Promotion of Re-Use and Recycling in Asphalt Road Construction

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How to promote re-use and recycling?

- Provide politicians and social activists with clear information regarding:
  - Types and quantities of usable waste/ by-products.
    - Usable: Can add value in road construction
  - Quantify the short and long terms "costs" of landfills for these usable waste.
  - Create a system of profit (gain) incentives for using usable waste.
  - Create a price structure for processed waste.
    - Price can be subsidized by tax dollars.
  - Give business incentives for industry specialized in processing usable waste for road applications.
    - Encourage trade associations for such waste processors.

How to secure funding (government and private)?

- Government / DOT
  - Lobby legislators and Road authorities to "demand" using a certain amount of usable waste. Also allocate part of research funding to waste products.
  - Coordinate with road construction industry and provide methods for reducing risk of liability.
- Private
  - Salvage value and re-usability should be part of design of products.
  - Define markets for usable by-products
  - Allocate funding to market by-products with or without processing (post-production).

How and in what cases seek alliances with whom?

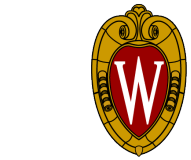
- There are at least four parties involved in use of waste in construction:
  - Owners / Designers
  - Producers of waste and processed waste
  - Builders
  - Environmental regulators
- Alliance is required among all but in particular:
  - Designers and producers, to integrate product in design.
  - Owners and Environmental regulators, to resolve liability issues
  - Builders and Producers, to learn how to use and analyze cost
  - Environmental regulators and builders, to control environmental impact and

Role of international forums and organizations

- Develop criteria for qualifying usable waste for construction.
- Best places / components to use waste (functionality) to reduce risk of failures.
- Validate the applicability of virgin materials tests to recycled materials.
- Develop guidelines for recycling or reuse for each type/class of waste.
- Encourage research and publication to support criteria and guidelines.

Research Needs

- Best methods for recovery and processing of waste.
- How many cycles of recycling can a material go through before it becomes un-usable.
- Develop prediction models of salvage value of virgin materials.
- Develop risk assessment tools for estimating risk to short and long term performance.



Thank you for the opportunity

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