



Why Software Architects Fail

10 Diseases You Should Know About

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dis·ease (dĭ-zēz')

- n.* A pathological condition of a part, organ, or system of an organism resulting from various causes, such as infection, genetic defect, or environmental stress, and characterized by an identifiable group of signs or symptoms.
- n.* A condition or tendency, as of society, regarded as abnormal and harmful.
- n. Obsolete* Lack of ease; trouble.

1. Over-Generalization Drive

Symptom: Seeing
commonalities in
everything and turning
them into generic
solutions

Phases in a Developer's Life

1. The Enthusiastic Developer

"This stuff is cool - let's build programs! For real people!"

Create Customer	Create Product	Create Order
Find Customer	Find Product	Find Order
List Customers	List Products	List Orders
Edit Customer	Edit Product	Edit Order
Delete Customer	Delete Product	Delete Order

Boring, boring, boring.

2. The Disillusioned Developer

"Oh. Real people
have boring
problems."

Create Customer	Create Product	Create Order
Find Customer	Find Product	Find Order
List Customers	List Products	List Orders
Edit Customer	Edit Product	Edit Order
Delete Customer	Delete Product	Delete Order

Create Thing

Find Thing

List Thing

Edit Thing

Delete Thing

3. The Enthusiastic Architect

Create Thing

Find Thing

List Thing

Edit Thing

Delete Thing

"Generic solutions! Cool!"

4. The Disillusioned Architect

KISS

YAGNI

Lean

Minimable viable product

Story focus

“When you go too far up, abstraction-wise, you run out of oxygen. Sometimes smart thinkers just don't know when to stop, and they create these absurd, all-encompassing, high-level pictures of the universe that are all good and fine, but don't actually mean anything at all. These are the people I call Architecture Astronauts.

