

What does a Staff
Engineer do?



Ambiguity

I HAVE NO
IDEA WHAT
I'M DOING



Relatively new



GOING STAFF

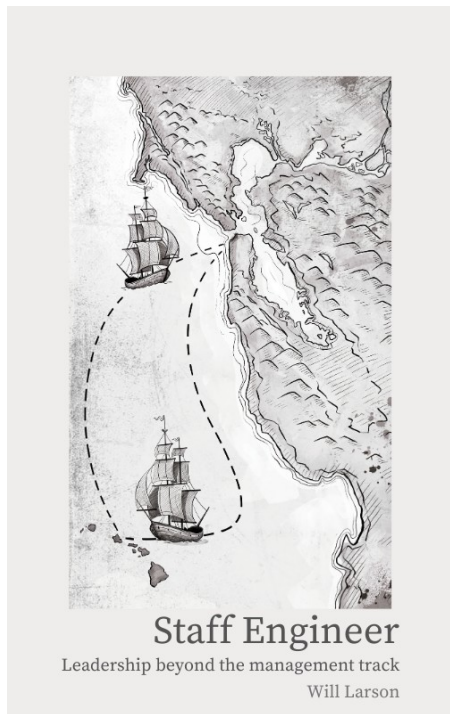
A “new” path

Tobi(as) Pfeiffer

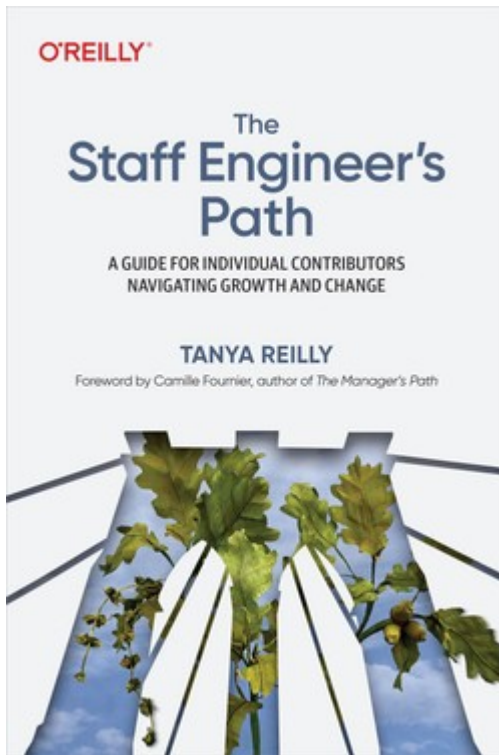
[@PragTob](#)

[pragtob.info](#)

Senior Engineer @ Screenverse



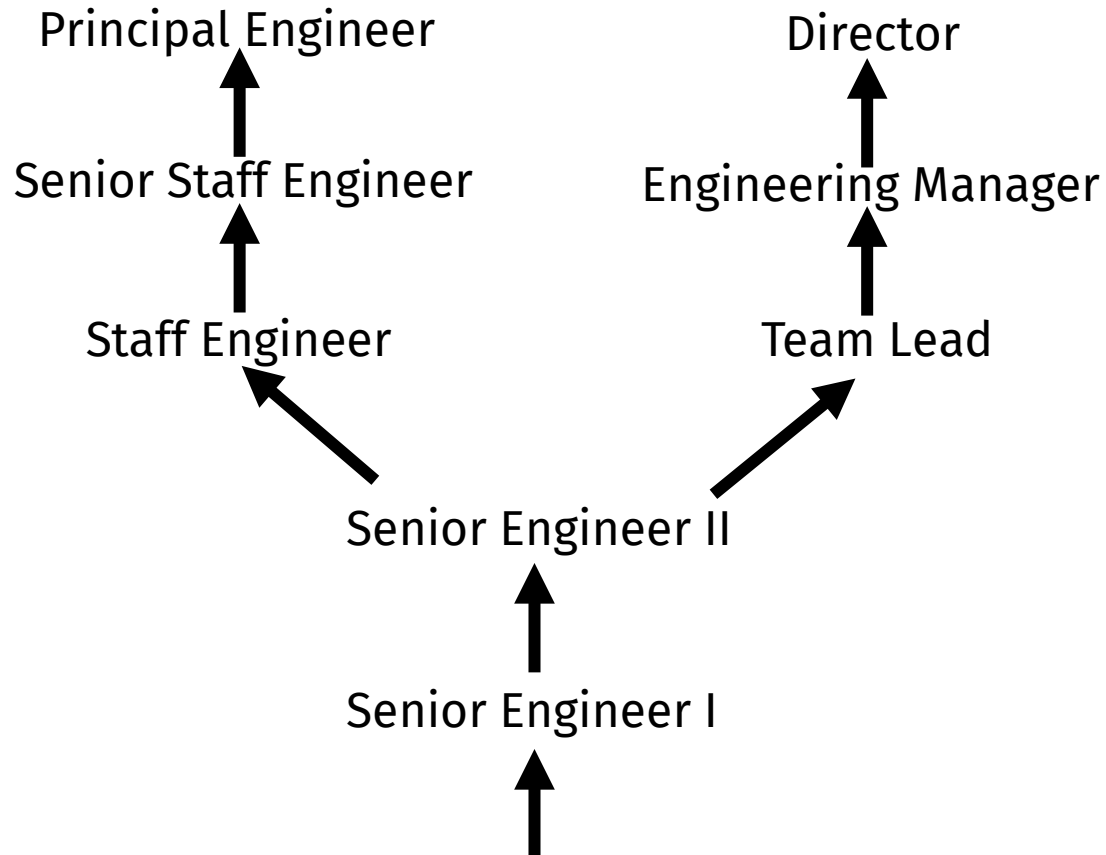
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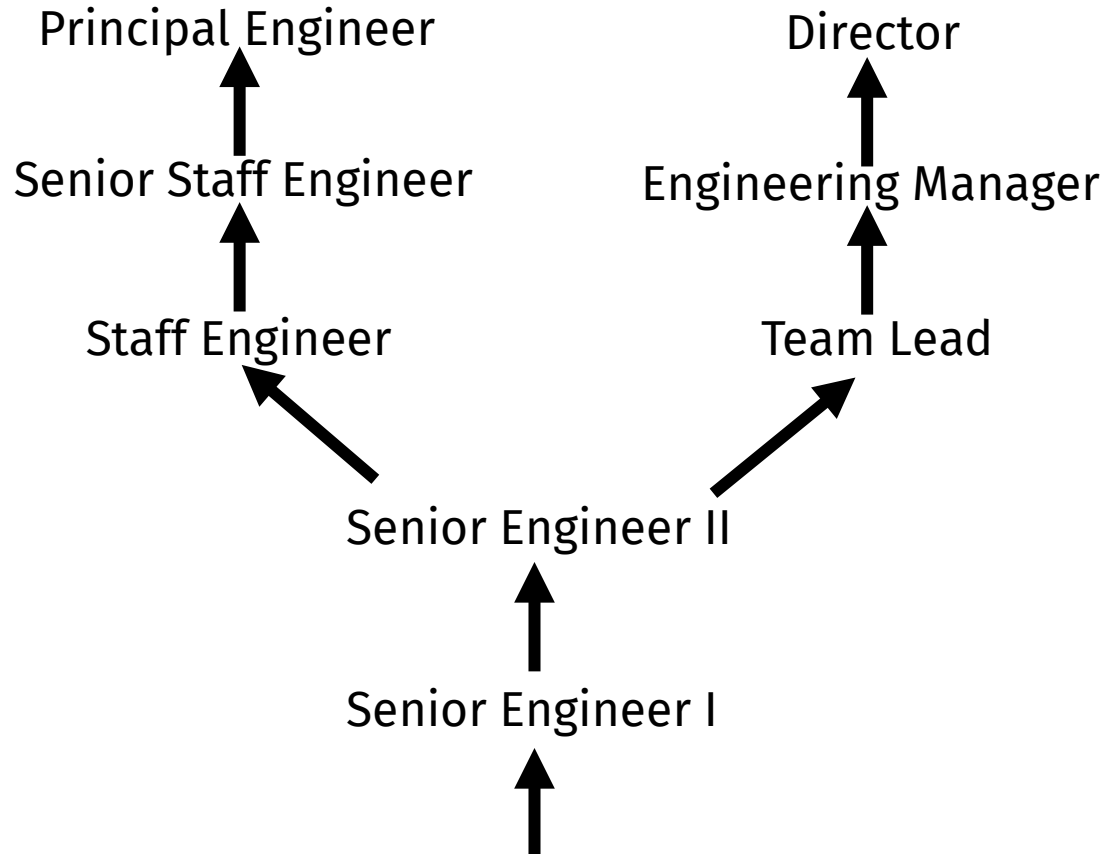
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What's a Staff Engineer?



A separate path



*So, what does a
Staff Engineer
do?*

TECHNICAL LEADERSHIP

**INDIVIDUAL
CONTRIBUTOR**

disservice

INDIVIDUAL CONTRIBUTOR



sarajo

@SaraJChipps



What is the difference between a Staff level engineer and a Manager?

-
-
-
-
-
-

One of them thinks they code for a living.

9:02 PM · Sep 3, 2021

*exceptions may apply



sarajo

@SaraJChipps



What is the difference between a Staff level engineer and a Manager?

-
-
-
-
-
-

One of them thinks they code for a living.

9:02 PM · Sep 3, 2021

*“If you want to
stay coding...”*

*“If you want to
stay ~~coding~~...”*

*“If you want to
stay technical...”*

“This doesn’t necessarily mean you’ll write a lot of code. At this level, **your goal is to solve problems efficiently**, and **programming will often not be the best use of your time**. (...) let others handle the programming. Staff engineers often take on **ambiguous, messy, difficult problems** and do just enough work on them to **make them manageable by someone else.**”

Tanya Reilly – The Staff Engineer’s Path

*“What matters is that the **problems get solved,**
not how.”*

Tanya Reilly – The Staff Engineer’s Path

So, *what* does a
Staff Engineer
do?

