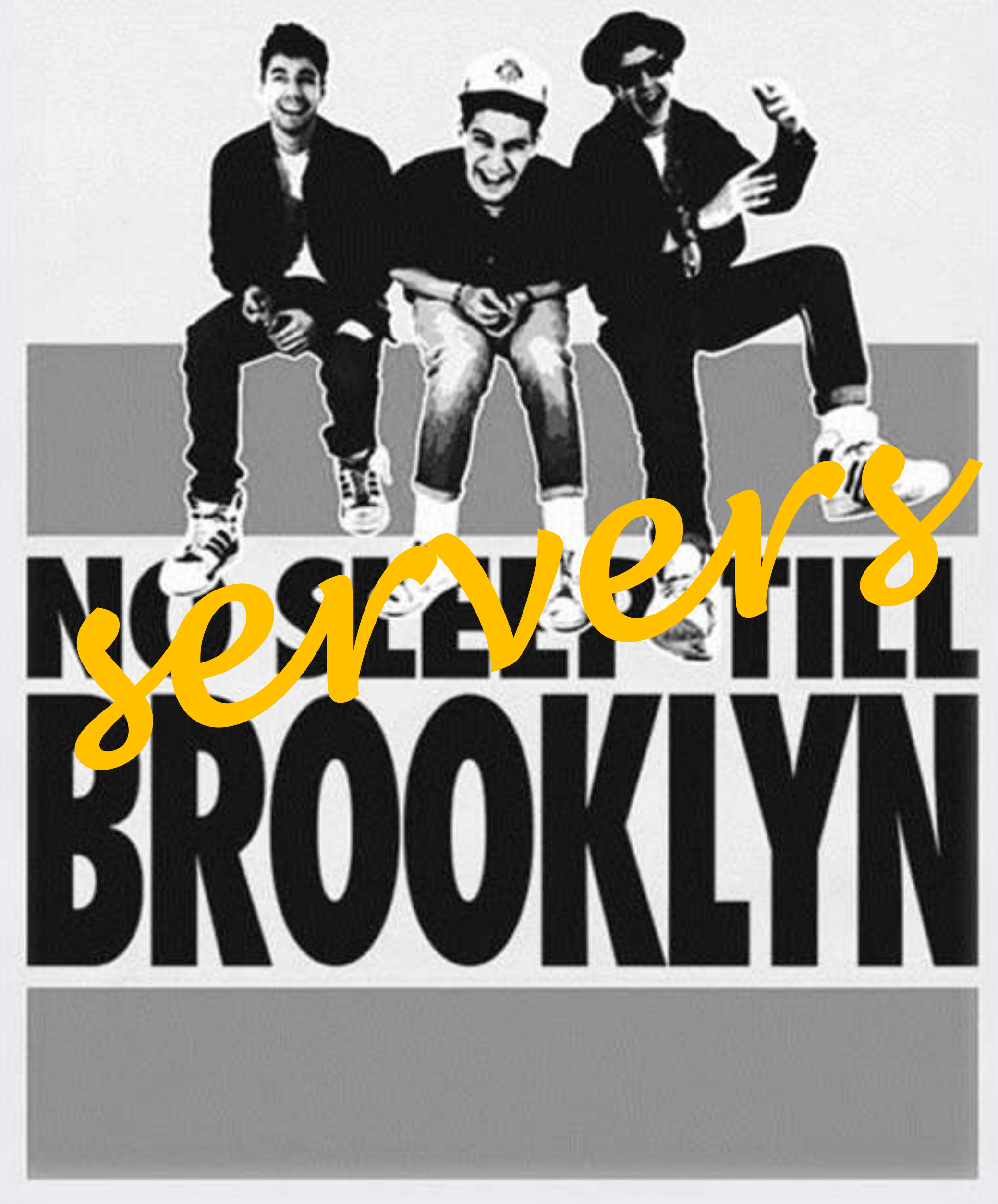
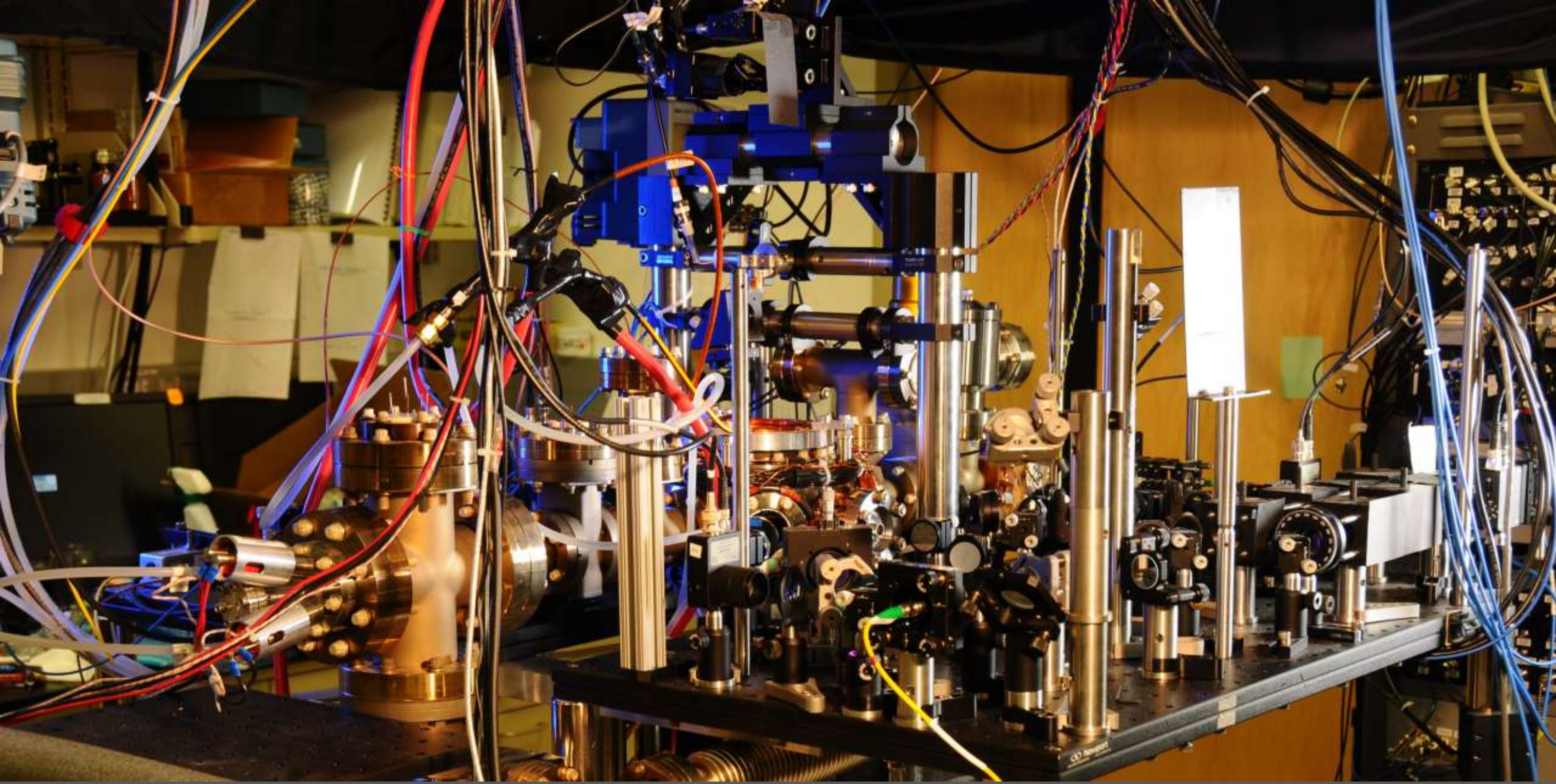