Joel Spolsky

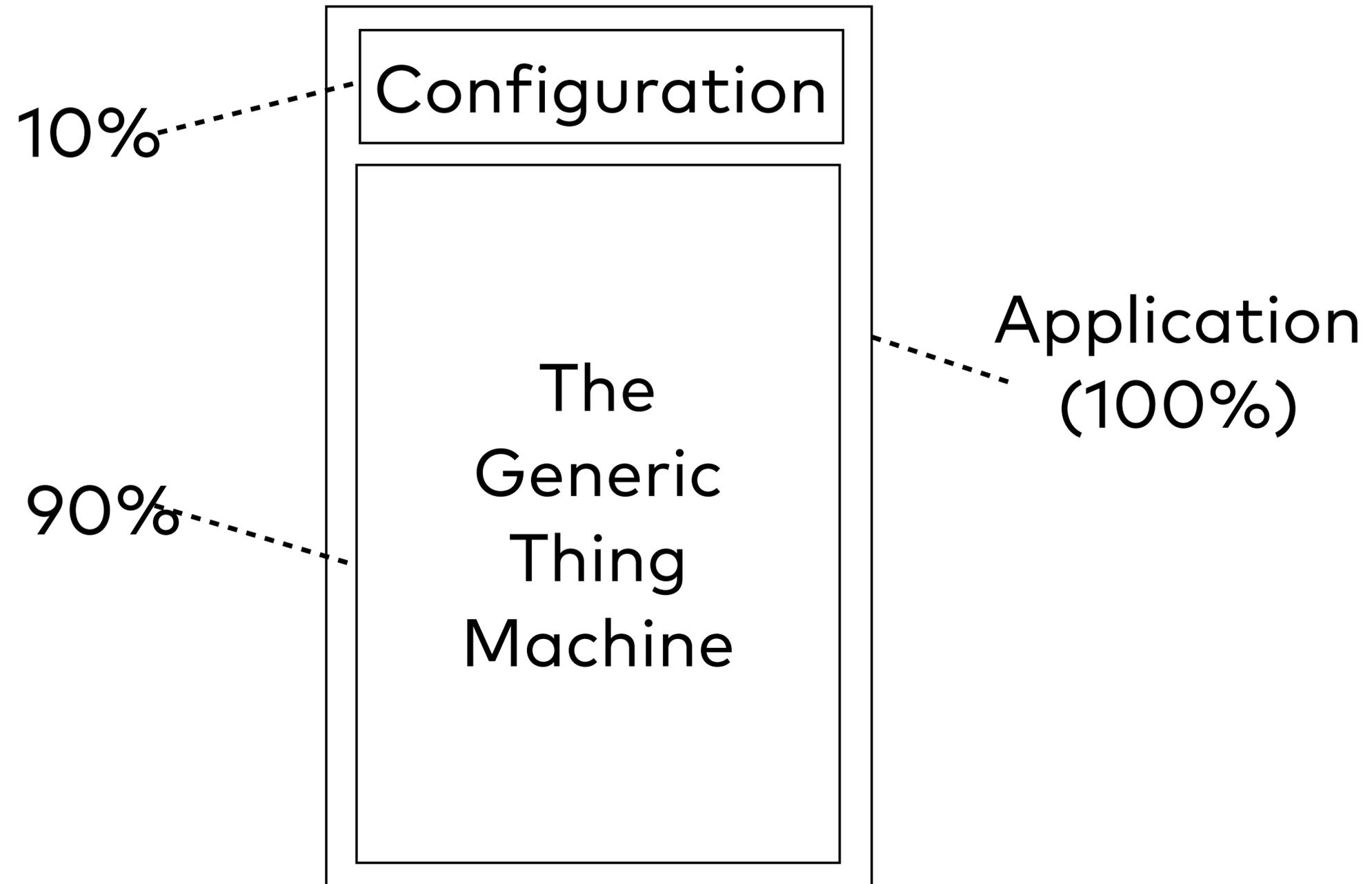
5. The "Wise" Architect

Question: *

Answer: It depends.

2. Domain Allergy

Symptom: *Treating the
domain as a negligible
nuisance*



Functionality:

