COMBINING DESIGN AND DEVELOPMENT

TOBIAS HILDENBRAND | SAP AG | 28 NOVEMBER 2012

WHAT DOES SAP DO?

Our customers manufacture more than **77,000** automobiles per day.

Our customers produce more than **72%** of the world's beer.

Our customers produce more than **86%** of the world's athletic footwear.

Our customers produce more than **70%** of the world's chocolate.

Our customers produce more than **9 million tons** of the world's cheese.

SAP customers represent **85%** of the Top 100 most valued brands in the world.

WHERE DO WE COME FROM?

Foundation of SAP

Software Development Lifecycle (SDLC 1.0)

Product Innovation Lifecycle (PIL 1.0)

White/ Yellow/ Blue Process Standards

1972   1980   1990   2000   2003   2006   2008   2010

**Project-based development together with customers and „developer-consultants"**

Solution Development Lifecycle (SDLC 2.0)

Product Innovation Lifecycle (PIL 2.0)

LEAN / Agile Software Product Development

Source: SAP

40 YEARS OF SAP…

Analyze

Design

Code

Test

Fear of delivery

Year 1   Year 2   Year 3   Year 4
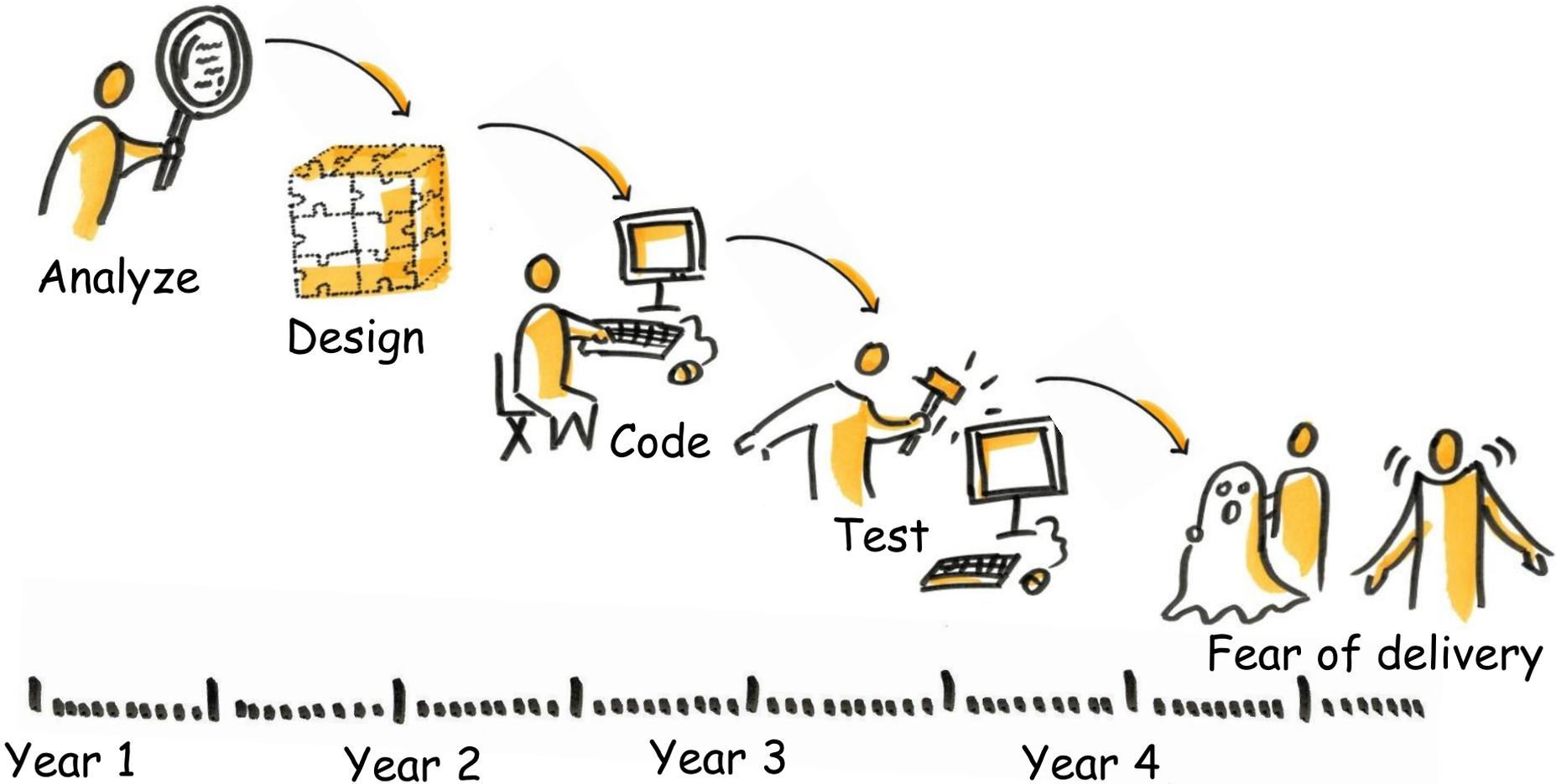
THE WATERFALL – A BUREAUCRATIC APPROACH

