



● INSPIRE ● INFLUENCE ● IMPACT ●

Deploying MBSE for Great Communication

Remember why we're doing it!

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Digital Engineering

Digital Twin

Digital Ecosystem

Digital Transformation

Digital Engineering Toolchain



What is a model?

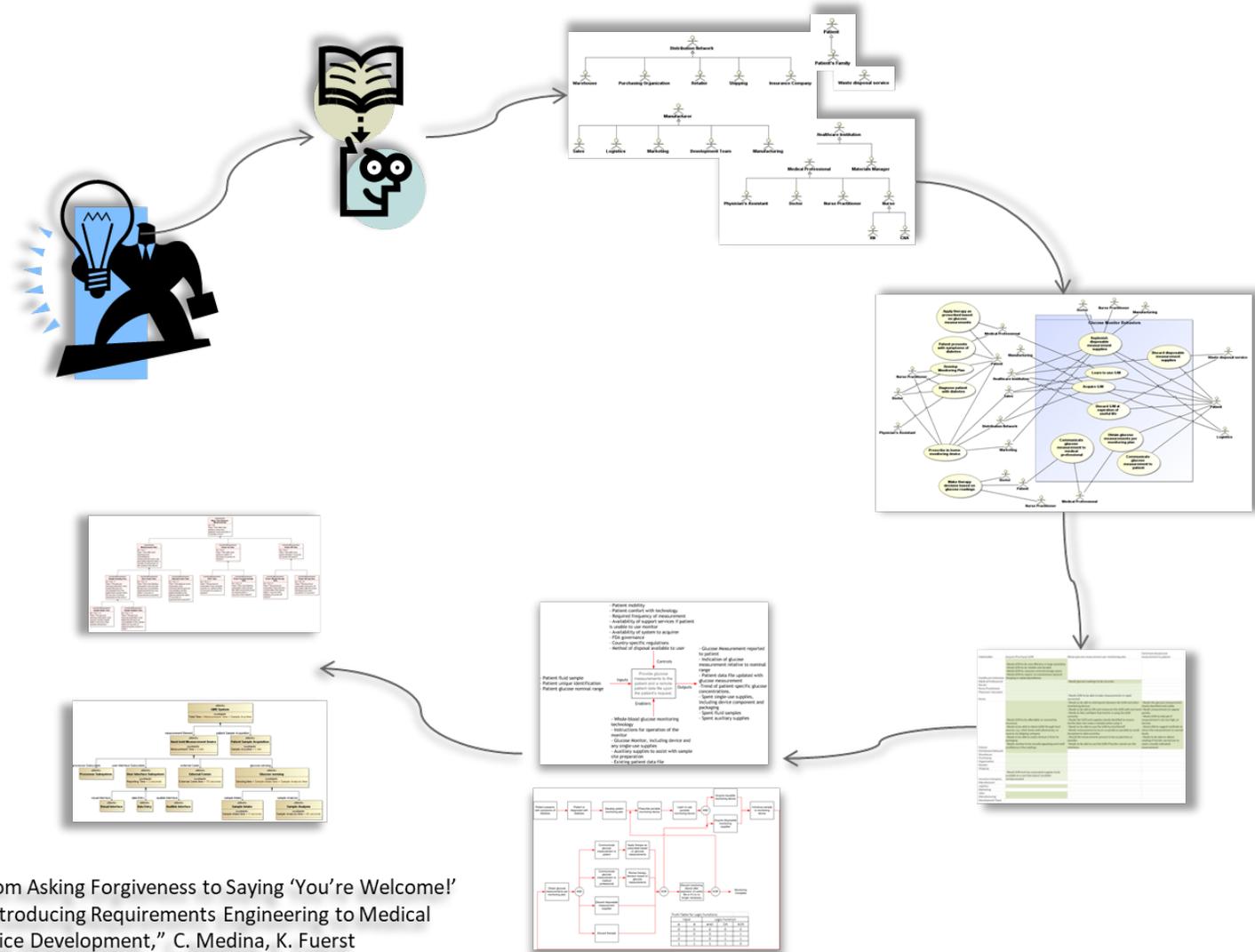


Model: A pattern of something to be made

Merriam-Webster







“From Asking Forgiveness to Saying ‘You’re Welcome!’
 – Introducing Requirements Engineering to Medical
 Device Development,” C. Medina, K. Fuerst



