

Large group Product Backlog Refinement in LeSS & LeSS Huge

Pizzana *Pizza on the Porch**

**not a Rocket Internet clone*



Picture by <https://twitter.com/jeremys>

Our „Competitors“

Flirtey
anything anytime anywhere

Flirtey.com

amazon
 **Prime Air**

amazon.com/Amazon-Prime-Air

FLYTREX

Flytrex.com



„Live Demo“ of the product.

Video by <https://twitter.com/itstheannmarie/status/978404715867267072>

Overview

- a) Setting the scene (Vision; Refinement)
- b) Exercise: Cell-like splitting customer-centric Items
- c) Exercise: Illustrating using examples (from Specification by Example)
- d) Wrap up and some tips (Try/Avoid)

Workshop: Please stay within your team, if you have less than 5 people, merge with another team

Market Pitch

Autonomous drone delivery of goods is a 10B market per year, when reducing the delivery costs under 1\$ per delivery.*

(*based on study 2017 by Skylark Drone Research)

Unlike our „competitors“ flirtey, flytrex and amazon we do not primarily focus our business case on building the technology and cost reduction of delivery.

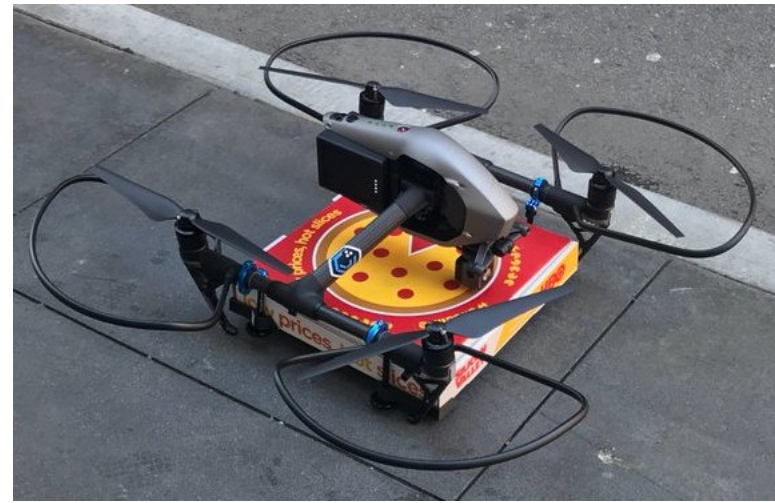
Vision

We believe we succeed by achieving premium customer experience and maximizing customer value with our lean startup approach conducting concierge MVPs for rigorous testing and improving with real users every day, to guide our product development.

We understand that agile is for flexibility and highest customer value and base our product development and organization design for a learning organization on Large Scale Scrum (LeSS).

Context I

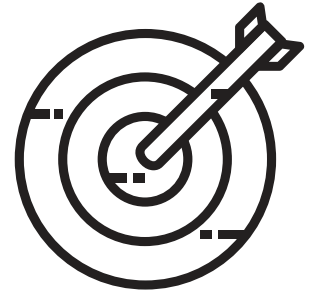
One team with 8 team members started in 3 month ago and have reached our first goal and built a first working end-to-end product: We have a drone, manually loaded with Pizza, which flies operated to a customer, lands the drone and deposits the pizza.



Additionally we set up the build system including test automation, started with our test-driven development approach using Specification by Example and creating the Living Documentation, e.g. with some FitNesse tests.

Camera and GPS are already integrated.