Idea

Whitepaper
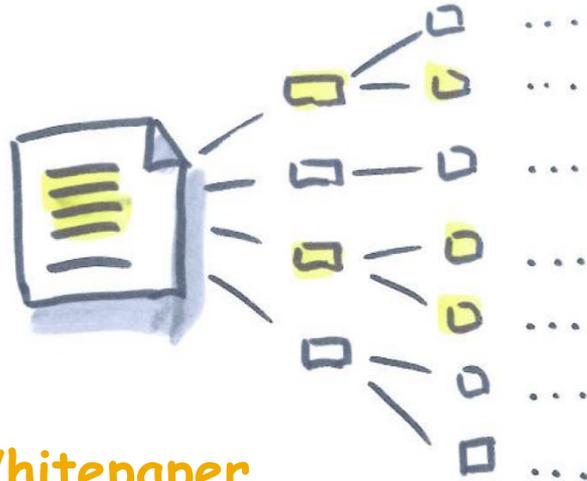
Detailed Specification
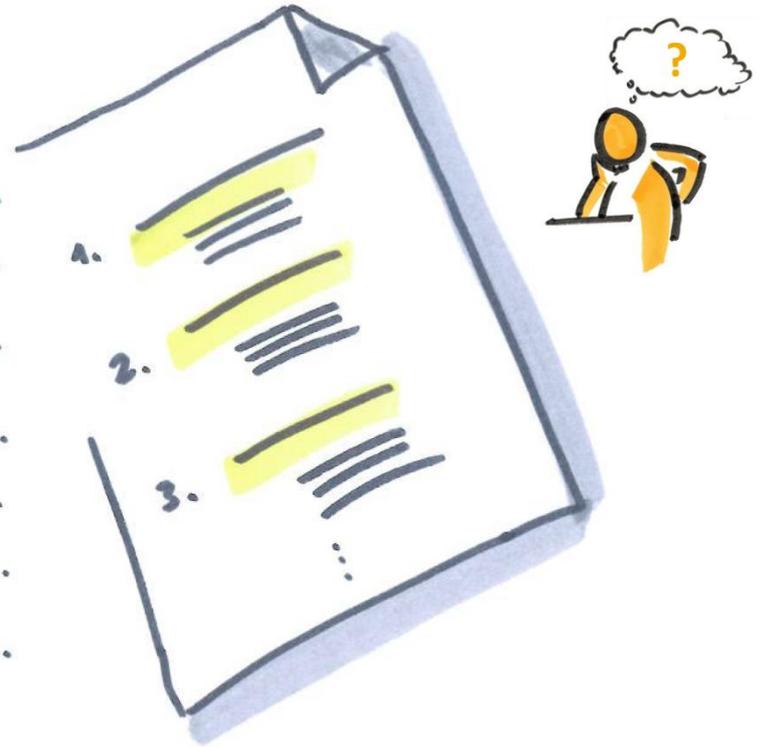
SCIENTIFIC ANALYSIS – A "STRAIGHT-FORWARD" WAY

WHERE ARE WE TODAY?

Scrum Teams

sprint backlog

release backlog

product backlog
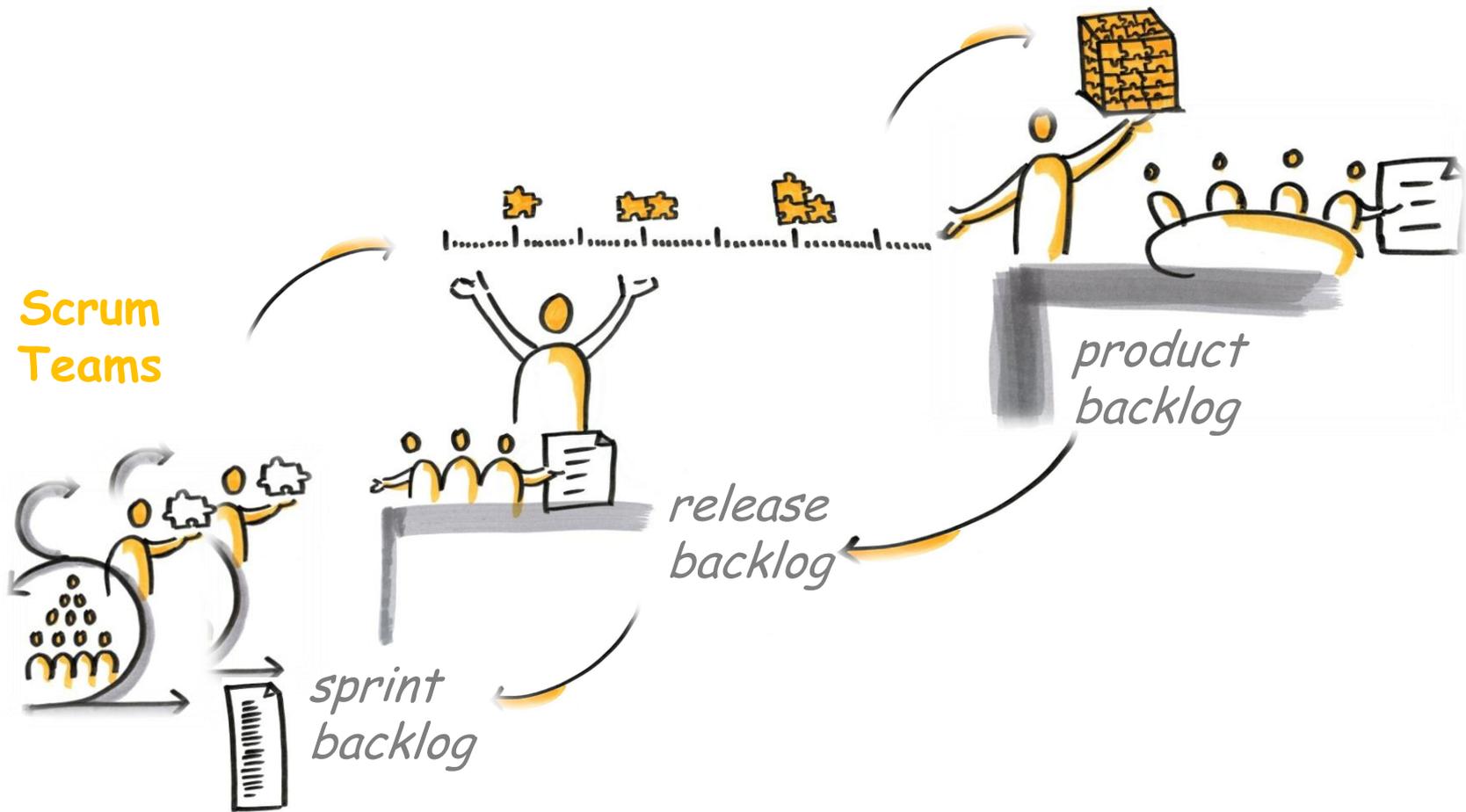
OUR DELIVERY IS MORE RELIABLE AND EFFICIENT TODAY
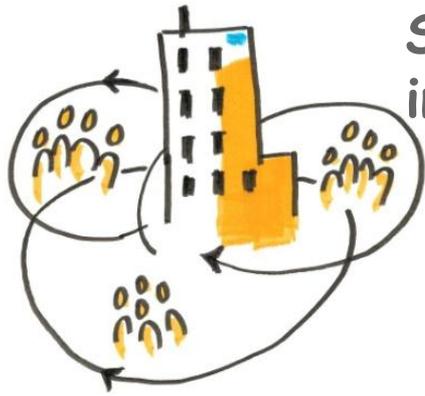
Split organization into teams

