

# Mastering Systems Integration; Software and Integration

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## Abstract

Software has a number of characteristics, which impact systems integration.

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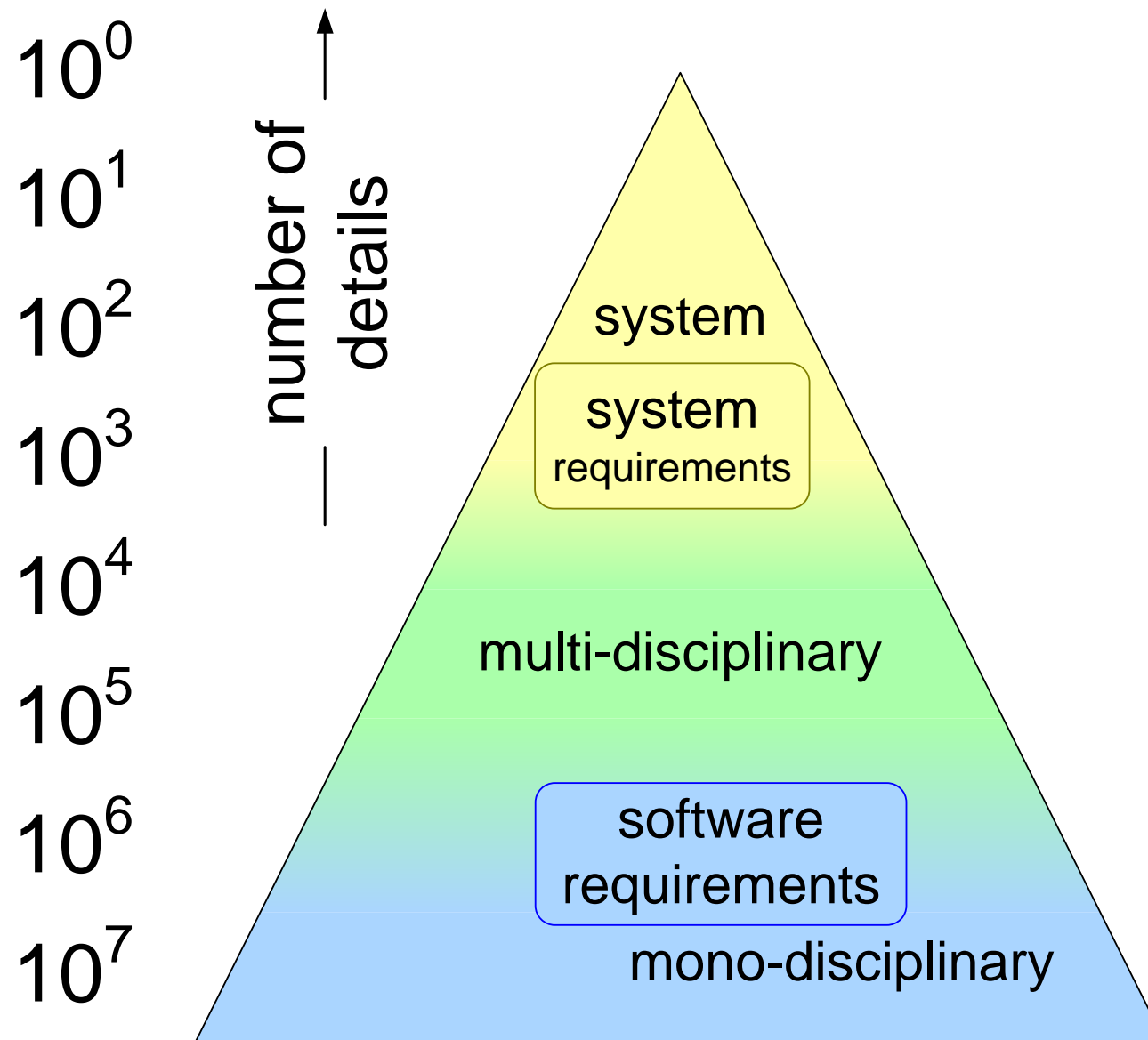