IT DEPENDS

Your Company

IT DEPENDS

Your Company

Your Answer

IT DEPENDS

Archetypes



Tech Lead



Architect





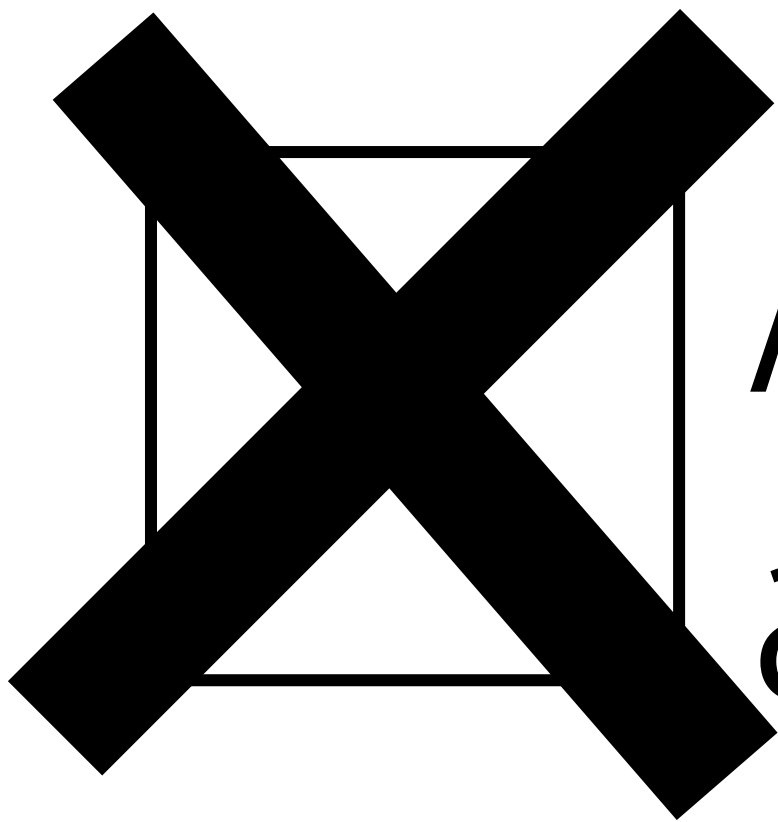
Solver

Right Hand



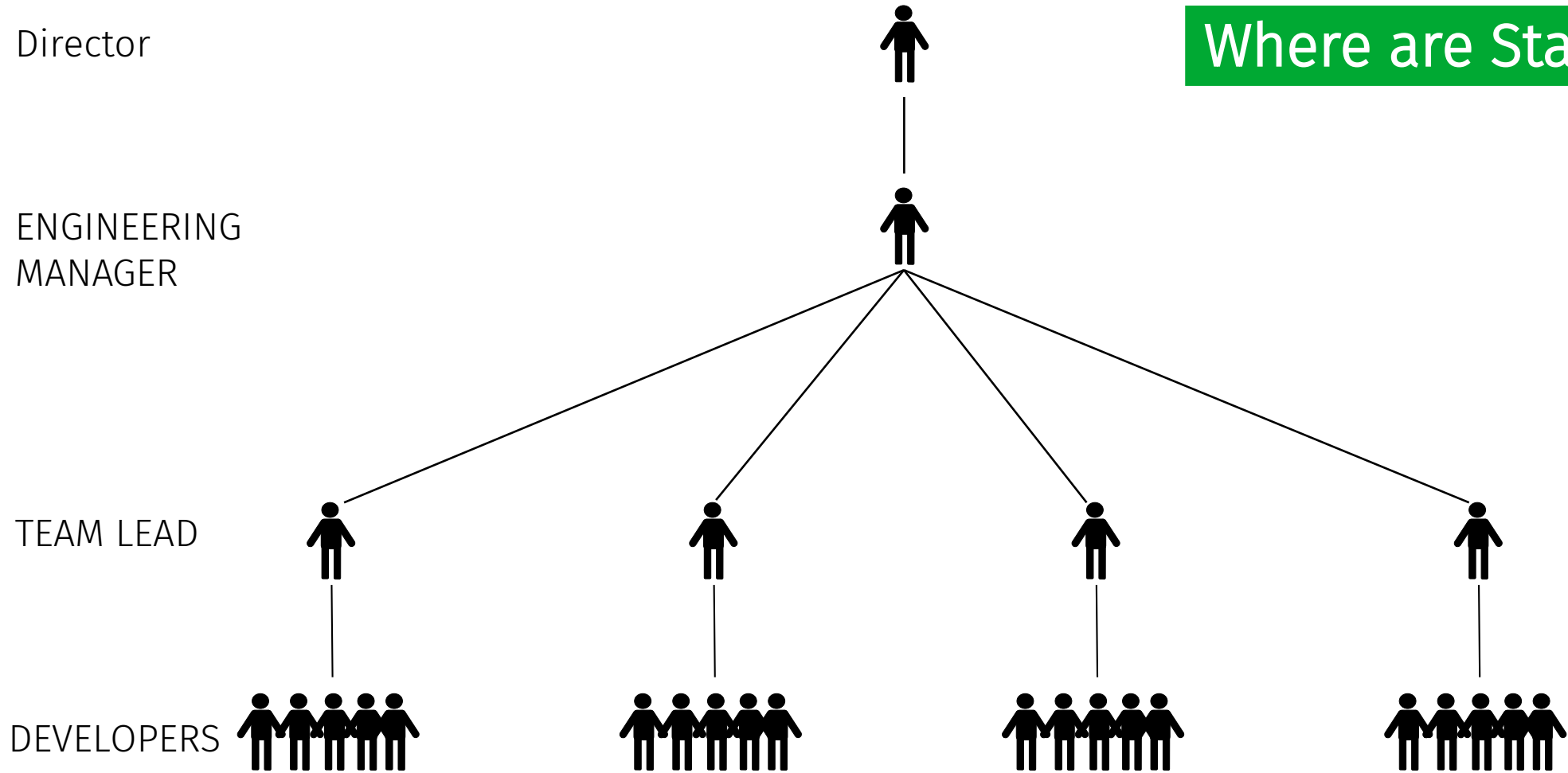
Senior 3



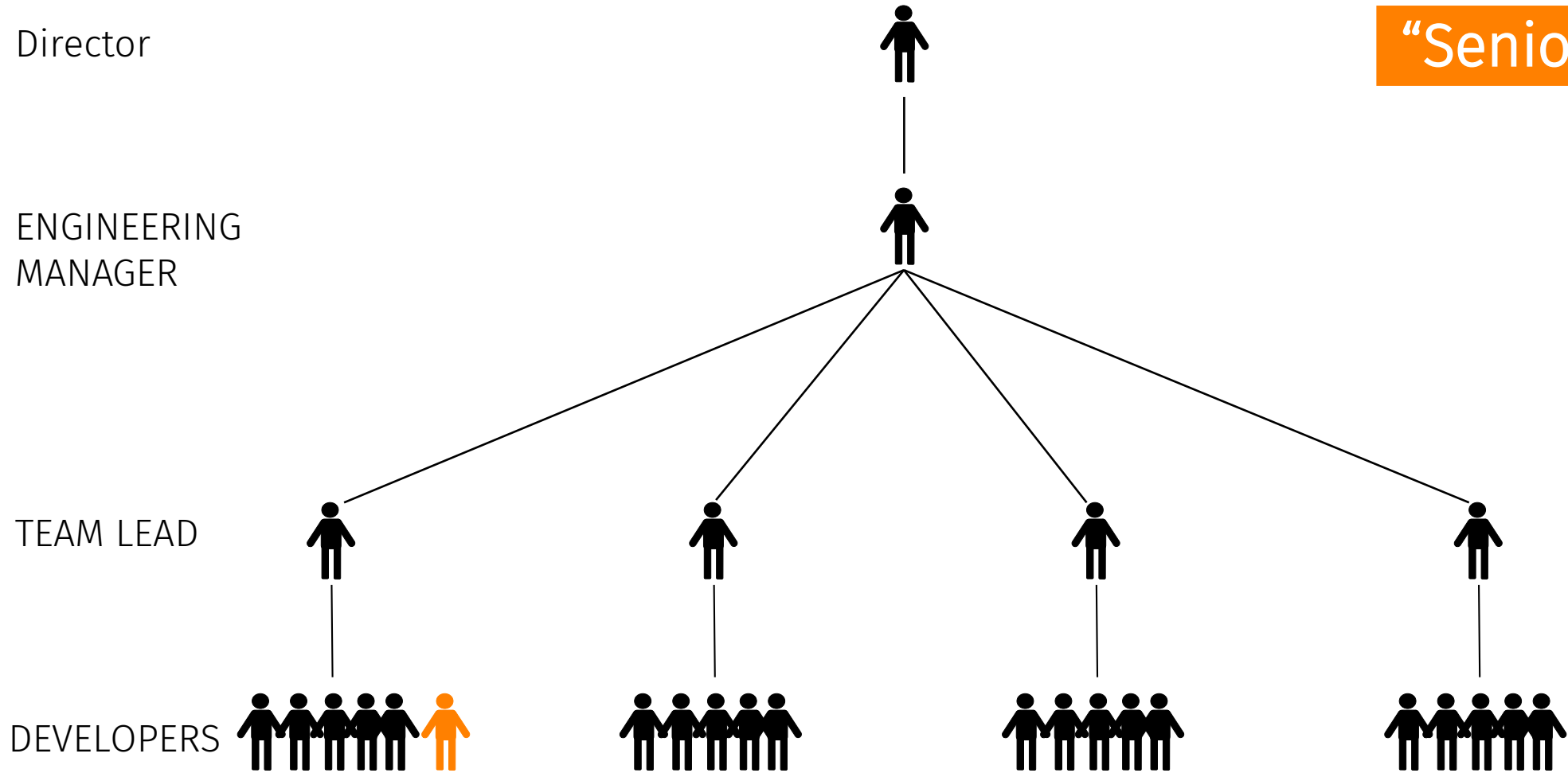


All of the
above

Where are Staffs?



“Senior 3”



Director

ENGINEERING MANAGER

TEAM LEAD

DEVELOPERS

Same level: Staff

Director



ENGINEERING
MANAGER



TEAM LEAD



DEVELOPERS



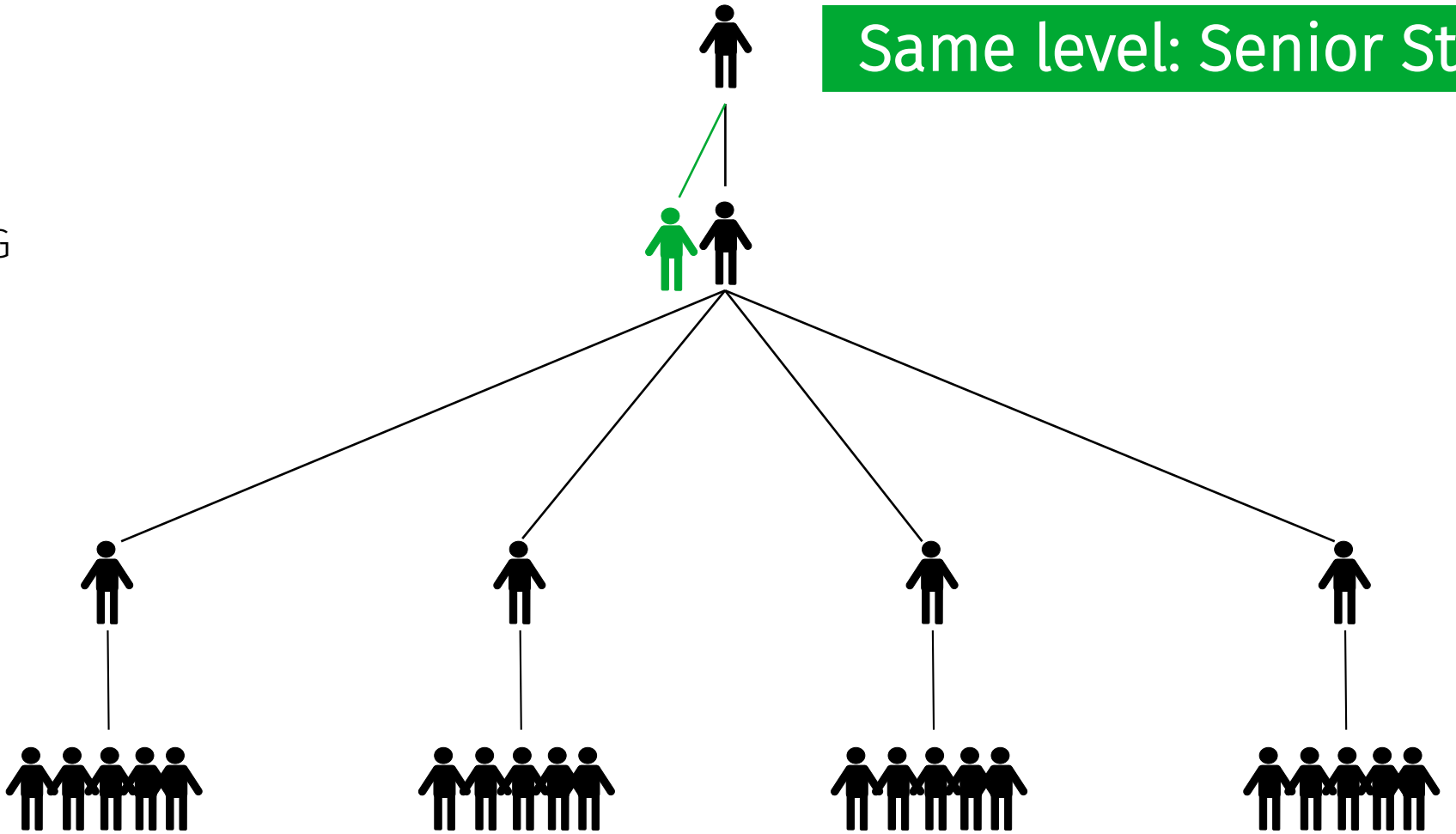
Director

Same level: Senior Staff

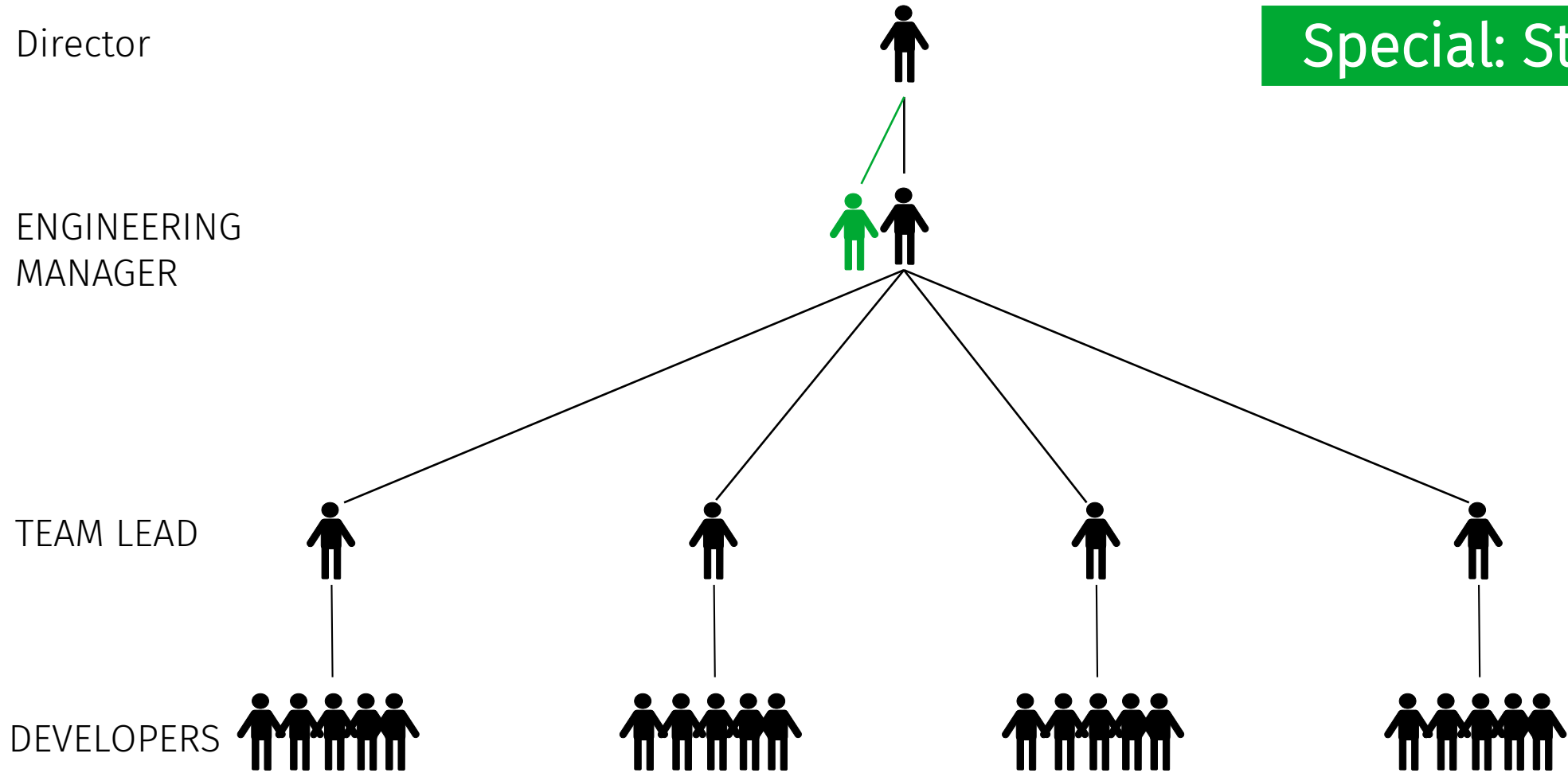
ENGINEERING
MANAGER

TEAM LEAD

DEVELOPERS



Special: Staff



SLIDES:

Being



Tanya Reilly
@whereistanya

Being Glue

You know that thing where everyone on a software engineering team turns up and just writes code for eight hours a day and then later the project is successful? No you don't. Projects don't work like that!

Of course coding is an important skill in a software engineering team. But there are a ton of **other skills** that we need to bring to work every day. Skills that can mean the difference between a project that succeeds and one that fails.



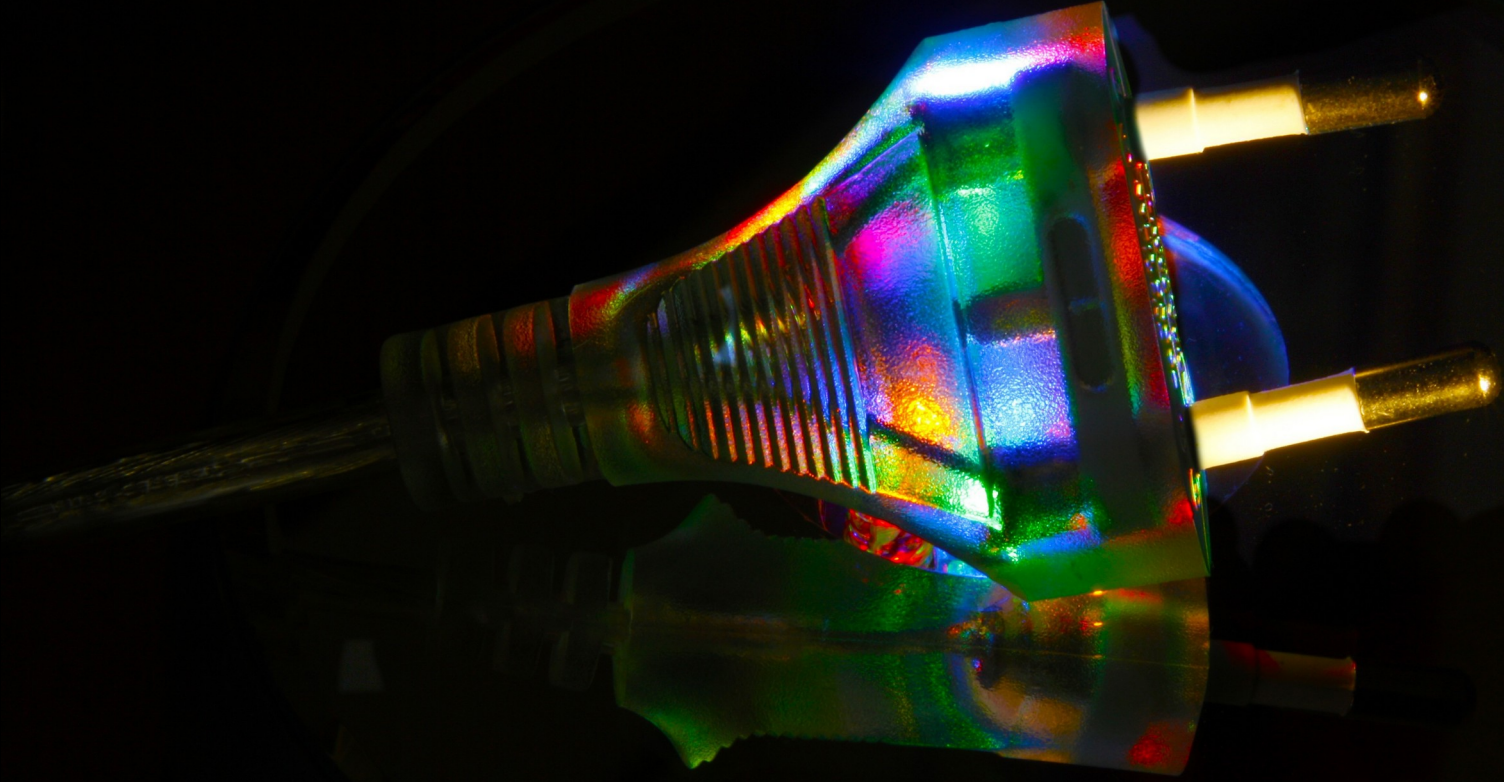
What skills do you need on your team?

