



Urban Strategies and Product Design Improvements

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Design Improvements-Prof. Dr.
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Introduction

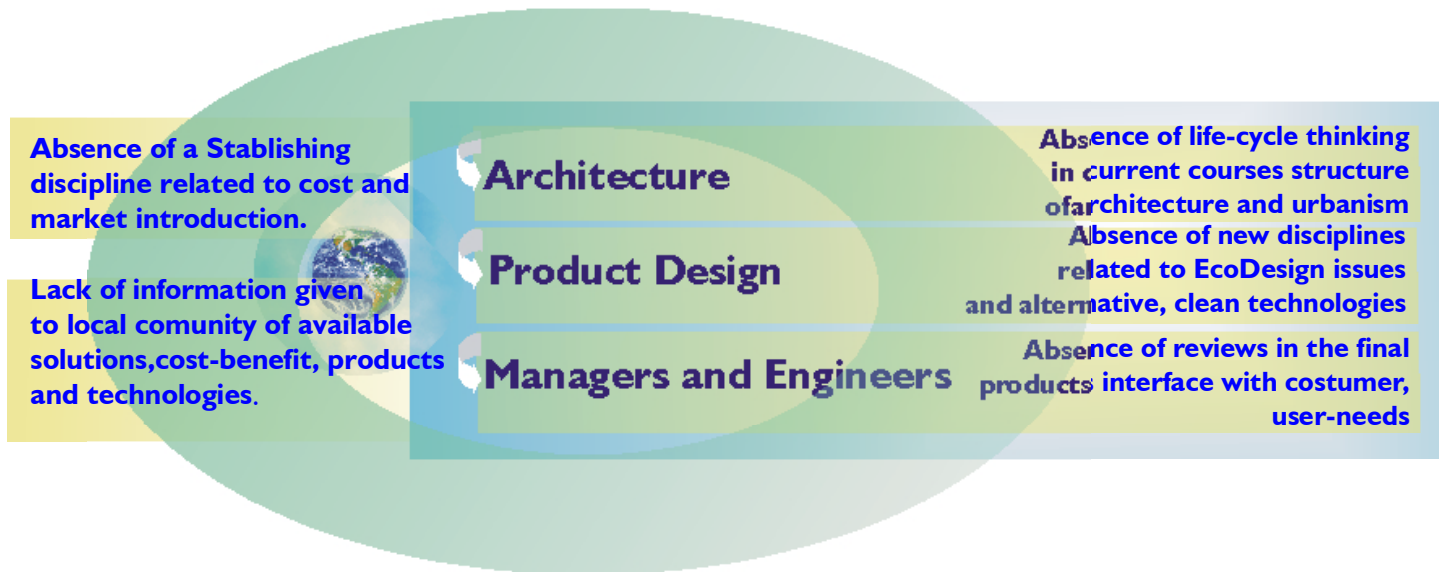
- The present work deals with the need of **bringing environmental issues into communities in a very straight relation.**
- That means, among other implications, **the maintenance of an environmental culture** reflected on product design, services, engineering, as well as architecture typologies and urban patterns.



Preliminary Considerations

- **The initial hypothesis deals with the fact that:**
- ***In EcoDesign philosophy, the areas of product design, architecture and urbanism have the need to be totally integrated;***
- ***To strategic be implemented, each must play its role;***
- ***The culture of creating transdisciplinary workteams between managers, designers and architects, however, has not been of an expressive nature in Brazil***

Scheme of Demands for a Closer Interaction





Why Start and How to Implement a Pilot Project

- Urban planners and Architects/ environmental responsibilities on projects
- Correlation with green architecture,
- making use of environmentally-oriented product Design (DFE).
- Material efficient design;
- Energy efficient;
- Low pollution design

Instigate Local Community to a Sustainable Culture

- *More than 80% of all product-related costs and environmental impacts are originated by the very conception, during the product-planning phase.*
- *Urgent need to transdisciplinary courses*



Sustainable Interventions

Strategic Sustainable Interventions in

1 Design 3

Re-Design

A reference product made by the company itself or by competitor serves as a starting point for developing improvements by ecodesign.

The product serves an existing market segment.

2 Eco-Innovation

A new market segment or new aspects of a known customer need shall be addressed through a new product.

New technologies available from Research and will still be integrated in a new product.

New Concept

Working from a specific customer or user need. A new solution in order to satisfy an upgrade of environmentally friendly products.



All mentioned Opportunities will be implemented once we investigate

- *What are user needs ?*
- *Determine how product-related; environmental consideration influence buying behavior;*
- *Explore the competitive situation;*
- *Work with realist scenenarios and initial support and facilities.*

Helpfull Tools

Eco Checklists



ABC analysis

Eco- Estimator

Eco-Design Checklist

Philips Fast Five-Checklist

Recycling Checklist According
to European Council

Checklist for Recyclable fittings
and joint engineering

Links with Urban Strategies

- *A group of selected aspects shall orient the introduction of Ecodesign in Cities.*



Product Design & Urban Strategies

**The city Empowerment:
People, culture and livable
cities;
The innovative and
the committent;
The Mandatory Urban
Patterns.**



Interfaces to implement EcoDesign Workteams

- *City Empowerment, people, culture, and health:*
- *Aspects by which community will get involved and adopt a pro-active posture;*
- *Gradual, low scale interventions with Green-architectural contributions;*
- *Local participation on EcoDesign Proposals.*



The innovative and Commitment

- ***The way innovative, clean technologies will locally be explored***, according to local culture and possibilities;
- ***Tools like checklists*** are welcome and suggested in this phase;
- ***Local Synergy*** and City sense of pride are explored;
- ***Local change*** in cultural habits to increase the demand of ***EcoDesign based solutions***.



Mandatory Urban Patterns are Suggested

- *To be available does not mean to be effectively implemented, clean solutions will only represent an option if some mandatory patterns are implemented;*
- *Extra support must be given in the beginning of implementation of EcoDesign, sustainable options in order to compete with traditional patterns;*
- *Changes in transportation solutions, architectural typologies and urban design (urban plans, land use code, etc) have to be clearly emphasized in investments of EcoDesign based solutions.*



Final Considerations

- *The responsibility and possibilities of interventions by Urban Plans represent a great potential to the implementation EcoDesign based solutions;*
- *In Brazil, if not supported by policies, EcoDesign Philosophy will not be implemented because of established old patterns and reactive postures;*
- *The starting point is to act locally with the introduction of sustainable culture to community;*
- *The promotion of transdisciplinary workteams and undergraduate courses related to EcoDesign will give support to the implementation .*