition, impacts on children, choices for a spectrum of products small to large, at home, at work, for clients - specific use-types such as for healthcare, schools, multi-family, offices, what is basis for all of them to address these issues.”*

*“People are unaware of the environmental and human health hazards of building materials and toxic chemicals. People need to understand how to **incorporate this work into their practice** through the use of the best available tools, consolidated data and repeatable workflows.”*

# Charette



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2017

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# Charette Outcomes

## Core Competencies Identified in Charette:

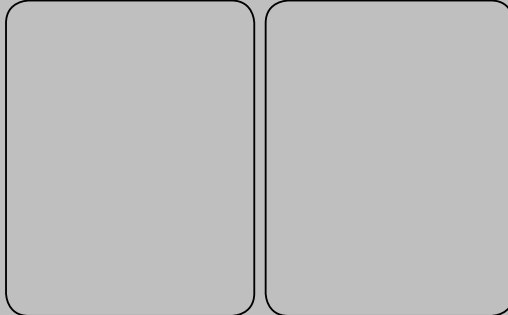
- 101 Human Health
- 101 Environmental Health
- Decision-Making Frameworks
- Tools and Data Health
- Tools and Data Environment
- Risk and Liability
- Practice and Integration
- Implementation in practice

## Instructional Delivery Methods for Professional Education

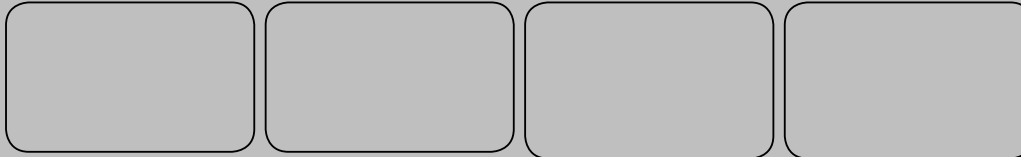
- Lectures
- Panel Discussions
- Interactive Workshops
- Participatory Activities
- Case Studies
- Charettes
- Symposia
- Testing/Feedback

# Format for In-Person Delivery

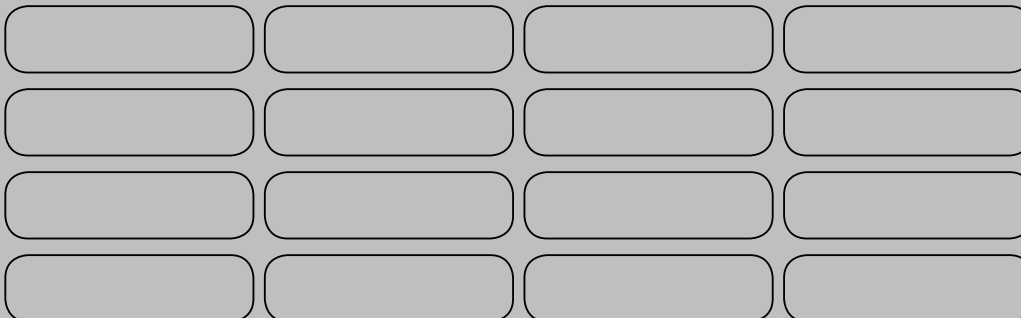
8 hour sessions x 2 instances (symposium)



4 hour sessions x 4 instances (workshop format)



1 hour sessions x 16 instances (lecture series)



## Core Competencies

- 101 Human Health
- 101 Environmental Health
- Decision-Making Frameworks
- Tools and Data Health
- Tools and Data Environment
- Risk and Liability
- Practice and Integration
- Implementation in practice

## Instructional Delivery Methods

- Lectures
- Panel Discussions
- Interactive Workshops
- Participatory Activities
- Case Studies
- Charettes
- Symposia
- Testing/Feedback

# Pilot In-Person Curriculum Outline



Putting it Together  
(10)





# Example Excerpt from Delivery – Panel Discussion

- Representatives on Panel

Kim Parsley | IA Interior Architects

Edward Clark | ZGF Architects

Ian Hanna | Forest Stewardship Council

Tien Peng | NRMCA

Jacob Boyer | PROSOCO

Keith Lindemulder | Nucor Corporation

- Self Introduction of Panelist  
and Role within Materials  
Realm

- FSC Video

- Questions for Panelists (ex.)

1. What avenues are you or your organization taking to implement healthier, more environmentally friendly materials in your practice, and what are tangible steps that you took to get there. (from moderator)
2. As a manufacturer, what are the biggest obstacles you face when it comes to transparency, and how do you maintain a competitive advantage with full disclosure
3. “one simple action can have a profound impact.” What is one simple action that you would recommend to those that are just starting this journey?

