


You don't need AI!
You need to know what
your data is

Jade Abbott
@alienelf

PyConZA 2021

RETRO  RABBIT

- 
1. Where we are
 2. How we got here
 3. What are we going to do about it?

Where we are

“Only 10% of companies obtain significant financial benefits from artificial intelligence technologies.”

MIT Sloan
Management Review

BCG BOSTON
CONSULTING
GROUP

Expanding AI's Impact With
Organizational Learning

2020

How we got here

“users of services enabled by personal-location data
could capture \$600 billion in consumer surplus”

“\$300 billion value in US healthcare”

“250 billion Euros in public sector in EU”

McKinsey & Company

Big data: The next frontier for
innovation, competition, and
productivity

2011

How we got here

Only 50% of value captured in location data

Only 10% of value captured in US Healthcare

Only 10% in EU public sector

McKinsey & Company

THE AGE OF ANALYTICS:
COMPETING IN A DATA-DRIVEN
WORLD
2016

How we got here

“Failure Rates are closer to 85 percent”

Gartner

Nick Heudecker
2017

How we got here

“AI has the potential to deliver additional global economic activity of around \$13 trillion by 2030”

McKinsey & Company

Notes from the AI frontier:
Modeling the impact of AI on the
world economy

2018

Where we are

“Only 10% of companies obtain significant financial benefits from artificial intelligence technologies.”

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2020



What the f* is
going on?**

THE FIRM

THE FIRM



The Firm & Company

THE FIRM

* Strategy as a Service

What is our
strategy?



THE FIRM says
you need to
data science
and AI



5 years later...

Why are our
data science
projects
failing?



