**Twelve Recommendations to implement EcoDesign in Businesses**

Ab Stevels

**Vision, strategy, roadmap**

1) EcoDesign should be considered as an **opportunity to add value** to products and services. In all four functionaluty domains ( physical functionality, economic functionality, intangibles ( health and safety, ease of use, fun, .....) and emotional functionality (sense of quality, feel good, ...) there is potential to add such value.

*Reason: Doing EcoDesign out of 'selfinterest' works better than being forced to do so by external drivers.*

*Remark: 'Eco' should therefore be included in the companies vision, in the strategy and in the roadmaps.*

**Nature of Applied EcoDesign**

2) Applied EcoDesign is in its initial phase **a radical approach** with exclusive focus on 'environmental issues'. Balancing with other business issues is in a later stage only.

*Reason: Practice has shown that a design strategy which has farreaching ambitions brings more than an incremental one, provided that the design team is prepared at a certain moment to accept a 'partial radical result'*.

Remark: In the balancing process needed to go 'back to reality' the non-eco business factors are a boundary condition only.

3) Applied EcoDesign has **six 'focal area's:**

\*Energy

\*Material Application

\*Chemical content

\*Production

\*Packaging and Transport

\*End of Life/discarding by first owner

*Reason: This organization is linking up the best with the organization of companies. Design teams will have to mobilize expertise from the organization get the best results. Organizational issues should not hamper this.*

*Remark: The Life Cycle principle is the link between the focal area's. This could lead to mutual contradictions in an action agenda to be formulated. However, in practice this occurs pretty seldom.*

*Nevertheless a life cycle check of the action agenda is recommended.*

4) EcoDesign issues have three dimensions and all of them have to be addressed in Applied EcoDesign.

\*Emissions: this is the dimension in which most of the 'scientific green' focuses on.

\*Resources: this a domain mostly addressed by governments ( not necessarily on a scientific basis, 'government green')

*\*(Potential) Toxicity: this playing an important role in the public domain. The approach is primarily emotional ( green opinions).*

*Reason: Emotions and non-science based policies/legislation are a societal reality, cannot be denied and therefore have to be addressed. ' Education of dummies' as regrads this issue has turned out to be ineffective, particularly when this is done by companies.*

*Remark: resource aspects and (potential) toxicity are generally underrated in attention.*

**Ecocreativity**

5) Ecocreativity will flourish if it is developed on **basis of facts** about:

-the company environmental strategy and roadmaps

-environmental characteristics of previous product generations

-competitors behaviour

-customer characteristics

*Reason: If you know where you stand it will be easier to find out where you want to go.*

*Remark: Collecting and bringing together relevant facts already stimulates creativity. Transferring these facts to design teams has an even stronger effect ( 'I never realized that'...)*

6) The first step in EcoDesign brainstorms is about **generating idea's only** ( talk about money and feasibility is abolutely forbidden).

*Reason: People should be set free from all other day to day worries.*

*Remark: In a later stage there is the step of' going back to reality' but reality stays a boundary condition and is not trade off ( keep focus on environment). Experience is that for 75% of the 'environment only' design options no or almost no restrictions apply*.

7) Green design options need to be **prioritized**.

*Reason: Some options are more environmentally relevant than others- you cannot have it all!*

*Remark: On top of that design teams are in a time (to market) and budget squeeze anyway*.

8**)Tools** to support EcoDesign should be selected on basis of their **capability to support** environmental **creativity** and setting priorities of green options. Validation tools do not support such processes.

*Reason: Doing EcoDesign in a business setting is about doing better in 'eco' and making meaningful contributions on basis of 'eco'. It is not about finding the 'environmental truth'seen from a holistic environmental perspective.*

*Remark: For instance Environmental Benchmarking supports creativity, LCA based tools support environmental validation.*

**Integration into business operations.**

9) Prioritized green options **need to be assessed further** by assessing their benefits for the company, the customers, and society. Benefits include money/cost of ownership, positive emotion/image, better intangibles end (proactive) compliance with regulation.

Also feasibility of the options should be considered from a technical, a financial and an organizational perspective.

*Reason: Ecoidea's have to be integrated into mainstream business processes.*

*Remark: Experience shows that this assessment makes that the priority of the options changes but that few idea's really drop of the list. The assessment greatly assists however in getting ecoidea's ( which now are in fact idea's based on ecoconsiderations) accepted in the product concept consolidation meetings.*