Like noticing when other people in the team are blocked and helping them out. Or reviewing design documents and noticing what's being handwaved or what's inconsistent. Or onboarding the new people and making them productive faster. Or improving processes to make customers happy.

A seat at the table



connector



A group of people are gathered around a table in what appears to be a workshop or meeting. In the foreground, a woman with dark hair tied back, wearing a white shirt and a red scarf, is focused on drawing on a large sheet of paper with a yellow marker. The table is cluttered with various items: a green cup, a pair of scissors, a blue and red ribbon, a smartphone, and several other markers. In the background, other people are visible, some sitting on a ledge. One person is holding a smartphone. The overall atmosphere is collaborative and creative.

Convince People



Convince People

Push for Change

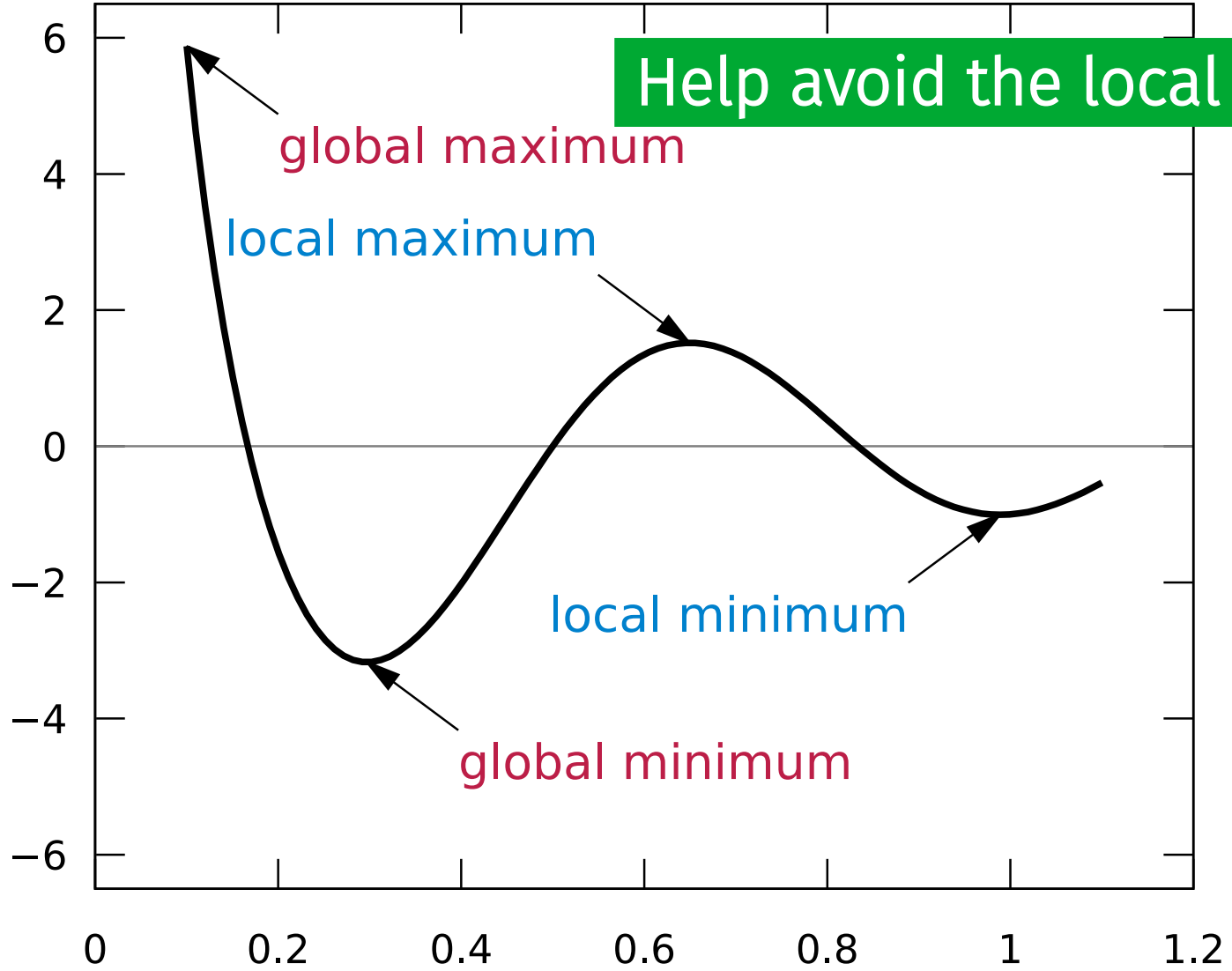
Challenging Comms



Make a map



Help avoid the local maximum

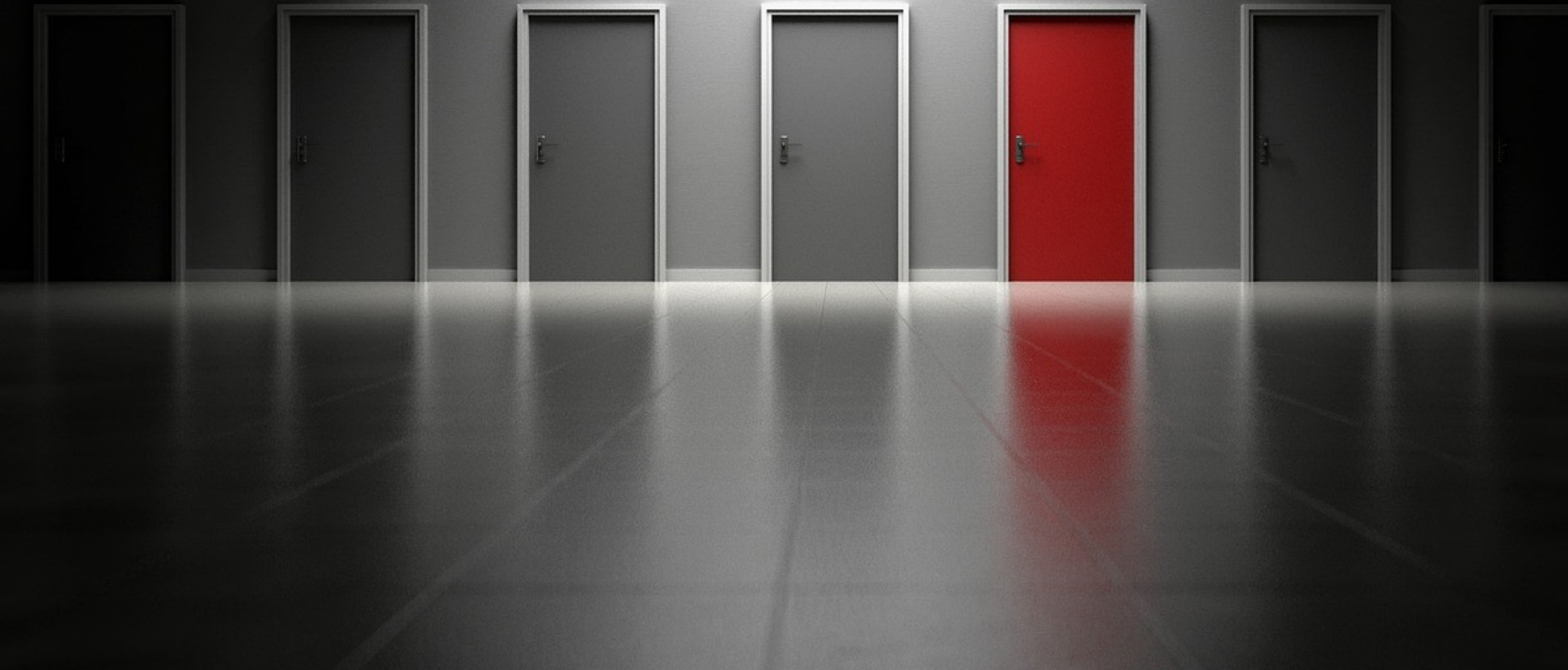


A lion with a thick, golden-brown mane is the central focus, wearing an ornate golden crown with a cross on top. The lion is lying on a large, weathered log. The background is a dark, misty savanna with silhouettes of trees and a body of water reflecting the scene. The overall mood is regal and mysterious.

