

# Submethods in the CAF Views

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## Abstract

The customer context and the external characteristics of a system are described in the *Customer Objectives*, *Application* and *Functional* views. This chapter describes submethods to support these views: key drivers, positioning the business of the customer, modelling, use cases and system specification.

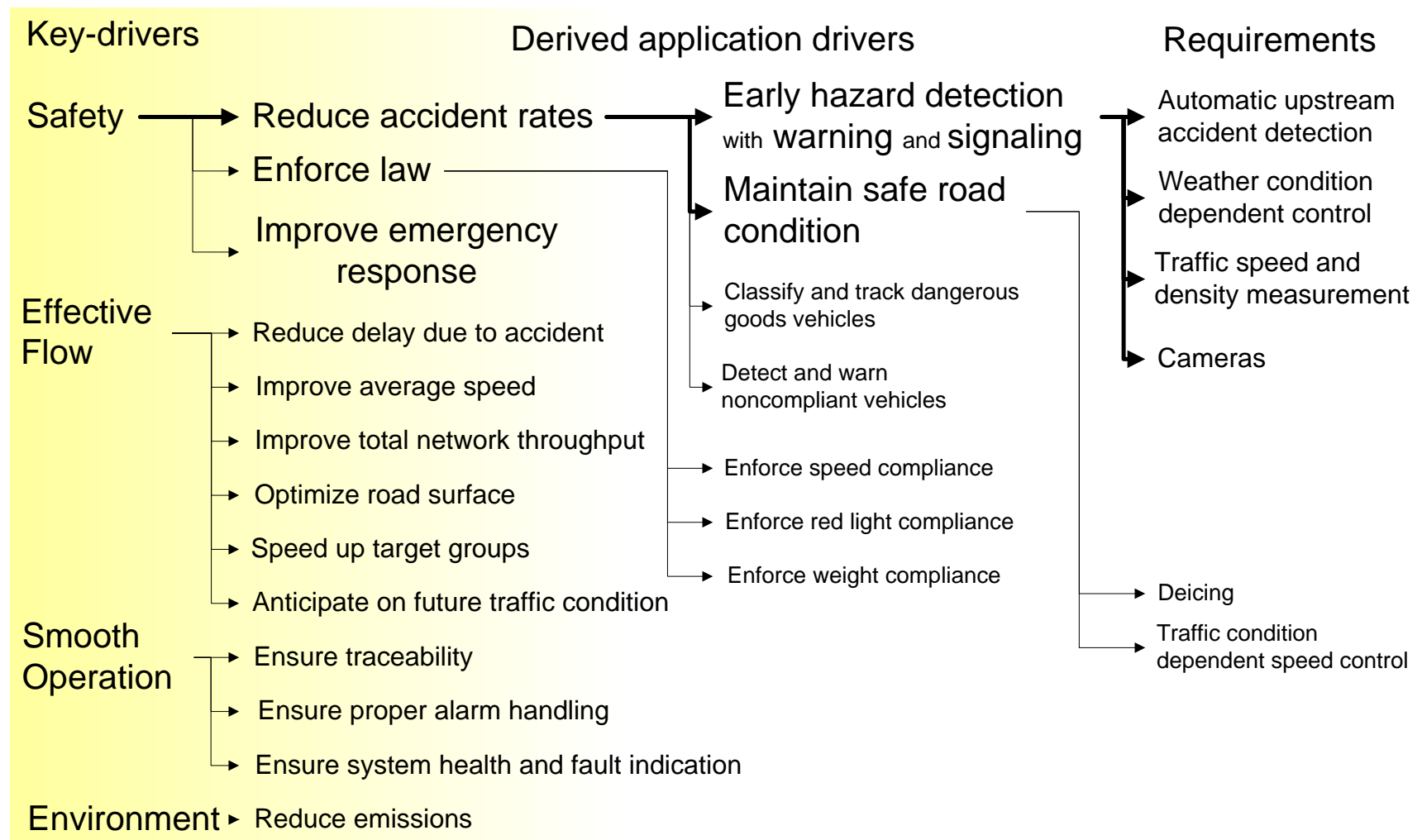
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TBD

# Example of the four Key Drivers in a Motorway Management



*Note: the graph is only partially elaborated for application drivers and requirements*

