Thesis Project Systems Engineering Context

by *Gerrit Muller*   USN-SE

e-mail: `gaudisite@gmail.com`
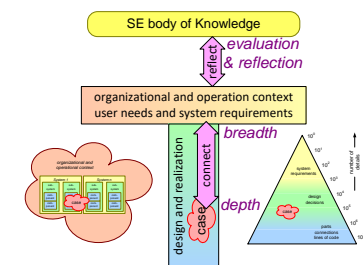
`www.gaudisite.nl`

Abstract

The master study Systems Engineering is completed by performing a master project. This document describes context of the case(s) that students are using during the research.

May 15, 2021
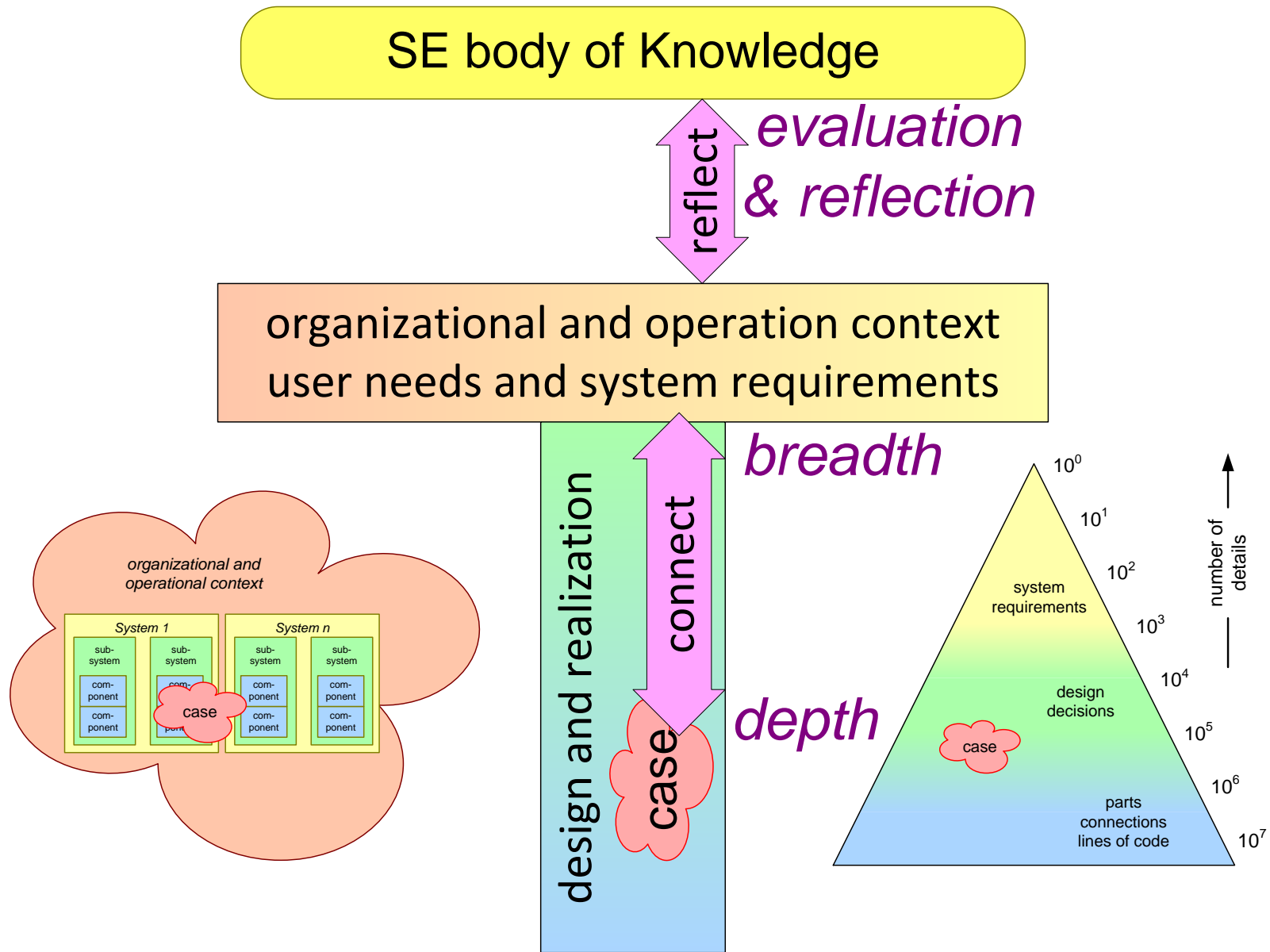status: concept
version: 0

Scoping is Crucial

What methods, techniques, tools, concepts	Systems Engineering
What (sub)systems, releases, functions, qualities, aspects, disciplines, technologies	industrial
What timing of activities and deliverables	planning
What resources (student time, means, advisors)	planning
What approach, criteria	research

