Lean Startup
by
Eric Ries
Compared to Agile, Scrum, XP, Evo

MASTER version 29 Nov 2011

By Tom Gilb

Gilb.com

Comparison

- **Lean Startup**
- SAME
  - Quantified Objectives
  - Fast Frequent Iterations
  - Value Delivery to Stakeholders
  - Measurement & Learning
- DIFFERENT
  - ? Next slide

- **Evo, CE, Planguage, Gilb**
- SAME
  - Quantified Objectives
  - Fast Frequent Iterations
  - Value Delivery to Stakeholders
  - Measurement & Learning
- DIFFERENT
  - ? Next slide

Environment Comparison

- ## Lean Startup
- SAME
  - Quantified Objectives
  - Fast Frequent Iterations
  - Value Delivery to Stakeholders
  - Measurement & Learning

- ## DIFFERENT
  - Objectives = Marketing Hypothesis
    - Like 30% adoption rate
    - *Measured* Changes/day can be 50
  - **Extreme** uncertainty about final product, and final 'customer' (stakeholders)

- ## Evo, CE, Planguage, Gilb
- SAME
  - Quantified Objectives
  - Fast Frequent Iterations
  - Value Delivery to Stakeholders
  - Measurement & Learning

- ## DIFFERENT
  - Objectives are
    - Long Range Values for Money (Qualities)
  - Pretty **clear and stable** stakeholders and product values are defined
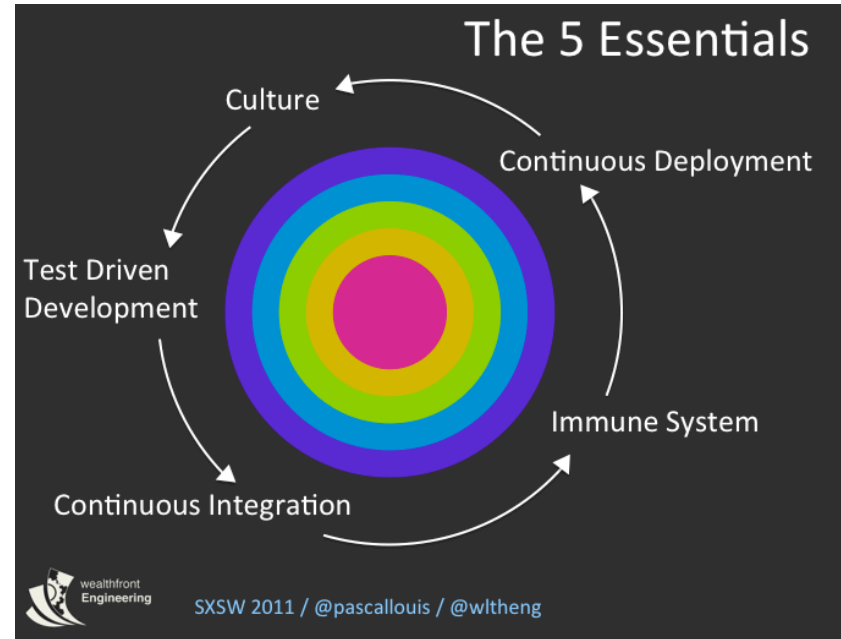
Wealthfront Environment

