

Evolvable Product Families; What and Why?

by *Gerrit Muller* Buskerud University College

e-mail: `gaudisite@gmail.com`

`www.gaudisite.nl`

Abstract

Product lines or product families are used to serve a broad market with a limited development investment. In theory this is easily said, in practice managing product lines effectively turns out to be significant challenge. In this paper we clarify when platform strategies towards product lines make sense. Crucial for success is scoping of product line and the shared assets.

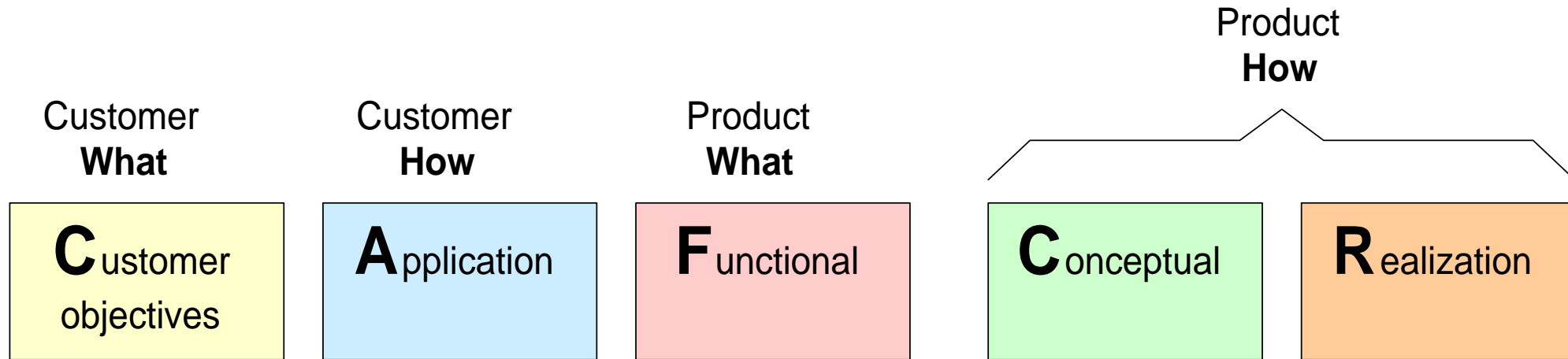
Distribution

This article or presentation is written as part of the Gaudí project. The Gaudí project philosophy is to improve by obtaining frequent feedback. Frequent feedback is pursued by an open creation process. This document is published as intermediate or nearly mature version to get feedback. Further distribution is allowed as long as the document remains complete and unchanged.

June 23, 2016
status: planned
version: 0

logo
TBD

Multiple Markets



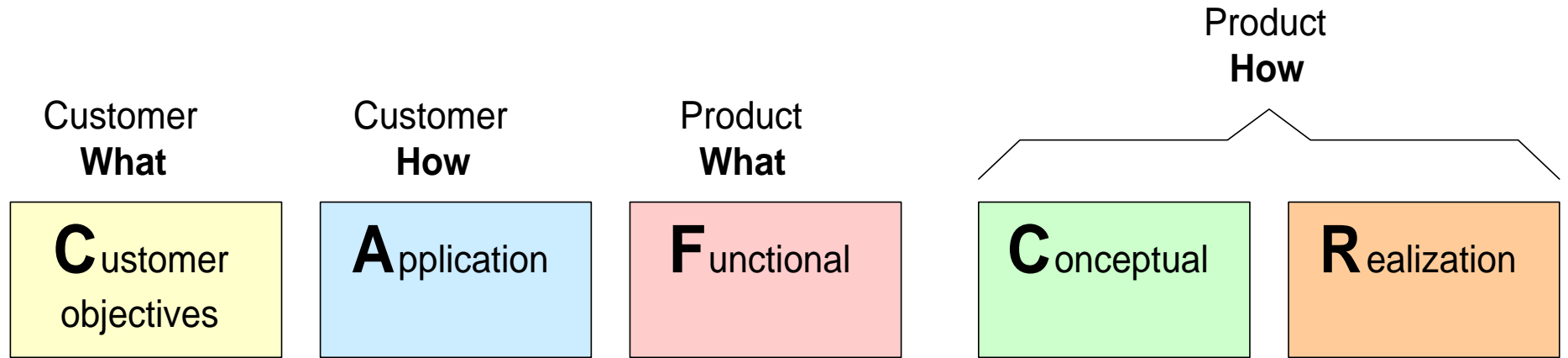
Multiple markets:
different customers
different applications
different products

electron microscopes:
material sciences
life sciences
manufacturing, e.g. semiconductors

