

Build the RIGHT thing

린 & 애자일 이야기 @ Pivotal Labs SF

두산중공업 SW개발팀 조인석 과장

빛이 닿지 않는 곳을
우리의 기술로 채워갑니다

지구의 가치를 높이는 기술 두산중공업



제품 생산 활동

엔지니어링



R&D

플랜트 & 기자재 설계

주/단조

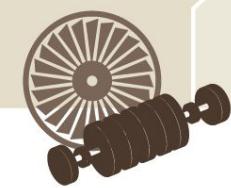


터빈 로터

터빈 Casting

Cask 및 Vessel

기자재 제작



보일러

발전기

스팀터빈

가스터빈

원전주기기

풍력발전

건설



석탄화력발전소

복합화력발전소 등

수처리 설비/해수담수화플랜트

유지보수/성능개선



플랜트/기자재 성능개선

기자재 개/보수

플랜트 운영

Sustainable Activities



자체재산권
개발강화



친환경
제작 건설



산업안전
보건관리



동반성장



고객 만족

- R&D Innovation
- Open Innovation
- 제품 차별화

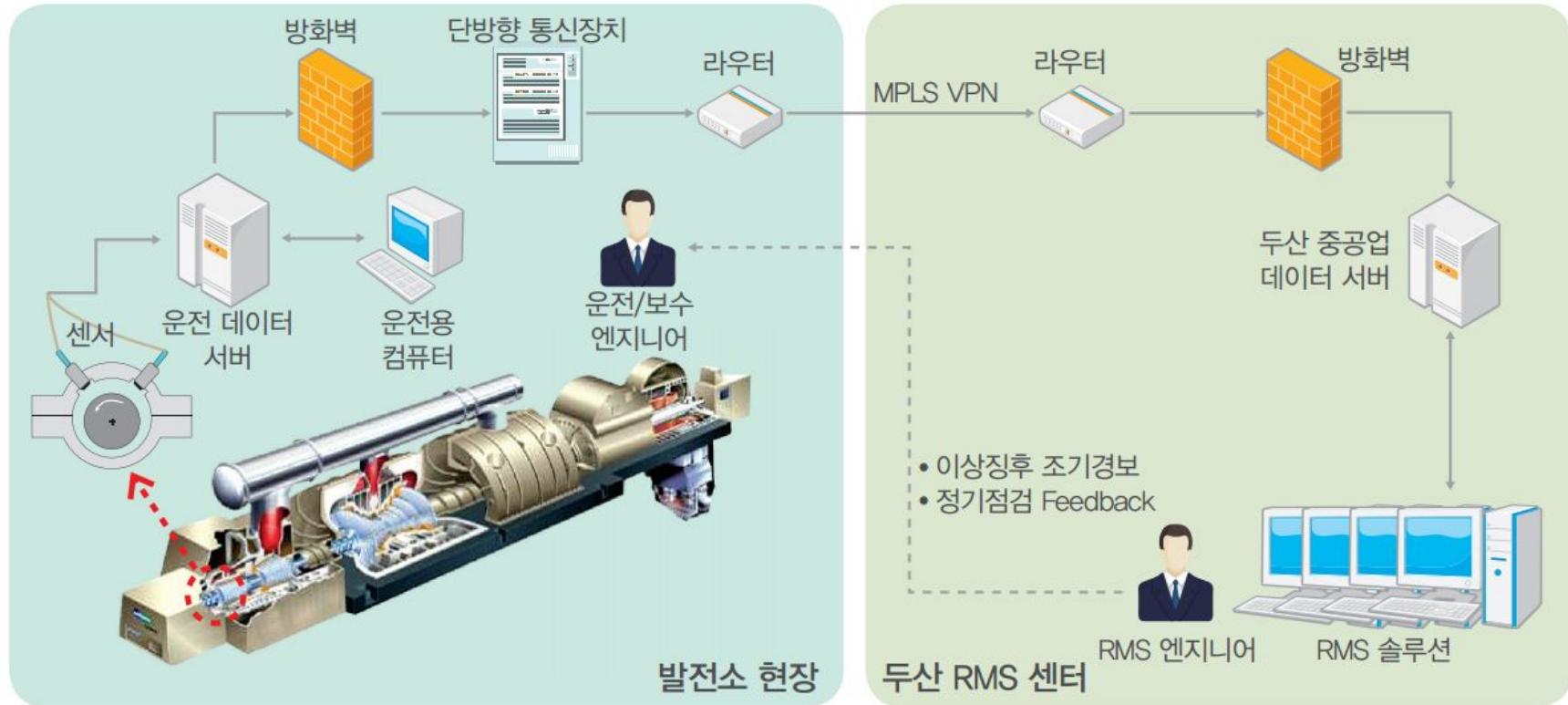
- 에너지 효율개선 및 GHG 감축
- 친환경 제품 및 기술 개발 생산
- 사업장 GHG 저감 활동

- 사업장 안전보건체계 강화
- 안전문화 확산 활동

- 공정거래
- 협력사 에너지효율 진단
- 협력사 CSR촉진

- Sales & Marketing
- Quality Control

원격 모니터링 서비스(Remote Monitoring Service)는 정보통신기술(ICT)을 활용하여 발전플랜트의 운전정보를 시간, 공간의 제약 없이 실시간으로 모니터링/진단하여 고객을 지원하는 서비스이다.