Quick Facts about Wealthfront

- Managing close to $180,000,000*
- Processing over $2,000,000/day
- Highly regulated
  - By the SEC, as a Registered Investment Advisor
  - By FINRA, as a Broker Dealer
  - Member SIPC
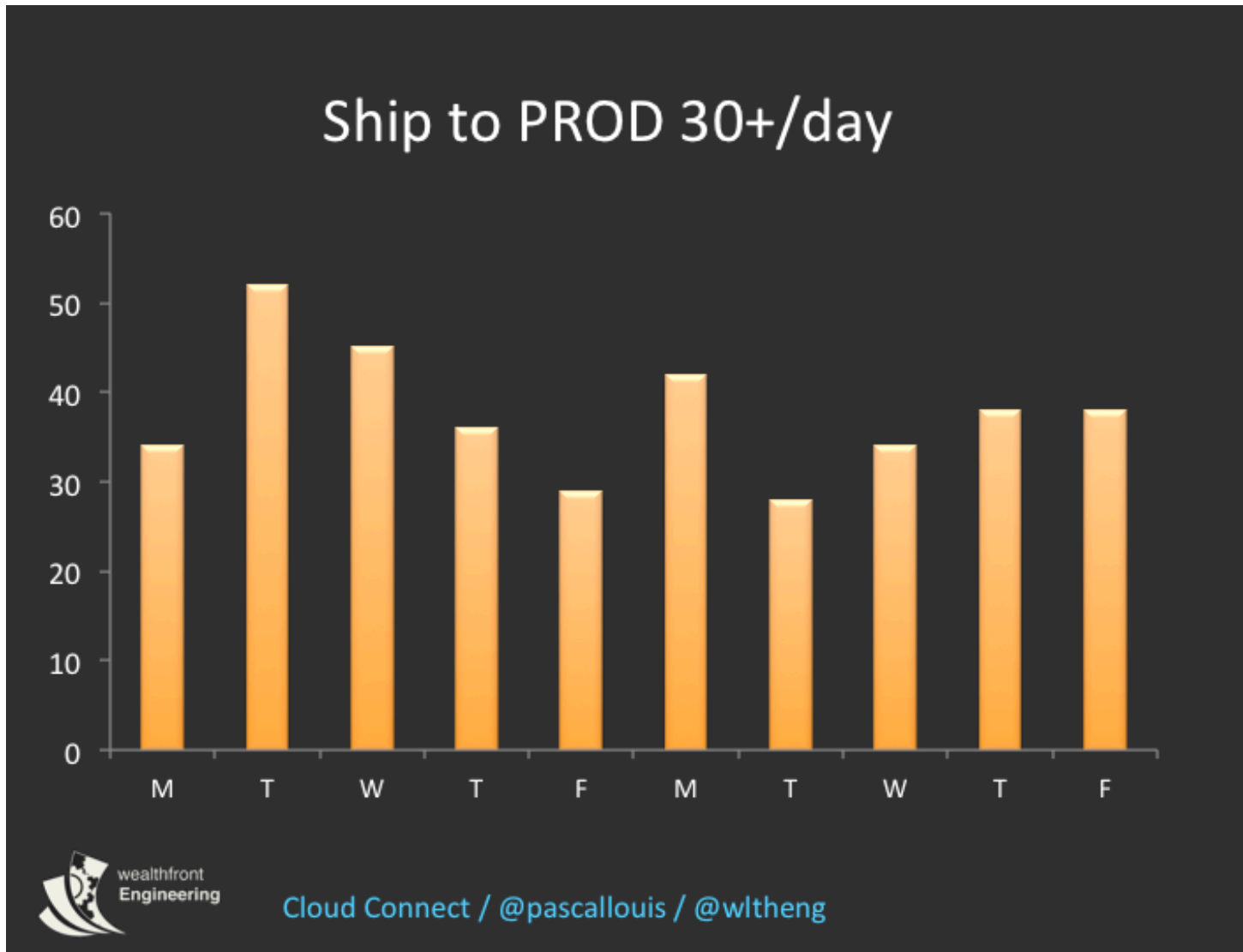- We're a technology company
- No Ops, no QA team

