Creating Technical Leadership in Context

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Who here can remember a time they started a staff+ job in an area?



Been asked "what's our technical strategy"?



Or "how do we fix our systems?"



And felt like you had no idea what you were doing?

(us too)



Who's in the middle of this experience *right now*?







1. Storytime + reflections

2. Framework



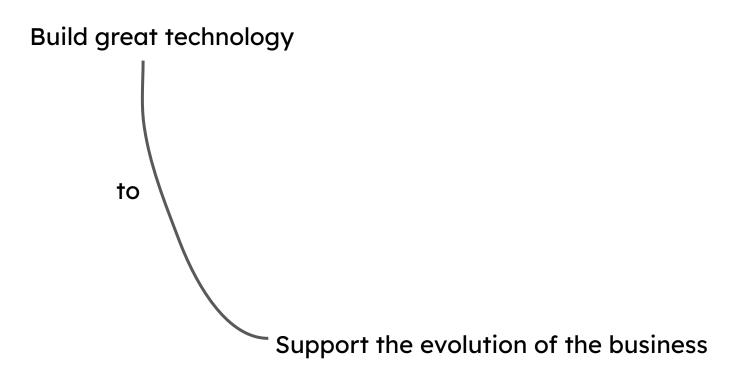


1. Storytime + reflections

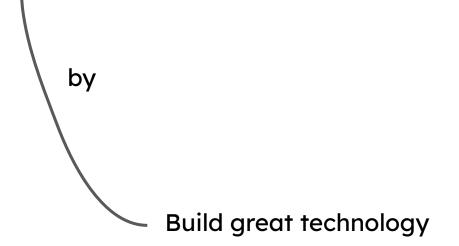
2. Framework

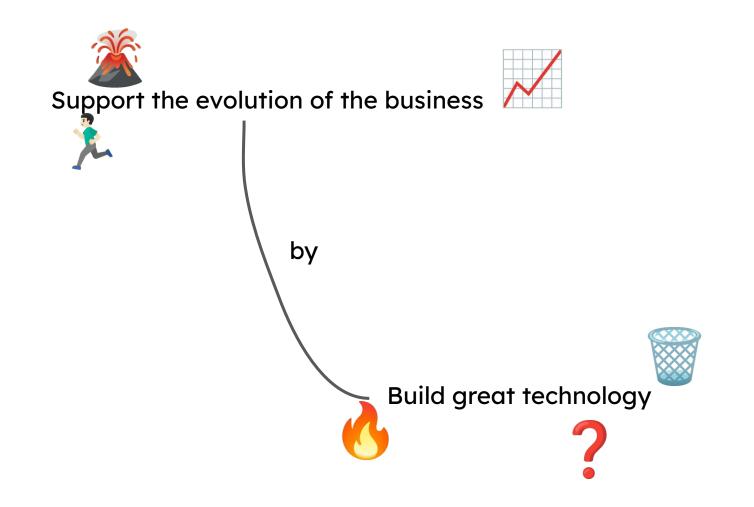


What can only engineering do?



