

Working group 3 - Adaptation and application

Overall Objective: **gather knowledge about preferences within industry stake-holders and end-users, and tools used in assessing environmental performances**

Specific Objectives:

- Life cycle methodologies for bio-based products in service,
- Guidance in creation of Environmental Product Declarations and CE markings,
- Review environmental effects from material and volatile release,
- Preparation of documentation as information tools,
- Increase opportunities for bio-based building materials.

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Further objective:

Considerably contribute to the European Commission's ambitious CO₂ emissions reductions goal (80% by 2020, Roadmap 2050)

Contributing to low carbon economy, which aims to mitigate climate change and promote sustainable development in Europe, by reducing energy consumption, pollution and emissions while increasing performance.



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Results:

New materials entering the market place

- sufficient scientific proof to their fitness for purpose,
- information delivered to:
 - stake-holders in the building sectors
 - experts and consumers



www.qsarticle.com



venitism.blogspot.com

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Results:

- **Sustainable products and buildings**
 - Life Cycle Costing (LCC),
 - Life Cycle Assessment (LCA), and
 - Social Life Cycle Assessment (SLCA)
 - Green building rating systems
- **Environmental Products Declarations (EPDs)**
- **Product Category Rules (PCRs)**
- **Health improvement from the use of a material**



www.dynamysk.com



www.branz.co.nz

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How to reach stake-holders, experts, consumers?

- Industry
- Architects
- Civil Engineers
- Users
- Decision makers
- ...



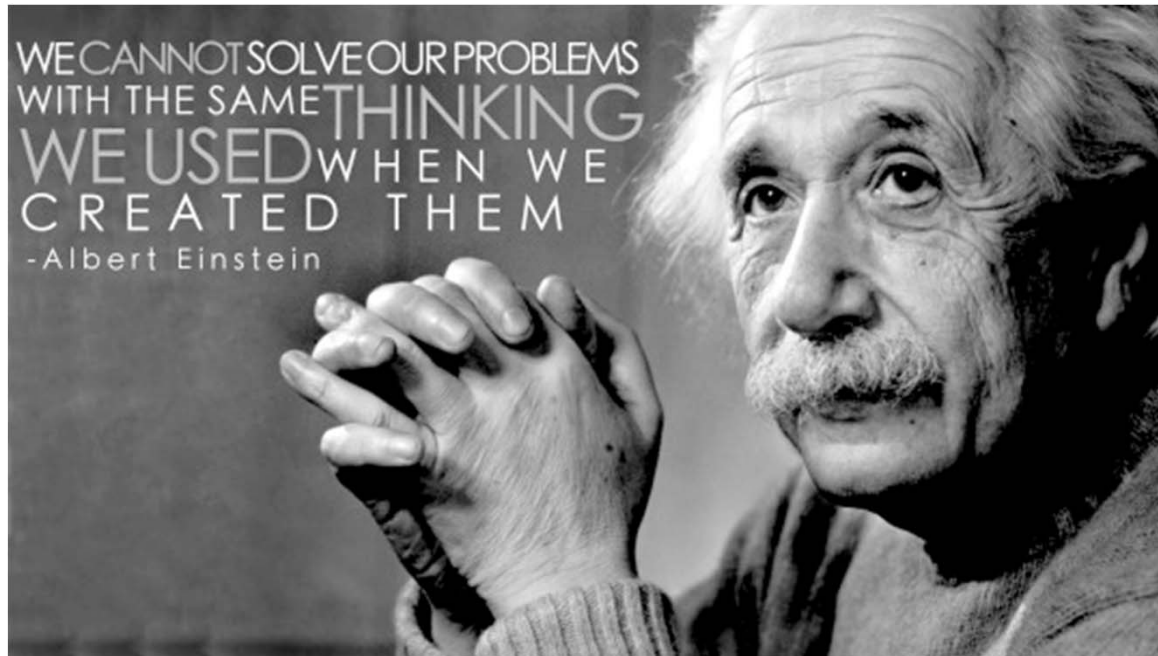
www.adweek.com



www.nonformality.org

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Co-creation - allows for a conglomeration of diverse perspectives



<http://veepey.wordpress.com/2013/11/07/the-consumer-is-king-a-story-about-co-creation-featuring-albert-einstein/>

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Links to Green Building Council (GBC), Chambers of Commerce, Municipalities, Decision Makers,...

How to attract them?