Split work

Split time

Deliver more frequently

Risk

Risk

Retrospectives

**SCRUM REDUCES PROJECT RISKS DRAMATICALLY**

2. Partnership

3. Mutual Trust
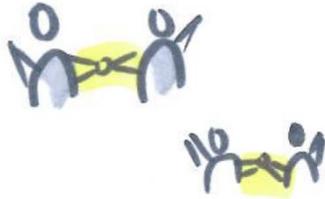
1. Personal
Responsibility

3. Shared Purpose

5. Collaboration
Mindset

SCRUM IS PEOPLE-CENTRIC AND FOSTERS COLLABORATION
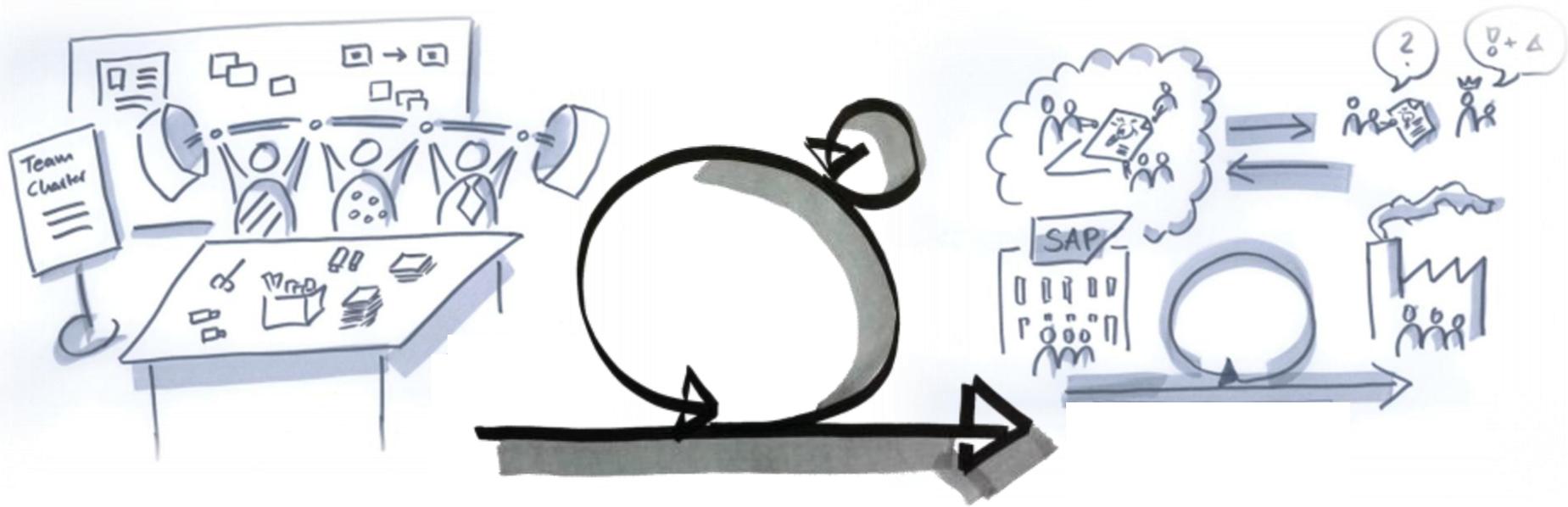
SCRUM IMPLEMENTS MOST PRINCIPLES OF LEAN

Automotive/ Manufacturing

**Software/ Development**

Enterprise level

JIT Principles

9 Core Elements

Adapt

Adapt

Understand

Learn, implement, and change
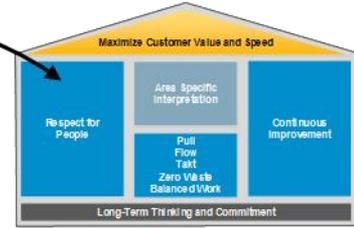
Learn, implement, and change