Context II

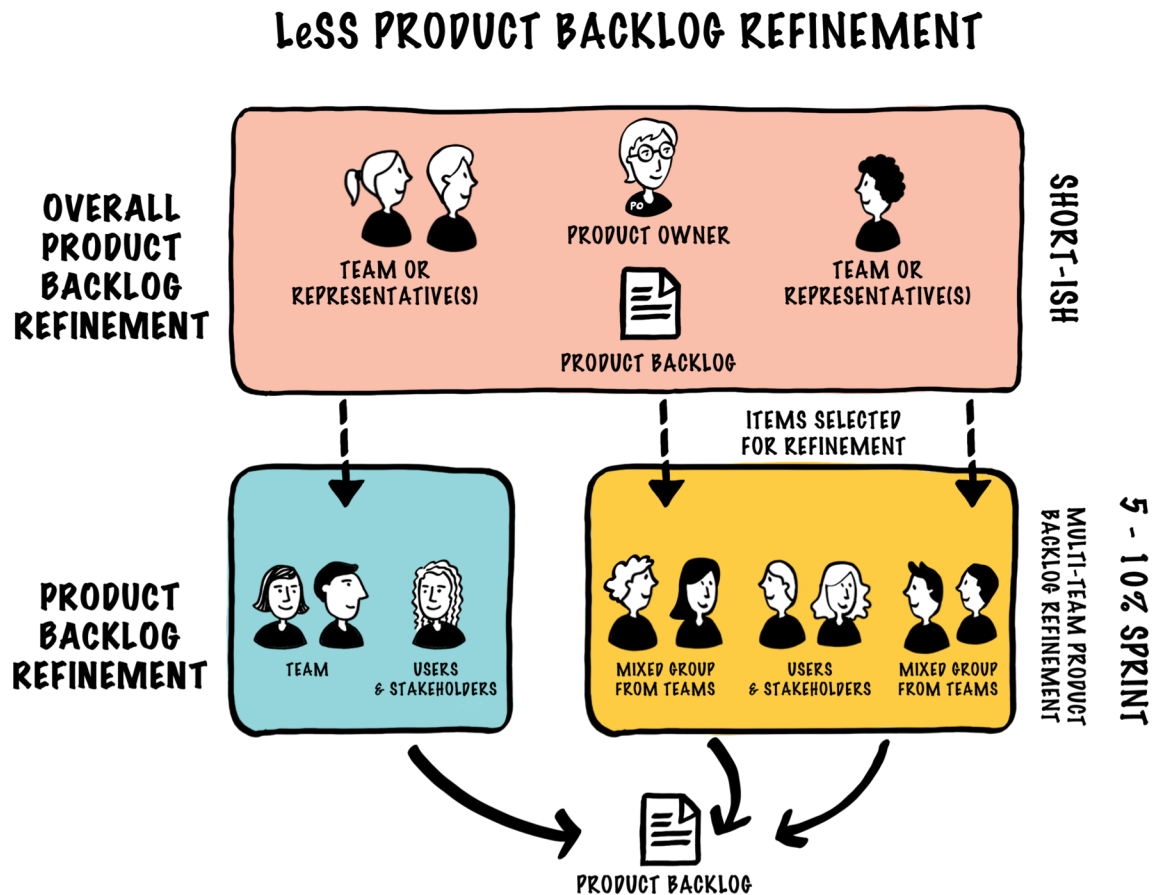


Our first goal was to start with a drone flight which is operated to get early feedback from real customers and be able to deliver end-to-end. Flights which are operated are less regulated and we are now able to test the delivery end-to-end and the user experience "outdoor" with real people.

As we are convinced of a LeanStartup-approach, we do not focus on building big IT systems and technology platforms, but on improving our product and service every Sprint and every day with real paying customers (MVP).

With you all people we now scale up to 4 teams and doing our first Refinement before the next Sprint starts with 4 teams (I could convince our investors to not start with more than 4 teams in our adoption)

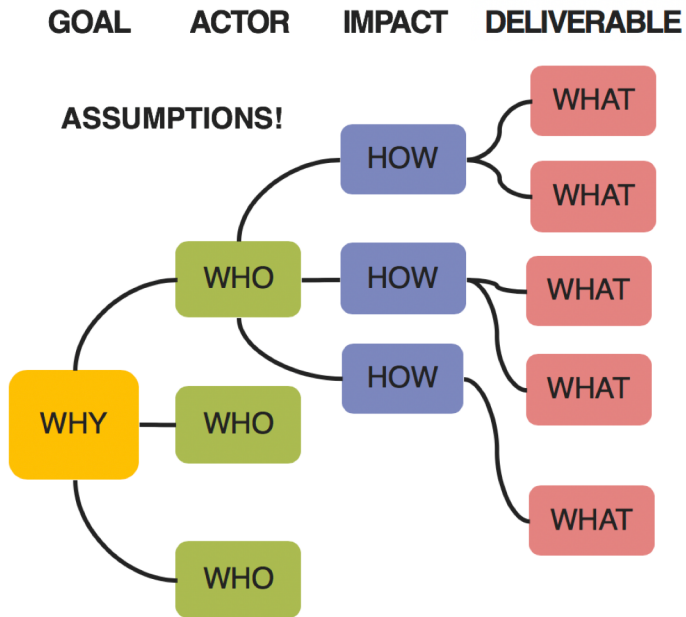
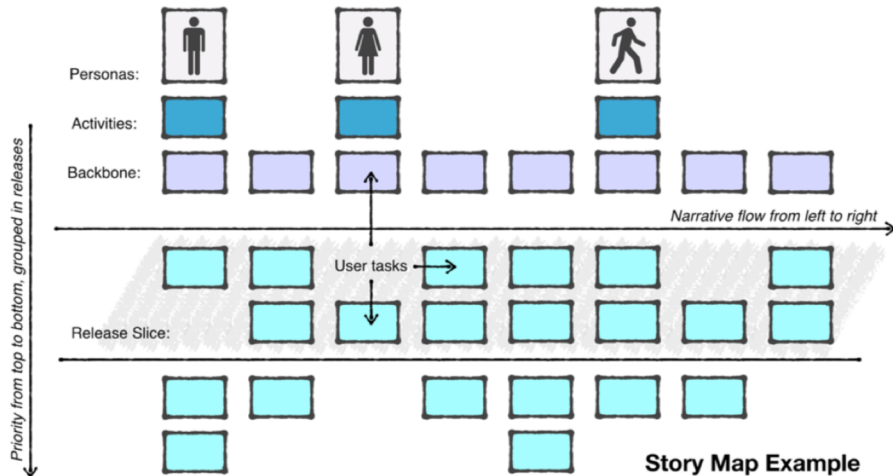
About Refinement



