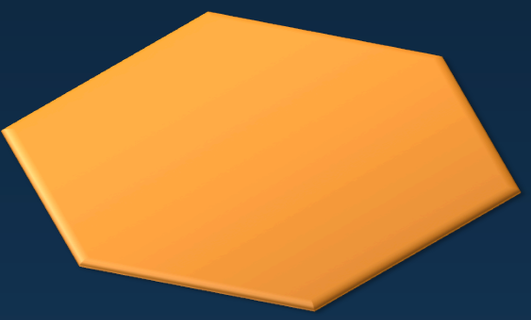
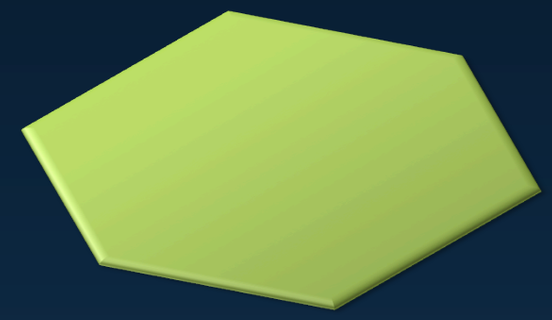
QA

without **QA**

Dev to **QA**

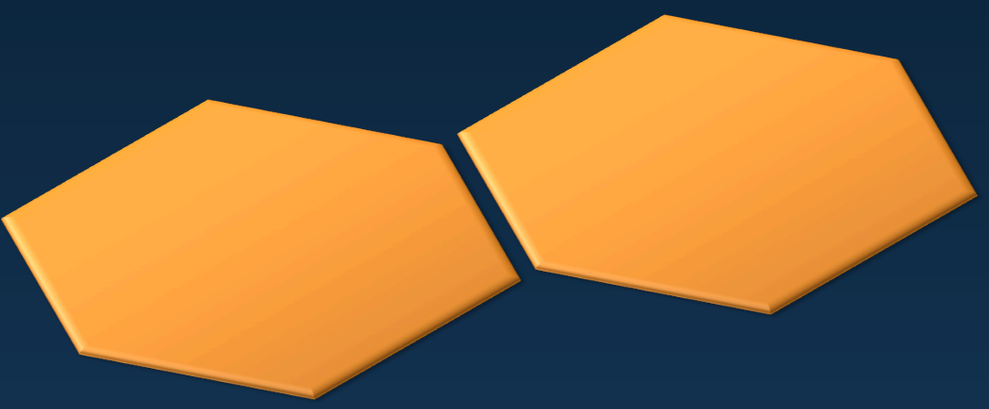
1:1

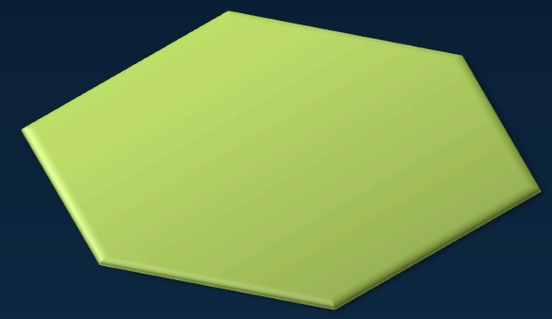




Dev to **QA**

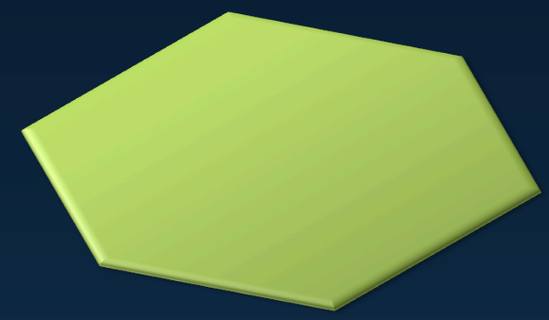
2:1





Dev to **QA**

3:1



Dev to **QA**

8:1

Uri Nativ

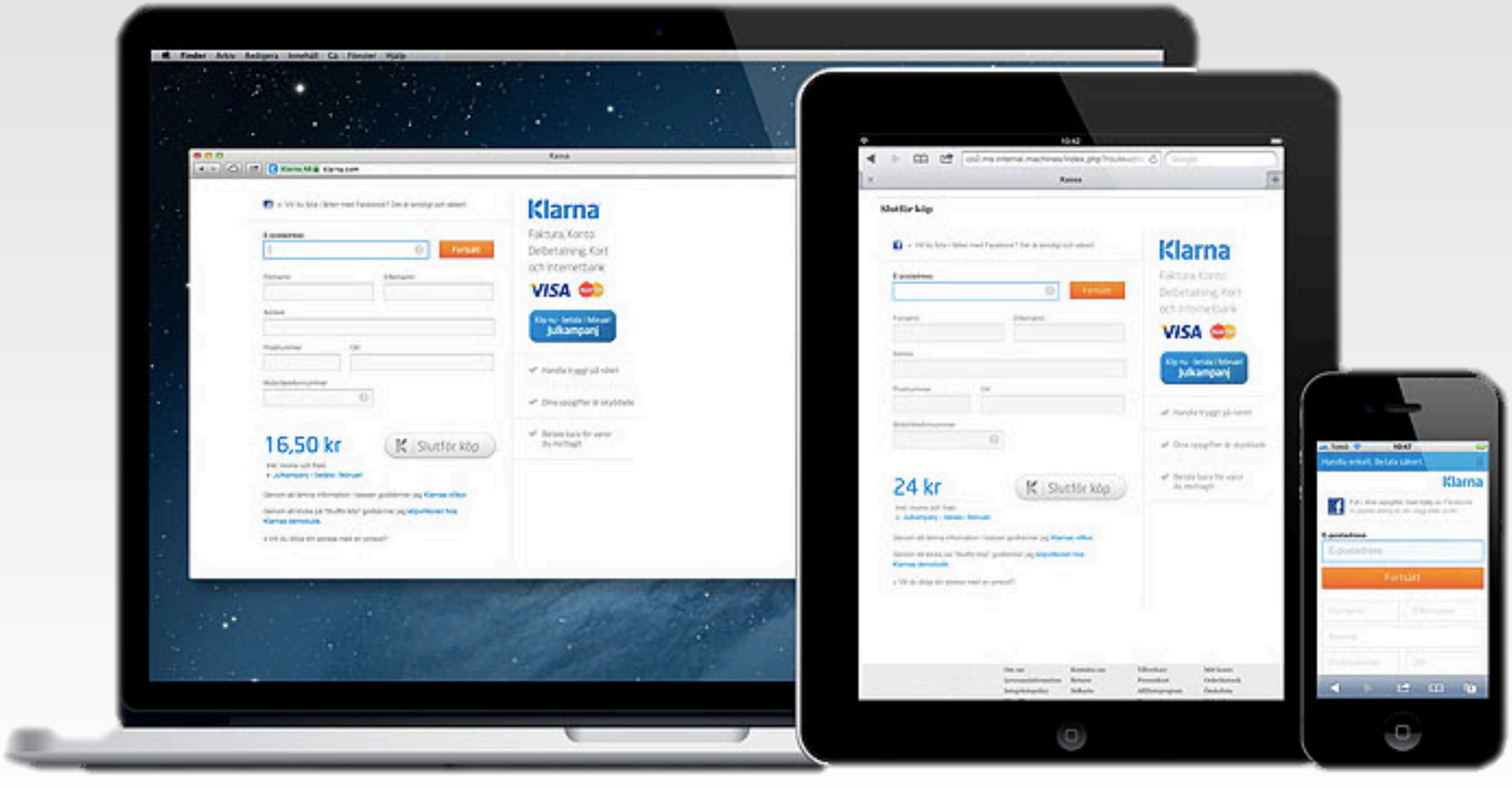
VP Engineering & Site Manager

Klarna Tel Aviv

Klarna™

SAFE & SIMPLE

payments online



QA without QA

Quality Assurance

QA without QA

QA org.