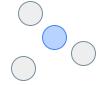
Support the evolution of the business



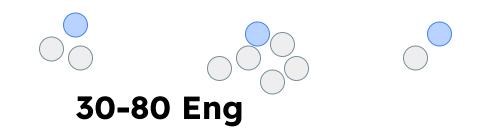


Reflections on 3(ish) iterations over time









2018-2020: Backend Council

ITERATION 1



Context #1: Growing eng team

ITERATION 1





Cross-team brainstorms

ITERATION 1

ITERATION 2

Context #2: Microservices(ish) Architecture

ITERATION 1





Backend technical principles for services

ITERATION 1



Context #3: Change in sources of system complexity

ITERATION 1





System tangle driven by newer products







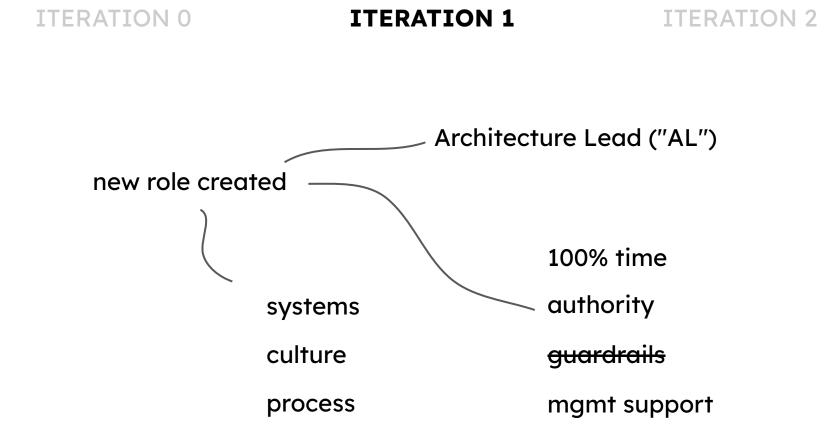
aka the Bermuda triangle

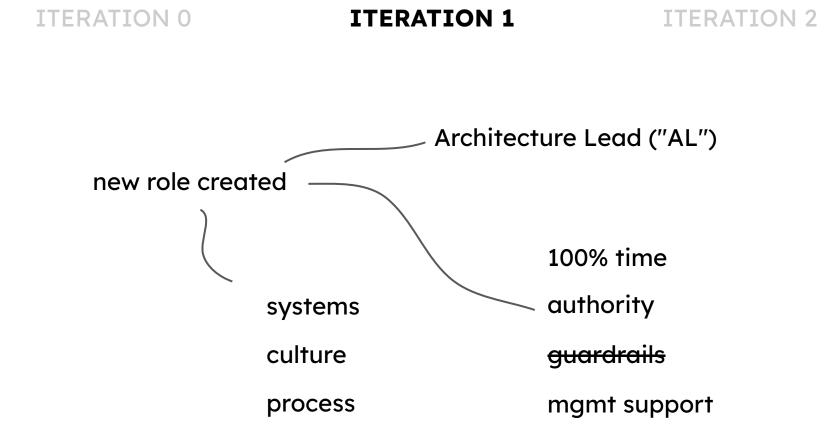
ITERATION 1

ITERATION 2

SOUND THE ALARM

24



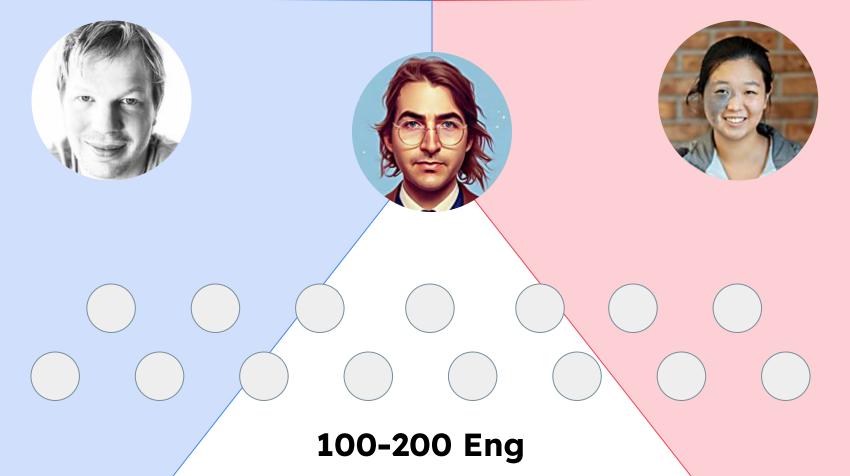






We created a supporting structure

27



2020-2021. Architecture Leads + Architecture Council





Context #1: System complexity popping up in new areas

29







Kick off a few key system re-architectures





Context #2: Decentralized eng organization