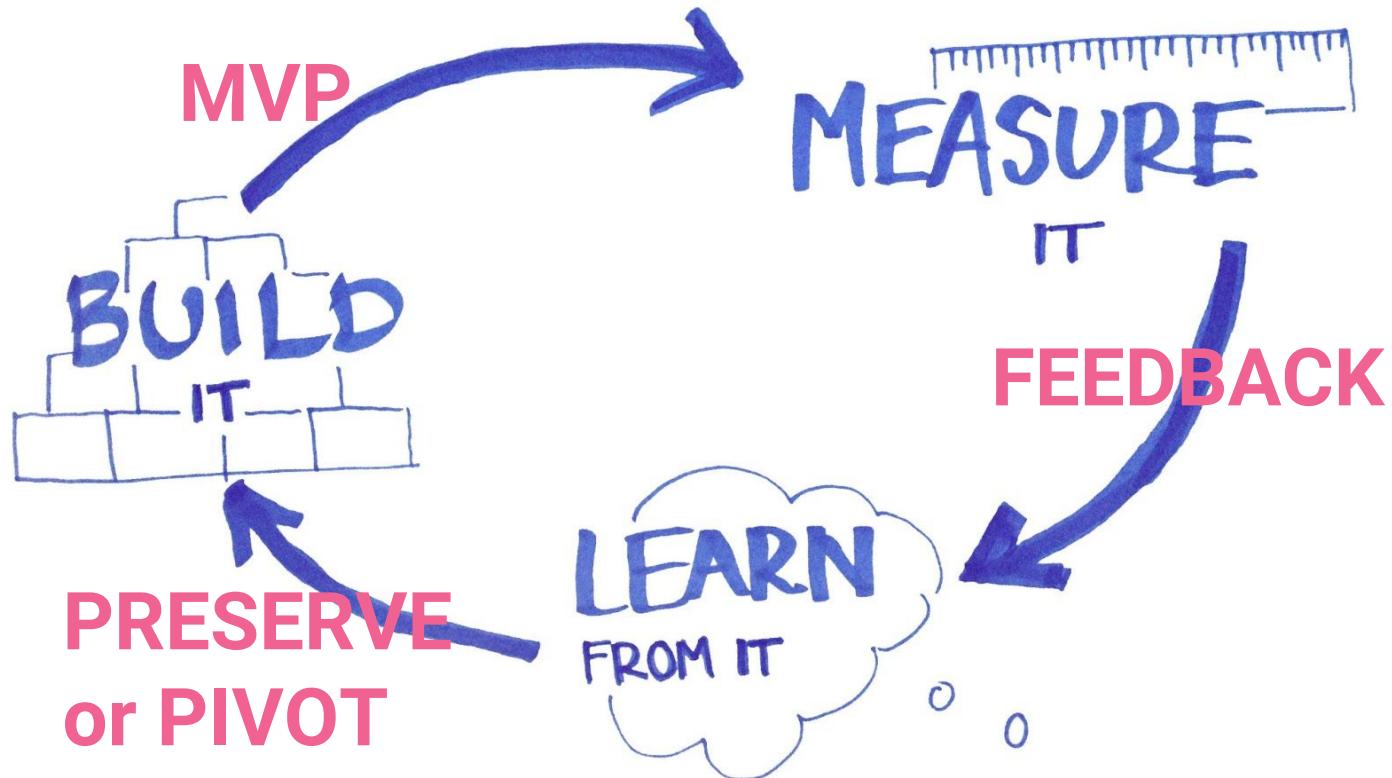


- 
- Intro
 - Pivotal Labs
 - Discovery & Framing
 - Delivery
 - Q & A

AGILE



LEAN STARTUP



BETTER TOGETHER



Pivotal Labs

- Pivotal Labs' slogan
 - Pivotal Labs Process
 - Pivotal Labs Roles
 - Balanced Team
-



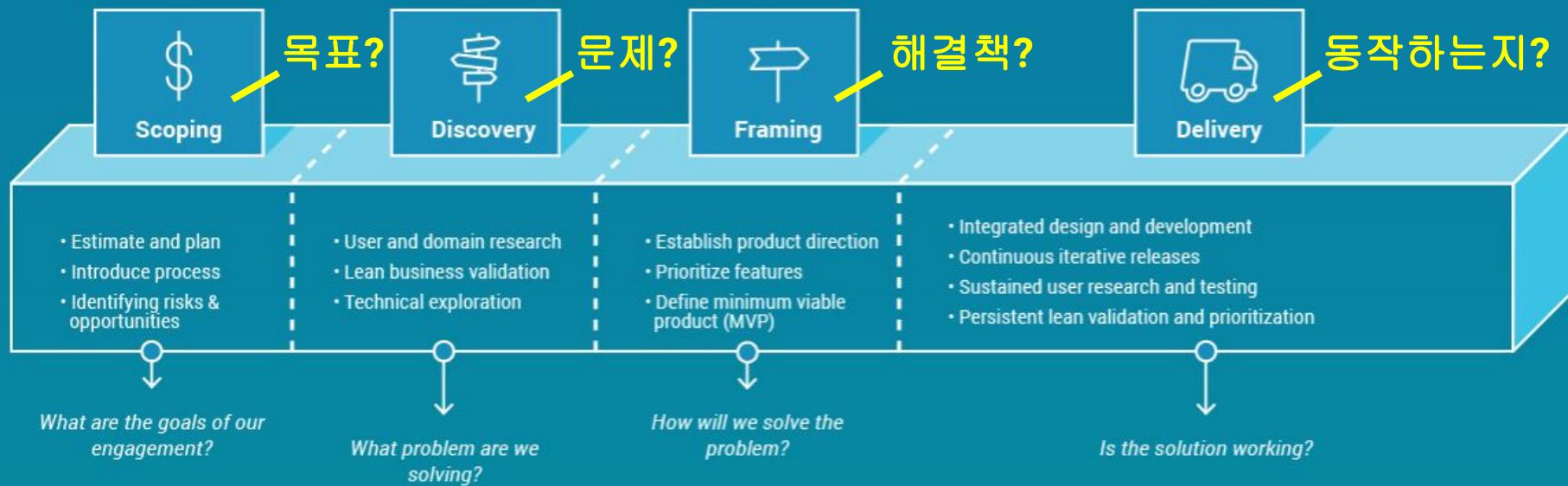
Pivotal **Labs**[®]