Shared platform:
shared concepts
shared technology

electron microscopes:
e-beam sources, optics
vacuum
acquisition control

Complementing Systems for Same Market



Single market:
 different stakeholders
 different applications
 interoperable products

health care, e.g. cardiology:
 analysis
 diagnosis
 treatment
 administration

Shared components:
 shared concepts
 shared technology

health care, e.g. cardiology:
 patient support
 patient information
 image information
 storage & communication
 user interface

Scope Analysis

market segmentation

Customer
What

Customer
How

Product
What

Customer
objectives

Application

Functional

market taxonomy
customer classification
stakeholder classification
inventarization applications
inventarization
functions
features
performance

synergy analysis

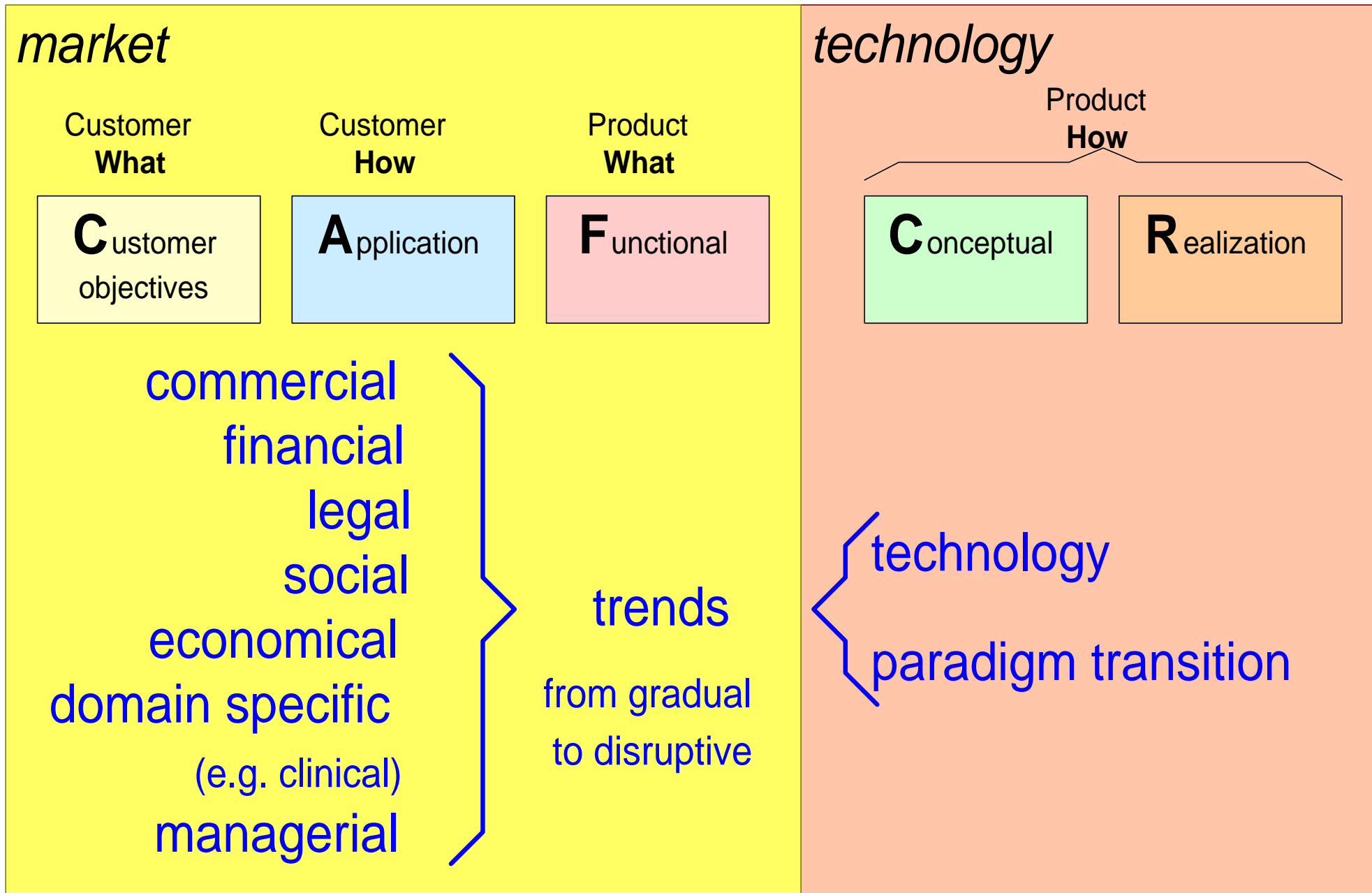
Product
How

Conceptual

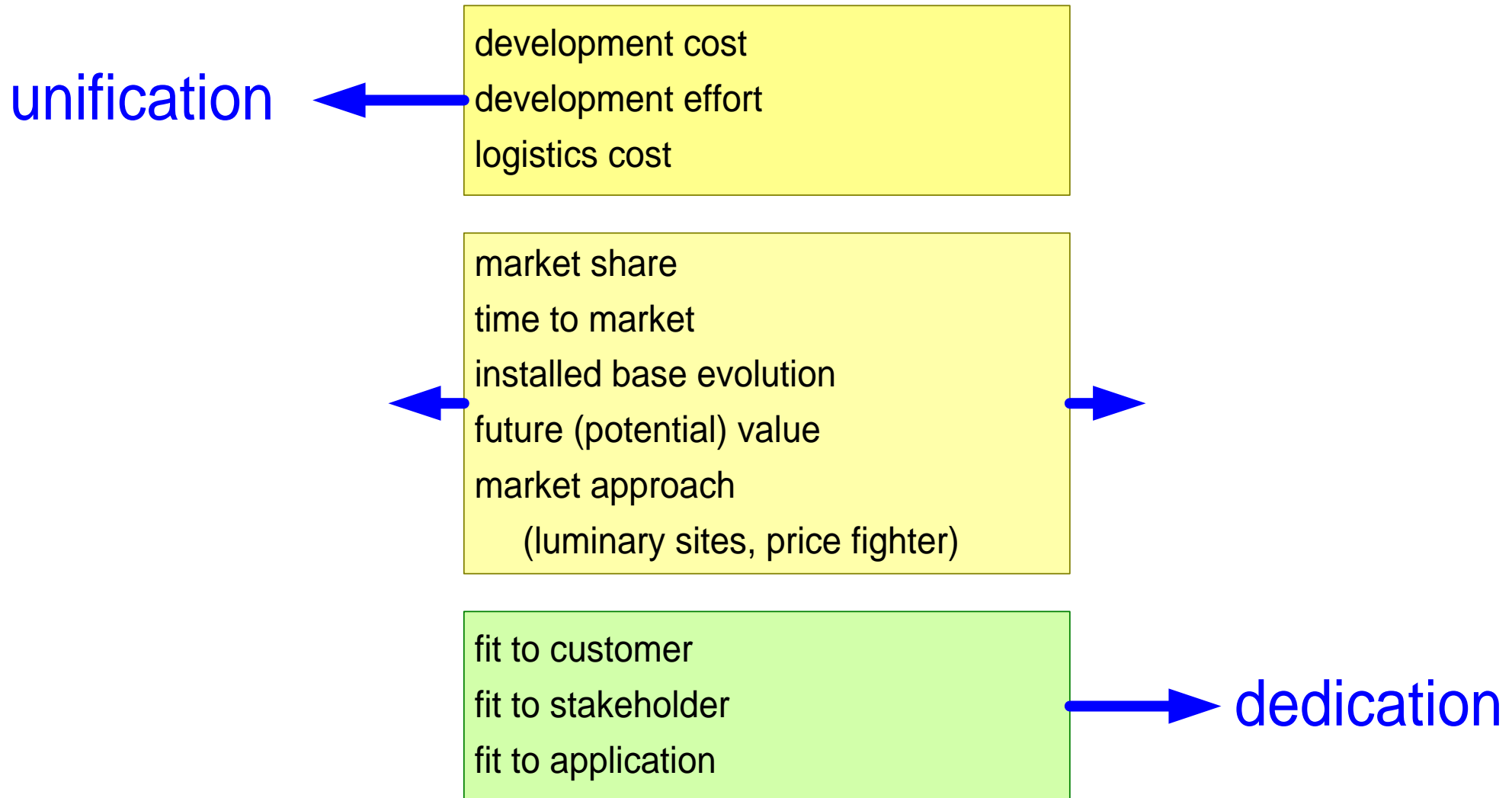
Realization

shared functionality
analyse characteristics
analyse differentiators
functionality
characteristics