Case Positioning

organizational and
operational context

System 1 — sub-system — com-ponent / com-ponent

System n — sub-system — com-ponent / com-ponent

case

10^0
10^1
10^2
10^3
10^4
10^5
10^6
10^7

number of details

system requirements

design decisions

case

parts
connections
lines of code

USN   ESI
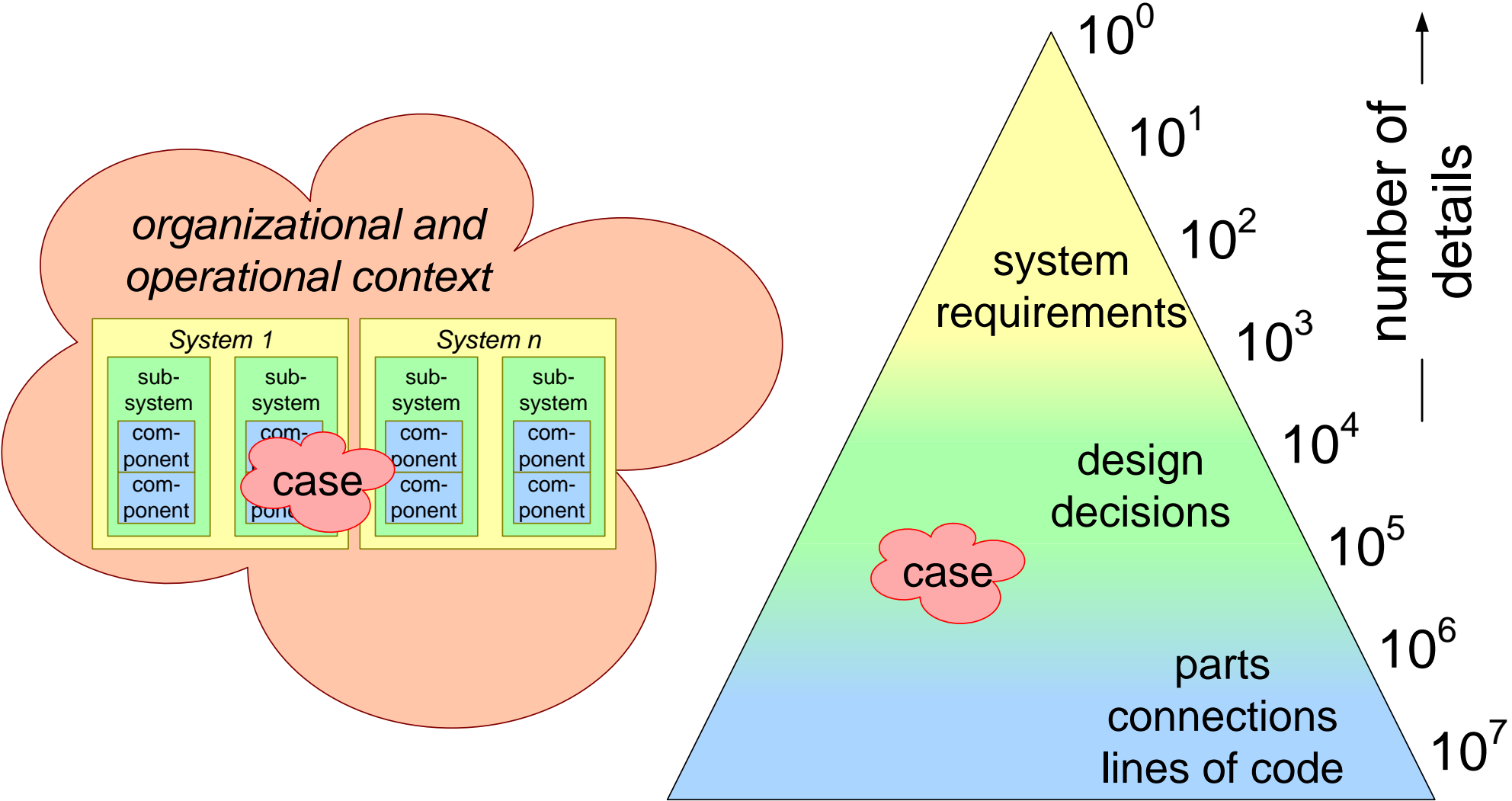
Depth, Breadth and Reflection

Difference Academic and Industrial Goals

SE body of Knowledge

reflect — *reflection*

organizational and operation context
user needs and system requirements

academic
perspective

industrial
perspective

goal

means

means

goal

design and realization

connect — *breadth*

case — *depth*

USN ESI