3 steps to QUALITY

1

2

3

The **ABSURD** in having a **QA** org.

a **WALL** between
ACTIONS and
CONSEQUENCES

devs are

LAZY

our job is **NOT** to **CODE**
our job is **NOT** to **TEST**
we are software engineers
we **SHIP** software that
SOLVES problems

3 steps to QUALITY

1

2

3

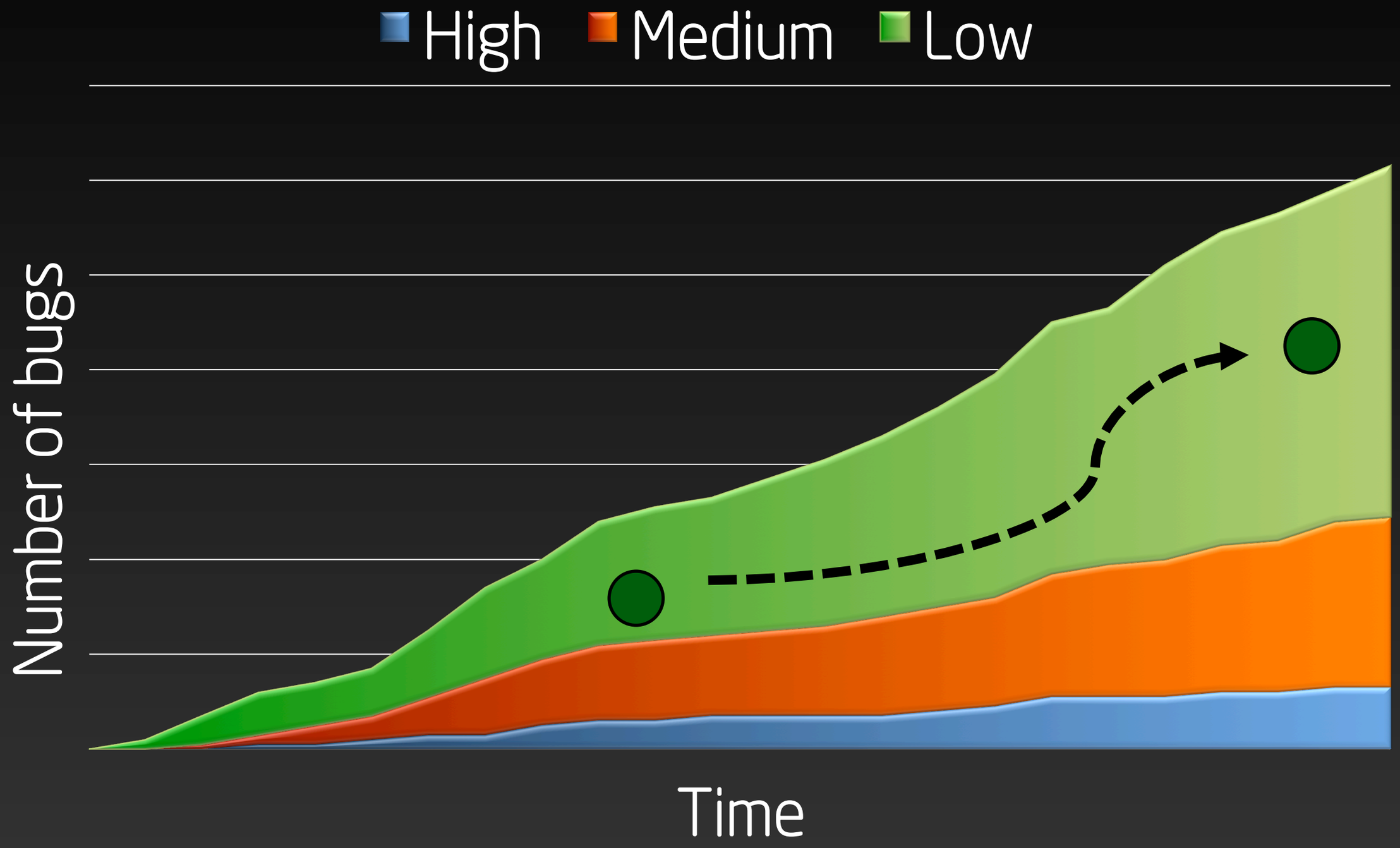