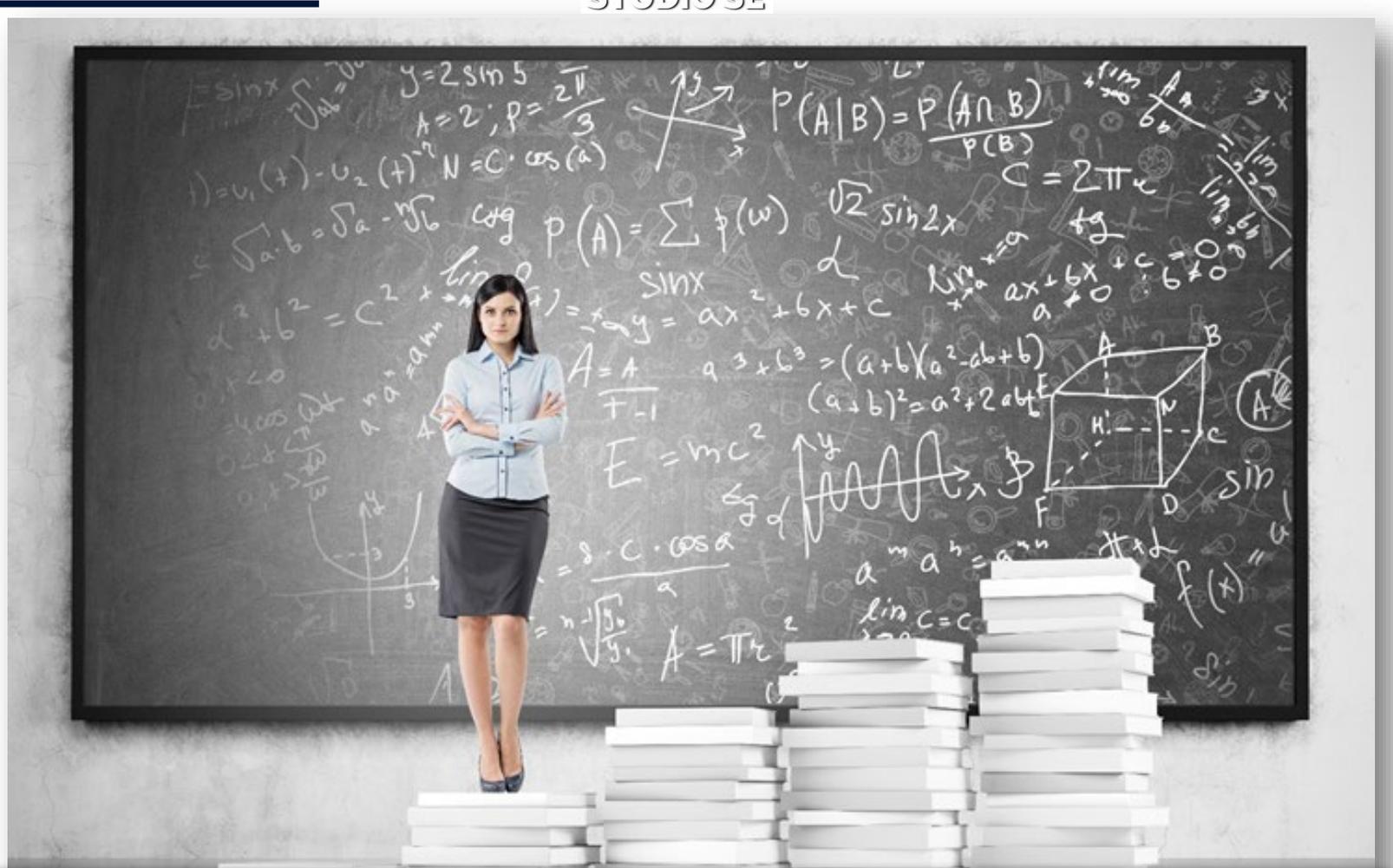
Let's Start with Some Important Questions:

- What do I need to learn?
- What questions do I need to answer?
- What process do I need to follow?
- Who needs to understand and use the information in my model(s)?