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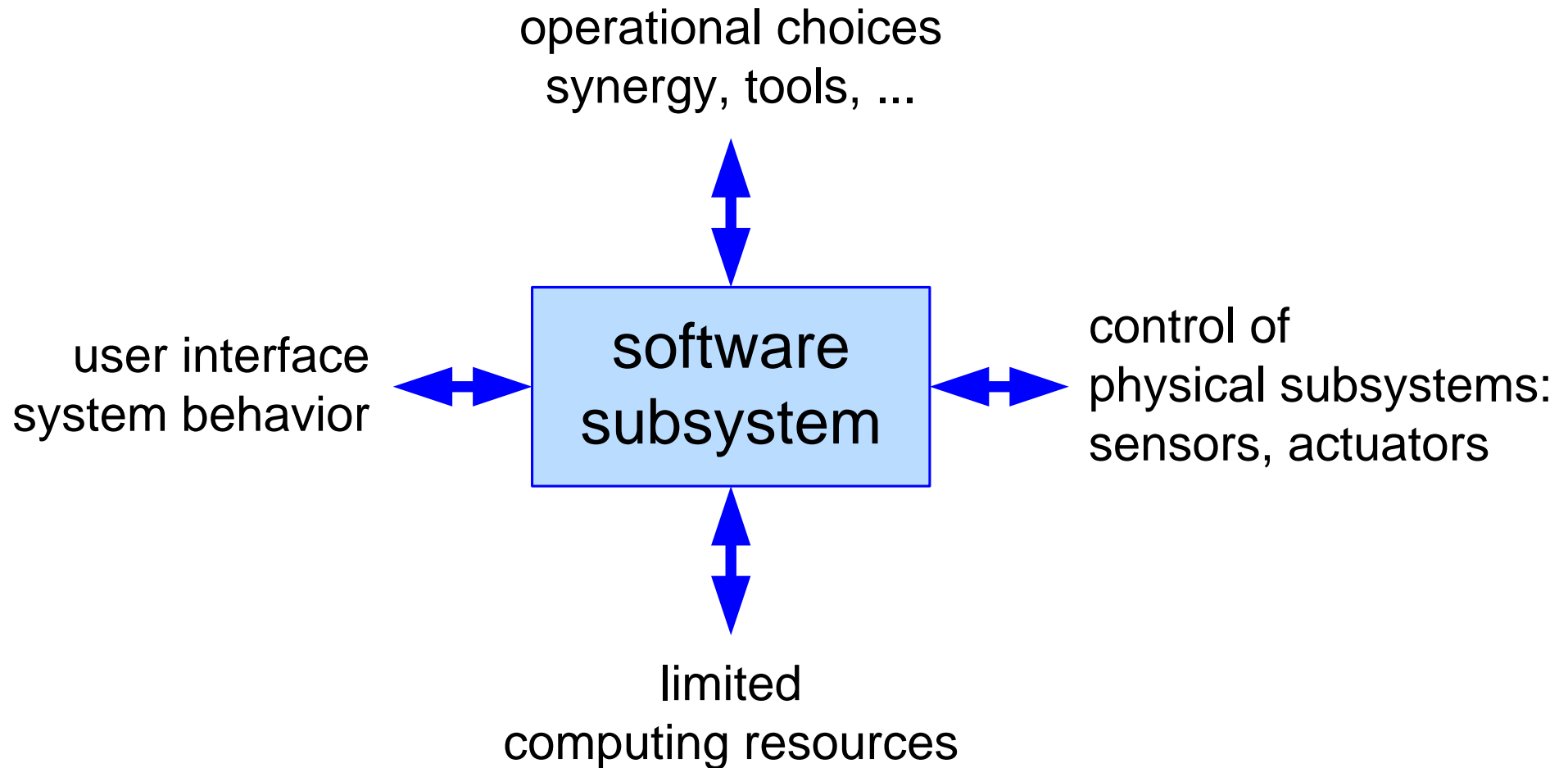
When SW engineers demand "requirements",  
then they expect *frozen* inputs  
to be used for  
the design, implementation and validation  
of the software