We Transform How the World Builds Software

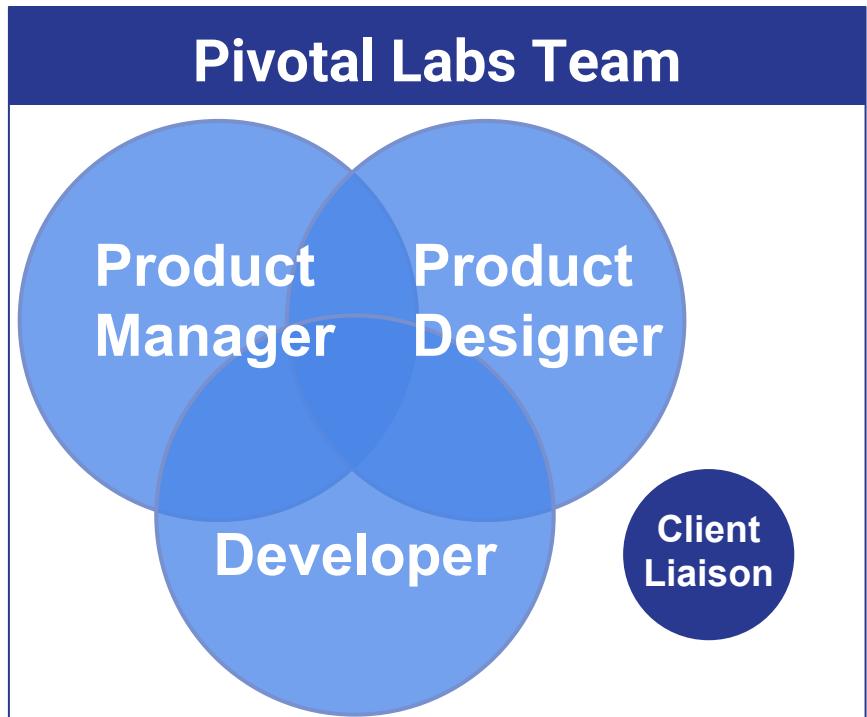
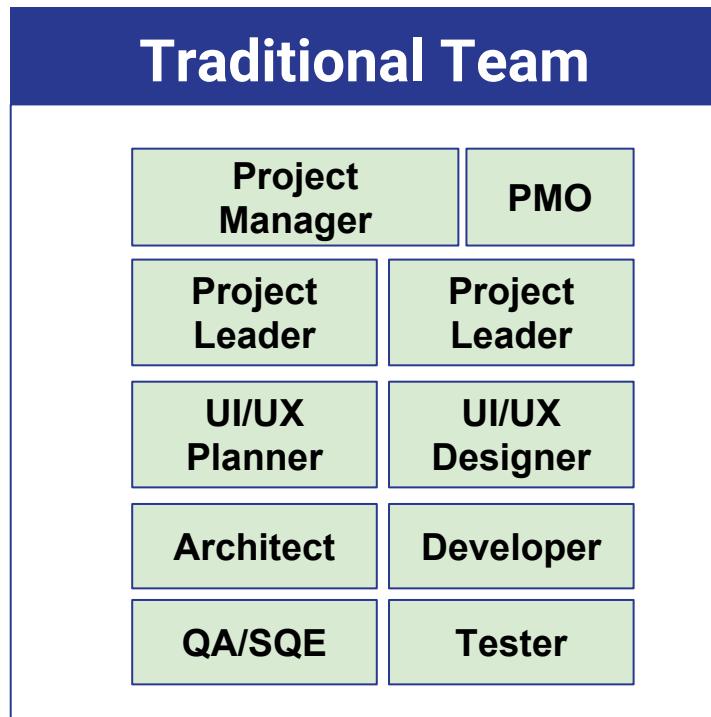
<https://pivotal.io/labs>