3 steps to QUALITY

NO QA

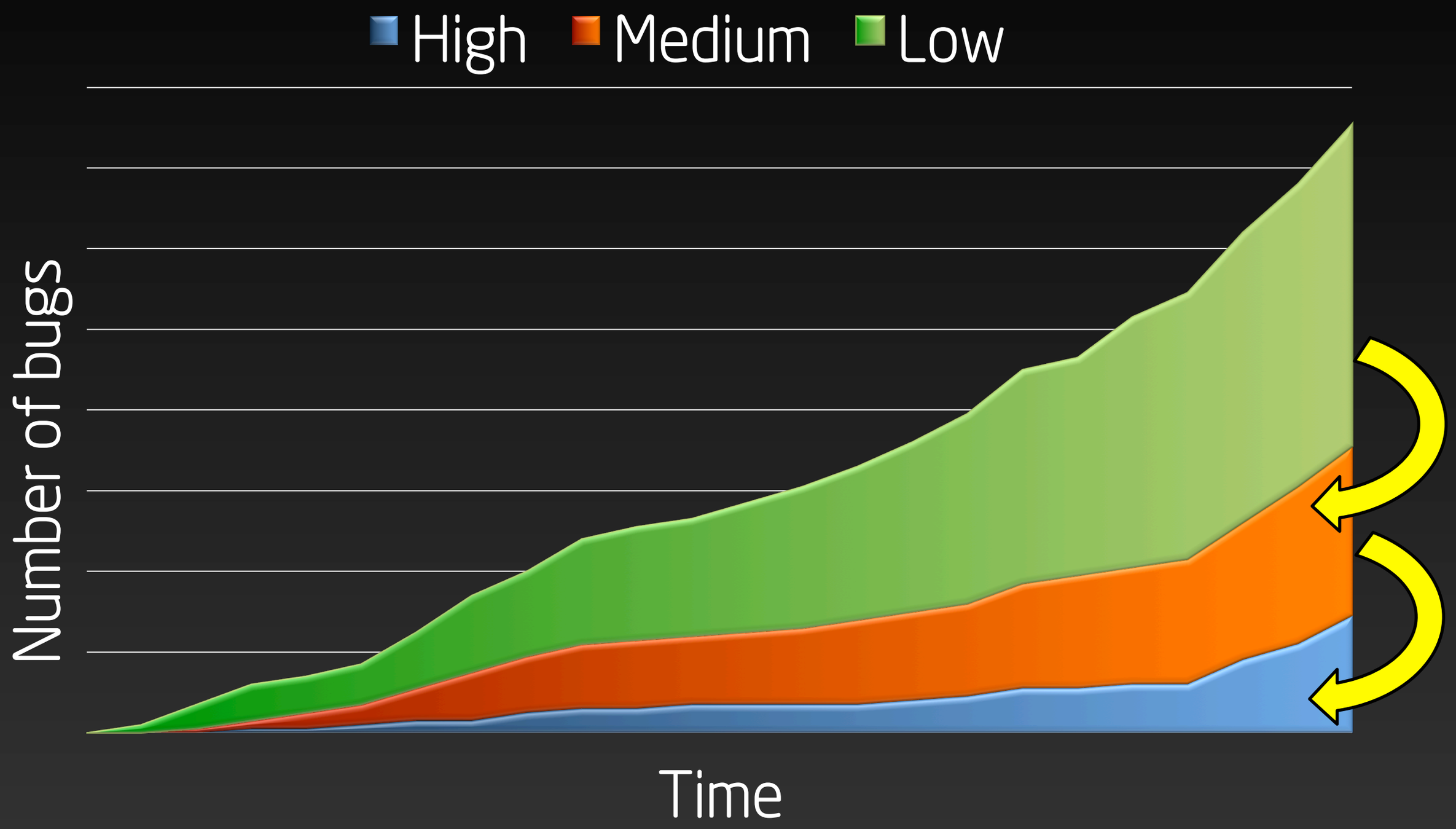
2

3

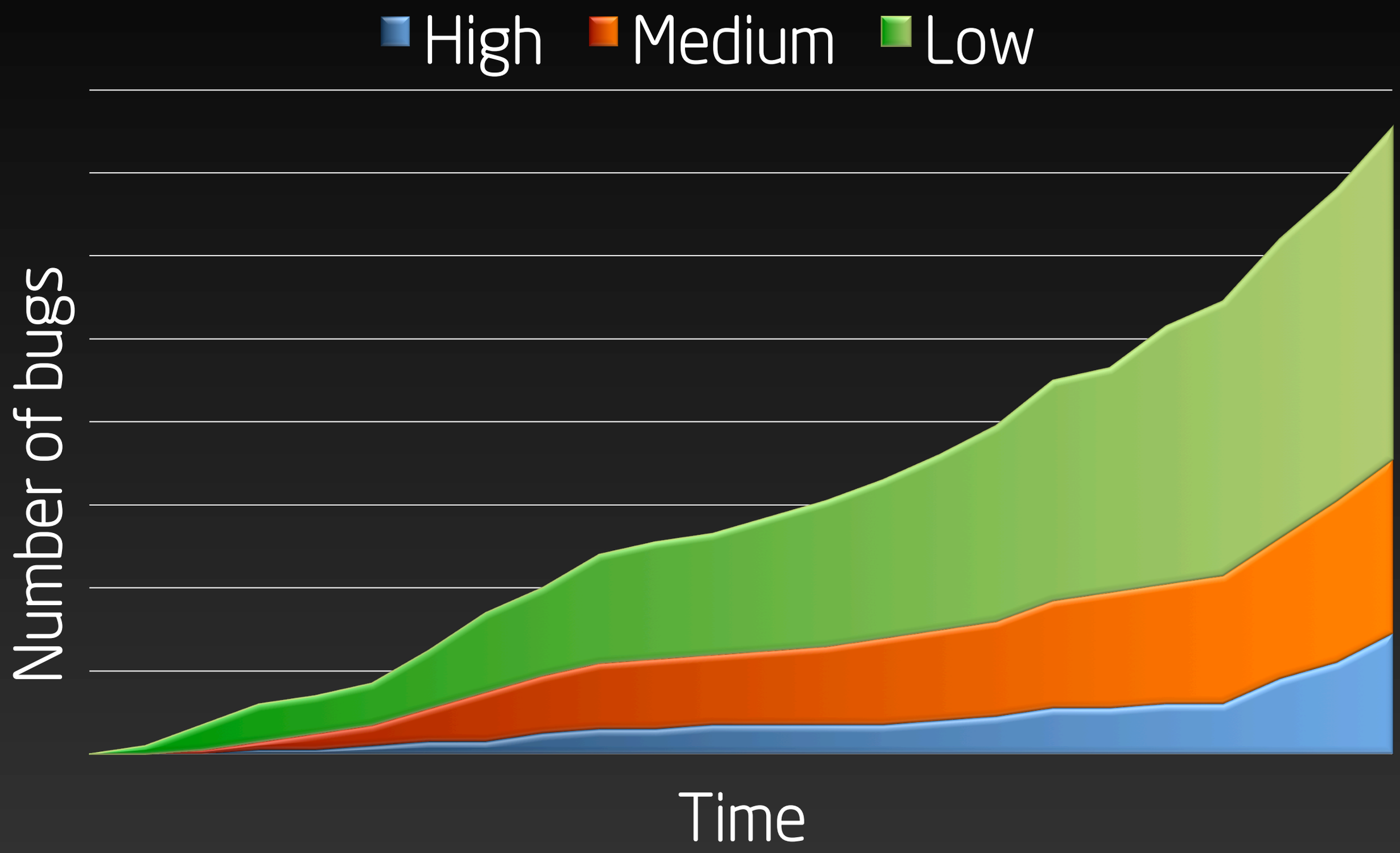
BUGS over TIME



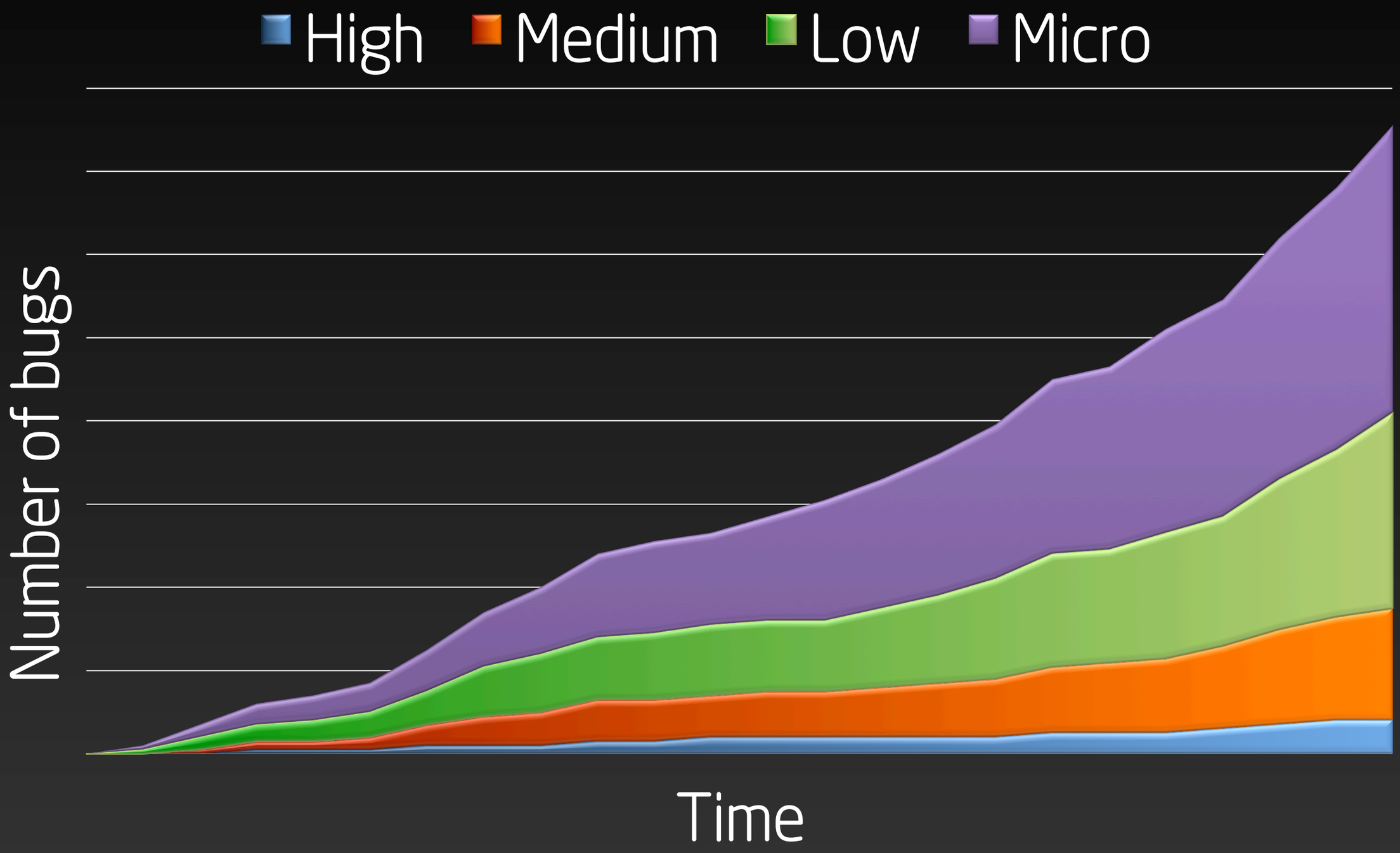
BUGS over TIME



BUGS over TIME



BUGS over **TIME**



MAGIC

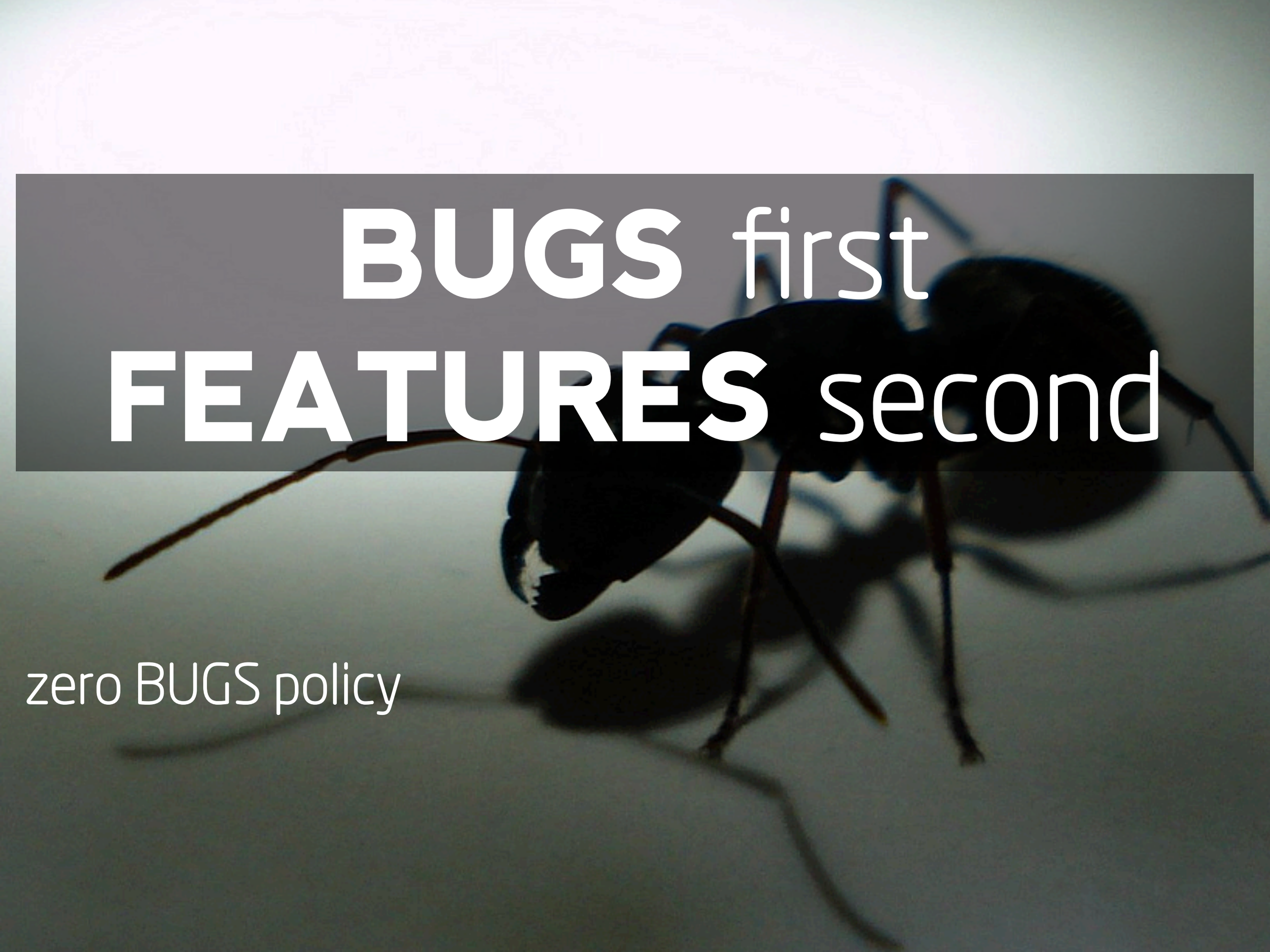
ZERO

bugs policy

fix **ALL** bugs

zero BUGS policy