31







Missing eng processes





We shipped process before understanding the problem







Trying to recreate other company processes in isolation is ineffective





Context #3: Unclear how to spend time

35







Wasted time gap-filling for missing teams





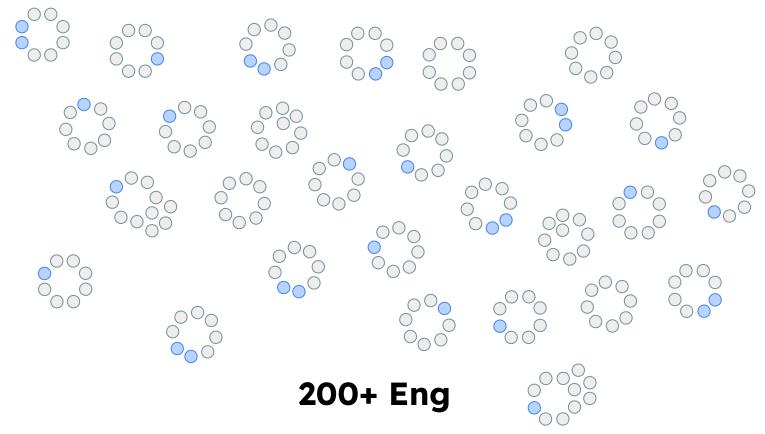


Scaling cluelessness





Out of band prioritization



2023+. Senior ICs



ITERATION 2

Context #1: Unclear how to spend time







Senior ICs aligned with business problems



ITERATION 2

Context #2: Decentralized eng organization







Lighter-weight, targeted processes



ITERATION 2

Context #3: Senior ICs scattered across the org







Onsite & brainstorms

What did we learn from all of this?



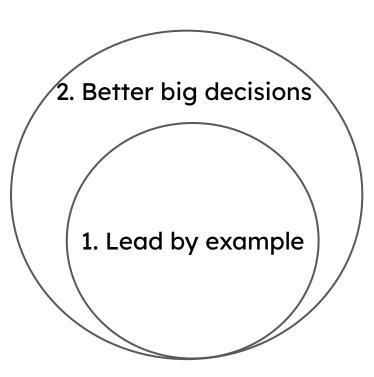
What advice do we wish we give our 2020 selves?

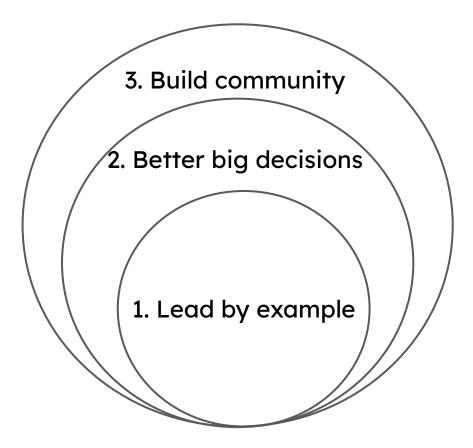
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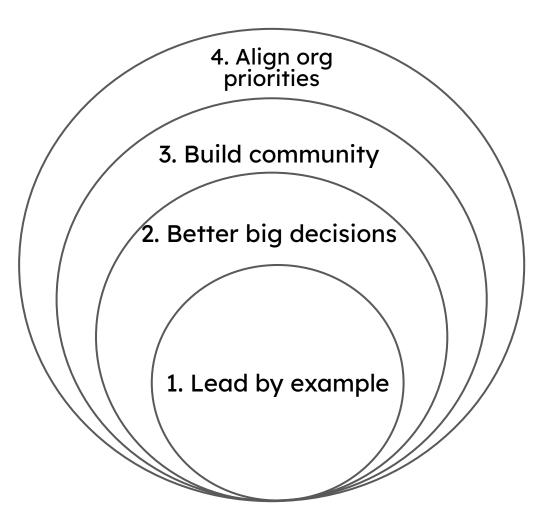
IT DEPENDS (™)

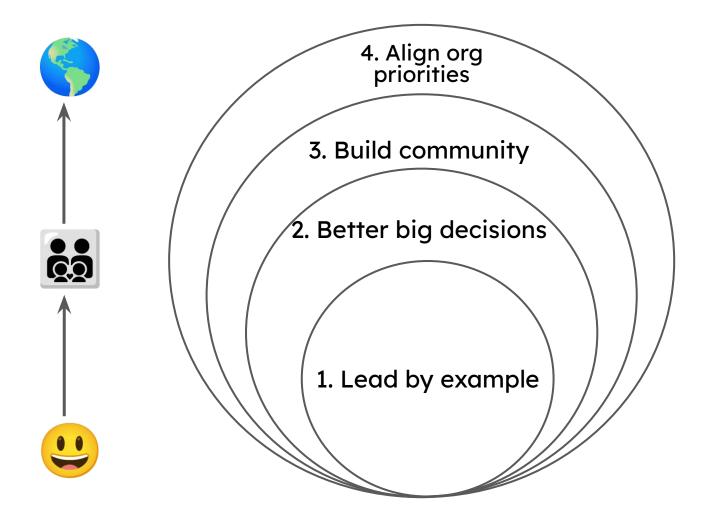
IT DEPENDS (™)