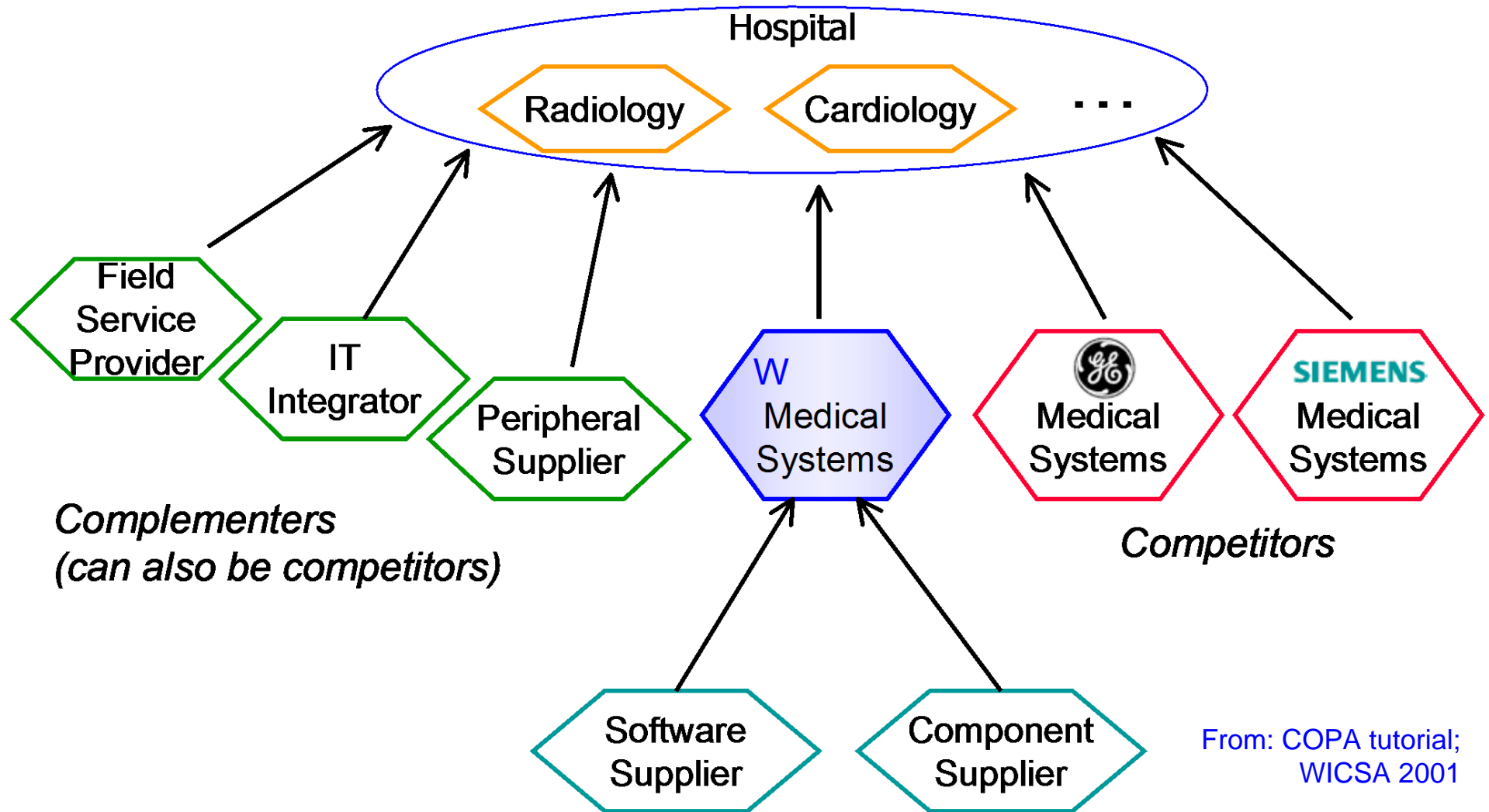
# Submethod to Link Key Drivers to Requirements

- |  |  |
|--|--|
| • Define the scope specific.   | in terms of stakeholder or market segments   |
| • Acquire and analyze facts  | extract facts from the product specification<br>and ask why questions about the specification of existing products.  |
| • Build a graph of relations between drivers and requirements<br>by means of brainstorming and discussions | where requirements<br>may have multiple drivers  |
| • Obtain feedback  | discuss with customers, observe their reactions  |
| • Iterate many times   | increased understanding often triggers the move of issues<br>from driver to requirement or vice versa and rephrasing |

# Key Driver Recommendations

- Limit the number of key-drivers minimal 3, maximal 6
- Don't leave out the obvious key-drivers for instance the well-known main function of the product
- Use short names, recognized by the customer.
- Use market-/customer- specific names, no generic names for instance replace “ease of use” by “minimal number of actions for experienced users”, or “efficiency” by “integral cost per patient”
- Do not worry about the exact boundary between Customer Objective and Application create clear goal means relations

