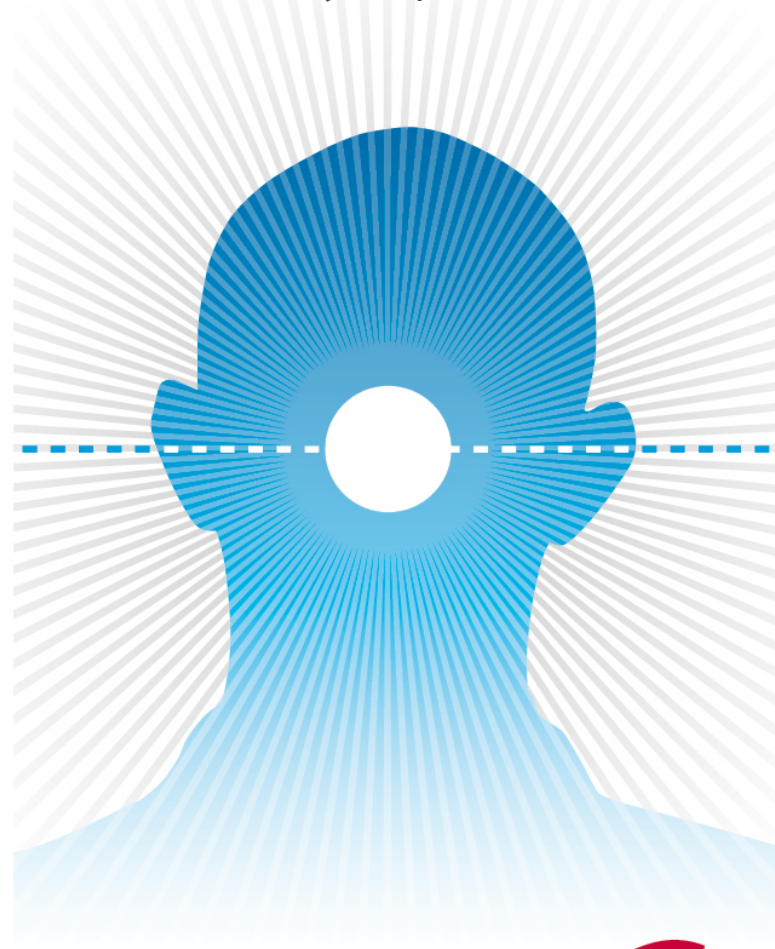


SENSE CAMP '08

Make sense of your product



We help ideas meet the real world

Sensory Evaluation

- Return on Investment (ROI) for industry

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Overview

- When to apply sensory evaluation?
- Why apply sensory?
 - Some cases studies
 - Whirlpool
 - Valio
- Benefit to different layers of the organisation
 - R&D
 - Marketing
 - Management
 - Quality control



Get out clause

This presentation will look at ROI qualitatively 😊



W e h e l p i d e a s m e e t t h e r e a l w o r l d



Some products that have used sensory in their design



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Why apply sensory?

- Metrics found to insufficiently describe perception
- Need to learn more about end-user product perception
- Seeking to understand whether there is more than one use population/need
- Wish to establish what a product succeeded/failed
- Want to identify to winning/optimal/cost effective solution
- Looking for guidance on the perceptual characteristics of a product
 - For marketing
 - For R&D
- Etc....



When to apply sensory evaluation?

- When we cannot physically measure what is being perceived
 - No metric available
- When the product (and perceptual characteristics) are complex
- When we seek perceptual data
 - From experts or consumers



Why popular in food industry?

- Food industry is
 - Highly commoditized
 - Strongly influence by end-user perception

- Hi-tech
 - Is for technology oriented
 - Added value through new technology and feature sets
 - But some areas are getting commoditized
 - And end users are become discerning



Example: Whirlpool (1)

- Usability team was challenged about their value
 - & ROI
- So they re-invented themselves!
 - Moving from the “Las Vegas approach”
- Whirlpool learnt that BMW, Nike and Nokia don't calculate ROI on matters such as usability
 - Because its difficult to estimate, and
 - As design costs are written off immediately during design
 - They invest with the expectation of a positive outcome



Example: Whirlpool (2)

- Forces to consider the ROI of certain usability/design improvements
- Process:
 - Company wide process for prototype evaluation
 - Ergonomics
 - Usability
 - Aesthetics
 - Etc...
 - Design selections based on measurement of end-user experience!



Example: Whirlpool (3)

The end result:

- The KitchenAid Architect II series
 - won a 15% increase in investment
 - profits on the range increased by 30% over previous models



Sensory Evaluation in Valio

- Long term commitment to Sensory Evaluation
 - Full management support
 - Using this as a tool to strengthen
 - Market share
 - Product development
 - Quality control
- All desirable in a commoditised market



Where is sensory applied?

- Everywhere
 - The milk tanker driver can even detect off-smells upon collection of milk
 - Quality control is partially performed using sensory
 - Product design is performed using sensory, consumer studies and preference mapping

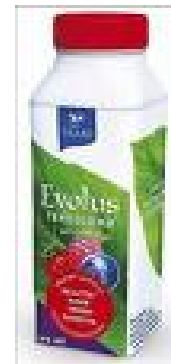
From here...