THE FIRM
says you need to
buy
MORE
STRATEGY



Company X
did Y and
they're
successful
If you do Y,
you'll succeed
too





Democratize Strategy

The Toaster Project

OR A HEROIC ATTEMPT TO
BUILD A SIMPLE ELECTRIC APPLIANCE
FROM SCRATCH



Thomas Thwaites

INNOVATION
builds on top of
COMMODITIES

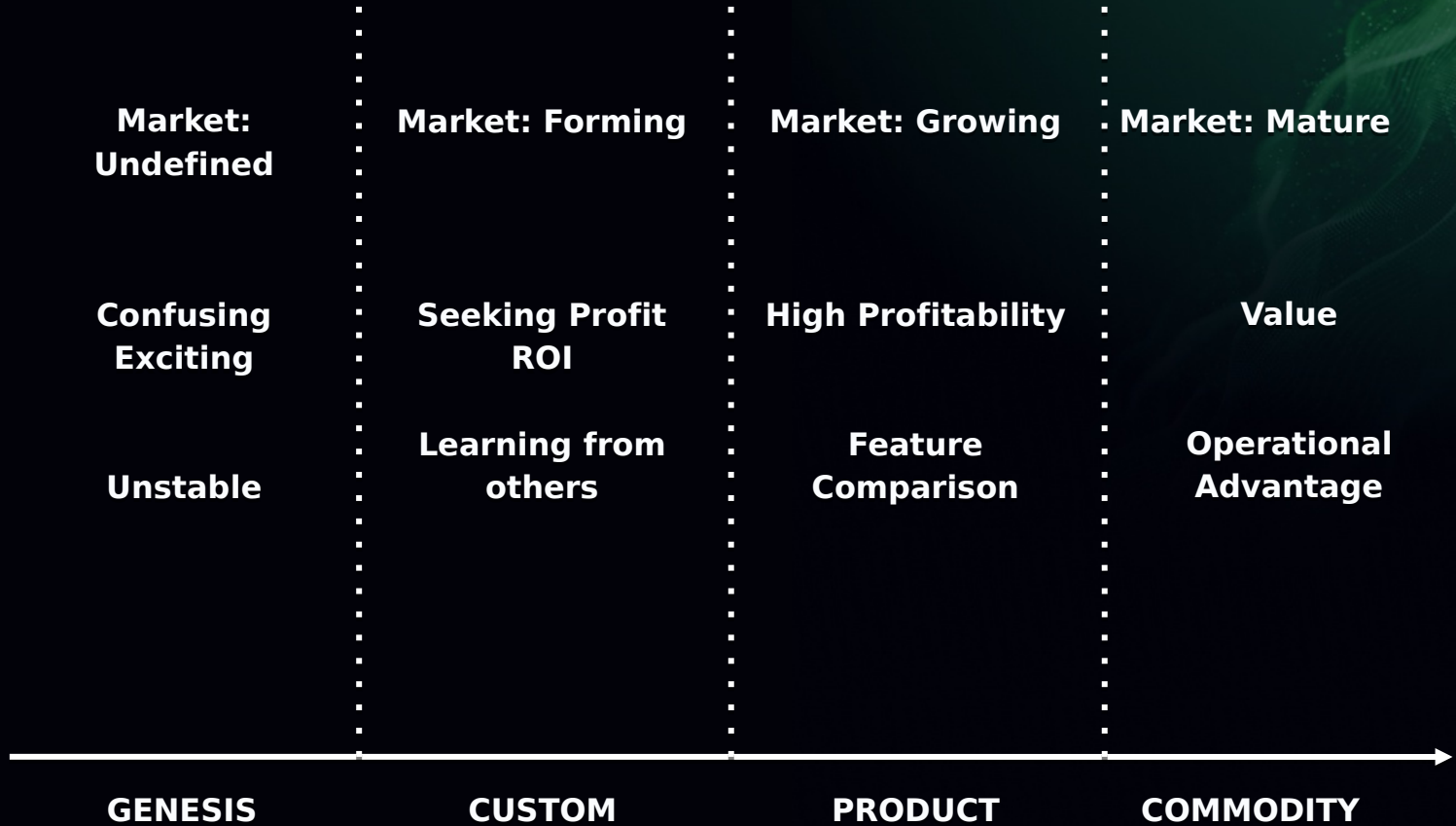
GENESIS

CUSTOM

PRODUCT

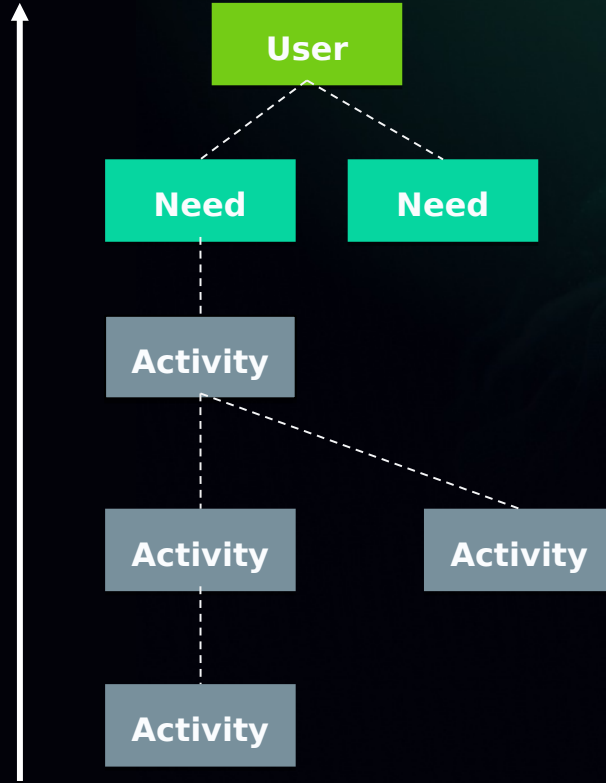
COMMODITY

EVOLUTION



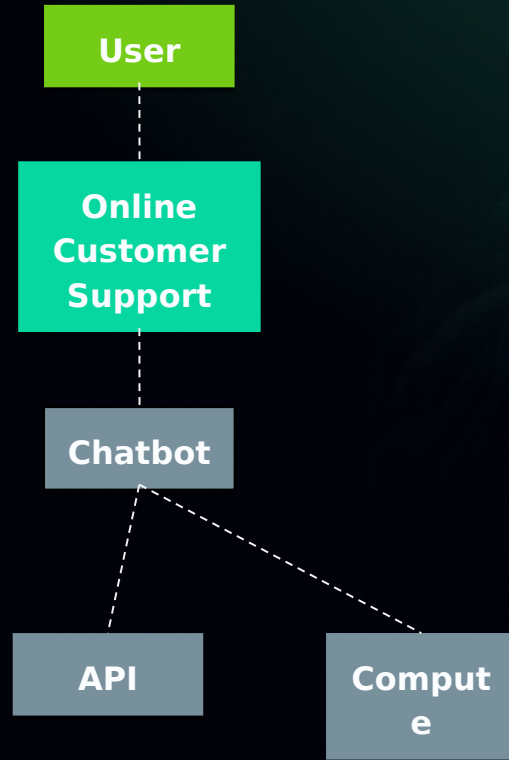
User facing

VALUE CHAIN

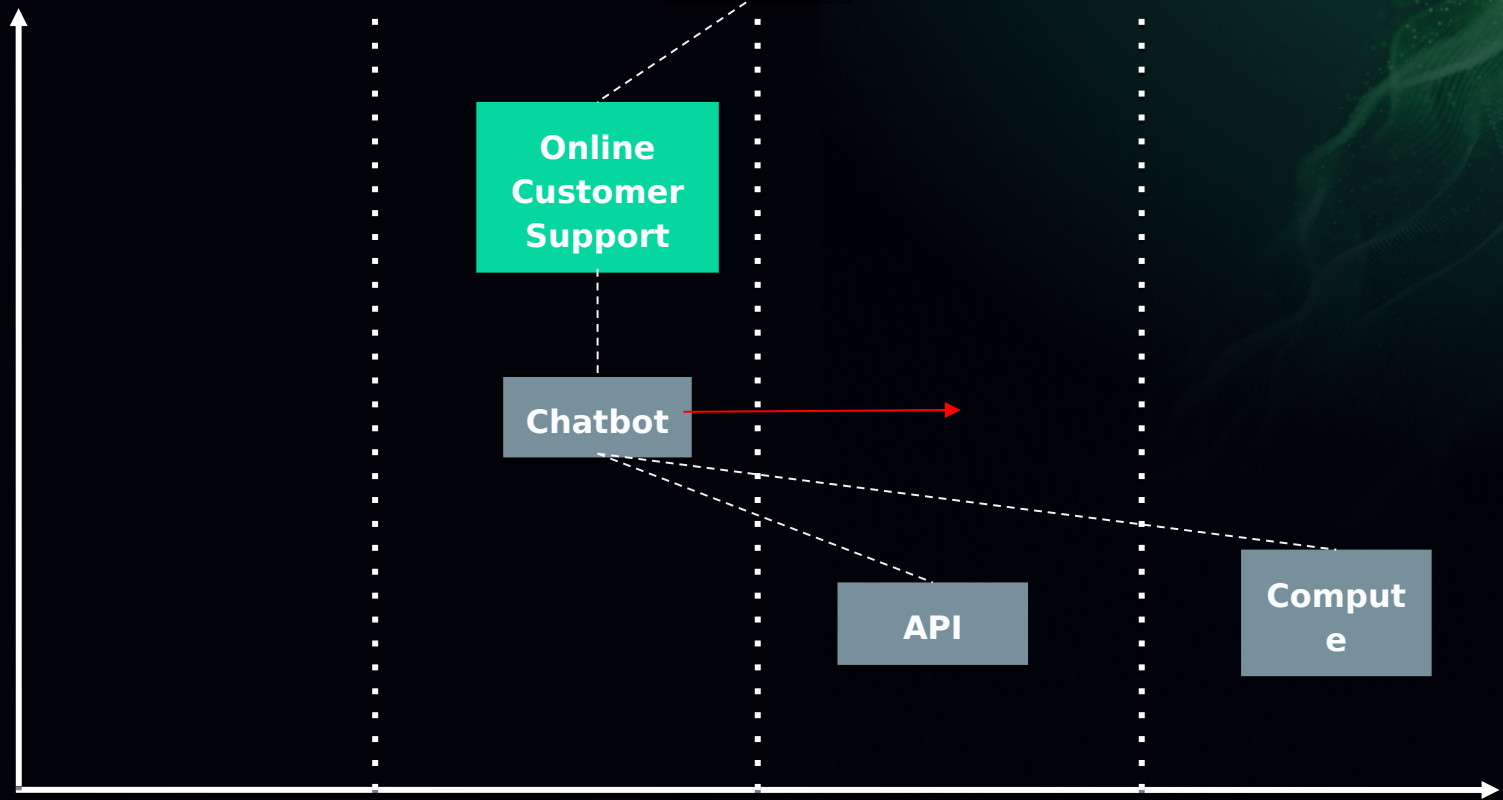


User facing

VALUE CHAIN



VALUE CHAIN