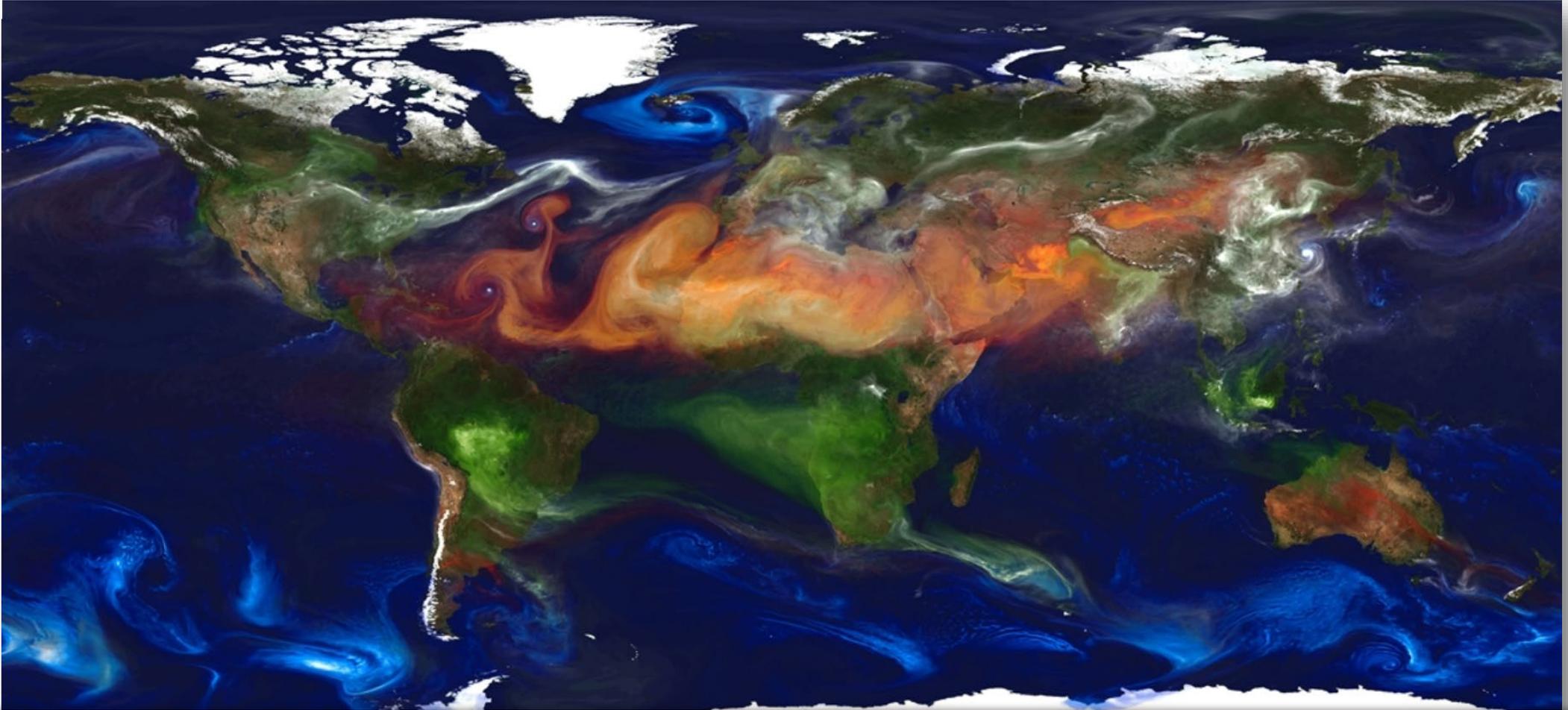


Complicated Problems vs. Complex Problems

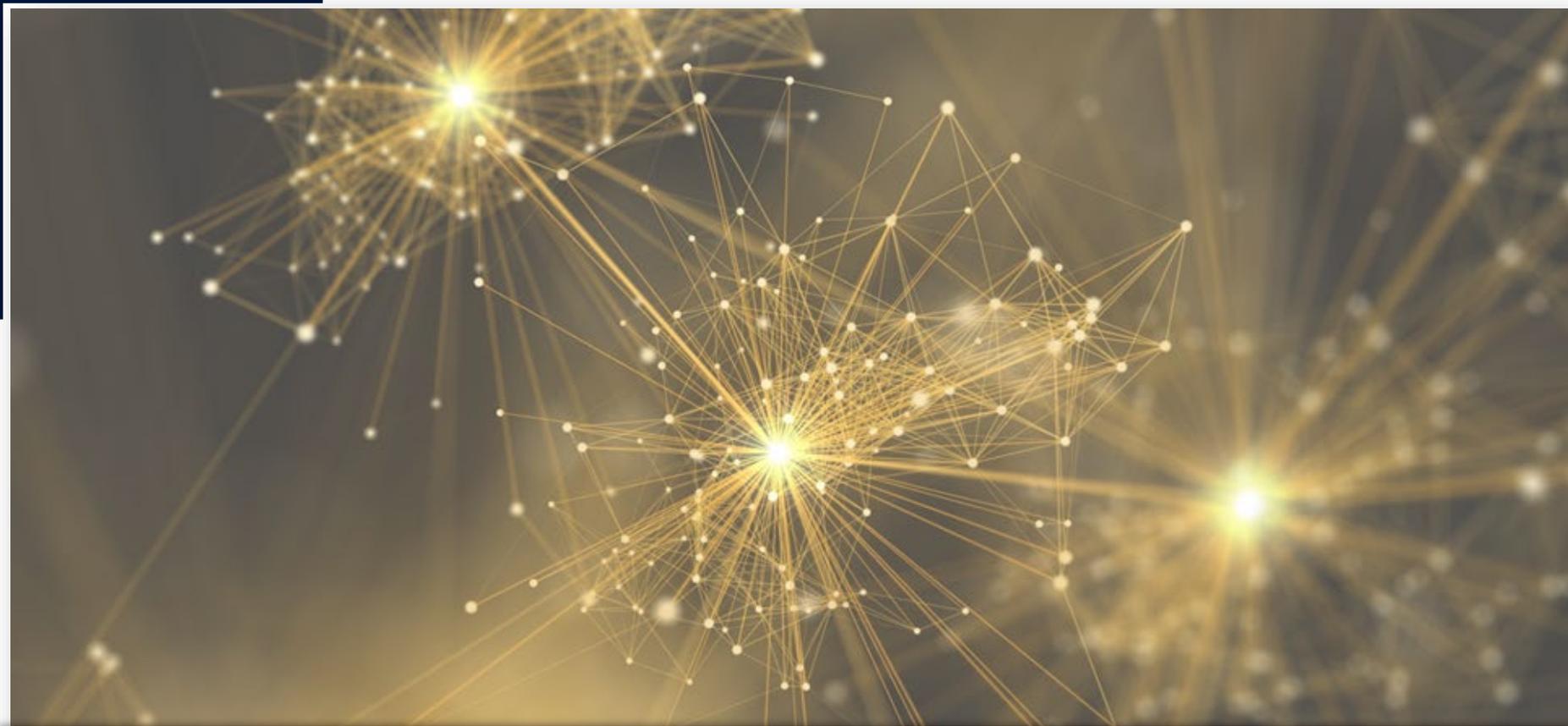




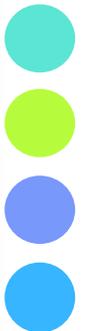
Complicated problems can be solved algorithmically by really smart people



*Complex problems are based on relationships
and resource flows*