Pivotal Labs Process

Build from What You Know, Not What You Think

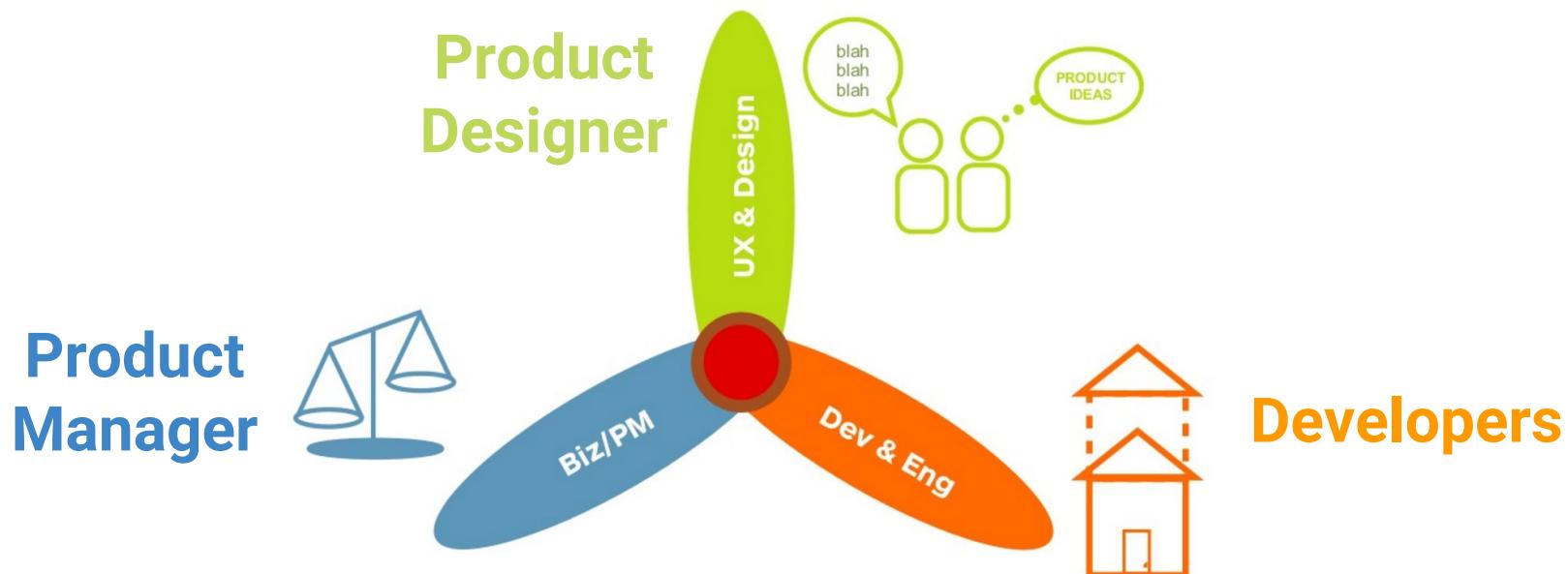


Pivotal Labs Roles



Balanced Team (Shared Ownership)

Designer + PM + DEV = 1 product team



Discovery & Framing

- Persona
 - Business Model Canvas
 - Stakeholder Map
 - Persona Ecosystem Map
 - Scenario
 - Assumptions & Hypothesis
 - Risks
 - Access End-User
 - Interview Synthesis
 - Team Design
-

Persona

- 사용자는 누구인가?
- 알고 있는 사실은?
- R U Ready?

BEHAVIORS

- Commutes 30 minutes by car to the power plant by the sea
- Works an 8 hour shift
- Starts cleaning process at shift start
- Watches boiler status & sensor data on TV monitor in Main Control Room
- Uses monitoring systems on a desktop in the Auxiliary Room
- Reports to a supervisor, works with operators & engineers in field

NEEDS + GOALS

- Wants to keep the plant up & running
- Wants the boiler to run as efficiently as possible
- Wants more detailed boiler temperature data with comparisons to ideal targets
- Wants to clean the boiler when it is most optimal instead of a set schedule
- Wants to know the health of tubing in near real time, because leaks cause downtime

DEMOGRAPHICS

KIM

- Boiler operator at power plant
- 40 years old
- worked for the same plant for 10 years
- lives in downtown
- works in the Main Control Room & AUX room

• has an iPhone for personal use

Business Model Canvas

- 사업모델을 이해하고 있는가?
- 무엇을 놓쳤는가?

CUSTOMER	SOLUTION	ENGINE OF GROWTH	VALUE STREAM & MARKET STAKEHOLDERS	DISTRIBUTION
Who is/are your customer(s)?	What's your solution?	1-Viral Customer make more customers	Who gains value from your business?	Who has a history of successfully connecting with your people en masse?
PROBLEM	VALUEPROP	2-Sticky Customers increase in value over time	Suppliers?	How do you gain access to that?
(Desirability) What problem do they have?	How is it unique and special?	3-Paid Purchase mailing lists, huge ad buys, etc.	Who stands to lose value from your business?	Competitors? Organizations? Disrupted Institutions?
REVENUE	COST	Where does the money come from? How much? How often?	What are the costs associated with running your business?	Operations? Anything unusual?
		(Viability)		

고객이 원하는가?
딜리버리 할 수 있는가?
사업성이 있는가?

Stakeholder Map

- 제품에 영향을 미치는 모든 사람을 관계를 알고 있는가?
 - 각자의 목표를 알고 있는가?

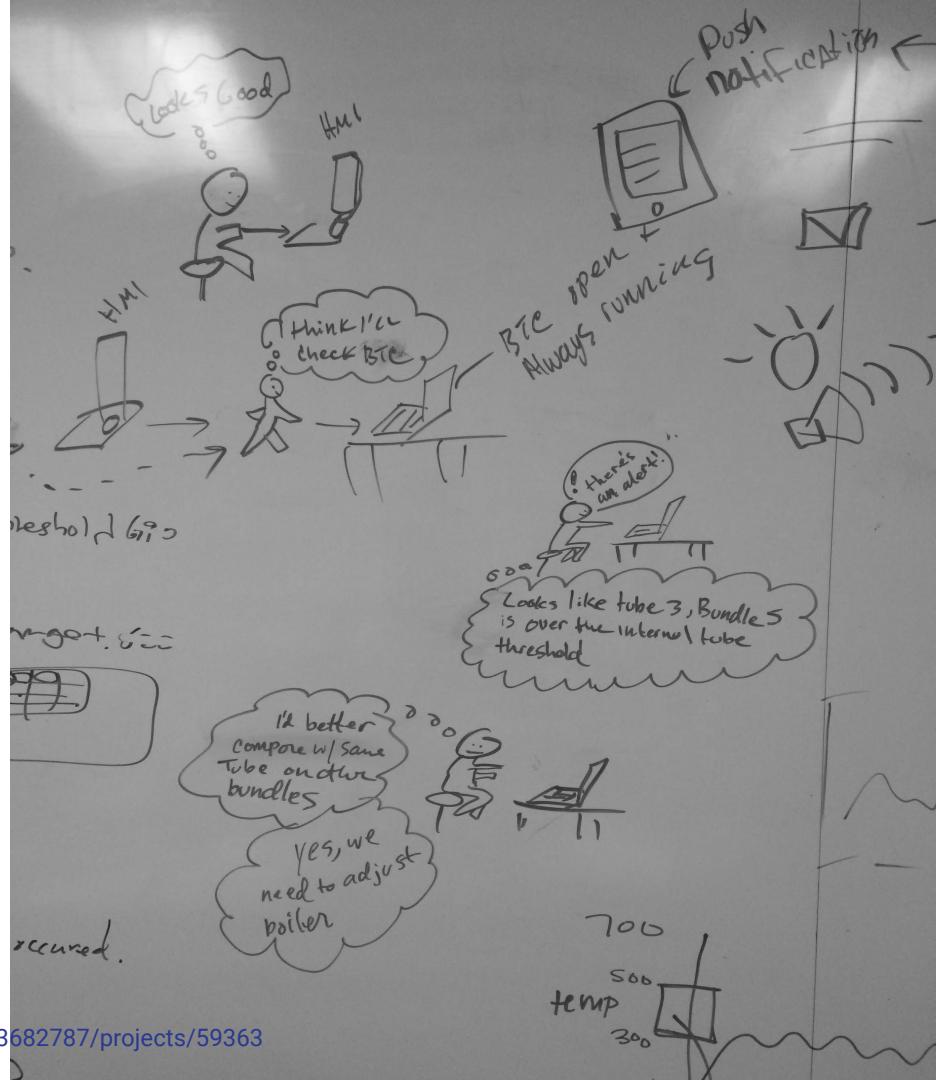
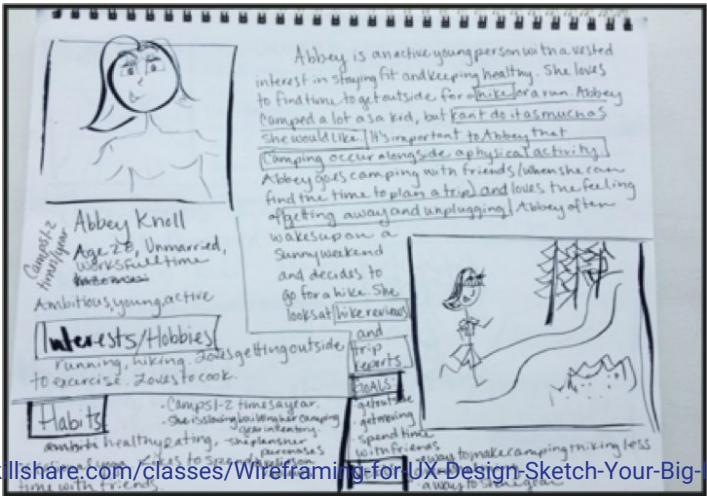
Persona Ecosystem Map