BUGS first
FEATURES second



zero BUGS policy

DELETE bugs

zero BUGS policy

3 steps to QUALITY

NO QA

2

3

3 steps to QUALITY

1 NO QA

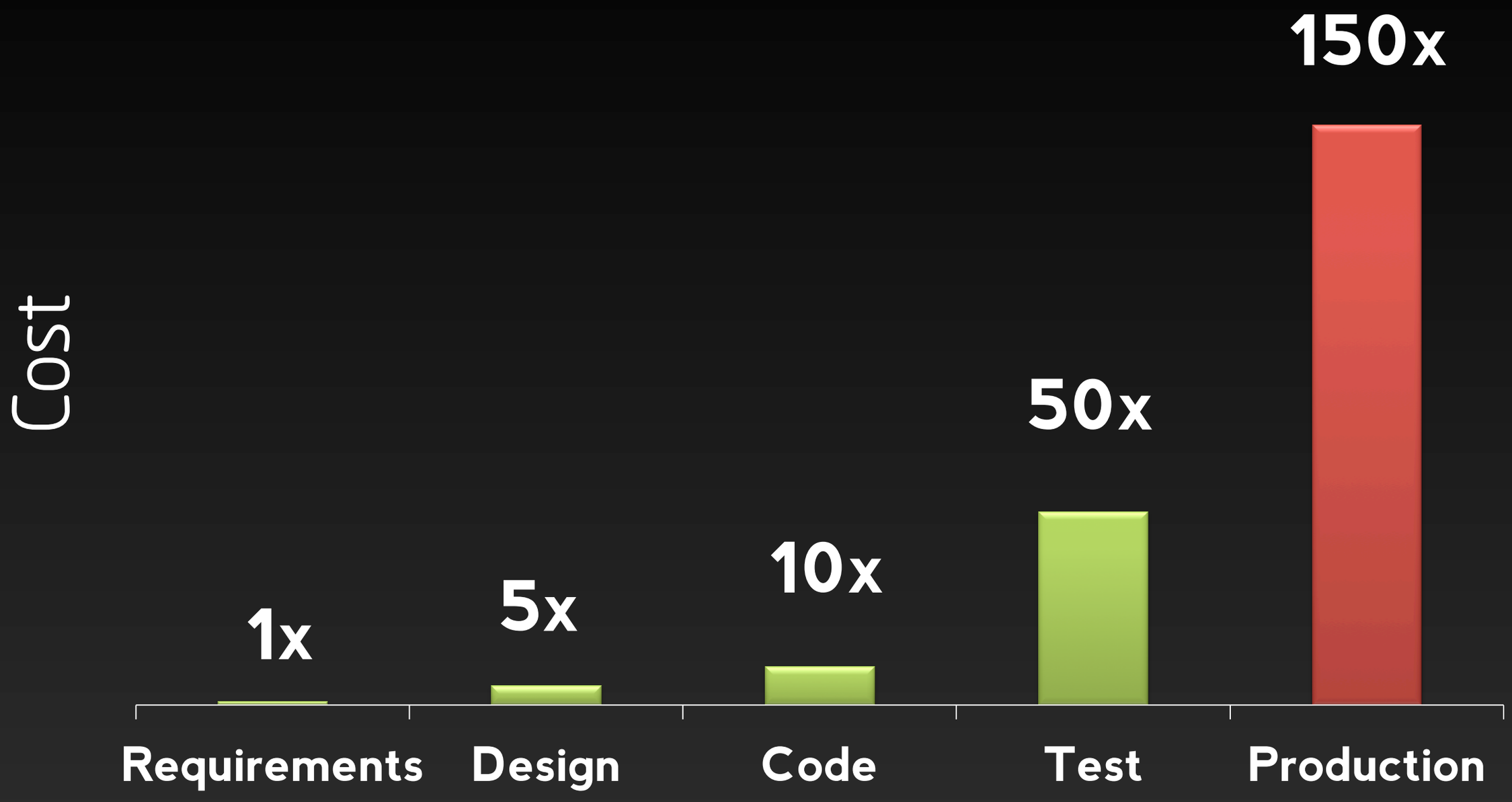
2 ZERO BUGS POLICY

3

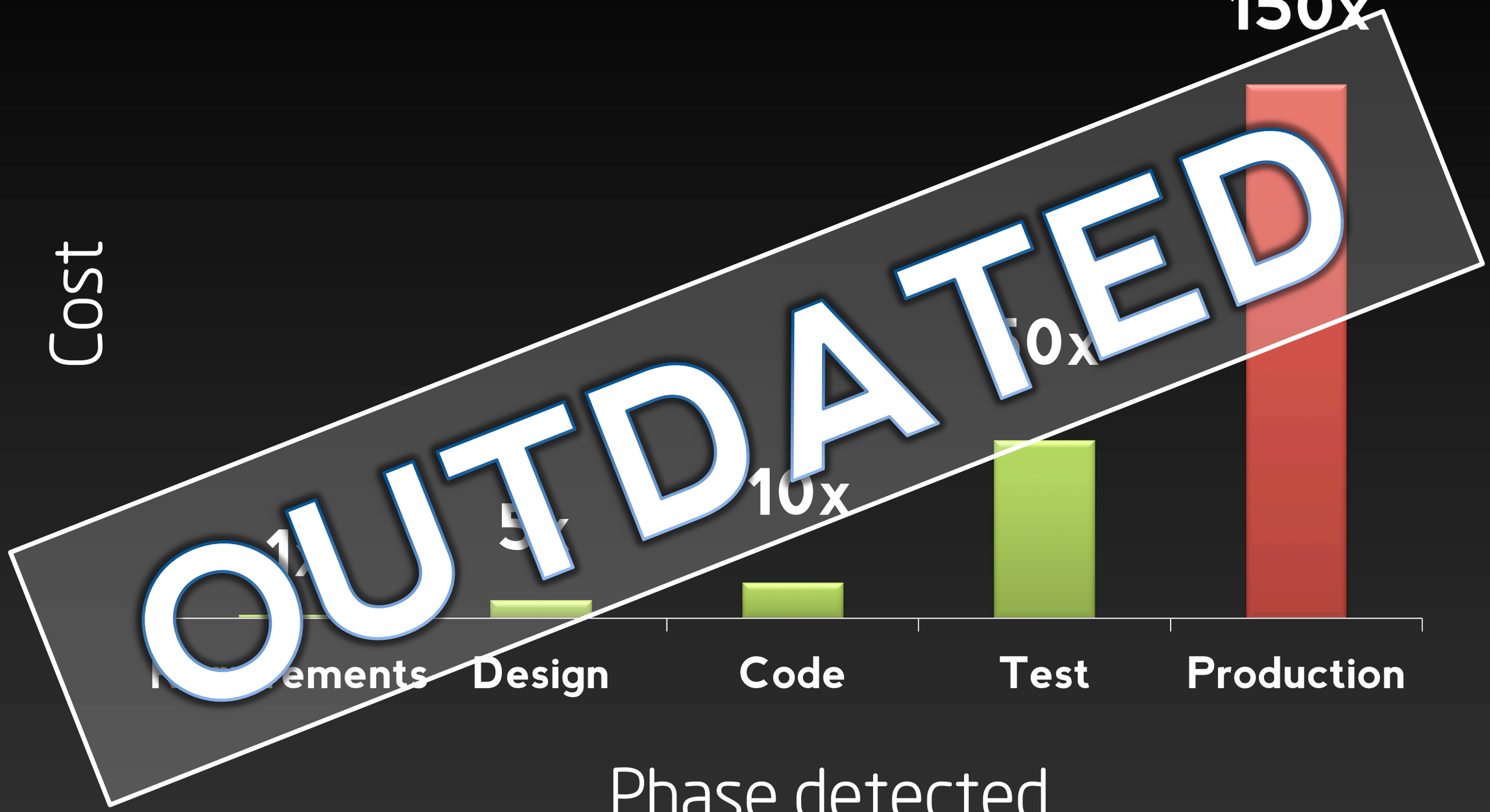
Cost of fixing

BUGS

COST of bug fix



COST of bug fix



1 YEAR