Complex problems require analysis, modeling, and simulation to develop a good solution.







*Complication causes confusion, problems, irritation,
budget overruns...*



The *other* problem..



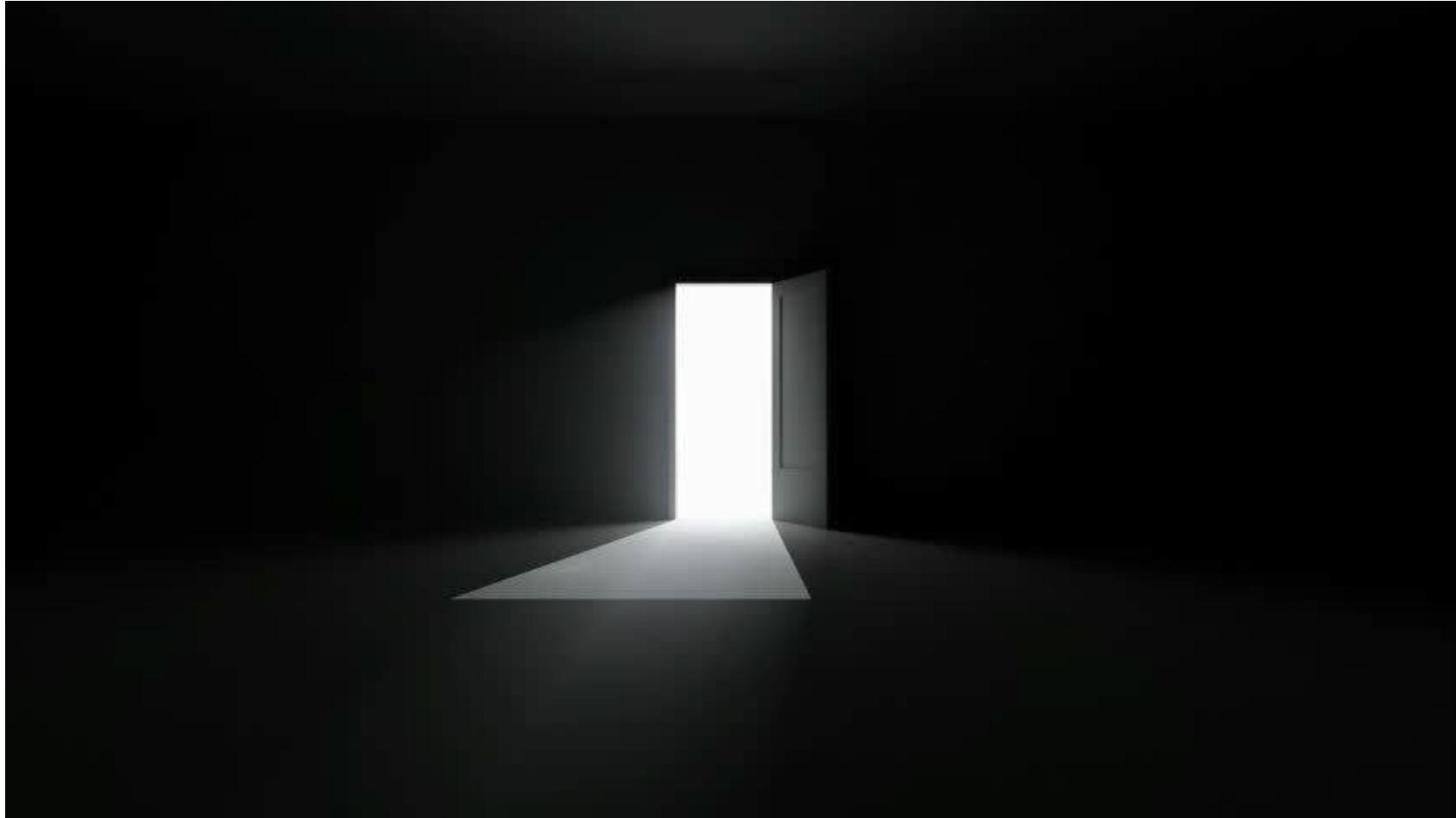
"Think this is bad? You should see the inside of my head."