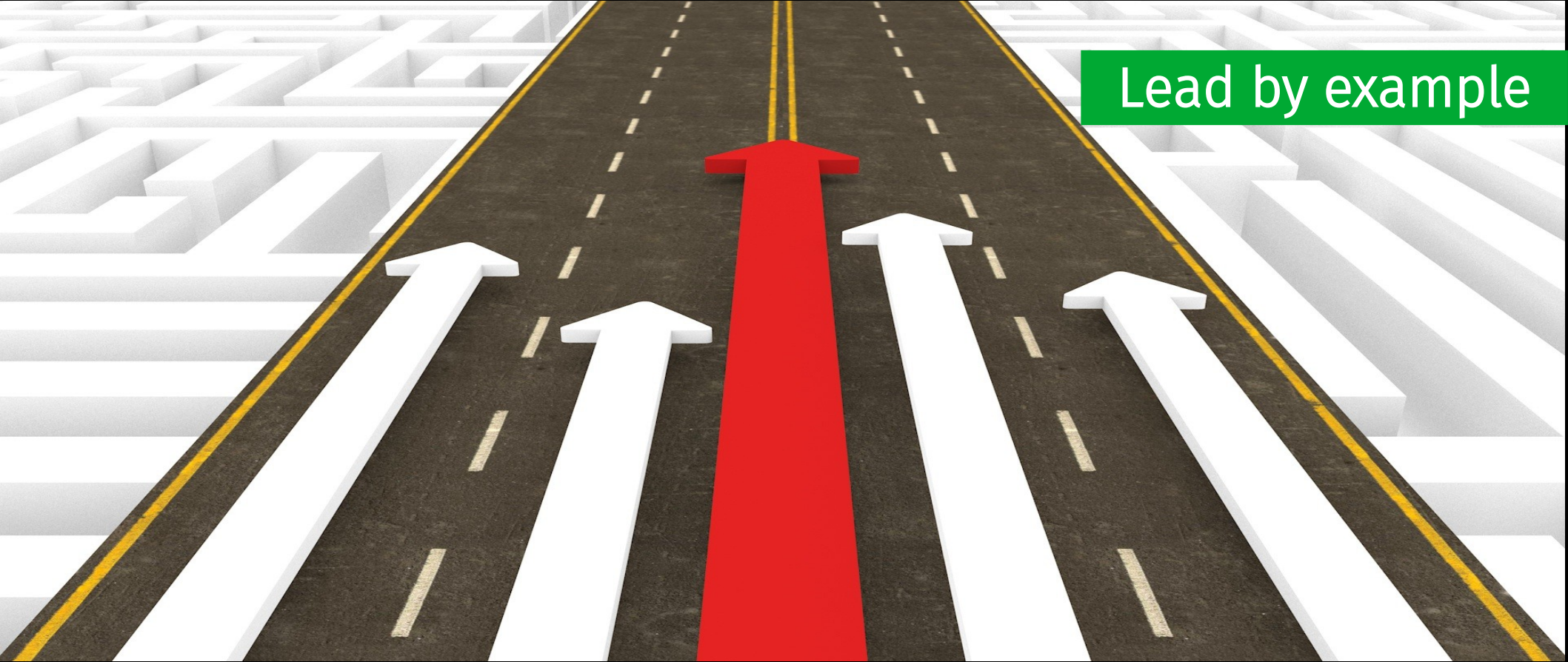
Context is King

Context

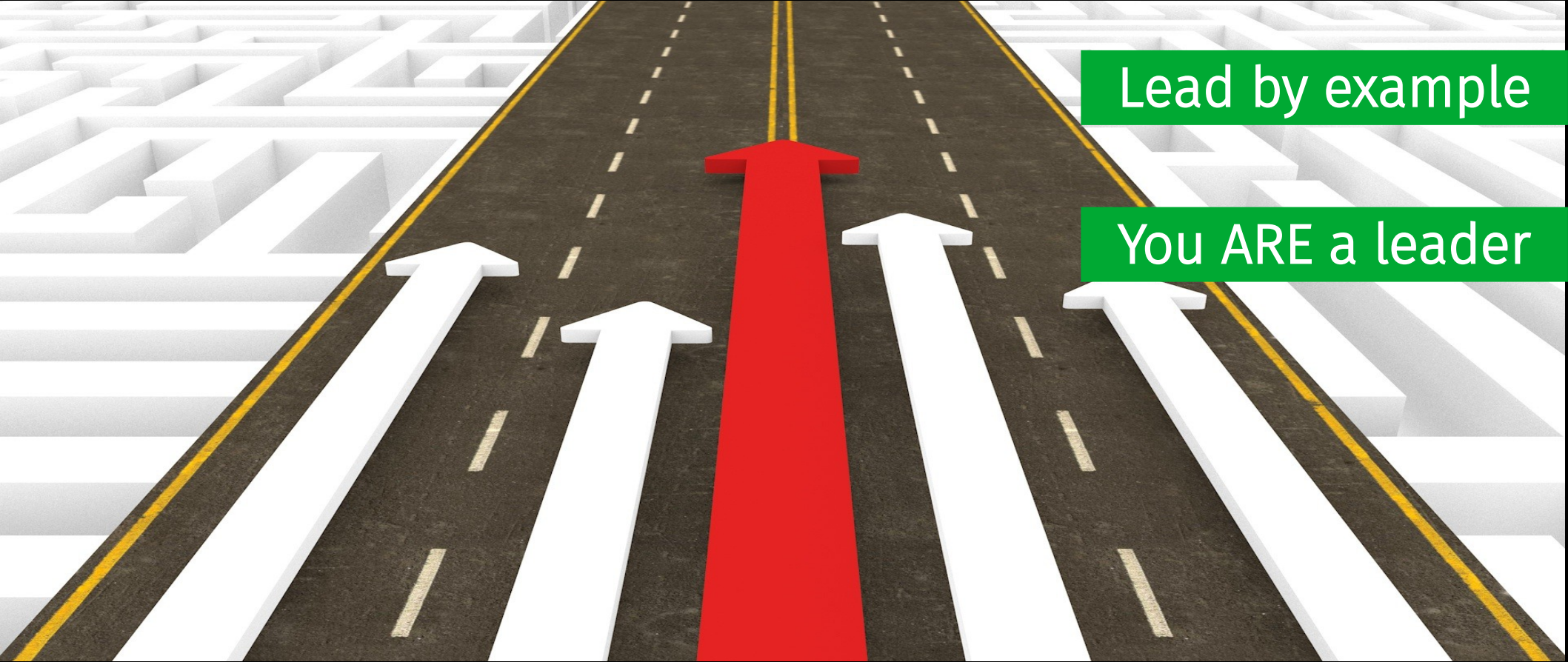
80/20 decisions



Lead & influence,
but without direct
power

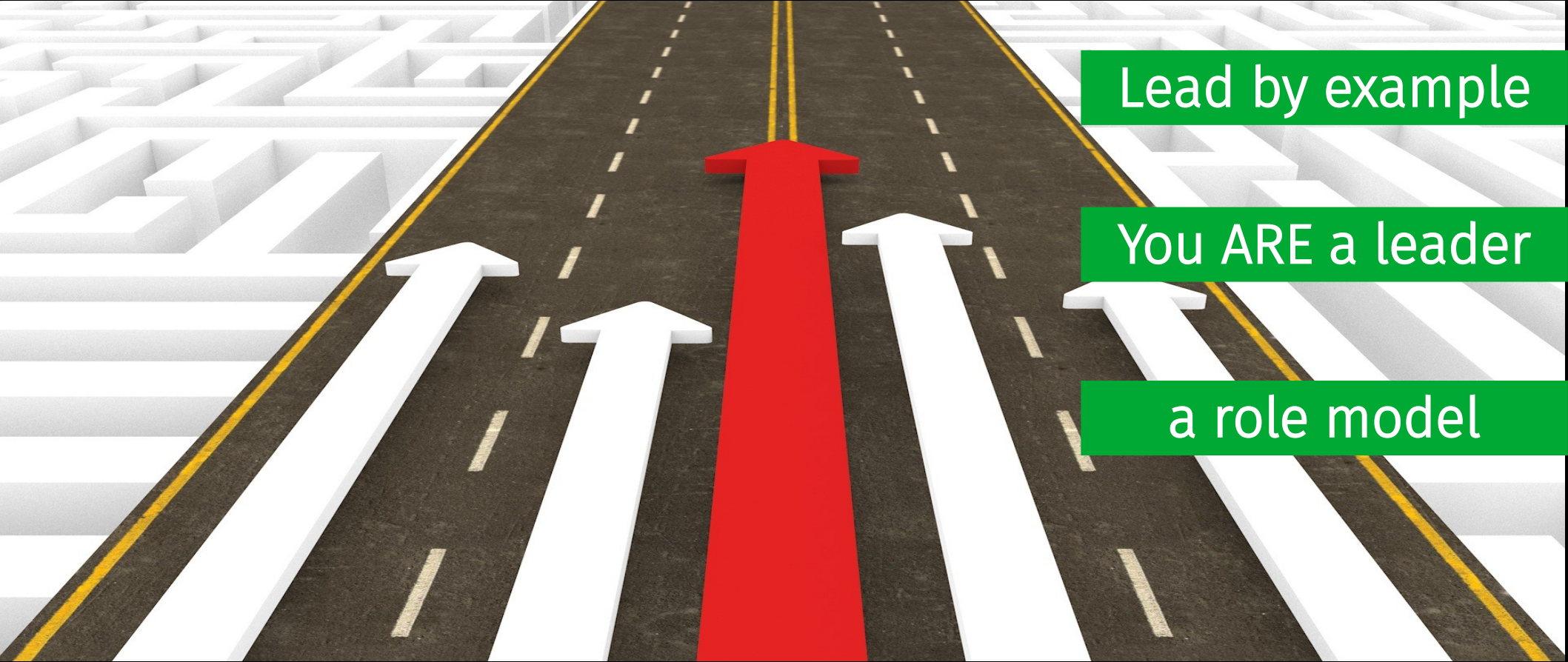


Lead by example



Lead by example

You ARE a leader



Lead by example

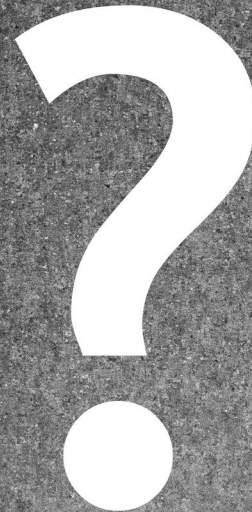
You ARE a leader

a role model

AMBIGUITY

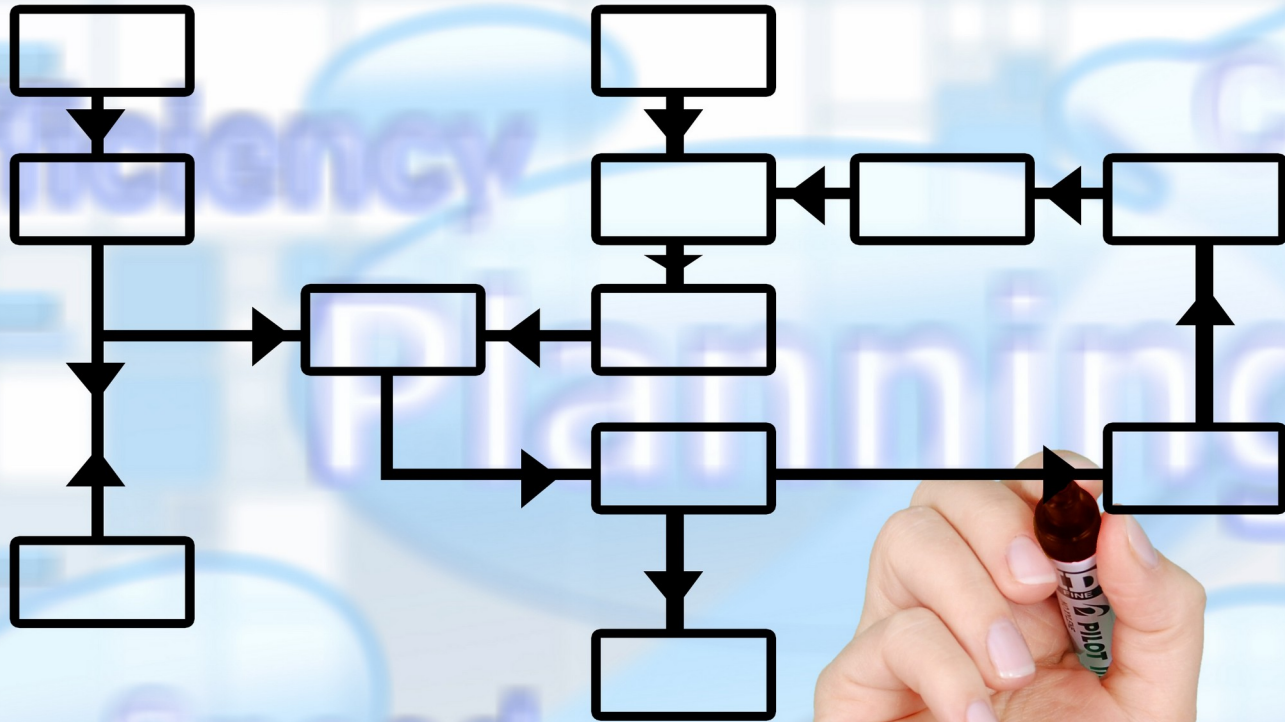
AMBIGUITY

WHAT DO YOU DO?



Technical Lead





Introduction to a domain

Background Job System



```
tobi@qiqi:~/github/benchee(main)$ mix test
Running ExUnit with seed: 556848, max cases: 48
Excluding tags: [needs_fast_function_repetition: true]
```

```
.....
Finished in 8.7 seconds (6.7s async, 1.9s sync)
139 doctests, 328 tests, 0 failures, 4 excluded, 1 skipped
tobi@qiqi:~/github/benchee(main)$ mix test
Running ExUnit with seed: 348202, max cases: 48
Excluding tags: [needs_fast_function_repetition: true]
```

```
..... Error being retried:: %ExUnit.AssertionError{
  left: 4,
  right: 8,
  message: "Assertion with >= failed",
  expr: {:assert, [line: 80],
    [
      {>=, [line: 80],
        [
          {length, [line: 80],
            [
              {run times for, [line: 80],
                [[:new_suite, [line: 80], nil], "Name 2"]}
            ]},
          8
        ]},
      ]},
  args: :ex_unit_no_meaningful_value,
  doctest: :ex_unit_no_meaningful_value,
  context: :==
}
```

```
1) test warn when functions are evaluated warns when run in iex (BencheeTest)
test/benchee_test.exs:1043
Assertion failed, no matching message after 5ms
The following variables were pinned:
  port is @Port0.30
The process mailbox is empty.
code: assert_receive (~port, {:data, "iex(1)> "})
stacktrace:
  test/benchee_test.exs:1050: (test)
```

```
.....
Finished in 8.7 seconds (6.6s async, 2.1s sync)
139 doctests, 328 tests, 0 failures, 4 excluded, 1 skipped
tobi@qiqi:~/github/benchee(main)$ mix test
Running ExUnit with seed: 582011, max cases: 48
Excluding tags: [needs_fast_function_repetition: true]
```

```
.....
Finished in 9.1 seconds (6.9s async, 2.1s sync)
139 doctests, 328 tests, 0 failures, 4 excluded, 1 skipped
tobi@qiqi:~/github/benchee(main)$ mix test
Running ExUnit with seed: 243894, max cases: 48
Excluding tags: [needs_fast_function_repetition: true]
```

```
..... Error being retried:: %ExUnit.AssertionError{
  left: 2,
  right: 4,
  message: "Assertion with >= failed",
  expr: {:assert, [line: 344],
    [
      {>=, [line: 344],
        [
          {length, [line: 344],
            [
              {run times for, [line: 344],
                [[:new_suite, [line: 344], nil], "sleep", "Longer wait"]}
            ]},
          4
        ]},
      ]},
  args: :ex_unit_no_meaningful_value,
  doctest: :ex_unit_no_meaningful_value
}
```

#flaky-tests

Elixir Training Camp





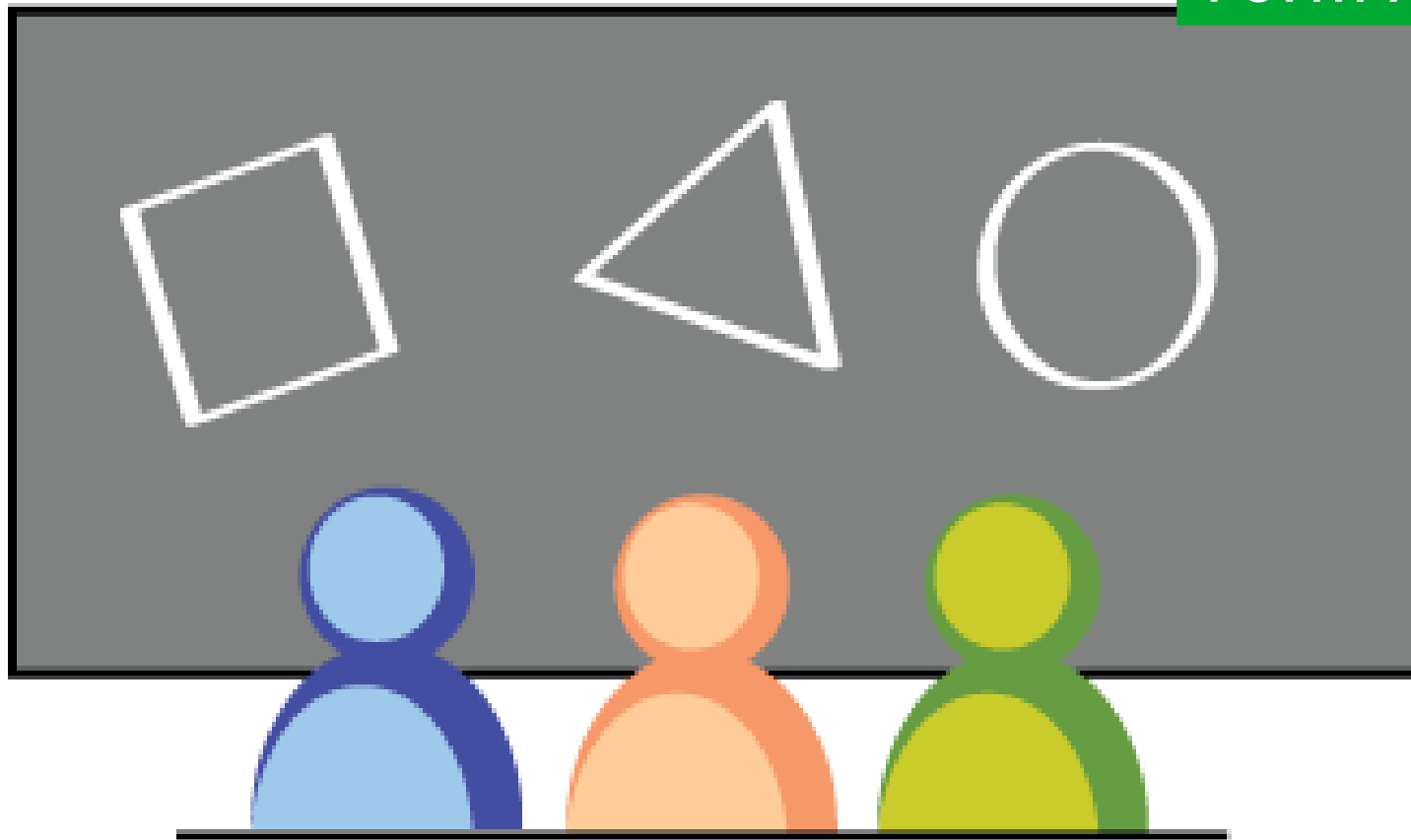
Summarize & document

Form Alignment



We are all in agreement then.

Form Alignment

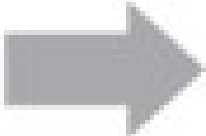


Oh.

Form Alignment



What if we did this ...



Ah!



What if we did this ...



Ah!

Split amount



Beware snacking!



80% agree – what do you do?



