

KEY DESIGN PROPERTIES
FOR ECO-DESIGN
Schmidt-Bleek

MANUFACTURING

- * material intensity (materials, processes)
- * energy intensity (materials, processes)
- * renewable resource inputs
- * useful material outputs
- * waste intensity
- * refusal rate
- * transport intensity
- * packaging intensity
- hazardous materials

USE, CONSUMPTION

- * material throughput
- * energy input
- * weight
- * self control, self optimization
- * multi-functionality
- * potential for subsequent (different) uses
- * potential for joint (e.g. several families) uses
- size
- area coverage
- dispersive hazardous material outputs

* *longevity*

- * *availability of spare parts for extended time period*
- * *surface properties*
- * *anti-corrosivity*
- * *repairability, exchangeability of parts*
- * *structure and ease to dis-assemble*
- * *robustness, reliability*
- * *likelihood of material fatigue*
- * *adaptability to technical progress*

AFTER FIRST USE

- * *low MIPS collecting and sorting potentials*
- * *re-usability*
- * *usability for different purposes*
- * *re-manufacturing potential for same use*
- * *material composition and complexity (ease of re-cycling for chemical/metallurgical reasons)*
- * *re-cycling potential of parts and materials for same or*

other uses

DISPOSAL

- * combustion potential (usable energy outputs)
- potential for composting
- impacts on environment after disposal

* = Considered by MIPS