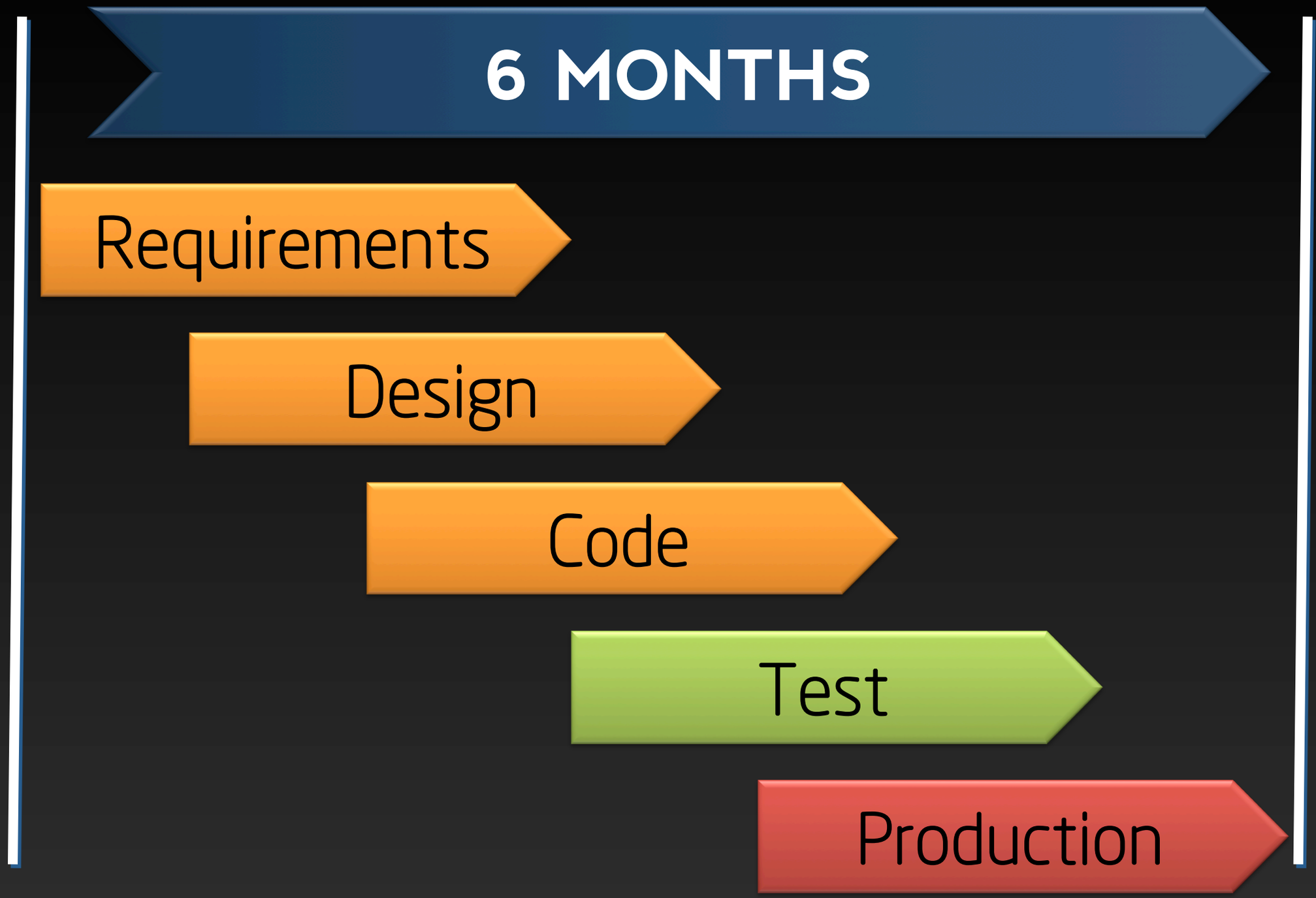
Requirements

Design

Code

Test

Production


6 MONTHS
Requirements
Design
Code
Test
Production

1 MONTH

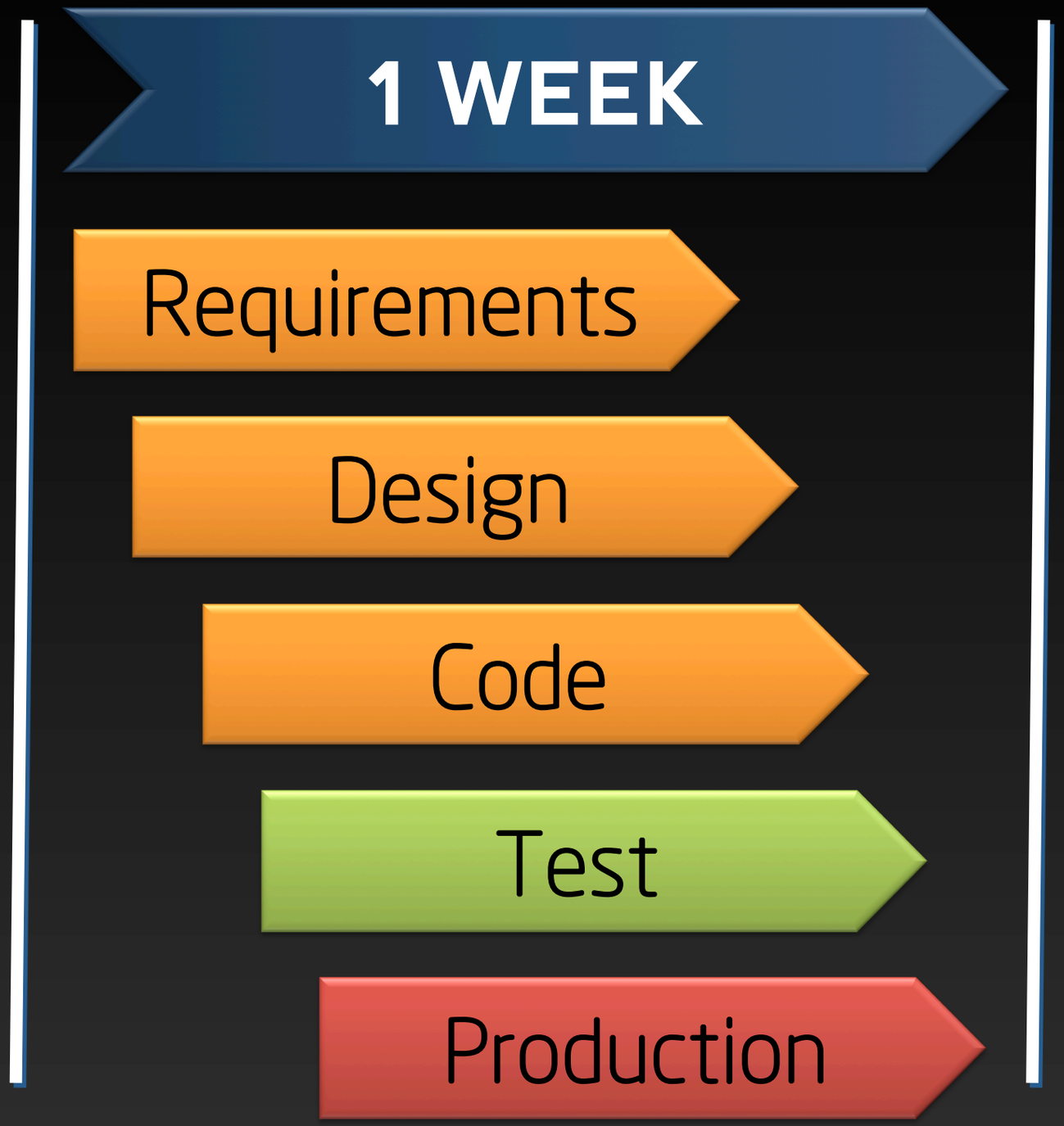
Requirements

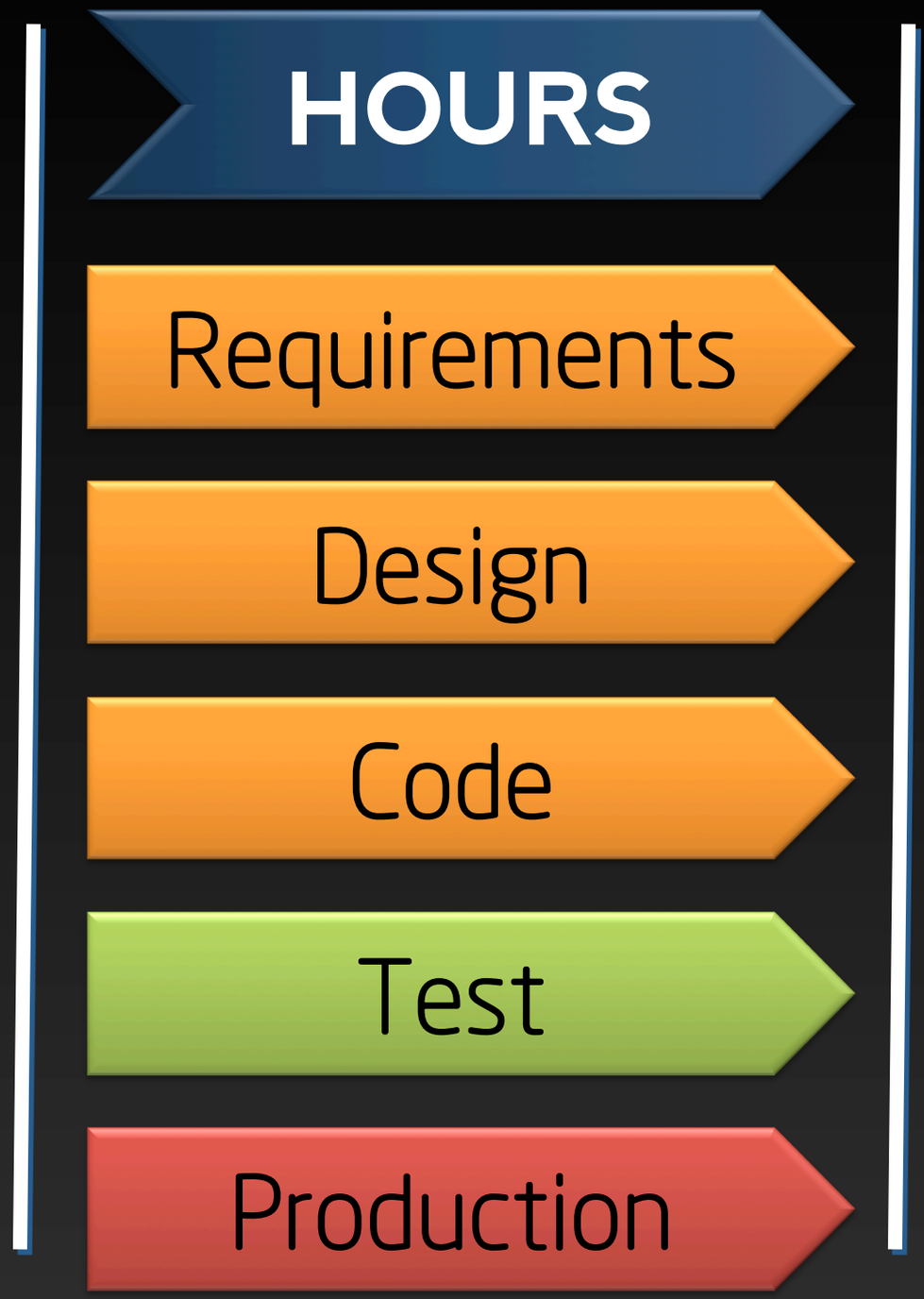
Design

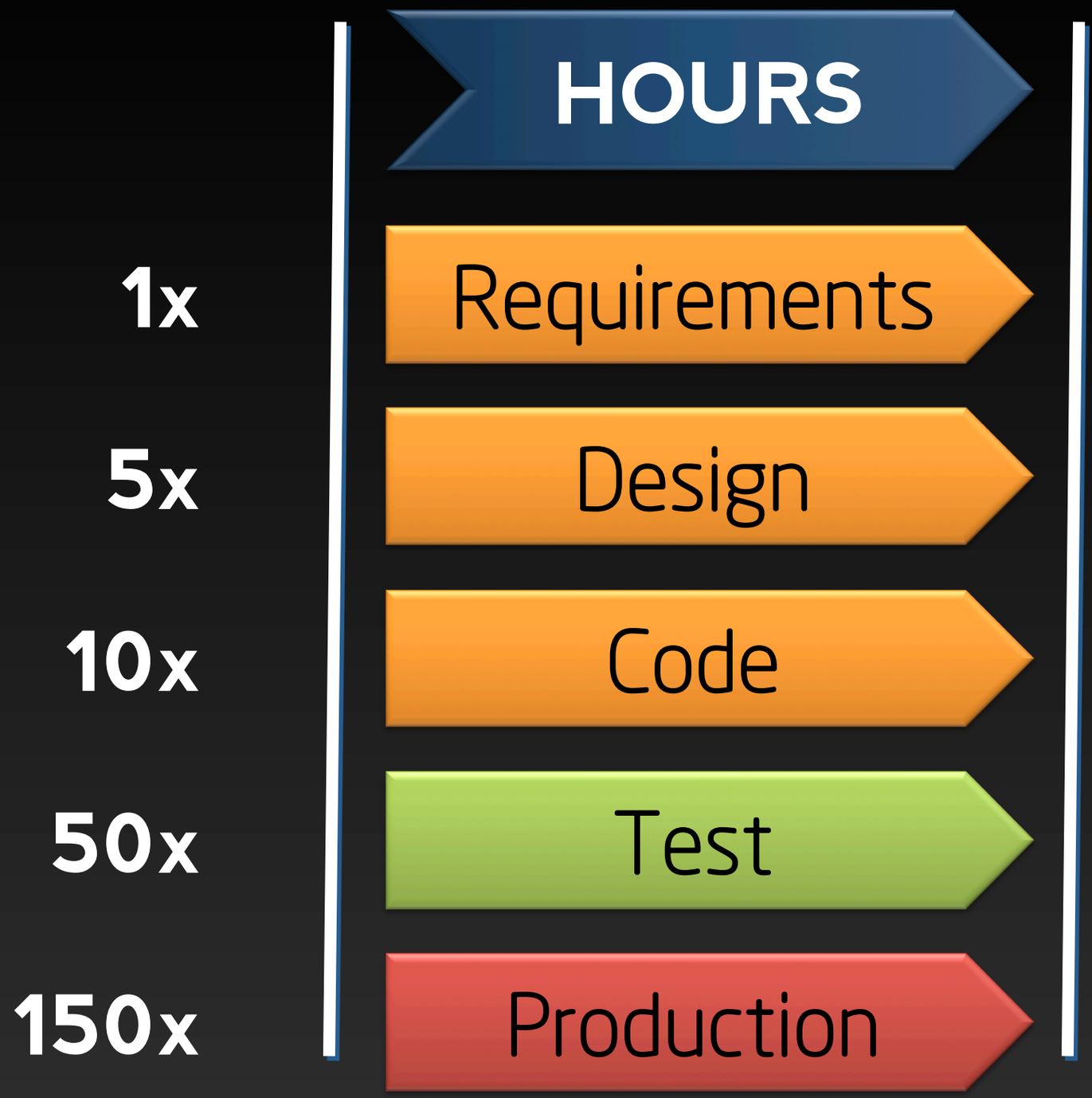
Code

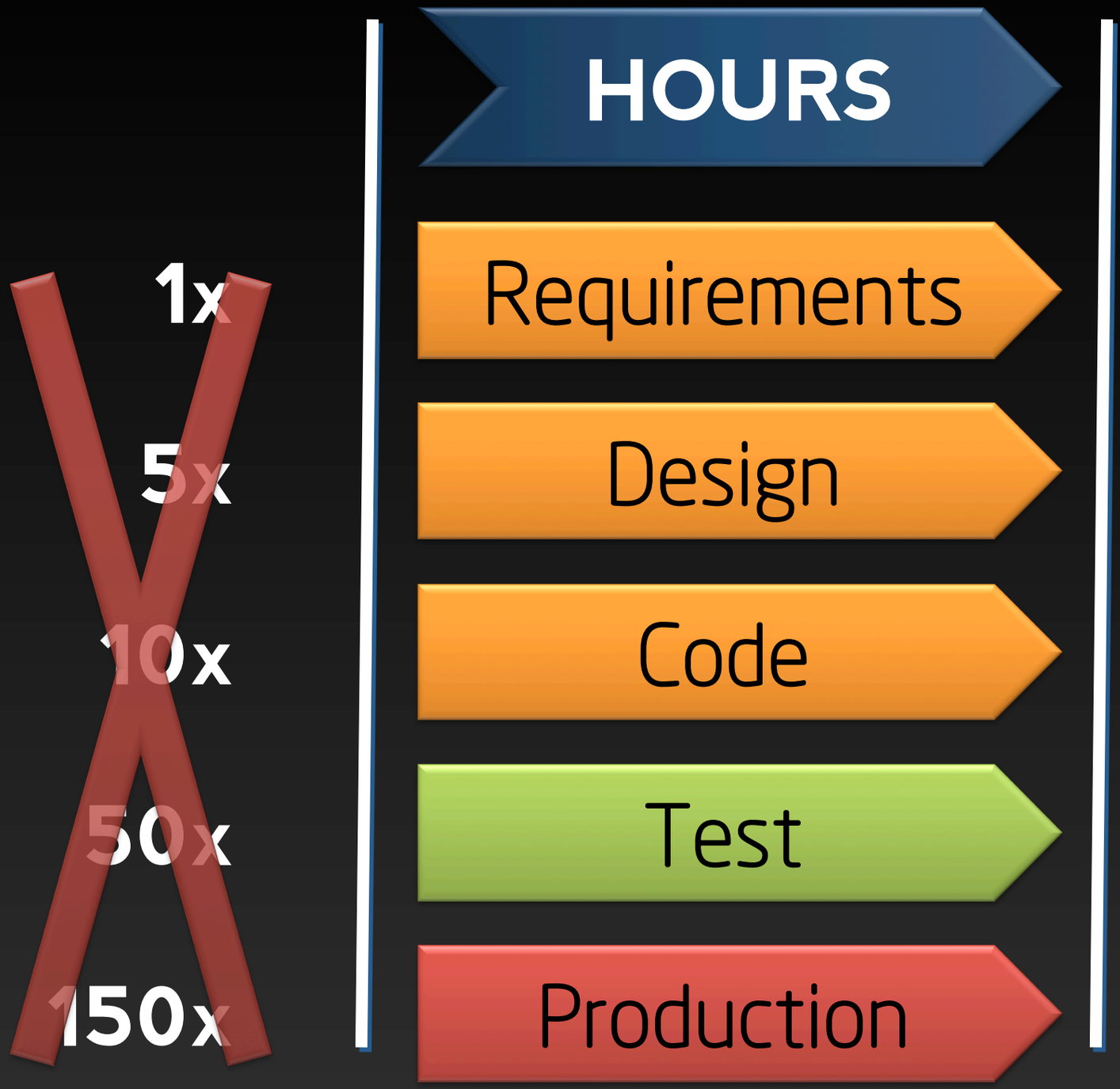