1. Lead by example









1. Lead by example

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES



It's tempting to start at the broad level

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

This didn't work out well in practice for us

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

Focus on a problem statement where you can add leverage

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

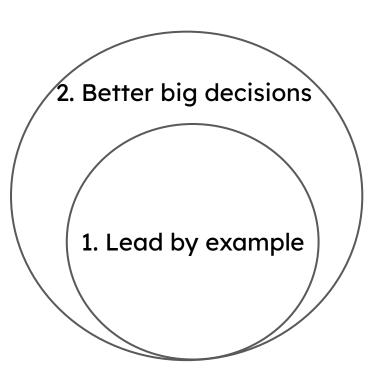
Example 1: unstick systems slowing down key projects

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

Example 2: accelerate key projects



3. BUILD4. ALIGN ORGCOMMUNITYPRIORITIES

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE



We know some BIG DECISIONS not getting made...

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

2. BETTER BIG DECISIONS

... which leads to incidental system complexity

1. LEAD BY

EXAMPLE

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE

We can do better

3. BUILD COMMUNITY

4. ALIGN ORG **PRIORITIES**

1. LEAD BY 2. BETTER BIG DECISIONS

EXAMPLE

Diagnosis: why are these BIG DECISIONS not getting made?





Scenario 1: We don't know how to make a decision





Scenario 1: Context: We don't know how - Conflict-avoidant to make a decision eng culture







Scenario 1: We don't know how ->> Conflict-avoidant to make a decision

Context: eng culture

Our Solution: **RFC** Process





Scenario 2: We're making and ignoring decisions





Scenario 2: We're making and \rightarrow No regular forum to ignoring decisions

Context: circulate knowledge

72







Scenario 2: ignoring decisions

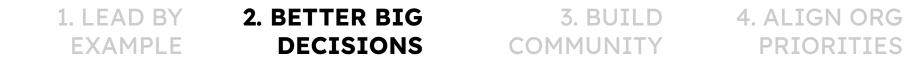
Context: We're making and 🔶 No regular forum to 🔶 circulate knowledge

Our Solution: **Engineering Review**





Scenario 3: We're making bad decisions (and then ignoring them)





Scenario 3: We're making bad decisions (and then ignoring them)

Context: Big decisions getting buried in the details

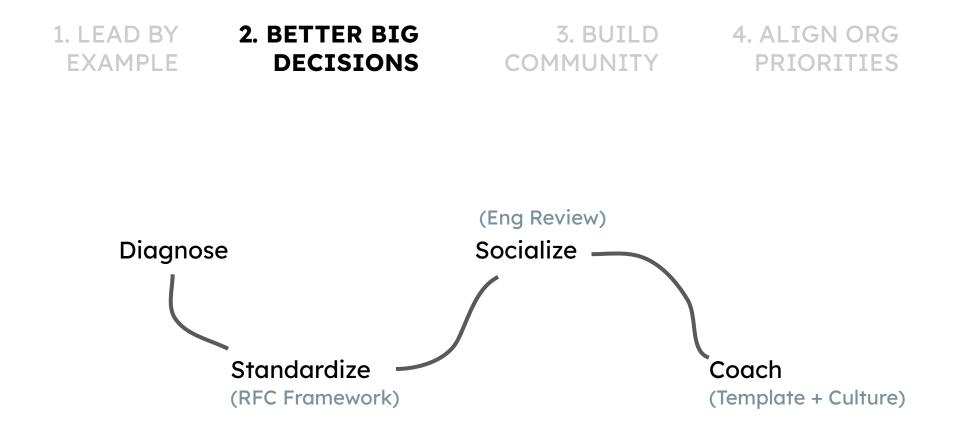


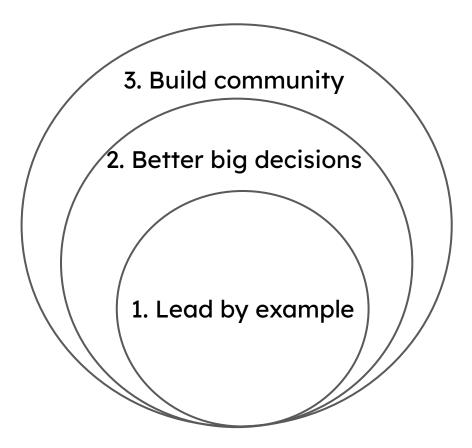




Scenario 3: We're making bad decisions (and then ignoring them)