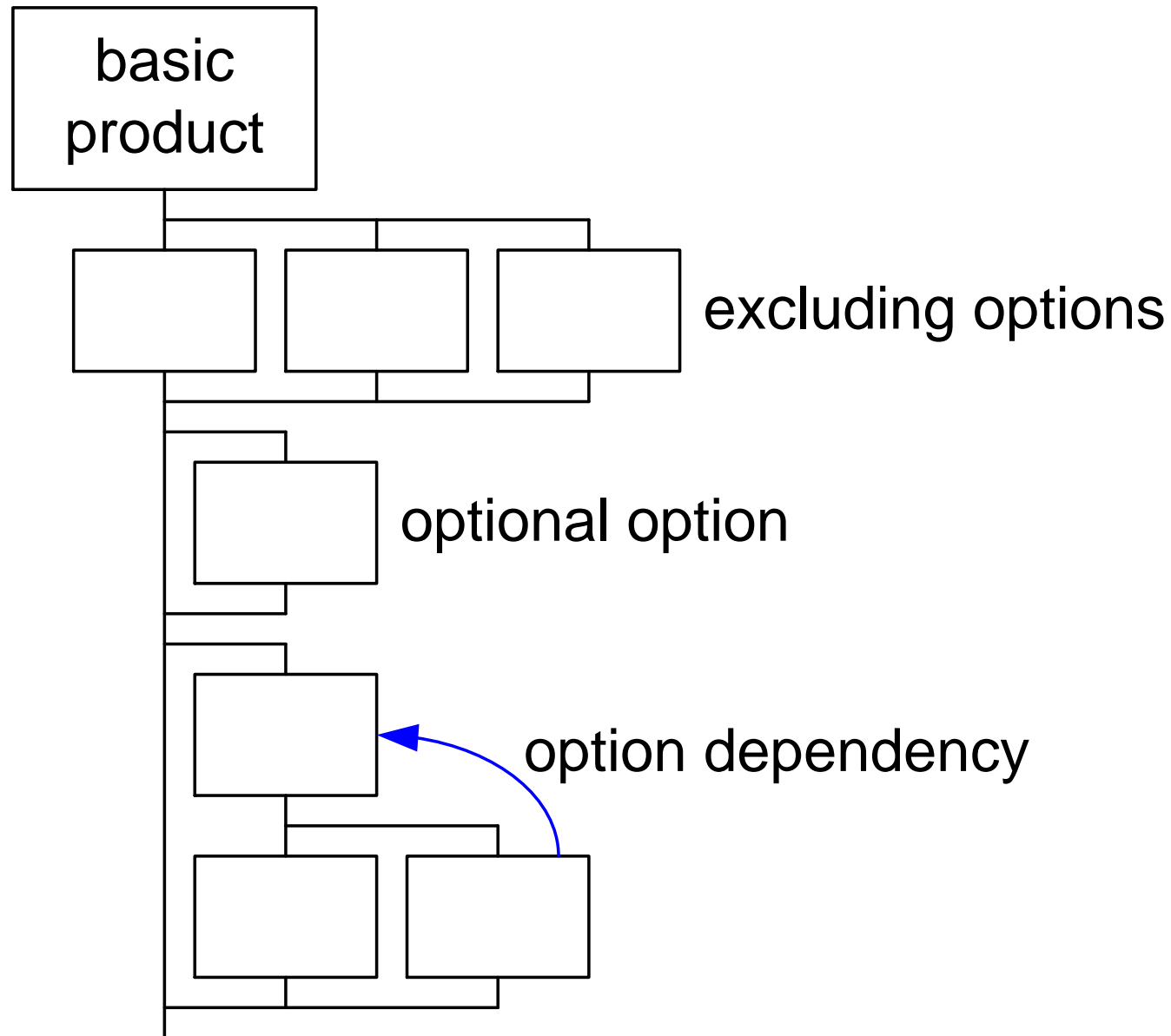
# Map of Complementors



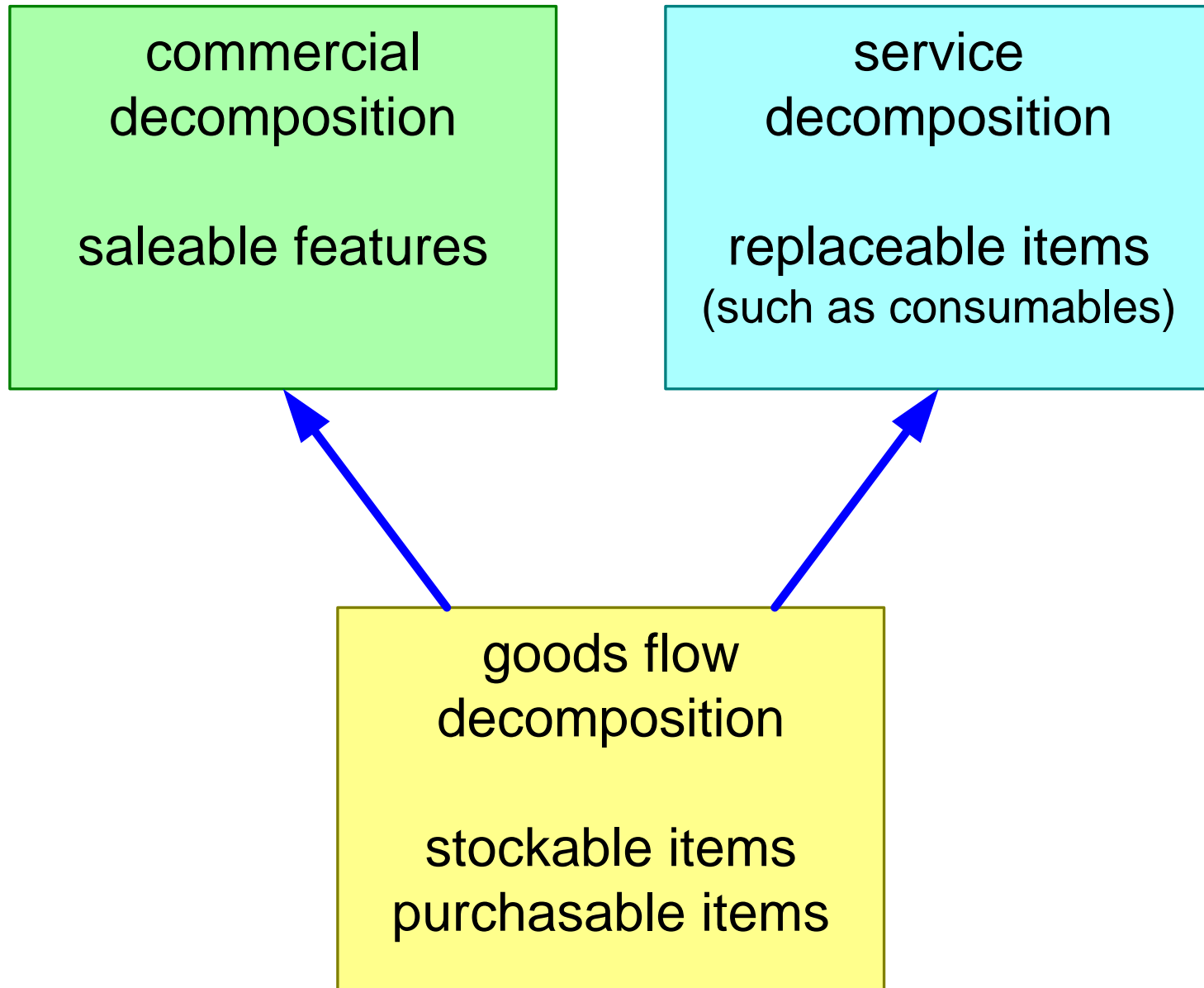
# Context of Motorway Management System



# Commercial Graph



# Logistics Decompositions





# Use Case

typical use case(s)	worst case, exceptional, or change use case(s)
<p><b>interaction flow (functional aspects)</b></p> <ul style="list-style-type: none"><li>select movie via directory</li><li>start movie</li><li>be able to pause or stop</li><li>be able to skip forward or backward</li><li>set recording quality</li></ul>	<p><b>functional</b></p> <ul style="list-style-type: none"><li>multiple inputs at the same time</li><li>extreme long movie</li><li>directory behaviour in case of extreme many short movies</li></ul>
<p><b>performance and other qualities (non-functional aspects)</b></p> <ul style="list-style-type: none"><li>response times for start / stop</li><li>response times for directory browsing</li><li>end-of-movie behaviour</li><li>relation recording quality and storage</li></ul>	<p><b>non-functional</b></p> <ul style="list-style-type: none"><li>response time with multiple inputs</li><li>image quality with multiple inputs</li><li>insufficient free space</li><li>response time with many directory entries</li><li>replay quality while HQ recording</li></ul>