wealthfront Engineering

Cloud Connect / @pascallouis / @wltheng   * $30 AUM, $150 AUA

The 5 Essentials

Culture

Continuous Deployment

Test Driven Development

Immune System

Continuous Integration

wealthfront Engineering

SXSW 2011 / @pascallouis / @wltheng

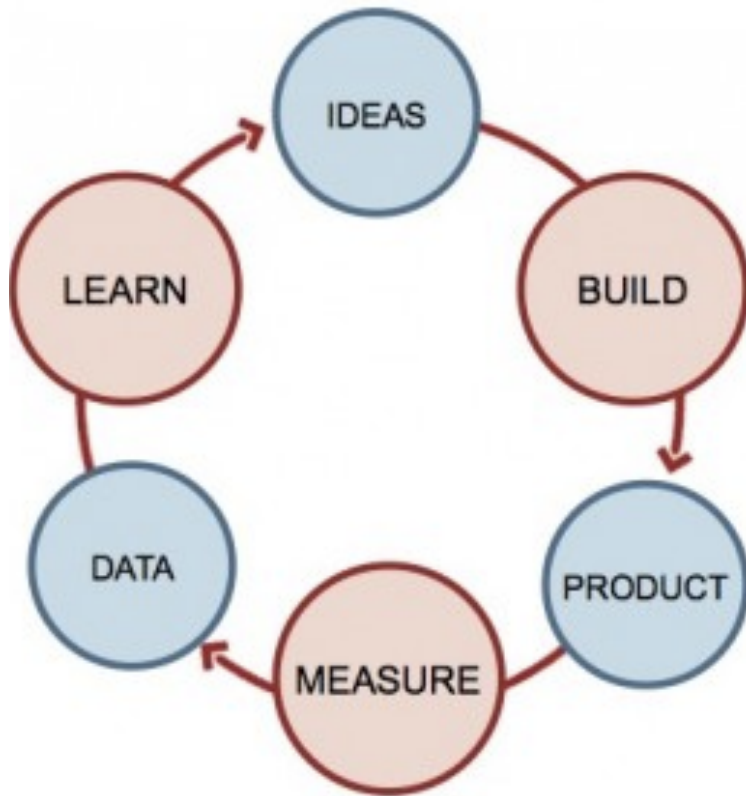http://eng.wealthfront.com/2011/03/lean-startup-stage-at-sxsw.html
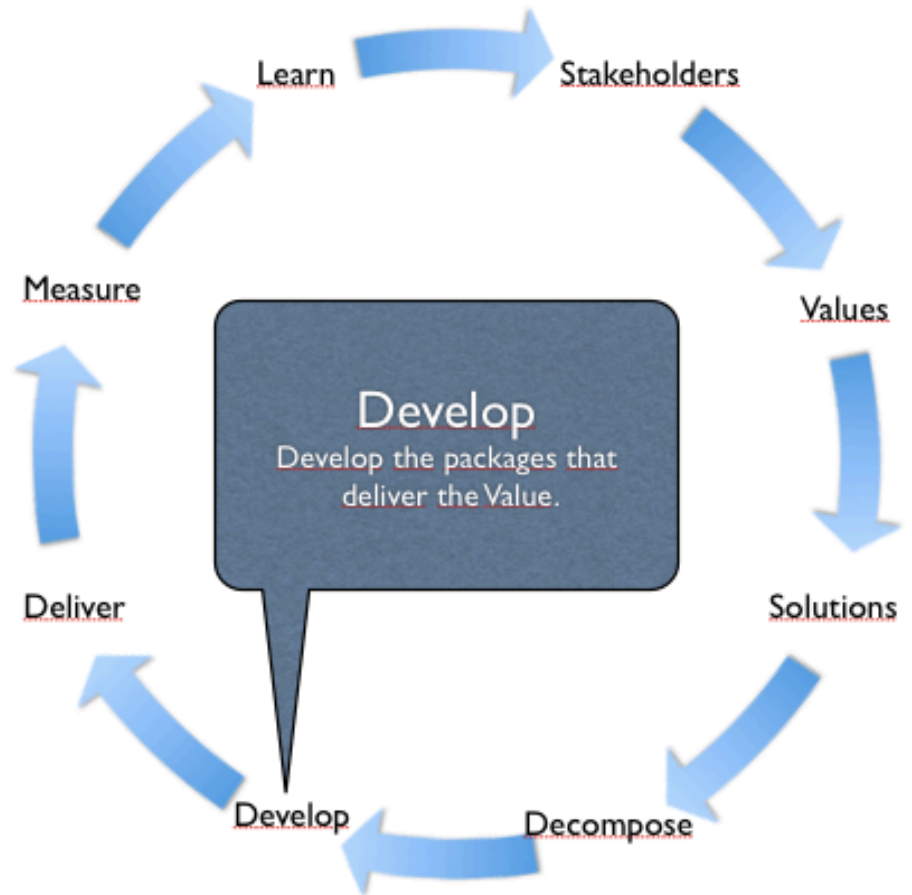
Shipping 30+ times a day (Wealthfront)

Lean Startup Cycle

Evo Cycle

Lean Startup Loop
"Minimize Time though the loop"

There is Much More …

Learn Faster

LEARN

Split Tests
Customer Interviews
Customer Development
Five Whys Root Cause Analysis
Customer Advisory Board
Falsifiable Hypotheses
Product Owner Accountability
Customer Archetypes
Cross-functional Teams
Semi-autonomous Teams
Smoke Tests

IDEAS

BUILD

Code Faster

Unit Tests
Usability Tests
Continuous Integration
Incremental Deployment
Free & Open-Source Components
Cloud Computing
Cluster Immune System
Just-in-time Scalability
Refactoring
Developer Sandbox

DATA

CODE

Measure Faster

MEASURE

Split Tests
Clear Product Owner
Continuous Deployment
Usability Tests
Real-time Monitoring
Customer Liaison

Funnel Analysis
Cohort Analysis
Net Promoter Score
Search Engine Marketing
Real-Time Alerting
Predictive Monitoring