SAP BUSINESS SUITE
SAP NetWeaver
ByDesign™

Shortcut not possible

Shortcut not possible

**…ON THE TEAM LEVEL – LARGE-SCALE LEAN MEANS MORE**
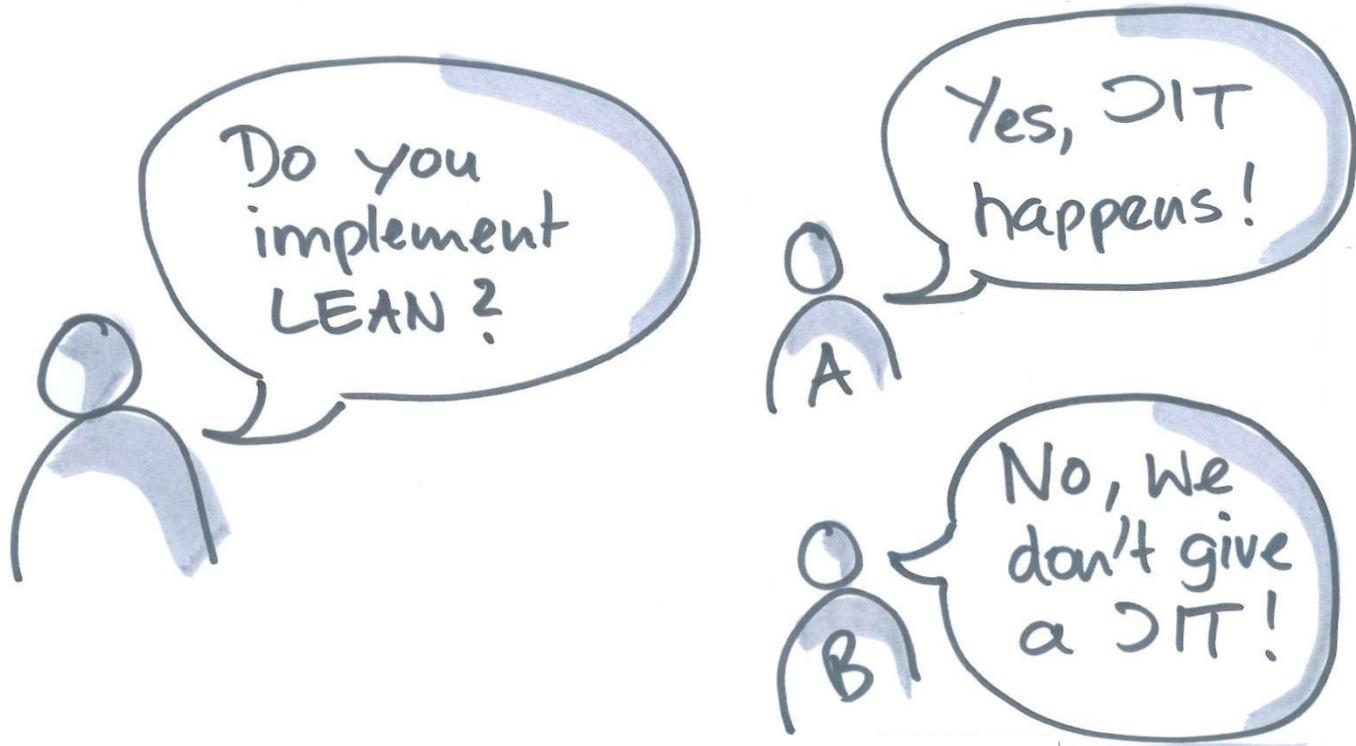
(JIT = Just-in-Time)

HOW DO YOU KNOW WHETHER LEAN WORKS?

HOWEVER, "BUILDING SOMETHING NOBODY WANTS IS THE ULTIMATE FORM OF WASTE." – ERIC RIES (2008)

