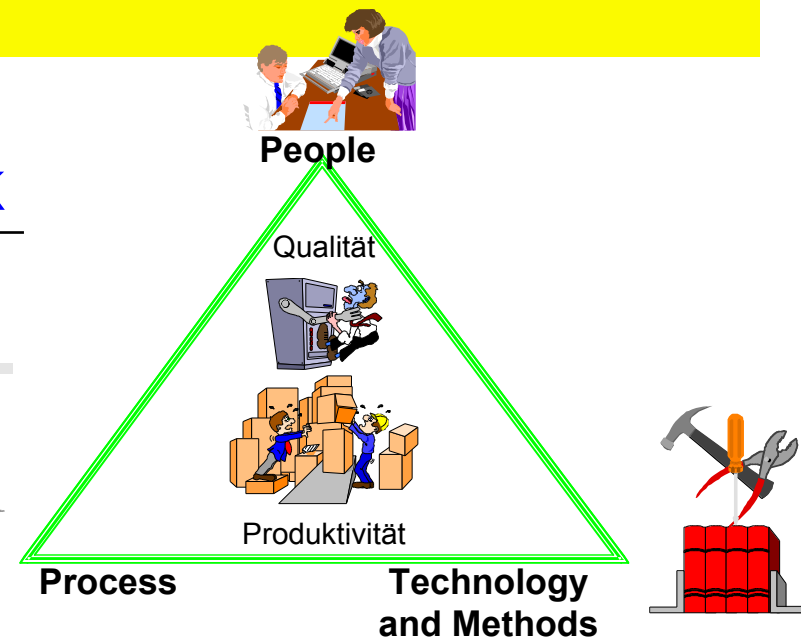


# History, Überblick und Struktur von SPICE/ ISO 15504

Copyright © QUALITÄT & INFORMATIK  
Zürich, München  
[www.itq.ch](http://www.itq.ch)

Prozess-Nr.	Bezeichnung	Reife	Bezeichnung / Ziele / Zweck
1	Planung	100	Planung des Projekts
2	Entwicklung	100	Entwicklung des Produkts
3	Integration	100	Integration des Produkts
4	Test	100	Test des Produkts
5	Abnahme	100	Abnahme des Produkts
6	Wartung	100	Wartung des Produkts
7	Entsorgung	100	Entsorgung des Produkts
8	Projektabschluss	100	Projektabschluss
9	Projektabschluss	100	Projektabschluss
10	Projektabschluss	100	Projektabschluss
11	Projektabschluss	100	Projektabschluss
12	Projektabschluss	100	Projektabschluss
13	Projektabschluss	100	Projektabschluss
14	Projektabschluss	100	Projektabschluss
15	Projektabschluss	100	Projektabschluss
16	Projektabschluss	100	Projektabschluss
17	Projektabschluss	100	Projektabschluss
18	Projektabschluss	100	Projektabschluss
19	Projektabschluss	100	Projektabschluss
20	Projektabschluss	100	Projektabschluss



# What is ISO/IEC TR 15504?

---

- International standard for assessing software processes
- Purpose:
  - => Continuous process improvement
  - => Capability determination
- Scope:

Processes include acquisition, supply, development, operation, maintenance and support

