

A MAP TO

DESIGN DECISIONS

TASK CLARIFICATION

Before the design project starts, two fundamental things need to be established as early as possible:

- A clear statement of the problem to be solved, for which solutions will be sought.
- A set of requirements and constraints against which to evaluate the proposed solutions.

TASK CLARIFICATION

Task clarification is a set of activities and documents, including research before actual development starts, that may take a form of text document, early mock ups as well as set of visual aids such as:

- User board
- Market placement and competition
- Possible scenario
- Inspiration or Mood board
- Benchmarking

BENCHMARKING

Benchmarking in design is a tool of gauging particular goals and attributes of design project against existing products or desirable achievable properties. They typically include:

- Aesthetics
- Finishes
- Materials
- Tactile, environmental and intangible qualities such as level of noise inside the cabin, touch feedback of buttons, mood lighting, etc

BENCHMARKING



SGM710 interior program history

instrumentpanel

DESIGN RATIONALE

Design Rationale is a list of decisions made during design process, and the reasons why those decisions were made. Its main purpose is to record and communicate the argumentation and reasoning behind the design process and its stages. Design Rationale typically includes:

- Justified reasons behind a possible design solution
- Design alternatives considered – concept evaluation
- Design problems encountered and Design compromises made
- Final Design solution description

CONCEPT EVALUATION

Concept Evaluation is a decision making tool, which is designed to make an informed and well weighted choice of possible design solutions. Typical Design Concept Evaluation is done in conjunction with aesthetic and functional attributes of future product and within or combination of different models:

- **Normative model** - A concept is selected according to its performance in the evaluation, the conceptual design phase is finished and the design team can continue with detailed design.

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- **Non-normative behaviour** – designers select satisfactory, acceptable solutions instead of optimising the selection due to the complexity of the situation. Designers become attached to their principal ideas, and they try to keep to them as long as possible, no matter the cost. The application of design criteria in evaluation is neither rigorous, nor complete.

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- **The ownership effect** – Ownership is an association between an individual and an entity. It is psychological connection between person and a multitude of entities of both material and immaterial quality. These associations may come to being in a multitude of ways. The associations may, for instance, be superficial, where the associations come to being through mere proximity of the entity, or having control of it, or being in physical possession of it. Ownership-related non-normative behaviour and therefore concept evaluation does not require a factual ownership of the object – a subjective *feeling* of ownership is sufficient.

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- **Experimental method** – experimental concept evaluation method typically refers to testing technical functionality of a concept. This method is mostly used in engineering and mechanics based processes.

CONCEPT EVALUATION

Concept Evaluation Criteria could be broken down in several subjects most typical of which are:

- **Novelty** – demonstrates fresh and unorthodox approach and solutions to design problems.
- **Feasibility** – deals with rational aspects of design execution such as: costs of production, production methods, development time/revenue generation ratio and so on.
- **Usability** – examines fundamental concept ergonomics, safety, ease of use, tactile properties etc.
- **Aesthetics** – investigates visual appeal to target groups of consumers in terms of market placement and value for money perceptions.