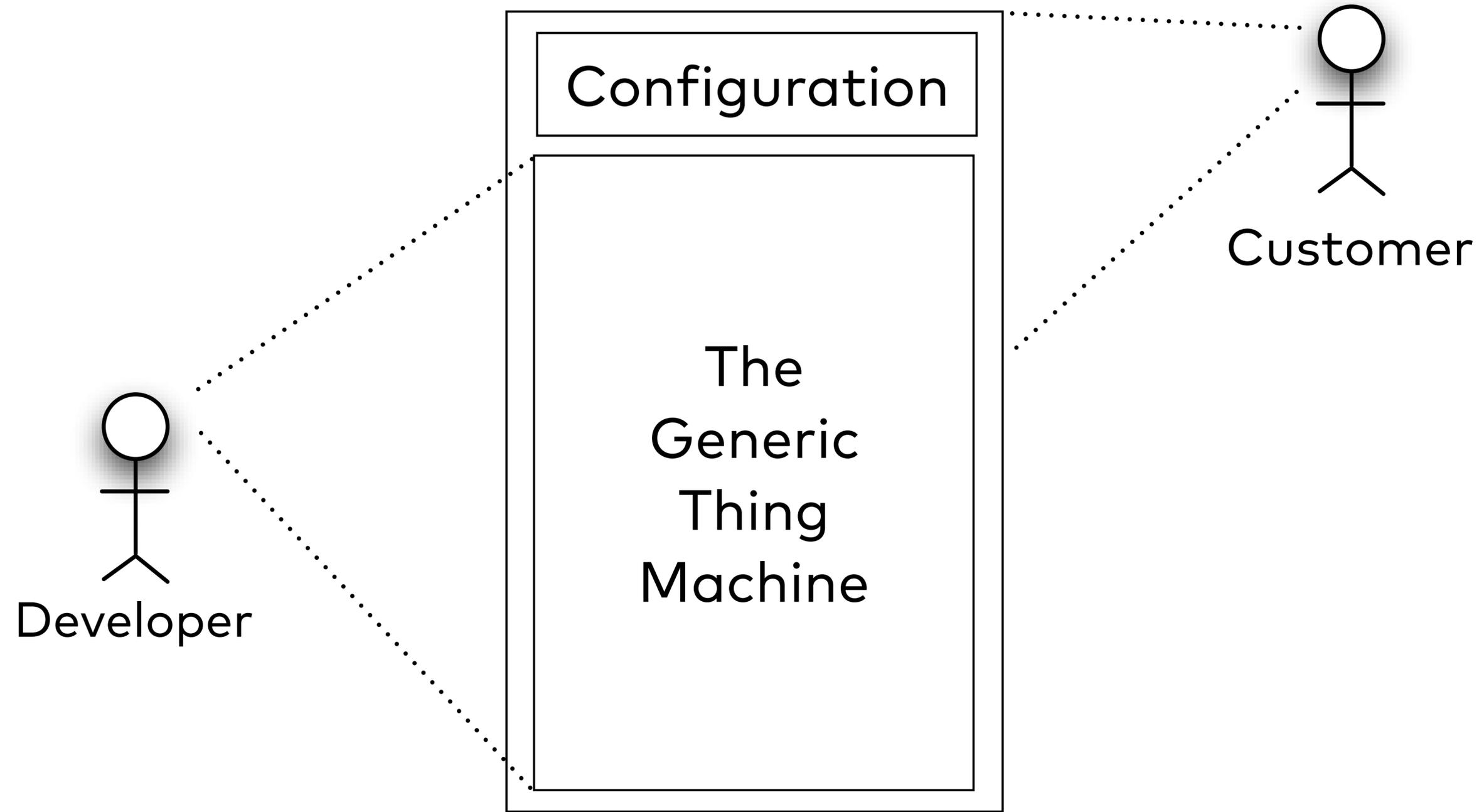
80%

20%

Time/Effort:

80%

320%



The benefits of choices already made

Microsoft .NET + Visual Studio

Ruby on Rails

SAP et. al.

3. Obsessive Specialization Disorder

Symptom: *Believing every
problem to be unique, even
if it's been solved 1,000
times*

Task: Read a file of text,
determine the n most frequently
used words, and print out a
sorted list of those words along
with their frequencies.

Donald Knuth

10-page literal
Pascal program,
including
innovative new
data structure

Doug McIlroy

```
tr -cs A-Za-z '\n' |  
tr A-Z a-z |  
sort |  
uniq -c |  
sort -rn |  
sed ${1}q
```