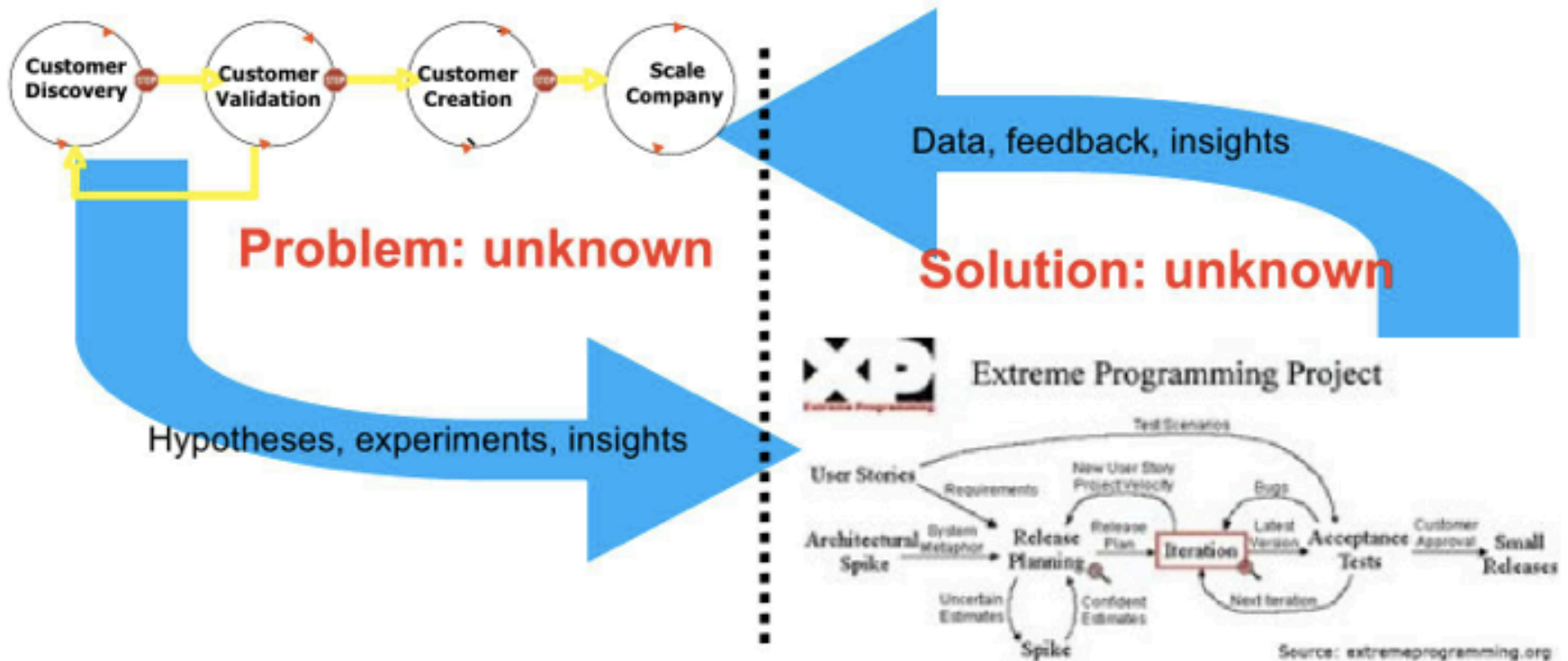# Lean Startup: High Unknowns

Product Development at Lean Startup
Assumes Customers and Markets are Unknown

Customer Development Engineering

Customer Discovery → Customer Validation → Customer Creation → Scale Company

Data, feedback, insights

Problem: unknown

Solution: unknown

Hypotheses, experiments, insights

Extreme Programming Project

Source: extremeprogramming.org

http://www.slideshare.net/venturehacks/the-lean-startup-2

Value Management (Gilb, Evo)