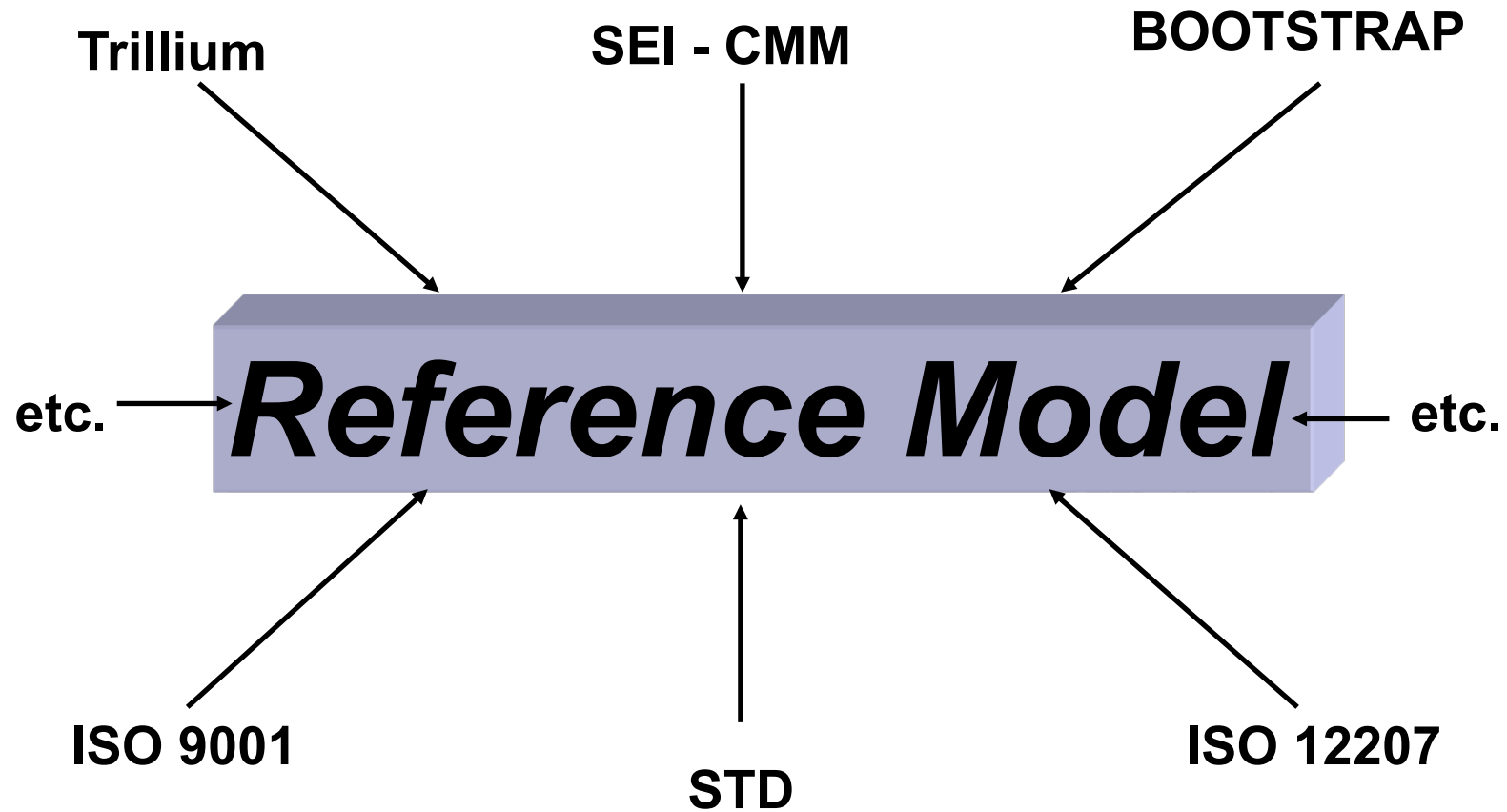
ISO/IEC TR 15504 is an emerging standard  
currently in transition to full International Standard status!

