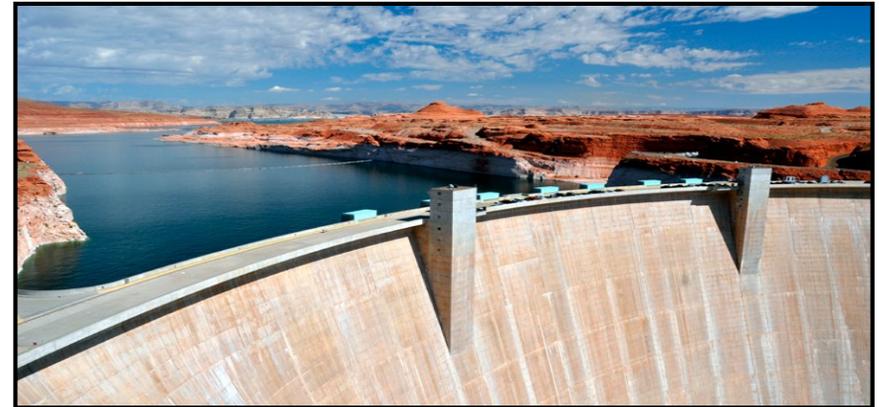


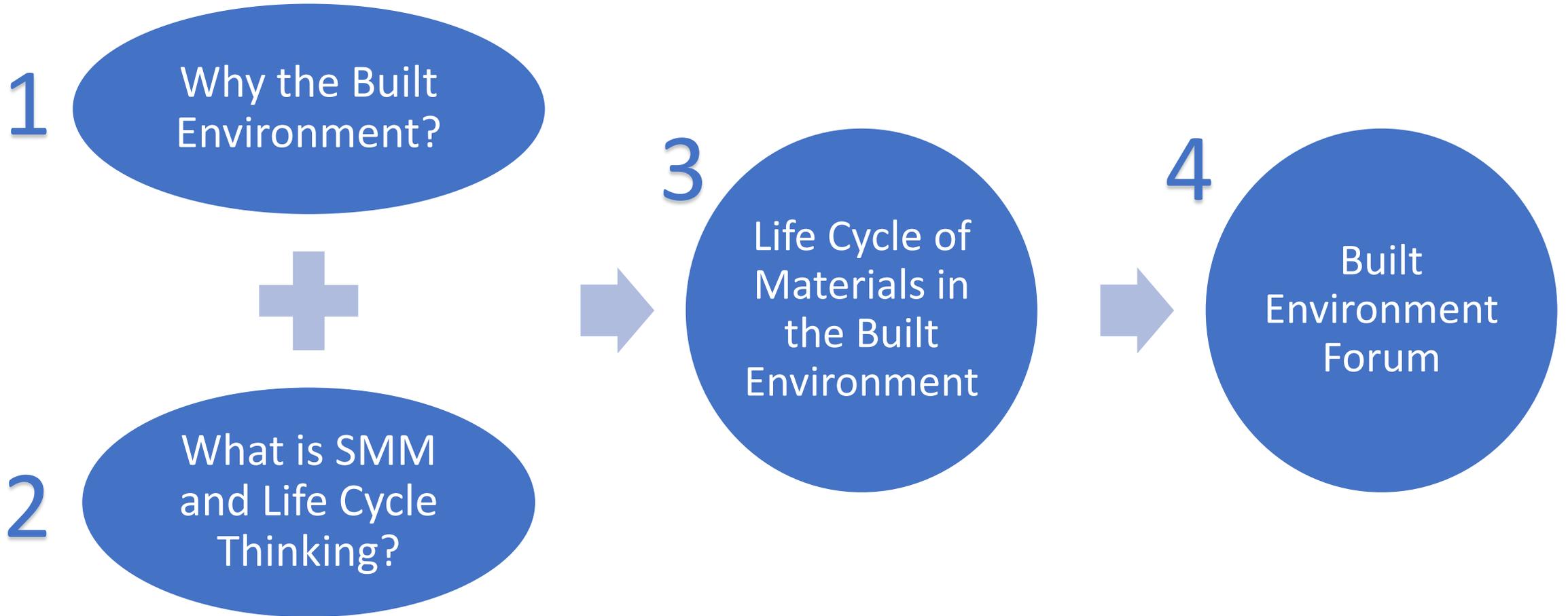


Sustainability in the Built Environment: Why Materials Matter



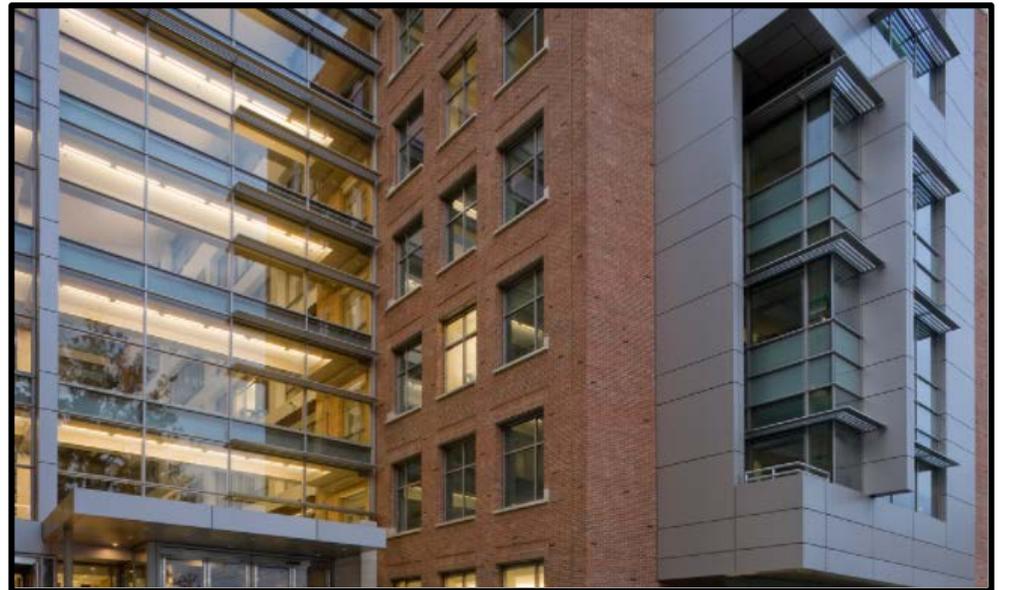
August 23, 2018