No decision, is A DECISION



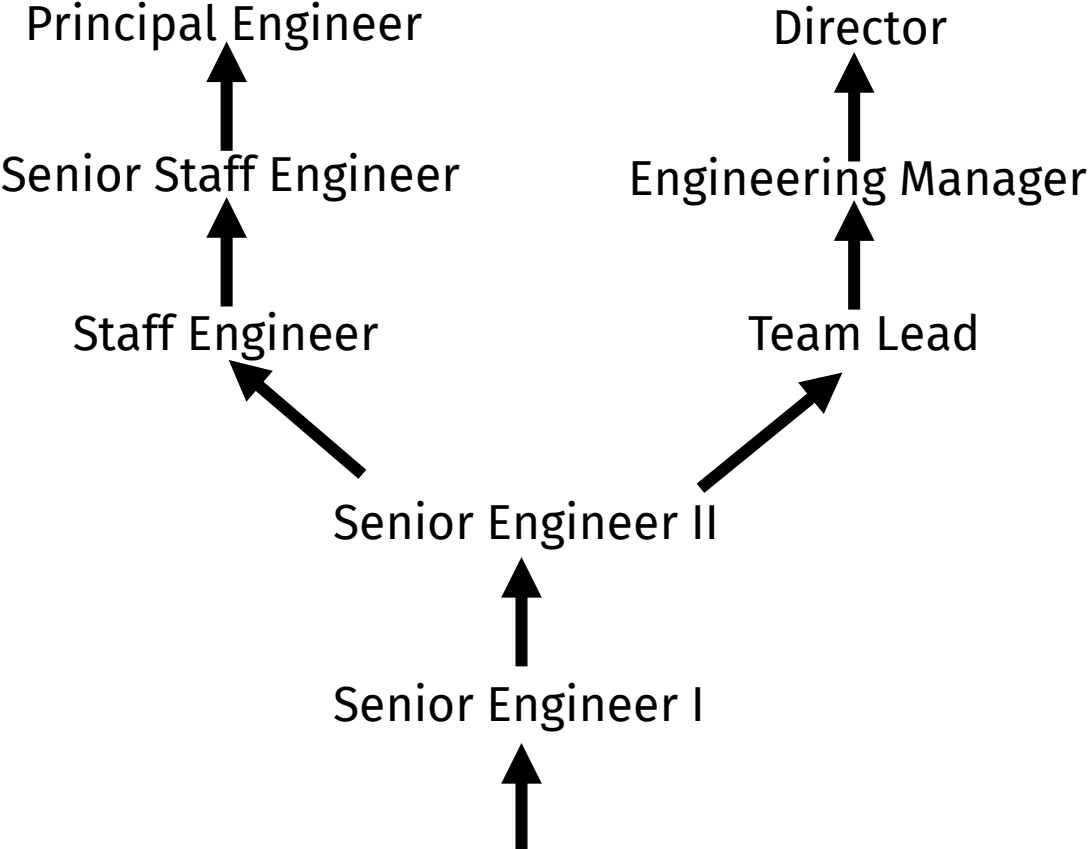
“We’re fine with the status quo”



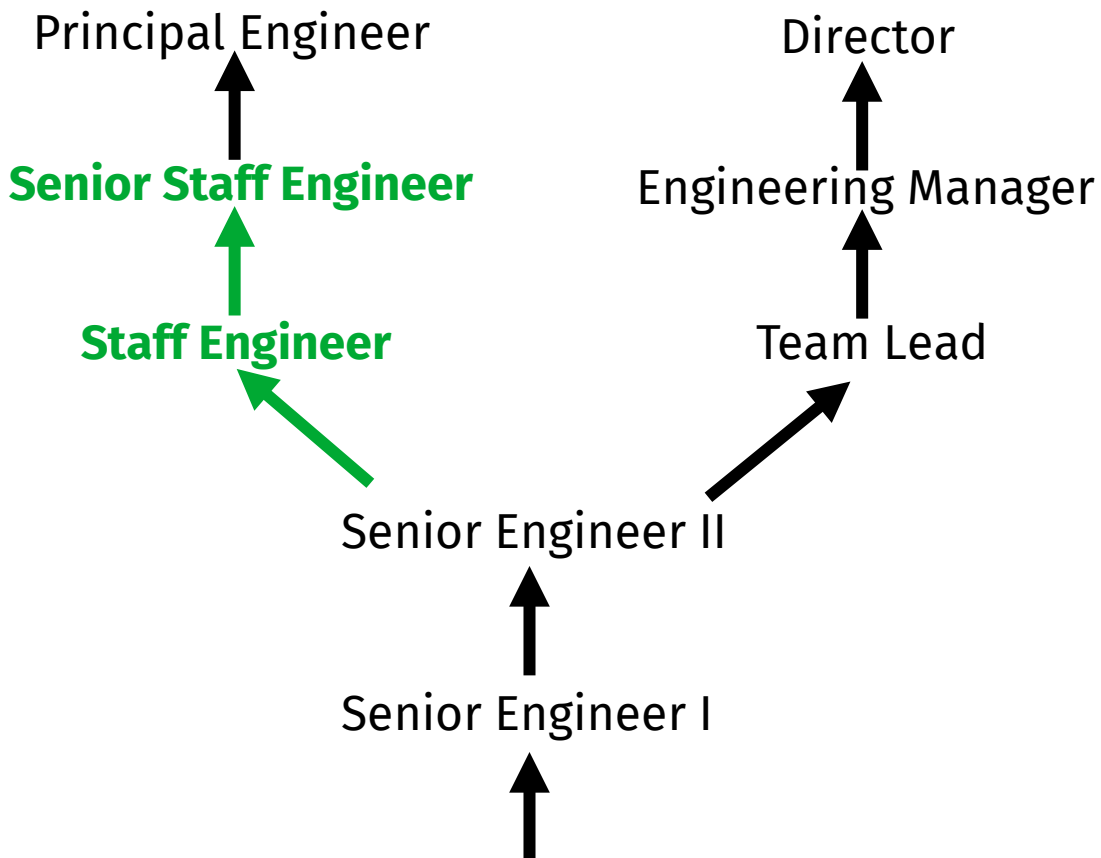


GOING STAFF?