NO SLEEP TILL
servers
BROOKLYN

Your business doesn’t have technology problems

Elekta Infinity
FIRE



You still have problems

The New York Times
The New York Times
The New York Times
NEW YORK, WEDNESDAY, JULY 23, 2008
"All the News That's Fit to Print"

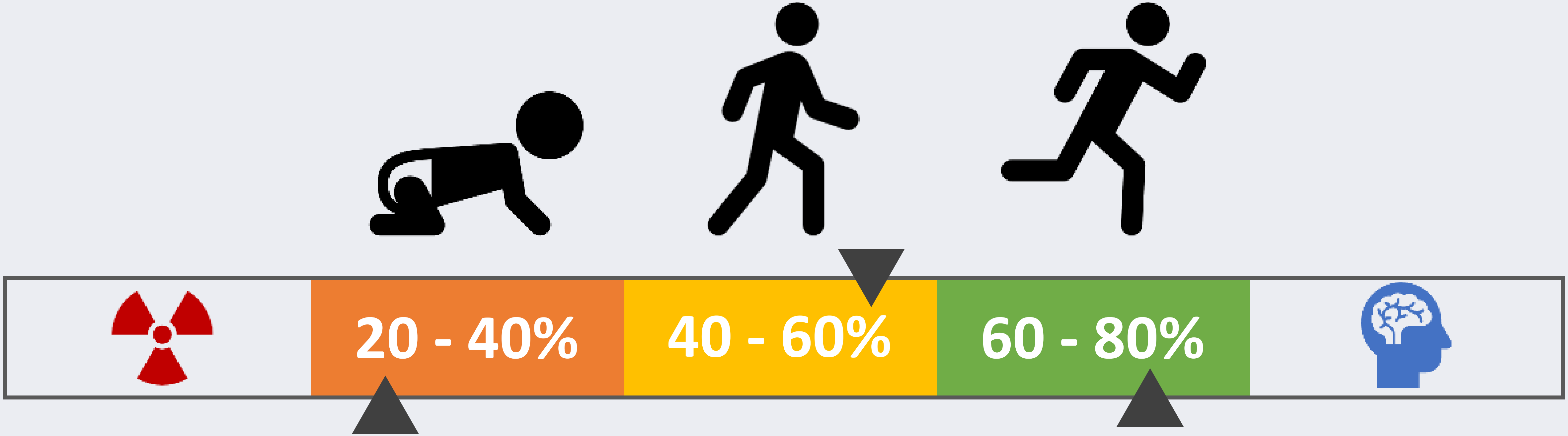
MEN'S SHOES

Safe • Respectful • Responsible
SUPER TIGER EXPECTATIONS
MIZZOU FOOTBALL

Solving technology problems isn't your business

You don't have technology problems

How much time does IT spend on solving business problems?