Our Solution: Call out big decisions in spec template





3. BUILD

COMMUNITY

1. LEAD BY 2. BETTER BIG DECISIONS

EXAMPLE



There are engineers across the company that have the energy to create change

1. LEAD BY2. BETTER BIGEXAMPLEDECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES



... but they aren't talking to each other enough

EXAMPLE

1. LEAD BY 2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG **PRIORITIES**

So now they're frustrated that problems are going unsolved

1. LEAD BY EXAMPLE

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES



Channel this energy by getting people together

1. LEAD BY EXAMPLE

2. BETTER BIG DECISIONS

3. BUILD COMMUNITY

4. ALIGN ORG PRIORITIES

Curate the important topics



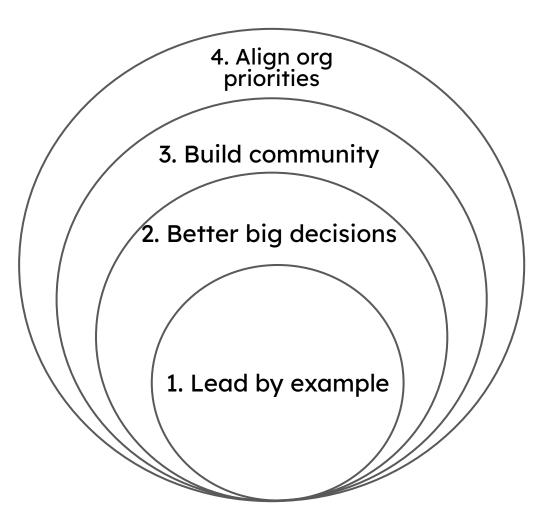
2. BETTER BIG DECISIONS

3. BUILD COMMUNITY





So that the lurking BIG DECISIONS get surfaced



3. BUILD COMMUNITY

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE

There are still dire problems not being prioritized

3. BUILD COMMUNITY

1. LEAD BY 2. BETTER BIG DECISIONS

EXAMPLE

Two patterns preventing resourcing by decision makers

3. BUILD COMMUNITY

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE



Diagnosis 1: Hidden problem Solution: Articulate problem, success criteria, and expertise needed

3. BUILD COMMUNITY

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE



Diagnosis 1: Hidden problem Solution: Articulate problem, success criteria, and expertise needed

