Abstract

The notion of "business key drivers" is introduced and a method is described to link these key drivers to the product specification.
Example Motorway Management Analysis

Key-draws

Safety
- Reduce accident rates
- Enforce law
- Improve emergency response

Effective Flow
- Reduce delay due to accident
- Improve average speed
- Improve total network throughput
- Optimize road surface
- Speed up target groups
- Anticipate on future traffic condition

Smooth Operation
- Ensure traceability
- Ensure proper alarm handling
- Ensure system health and fault indication

Environment
- Reduce emissions

Derived application drivers

Early hazard detection with warning and signaling
- Maintain safe road condition
- Classify and track dangerous goods vehicles
- Detect and warn noncompliant vehicles
- Enforce speed compliance
- Enforce red light compliance
- Enforce weight compliance

Requirements
- Automatic upstream accident detection
- Weather condition dependent control
- Traffic speed and density measurement
- Cameras
- Deicing
- Traffic condition dependent speed control

Note: the graph is only partially elaborated for application drivers and requirements
## Method to create Key Driver Graph

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1. Define the scope specific.</td>
<td>in terms of stakeholder or market segments</td>
</tr>
<tr>
<td>2. Acquire and analyze facts</td>
<td>extract facts from the product specification and ask why questions about the specification of existing products.</td>
</tr>
<tr>
<td>3. Build a graph of relations between drivers and requirements by means of brainstorming and discussions</td>
<td>where requirements may have multiple drivers</td>
</tr>
<tr>
<td>4. Obtain feedback</td>
<td>discuss with customers, observe their reactions</td>
</tr>
<tr>
<td>5. Iterate many times</td>
<td>increased understanding often triggers the move of issues from driver to requirement or vice versa and rephrasing</td>
</tr>
</tbody>
</table>

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Key Drivers How To

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TCAFkeyDriverSubmethod
## Recommendation for the Definition of Key Drivers

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Details</th>
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<tbody>
<tr>
<td>• Limit the number of key-drivers</td>
<td>minimal 3, maximal 6</td>
</tr>
<tr>
<td>• Don’t leave out the obvious key-drivers</td>
<td>for instance the well-known main function of the product</td>
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<tr>
<td>• Use short names, recognized by the customer.</td>
<td></td>
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<tr>
<td>• Use market-/customer- specific names, no generic names</td>
<td>for instance replace “ease of use” by “minimal number of actions for experienced users”, or “efficiency” by “integral cost per patient”</td>
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<tr>
<td>• Do not worry about the exact boundary between Customer Objective and Application</td>
<td>create clear goal means relations</td>
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</table>
Transformation of Key Drivers into Requirements

Customer
- **What**
  - Objectives

Customer
- **How**
  - Application

Product
- **What**
  - Functional

Key Drivers (Customer) → Derived Application Drivers → Requirements

- **Means**
  - May be skipped or articulated by several intermediate steps

- **Functions**
  - Interfaces
  - Performance figures

**Goal**