Test

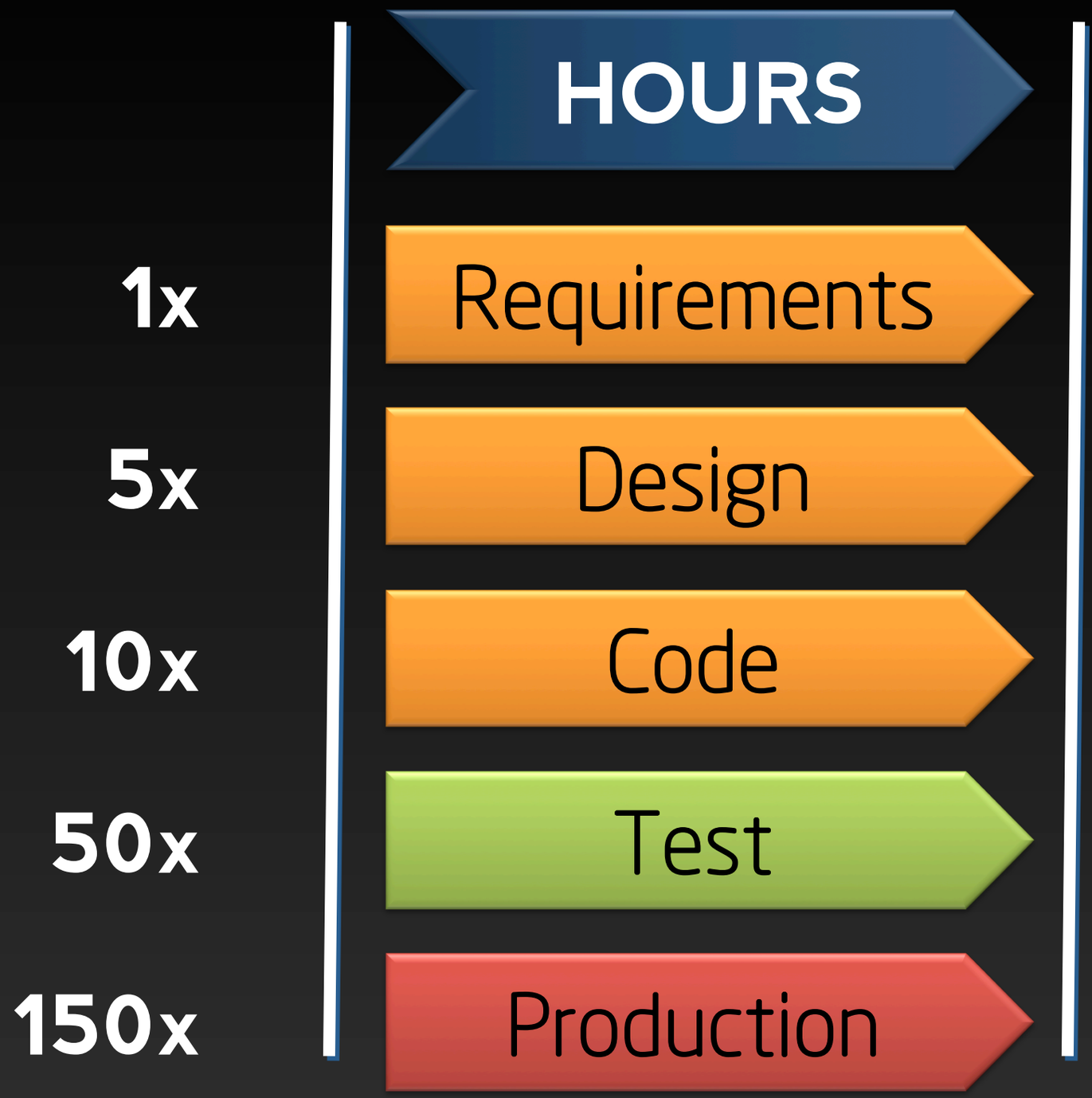
Production

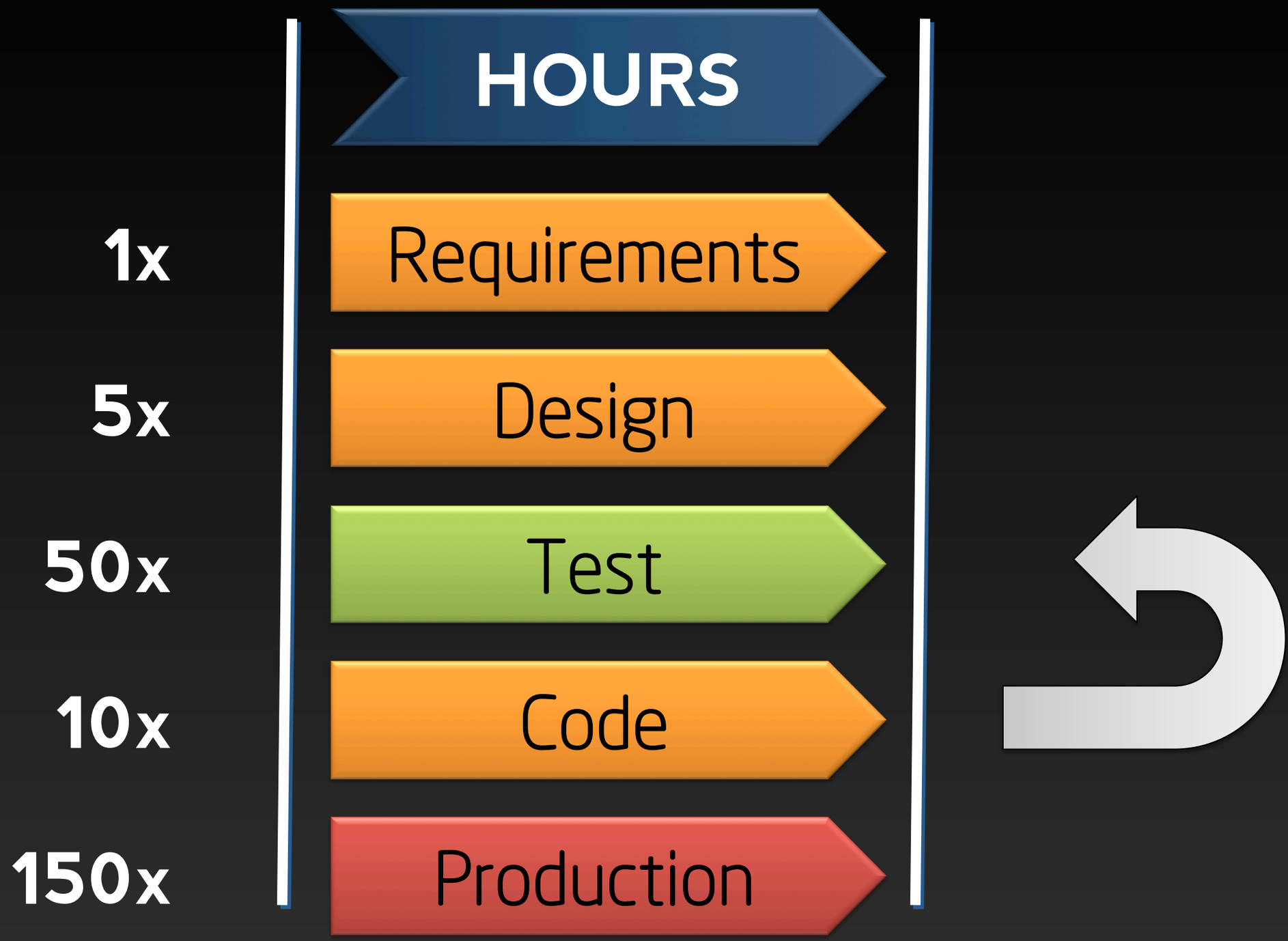

1 WEEK
Requirements
Design
Code
Test
Production


HOURS
Requirements
Design
Code
Test
Production


HOURS
1x
Requirements
5x
Design
10x
Code
50x
Test
150x
Production


HOURS
1x
5x
10x
50x
150x
Requirements
Design
Code
Test
Production