4. ALIGN ORG 3. BUILD COMMUNITY

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE

Solution 1: Prototype

PRIORITIES

Solution 2: North Star

Diagnosis 2: **Mysterious solution**

4. ALIGN ORG 3. BUILD COMMUNITY

2. BETTER BIG DECISIONS

1. LEAD BY EXAMPLE

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2. BETTER BIG DECISIONS

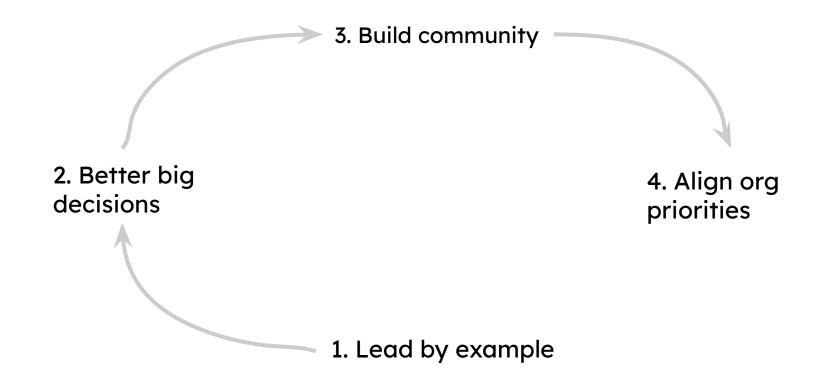


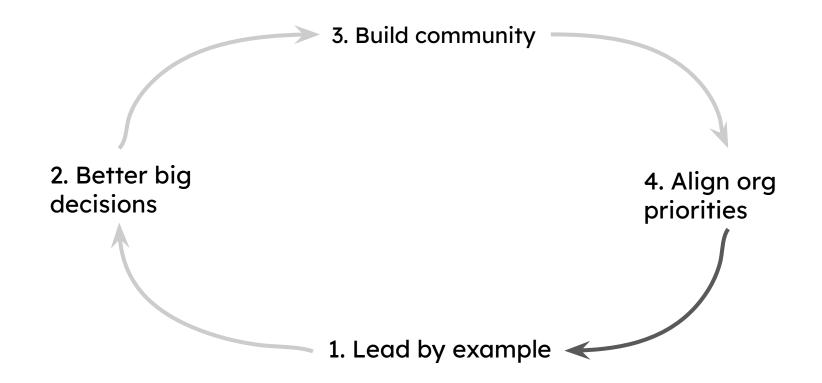
4. ALIGN ORG PRIORITIES

CLEARER PROBLEM STATEMENTS

DEMYSTIFIED SOLUTIONS

These are both ways in which you can uniquely add leverage.





1. LEAD BY EXAMPLE

focused > broad unstick key projects accelerate new opportunities

2. BETTER BIG DECISIONS

diagnose standardize socialize coach

3. BUILD COMMUNITY

bring people together curate topics surface big decisions

4. ALIGN ORG PRIORITIES

state hidden problems demystify solutions

Diagnose context to determine the right solution at each step above:

- Context on the evolution of the business
- Context on where the technology does(n't) support it

Don't scale cluelessness: scale solutions only after you have a strong POV on what success and failure looks like