# Function Feature Matrix

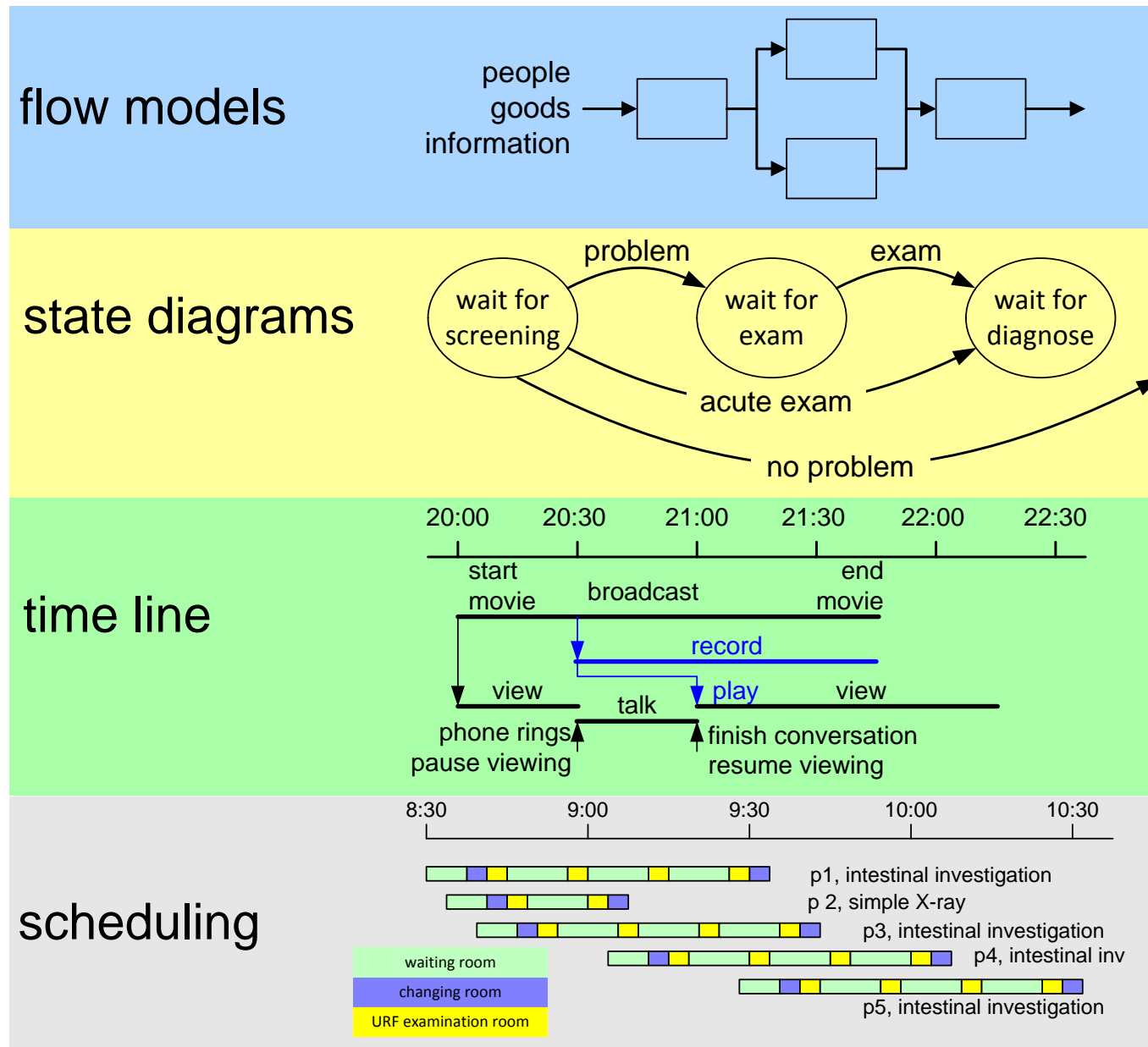
<i>technical functions</i>	<i>products</i>	home cinema system	flat screen cinema TV	bedroom TV
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HD display	+	+	-
SD->HD up conversion	+	+	-
HD->SD down conversion	+	+	0
HD storage	0	-	-
SD storage	0	-	0
HD IQ improvement	+	+	-
SD IQ improvement	+	+	+
HD digital input	+	+	0
SD digital input	+	+	0
SD analog input	0	+	+
6 HQ channel audio	+	0	-
2 channel audio	-	+	+