Market and consumer demands

Green Public Procurements

Tools to be used: web page / workshops / living lab

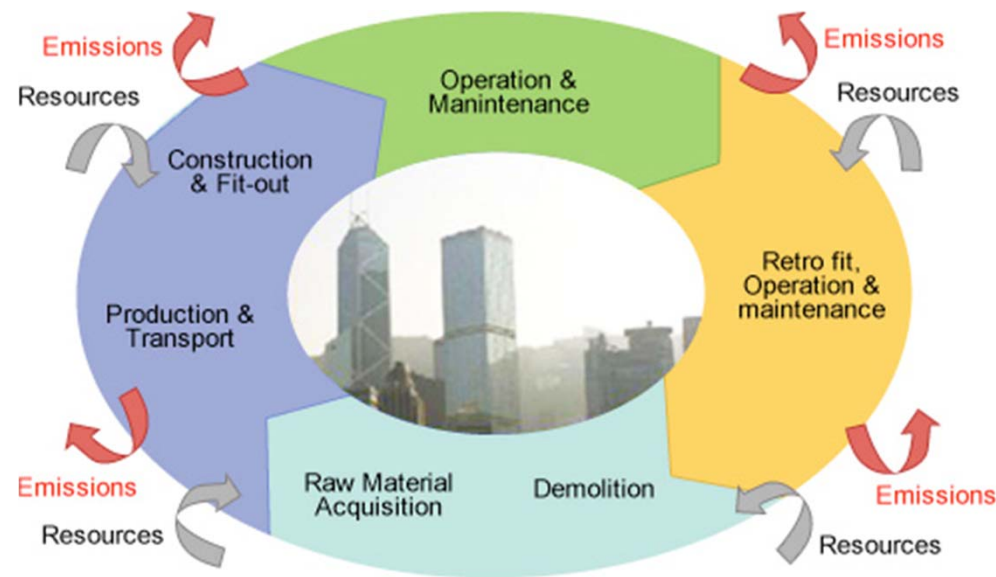


<http://www.developmentprocurement.com>

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Interacting with WP1 and WP2:

- Life Cycle Costing (LCC),
- Life Cycle Assessment (LCA), and
- Social Life Cycle Assessment (SLCA)
- End of life cycle: reuse / recycle / up grating / cradle to cradle

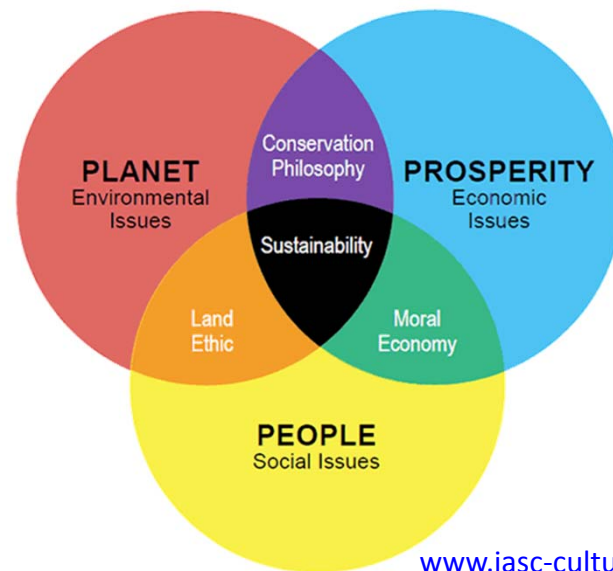


www.energyland.emsd.gov.hk

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Sustainability - we should strive for the following important things:

- 1. Minimize consumption of matter and energy**
- 2. Reusability and recyclability of the material**
- 3. Human satisfaction**
- 4. Minimum environmental impacts and embodied energy**



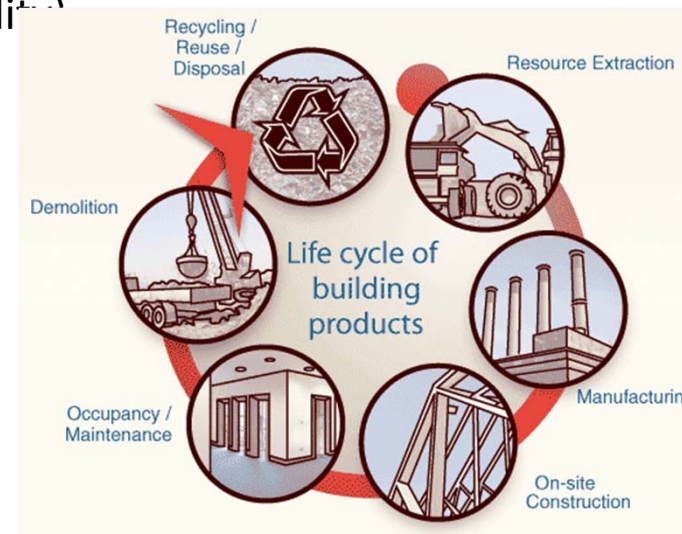
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Material “greenness” – evaluated on:

Raw-Material Phase (resource limitation, resource extraction, transportation);

Manufacturing Level (waste reduction, pollution prevention, recycled content, embodied energy reduction, use of natural materials); **Operation level** (reduction in construction waste, energy efficiency, longer life/ durability, occupant health, water treatment/conservation, use of non-toxic or less-toxic materials, renewable energy systems);

Disposal (reusability, recyclability, biodegradability)



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Green building rating systems

- Buildings Research Establishment Environmental Assessment Methodology (BREEAM) (UK)
- HQE (France),
- Green Star (Australia),
- DGNB (Germany), etc
- Leadership in Energy and Environmental Design (LEED) (USA)



www.armstrong-atelier.eu

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First joint activity:

Green Public Procurements (GPP) per Member States

Questioner about GPP in in construction sector aiming to deliver a review and comparison among Member States



www.smart-spp.eu

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<http://www.worldgbc.org/infohub/green-building-means/>