- 페르소나(사용자)가 제품을 사용하는 데 영향을 미치는 생태계를 이해하고 있는가?



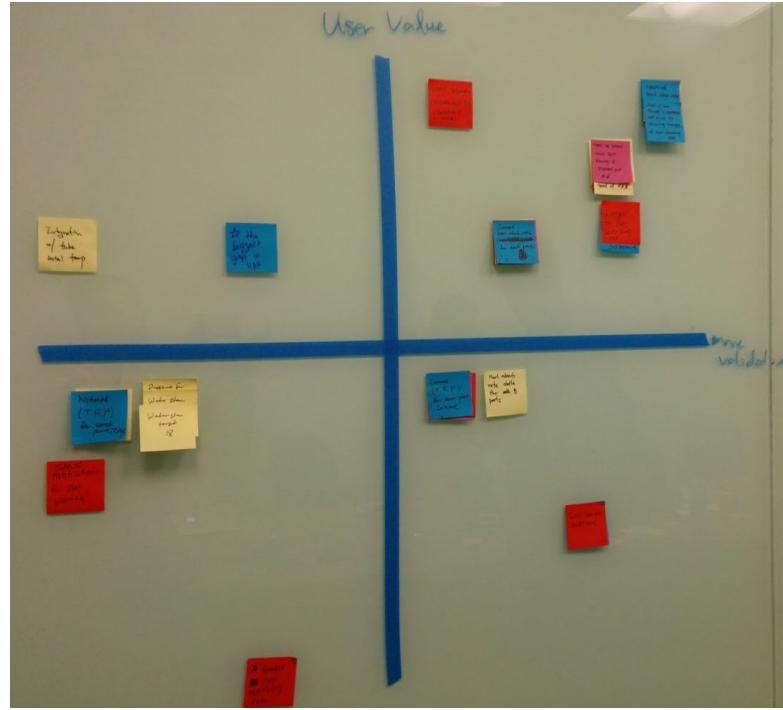
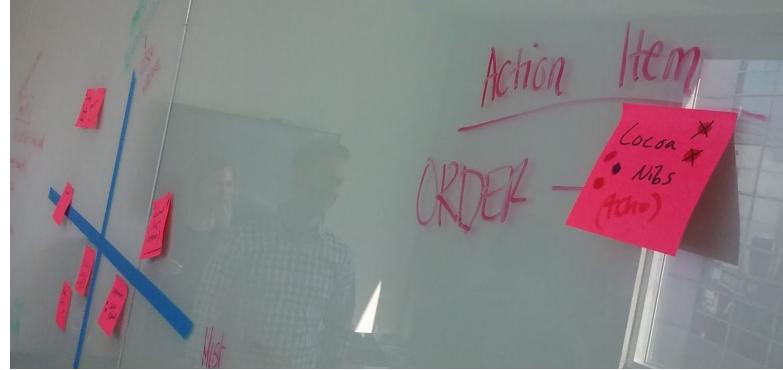
Scenario

- 사용자가 제품을 사용하는 Happy Path는?
- MVP 기본 시나리오 도출!!