What about „Initial Product Backlog Refinement“ (Initial PBR)?

Innovation Games, Impact Mapping, Story Mapping ...

„Done only once at the start.“



Handout: Blogpost „Agile Product Planning: Connecting Vision with your Backlog“ from Markus Tecza

Specification By Example

PBR today:

- *Overall PBR*
- *Multi-Team PBR*

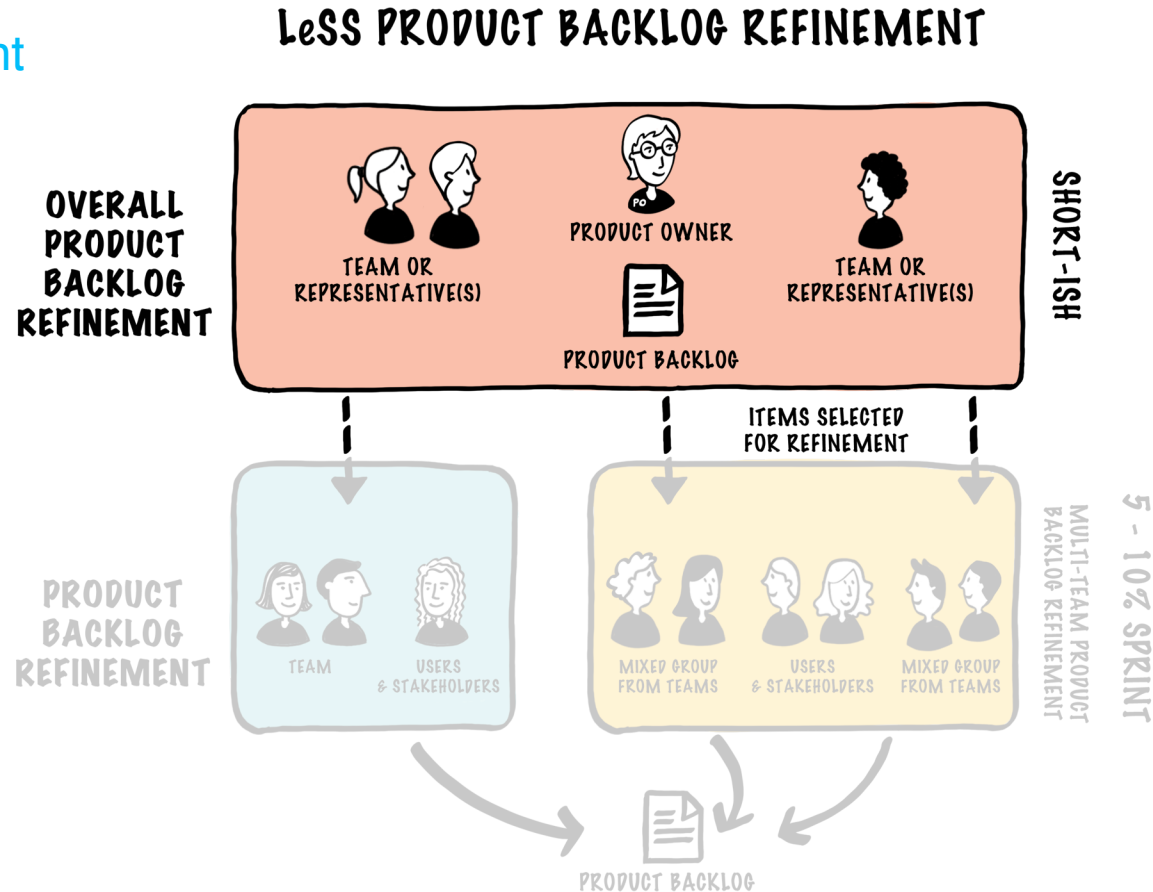
Refinement

Sprint

Specification By Example



Overall Refinement



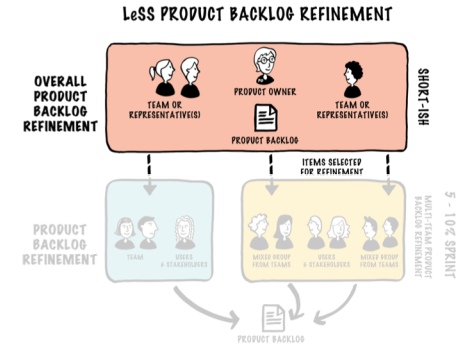
Overall Refinement

Do in Overall Refinement

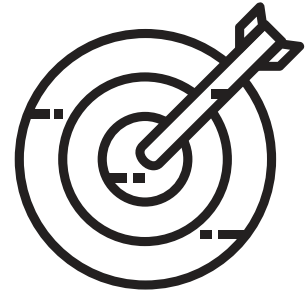
- split big items
- do very lightweight item analysis for basic understanding
- estimate items
- identify strongly-related items that suggest shared work, common work, or coordination

Today: Explaining the „next goals“, get a basic understanding of the Item(s) to be refined, (splitting in Multi-Team Refinement).