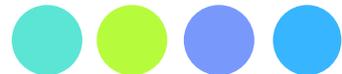
<https://lindseygail10.files.wordpress.com/2013/10/messy-desk-sipress.gif>



OBSOLETE



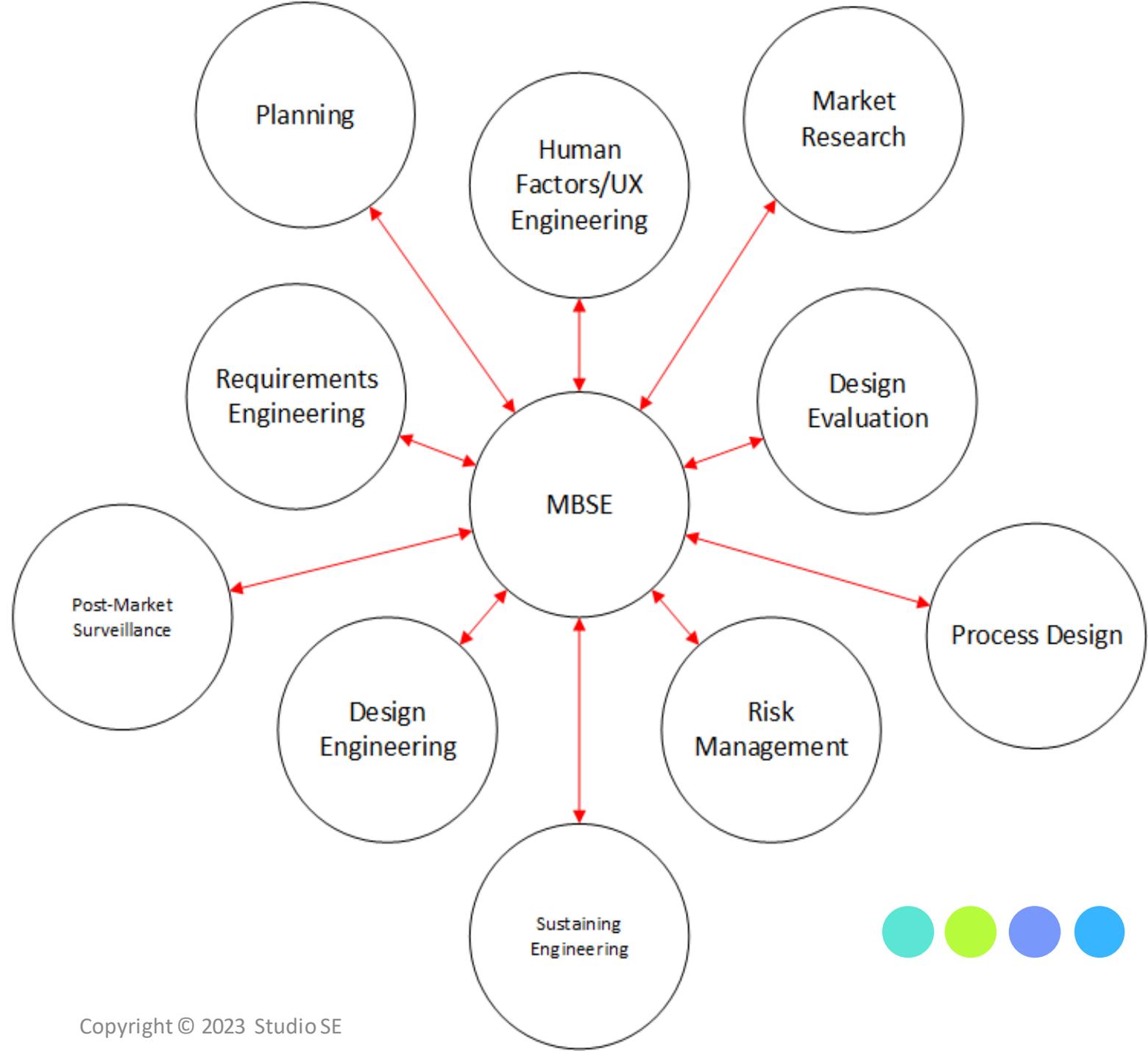




Let's Use MBSE!