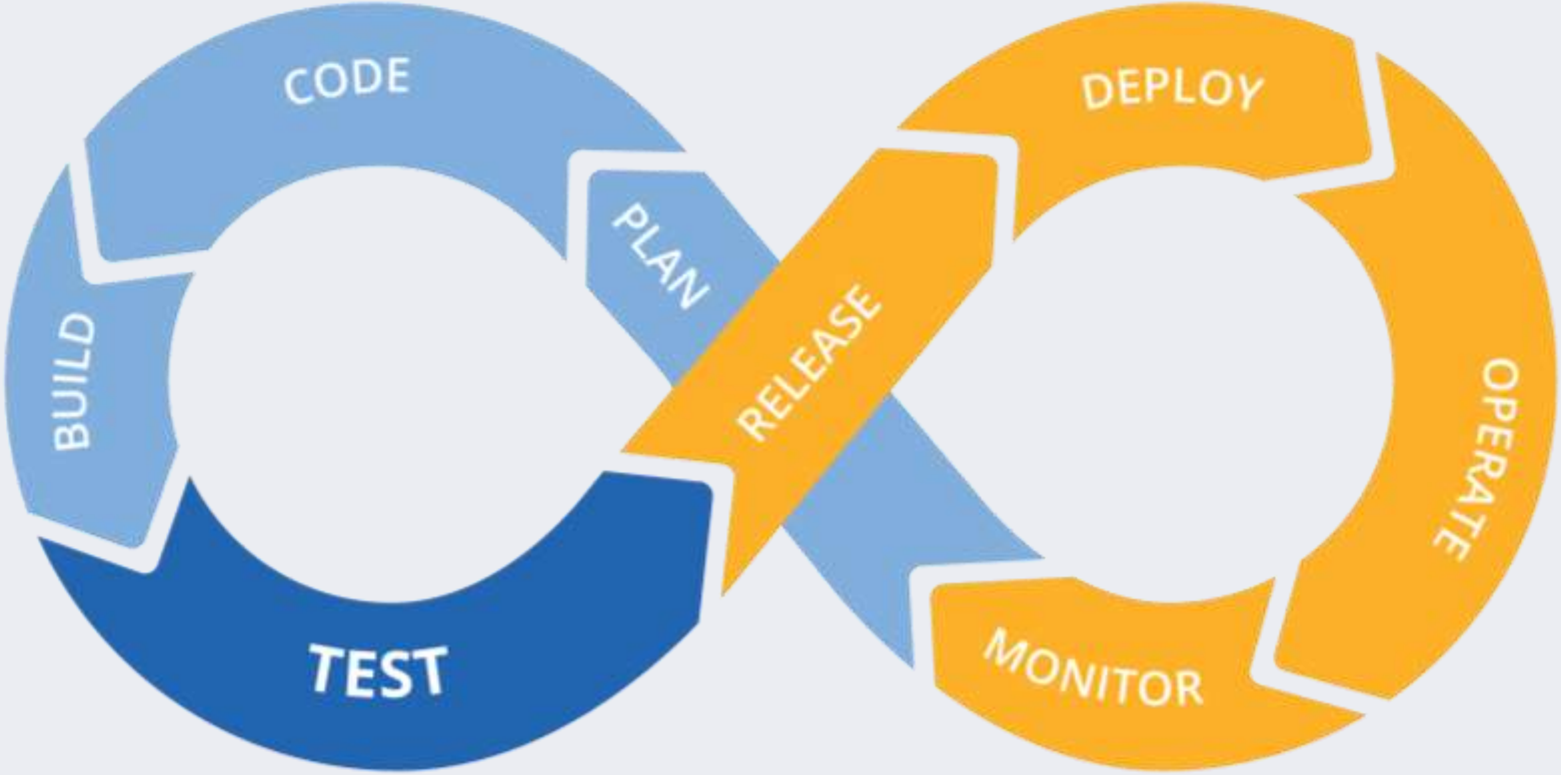
20 - 40%

40 - 60%

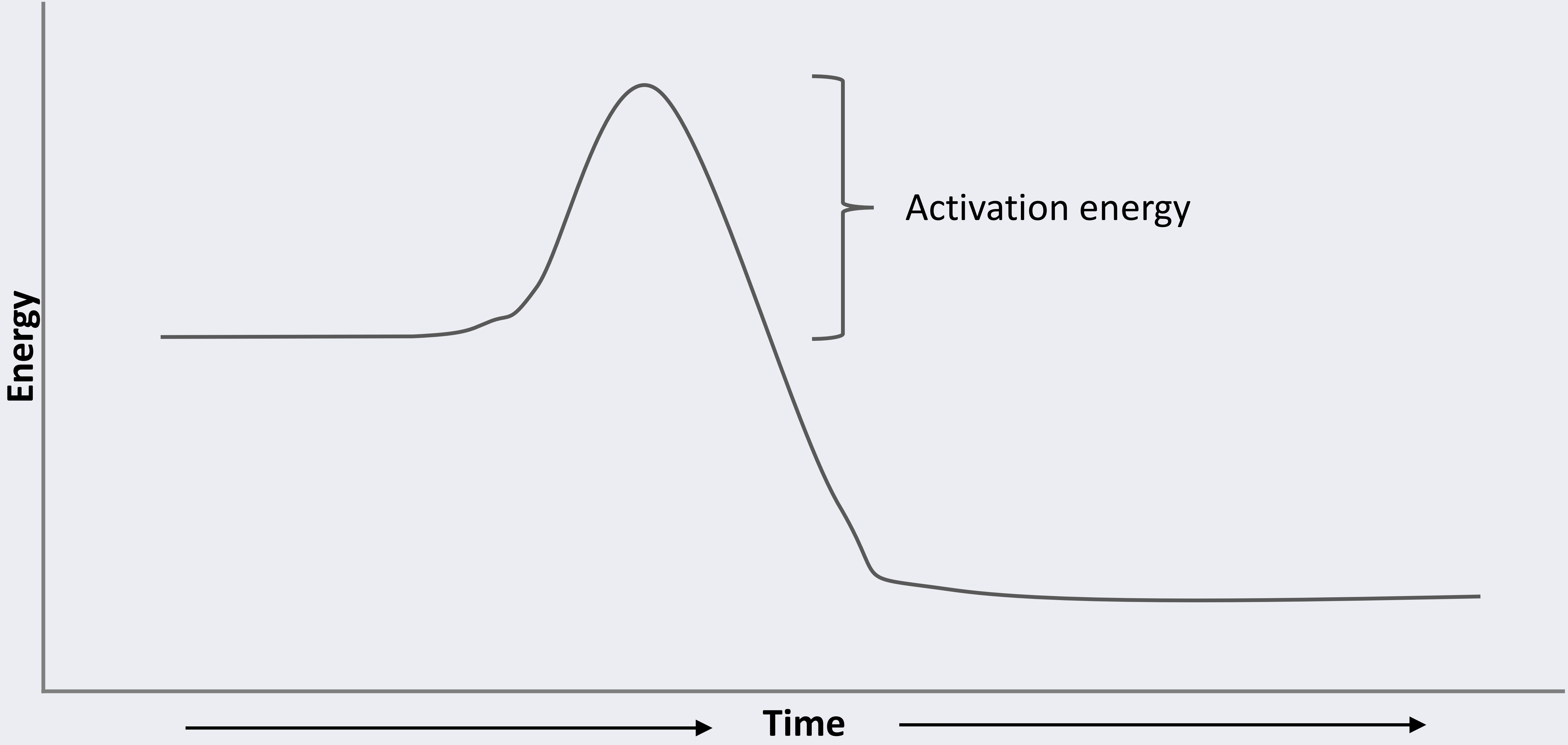
60 - 80%

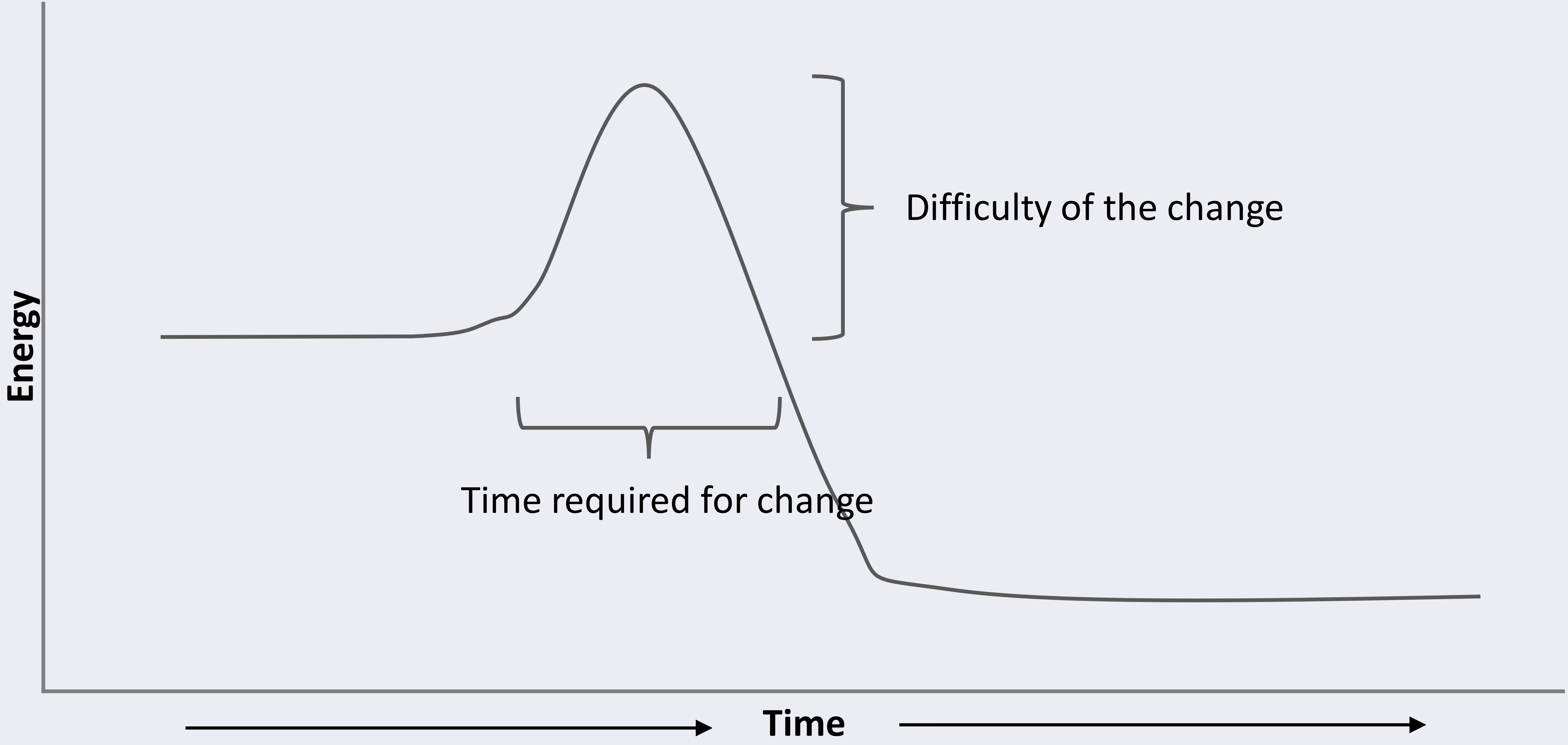
You already know what you should be doing to improve this