4. Unhealthy Complexity Attraction

Symptom: *Being so smart
you can't be bothered by
simple approaches*

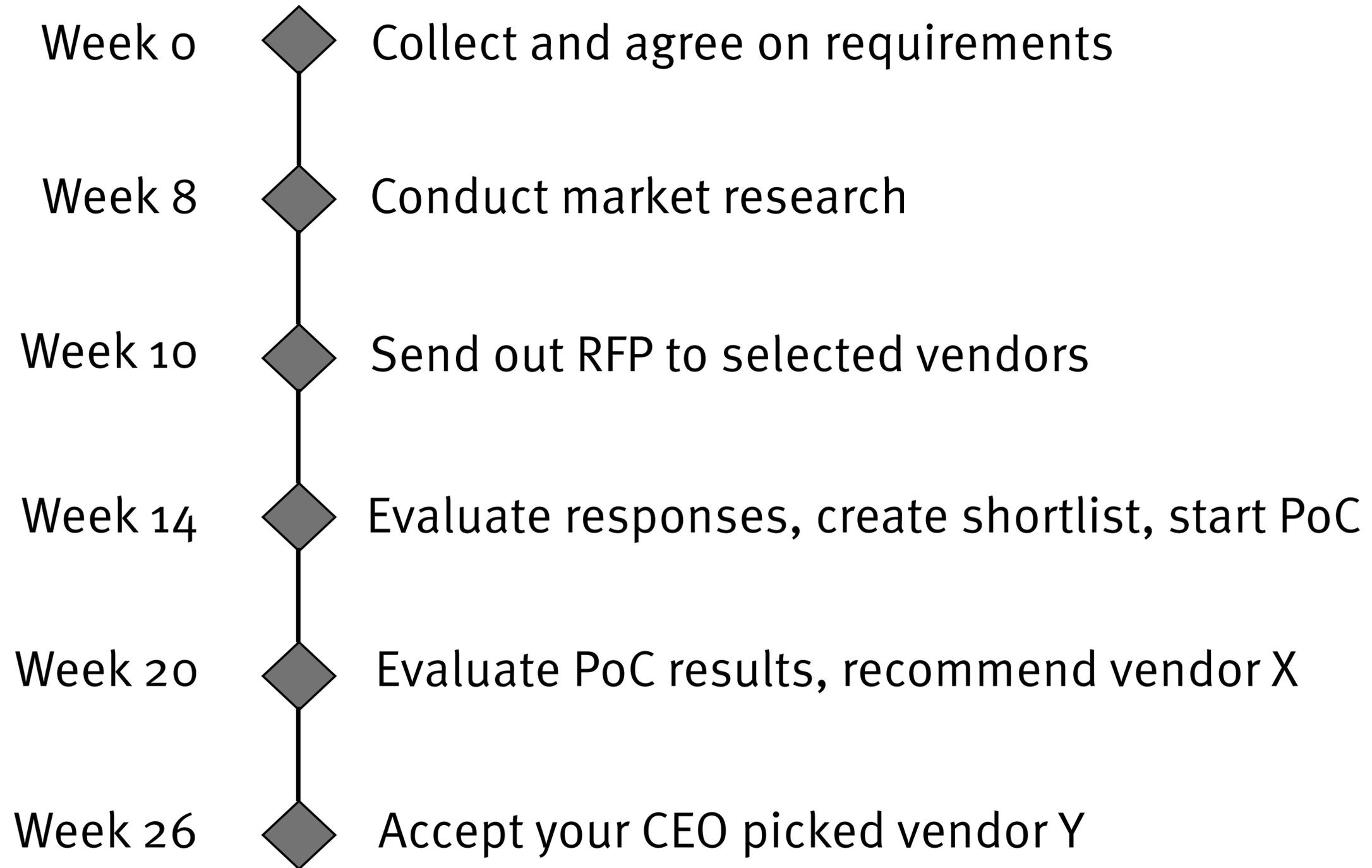
Benefits of Complexity

- > Challenging work
- > New and interesting experience
- > Self-esteem
- > Community
- > Barrier to entry
- > Job security

5. Analysis Paralysis

*Symptom: Taking longer to
evaluate than to actually
do it*

Vendor Selection



6. Innovation Addiction

Symptom: *Things become progressively less fun the closer you get to production*

*Symptom: Using fashionable
technology because it's popular
(a.k.a. conference-driven
architecture)*

“Mindful choice of technology gives engineering minds real freedom: the freedom to contemplate bigger questions. Technology for its own sake is snake oil.

Dan McKinley

<http://mcfunley.com/choose-boring-technology>



7. Severe Tunneling Fixation

“I know what I like
And I like what I know ...

Genesis

Symptom: Enforcing an architectural approach that clashes with the framework, libraries or tools you use.

8. Asset Addiction

Symptom: *Becoming so attached to a particular tool/library/framework it becomes a fit for every problem.*

