Abstract

An elicitation method for needs is described using many different viewpoints. A selection process with a coarse and a fine selection is described to reduce the specification to an acceptable and feasible subset.
Complementary Viewpoints to Capture Requirements

**top-down**
- key-drivers (customer, business)
- operational drivers (logistics, production, etc.)
- roadmap (positioning and trends in time)
- competition (positioning in the market)

**bottom-up**
- regulations
- "ideal" reference design (learning vehicle)
- prototyping, simulation (learning vehicle)
- bottom-up (technological opportunities)
- existing systems

Needs

Continued Product Creation Process

Feedback

---

Requirements Elicitation and Selection
2  Gerrit Muller
Requirement Selection Process

- Customer needs
- Operational needs
- Roadmap
- Strategy
- Competition
- Selection process
- Product specification
- Need
- Characterization
- Requirement
- Phasing
- Technology, People, Process
- Costs and constraints
Simple Qualification Method

- **Important**
  - Discuss
  - Do
  - Don't
  - Discuss

- **Urgent**
  - Discuss
  - Do
  - Don't
  - Discuss

- **Effort**
  - Don't
  - Discuss
  - Discuss
  - Do

- **Value**
  - Discuss
  - Do
Examples of Quantifiable Aspects

- Value for the customer
- (dis)satisfaction level for the customer
- Selling value (How much is the customer willing to pay?)
- Level of differentiation w.r.t. the competition
- Impact on the market share
- Impact on the profit margin

Use relative scale, e.g. 1..5 1=low value, 5 -high value
Ask several knowledgeable people to score
Discussion provides insight (don't fall in spreadsheet trap)