Assumptions & Hypothesis

- 각자 10개 이상 적기
- 우선순위 선정 (투표)
- 조별 취합 및 투표
- 전체 취합 및 선택

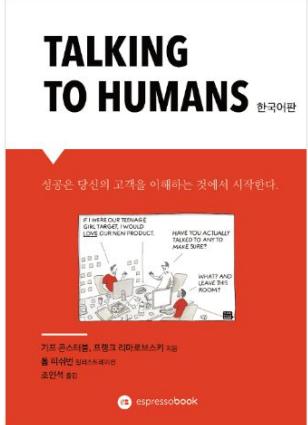


가정(Validation) → 검증(Verification)

가설(Hypothesis) → 실험(Experiment)

위험(Risk) → 관리(Management)

Access End-User

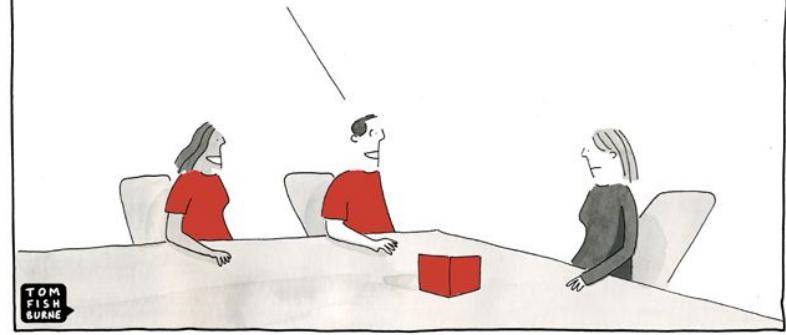


- 누구를 만날것인가?
- 무엇을 배울것인가?
- 어떻게 질문할것인가?
- 어떻게 이해할것인가?

<http://espressobook.com/books/428>



BE COMPLETELY HONEST AND TELL US WHAT YOU THINK OF THIS PRODUCT THAT WE'VE SLAVED OVER NIGHTS AND WEEKENDS WITHOUT SLEEP OR A SALARY BECAUSE WE THINK IT'S SUCH A COOL IDEA.



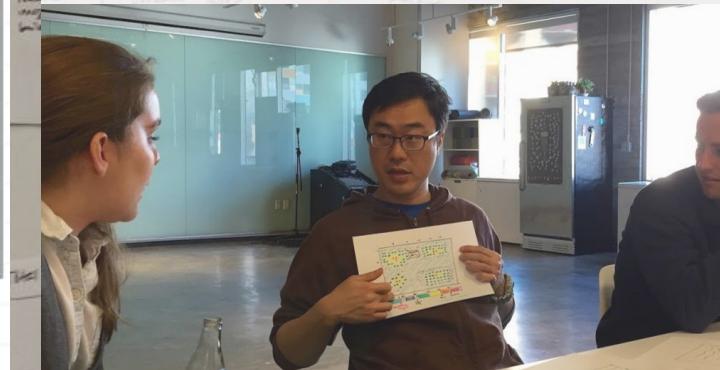
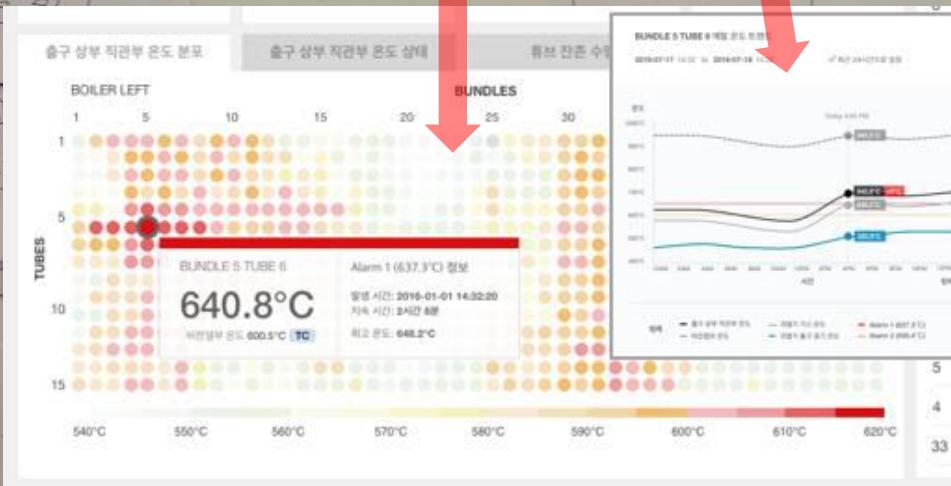
Synthesis (공유)

- 인터뷰 직후에 바로!
- Action Items 도출
- Learn! Learn! Learn!



Team Design

ALL TOGETHER!!