# Lessons Learned with Speaker Selection and Recruitment

- Be creative with local resources – see who is in your community that can speak to specific topic areas
- Form a working group of interested professionals that help guide speaker recruitment (or become speakers)
- Reach out to pilot speaker network and use AIA National to help recruit speakers
- Leverage emergent programs, for example BuildingGreen, ILFI, and others
- Look outside the traditional constituency of AIA to other professionals such as:
  - Scientists
  - Public Health Leaders
  - Environmental Non-Profits
  - Regulatory Agencies
  - Specification Writers
  - Manufacturers
- Fill in gaps with future online modules
- Challenge: lack of maturity in market of service providers that can provide content
- Challenge: lack of maturity in market for go-to how-to

A photograph of three hands of different ages (child, adult, and elderly) holding up three large white letters 'M M M' against a dark wood background. The hands are positioned behind the letters, with fingers gripping the bottom and sides. The elderly hand on the left has two gold rings on the ring and middle fingers.

**M M M**

**MATERIALS MATTER**  
**ONLINE CURRICULUM DEVELOPMENT**

# Online Curriculum Development – for AIAU

- Provide Supplemental Content to In-Person Sessions
- Five, 60 minute webinars
- Could provide pre-requisite information, summary information, or more-in depth content
- **The Big Idea – Introduction**  
{coming in April}
- **Materials Matter – Environmental Impacts**  
{coming in April}
- **Materials and Health– Understanding the Science**  
{coming in December}
- **Tools & Methods – for Health Considerations**  
{coming in December}
- **Tools & Methods – for Environmental Considerations**  
{coming in December}

# Testimonials

- “Love having all parties at the table in the panel discussions. Eye opening on the different perspectives.” (From Session 4)
- “Very good sessions and great to be around like minded people. Good to see the message of material health and transparency initiatives being pushed! These initiatives must be pushed from the field up to the manufacturers and we must support and recognize those early adopters!” (From Session 3)
- “Great organizational team, sessions had a good flow of technical data reinforced by the hands-on exercises.” (From Session 2)



# Materials Matter for Chapters

*Lisa Richmond*

AIA Seattle

an **AIA** leadership event

# Materials Matter: Tools for Chapters

Series synopsis

Curriculum and presenter resources

Marketing materials

Planning and budget

Support



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AIA

2030





**MATERIALS MATTER**

October 14

**HEALTHY PLANET**

Materials + the Environment



**MATERIALS MATTER**

November 4

**HEALTHY PEOPLE**

Materials Science + Human Health



**MM**

**MATERIALS MATTER**

December 2

## **TOOLS OF THE TRADE**

Assessment + Implementation



**MATERIALS MATTER**

January 13

**JUST DO IT**

Strategies for Projects



**MATERIALS MATTER**

February 3

# **BEYOND TRANSPARENCY**

Materials Disclosure + Practice

# Program Development

Process recommendations

Lessons learned



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# Continuing Education

Series overview

Learning objectives

CE forms



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## MATERIALS MATTER OVERVIEW + LEARNING OBJECTIVES

### **AIA Seattle Materials Matter Professional Series Overview + Learning Objectives**

Materials Matter is a five-session series delivering comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Sessions will delve into the impact of materials on the environment and human health, the tools and data available for assessing and prioritizing materials, and strategies for integrating informed decision-making into projects and practice. Speakers will reveal the perspectives of project team members and other partners connected with materials and share the learnings and approaches of successful projects. This series offers guidance on navigating the complex landscape of disclosures and transparency in order to assess and reduce the environmental and health impacts of products. Sessions will include presentations, panels, case studies, and activities. Participants will walk away from each session with action items for integrating the curriculum into their work.

#### **Session 1: Materials Matter - Healthy Planet: Materials + the Environment**

Session 1 Healthy Planet: Materials + the Environment kicks off the Materials Matter program with a candid overview of why materials matter for both environmental and human health. The session focuses on what impacts material substances can have on our environment and how we measure and track those impacts. It will introduce the primary methods used to assess the environmental impact of materials, including life-cycle assessment, and the tools available to help identify and prioritize healthy, sustainable materials.

4 LUs/HSWs

#### **Learning Objectives:**

Upon completion of this session, participants will be able to:

- Describe the context of healthy materials through understanding the role materials play in human and environmental health.
- Summarize the ethical and business cases for paying increased attention to materials in the built environment.
- Describe how material substances impact the environment, what are different categories of impacts, and how we measure and track them.
- Identify common methods used to assess the environmental impacts of materials and describe opportunities and limitations of the methods.
- Explain life-cycle assessment and tools which use LCA to determine materials environmental impact.