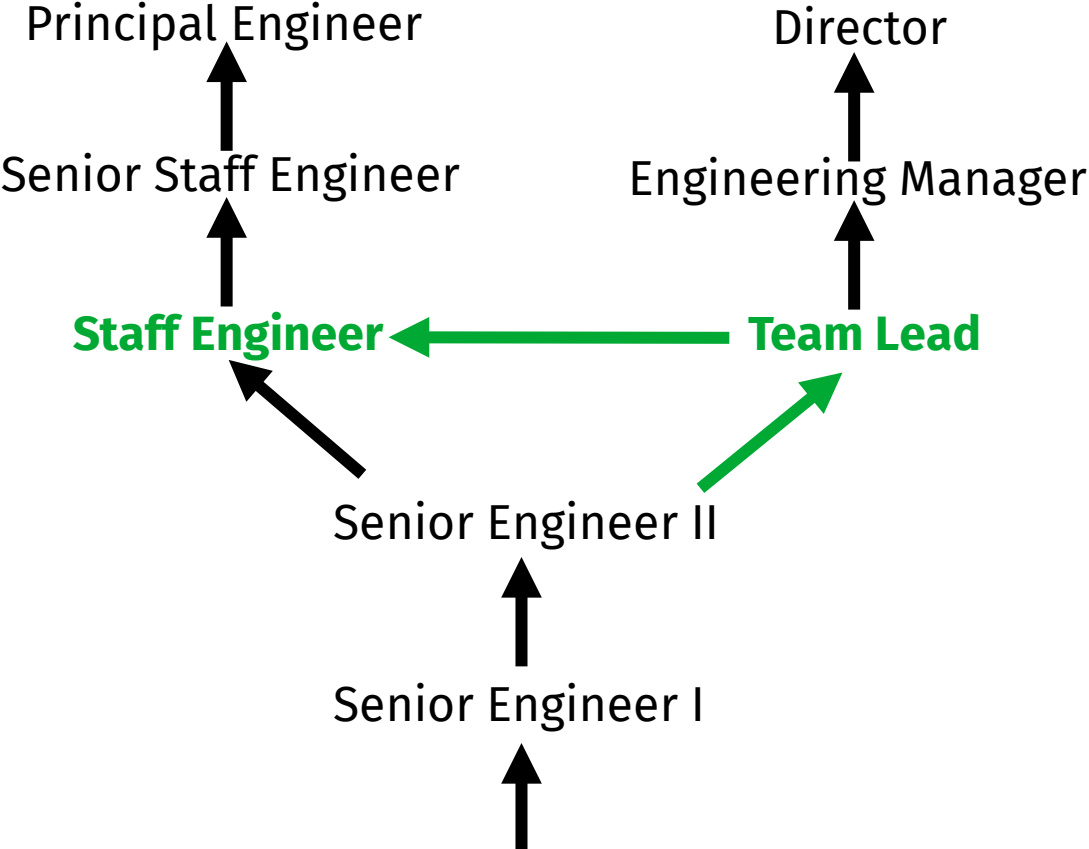
Making your way



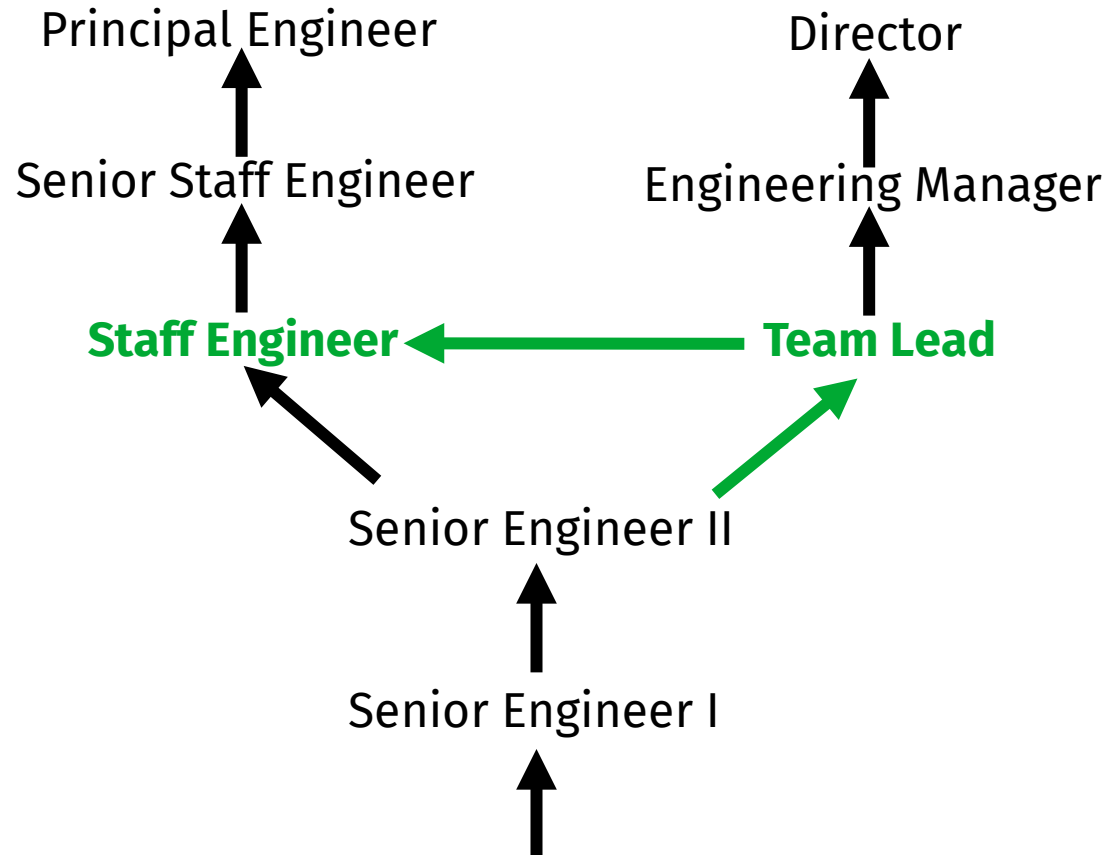
Making your way



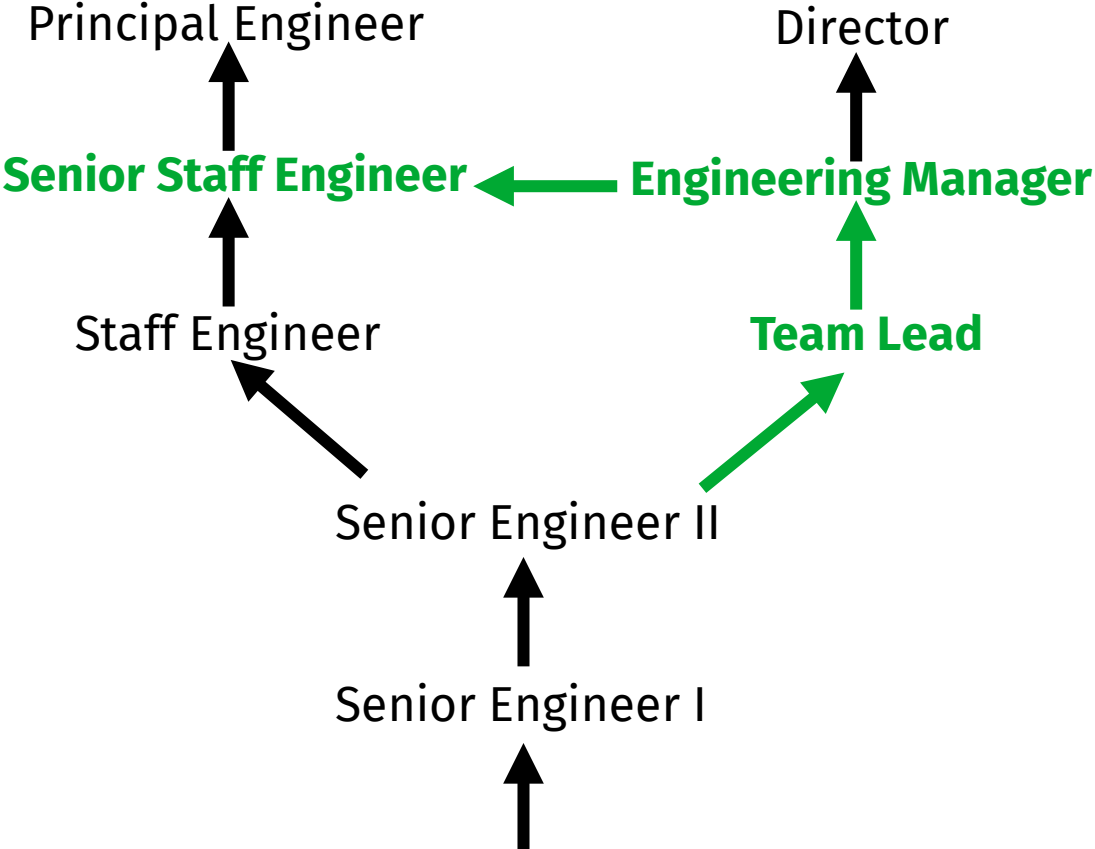
Making your way



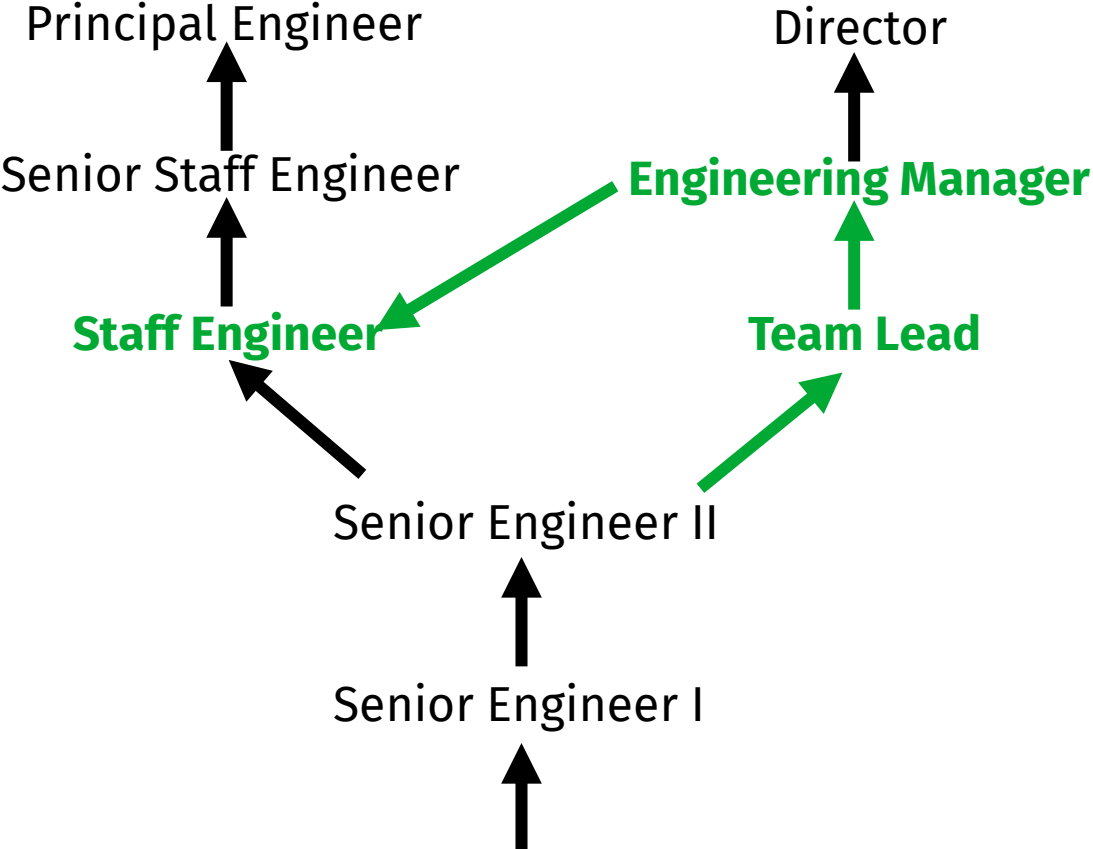
Shift of POV



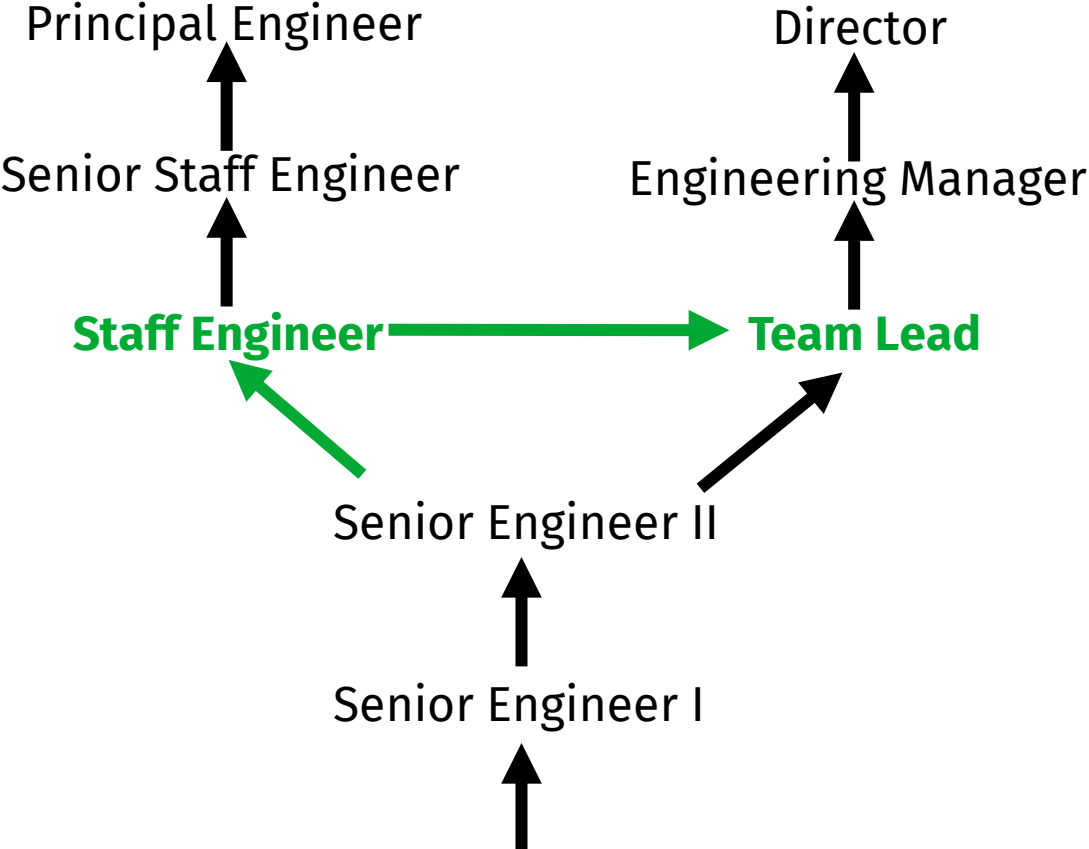
Making your way



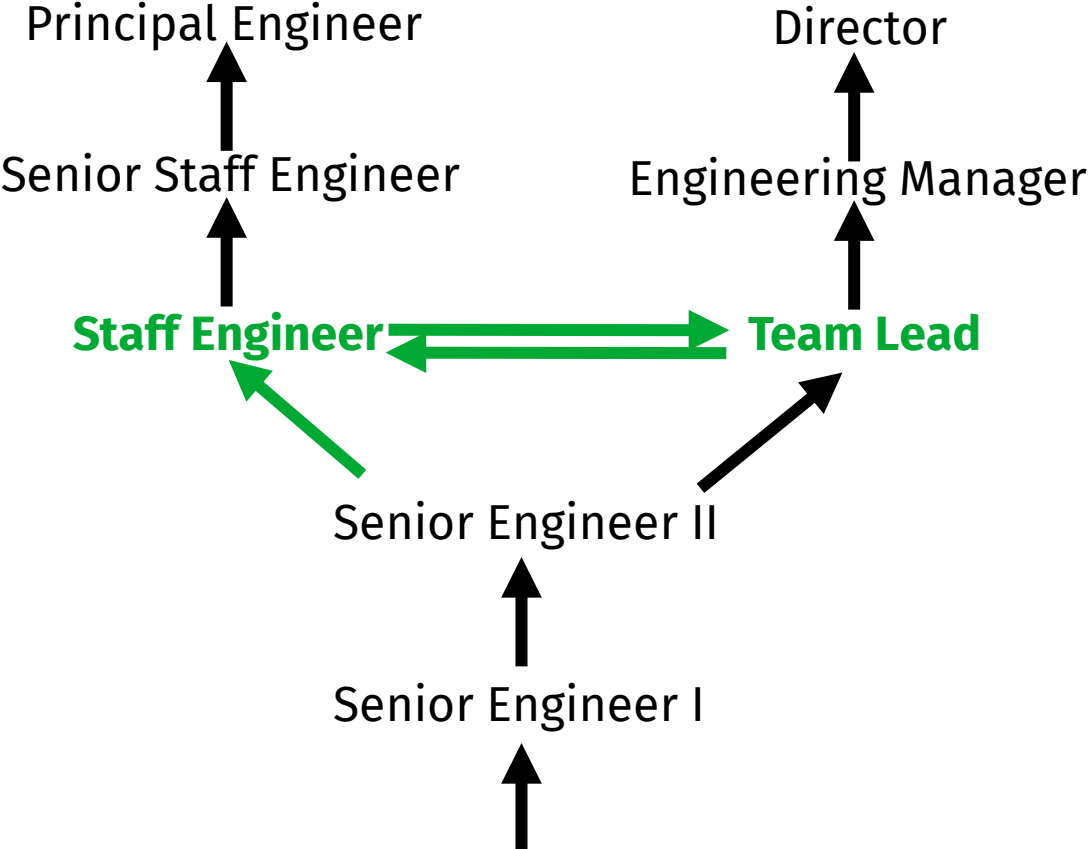
Making your way



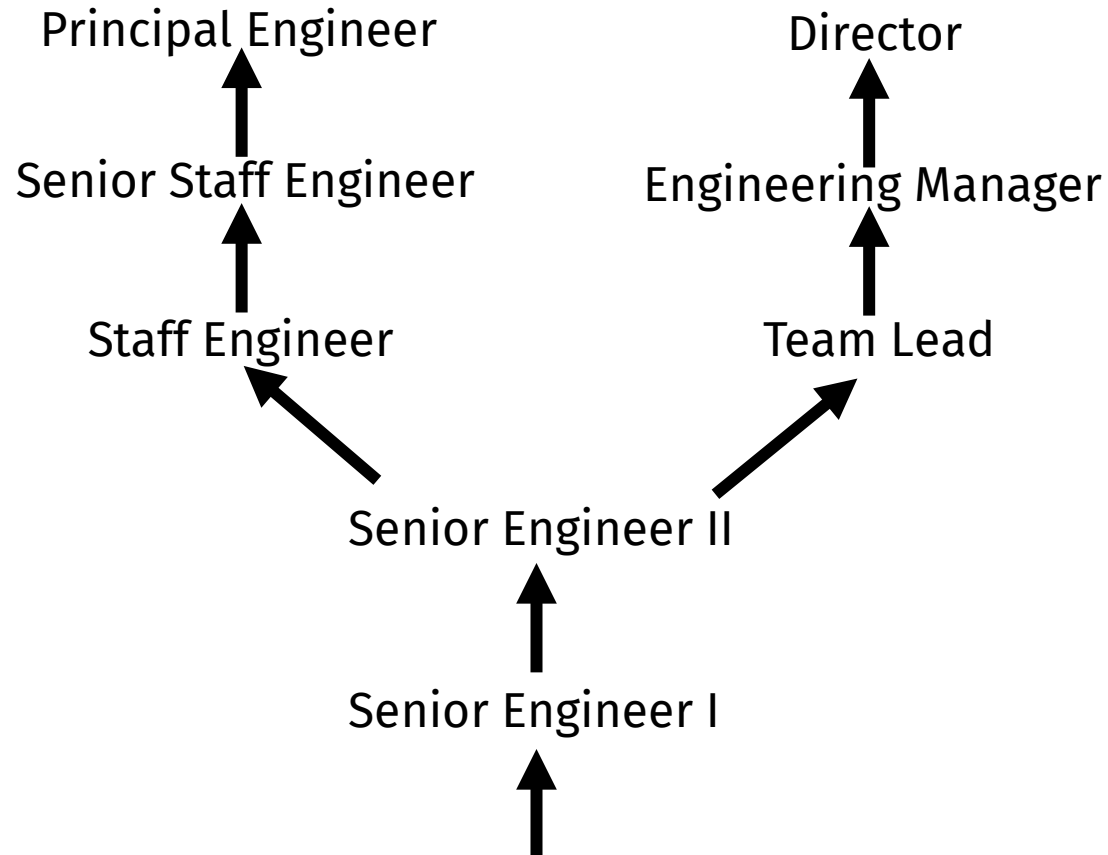
Making your way



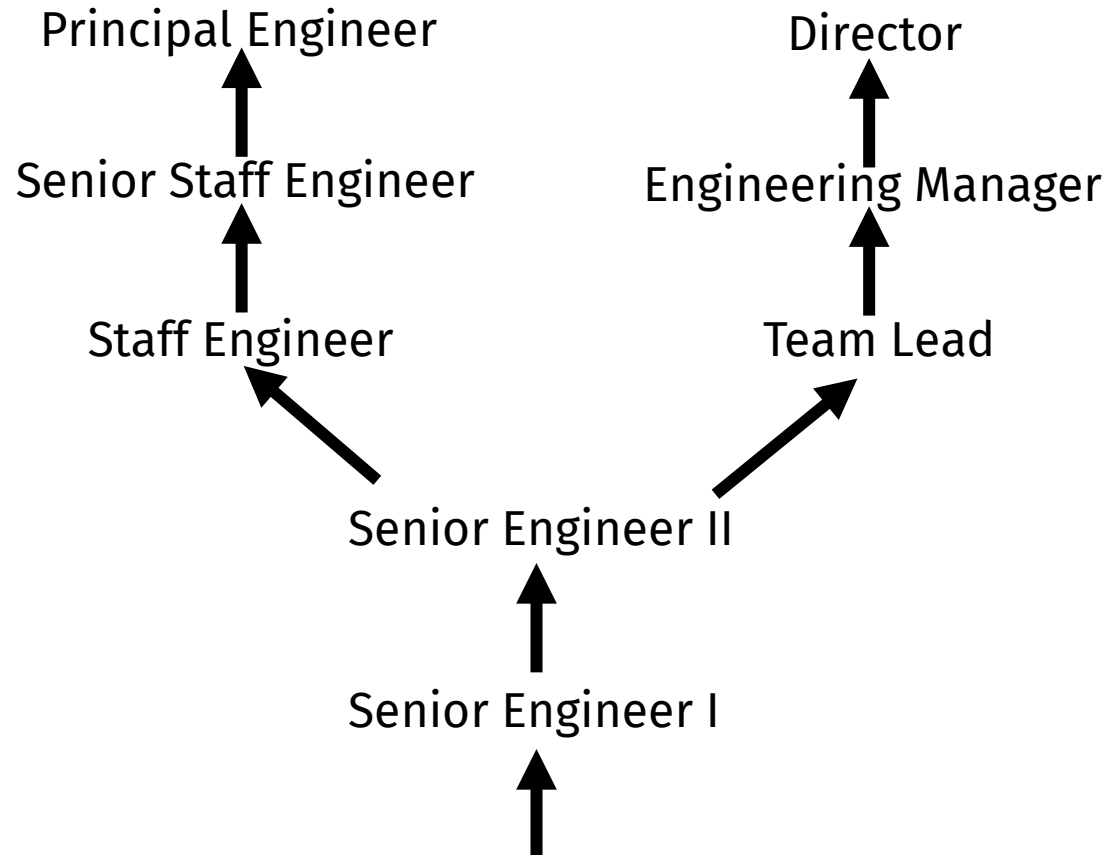
Making your way



Tasks are similar



Do you enjoy that work?