9. Exaggerated Risk Aversion

Symptom: Sticking with
horrible, horrible,
HORRIBLE tools because
they're there

Symptom: Confusing
"easy" with simple,
creating accidental
complexity

simple

easy

complex

hard

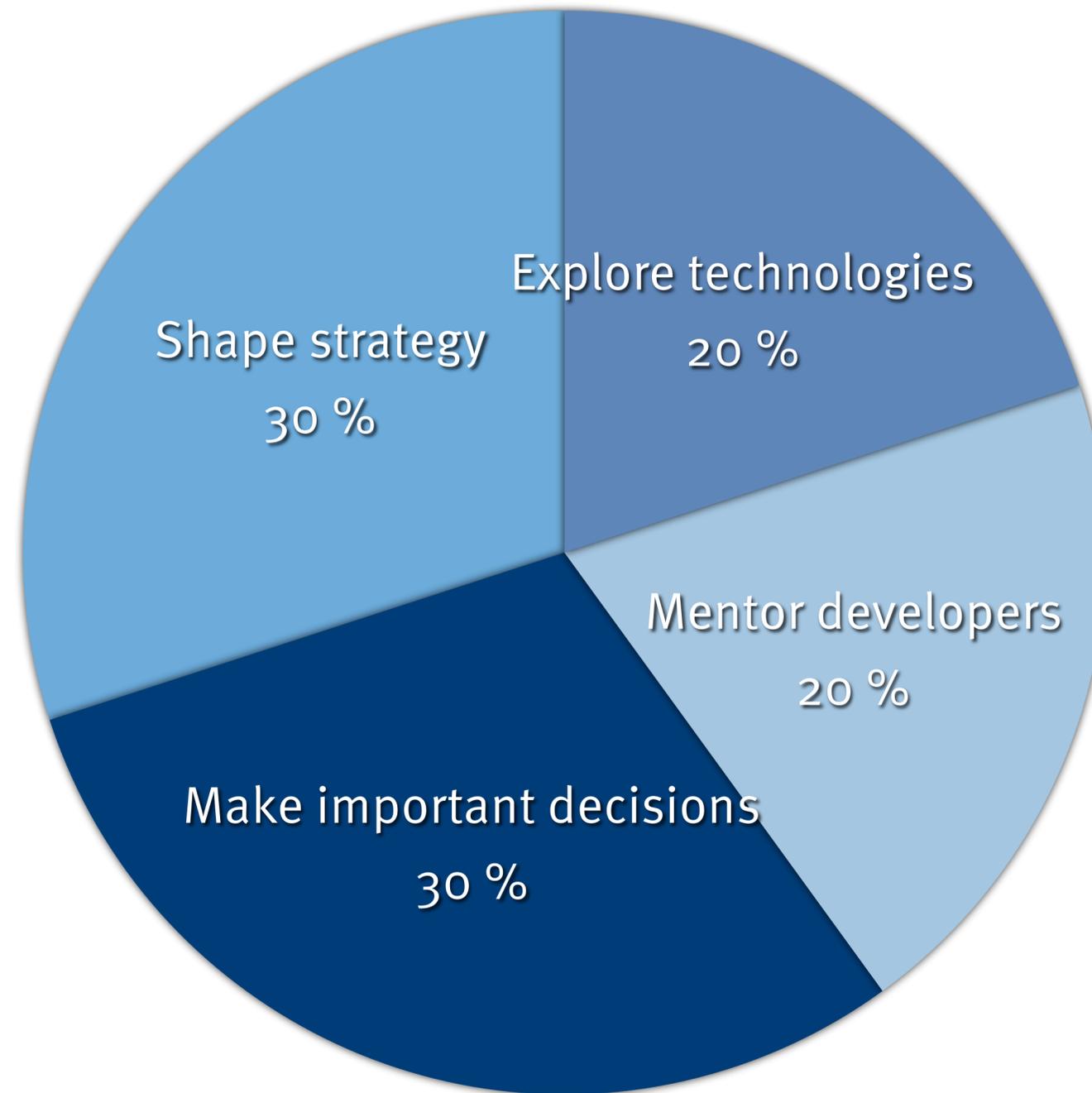
10. Impact Dissonance