# What is SPICE?

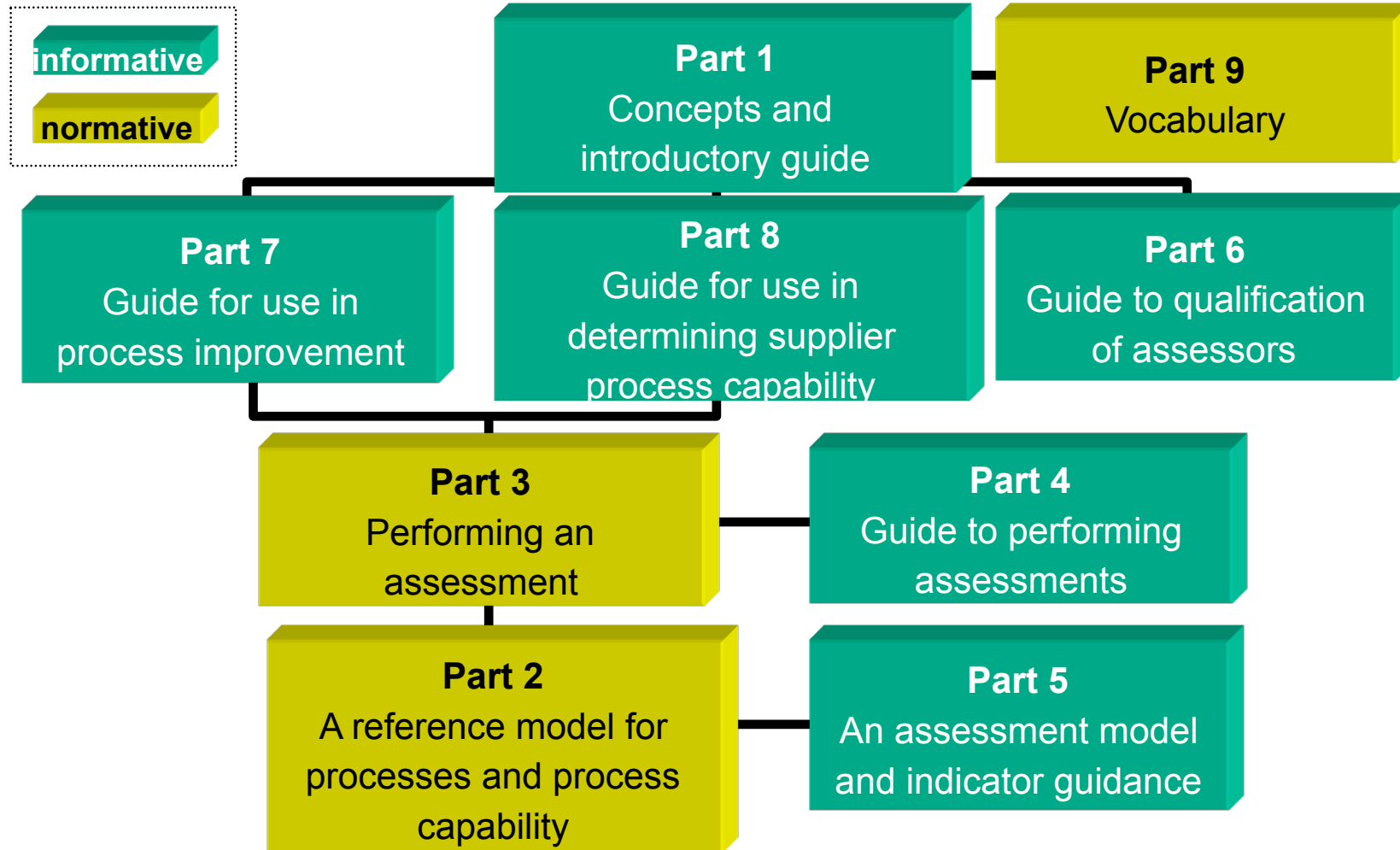
---

- ❖ SPICE - **S**oftware **P**rocess **I**mprovement and **C**apability **d**etermination
- ❖ Development of an International Standard on Software Process Assessment (ISO 15504)
- ❖ The SPICE project (92-98 TR, 99-04) created to:
  - solicit opinions and input of world experts
  - carry out trials - provide early feedback
  - create awareness of the new standard by conferences

# Sources of Information



# ISO TR 15504 documentation



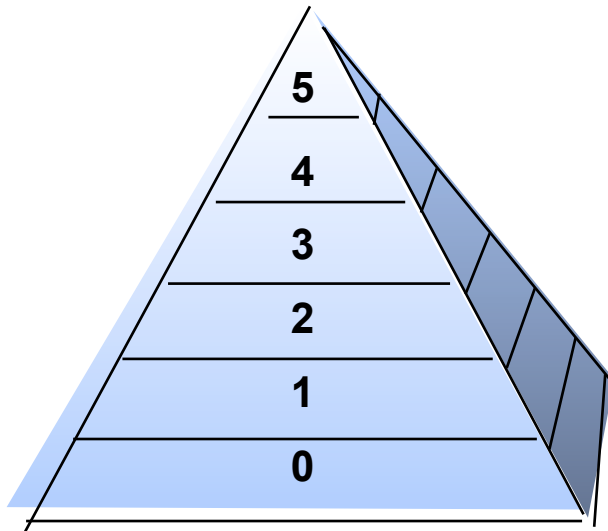
# *The SPICE Model*

---

- Two dimensional approach:
  - **Process** - the processes associated with the development and support of software
  - **Capability** - how well they are implemented and managed

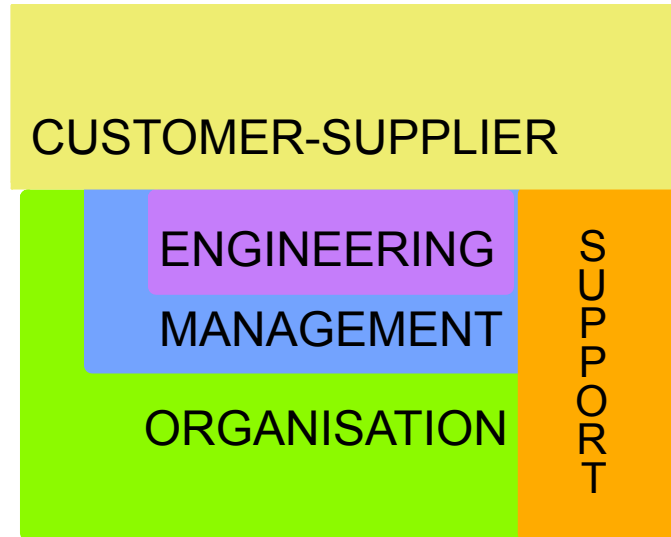
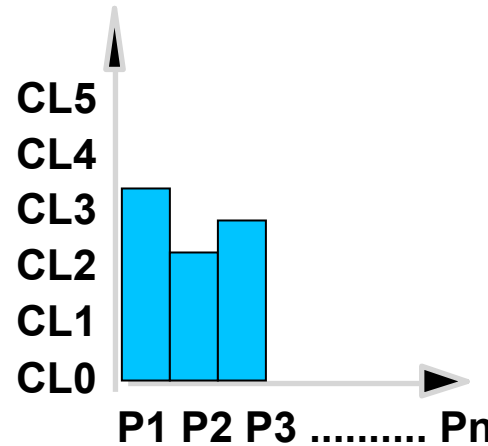
# ISO 15504 Reference Model

Each process receives a capability level rating  
This is referred to as a Continuous Model



## CAPABILITY DIMENSION

How well they are implemented and managed?