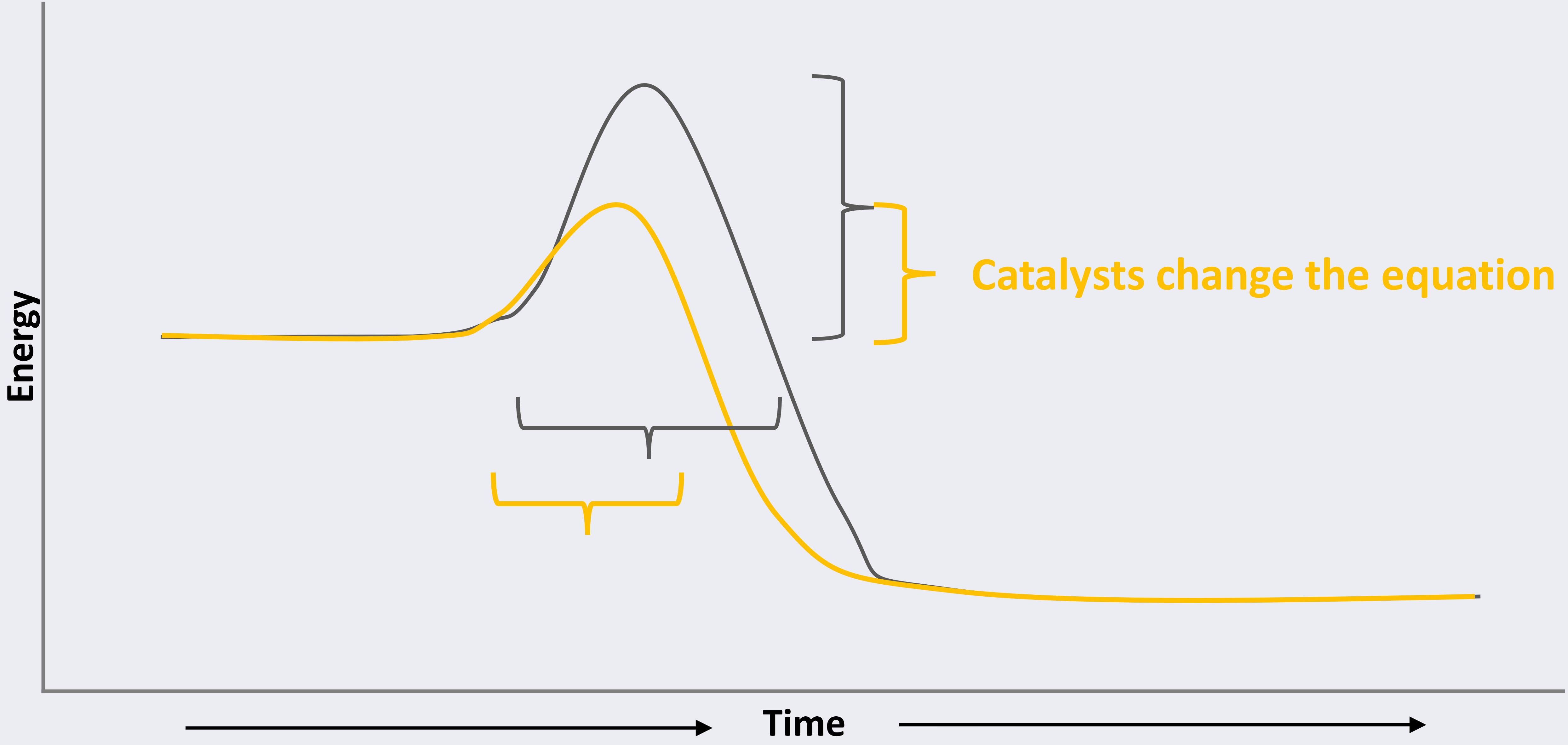
We have nothing new to say about what you should be doing

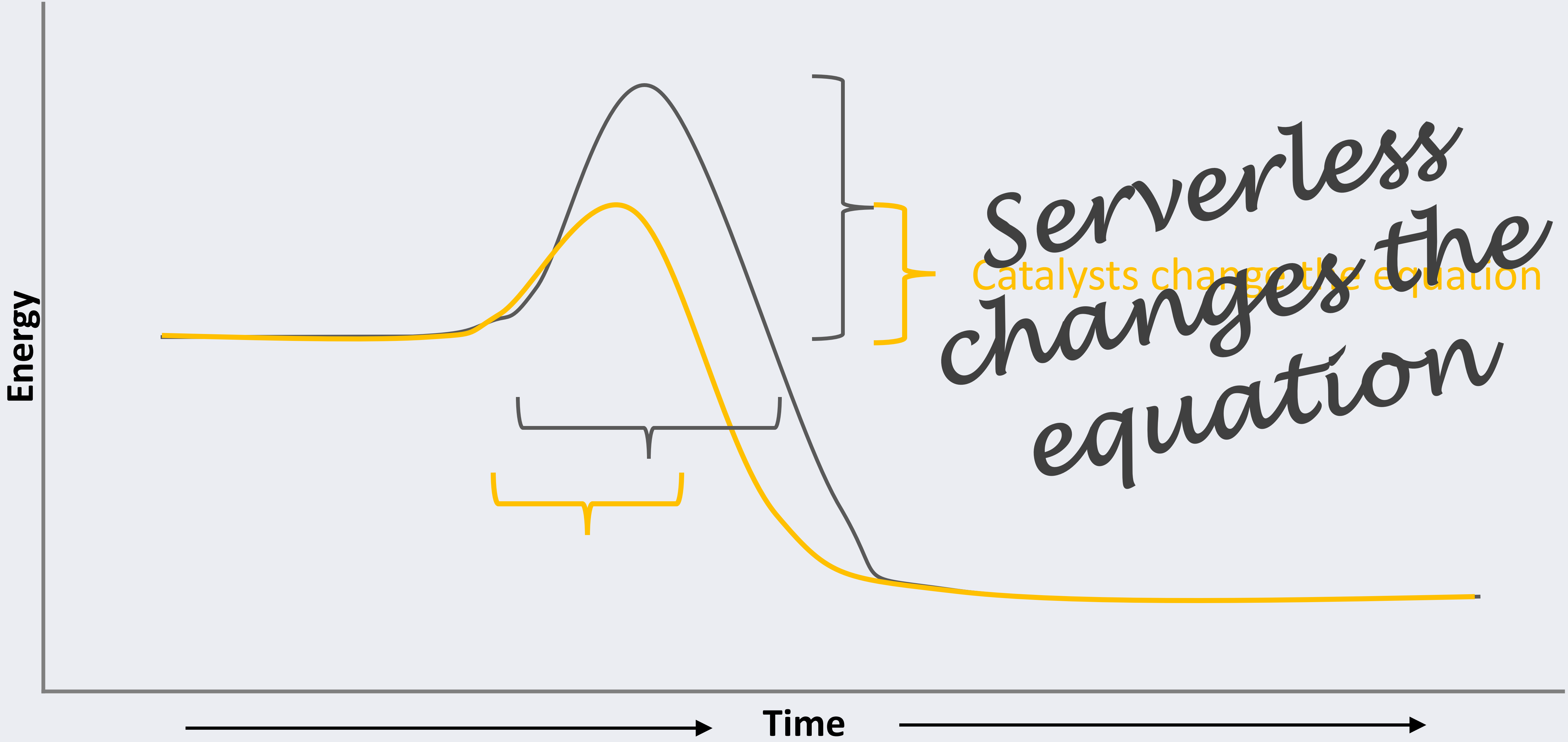

CODE
PLAN
BUILD
TEST
RELEASE
DEPLOY
OPERATE
MONITOR

Why have so few done it?