# System vs Software Requirements

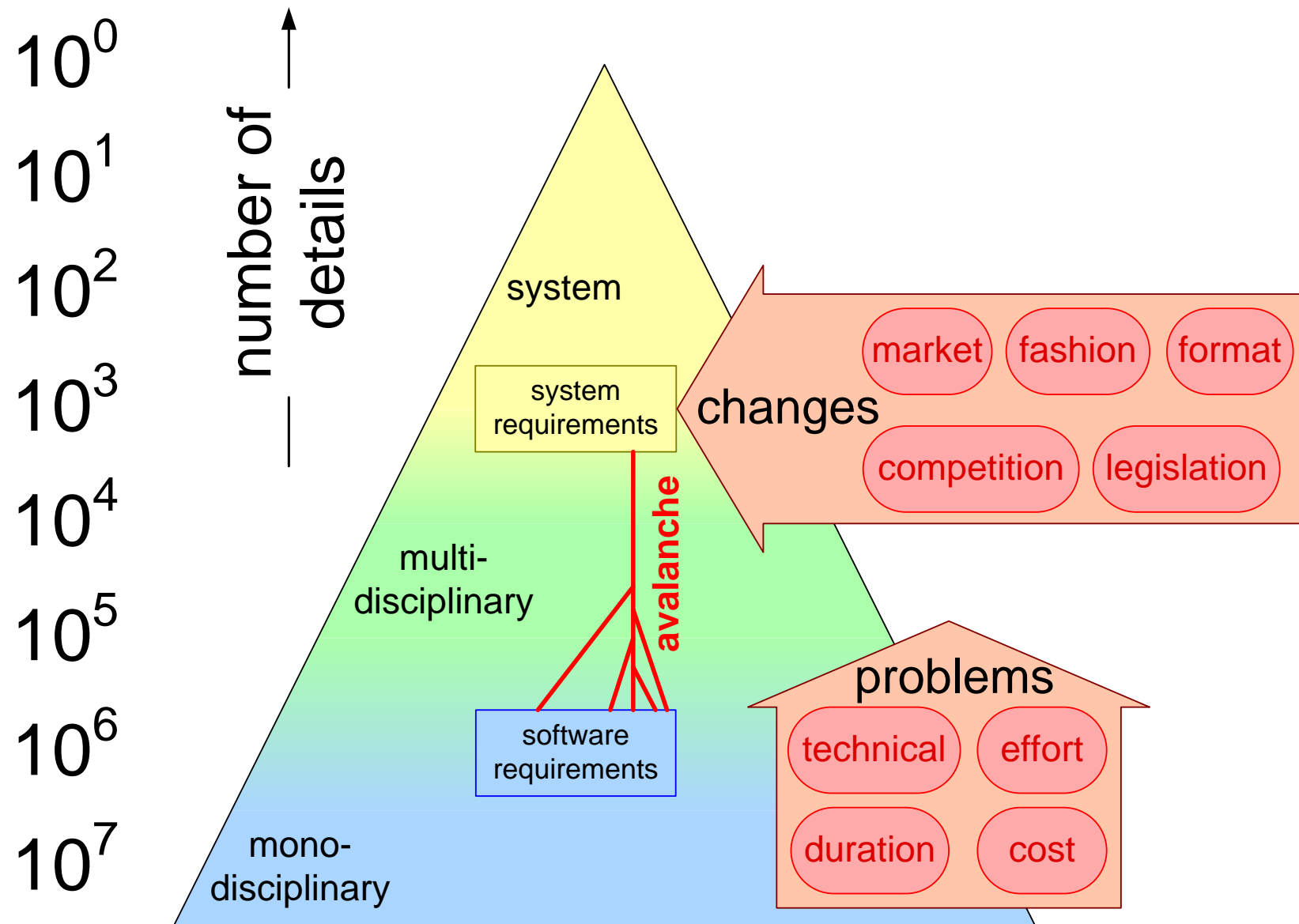


# Why is the Software Requirement