Copyright: Kai@Gilb.com
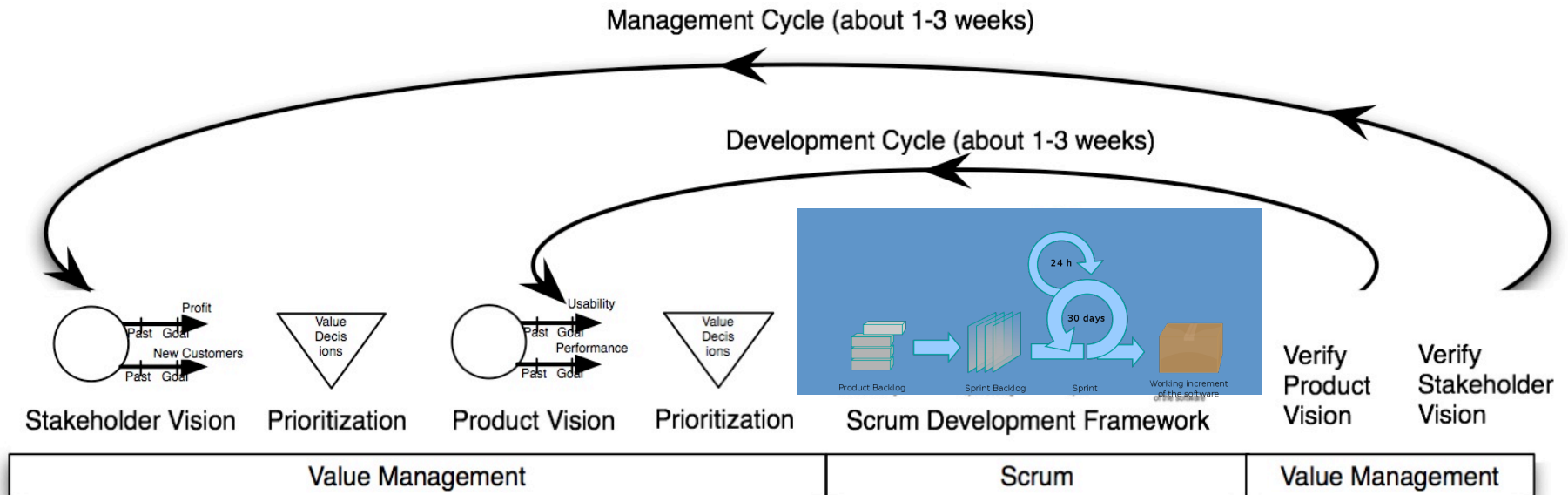
Value Decision Tables (Gilb, Evo)

Business Goals	Stakeholder Value 1	Stakeholder Value 2
Business Value 1	-10%	40%
Business Value 2	50%	10%
Resources	20%	10%

Stakeholder Val.	Product Value 1	Product Value 2
Stakeholder Value 1	-10%	50 %
Stakeholder Value 2	10 %	10%
Resources	2 %	5 %

Product Values	Solution 1	Solution 2
Product Value 1	-10%	40%
Product Value 2	50%	80 %
Resources	1 %	2 %

Prioritized List
1. Solution 2
2. Solution 9
3. Solution 7

Scrum Develops

24 h

30 days

Product Backlog   Sprint Backlog   Sprint   Working increment
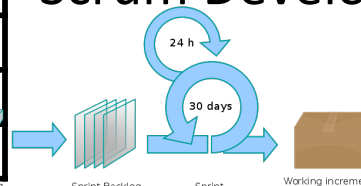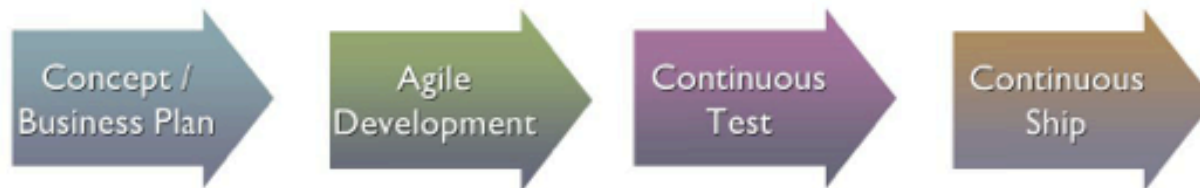
We measure improvements Learn and Repeat

Parallel 'Customer' (Stakeholder) Development

The Lean Startup

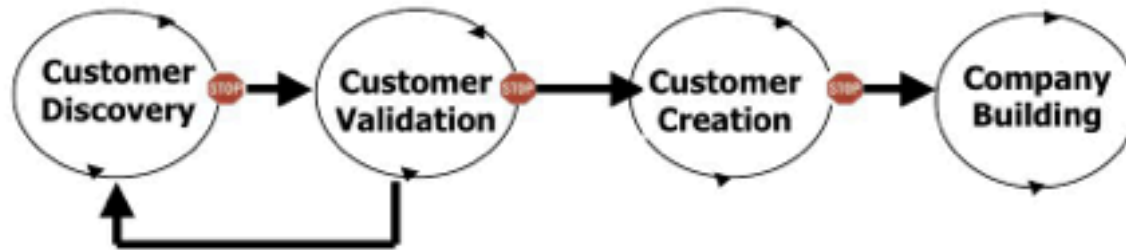*Customer Development Parallels Agile Development*