Where are they now

- **They have the market lead**
- They drive new creative products into the shops constantly
- These products are often ***on the money***
- Exciting and odd products
 - Toffee apple ice cream
 - Blueberry pie ice cream
- Copy cat products are late and often don't hit the mark
 - lower market share ?

To here...



Potential benefits for R&D

- What are the dominant perceptual characteristics to focus on?
- Where did we succeed/fail with the last product?
- What characteristics should be avoided at all cost?
- What are the target perceptual requirements?
- How do I design for the target user group
- Can we develop a technical performance requirements based on the perceived characteristics/needs?



Potential benefits for Management

- How to win the extra margin
- Achieving the same perceived quality
 - Lower bill of materials
 - Leaner production methods
- Validate and document your product quality
- Third party insights
 - Perception based insight into competitor performance
- Better product and consumer understanding to give directions of future
- Benchmark of products and KPI or critical success factors
- Benchmark of competition and 'definitions'



Potential benefits for Marketing

- Potential to answer the following questions
 - Why is a product liked/disliked?
 - Is there a single solution meet all end-user needs?
 - What are end users expectations for this product characteristics?
 - Is there a market segmentation?
 - Can I use Sensory profiles to market my product?
 - Can we benchmark our product to show its preferred by the target user group(s)?



Potential benefits for Quality Control

- If instrumentation measurement are unavailable
 - Inaccurate
 - Slow
 - Costly
- Provide consistent perceptual evaluation
 - Systematic
 - Clearly defined terminology for quality characteristics
 - common language
 - Traceable
 - Communicable
 - customers, **management**, production, etc.
 - Objective / repeatable
- Validate and document your product quality

ROI can be clearly estimated in such cases

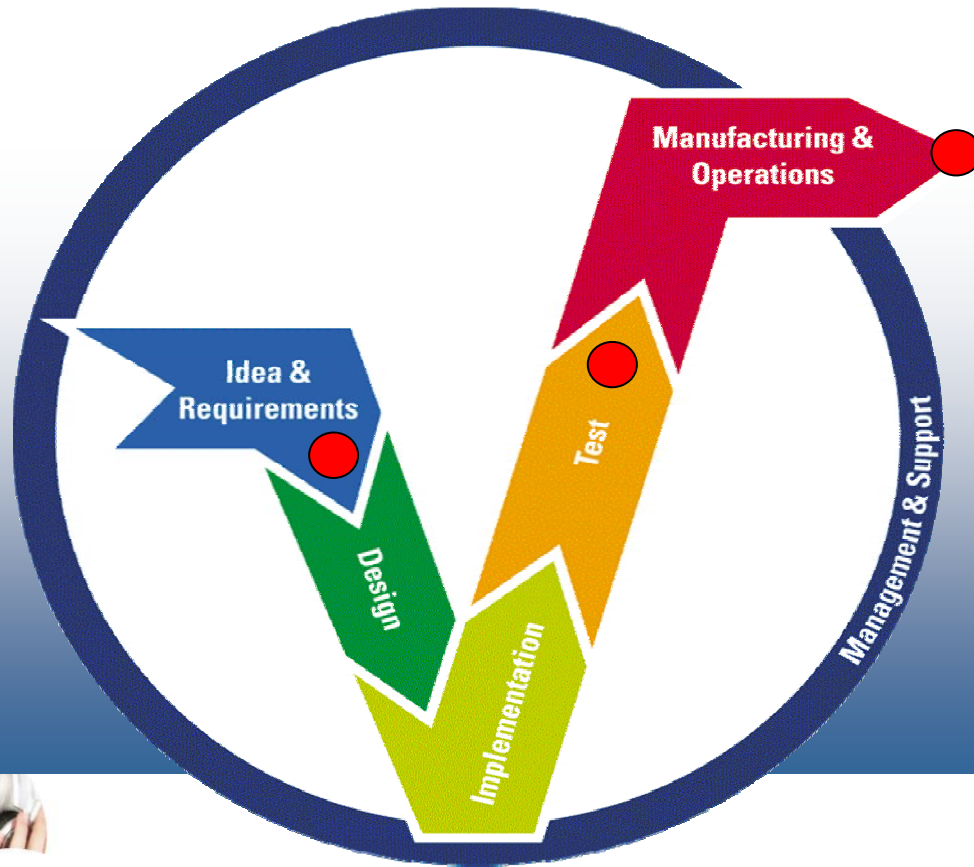


Value of Sensory?

- In some cases ROI can be easily calculated
- Many cases are more complex to measure
- Clearly ROI estimates of Sensory for all tiers of the company are of interest
- But what is the cost of not having the answers to these questions?



Learn about your product



Technology Base:

- Electronics
- Acoustics and vibration
- Lights and optics
- Microelectronics
- Sensor Systems
- Software Technology
- Processes and maturity



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