HOURS
1x
Requirements
5x
Design
10x
Code
50x
Test
150x
Production


HOURS
1x
Requirements
5x
Design
50x
Test
10x
Code
150x
Production

BDD & TDD

HOURS

1x Requirements

5x Design

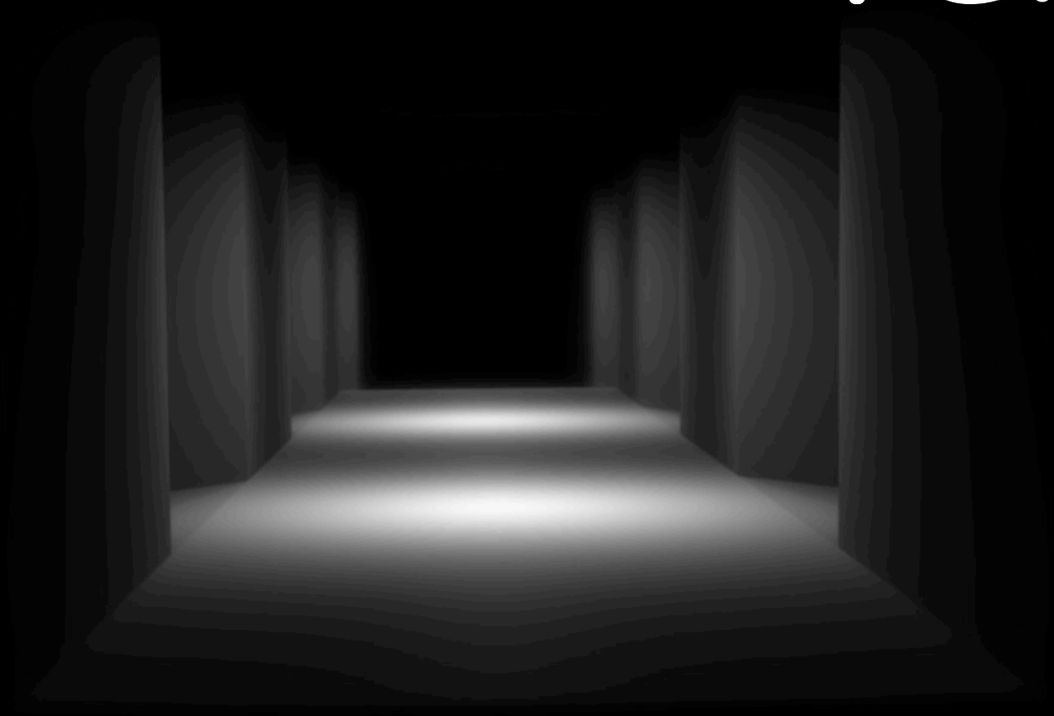
10x Code

150x Production

50x Test

DARK

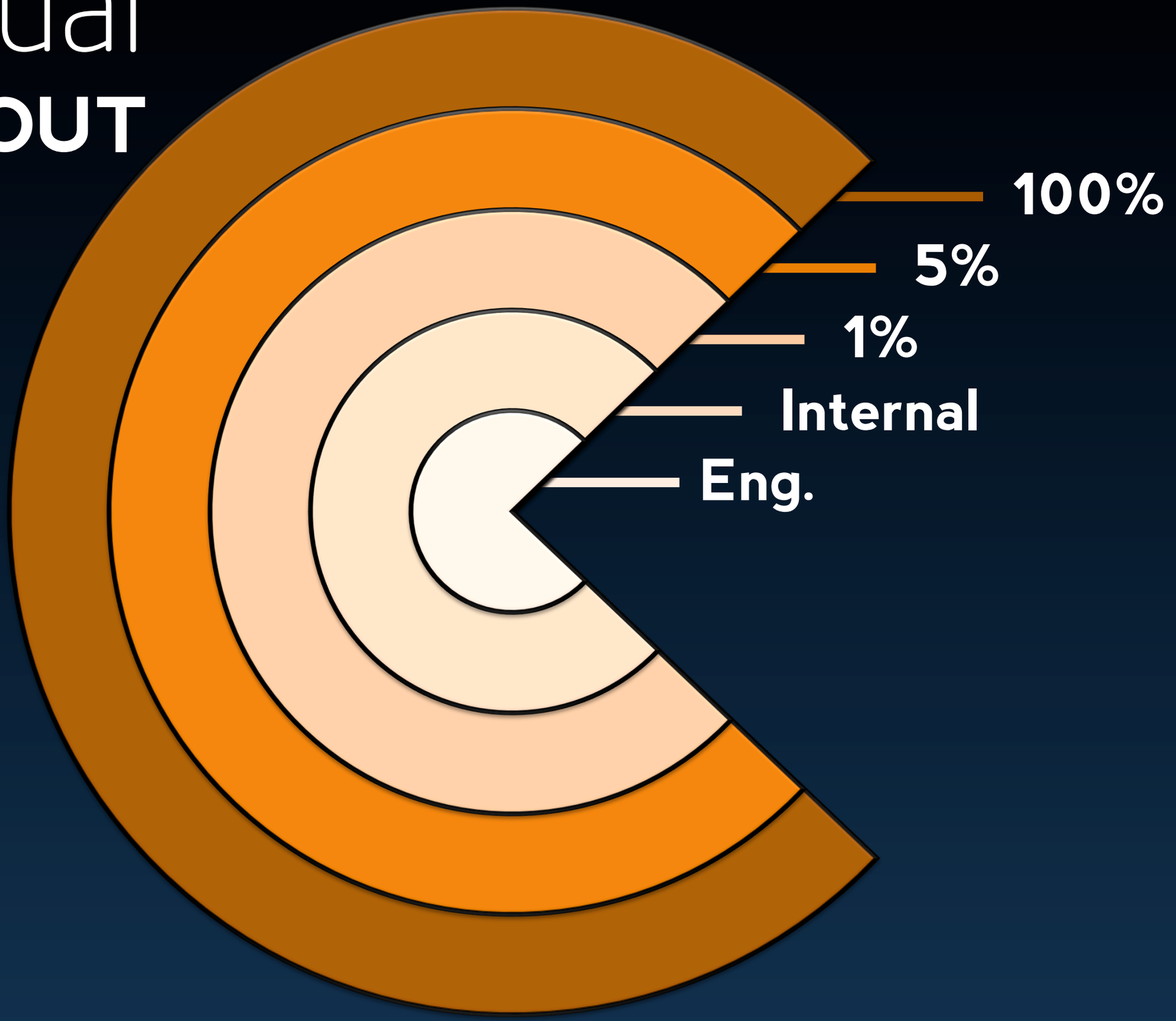
launch