Agile Development

Concept / Business Plan → Agile Development → Continuous Test → Continuous Ship

Customer Development

Customer Discovery — STOP → Customer Validation — STOP → Customer Creation — STOP → Company Building
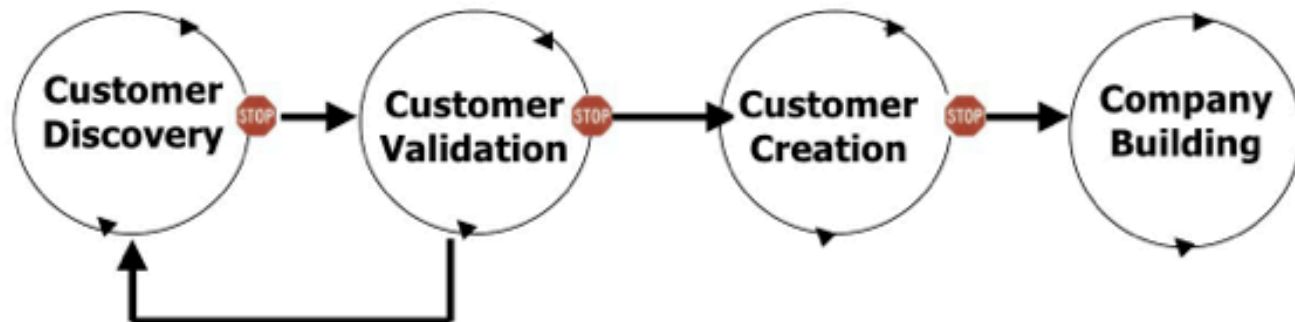
Customer (Stakeholder) Discovery

- Discovery
  - Test hypotheses I.e. problem and product concept
- Validation
  - Build a repeatable and scalable sales process
- Creation
  - Create end-user demand and fill the sales pipeline
- Building
  - Scale via relentless execution

Lean Startup Advantages

- Builds low-burn companies by design

  - Low cost market risk testing

- Organized around learning and discovery

- Right model for current conditions
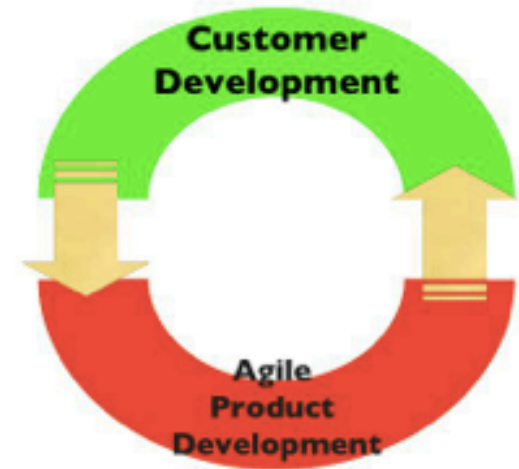
The next wave of capital efficient startups

Method Comparison

- Lean Startup
- SAME METHOD
  - Stakeholder Focus
  - Value Focus

- DIFFERENT METHOD
  - Intense stakeholder & value exploration
  - Intense quantitative product effect hypothesis and measurement (daily)

- Gilb Methods: Evo, CE, Planguage, Value Delivery
- SAME METHOD
  - Stakeholder Focus
  - Value Focus

- DIFFERENT METHOD
  - Stakeholders mainly known, and formally identified, and correlated to values, but can be discovered as needed
  - Longer term quantified value objectives and weekly feedback

Comparison

- **Lean Startup**
  - Focus on Market, Customers, Product Qualities (**Value** for Stakeholders)

- **Agile Scrum, XP**
  - Focus on reliable productive delivery of user stories, functions, designs (on **coding**)

Links for Lean Startup

- www.the**leanstartup**.com/
  - The official website of all things **Lean Startup** presented by Eric Ries.
- www.slideshare.net/venturehacks/the-**lean**-**startup**-2
  - Eric Ries' presentation on **lean startups**. From Steve Blank's Customer Development course at Berkeley. Learn more and hear the audio at http://bit.ly/ 3qsvJ.

- www.**startup**lessonslearned.com/2008/09/**lean**-**startup**.html
  - 8 Sep 2008 – (Update April, 2011: In September, 2008 I wrote the following post in which I (ER)published my thoughts on the term "**lean startup**" for the first time
- http://eng.wealthfront.com/2011/03/lean-startup-stage-at-sxsw.html
- http://www.slideshare.net/venturehacks/the-lean-startup-2
  - Slides bySteven Blank and Eric Ries. "The Lean Startup, Low Burn by Design , not Crisis"
- http://www.slideshare.net/startuplessonslearned/2009-05-01-how-to-build-a-lean-startup-step-by-step/download

Links for Other Methods

- The Inmates are running the asylum, Construx Summit talk Oct 25 2011 Seattle
  - Contains considerable 'Bring' Case slides
  - www.gilb.com/tiki-download_file.php?fileId=488
- Value Management (Evo) with Scrum development ('Bring' Case), March 2010 English Version , Kai Gilb
  - www.gilb.com/tiki-download_file.php?fileId=277