Presentation Overview



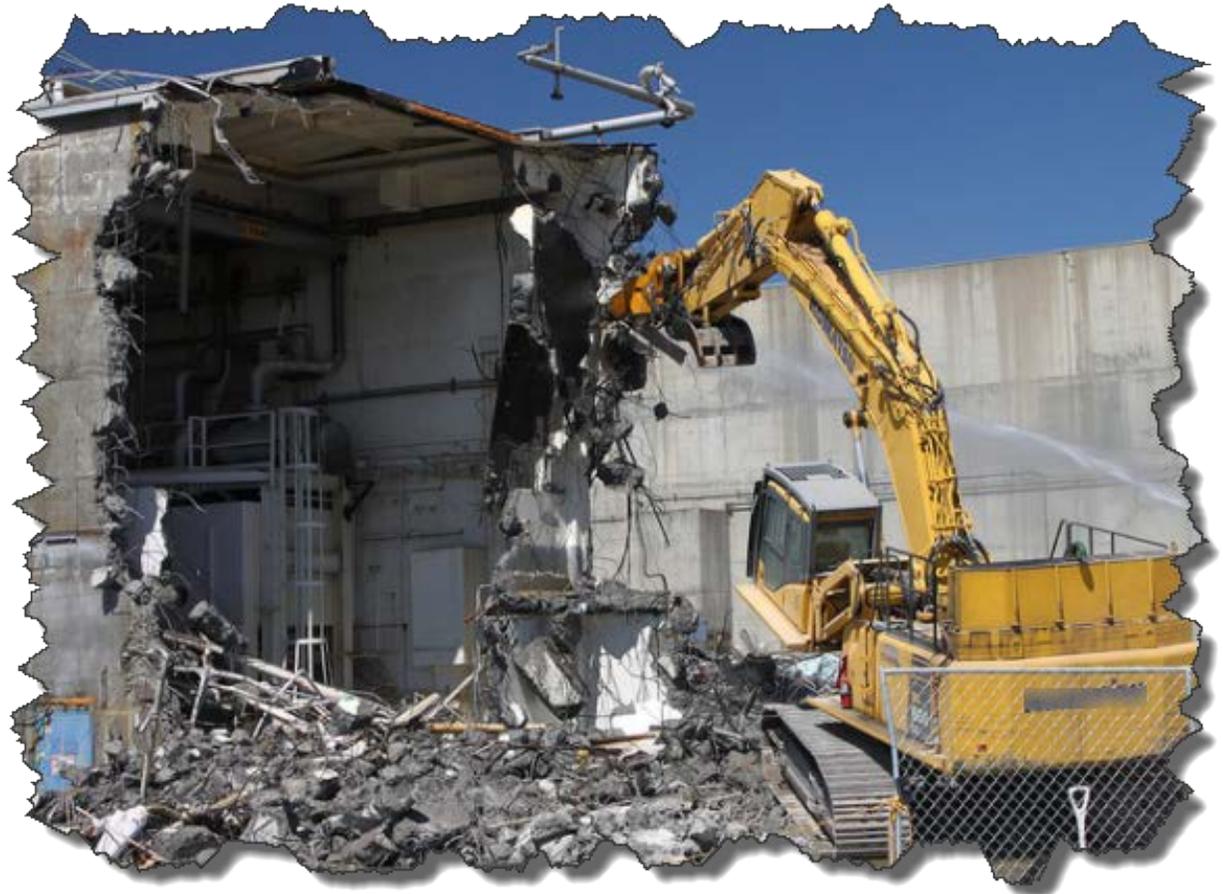


The Built Environment



Why Focus on the Sustainable Management of Materials in the Built Environment?

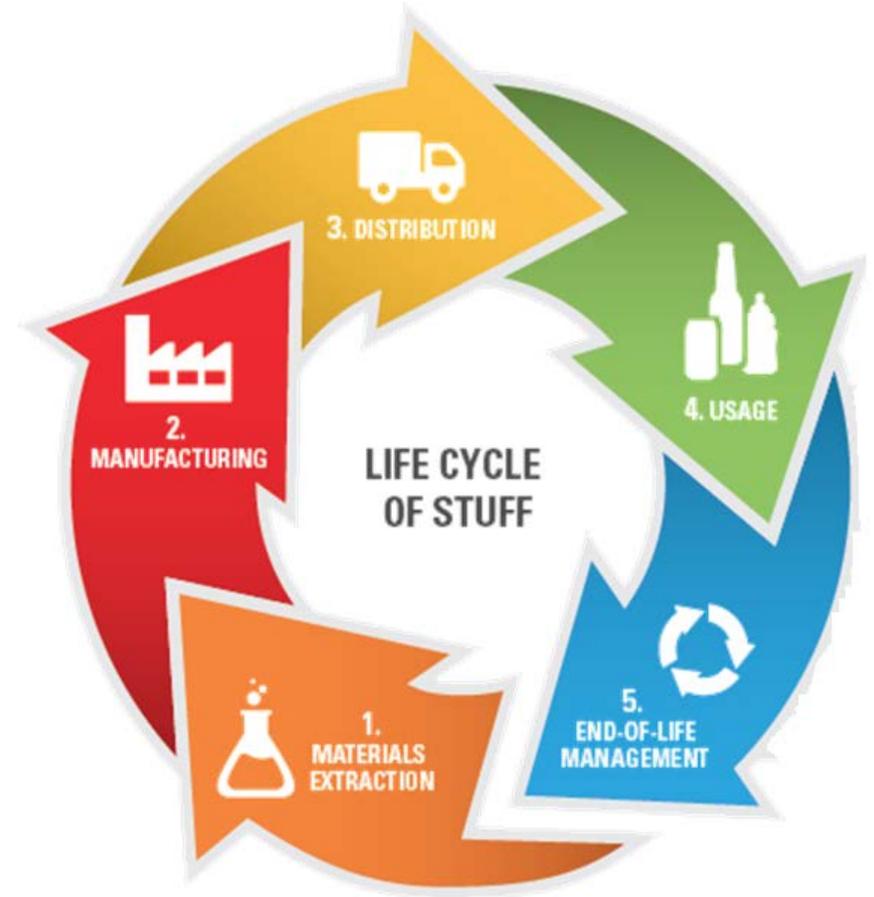
- Materials are being depleted at an increasing rate.
- There is an increase in materials demand.
- A significant amount of industrial materials are generated in the US each year.
- Responsibility for our future society.