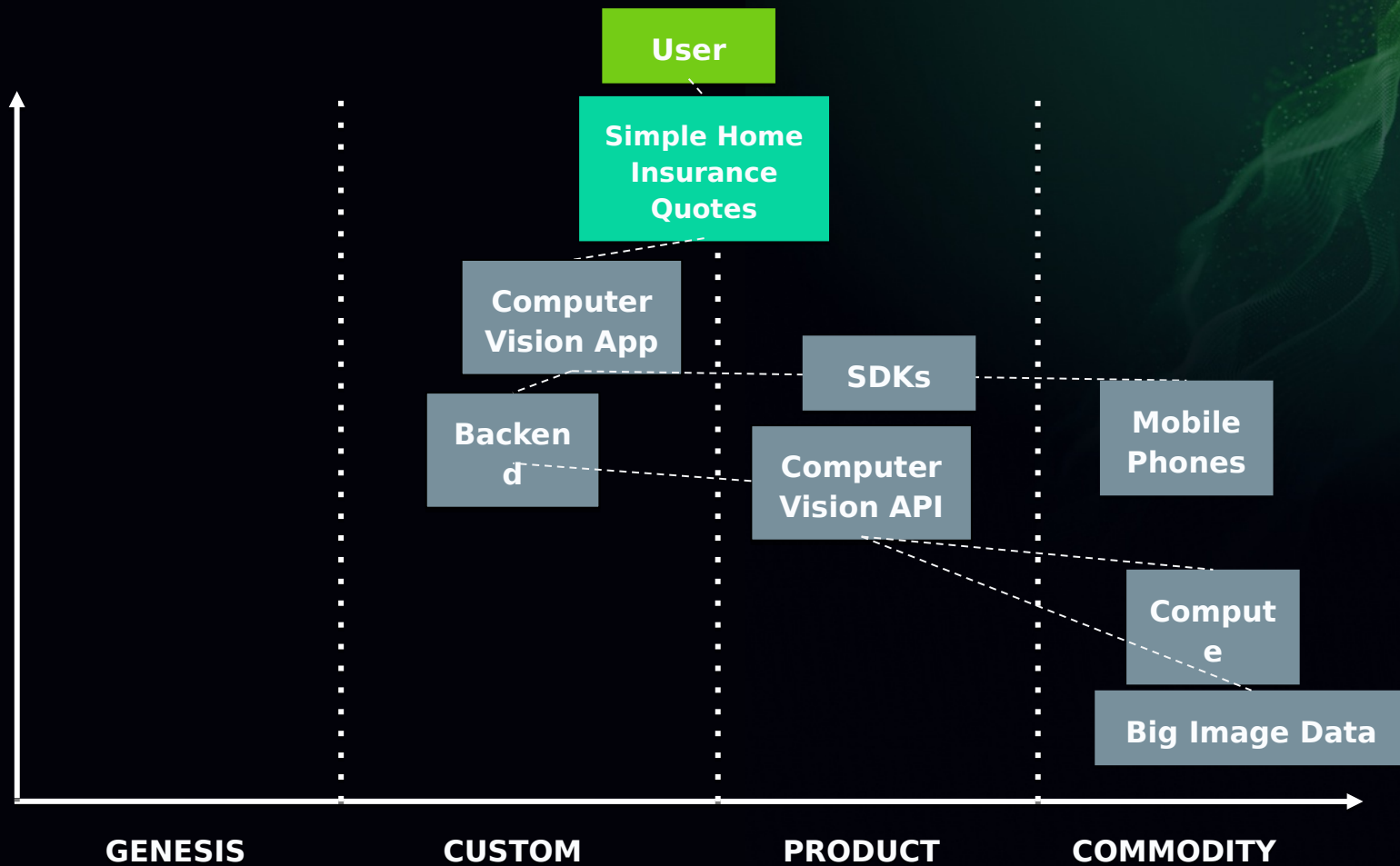
GENESIS

CUSTOM

PRODUCT

COMMODITY

EVOLUTION





**DATA IS HIGHLY
CONTEXTUAL**



DATA

RESISTS

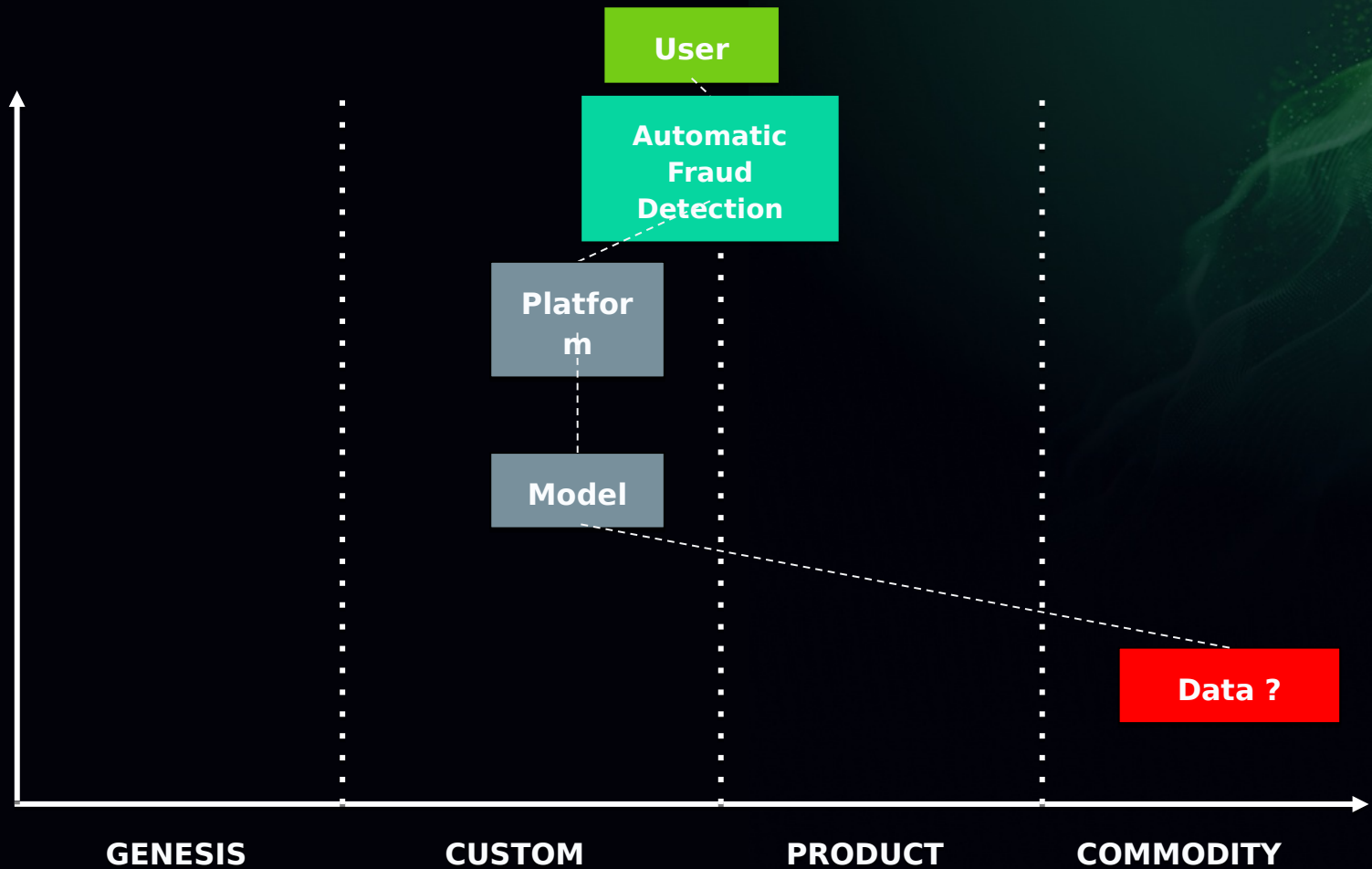
COMMODIFICATION

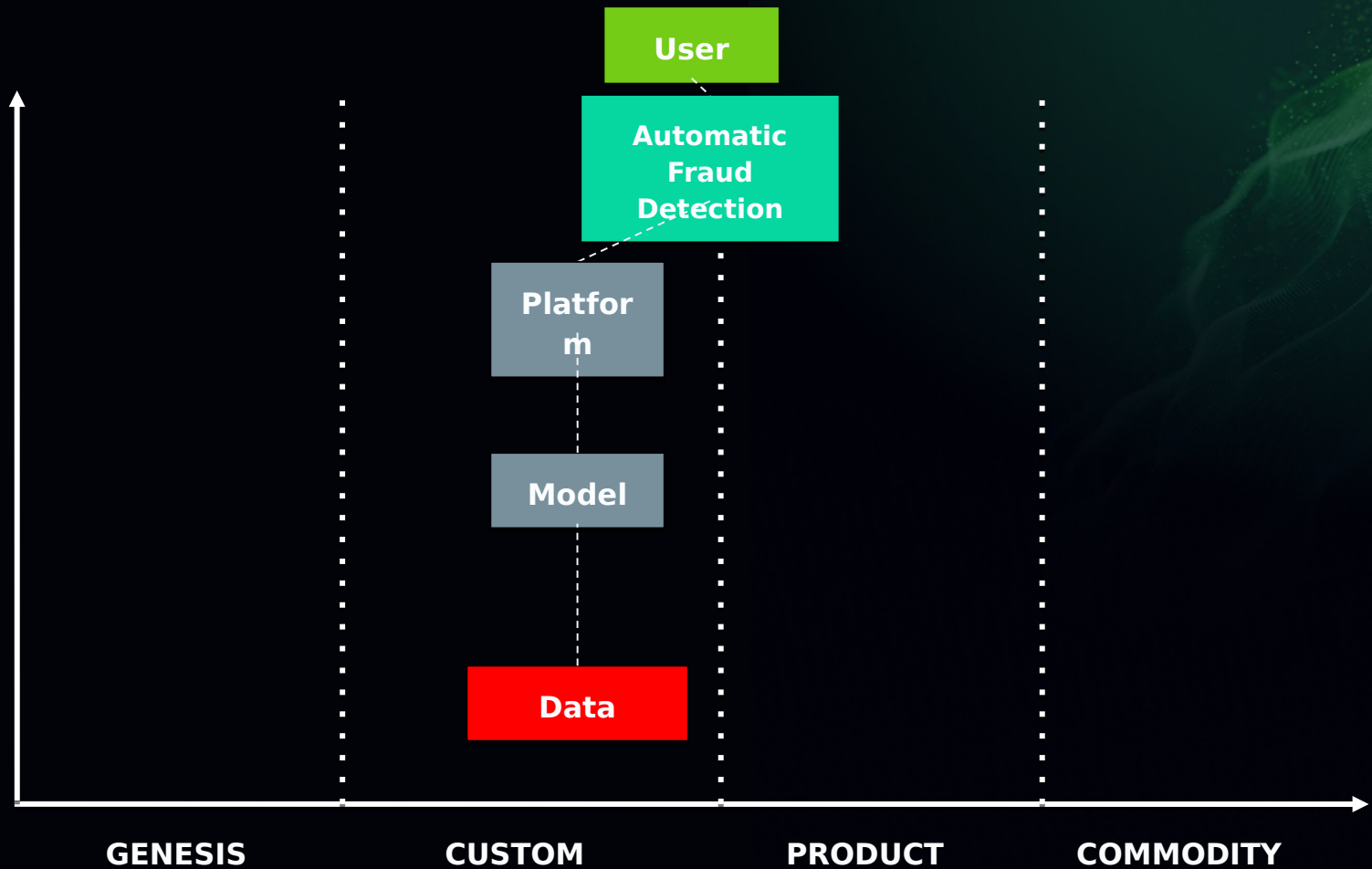


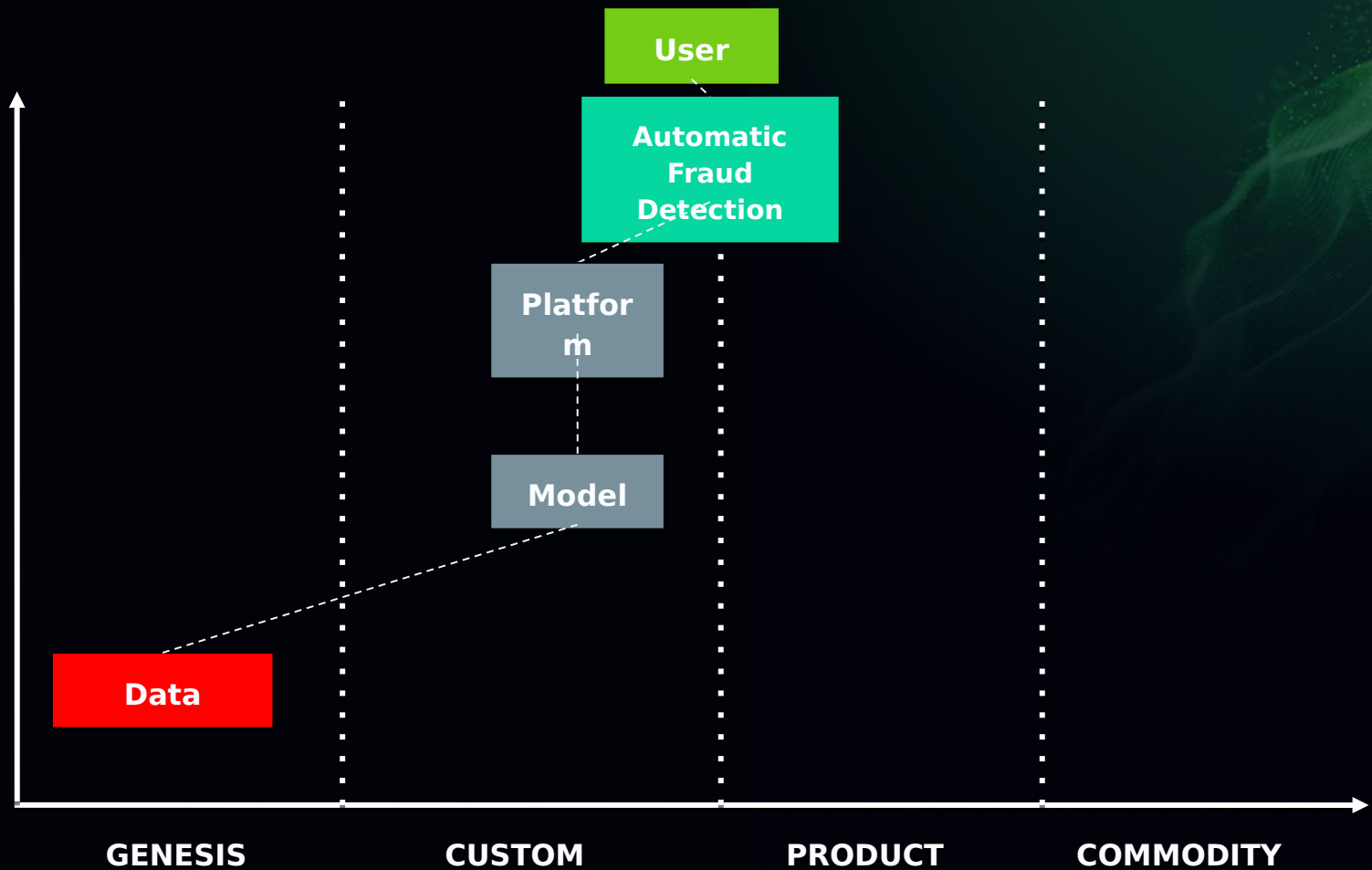