Feasibility

Viability

Desirability
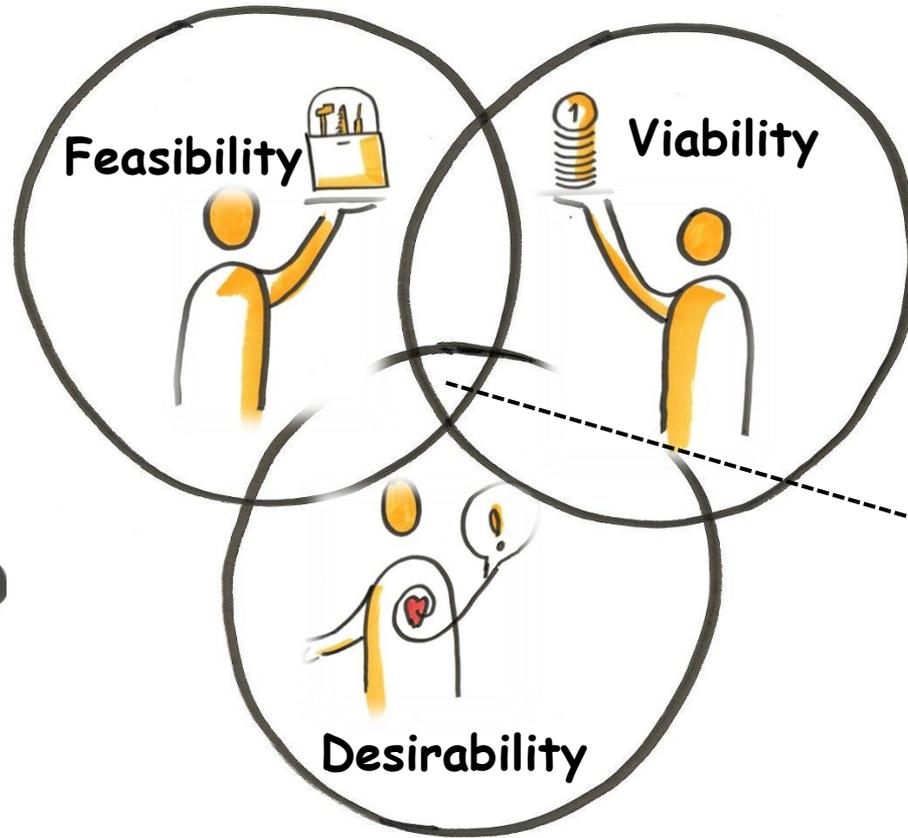
Innovation

BUT, HOW TO HIT THE "SWEET SPOT" OF INNOVATION?

"A DEVELOPER NEEDS TO BE CURIOUS AND ALSO DEVELOP EMPATHY FOR END USERS"

Source: interview with SAP co-founder Hasso Plattner (2012)

© SAP 2012 | 18   **COMPLEMENTING LEAN & AGILE WITH "DESIGN THINKING"**

WHAT IS DESIGN THINKING?

Right People

Required Space

Iterative Approach
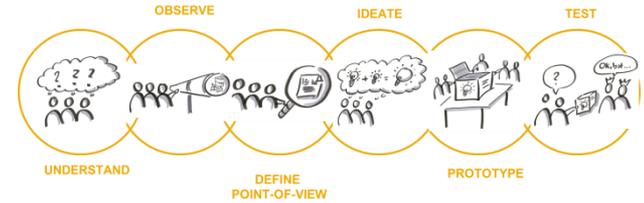
DESIGN THINKING "PREREQUISITES"

Problem Space   # Solution Space

OBSERVE   IDEATE   TEST

UNDERSTAND

DEFINE
POINT-OF-VIEW   PROTOTYPE
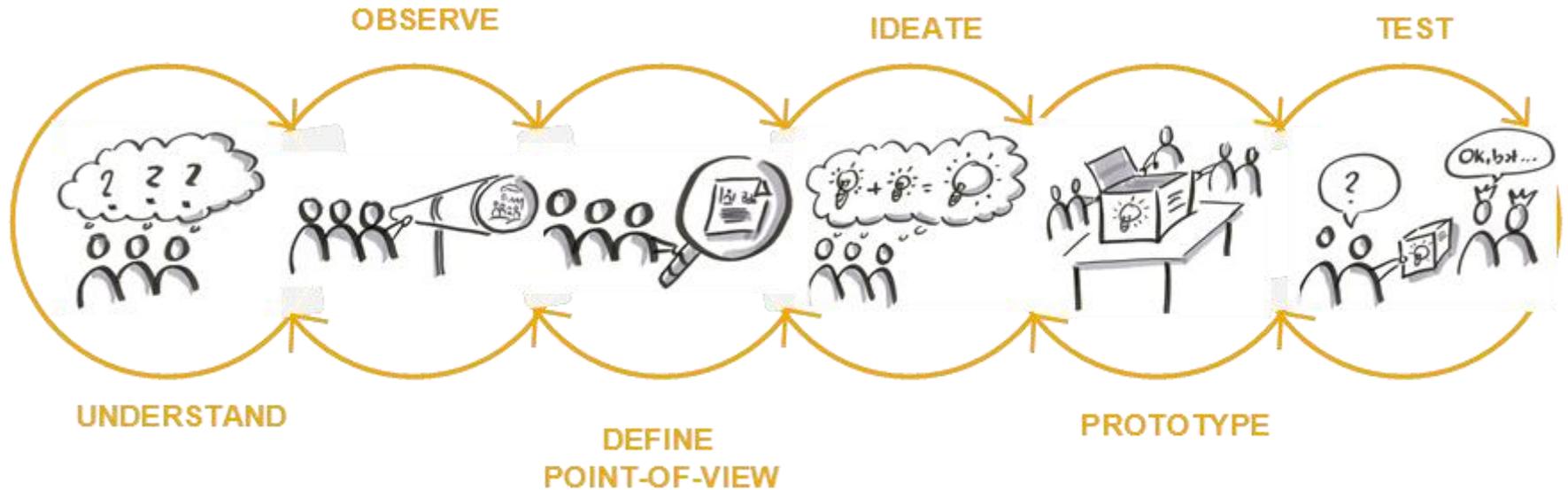
SAP'S ITERATIVE DESIGN THINKING APPROACH
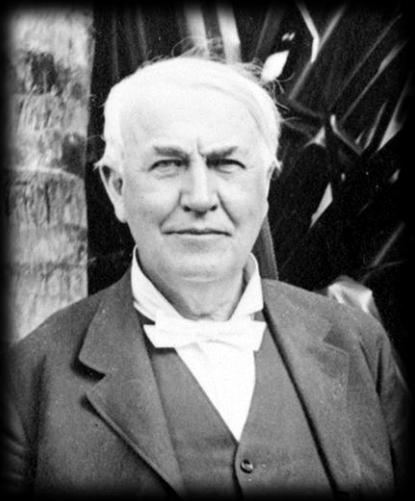
"*What innovation boils down to is one per cent inspiration and ninety-nine per cent perspiration.*"
- Thomas Edison