IT DEPENDS

Getting a Staff
promotion is **hard**

Director



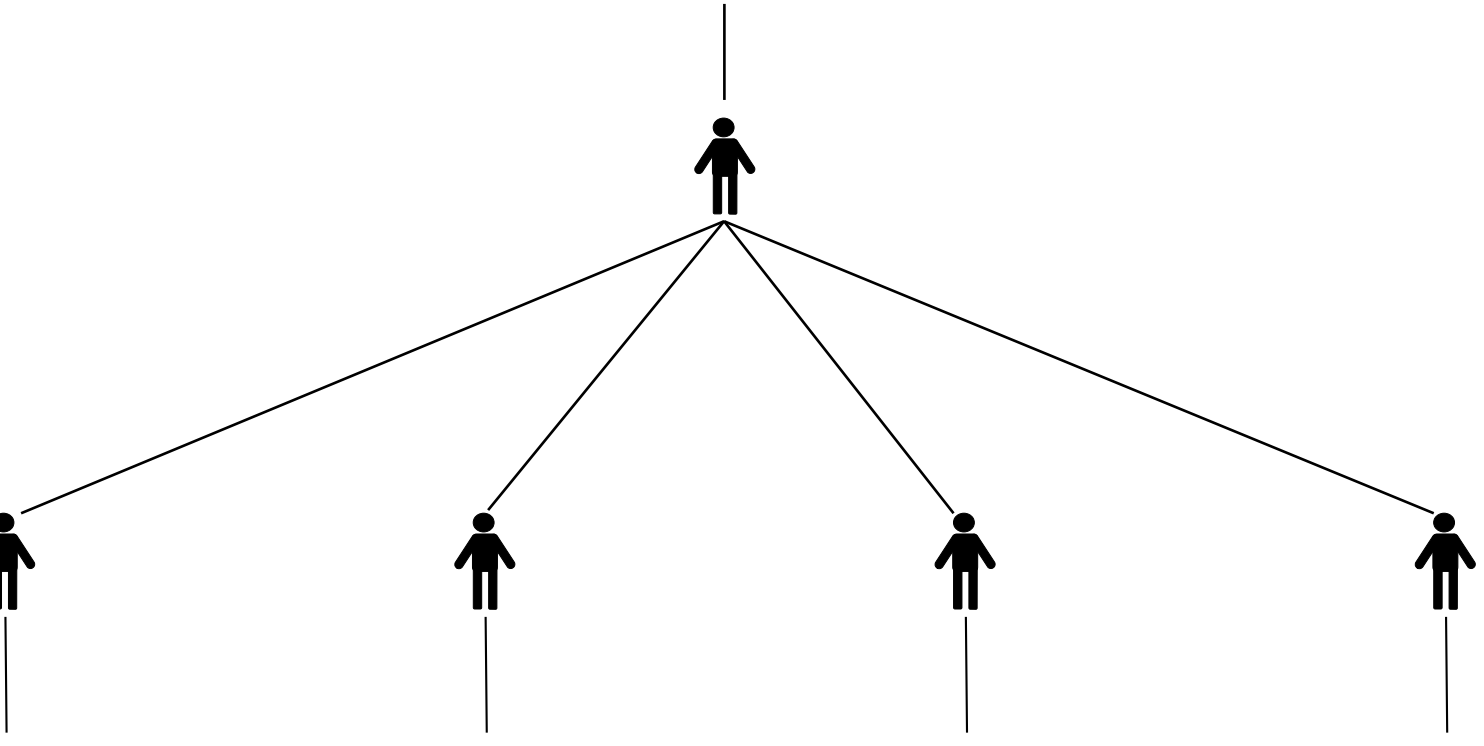
ENGINEERING
MANAGER



TEAM LEAD



DEVELOPERS



New Team

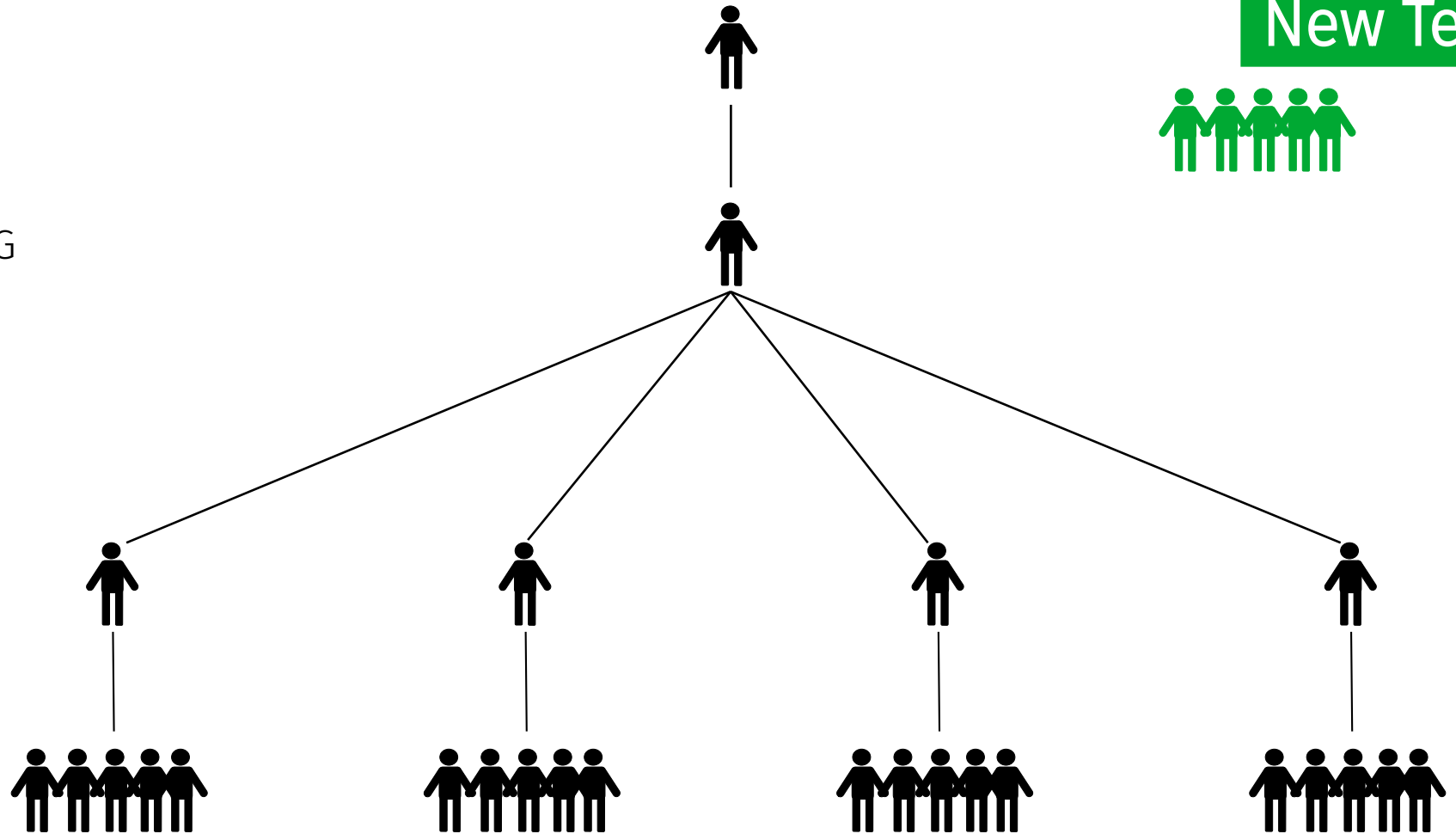


Director

ENGINEERING
MANAGER

TEAM LEAD

DEVELOPERS



New Lead

Director



ENGINEERING
MANAGER



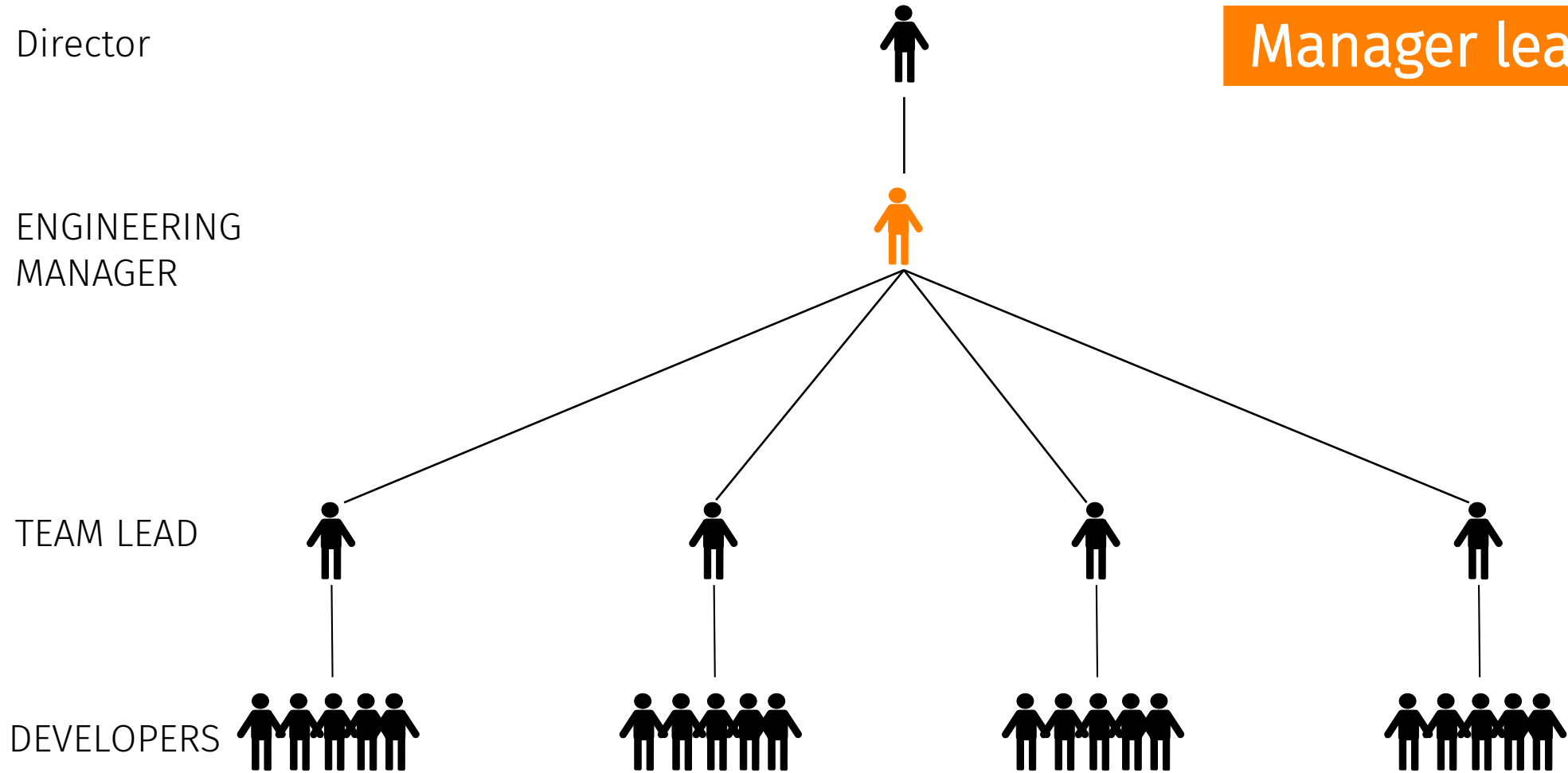
TEAM LEAD



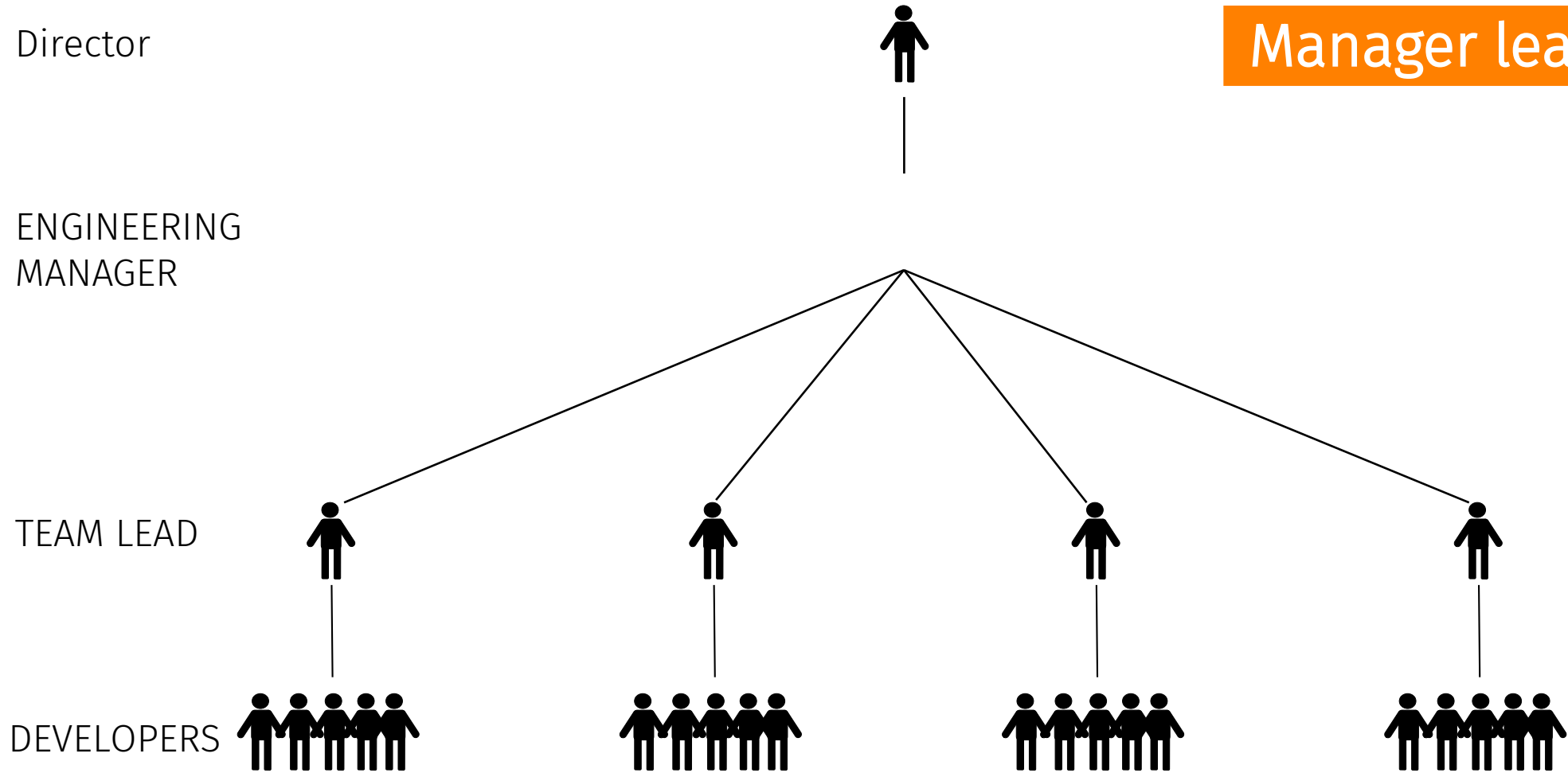
DEVELOPERS



Manager leaves



Manager leaves



Director



Manager leaves

ENGINEERING
MANAGER



TEAM LEAD



DEVELOPERS



Manager leaves

Director



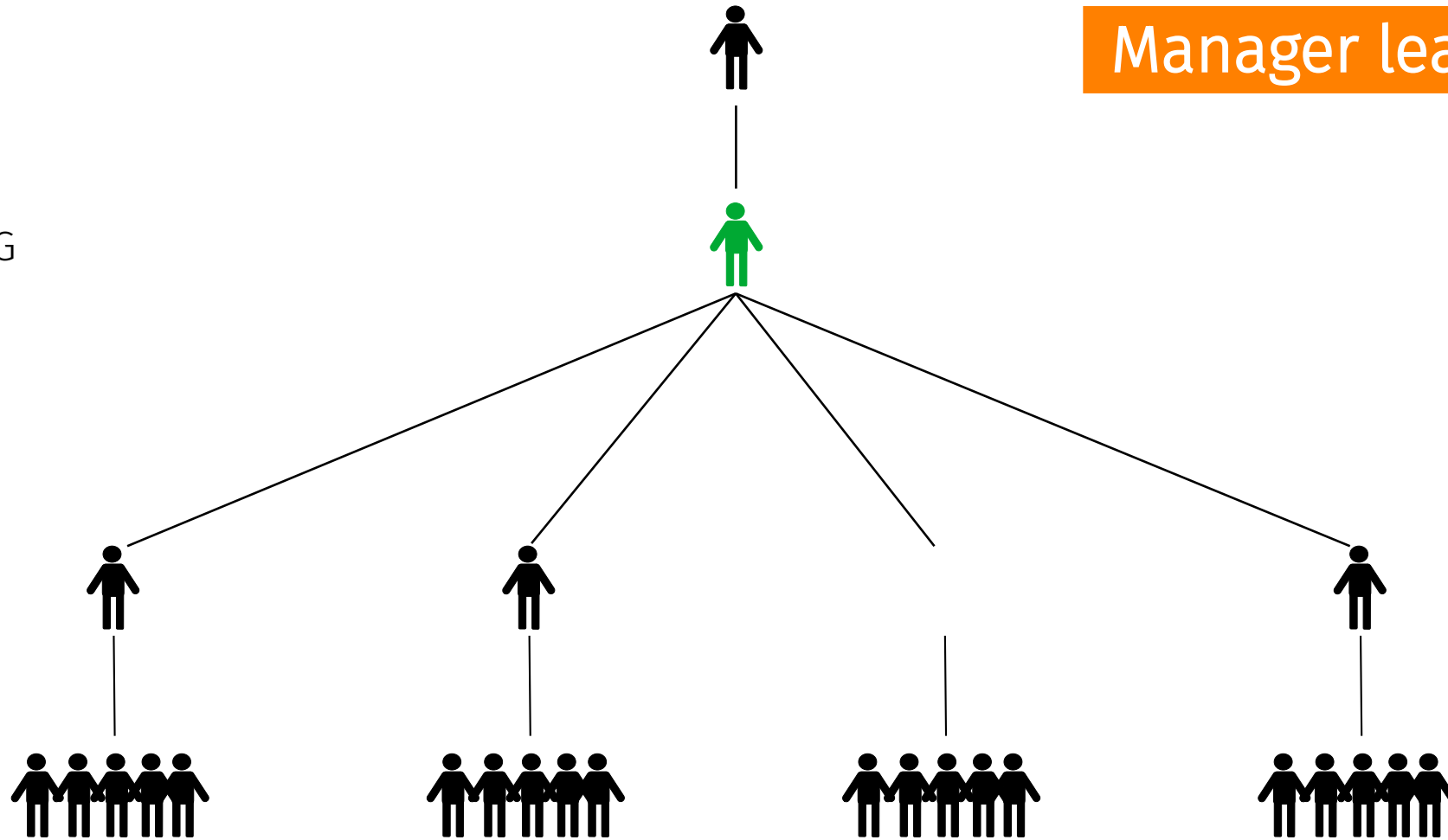
ENGINEERING
MANAGER



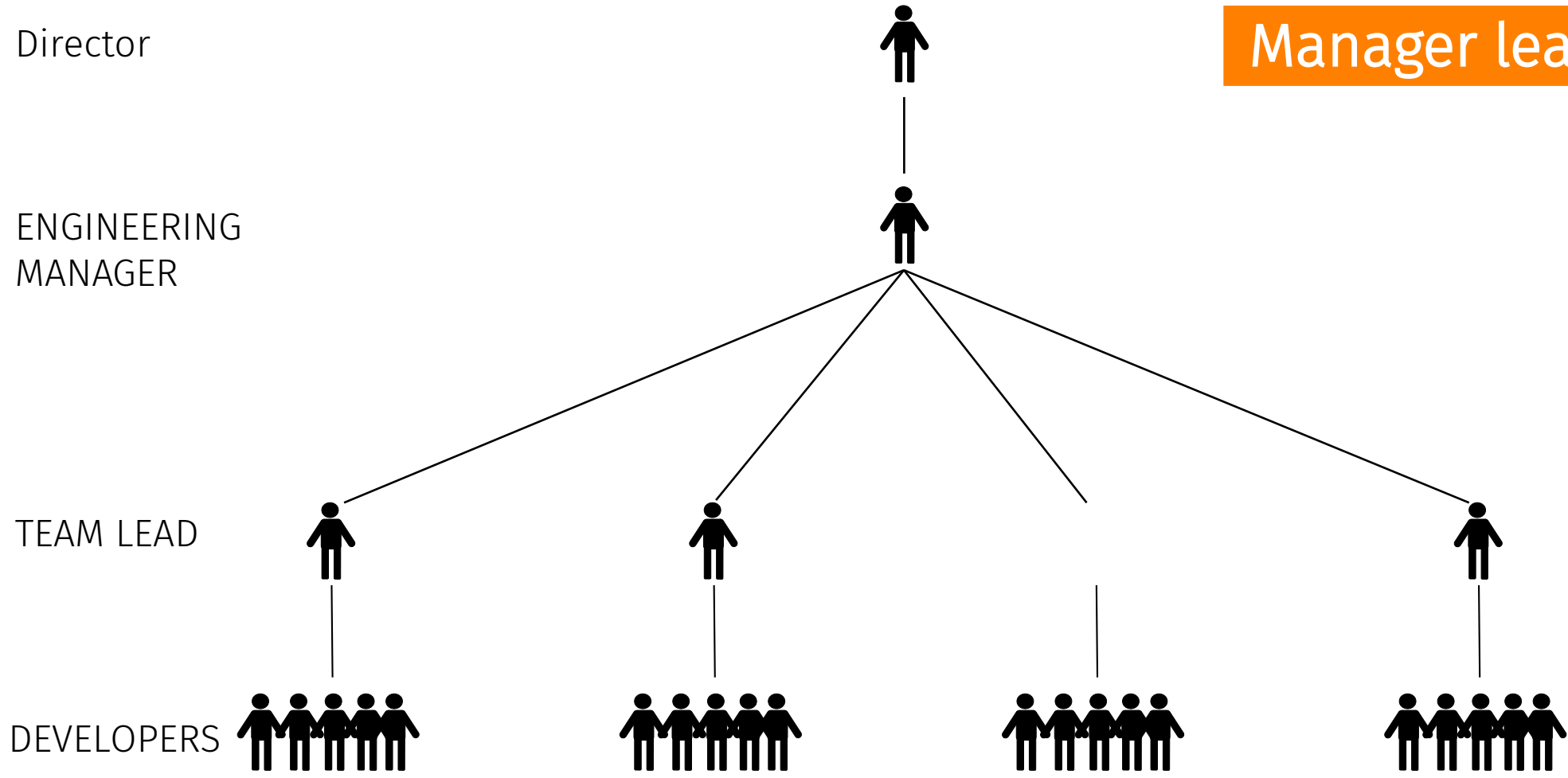
TEAM LEAD



DEVELOPERS



Manager leaves



Director

ENGINEERING
MANAGER

TEAM LEAD

DEVELOPERS

Manager leaves

Director



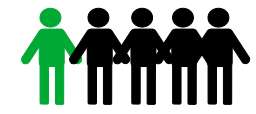
ENGINEERING
MANAGER



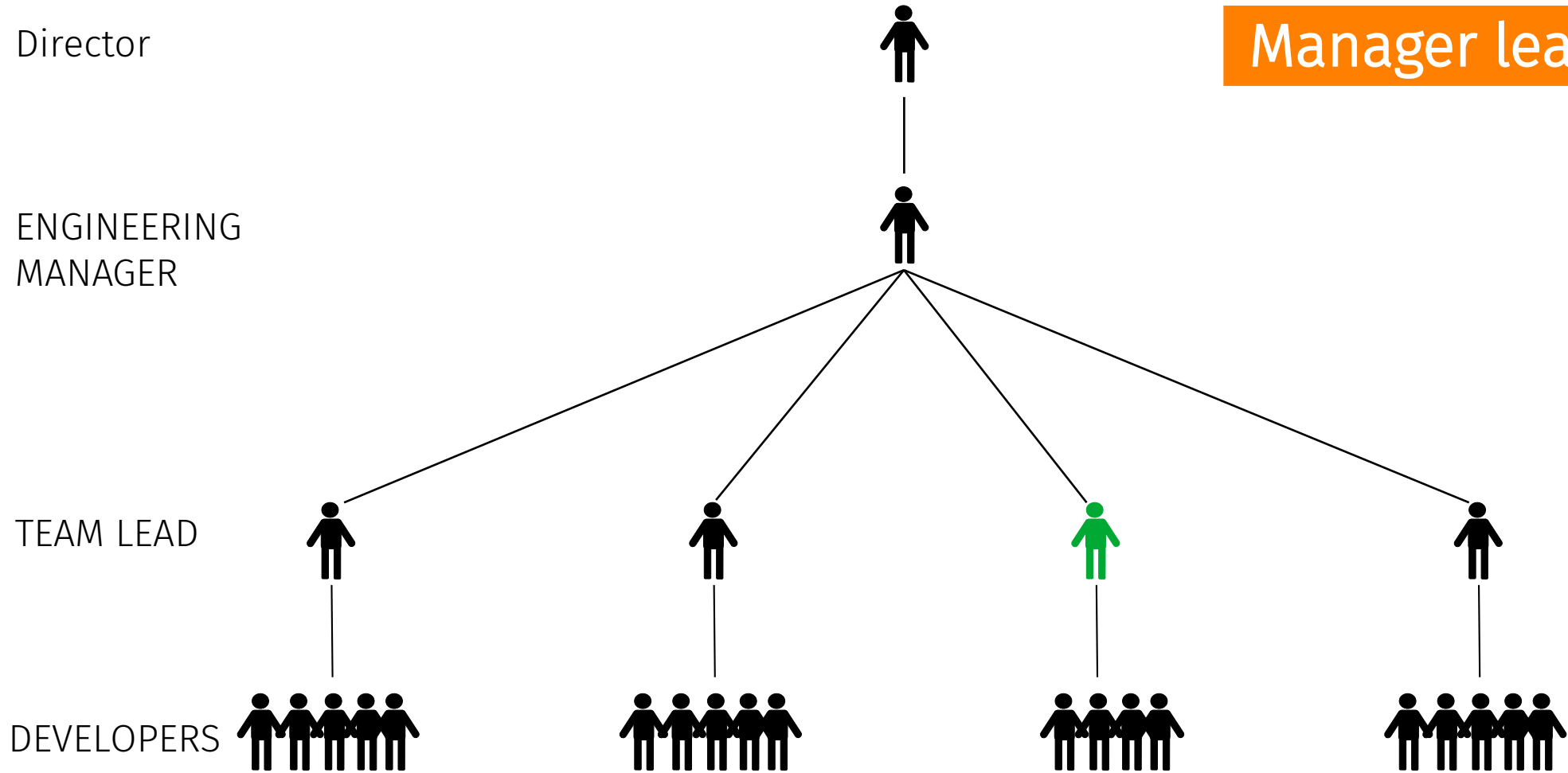
TEAM LEAD



DEVELOPERS



Manager leaves



Director

ENGINEERING
MANAGER

TEAM LEAD

DEVELOPERS

#managers = f(employees)

```
manager_promo_need =  
f(attrition, new hires)
```

`#staffs = f(???)`

Getting a Staff
promotion is **hard**

Expected to already do the work

Getting a Staff
promotion is **hard**

Expected to already do the work

“Staff” project

Getting a Staff
promotion is **hard**

Expected to already do the work

“Staff” project

Getting a Staff

Management “detour”

promotion is **hard**

“We are happy to
announce Rafael’s
promotion to
Principal”



“Wait, he wasn’t?”



Rafael França 🇧🇷

@rafaelfranca



Congrats!

I also hated titles, but when the company introduced that I always felt I was in the wrong level. I spent 3 years trying to convince people I should be already a Principal, not promoted to. The day I finally got what I deserved was a really great feeling. Enjoy!

2:12 AM · Feb 17, 2022



A black and white photograph of a man in a dark suit, looking directly at the camera with a serious expression. He is pointing his right index finger directly towards the viewer. The background is dark and out of focus.

GETTING A STAFF ROLE

A silver quartz alarm clock is the central focus, partially covered in snow. The clock face is white with black numerals and hands. The word "QUARTZ" is printed at the bottom of the dial. The clock is set against a background of a wooden star-shaped cutout and snow-covered pine needles.

Tech Leadership

Context

Ensure Delivery



CHALLENGES

Everyone is very busy