Energy
Activation energy
Time


Energy
Difficulty of the change
Time required for change
Time


Energy
Time
Catalysts change the equation



Catalysts change the equation

Serverless changes the equation

What is serverless?

$f(n)$ + 💡 + 🛠

$f(n)$ + 💡 + 🛠

λ

amazon web services

Microsoft Azure

SERVERLESS

Serverless as catalyst

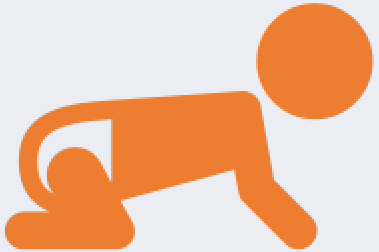
Data driven decision making

Small, product focused teams

Cloud adoption & automation

Discovery through experimentation

Unique value proposition to DevOps laggards



The Realm of Middle Earth
Miles
50
100
150
200
N
Forlindon
Forlond
Gulf of Lhûn
Mithlond (Grey Havens)
Tower Hills
Harlond
Harlindon
Blue Mountains
Fornost
Weather Hills
Weathertop
Brandywine Bridge
Old Forest
Last Bridge
Rivendell
High Pass
Old Ford
Carrock
Old Forest Road
Long Lake
Mountains of Mirkwood
Celduin (River Running)
Carnen (Redwater)
RHUDAUR
CARDOLAN
Tharbad
Nîn-in-Eilph (Swanfleet)
Glanduin
Baranduin (Brandywine)
MINHIRIATH
Eryn Vorn
Gwathló (Greyflood)
Lond Daer
ENEDWAITH
Dunland
North-South Road
Isengard
FANGORN
ROHAN
Fords of Isen
Angren (Isen)
Adorn
WESTFOLD
West Emnet
East Emnet
Helms Deep
Snowbourn
Edoras
EASTFOLD
Sarn Gebir
The Wold
Limlight
Nimrodel
Gladden Fields
Gladden River
Dimrill Dale
Misty Mountains
Anduin
East Bight
Dol Guldur
MIRKWOOD
RHOVANION
The BROWN LANDS
Emyn Muil
Dagorlad (Battle Plain)
Sea of Rhûn
RHÛN
ERED LITHUI (Ash Mountains)
Isenmouthe
Barad-dûr
Orodruin
Plateau of Gorgoroth
MORDOR
NURN
Sea of Núrnen
EPHEL DUATH (Mountains of Shadow)
Minas Morgul
Osgiliath
Minas Tirith
Cair Andros
Emyn Arnen
Anórien
Erech
ERED NIMRAIS
GONDOR
Pinnath Gelin
Anfalas (Langstrand)
Andrast (Ras Morthil)
Lefnui
Druwaith Iaur
Morthond
Edhellond
Dol Amroth
Belfalas
Lebennin
Lossarnach
Ringló
Gilrain
Serni
Ethir Anduin
Tolfalas
South Ithilien
Poros
Crossings of Poros
South