Try: All team members for new teams, but keep it optional (instead of delegates)



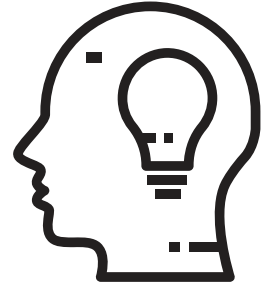
Next Goals



1. First step / "bite" towards an autonomous flight, "take a bite" to tackle Technology Risks and Regulatory Risks.
2. Testing and improving the user experience, the delivery and handover to our customers . I expect that you deliver at least one pizza per day, conducting a Concierge MVP.
3. For the approval of our autonomous drones, we need to validate that nothing could go wrong. Besides Validation, setting up a simulation environment could help us to get faster feedback cycles in development and to get early feedback.

Today's refinement topic is the "first bite towards an autonomous flight“.

PO (Questions & Answers)



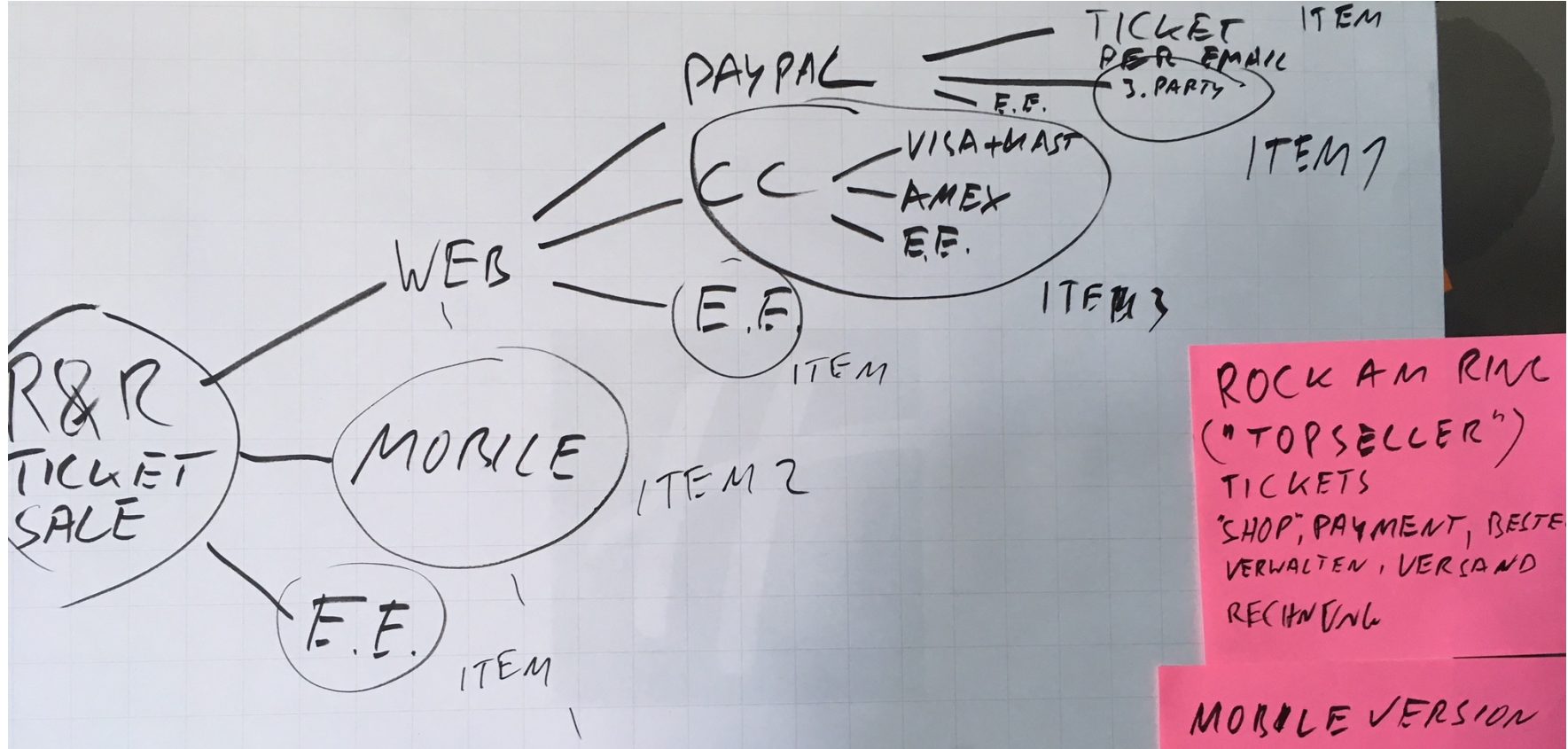
Item: autonomous drone delivery of pizza to customer