MACHINE LEARNING IS
HIGHLY CONTEXTUAL



MACHINE LEARNING
RESISTS
COMMODIFICATION

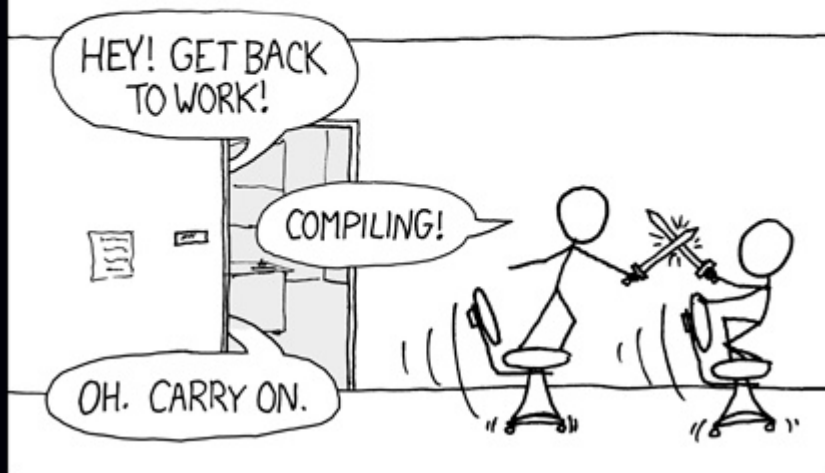






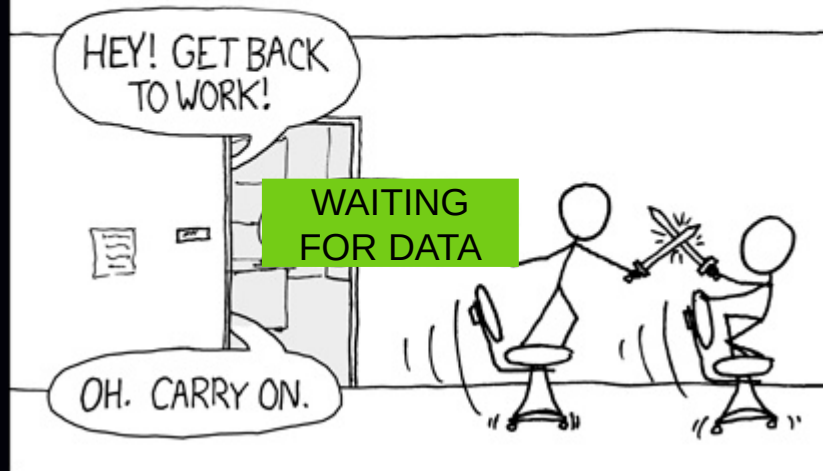
THE #1 PROGRAMMER EXCUSE
FOR LEGITIMATELY SLACKING OFF:

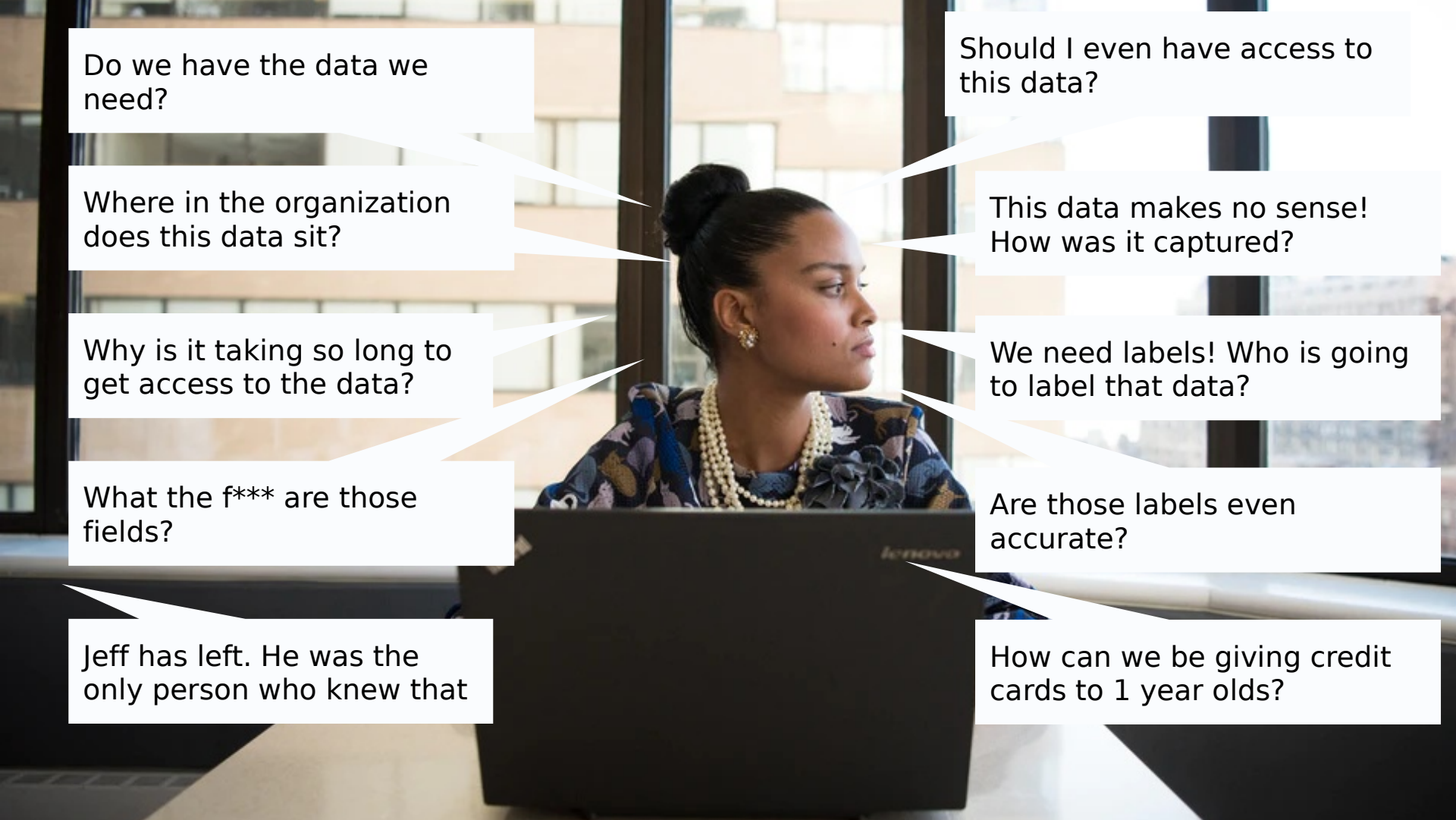
"MY CODE'S COMPILING."