## PROCESS DIMENSION

For development and support of software

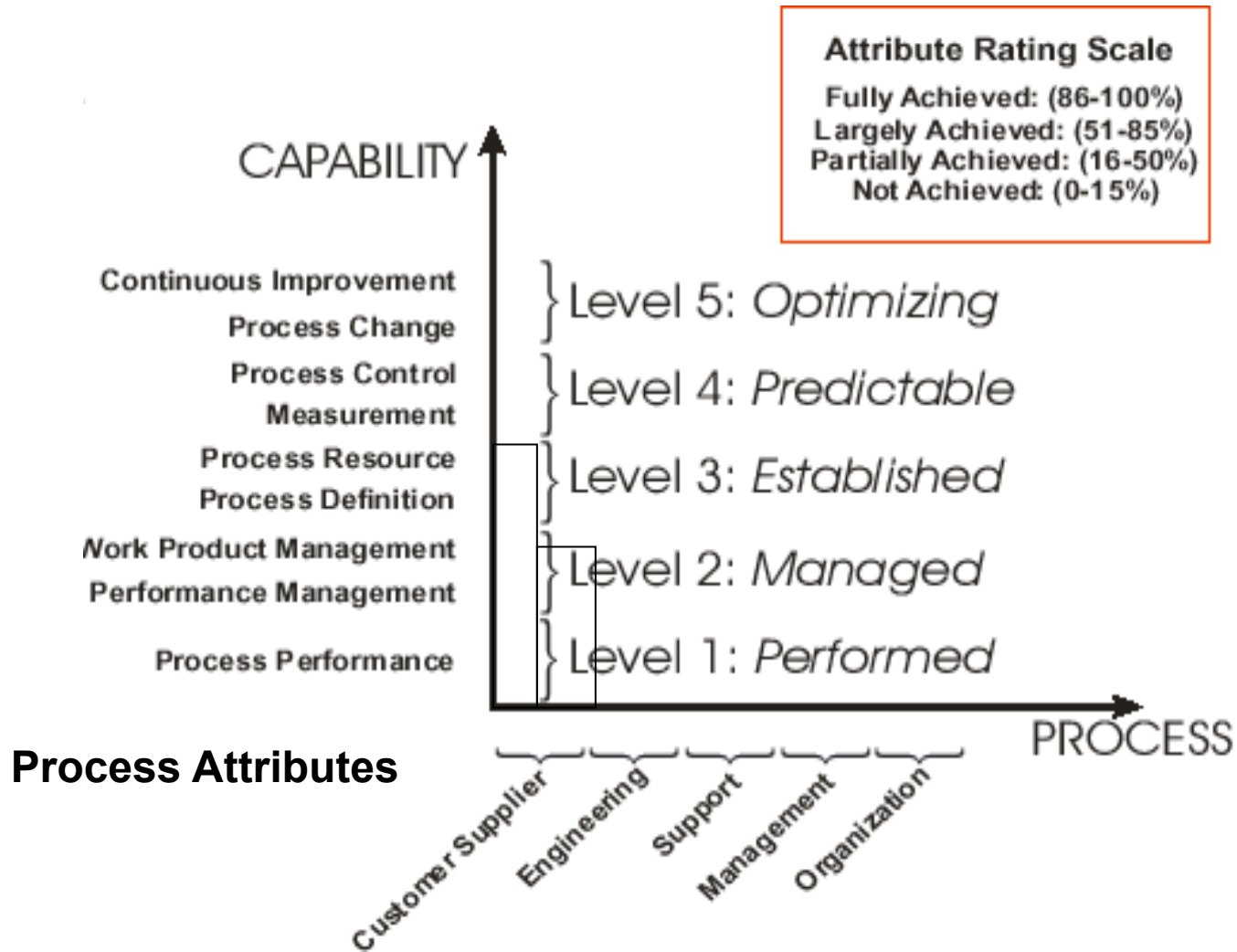
# SPICE (ISO/IEC 15504)

<u>PROCESS DIMENSION</u>	<u>CAPABILITY DIMENSION</u>
<p><b>Process Categories (5)</b> Processes (40)</p> <p><i>Indicators of Process <b>Performance</b>:</i></p> <ul style="list-style-type: none"><li>• Base Practices</li><li>• Work Products</li><li>• Work Product Characteristics</li></ul>	<p><b>Capability Levels (6)</b> Process Attributes (9)</p> <p><i>Indicators of Process <b>Capability</b>:</i></p> <ul style="list-style-type: none"><li>• Management Practices</li><li>• Practice Performance Characteristics</li><li>• Resource / Infrastructure Characteristics</li></ul>