Challenges

Where it’s already started

Capital One

GameStop
POWER TO THE PLAYERS®

StanleyBlack&Decker

NORDSTROM

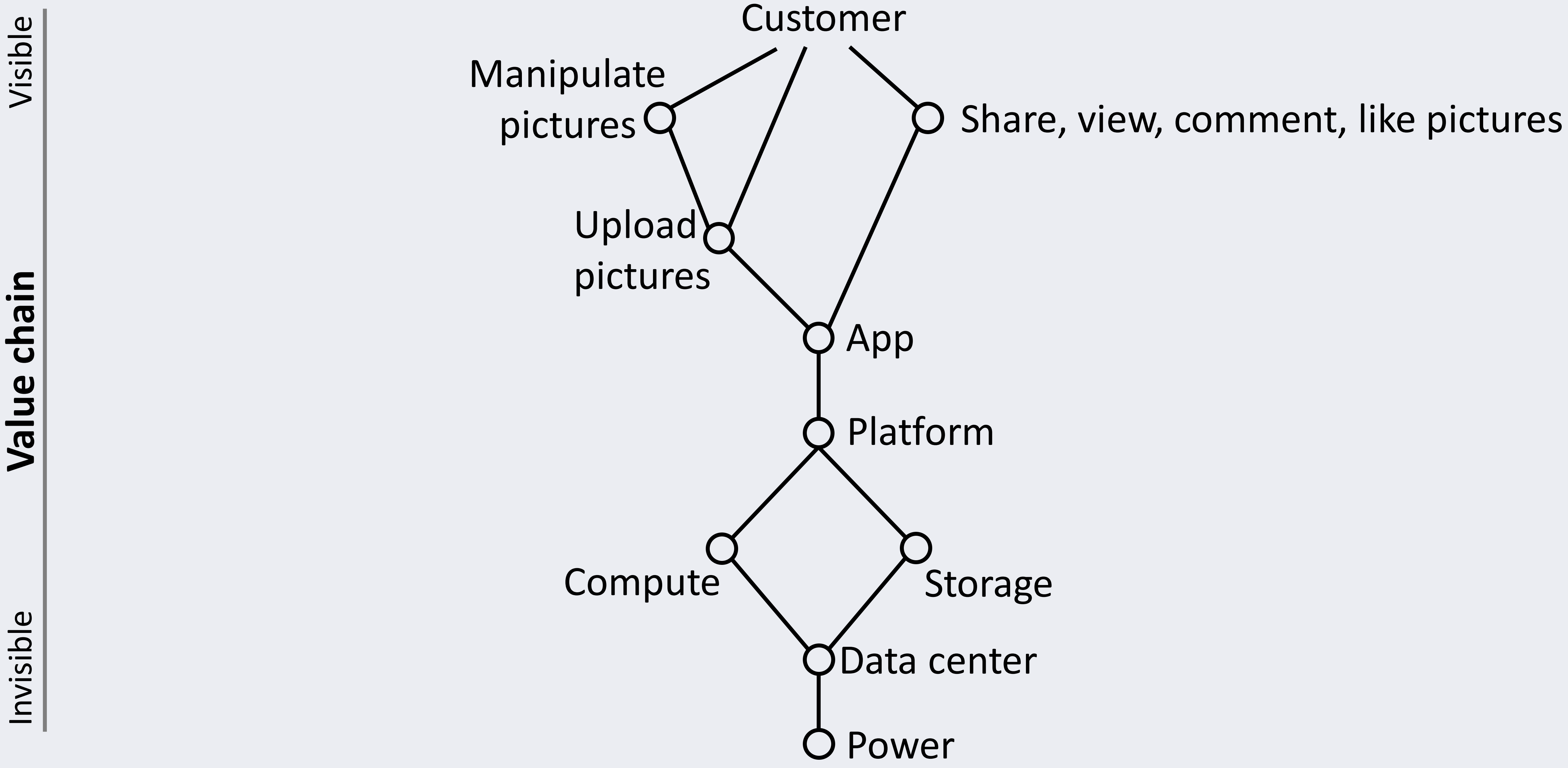
MAJOR LEAGUE BASEBALL

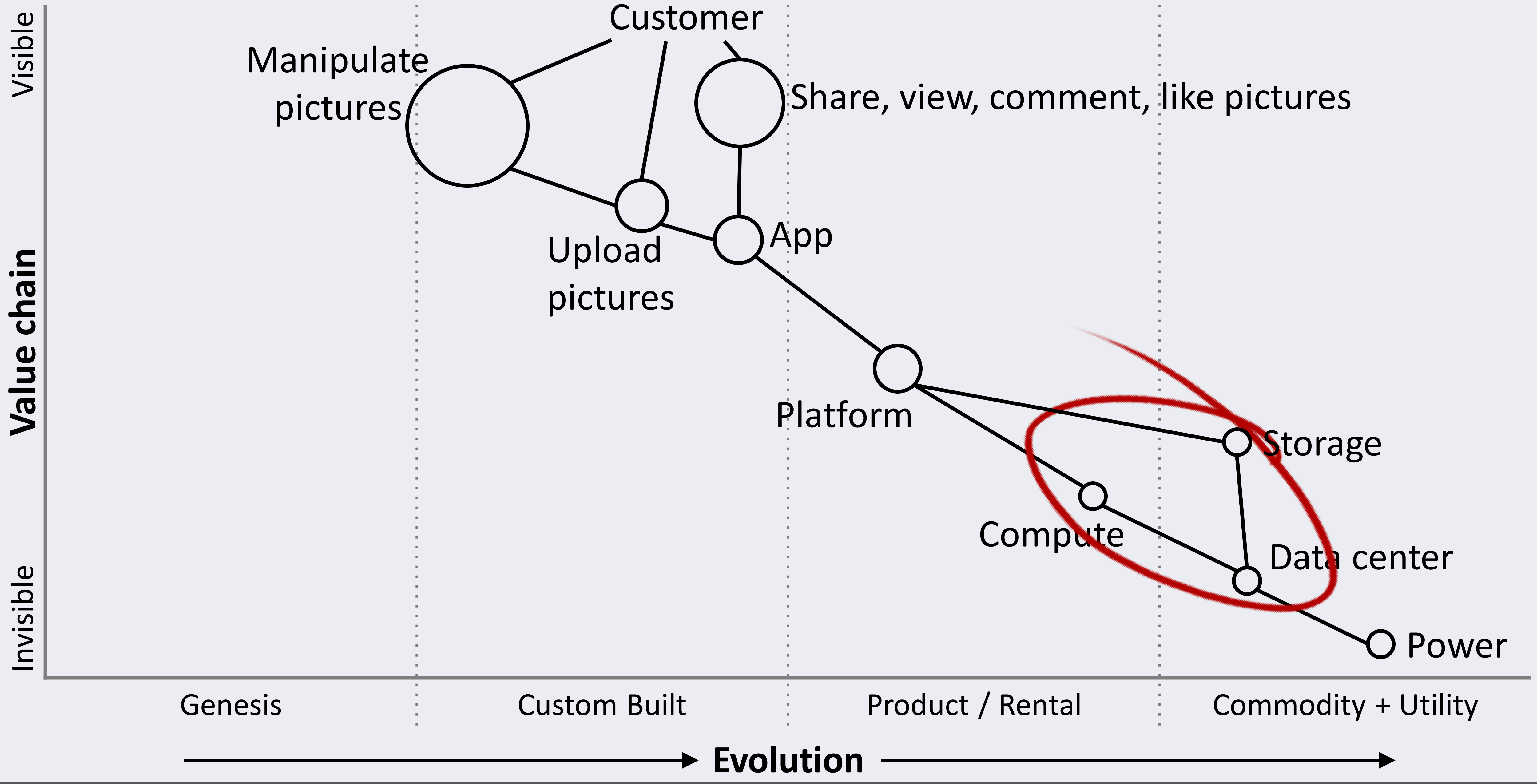
Coca-Cola

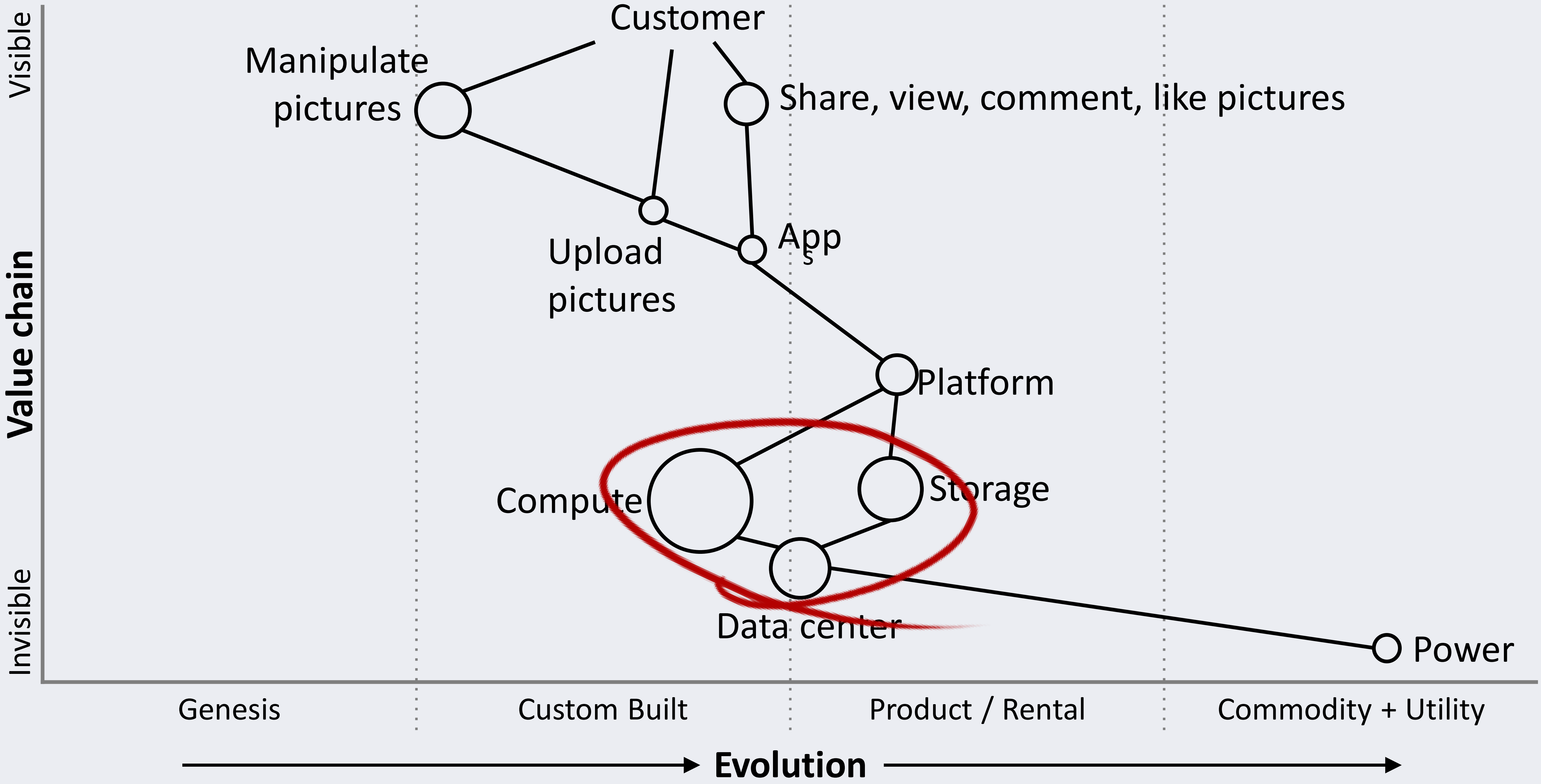
The Seattle Times

GameStop®

POWER TO THE PLAYERS®


Visible
Value chain
Invisible
Customer
Manipulate pictures
Share, view, comment, like pictures
Upload pictures
App
Platform
Compute
Storage
Data center
Power