THE #1 DATA SCIENTIST EXCUSE
FOR LEGITIMATELY SLACKING OFF:

WAITING FOR DATA





Do we have the data we need?

Where in the organization does this data sit?

Why is it taking so long to get access to the data?

What the f*** are those fields?

Jeff has left. He was the only person who knew that

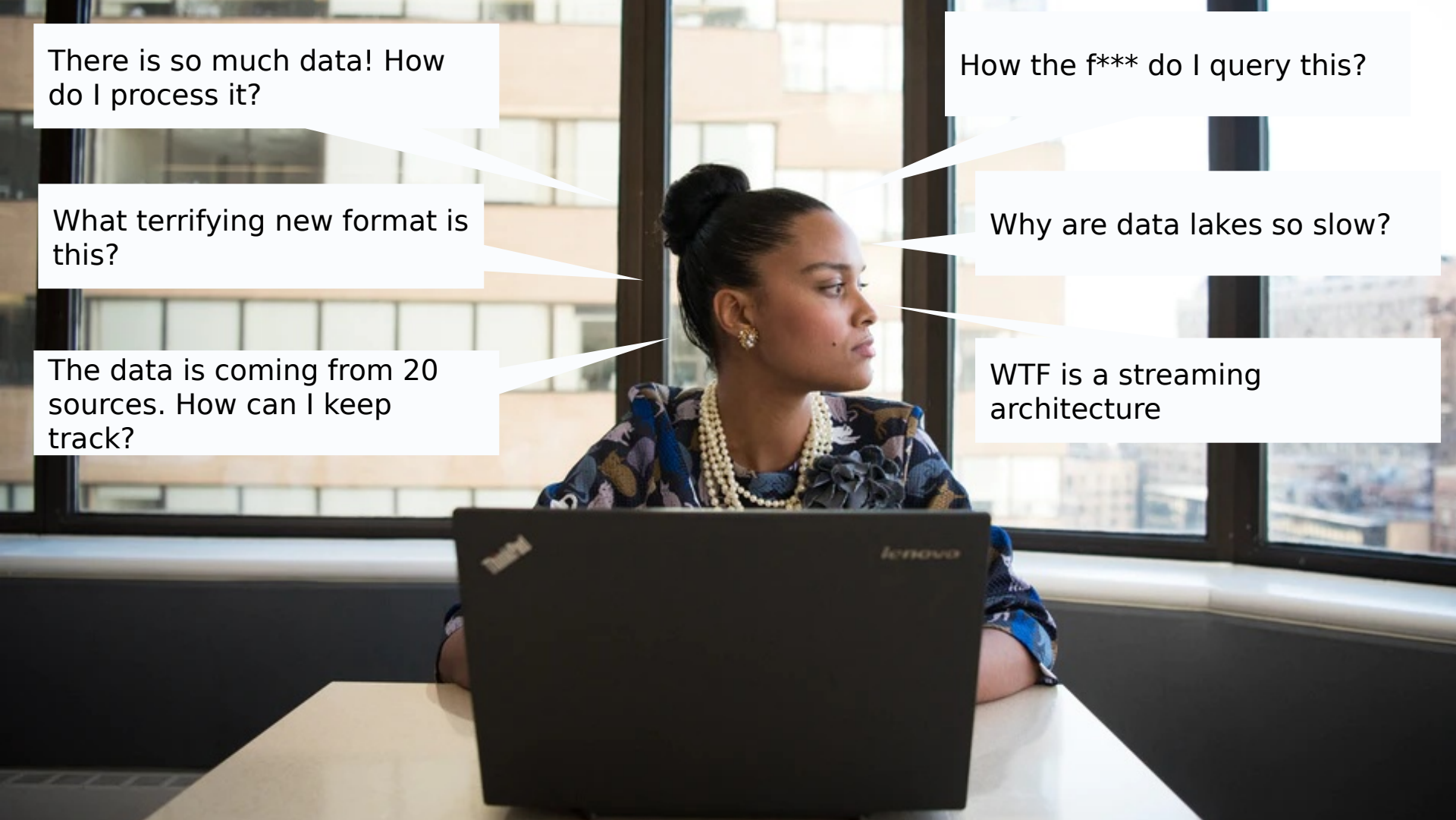
Should I even have access to this data?

This data makes no sense! How was it captured?

We need labels! Who is going to label that data?

Are those labels even accurate?

How can we be giving credit cards to 1 year olds?

A woman with dark hair in a bun, wearing a patterned blue and black top and a multi-strand pearl necklace, sits at a white desk with a black Lenovo laptop. She is looking out a large window at a cityscape. Five white speech bubbles with black text point to her from various angles, expressing frustration and confusion about data management. The background shows a modern building with many windows.

There is so much data! How do I process it?

How the f*** do I query this?

What terrifying new format is this?