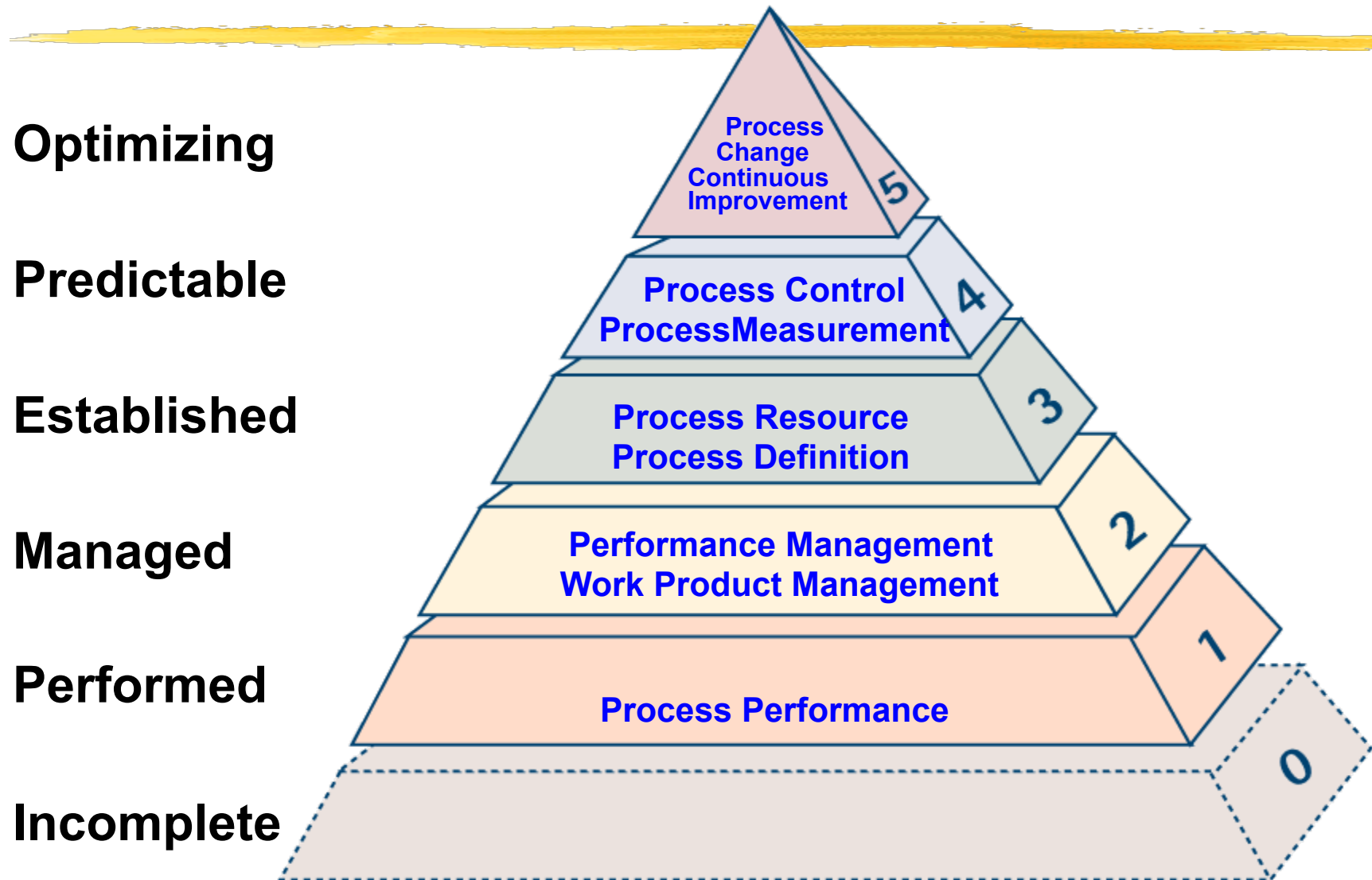
Source: ISO/IEC TR 15504-5- Part 5: An assessment model and indicator guidance