MBSE shifts
our focus
from
documents to
design



MBSE creates...

a single source of ~~truth~~







<https://www.iipr.org/post/just-facts-maam#stream/0>

MBSE creates...

a single source of fact



SysML is a _____

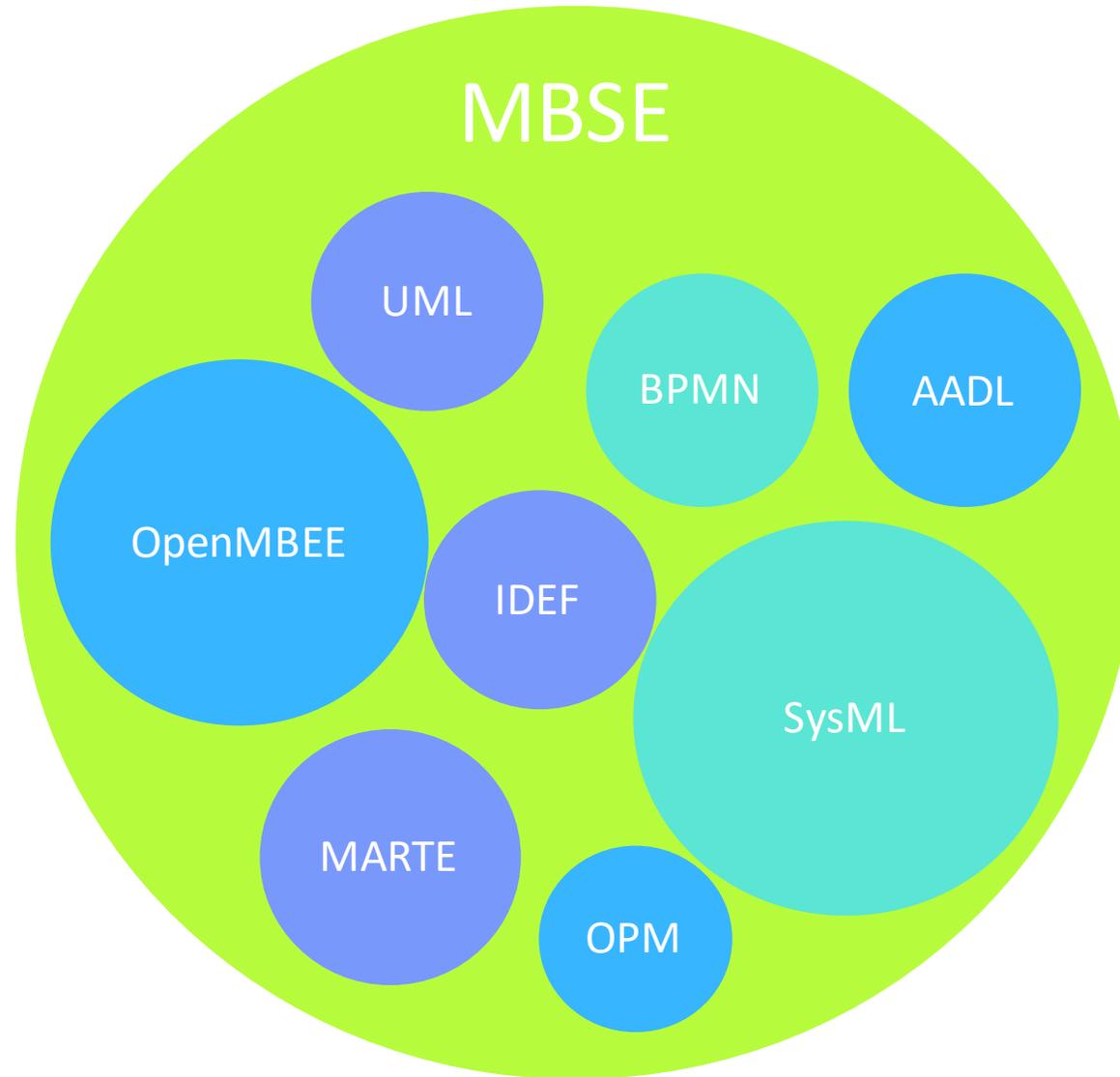
process
language ✓

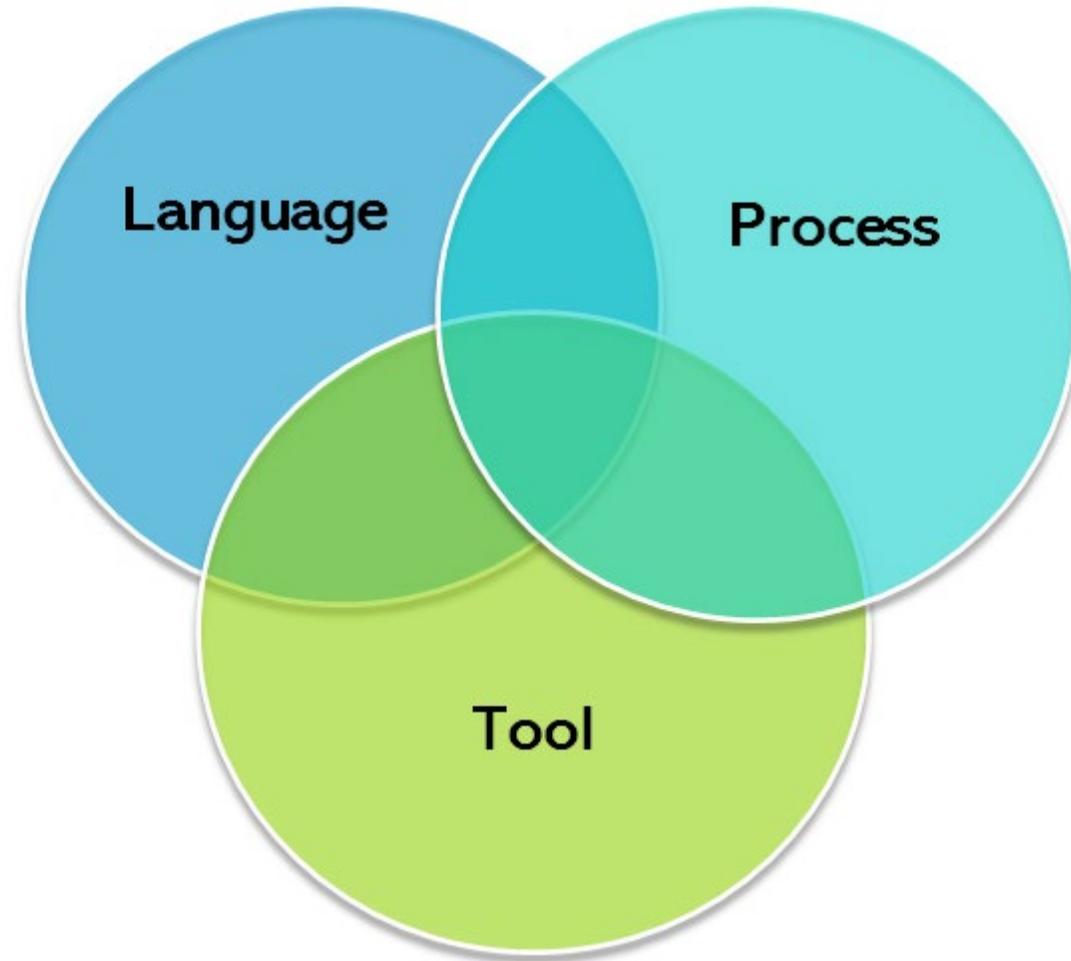


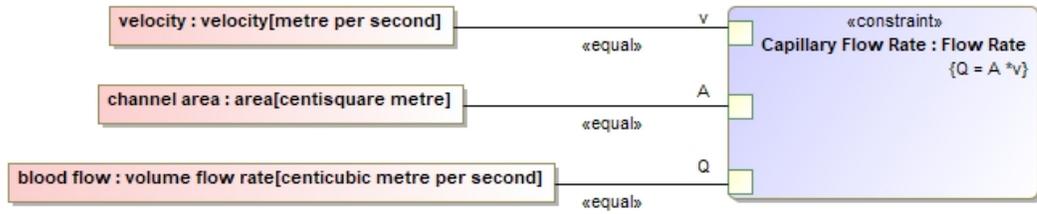