(We already have a drone, manually loaded with Pizza, which can fly operated to a customer, lands the drone and deposits the pizza.)

Interview the PO: What is IN and what is OUT of scope?

- What are the regulatory requirements?
No flying over heads. Drone operator must keep line of sight.
- What are our customers and how do they order?
E.g. Robert the pizza geek. We offer just one pizza a time per available drone&team on our landing page with a 50% discount offer on Giovannis Pizza, which is our partner. The teams additionally announce free capacities on our twitter account.
- Where are we, where are our customers?
Suburbs, roughly 1 mile around our headquarter (served streets are named)

Excercise 1: Cell-like splitting



Why Multi-Team Refinement?

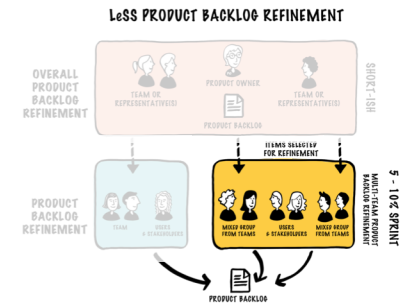
LeSS:

- Multiteam PBR is when more than one team are (literally) in the same room at the same time doing PBR. Attendees include subject-matter experts, and all members of the participating teams.
- Do multiteam PBR to increase shared understanding and exploit coordination opportunities when a group of teams are working on a common family of items or strong-related items.

Avoid: Splitting up teams on different items without „merging“ the learnings (Or making Items „Ready“ without involving the whole team or even without the team that should pull it)

Avoid: Team delegates instead of whole teams

Avoid: Multi-Area



Setting up a Multi-team Refinement (Workshop Setting)

Who participates:

- Teams with all team members, (subject-matter experts), (Product Owner), (Scrum Masters)
- Today: PO (me, „the founder“) with all teams (you) and SM (Robert)

Appropriate Room:

- Wall space per group, ideally one big wall, Post-Its, Pens
- Today: Please use the Easels at a table, Post-Its, pens