# SPICE Architecture



# Capability Dimension



# ***SPICE processes (summary)***

**Customer Supplier** - those that impact the customer/  
supplier relationship

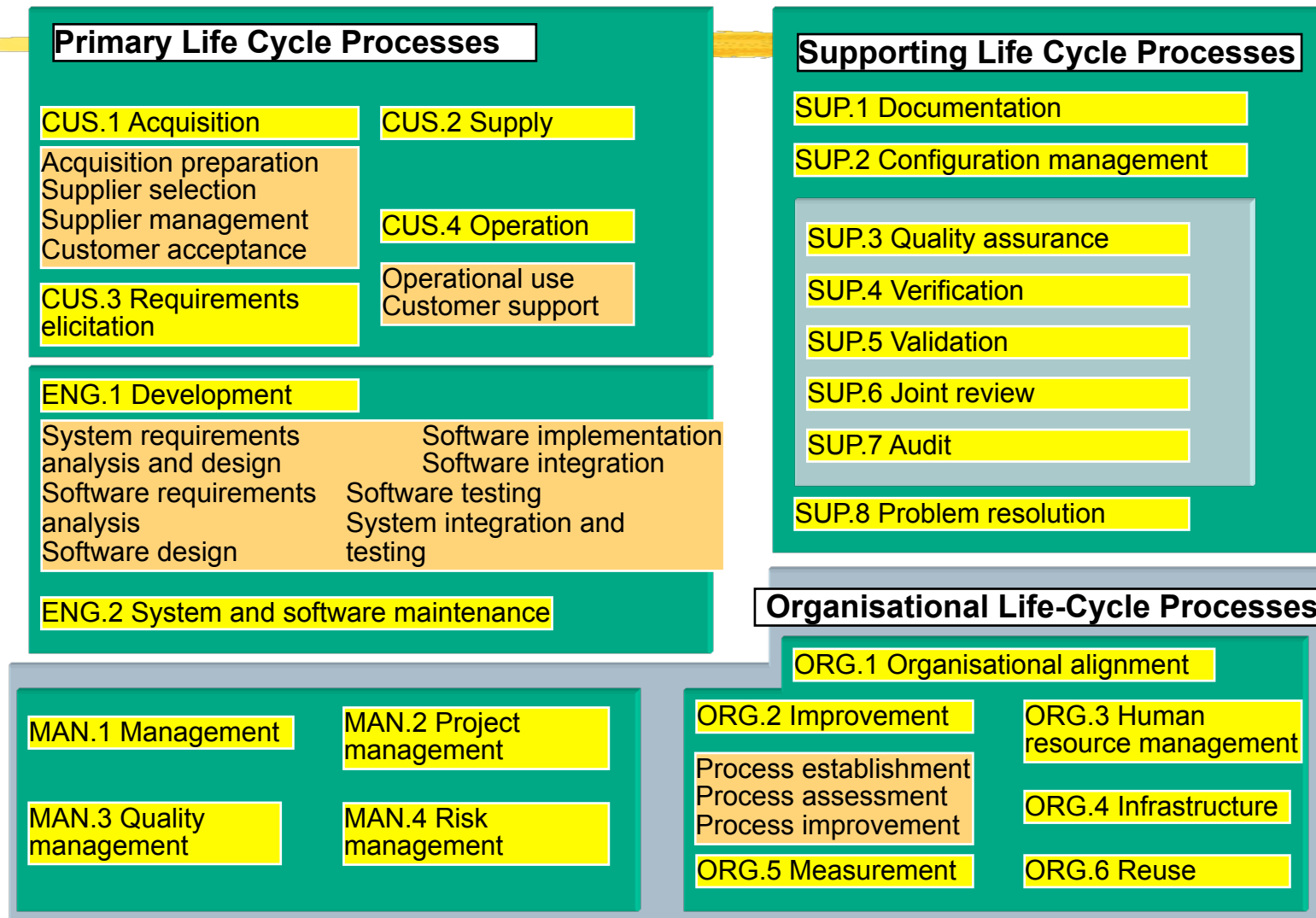
**Engineering** - those that specify, implement or maintain a  
system or software product and its user documentation

**Support** - processes employed by any of the other  
processes during the Life Cycle

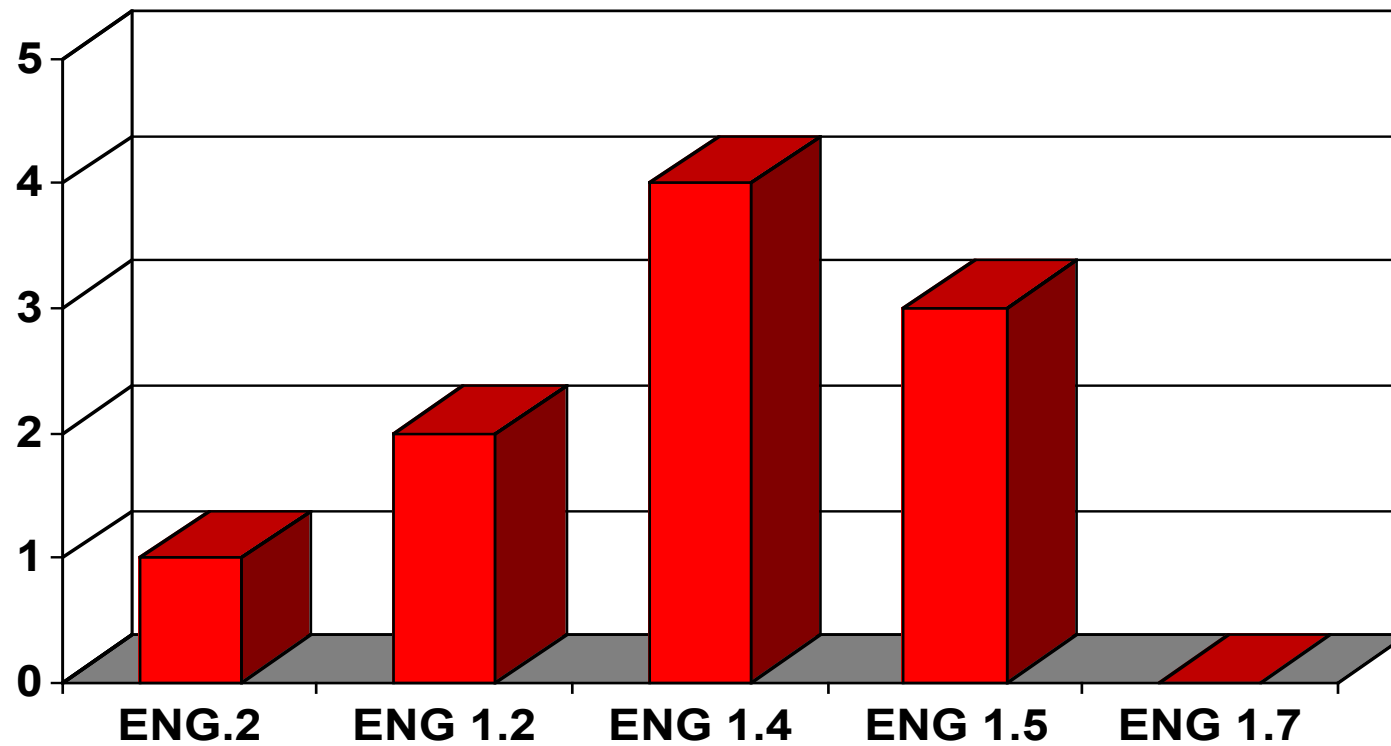
**Management** - processes used by anyone managing any  
project or activity within the Life Cycle