# Curriculum + Presenter Resources

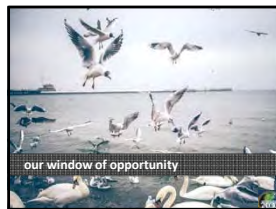
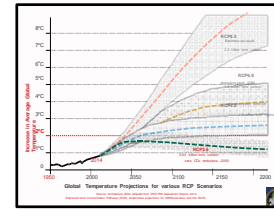
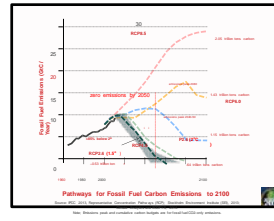
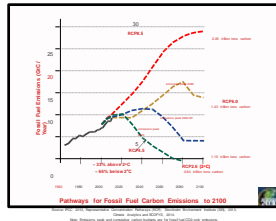
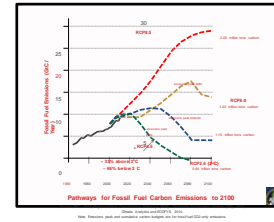
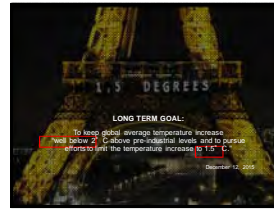
Detailed curriculum guide

Presentation guide

Sample presentations



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# Event planning

Event planning template

Speaker toolkit + agreement

Budget



an **AIA** leadership event

CHAPTER LOGO HERE

CHAPTER NAME

CHAPTER ADDRESS

PHONE

FAX

Dear Mr./Ms. XXXXXXX,

We are delighted to confirm your participation as a speaker for the Materials Matter Series. This is an exciting new program for CHAPTER NAME, and your involvement is critical to the success of our program. Thank you so much for joining us!

**PUBLICITY + PRESENTATION INFORMATION**

We wish to ensure that your participation is fully recognized and promoted in press releases and other event publicity distributed to AIA members and throughout our community through strategic partners, mainstream and alternative media.

*Thank you for providing us with the following items with the return of this agreement:*

- a 150 word bio
- a print quality color headshot photo for publicity use (minimum 3"x3" @ 300dpi)
- a completed and signed Speaker Agreement
- a completed and signed AIA/ CES Agreement Form

**FREE REGISTRATION**

The Material Matters Series is an event that we believe will attract approximately 90-100 experienced sustainability, design and related industry professionals practicing throughout our market and across the country. We hope you will be interested and able to join us throughout the event, and would like to extend the offer of free registration to facilitate your attendance.

**STAFF CONTACT**

NAME

TITLE

EMAIL

TELEPHONE

**KEY DATES**

- DATE - All initial speaker materials due.
- Week of DATE - Registration opens.
- Week of DATE - Prep call with all speakers to go over program, AV logistics, etc.
- DATE - Final PowerPoint due. (Speakers receive access to Dropbox folder on DATE).
- DATE - Materials Matter Session I

*Please complete, sign and return this contract to CHAPTER NAME no later than DATE.*

By signing this agreement, you agree to present on DATE and to actively participate as a speaker at Session I of the Materials Matter Series.

*CHAPTER NAME and the Speaker may alter these arrangements by advance agreement. Please contact CHAPTER NAME promptly with any questions or concerns, or to advise of any changes affecting participation.*

# Marketing Materials

Marketing plan + schedule

Creative brief template

Postcard + advertising assets

Social media samples

Web graphics

Presentation slides



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Component logo

Address  
here

## Materials Matter

### 5 Session Series

TIME | LOCATION  
20 CEHs | 20 HSWs

Materials Matter is a five-session series delivering comprehensive, high-level knowledge and strategies for assessing and selecting healthy, sustainable materials. Sessions will delve into the impact of materials on the environment and human health; the tools and data useful for assessing and prioritizing materials; and the strategies for integrating informed decision-making into projects and practice.

**DATE** Healthy Planet: Materials + the Environment

**DATE** Healthy People: Materials Science + Human Health

**DATE** Tools of the Trade: Assessment + Implementation

**DATE** Just Do It: Strategies for Projects

**DATE** Beyond Transparency: Materials Disclosure + Practice

Co-Presented with ...

**Register today!**

[webpage](#)

Thank you to our Materials Matter sponsors:

Sponsor Logos



**SAMPLE SOCIAL MEDIA POSTS**

**FACEBOOK**

**Session Post**

Stakeholder strategies brainstorming session at Materials Matter Session 4! [#materialsmatter2016](#) [#materialsmatter](#)



**Promotion Post**

Don't miss our Materials Matter series—a 5-session in-depth investigation into healthy, sustainable building materials! Session 1, Healthy Planet: Materials + the Environment, kicks off the series October 14. Register today!



# Support

AIA

Regional partners

AIA Seattle

UW IDL



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# Chapter responsibilities

Planning task force

Speaker selection + coaching

Logistics

Sharing



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# What Next?



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