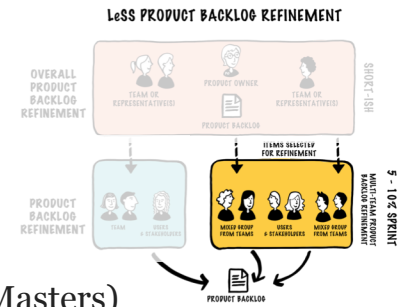
Group formation

- Teams or Mixed groups(preferred)
- Today: Mixed groups

Product Backlog Item

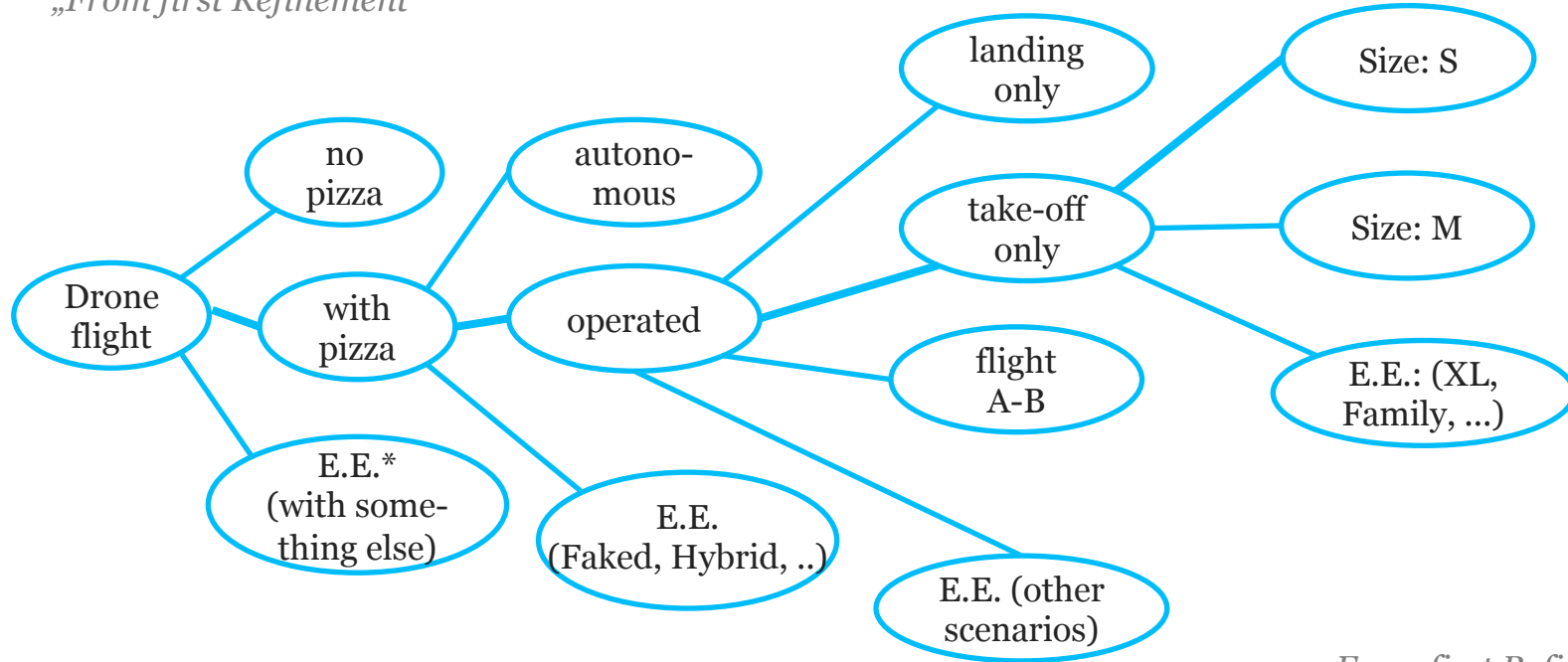
- Same (for learning) or different Item each group

Today: „Multi-Team Refinement with all teams, all team members in mixed groups, same Item“



Cell-like splitting example

„From first Refinement“

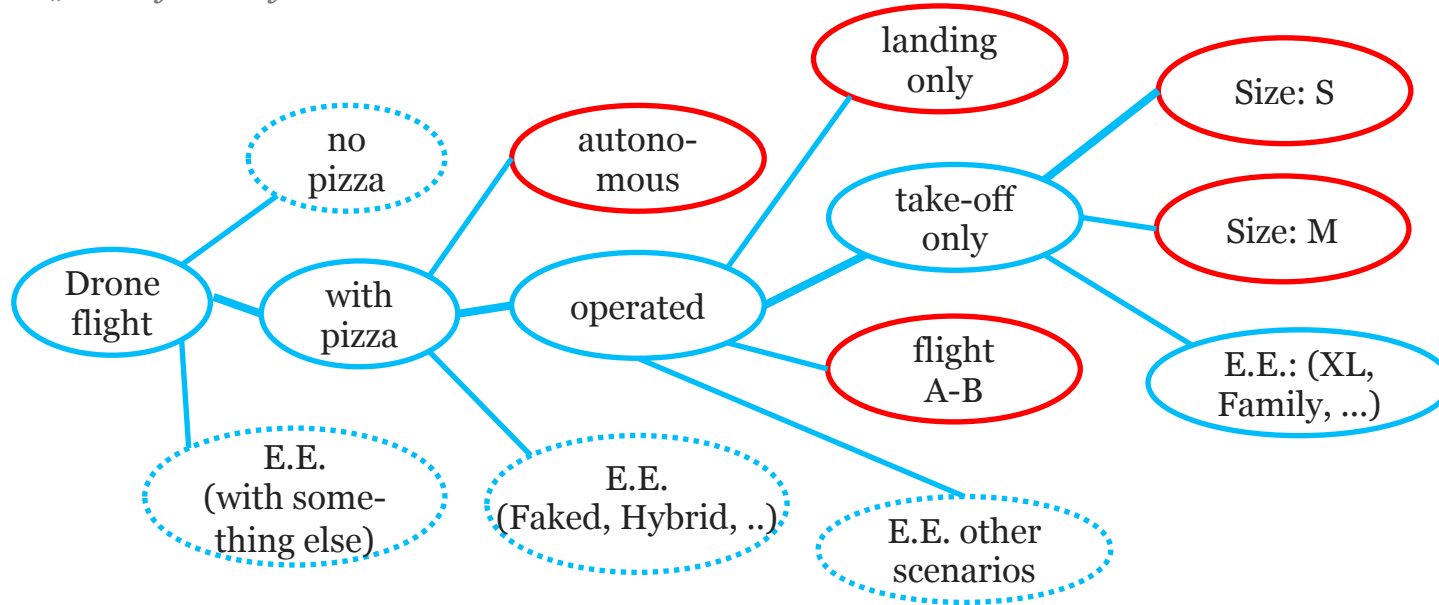


*E.E. = „Everything Else“,
like „with something else“

*„From first Refinement
3 months ago“*

Cell-like splitting example

„From first Refinement“



 *First Backlog Items*

- “Always incomplete”
- *Take a picture, but then throw the tree away*
- *Attitude: Reach goal with minimum effort*