A photograph showing the silhouettes of three people climbing a large rock formation at sunset. The sun is low on the horizon, creating a bright, golden glow that illuminates the sky and the rock. The people are positioned in a line, with the person at the top reaching down to assist the person below, and the person at the bottom reaching up to assist the person in the middle. The overall scene conveys a sense of teamwork and overcoming challenges.

Everyone is very busy

Hard to get people on projects

A silhouette of three people climbing a steep, rocky mountain peak. The sun is low on the horizon, creating a bright, golden glow and casting long shadows. The sky is filled with wispy clouds. The overall scene is one of teamwork and overcoming challenges.

Everyone is very busy

Hard to get people on projects

Prioritization is hard

A silhouette of three people climbing a mountain peak at sunset. The sun is low on the horizon, creating a bright glow and long shadows. The sky is filled with wispy clouds. The people are in various stages of ascent, with one person at the top and two others below, reaching up to assist. The overall mood is one of struggle and teamwork.

Everyone is very busy

Hard to get people on projects

Prioritization is hard

Alignment is harder

Executive Summaries



The background of the slide features a dramatic sunset scene. The sun is low on the horizon, creating a bright, golden glow that filters through the clouds. In the foreground, the dark silhouettes of three people are shown climbing a steep, rocky mountain slope. One person is at the top of the rock, another is in the middle, and a third is at the bottom, reaching up to assist. The overall mood is one of teamwork and overcoming challenges.

Executive Summaries

Create dedicated spaces

The background of the slide features a dramatic sunset scene. The sun is low on the horizon, creating a bright, golden glow that filters through the clouds. In the foreground, the dark silhouettes of three people are shown in the process of climbing a steep, rocky mountain slope. They are positioned in a line, with each person reaching out to assist the one above them, symbolizing teamwork and overcoming challenges. The overall mood is one of determination and achievement.

Executive Summaries

Create dedicated spaces

Focus on shipping



My job here is done



But you didn't do anything



GOING STAFF

A “new” path

Tobi(as) Pfeiffer

[@PragTob](#)

[pragtob.info](#)

Senior Engineer @ Screenverse

THANKS FOR LISTENING



@PragTob