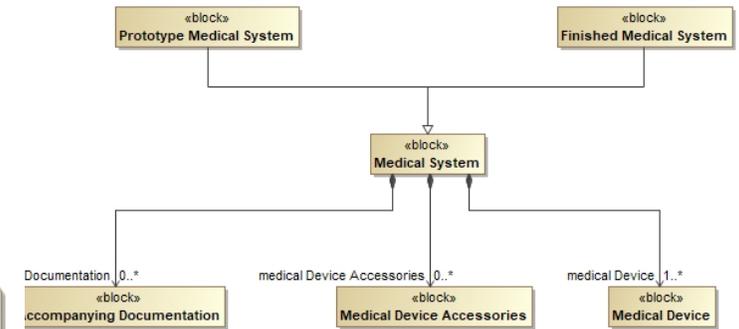
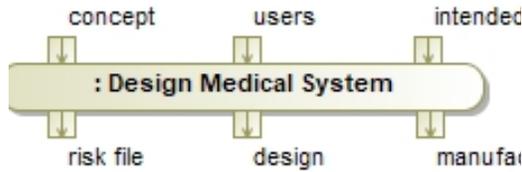
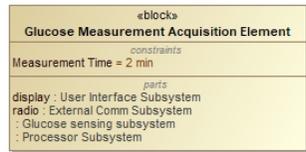
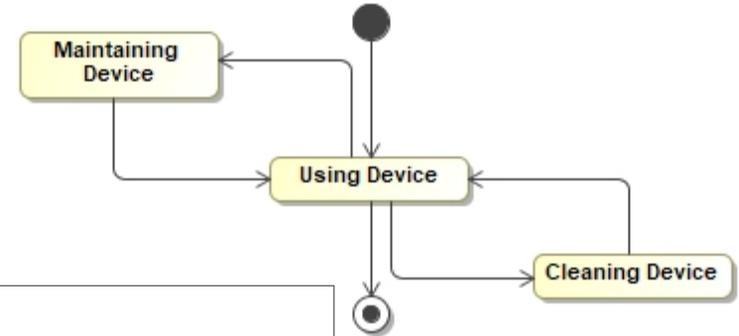
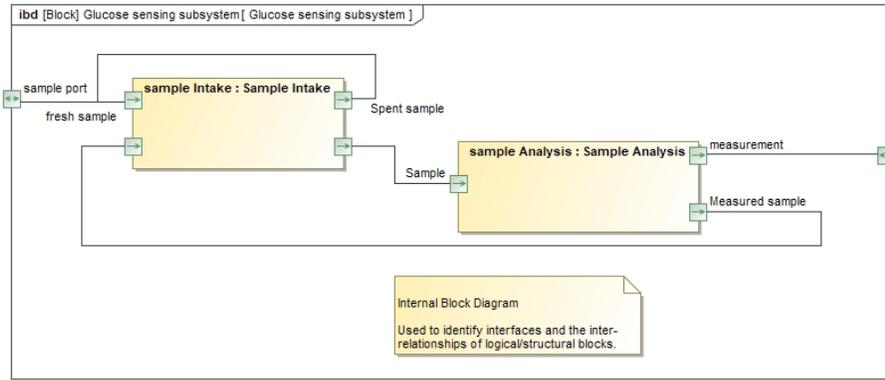
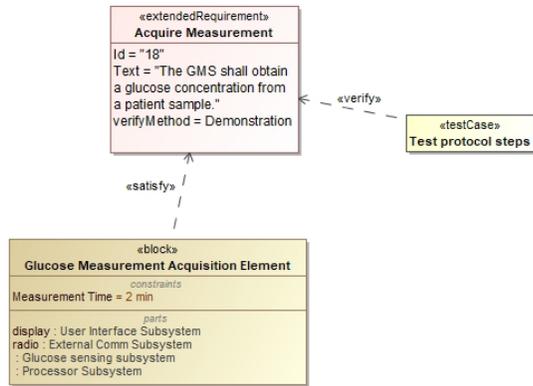
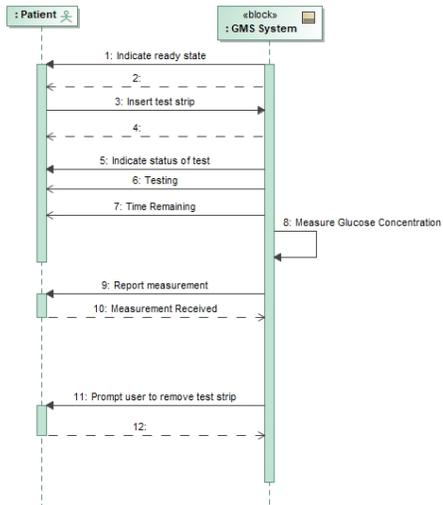
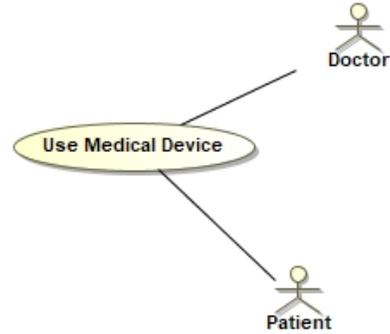
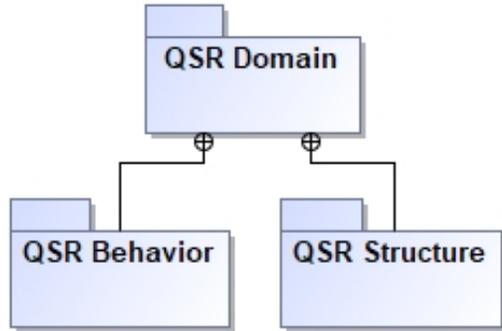
Are these the same?