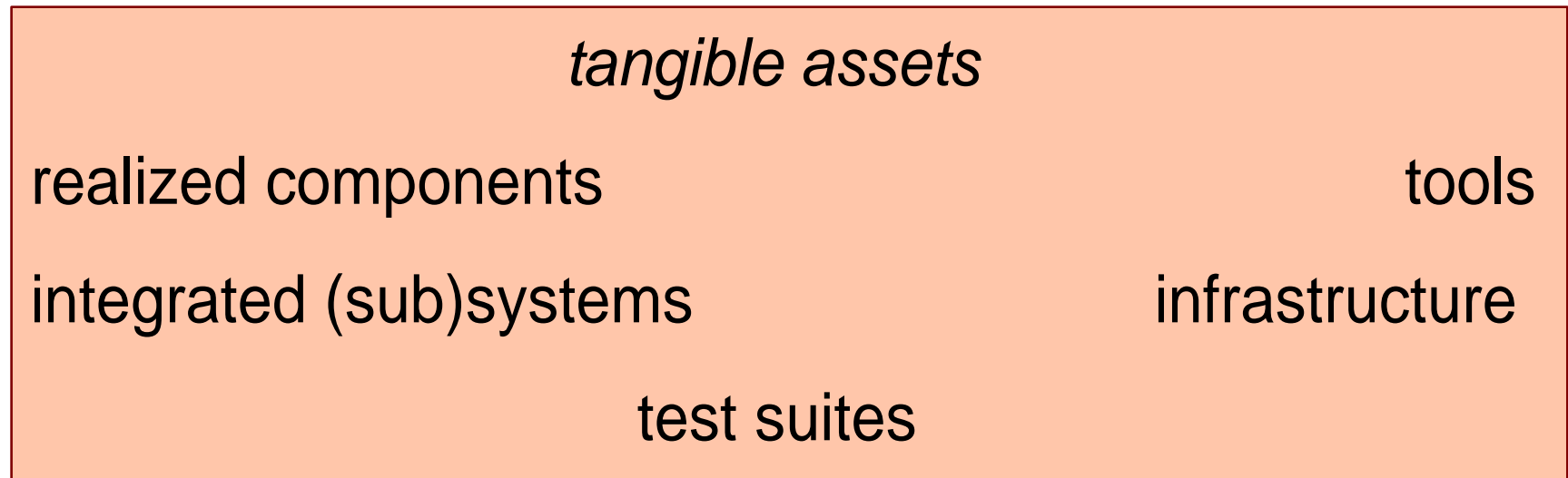
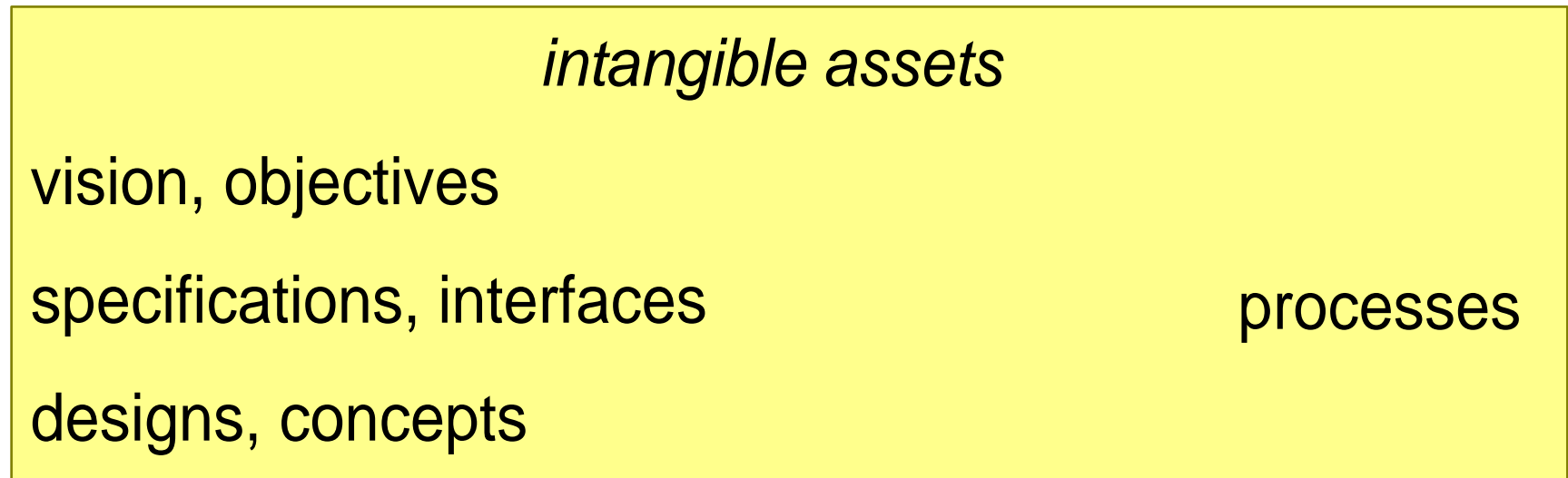
Roadmapping: Impact of Future



Criteria and Forces for Synergy



Possible Levels of Sharing



Not everything that can be shared should be shared!

Reuse is needed ... as part of the solution