Why are data lakes so slow?

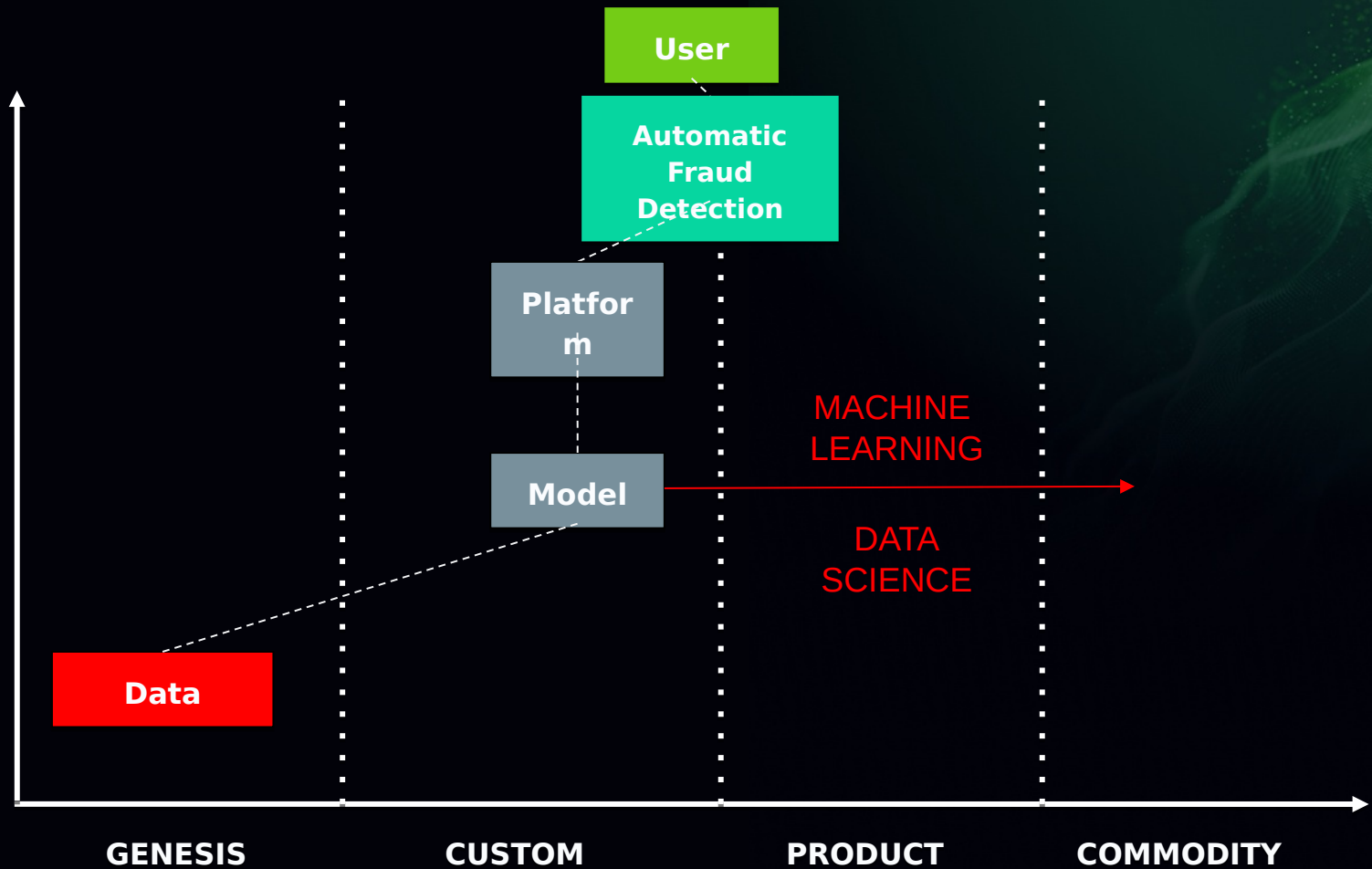
The data is coming from 20 sources. How can I keep track?