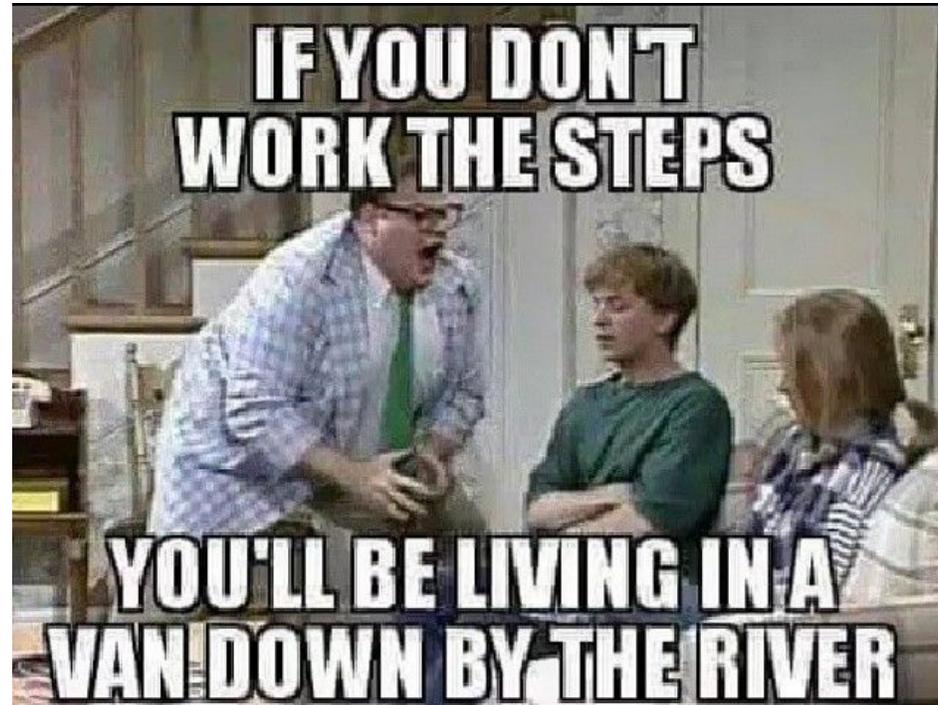
MBSE \neq SysML

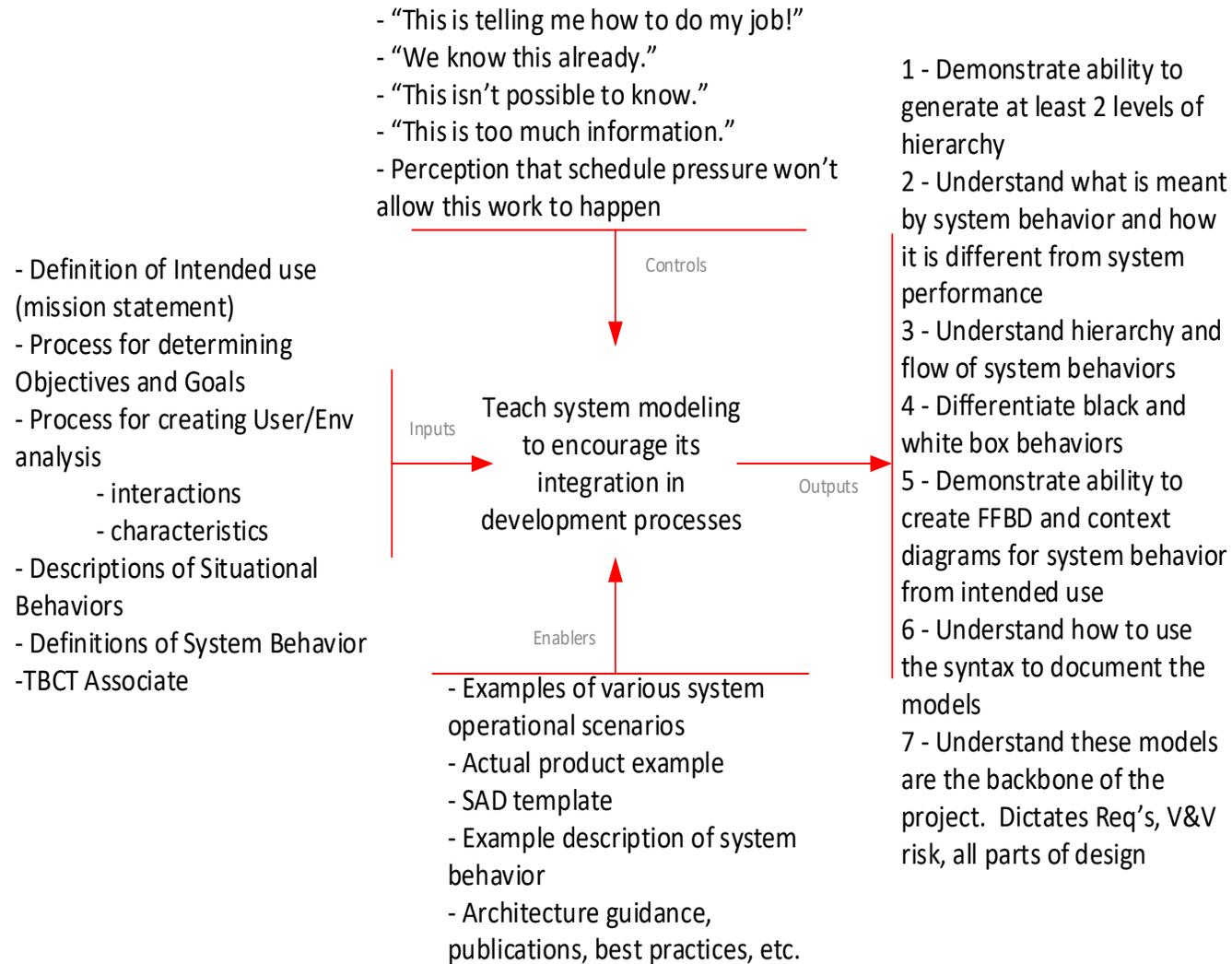


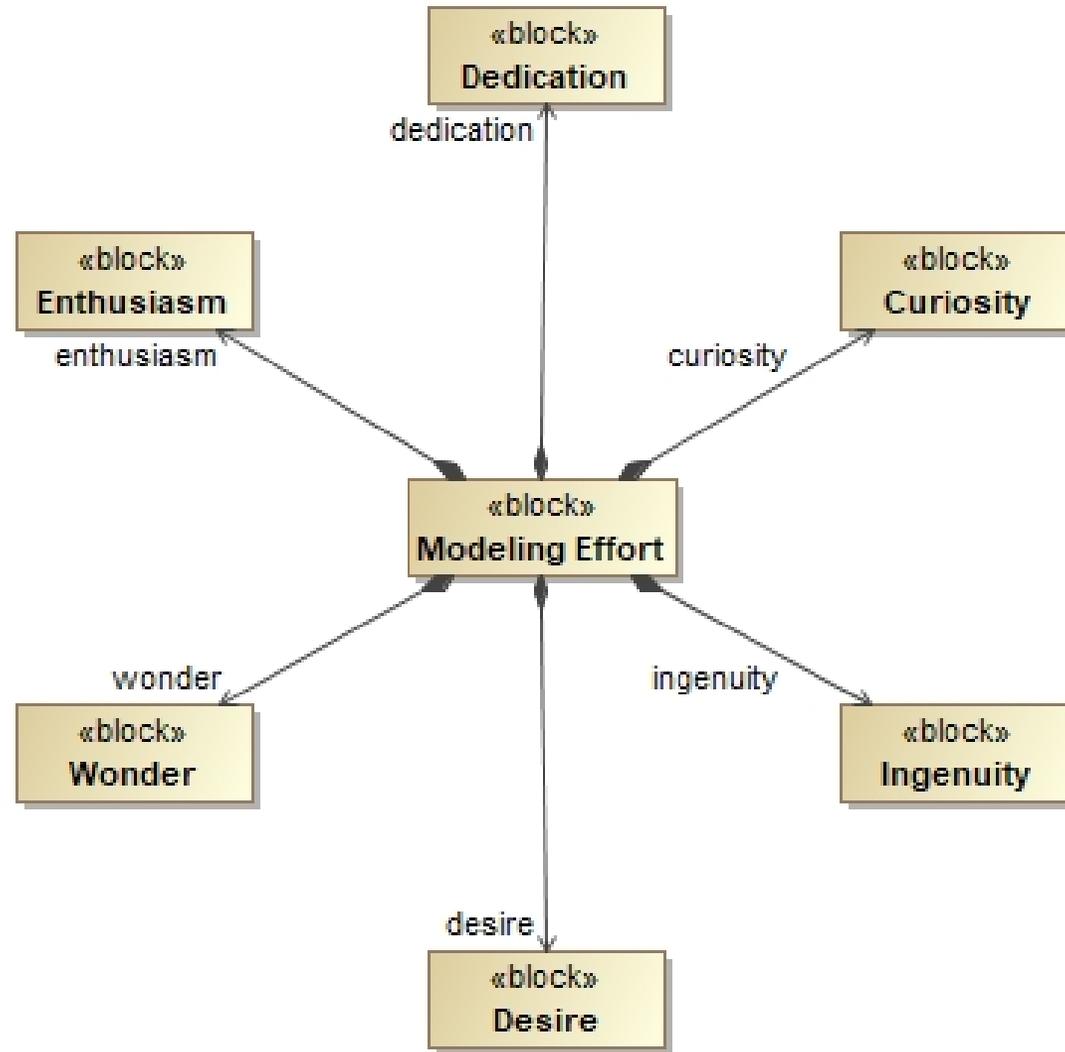












excitement
knowledge
enthusiasm
expertise
compassion
patience
wisdom
kindness
dedication
temperance



Is it enough to teach everyone SysML syntax?

- Approach MBSE with common vernacular. Use your organization's terminology.
- Approach MBSE as an enabler for essential processes.
- Make sure your team (and you!!!) know why you're creating models

Is it enough to teach everyone SysML syntax?

- Make your models the focus of your effort, not documentation.
- Modeling should be fun, it's up to us to make it fun for our teams!!!



Questions?





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