Implementation

OBSERVE

IDEATE

TEST

UNDERSTAND

DEFINE POINT-OF-VIEW
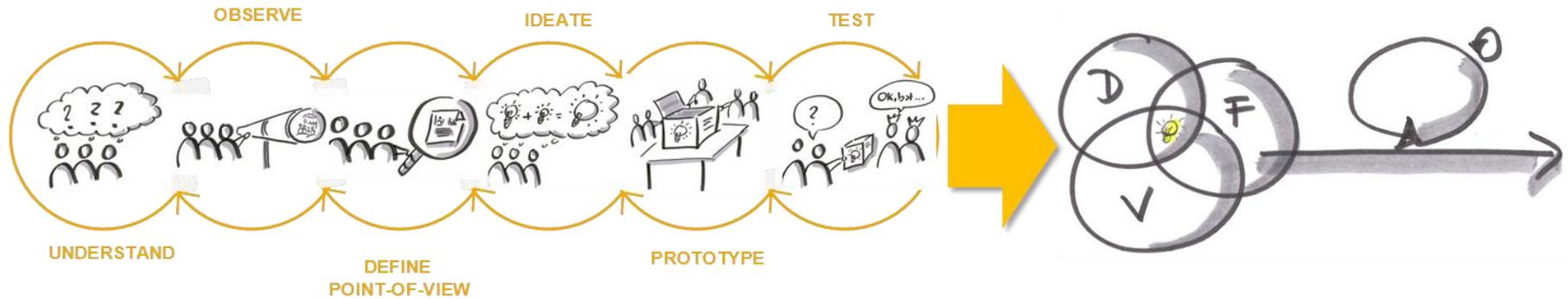
PROTOTYPE

PRODUCT INNOVATION = DESIGN AND DEVELOPMENT

ENTERPRISE SOFTWARE PRODUCT INNOVATION

Feasibility

Viability?

Desirability

Innovation
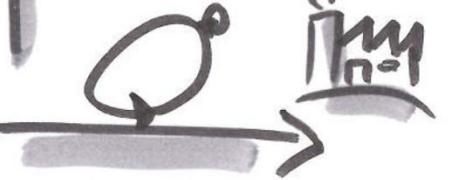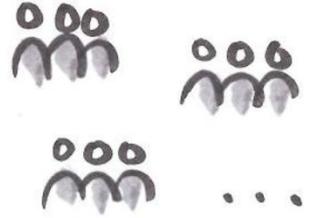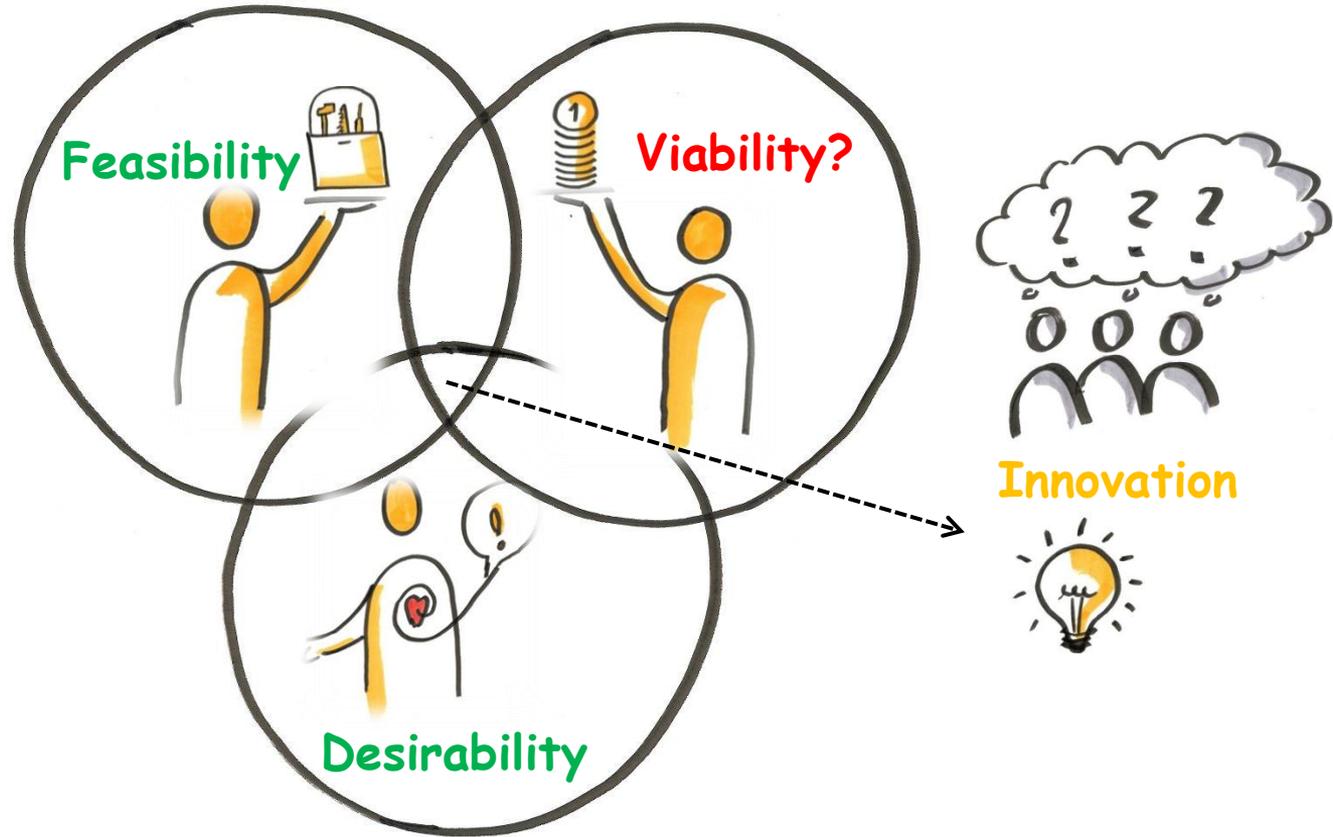
...BUT WHAT ABOUT THE ECONOMIC PERSPECTIVE?