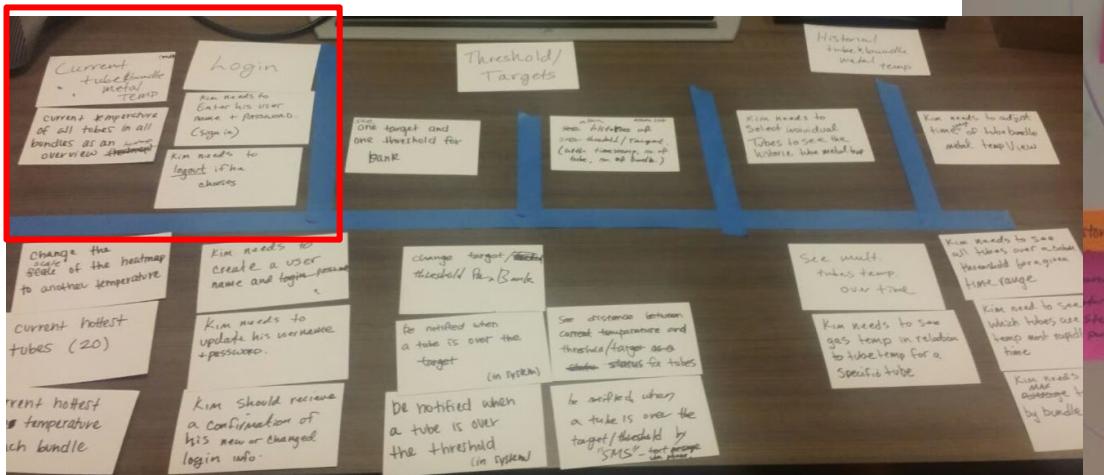


Delivery

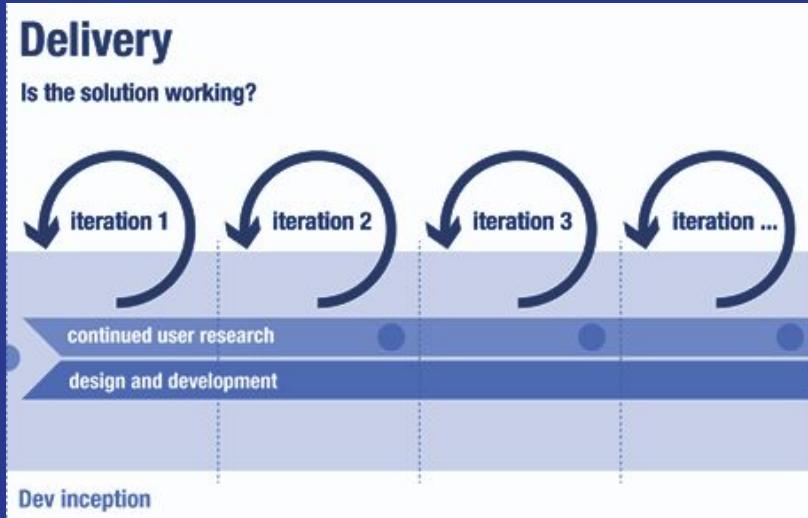
- **Development Inception**
 - **Development Process**
 - **User Story Writing**
 - **IPM**
 - **Paring**
 - **Retro.**
-

Dev Inceptions

- D & F 결과 재방문
 - 핵심 기능 선택
 - MVP 정의



Dev. Process



- MVP 정의 (ALL)
- UI/UX 와이어프레임 검증 (PD)
- 사용자 스토리 작성 (PM)
- IPM Iteration Planning Meeting (ALL)
- 구현 (DEV)
- 인수 테스트 (PM)
- Retro. (ALL)

User Story Writing

By PM on PivotalTracker

The screenshot shows the Pivotal Tracker application interface. On the left is the sidebar with project navigation. The main area has three boards:

- Current:** Contains 8 stories. Stories include: "Editing 'New' Ingredients (CB)" (Accept/Reject buttons), "Menu: Build Menu interface (CB)" (Deliver button), "Ingredient: Add (CB)" (Finish button), "Clicking save on /member/index (CB)" (Accept/Reject buttons), "Improved recipe search (RM)" (Finish button), "Menu: Shopping List (CB)" (Finish button), "Request ownership of handle (RM)" (Start button).
- Backlog:** Contains 7 stories. Stories include: "Payment processing cron task (RM)" (Start button), "View Recipe without Profile Set Up (CB)" (Initial launch), "Add auto-complete to class.php (CB)" (Start button), "Membership teasers (CB)" (Initial launch), "Rutabagas are delicious (ingredient add issue)" (Start button), "Diet UX Revisions (CB)" (Start button), "View Ingredient: Serving Size Recalculate (CB)" (Initial launch).
- Icebox:** Contains 11 stories. Stories include: "Simplify/change prep/cook/active/inactive time (RM)" (Start button), "Graphic viz to show on recipe a graphic (RM)" (Start button), "Check into balance_ratio calculations (CB)" (Start button), "Shrink Header on Inner Pages (CB)" (Start button), "Recipe delete refresh phase 2" (Start button), "Improve recipe/builder button UX (RM)" (Start button), "Ingredient Taxonomy (RM)" (Start button), "Stripe - handle credit card renewals (RM)" (Start button).

Title: [Persona name] should (not) be able to [overarching action]

ID #115467951 Close

STORY TYPE Feature

POINTS Unestimated

STATE Start Unscheduled

REQUESTER RJ Ryan Jones

OWNERS <none> +

FOLLOW THIS STORY (1 follower) Updated: 15 Mar 2016, 11:24am

DESCRIPTION (edit)

Business/User Value: As [persona] I want to [action by user] so that [value or need met]

Acceptance Criteria:

GIVEN [necessary context and preconditions for story]

WHEN [action]

THEN [reaction]

DEV NOTES

[Relevant technical notes that developers may ask you to add to the story during weekly prep meeting (pre-IPM or IPM); sometimes they may add these themselves or add them as tasks]

DESIGN Notes

[prototype / design link inserted here; linking to a folder of a feature is good so designers can continue updating designs without anyone having to re-update the links to each design in the stories]