First Backlog Items

(initial, ordered) Product Backlog:

- Drone flight, with pizza, operated, take-off only, size: S
- Drone flight, with pizza, operated, landing
- Drone flight, with pizza, operated, flight A-B
- Drone flight, with pizza, operated, size: M
- Drone flight, with pizza, operated, E.E.
- Drone flight, with pizza, autonomous

Try: "Items are the leaves"

Avoid: Putting all leaves in the Backlog as Items, this could lead to a lot of problem, e.g. a huge backlog with low transparency

Try: Rather refine new Items based on Sprint Review feedback and regularly delete Items from the Product Backlog

Splitting Perspectives

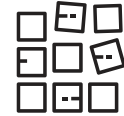
Good questions: What benefit do you get from splitting in that way? Does the splitting by this perspective reduce effort? If not, choose a different one.

Use case	The major flows of use; CRUD use cases	configuration	A varying configuration, such as type of operating system
scenario	A specific scenario of steps within a use case	User role, persona	Attacker, Defender, power user, novice
type	Varying types or kinds of things, such as types of trades	Data format	XML, comma delimited, ...
External integration	With several external elements, such as trading exchanges	Data part	A subset of the many elements of the data: may be useful
operation/message	A system/operation message, e.g. HTTP GET, SWIFT MT 304	Non-functionals	Moderate vs. High throughput, with or without recovery
IO channel	An input or output channel, such as GUI or <u>commandline</u>	stub	A fake simple implementation of something

Excercise 1: Cell-like splitting

Today's refinement topic is the "first bite" towards an autonomous flight.
I expect that we make a first incremental step from operated flight to autonomous flight.

For this exercise we form ca. 4 groups out of the current teams by counting 1-4.



Within your group:

1. Grab post-its and pens and split the Item „Drone flight, with pizza, autonomous“ with **cell-like splitting** in customer-centric Items.
2. Identify one or more **Items** which can be implemented and delivered to a customer within **a two week Sprint**.
3. One of your group is able to **present** your splitting and the items to the other groups **in 1 minute**.

Excercise 1: Cell-like splitting

15 Minutes Cell-based splitting

5 Minutes „Espionage“

5 Minutes Update you cell based-splitting

15 Presentation & Selection of Items for Exercise 2

Excercise 2: Illustrating using examples (from Specification by Example)

Specification By Example



Specification By Example

Specification By Example

Note: Refinement vs. Design Workshop

Refinement

Sprint



Given-When-Then & Fitnesse table notation

Given-When-Then notation

Scenario: description

GIVEN a precondition

WHEN an action happens

THEN the following post-conditions should be satisfied

„FitNesse“ tables

input1	input2	input..	output?

Given-When-Then & FitNesse table notation example

Given-When-Then notation

Scenario: Fast drone takeoff from the floor

GIVEN a drone on the floor

AND is loaded with pizza

WHEN takeoff is initiated

THEN the drone takes off in less than 10 seconds

AND is in the air between 0.5m and 10 m

„FitNesse“ tables

ho	time	Pizza	h1?
0 m	0 sec	yes	0 m
0 m	10 sec	yes	0,5 m < x <10 m
0 m	5 sec	no	0,5 m < x <10 m

Excercise 2: Illustrating using examples (from Specification by Example)

„A good specification, with examples, is effectively an acceptance test for the described functionality“
(Gojko Adzic in „Specification By Example“)

Each group picks one Item.

Within your group:

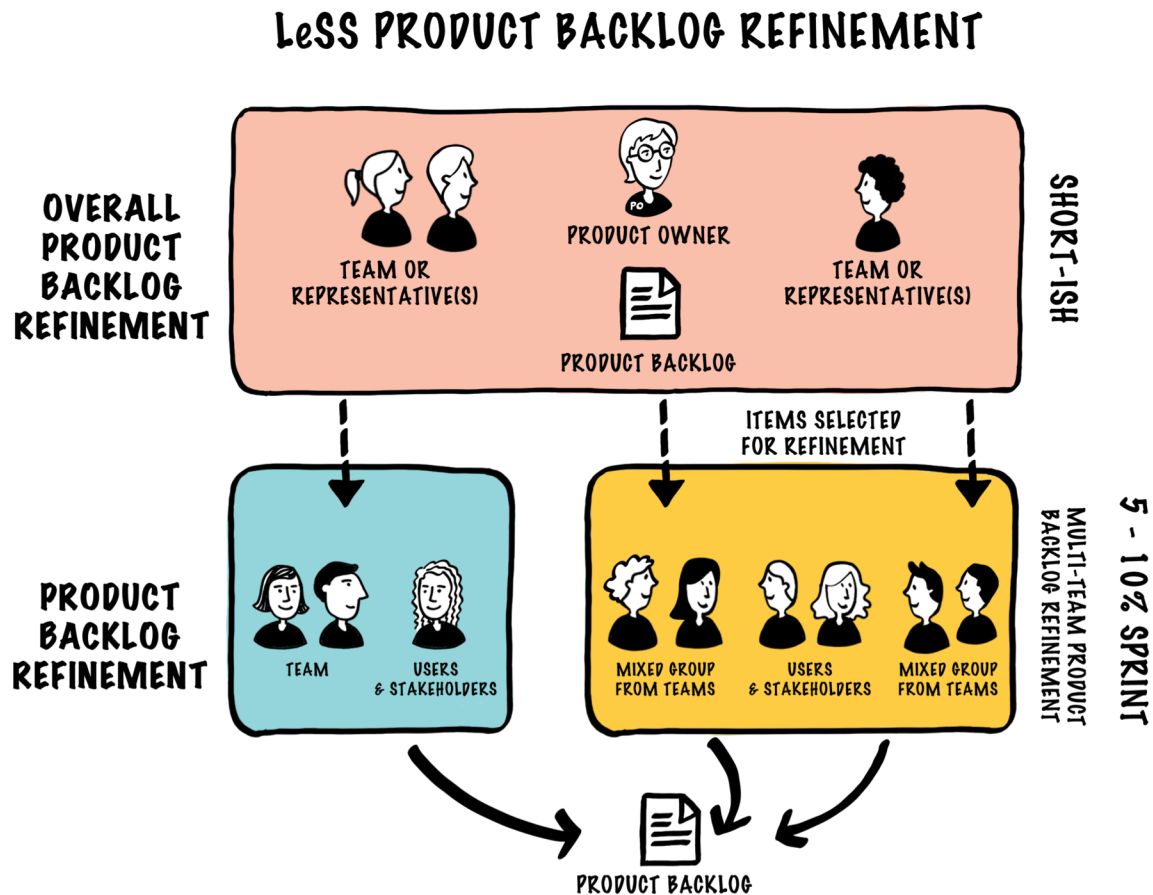
1. Grab your pens to illustrate and specify **Key Examples** collaboratively.
2. Either use „**Given – When – Then**“ notation or create a („FitNesse“) **table**.
3. Optional: If time is left, refine the specifications. Eliminate similar Key Examples to avoid overspecification. Good Key Examples are precise, testable and about business functionality.
4. One of your group is able to **present** your examples to the other groups **in 1 minute**.

Excercise 2: Illustrating using examples (from Specification by Example)

10 Minutes Exercise

10 Presentation

Wrap - Up



Selected tips from my experience

Avoid: Cross-Area PBR / dependencies

- Avoid dependencies between Areas, e.g. skill and know-how dependencies or to component teams (Areas)
- **Try: Assign bigger items in Areas;**
- **Try: Independent Areas**, which have all skills needed. "There are no dependencies, only opportunity for shard work / collaboration". Just Talk.

Avoid: Tree-like splitting for a big & complex product.

- Avoid requirement documents, like huge lists of Items in the Backlog. Avoid a multi-level tree structure where an Item is finished if all child-/sub-Items are finished. Avoid implicitly inheriting priority when slicing Items.
- **Try: Cell-like splitting.** Ask: What is the simplest approach that is useful?
- **Try: Connect** the Item to the **Business Goal** and to **Use Case** and **Scenarios**. Ask: What for?

Avoid: Items that are technical

- Avoid these Items especially as input for Refinement
- **Try: Splitting** big items and slicing **customer-centric end-to-end** features
- **Try:** Always split customer-centric first in Refinement. Discuss technical solutions in **Design Workshops**, Sprint Planning, during your Sprint work

Questions?

Large group Product Backlog Refinement in LeSS & LeSS Huge

Track: Experiments Room: Great Hall, Experiments Track

Date: September 14, 2018 Start Time: 10:30

Length: 90 minutes



Abstract:

This session is based on our current experience with Product Backlog Refinement with multiple teams in Requirement Areas (LeSS Huge). In this workshop we'll do Multi-Team Refinement for a hardware & software product in a LeSS adoption of a (fictional) startup in a potential 10 billion / year market (autonomous delivery of goods). We slice and refine customer-centric items for teams working end-to-end, constantly improving and delivering the product to real customers throughout the Sprint.

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