INTENTIONALLY BLANK



WHAT: GENERIC FRAMEWORK

1. LEAD BY2. BETTER BIG3. BUILD4. ALIGN ORGEXAMPLEDECISIONSCOMMUNITYPRIORITIES

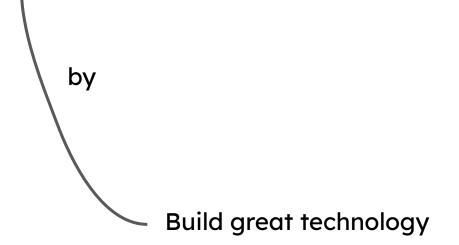
HOW: SPECIFIC CONTEXT

GREAT EVOLUTION OF TECHNOLOGY THE BUSINESS

GREAT TECHNOLOGY

EVOLUTION OF THE BUSINESS

Support the evolution of the business

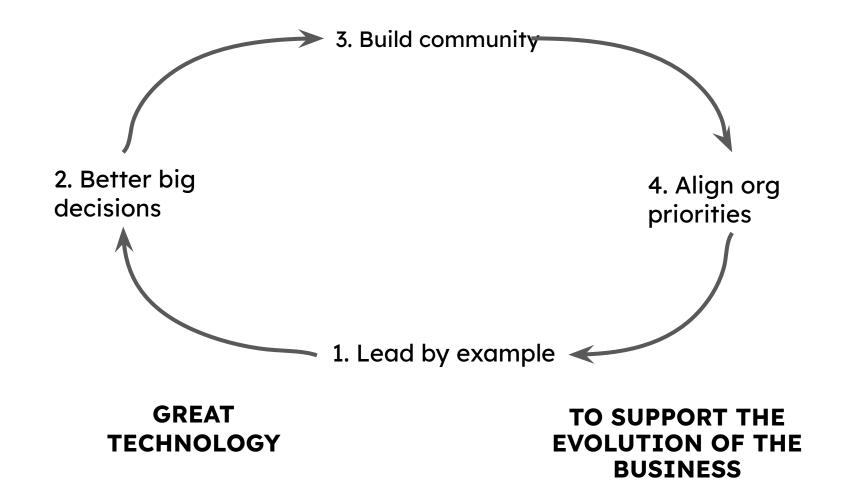


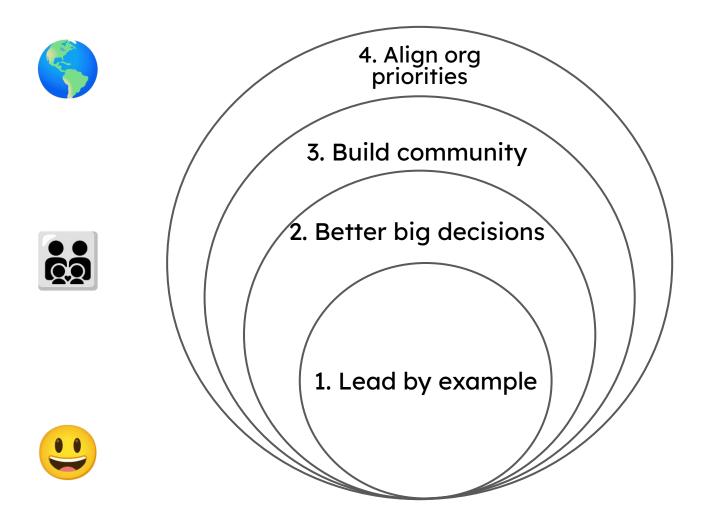
Business

Technology

IT DEPENDS ([™]) pt 1: Business

IT DEPENDS ([™]) pt. 2: Technology

















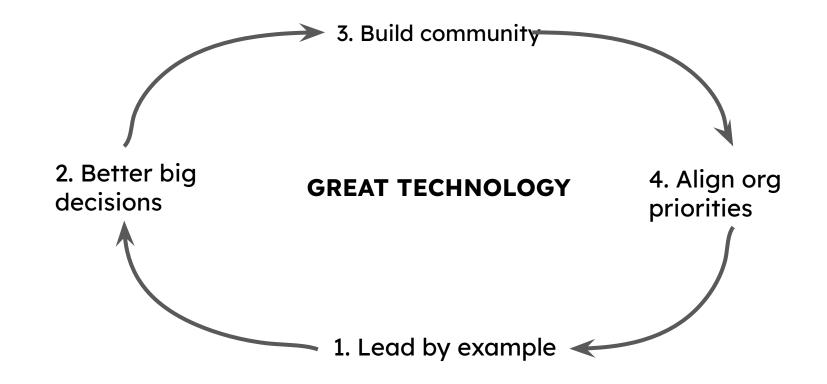




wisdom







EVOLUTION OF THE BUSINESS

SOUND THE ALARM

TEMPLATE SLIDES COME AFTER

PROCESS > PROBLEM

SCALING CLUELESSNESS

Now let's talk about two traps we ran into as well





Scenario 1: Diagnosis: Our We don't know how - Unclear when to RFC on to make a decision

Our Solution: RFC Process

TEMPLATE CAPTION

1. LEAD BY2. BETTER BIG3. BUILD4. ALIGN ORGEXAMPLEDECISIONSCOMMUNITYPRIORITIES

TEMPLATE CAPTION

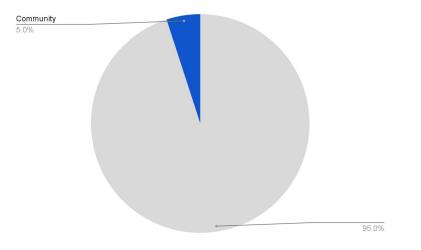
TEMPLATE TEMPLATE

TEMPLATE

ITERATION 0

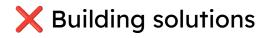
ITERATION 1

ITERATION 2



Share context to surface problems

Opinionated technical principles



Side-project committee



wisdom

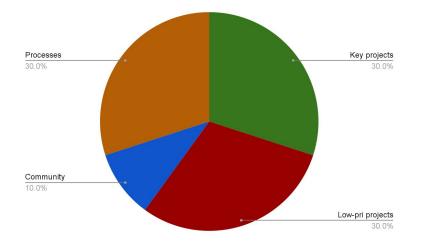




ITERATION 0

ITERATION 1

ITERATION 2



Identified & shipped a few large projects

X Spent a lot of time gap-filling

Created ineffective (aka context-free) process

Full-time job

TEMPLATE CAPTION

1. Lead by example