Extra Slides for More Detail

Continuous Deployment
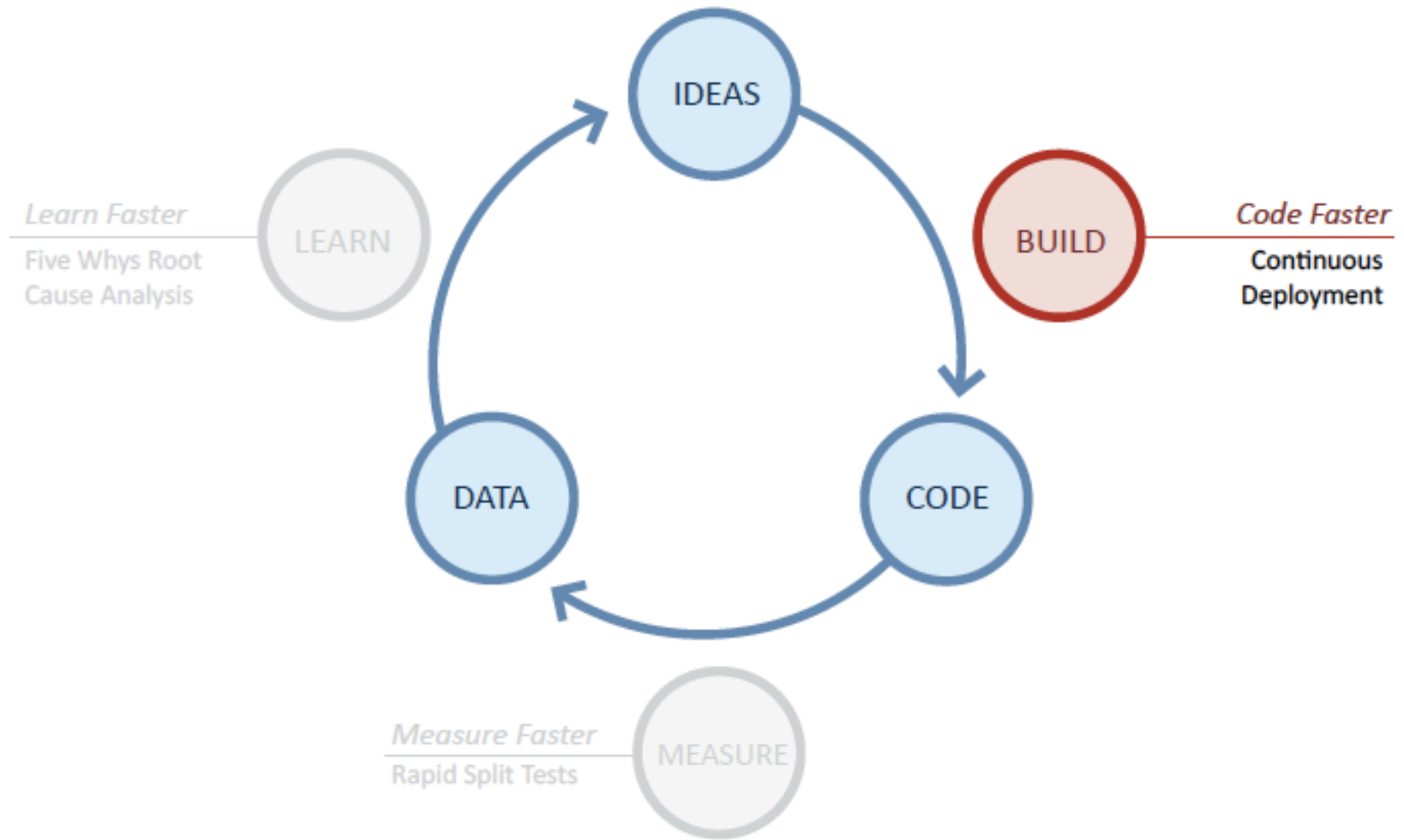
Cluster Immune System

What it looks like to ship one piece of code to production:

- Run tests locally (SimpleTest, Selenium)
  - Everyone has a complete sandbox

- Continuous Integration Server (BuildBot)
  - All tests must pass or "shut down the line"
  - Automatic feedback if the team is going too fast

- Incremental deploy
  - Monitor cluster and business metrics in real-time
  - Reject changes that move metrics out-of-bounds

- Alerting & Predictive monitoring (Nagios)
  - Monitor all metrics that stakeholders care about
  - If any metric goes out-of-bounds, wake somebody up
  - Use historical trends to predict acceptable bounds

When customers see a failure:
  - Fix the problem for customers
  - Improve your defenses at each level