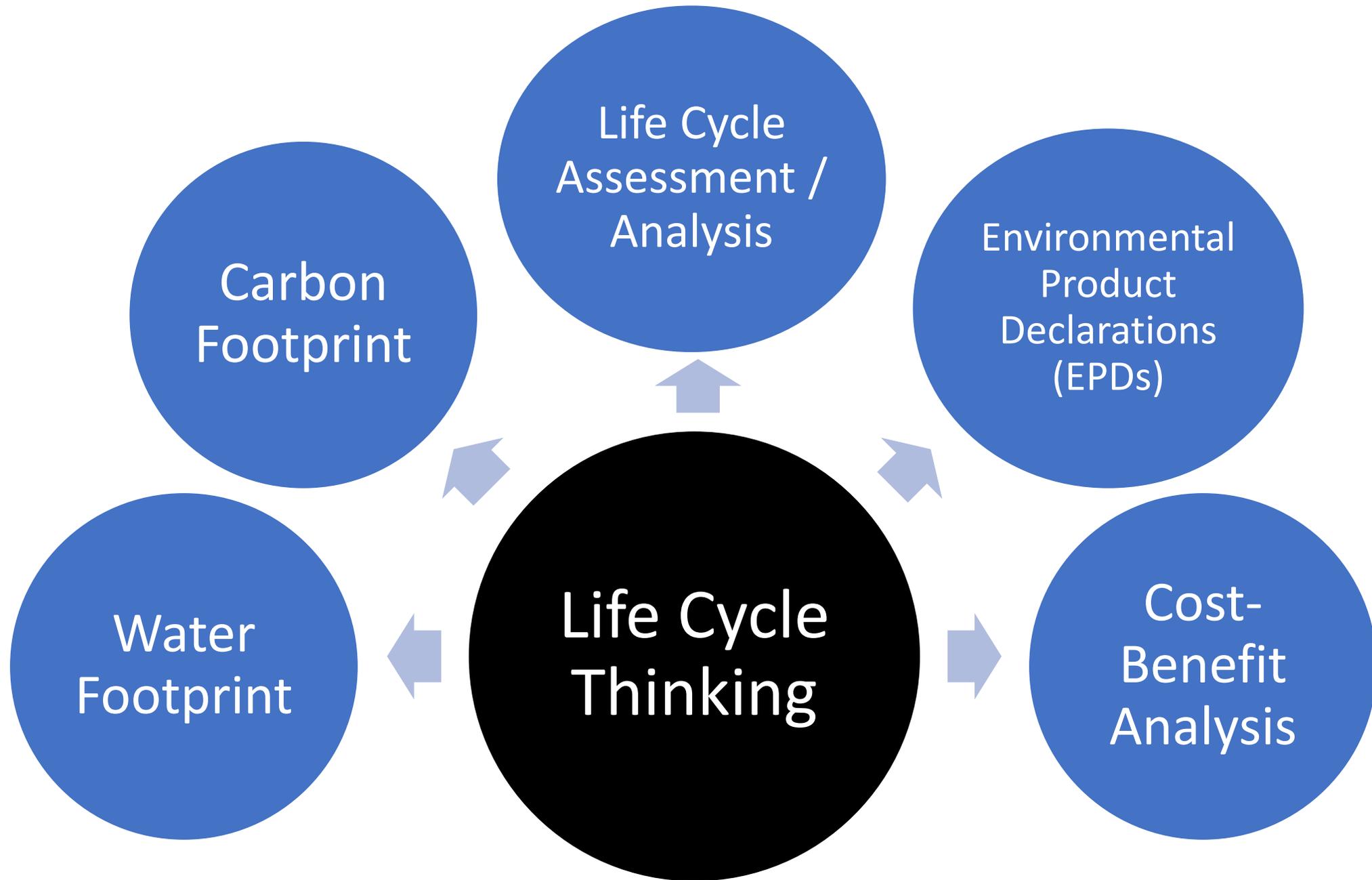


What is Sustainable Materials Management?

“An approach to serving human needs by using/reusing resources productively and sustainably throughout their life cycles, generally minimizing the amount of materials involved and all associated environmental impacts.”