WHAT CAN LARGE ENTERPRISES LEARN FROM STARTUPS ?
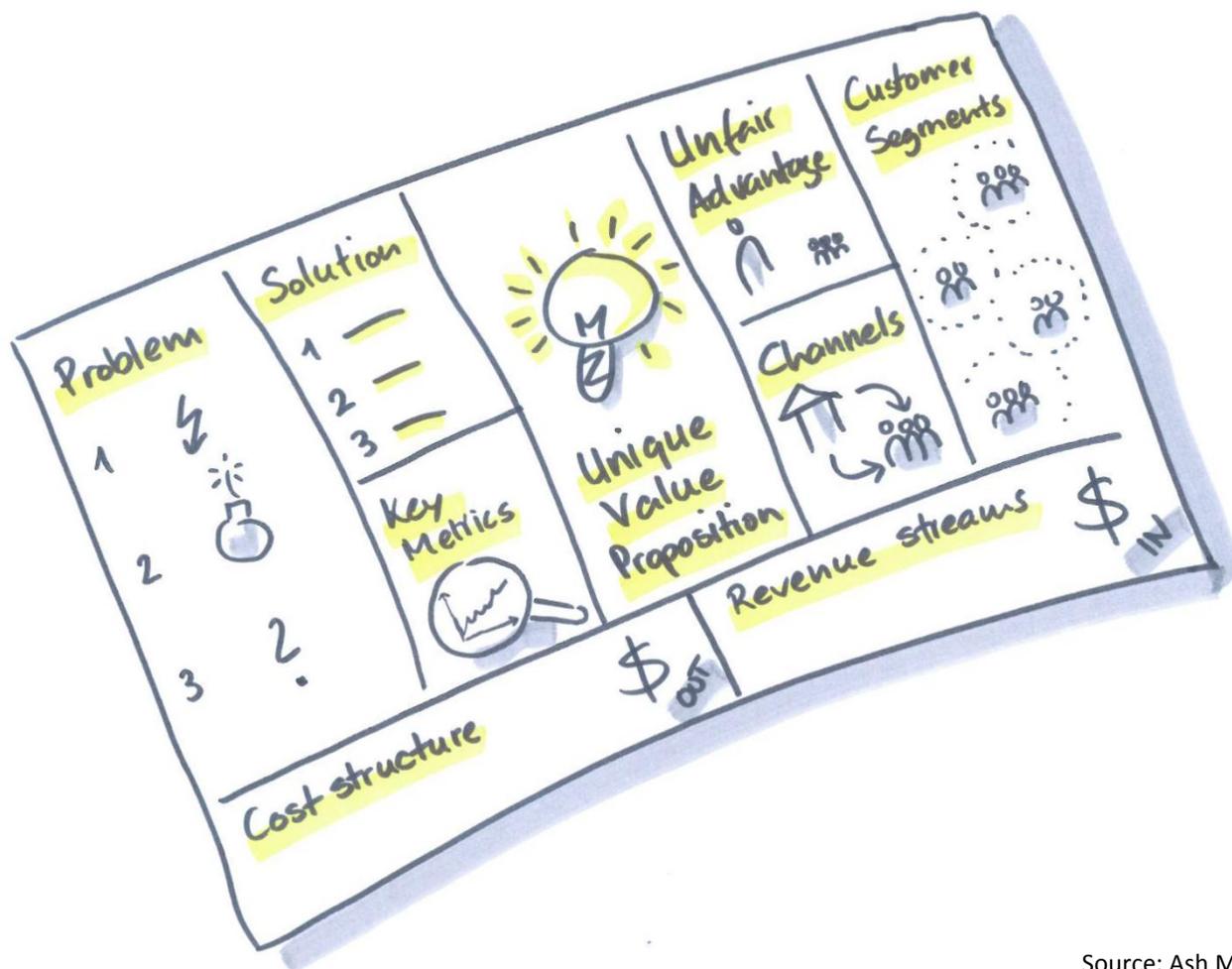
Source: Ash Maurya (2012) – Running Lean