Measure Faster: Rapid Split Tests
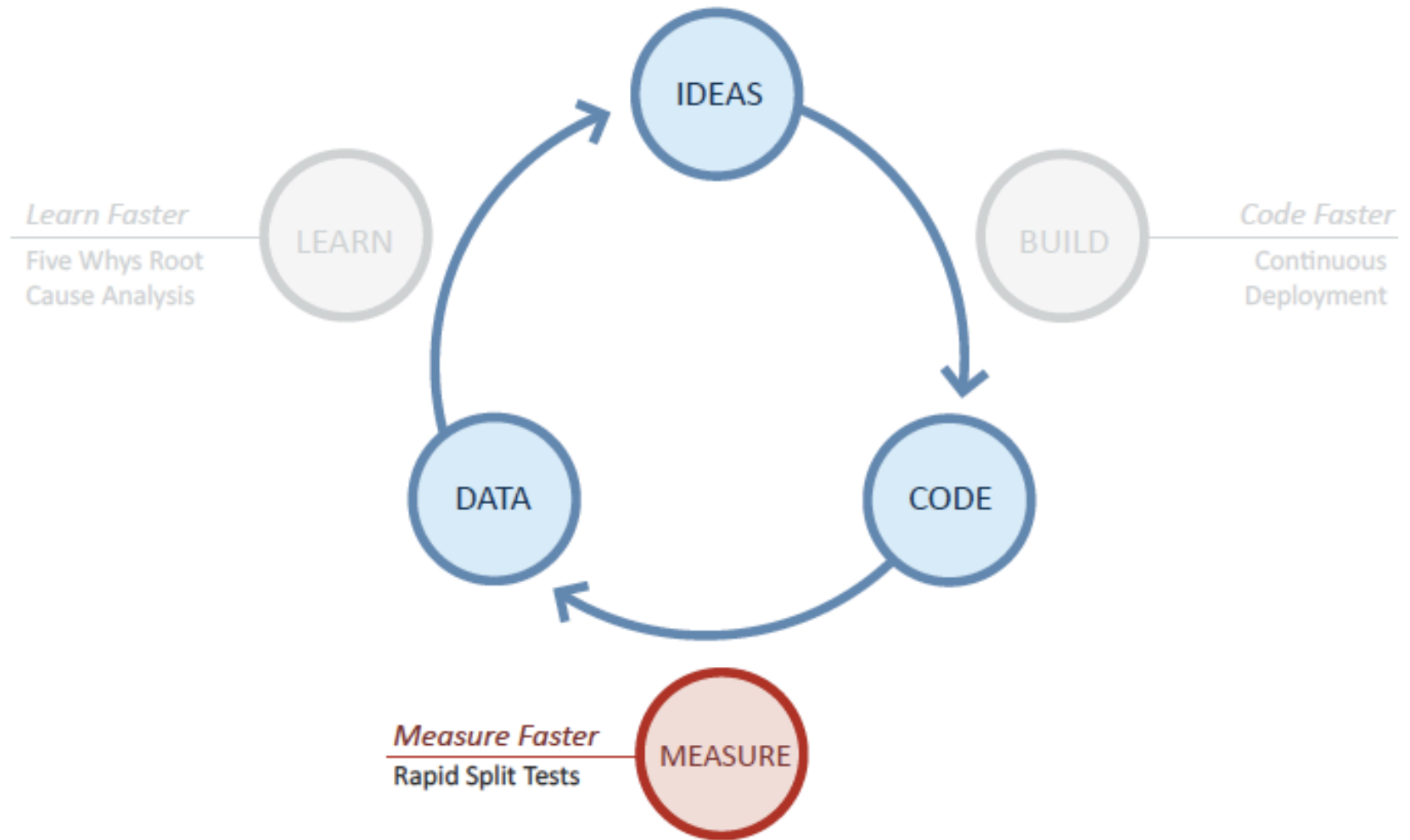
Split-testing all the time

- A/B testing is key to validating your hypotheses

- Has to be simple enough for everyone to use and understand it

- Make creating a split-test no more than *one line of code:*

```
if( setup_experiment(...) == "control" ) {
    // do it the old way
} else {
    // do it the new way
}
```

Metrics Qualities

The AAA's of Metrics

- Actionable
- Accessible
- Auditable

Measure the macro

- Always look at cohort-based metrics over time
- Split-test the small, measure the large

	Control Group (A)	Experiment (B)
# Registered	1025	1099
Downloads	755 (73%)	733 (67%)
Active days 0-1	600 (58%)	650 (59%)
Active days 1-3	500 (48%)	545 (49%)
Active days 3-10	300 (29%)	330 (30%)
Active days 10-30	250 (24%)	290 (26%)
Total Revenue	$3210.50	$3450.10
RPU	$3.13	$3.14

5 Whys

Lean Startup