**Organisation** - processes that establish the business  
goals

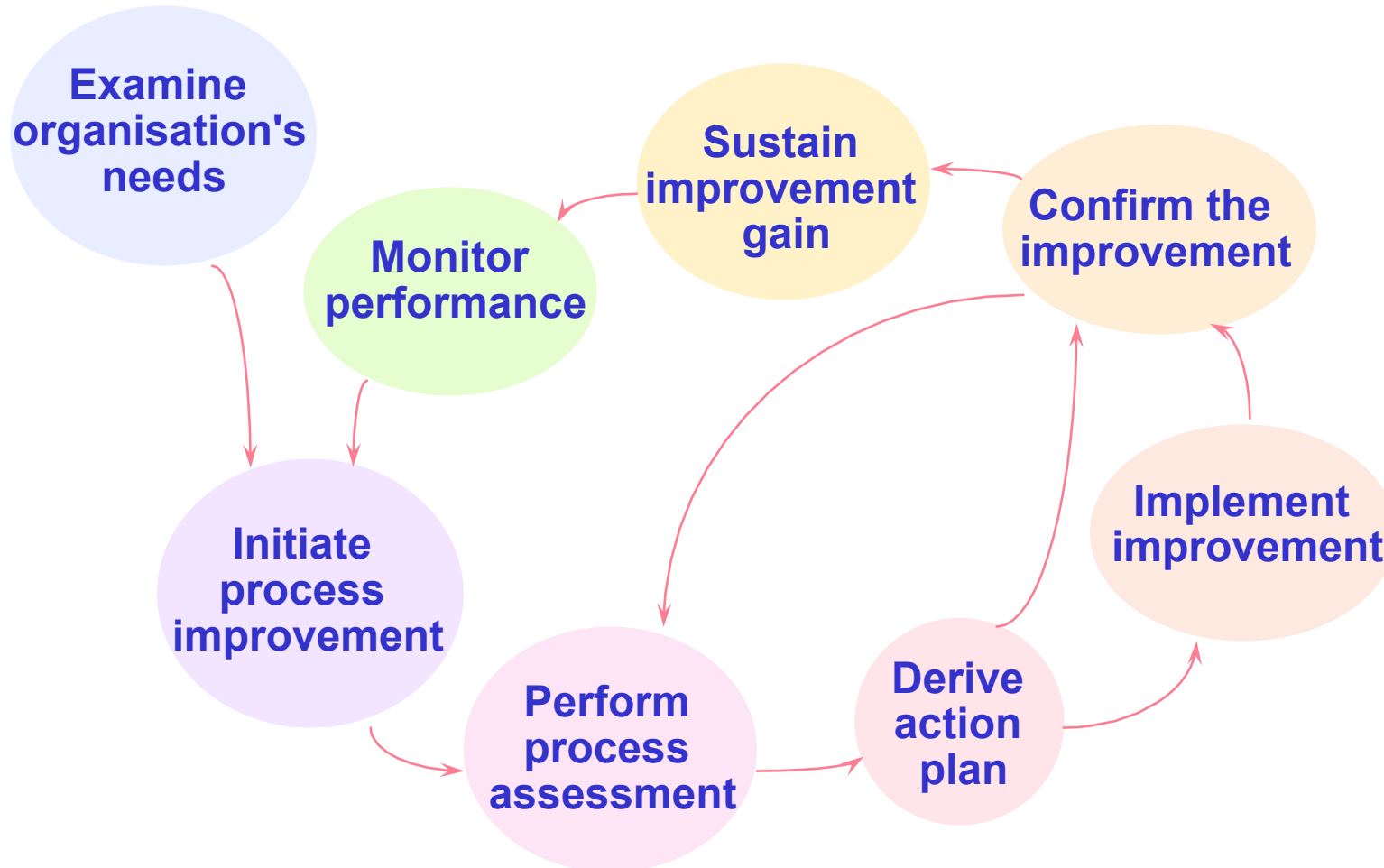
# SPICE structure - Process dimension



# Capability Level Profile



# Process Improvement Steps

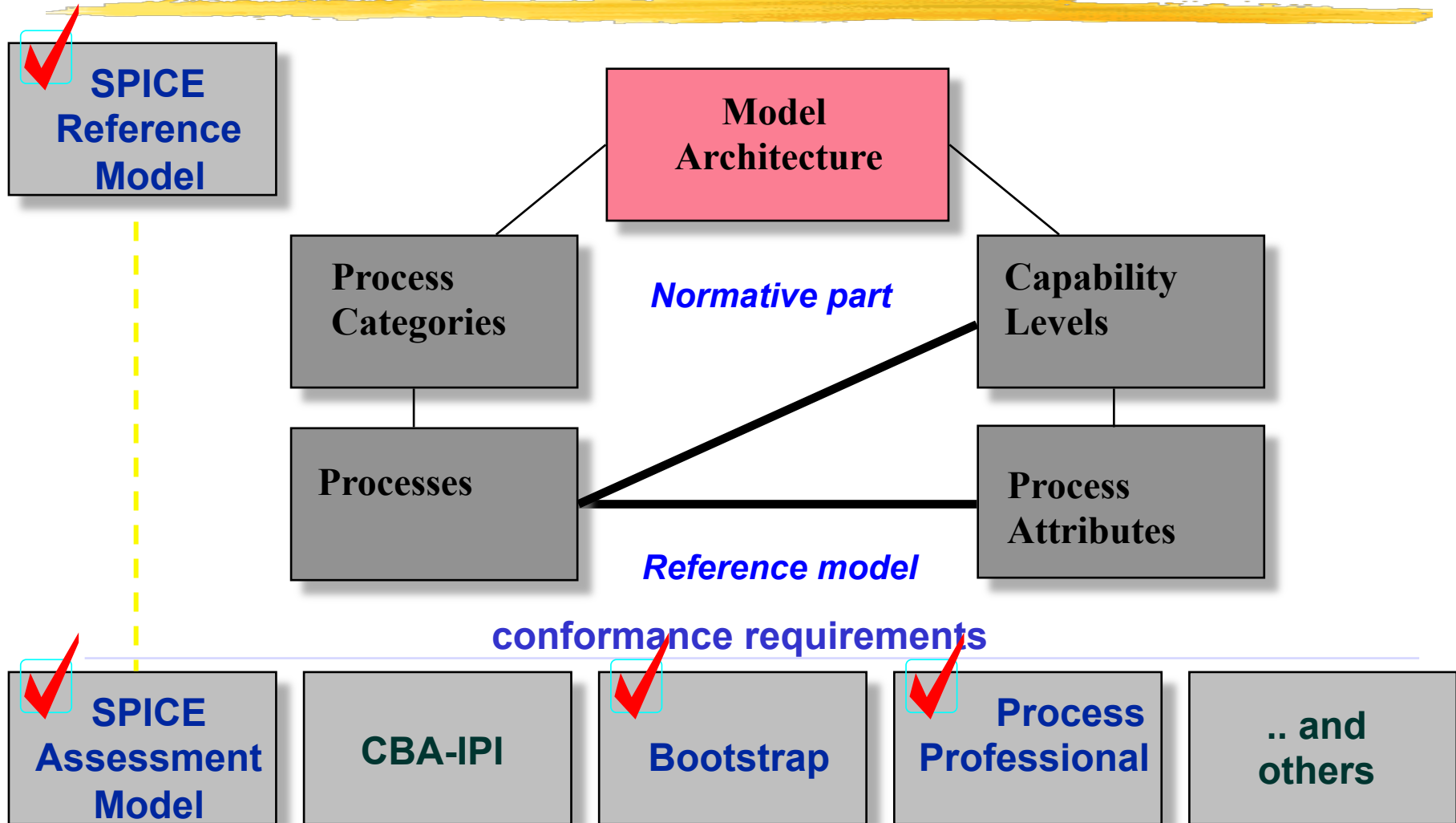


# Using ISO15504

---

- ❖ It provides a set of requirements for performing software process assessment using
  - A Reference Model for Processes and Process Cap. (**part 2**)
  - Requirements for an assessment (**part 3**)
- ❖ It also provides additional guidance information to support use of the Standard
- ❖ In addition, it provides an **Assessment model** conformant to the SPICE Reference Model (**part 5**)

# SPICE Conformant Models





# Fragen



- A. Welchen Nutzen können Sie aus einem Prozess-Referenzmodell ziehen?
- B. Welchen Nutzen können Sie aus dem SPICE-Verbesserungsprozess ziehen?
- C. Was deckt SPICE nicht ab?