Symptom: Becoming too detached from the actual system that is being delivered

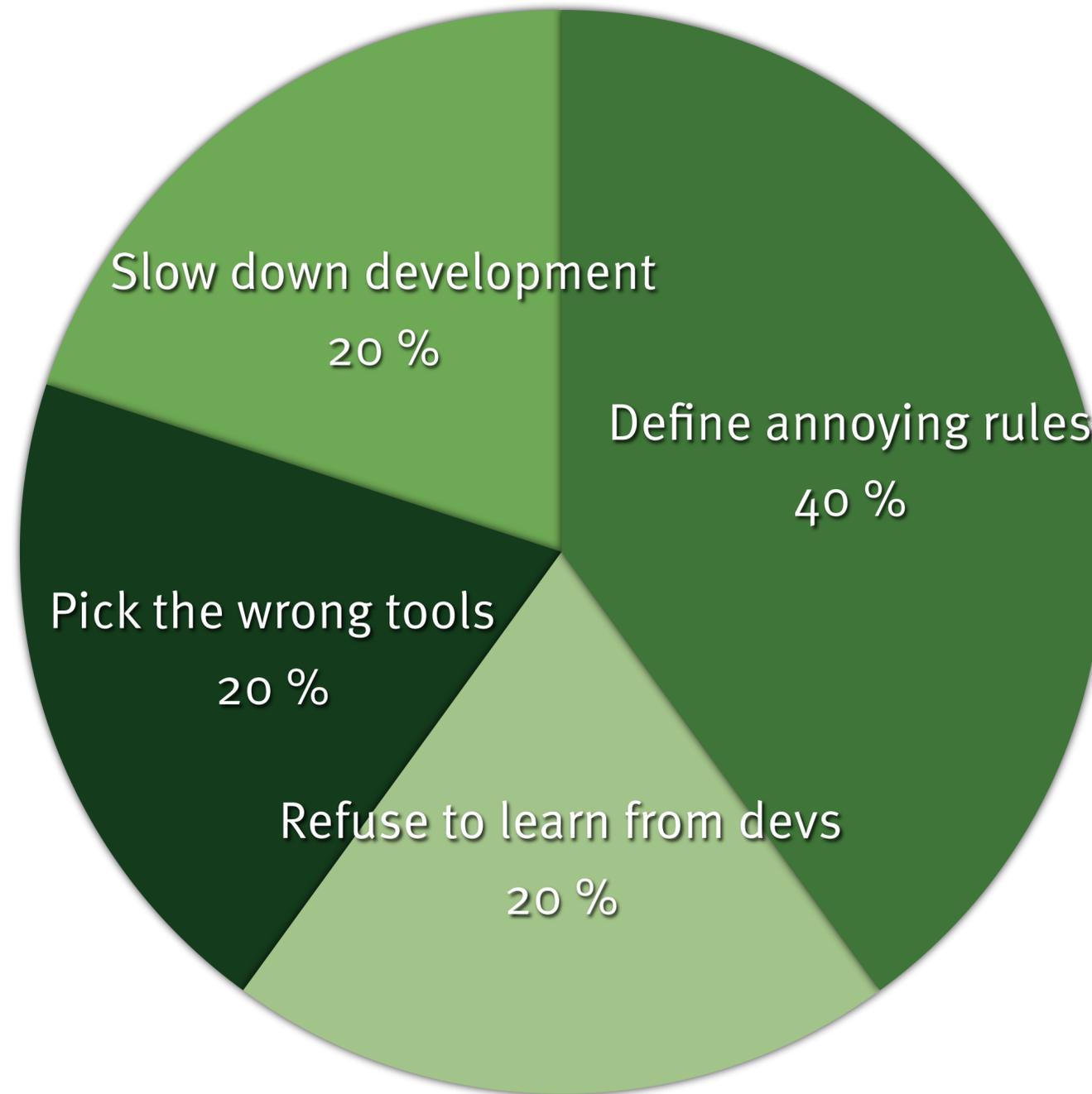
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Governance Megalomania

*Symptom: Believing
everything has to be
approved by you to ensure
it meets architecture
standards*