*Sustainable Materials Management:
The Road Ahead, EPA (2009)*





Advantages of Life-Cycle Thinking

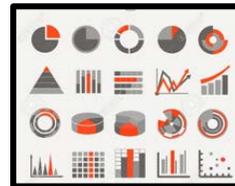
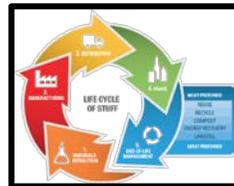
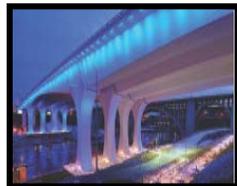
- Life-cycle information offers greater “return on investment.”
- Prioritizing and strategic planning.
- Challenging preconceived ideas about where and how agencies should target their efforts and policy approaches to mitigate environmental issues.
- Avoiding unintended consequences.
- Identifying key partners and stakeholders.



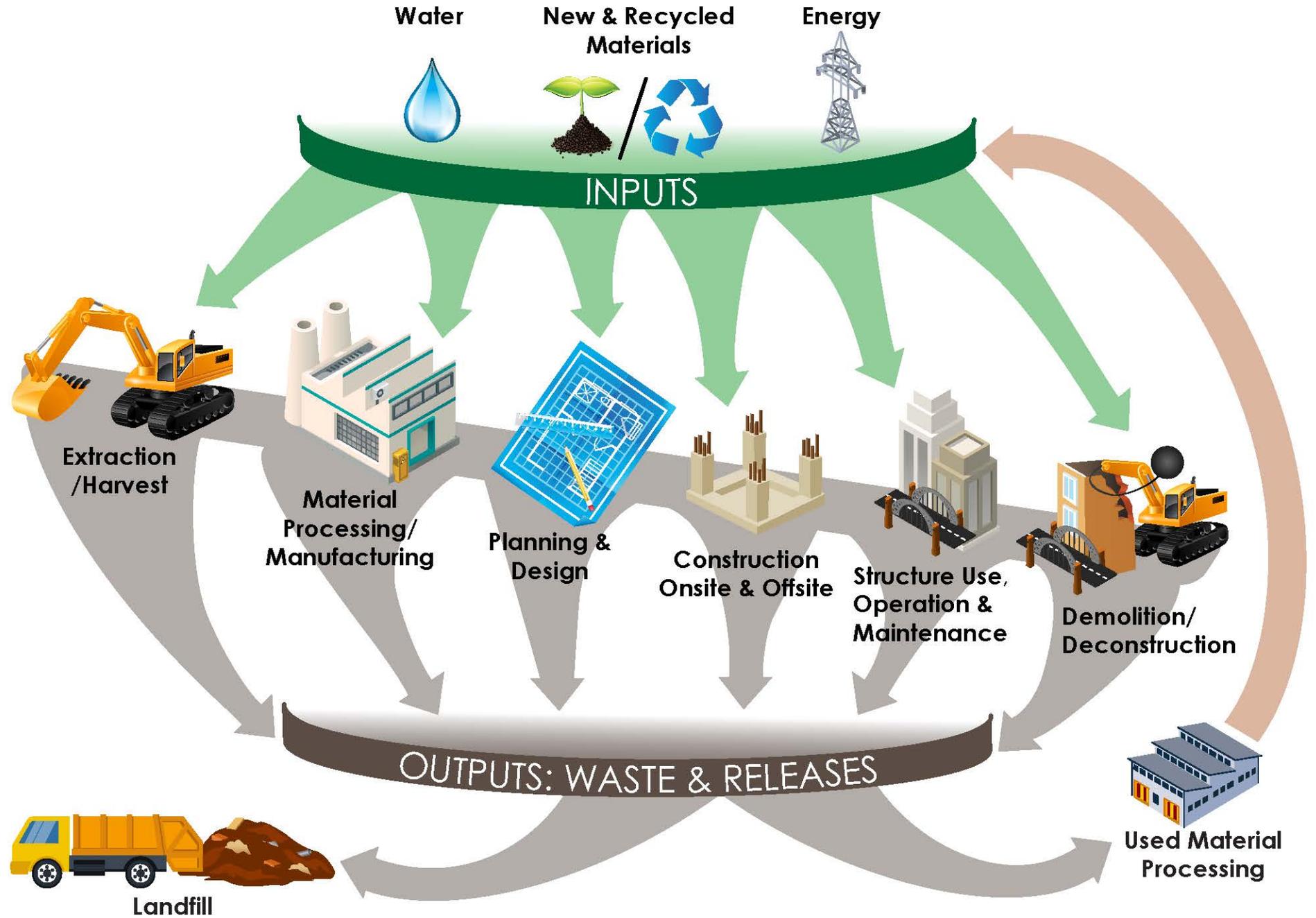
EPA's SMM Program

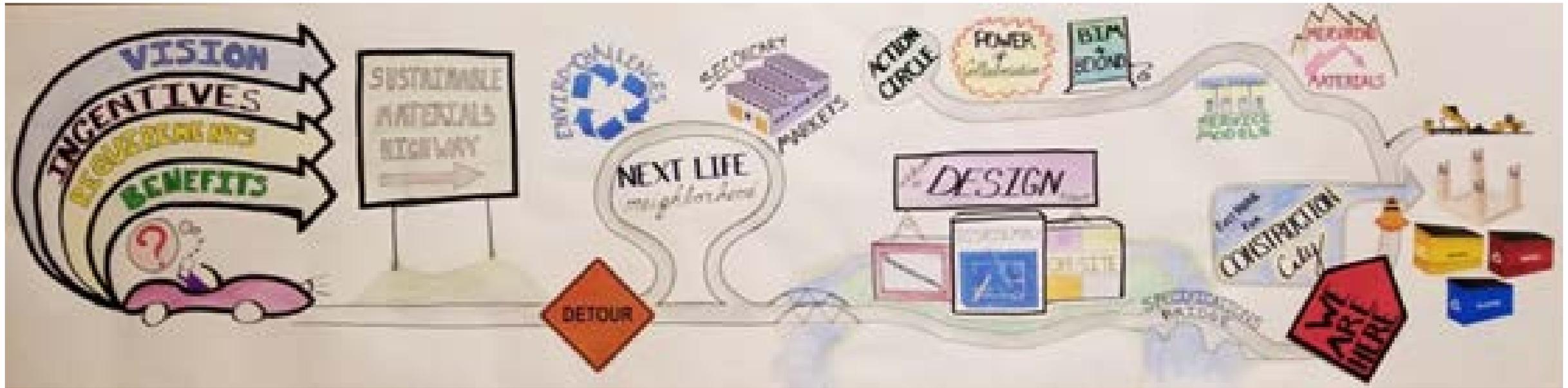


- Built Environment (buildings, roads, bridges, infrastructure)
- Sustainable Management of Food
- Sustainable Packaging
- Sustainable Electronics Management
- Life Cycle Thinking
- Measurement
- International Efforts



LIFE CYCLE OF MATERIALS IN THE BUILT ENVIRONMENT





Forum on Life Cycle Approaches to Sustainably Manage Materials in Building and Infrastructure Projects

Forum Outcomes

- Participants expressed how valuable it was to engage with groups they do not typically work with
- Conversations highlighted a critical need for data about materials and management tools to support decision making
- Participants emphasized the importance of understanding what is in materials so people can balance risk and reuse decisions