Specification so Large?

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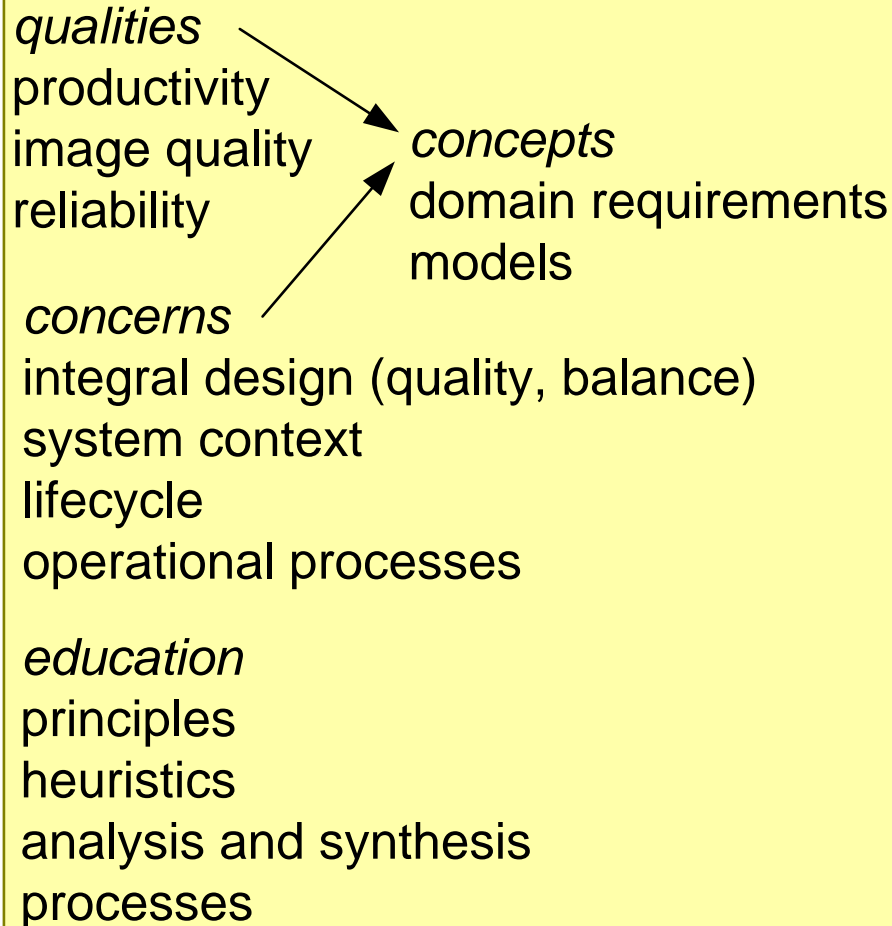