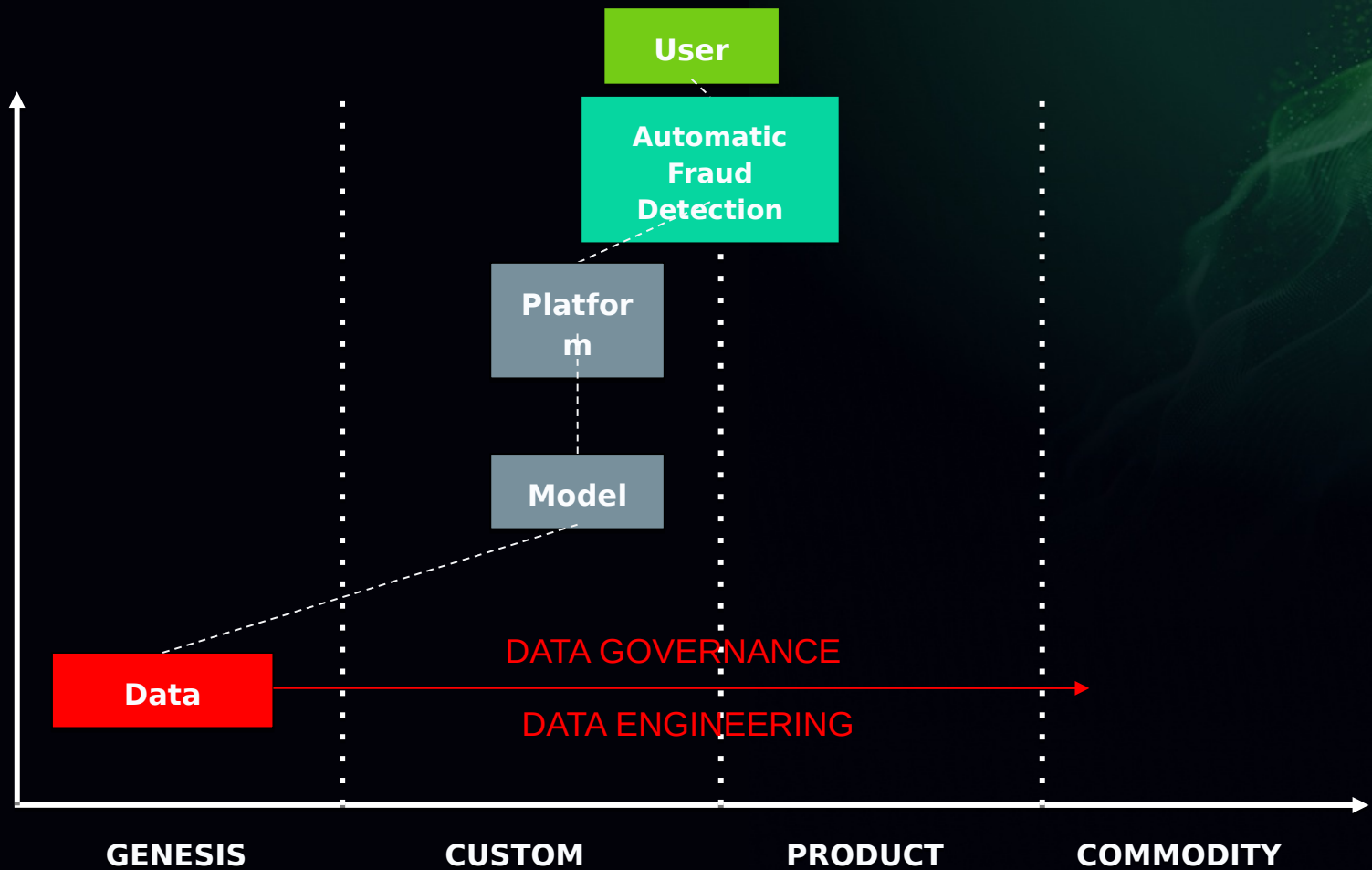
WTF is a streaming architecture





HOW
are we going to
FIX THIS?







**STOP HIRING
DATA SCIENTISTS!**

MACHINE LEARNING

SQL

DEVOPS

SOFTWARE ENGINEERING

POWERBI





**START INVESTING
IN DATA GOVERNANCE!**



REGULATIONS

RULES

DATA CATALOGUE

DATA PRIVACY

DATA QUALITY

DATA ACCESS

DATA LINEAGE








**START HIRING
DATA ENGINEERS!**



ETL

Data
Engineering

Corporate needs you to find the difference
between this picture and this picture



They're the same picture

“

What I like about the
name ‘**DATA SCIENTIST**’
is that it has the word
‘**DATA**’ in it.
It **TELLS** you what you
should be paying
attention to!

”



@TAMATI_BISKIT



**FORGET
ABOUT
FANCY MODELS!**



**START CARING
ABOUT
DATA!**



**START CARING
ABOUT
HYPOTHESIS TESTING!**



DISBAND
DATA SCIENCE
DEPARTMENTS!



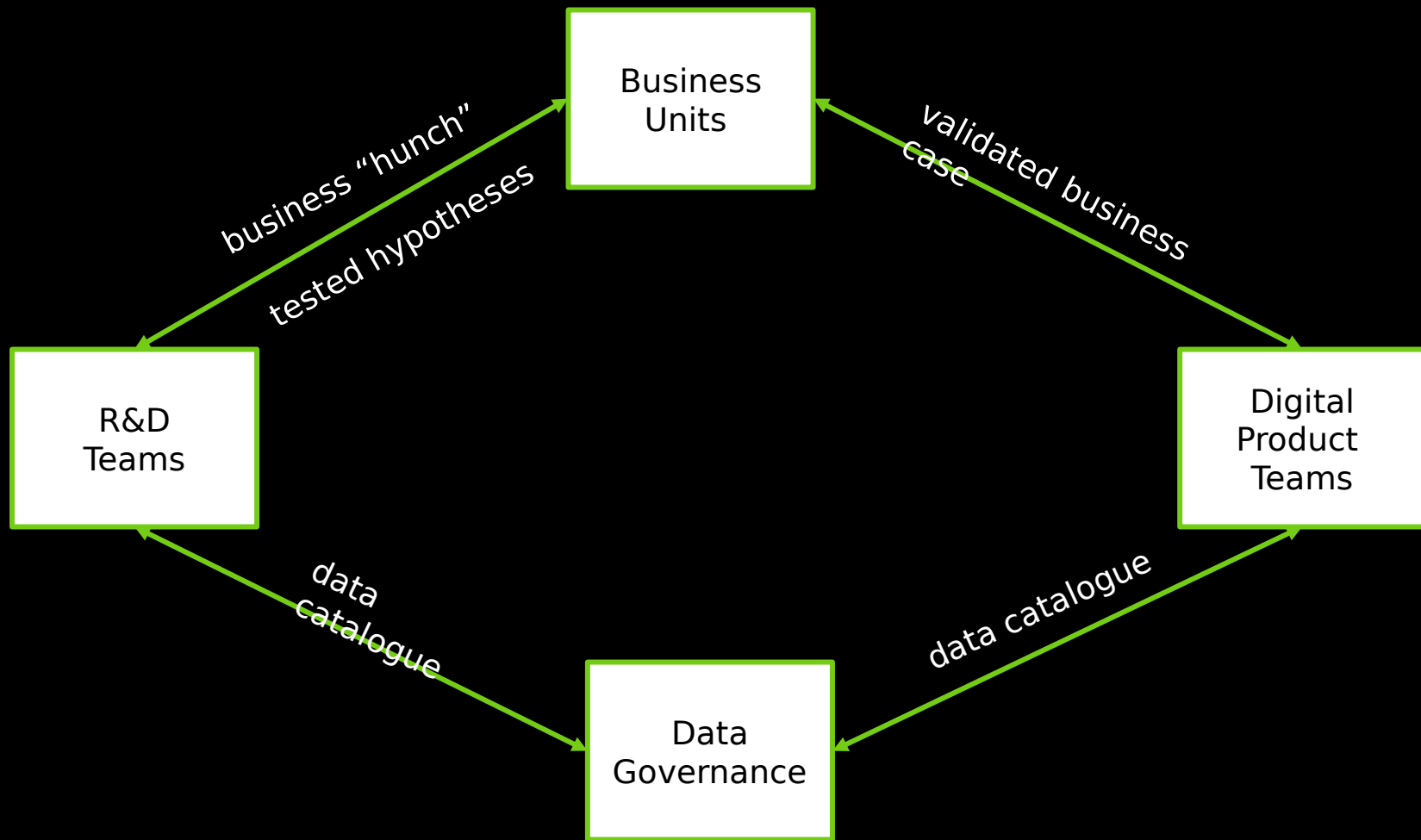
BUILD
INTERDISCIPLINARY
R&D TEAMS!



BUILD
INTERDISCIPLINARY
PRODUCT TEAMS!



**ENABLE
DATA-DRIVEN DECISION
MAKING
IN ALL TEAMS!**



DATA-DRIVEN FRUIT SALAD!

PRODUCT OWNER

UX SPECIALIST

SOFTWARE ENGINEERS

Data Engineers

DECISION SCIENTIST



PEOPLE-CENTRIC

MULTIDISCIPLINARY

Agile

DATA STORYTELLING

DEVOPS

Thank you!

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Let's fix this together
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R E T R O  R A B B I T