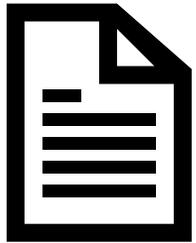
Key Forum Themes



Collaboration & Partnerships



Innovation & Research



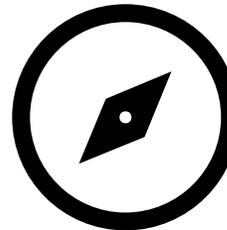
Life-Cycle Data & Tools



Telling a Better Story



Enhancing Secondary Materials Markets



Shifting Paradigms

Potential Actions



Collaboration & Partnerships: Host a similar forum in the future and work with others to ensure dialogue continues



Innovation & Research: Demonstration projects as a proof-of-concept to



Life-Cycle Data & Tools: Develop guidance on how to use EPDs, PCRs, HPDs, and LCAs



Tell a Better Story: Help make a better economic case for sustainable materials approaches; gather and disseminate success stories & best practices



Enhancing Secondary Materials Markets: Develop a risk assessment framework for recycled building products to inform reuse decisions



Shifting Paradigms: Reduce quantity of materials needed upfront



Next Steps

- Forum Summary Document Now Available on EPA's web site
 - <https://www.epa.gov/smm/summary-report-forum-life-cycle-approaches-sustainably-manage-materials-building-and>
- Engaging stakeholders around resiliency efforts
- Exploring options for a clearing house of Built Environment Resources
- Conducting outreach for using the Beneficial Use Methodology for C&D materials reuse
- Planning future Built Environment-focused SMM Webinars

Thank you!

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