--other items that you may add to a story---

NEEDS PM

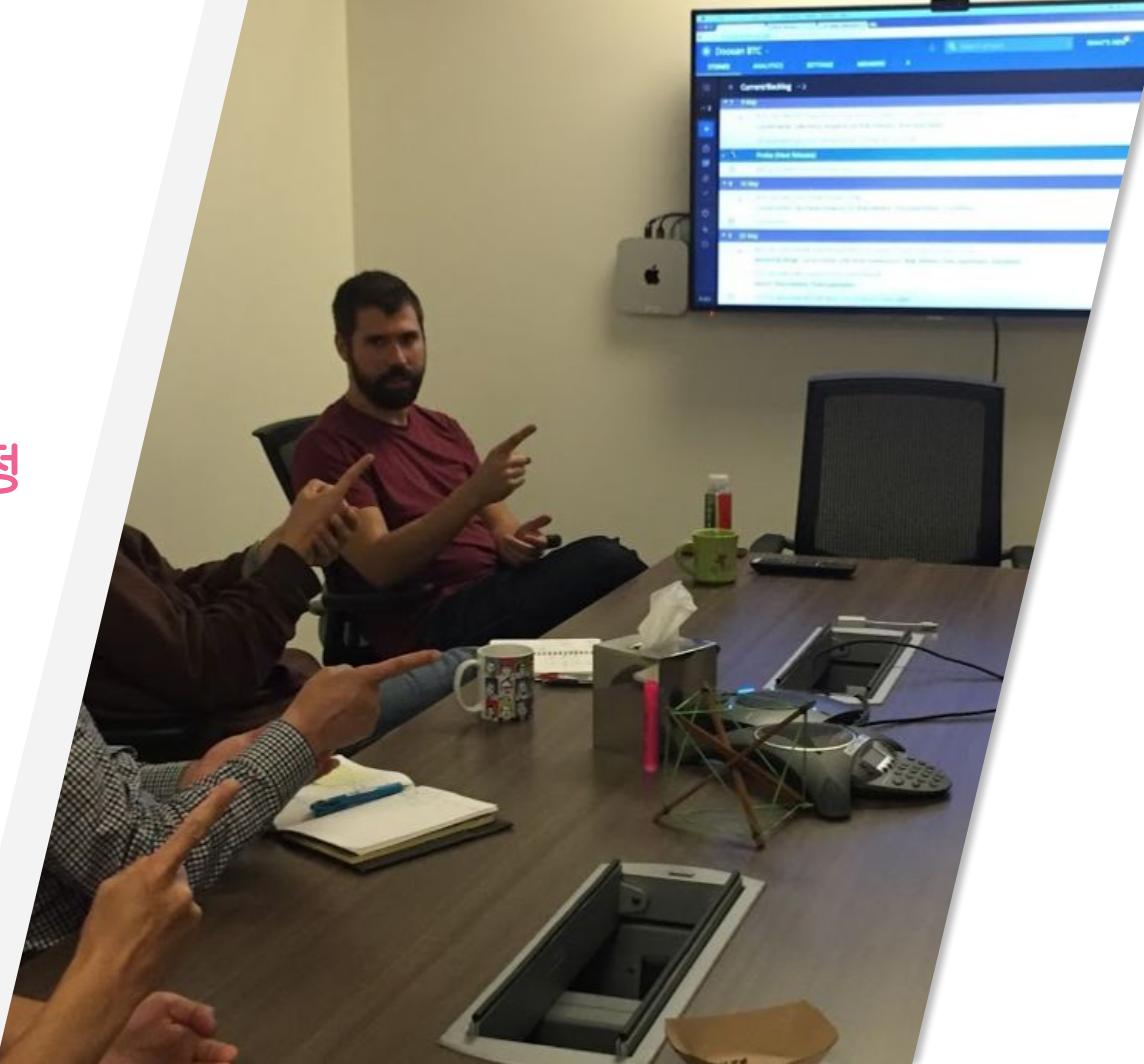
[Add reason for adding a label needs PM so you can view the story and remember context to unlock the story; usually this is some kind of thing we need to follow up with our client counterpart on]

NEEDS DESIGN

[Add reason for adding a label needs design so your designers can view the story and get context to unlock the story]

IPM

- 2~3주 치 백로그만 추정
- 개발자만 추정 참여
- 구현 복잡도 0, 1, 2, 3
- 3은 다시 분해





Pairing w/ every one
TDD w/ every code

Retro.

- :) :\ :<
- Action Item 도출
- 매주 Action Item
수행 유무 확인



Product Manager



Product Designer



화면 디자인

Developers



IDE



소스형상



빌드(Gradle)



CI



테스트



Pivotal Web Services

운영환경



FLUX



RxJS



Lodash



D3.js



webpack



Java 8



Spring Boot

ALL



t



메신저 블로그 일정관리 문서관리



ZEPLIN

스타일 가이드

KEY MESSAGE



왜? 왜?
왜? 왜?



<http://www.ndtv.com/india-news/government-targets-giving-contracts-for-25-000-kilometres-of-roads-this-year-1397589>



HAVE FUN !!!

Q & A

Thank you



조 인 석 (**Chris Cho**)

insuk.cho@doosan.com

<https://www.facebook.com/insuk.chris.cho>

<https://www.brunch.co.kr/@insuk>

참고하세요

기술이 세상을 이롭게 변화시킨다1

애자일과 린, 그리고 워터폴

더 나은 소프트웨어 개발 문화 만들기

by 조인석 chris · May 29, 2016

<https://brunch.co.kr/@insuk/17>

기술이 세상을 이롭게 변화시킨다1

애자일 실천 사례 – XP 편

Pivotal Labs SF에서 살펴본 SW 개발 문화 이야기

by 조인석 chris · Sep 28, 2016

<https://brunch.co.kr/@insuk/15>

<https://leanpub.com/leanproduct>

The Lean Product Guide

A practitioner's guide to building viable products customers love.

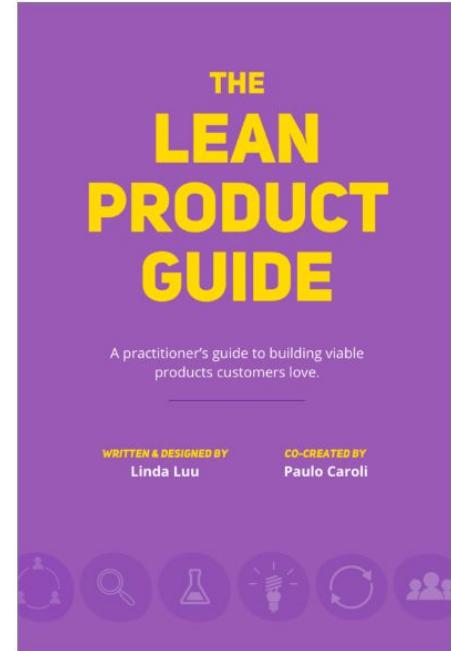


Linda Luu and Paulo Caroli

We created this book to inspire our community of product practitioners to co-create and evolve the methods and practices for building great products. We apply Agile and Lean principles to build better products and we enjoy the journey of adapting to the ever changing world of digital product creation. Join us! We'd love to hear from you.

[Read Free Sample](#)

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LAST UPDATED ON 2017-03-24