

Criteria for Inclusion and Designation of a Technology/Issue as an SDC TMC Industry Critical Technology

There are many new/improved/innovative technologies, as well as, resolution of issues/problems confronting the concrete industry which, if resolved and accepted in an accelerated manner, can provide significant benefits to the concrete industry, owner and society. The following criteria shall be considered in evaluating a technology/issue for inclusion as a Strategic Development Council (SDC)/Technology Management Committee (TMC) Industry Critical Technology.

The TMC recommends a technology/issue to the SDC Board of Directors for designation as an Industry Critical Technology. The following criteria must be addressed by the initiator, reviewed by TMC, and submitted to the Board. Additional information on each criteria is provided in the pages that follow.

a. Technology/Issue Impact on the Concrete Industry

- Define the technology/issue clearly so that it is concise in scope and of a feasible magnitude so that the concrete industry can assemble and focus resources to realistically implement it.

b. Financial Impact

- A significant factor in rating/ranking the importance of a technology/issue to the concrete industry is its economic impact to the industry.

c. Challenges to Success

- **Collaboration Requirements:** Development, resolution, or acceptance of a technology/issue may be significantly dependent on cooperation with another institute, association, specifier group, standards developing organization or industry.
- **Champion Requirements:** The probability of success to move a technology/issue from an idea to acceptance and adoption are significantly dependent on the dedication of a Champion to the effort.
- **Research Requirements:** Research may be required to accurately assess the scope of implementing a new technology/innovation or may be required to show code compliance. Assessment shall be made to determine if current specifications/test methods are applicable.

d. Breadth of Industry & SDC Membership Effect

- Technologies/Issues which affect a larger and broader base can rally support and resources from many sources.

e. Immediacy/Urgency

- Technologies/issues which promise more immediate return are ranked higher.

f. Sustainability Factor

- Consideration is given to technologies that mitigate an existing environmental problem or promote sustainability of a building/installation.

g. Value Proposition

- The technology that can address a market need is better positioned for success than a technology searching for a “need”.

Additional Information:

Technology/Issue Impact on the Concrete Industry

- Does the technology/issue enhance or support the competitiveness of the concrete industry?
- Describe any issues or problems that the technology is designed to address.
- What are the advantages of the new technology over existing technology?
- Provide any information on the new technology to support adoption by concrete industry (i.e. technical papers, publications, field demonstrations, etc.)
- Is the resulting product/installation more desirable from the point of view of material usage and speed of construction?
- Provide narrative of how the technology/issue resolution contributes to the growth or defense of the concrete industry.
- Describe how the efficiency or safety of the industry is improved with the new technology?

Financial Impact

- Provide a rational description and estimated financial impact statement. Be sure to include all benefits and all added costs. In many cases a technical change will affect life cycle costs; be sure to consider these.
- Provide an estimated return on investment (ROI).

Challenges for Success

- Collaboration requirements: Identify all significant stakeholders and the specific means of generating collaboration with such groups.
- Champion requirements: Identify a Champion for the technology/issue and provide a statement of commitment with biographical information (*2-page maximum*).
- Research requirements: Define the financial amount and duration of time for any required research. Is front-end research needed in order to accurately assess the true scope of the proposed technology/issue? Identify more than one provider or resource for all research or testing. Do specifications and test methods exist that apply to the new technology/innovation, or are modifications or test method development required?

Breadth of Industry & SDC Membership Effect

- Demonstrate the breadth of impact of the technology/issue – does it affect a segment of the concrete industry, the whole concrete industry, or entities beyond the concrete industry including owners, manufacturers, alternate material suppliers?
- What codes, standards or other design resources are impacted by this new technology?

Immediacy/Urgency

- Describe the risk, liability, and lost opportunity costs in delayed technology acceptance/issue resolution.

Sustainability Factor

- Describe how the technology/issue would mitigate an existing environmental problem or promote sustainability of a building/installation.

- Identify both positive and negative impacts to the environment.
- Identify the life cycle cost savings.

Value Proposition

- Does the resulting product/installation affected by the technology/issues meet/enhance the needs and requirements of owners/users?
- Is the functionality of the product/installation improved, relative to the cost of implementing/using the technology/resolving the issue?
- Which groups and/or individuals will benefit the most from this technology?
- Define the value added benefit or cost savings.

Other

- Describe other qualitative characteristics of the technology/issue that are of immediate and significant importance to members of the concrete industry, the overall construction industry, and to the owner/user.