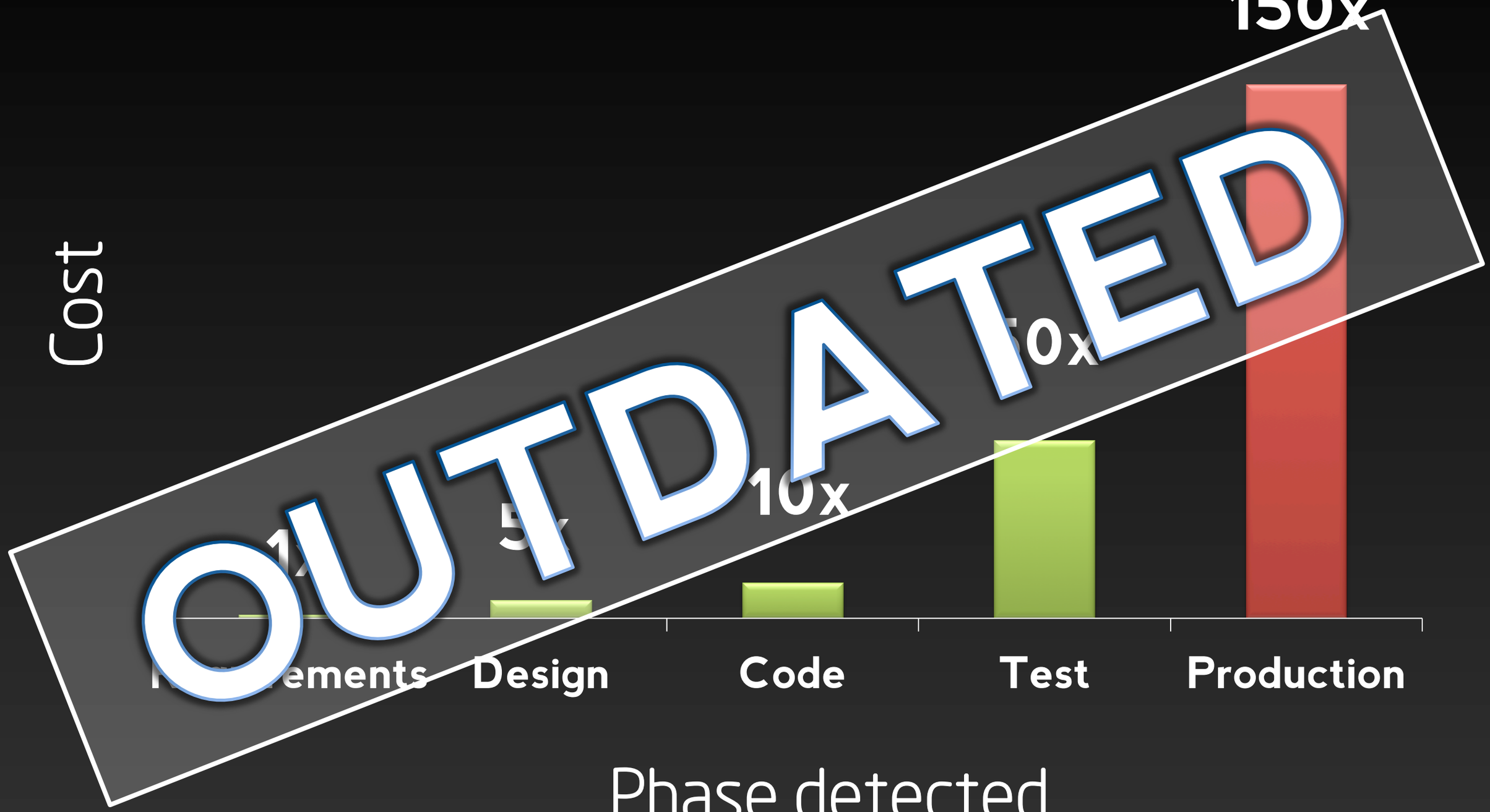
gradual

ROLLOUT

gradual
ROLLOUT



COST of bug fix



Short feedback **LOOP**

3 steps to QUALITY

1 NO QA

2 ZERO BUGS POLICY

3

3 steps to QUALITY

1 NO QA

2 ZERO BUGS POLICY

3 SHORT FEEDBACK LOOP

TEAR DOWN
the wall

Uri Nativ

@unativ

uri.nativ@klarna.com

to code is human . com

Klarna™