What architects want to do



What others think architects do



What architects *actually* do

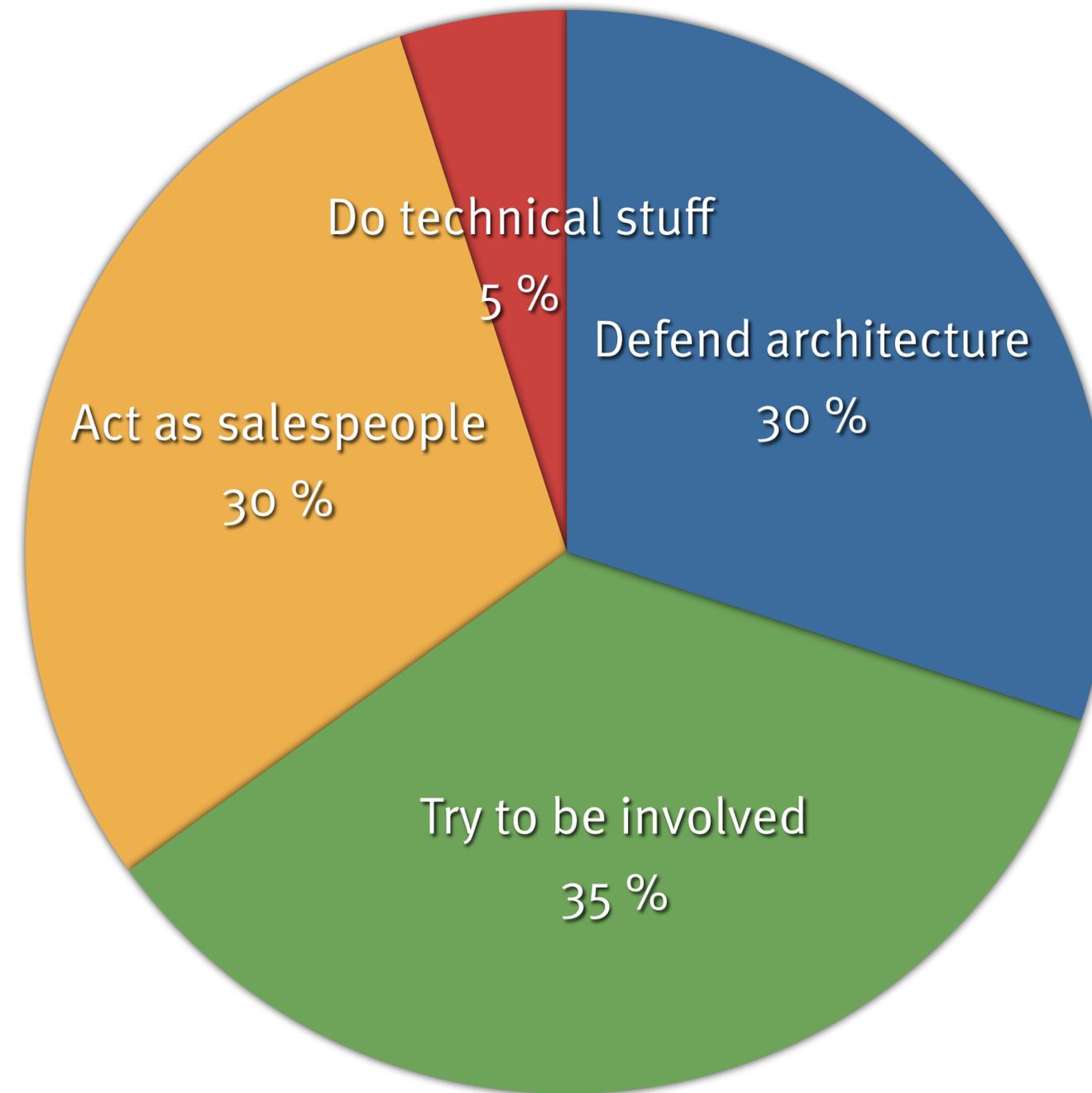




Image Credit: Sean Michael Ragan, <http://flic.kr/p/8XEm6L>

I don't have an answer ...

... so here's one, anyway

An Architect's Success Formula

Dogma and rules	10 %
Experience	20 %
Pragmatism	20 %
Flexibility	10 %
Minimalism	10 %
Trends and future needs	10 %
Experiments & PoCs	10 %
Hands-on participation	10 %
Vendor advice	0 %

That's all I have.

Thank you!

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