legend

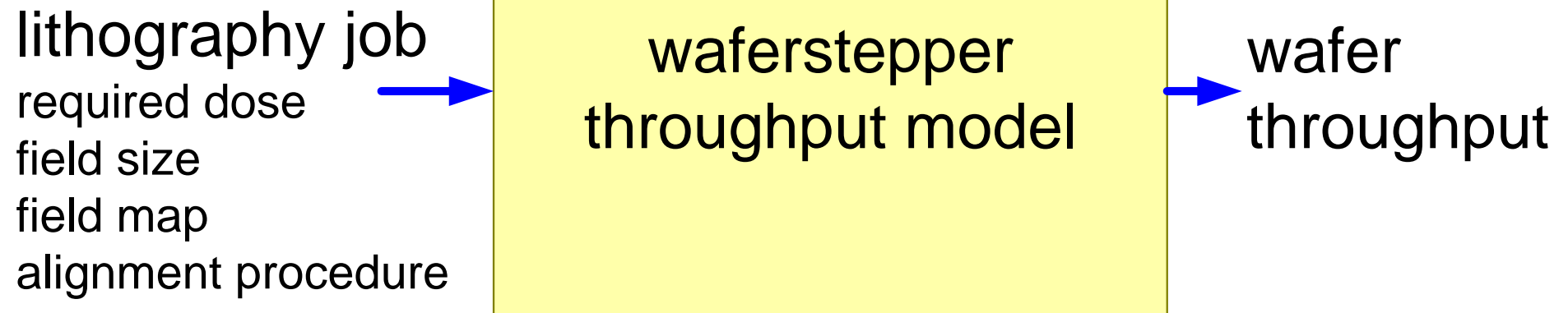
+ present  
0 optional  
- absent

# Dynamic Models

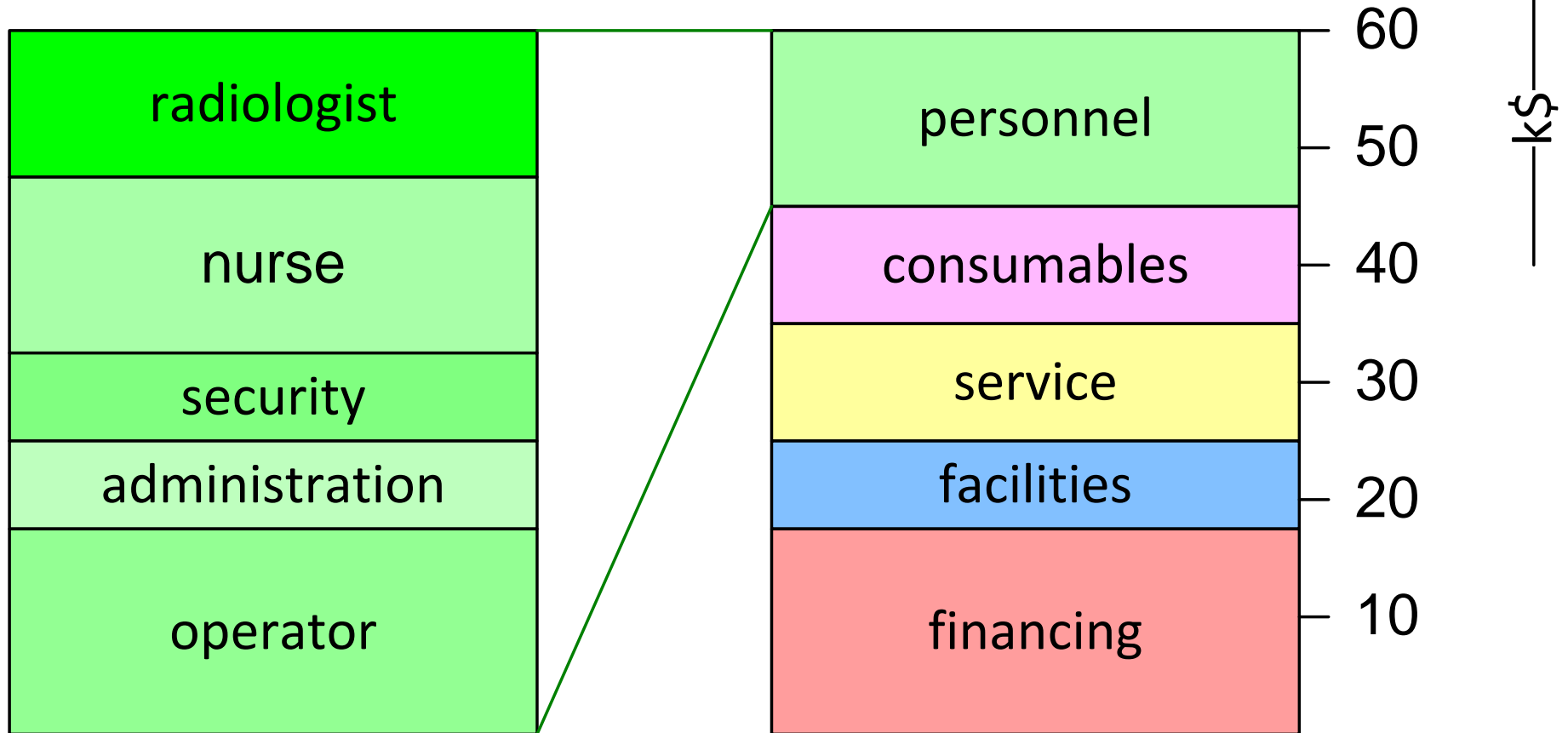


# Throughput Model

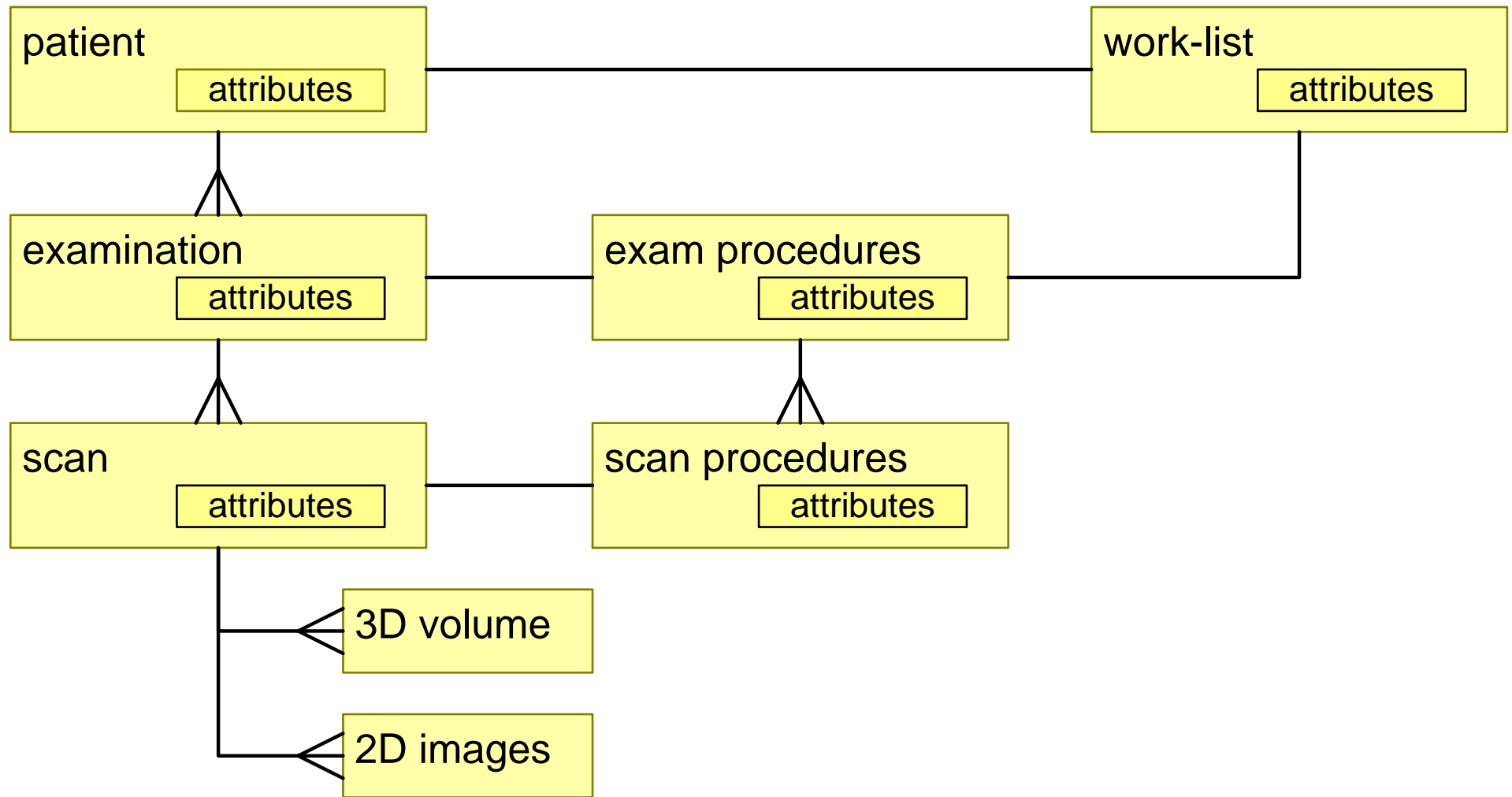
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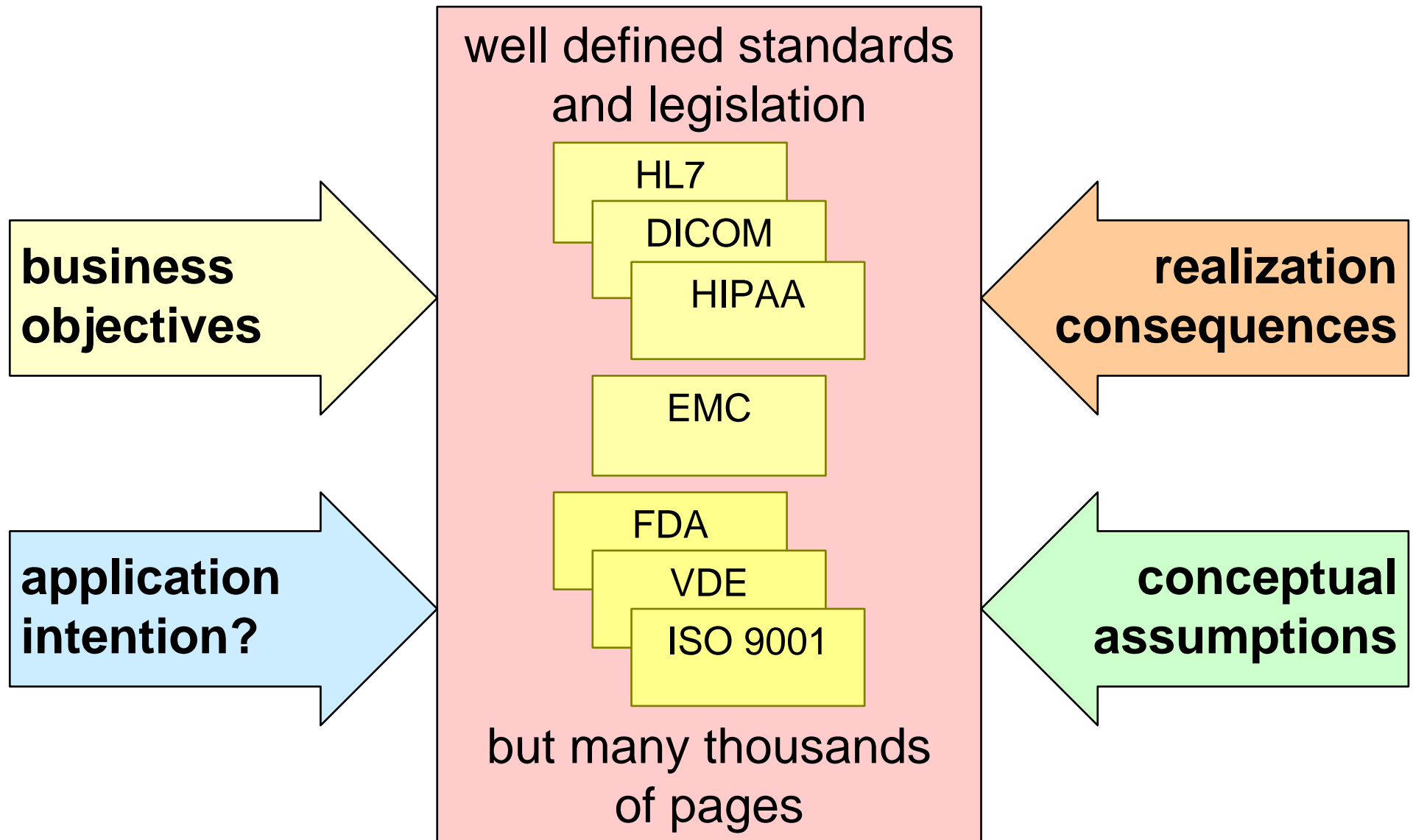
## Cost Of Ownership model



# External Information Model



# Forces of Standards



# Overview of CAF Submethods

<b>C</b> ustomer objectives	<b>A</b> pplication	<b>F</b> unctional
key drivers value chain business models suppliers	context diagram stakeholders and concerns entity relationship models dynamic models	case descriptions commercial decomposition service decomposition goods flow decomposition function and feature specifications performance external interfaces standards