Visible
Value chain
Invisible
Customer
Manipulate pictures
Share, view, comment, like pictures
Upload pictures
App
Platform
Storage
Compute
Data center
Power
Genesis
Custom Built
Product / Rental
Commodity + Utility
Evolution



Customer

Manipulate pictures

Share, view, comment, like pictures

Upload pictures

Apps

Platform

Compute

Storage

Data center

Power

Visible

Value chain

Invisible

Genesis

Custom Built

Product / Rental

Commodity + Utility

Evolution

What does it mean for my people?

Solutions Architect
(Bit blueprint creator)

Data Architect
(Stores bits, manages access)

Developer
(Describes how to move bits)

Team Lead
(Keeps bit machine well-oiled)

Product owner
(Talks to customer, attempts to talk to bit-team)

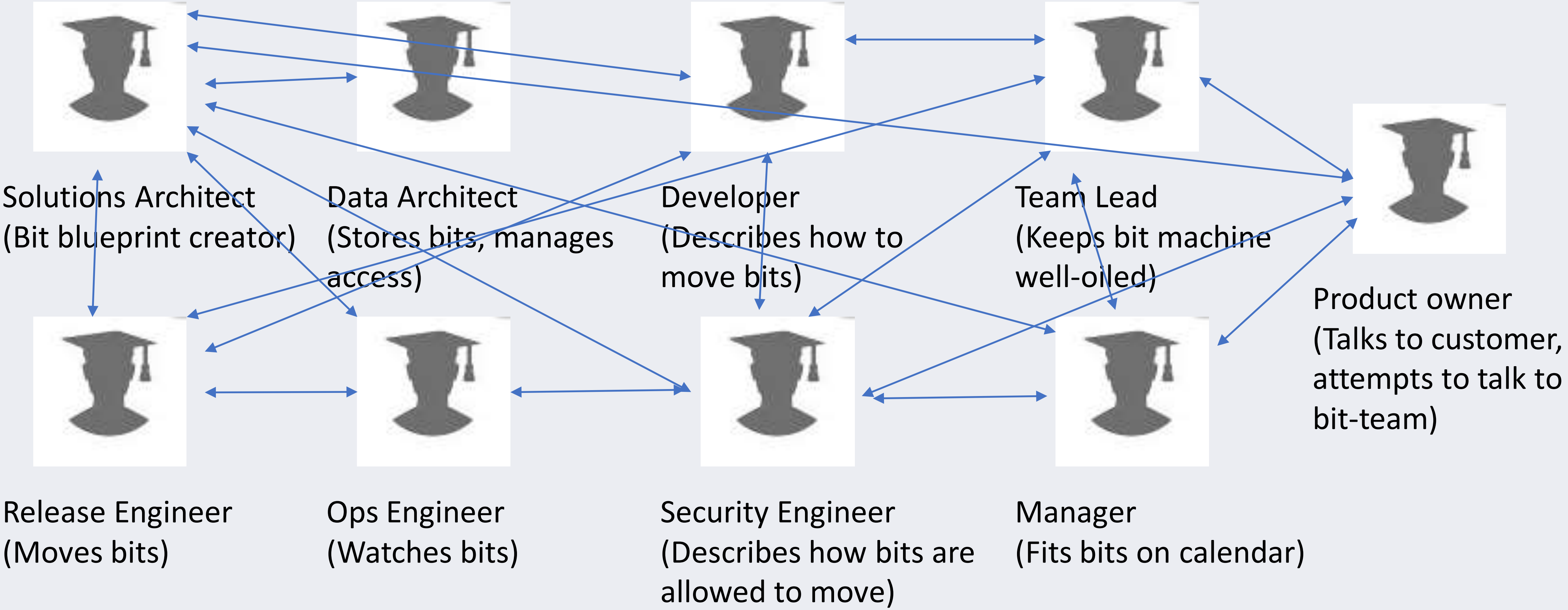
Release Engineer
(Moves bits)

Ops Engineer
(Watches bits)

Security Engineer
(Describes how bits are allowed to move)

Manager
(Fits bits on calendar)

And how the communicate?