TAKE A ECONOMIC VIEW & TURN ASSUMPTIONS INTO FACTS

LEARN

BUILD

MEASURE

DB
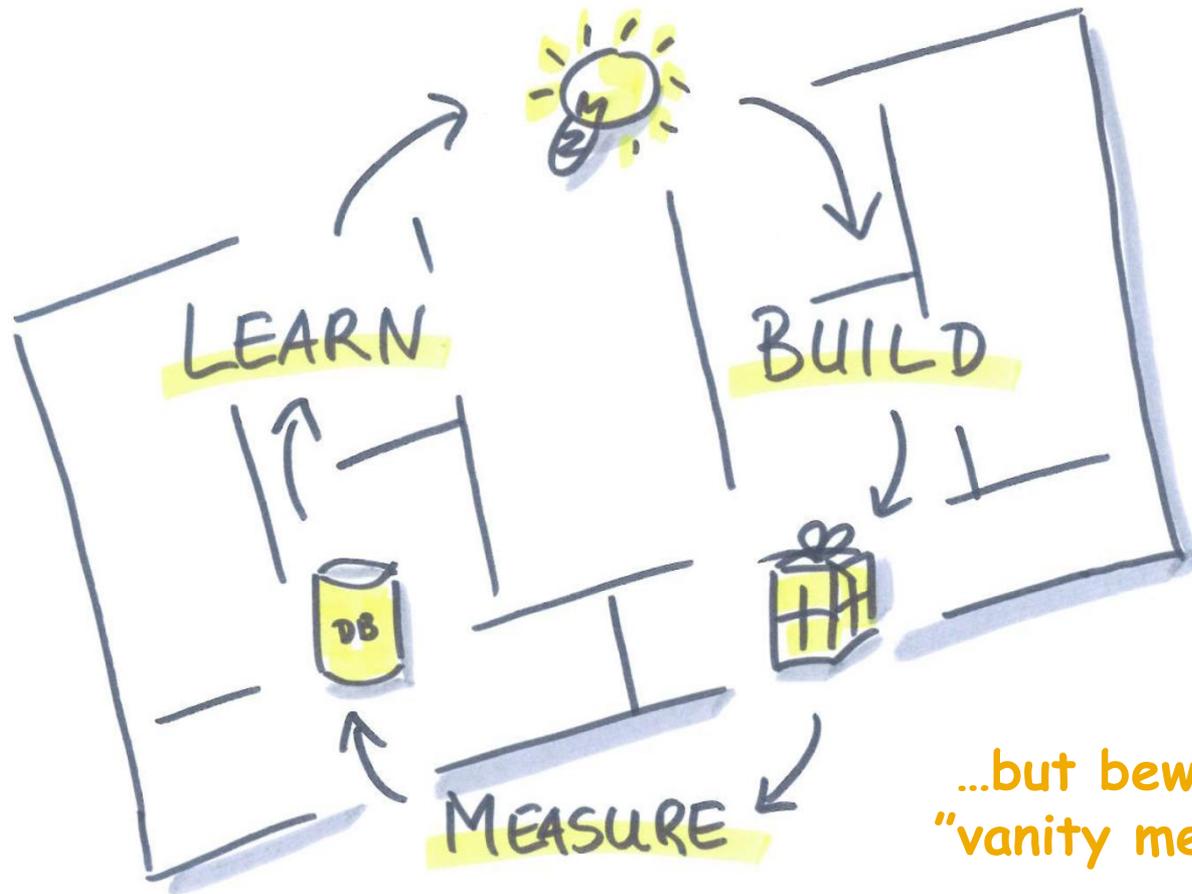
Iterate...

...but beware of "vanity metrics"!

Source: Eric Ries (2011) – The Lean Startup

VALIDATED LEARNING INCLUDING THE ECONOMIC VIEW

Based on: Tim Brown (2009) – Change by Design

**ITERATIVELY CREATING CHOICES AND MAKING CHOICES**
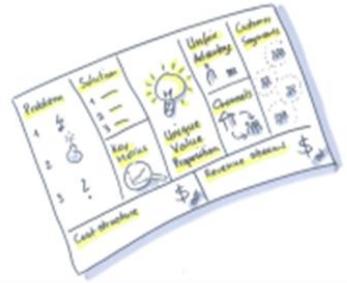
Source: Ash Maurya (2012) – Running Lean

EVOLVE ENTIRE BUSINESS MODELS, NOT JUST PRODUCTS
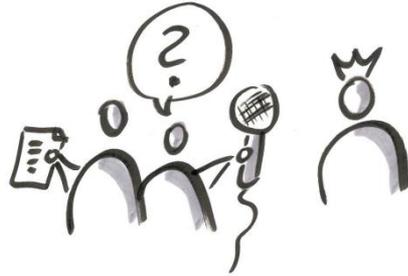
Customer Discovery

Customer Validation
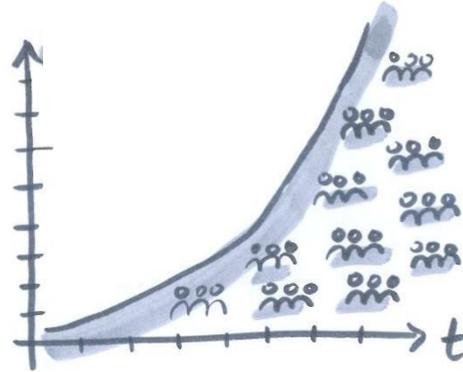
Customer Creation

"Company Building"

OBSERVE

IDEATE

TEST

UNDERSTAND

DEFINE POINT-OF-VIEW

PROTOTYPE
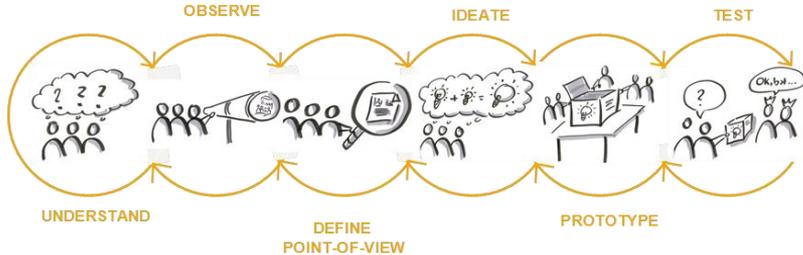
Source: Steve Blank (2012) – The Startup Owners' Manual

EVEN LARGE ENTERPRISES CAN LEARN FROM STARTUPS

CONCLUSIONS – AS OF TODAY…

Design Thinking and Customer Development

Lean and Agile Product Development

- -

Set of shared values and principles

Thank You!

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