# And why is it never up-to-date?

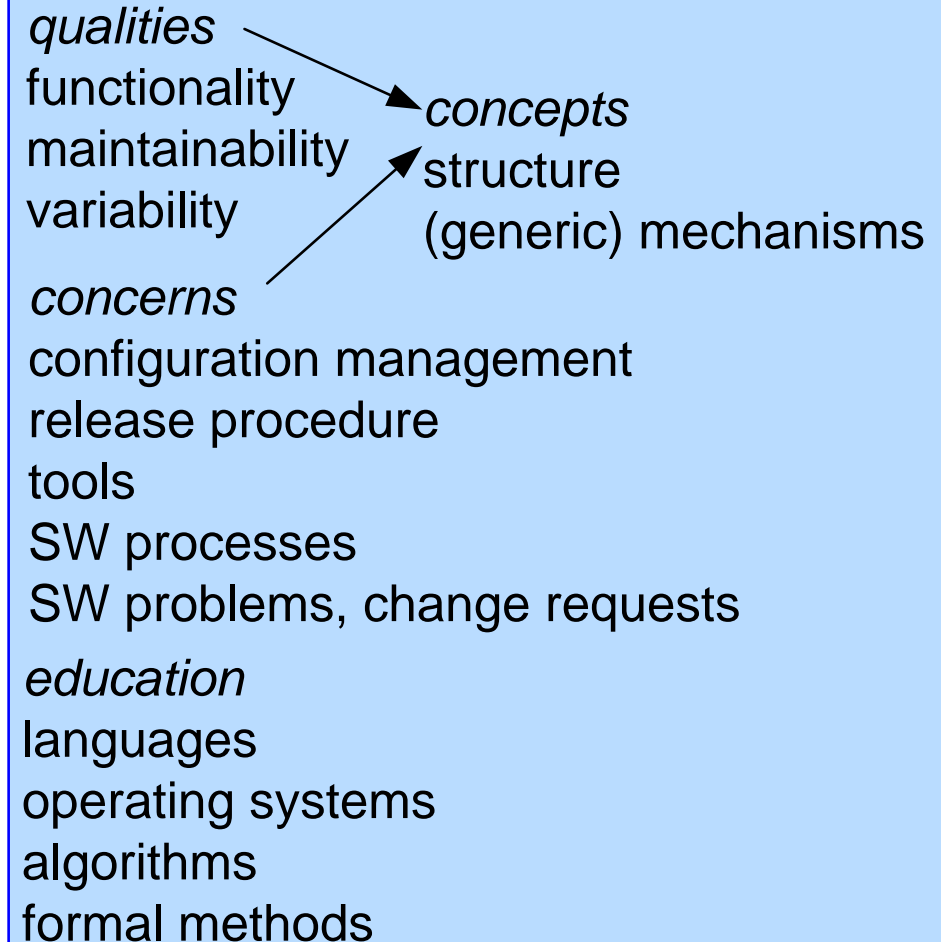


# Different Focus of Software and System

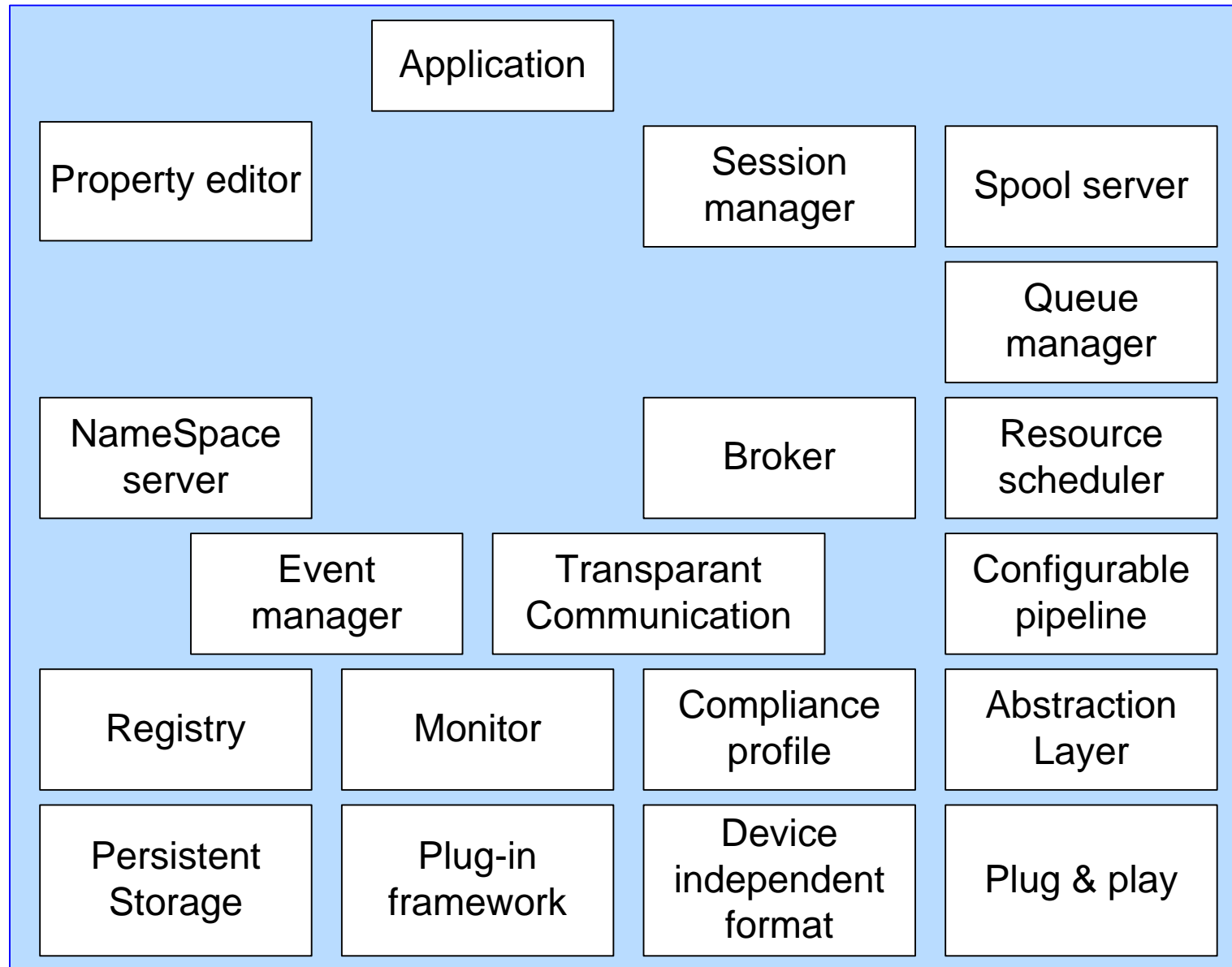
## *System engineering focus*



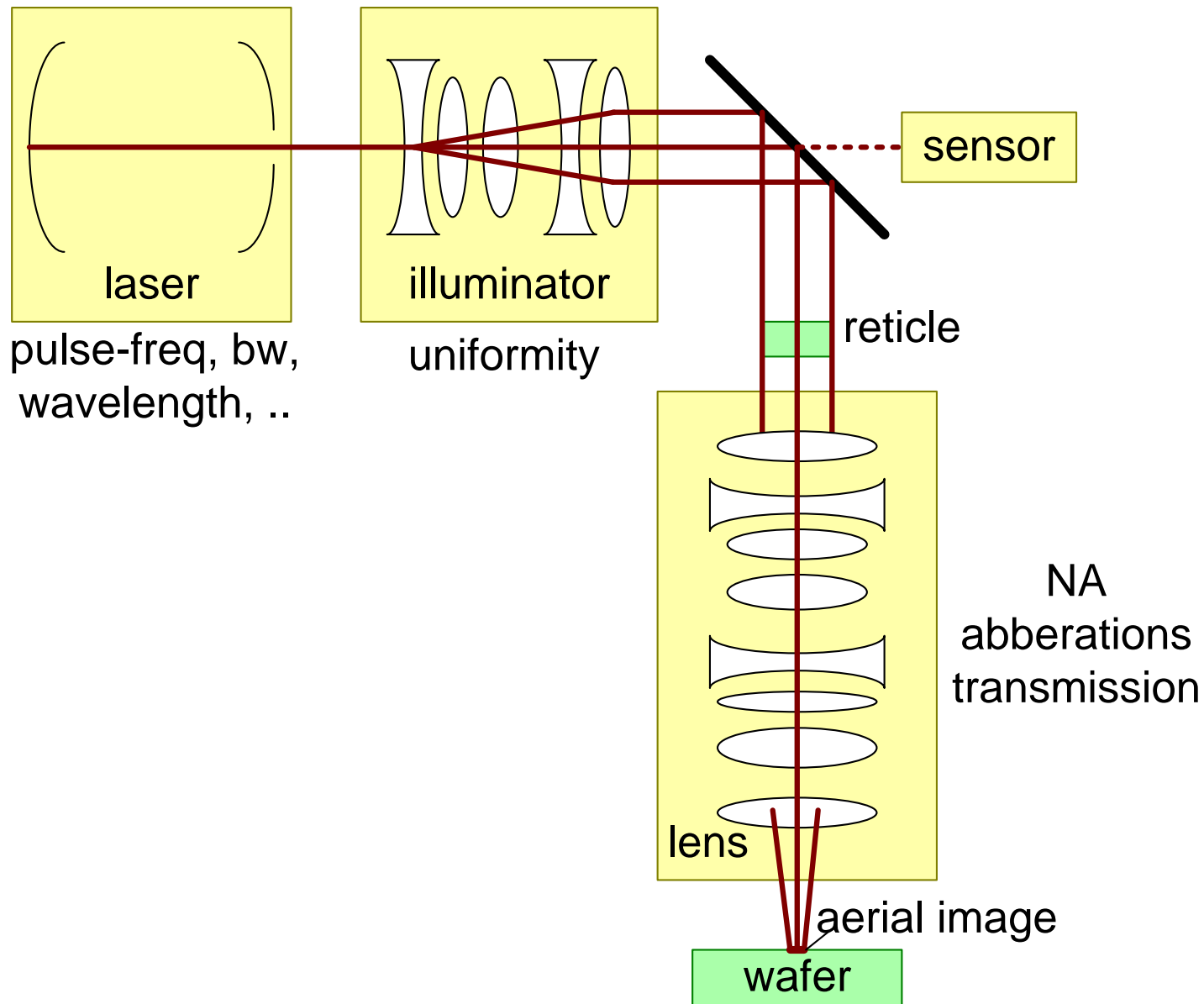
## *SW engineering focus*



# Caricature of a SW Architecture

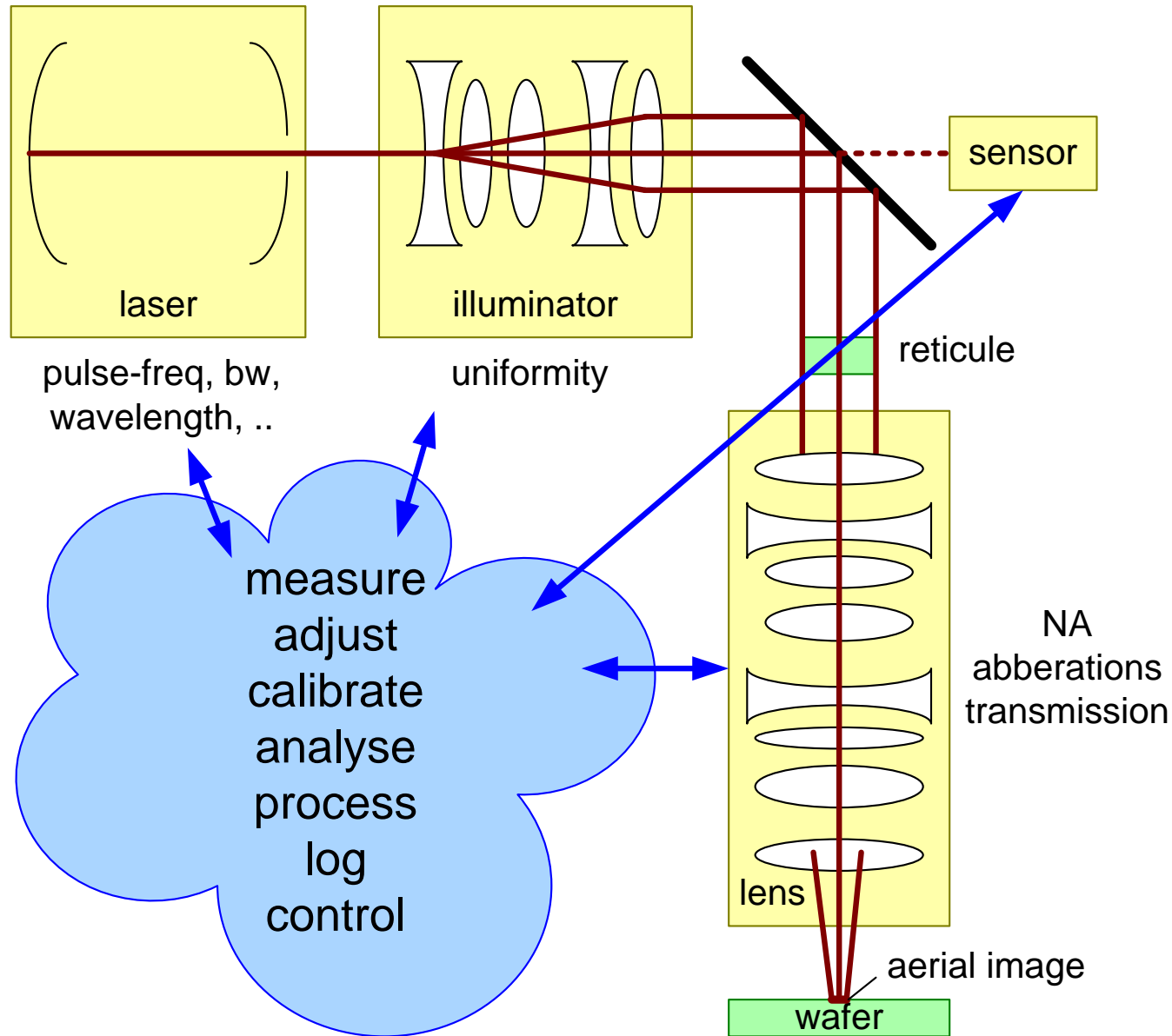


# Caricature of Physics Systems View





# Relation SW and Physics



# Symptoms of too isolated SW efforts

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*symptoms*

*counter measures*

SW people are clustered together

colocation per function, subsystem or quality

SW is alpha tested before system integration

continuous system integration

SW team uses own specification and design process

higher level processes are shared

SW specification is in SW jargon or formalism

interaction between SW,  
HW and system engineers

# Hardware Software System