Solutions Architect
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Manager
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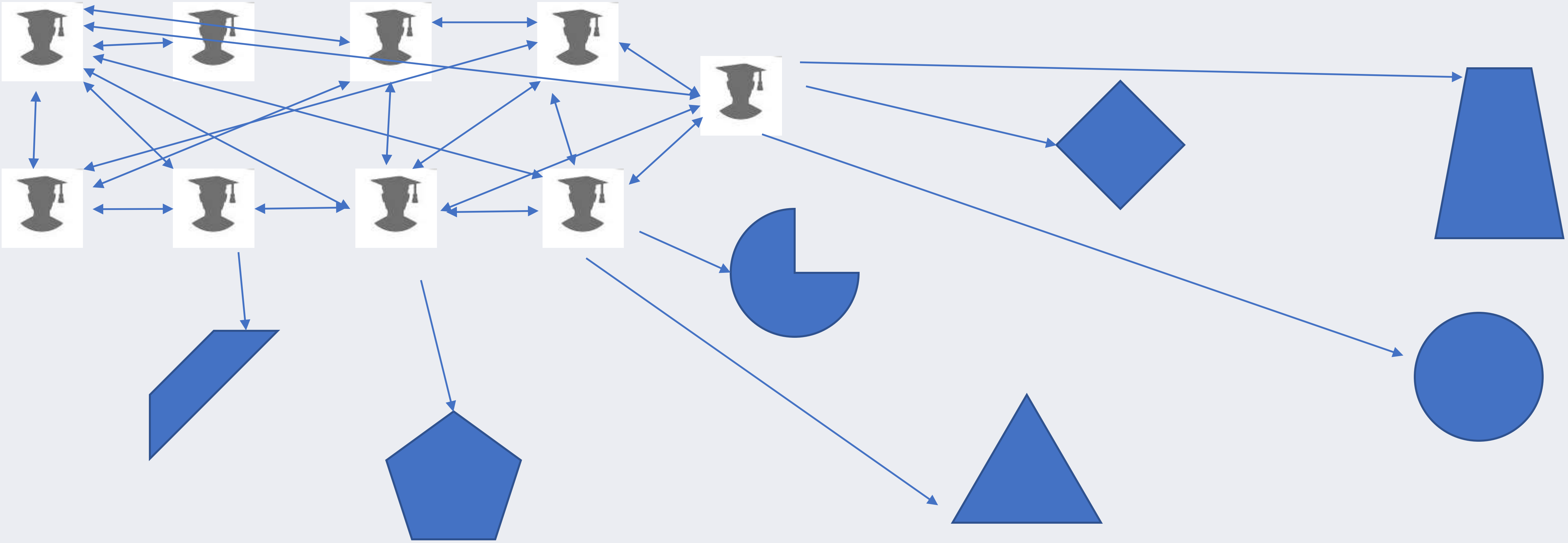
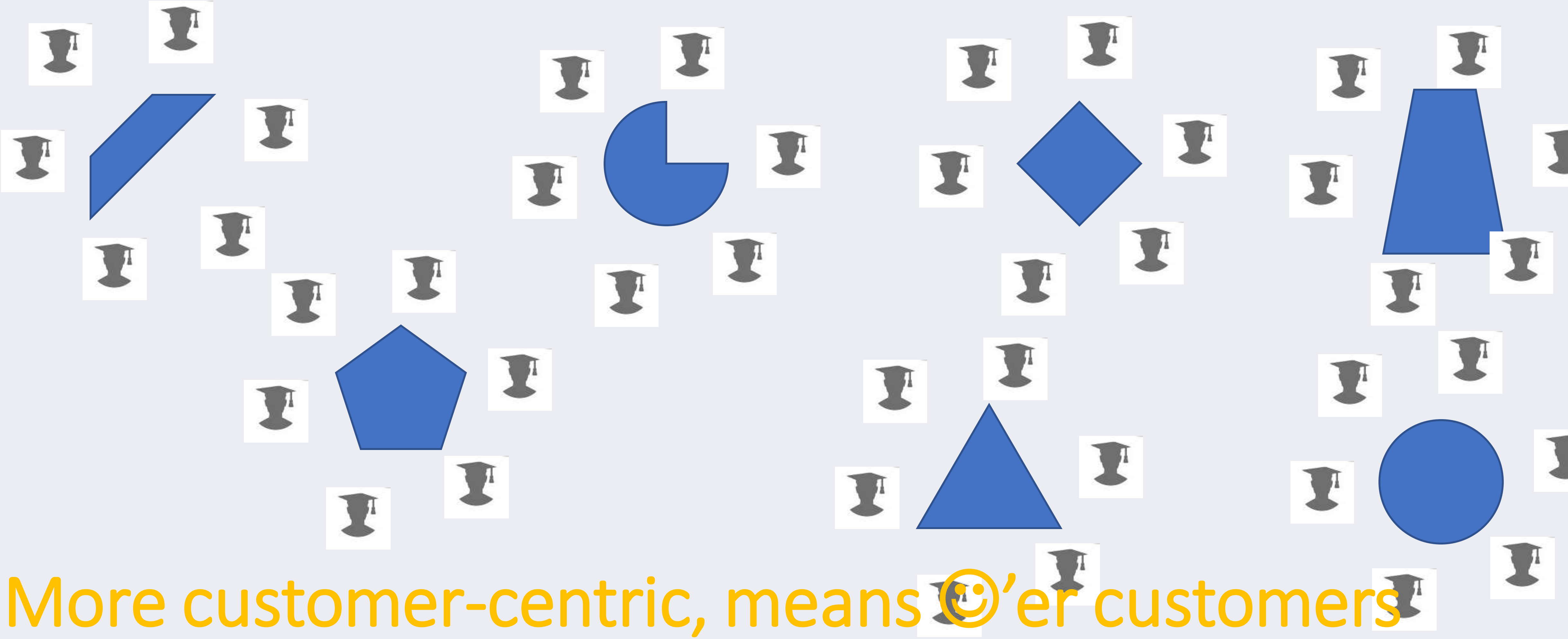
And what products do they support?



Is this customer-centric?

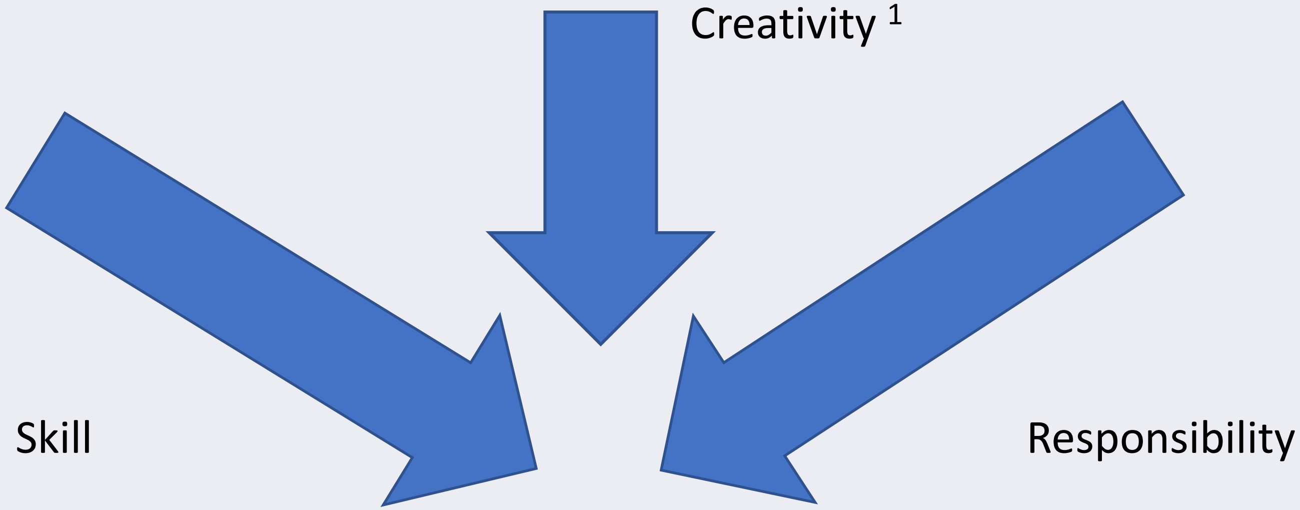
Product Teams



More customer-centric, means ☺'er customers

Don’t fire your way to innovation

- Instead, seek to merge skill with responsibility
- Your people, instead of being glorified bit managers, can do what they are good at – injecting creativity



[1] what people are still better at than computers, for the time being

But what about governance?

- “We standardized on Java!”
- “We only run [insert OS here]!”
- “We only use [insert framework here]!”

- The above are the result of trying to solve the Principal-agent problem: “the agent knows some things that the principal does not, and it is too costly for the principal to monitor every action that the agent take” (“Misbehaving: The Making of Behavioral Economics.”)
- So instead of monitoring every action, the principal (IT Governance) reduces the jurisdiction(?), and thus cost, to govern.

The dark underbelly of limiting choice

- By being prescriptive about standards, you've succeeded in reducing the governance cost
- (Applause!)
- But you've prohibitively raised the cost of experimentation.
- Your talented high-dollar developers can only use the hammer you've provided.
- (Insert Hammer/Nail)
- Don't be surprised if your talent leaves
- Or worse, you talent only starts to see nails.

So you are proposing the wild west, except with modern weapons?

- No.
- With evolutionary architectures, strict data access policies, serverless technologies, and infrastructure-as-code, you can simultaneously allow variation and have cheaper, more reliable IT governance that you ever imagined possible.
- The tools aren't here yet, but they’re coming quick.

Adoption Paths

- Build vs Buy equation begins to change
  - If you have to customize *anything*, you may want to build
- Come back to activation energy
  - Experiment with internal tools
  - Greenfield “Shining City on the Hill” model
  - Skunkworks
  - Others?