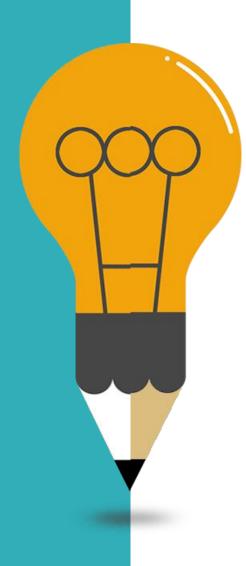


CONTENT

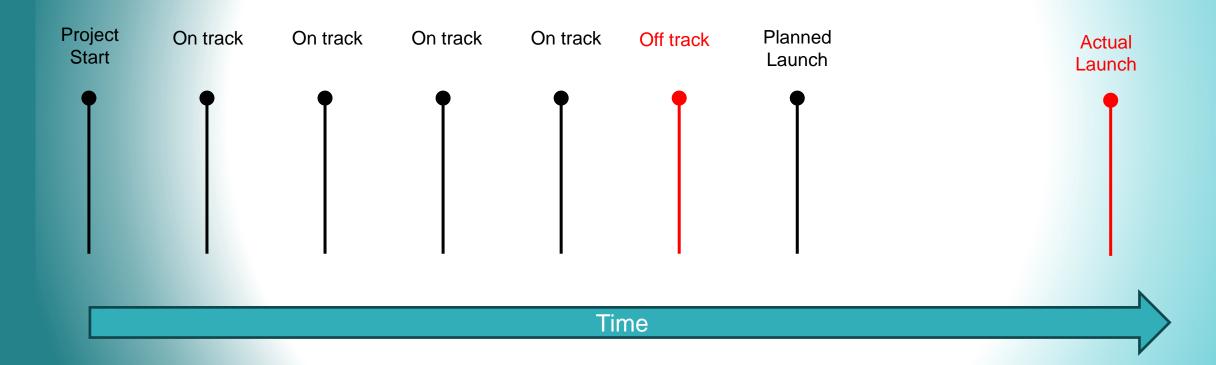


Systematic Learning – Using an iterativ approach

Based on the experience from one specific project

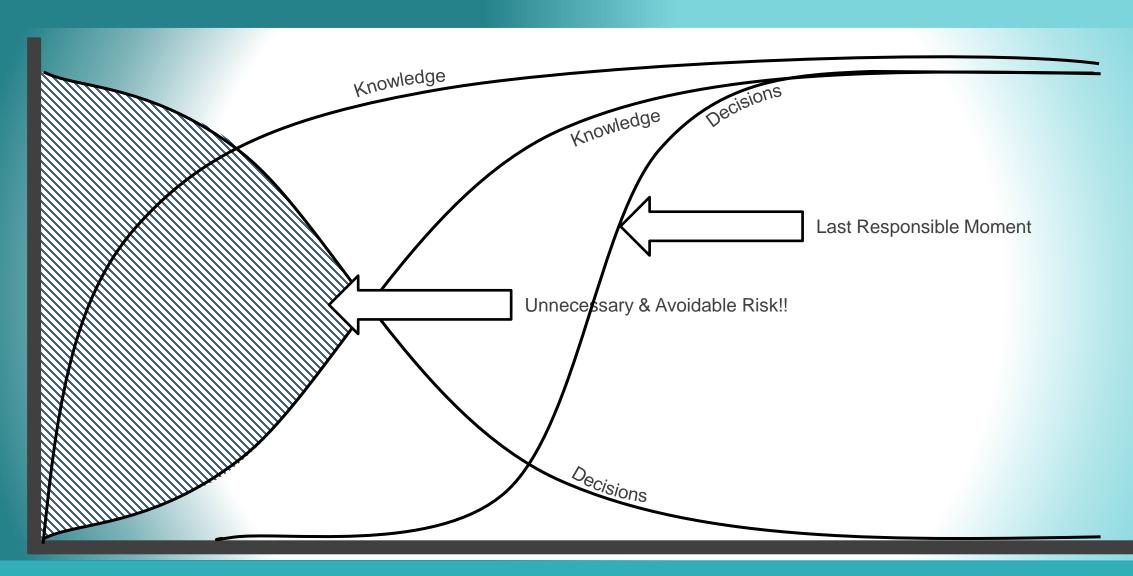
The Common Problem

Why delays happen at the end



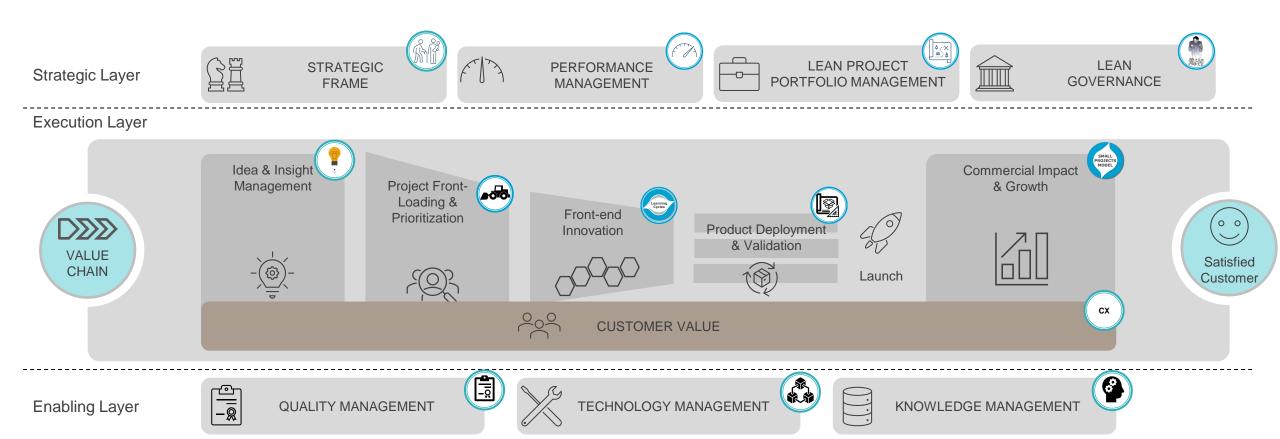
The Common Problem

Why delays happen at the end



LEAN Product & Process Development

System View







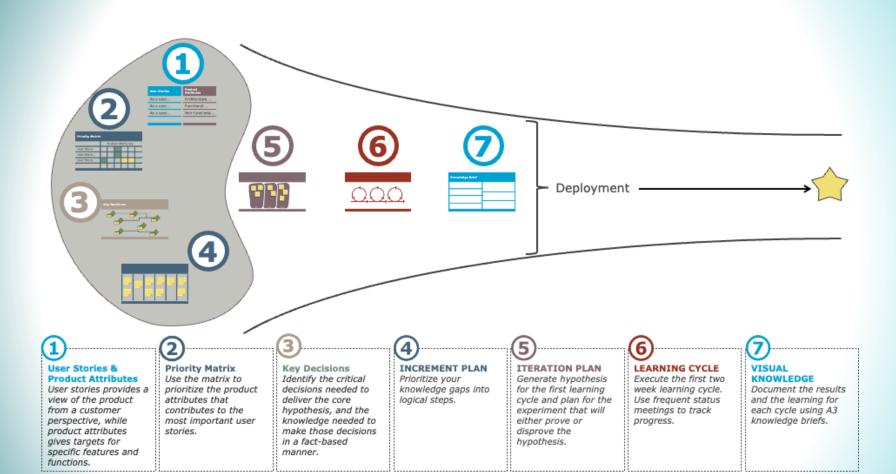


This involved a lot of people and a lot of sticky-notes

Learning Cycles

First explore and experiment, then design and deploy

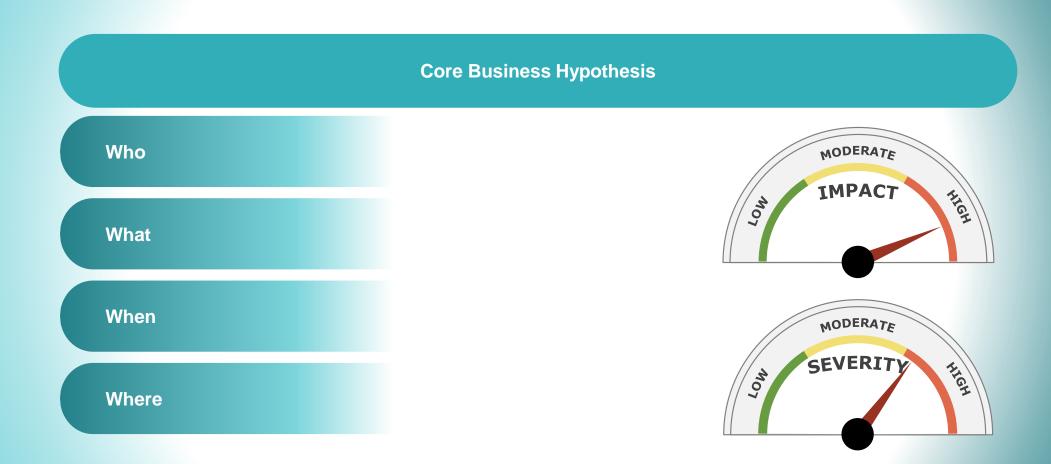




The Starting Point

Define a Mission





Define the Mission

What happens if we combine these two?



USER STORIES

Define the need of the customer



"As a <Role>
<perform
that
not be directly actionable
ccurs>."

1

User Stories & Product Attributes

User stories provides a view of the product from a customer perspective, while product attributes gives targets for specific features and functions.

User Stories

As a user....

As a user....

As a user....

1 2 3 4 5 6 7



What a nice sense of freedom! We have this installed in our entire office and it's great. It was so quick, so easy! Access has never been easier.

Wow, it feels just right!

I love the easy access to my office.

The feeling of just swiping my card and push down the handle is so good.

And I know that my office is secure.



Never been easier to install an access control system.

I can install an entire building in a day, and it all just connects.

No drilling or problems. Just put the handle on the door and go.

Magic!

Very easy to get the system up and running.

No cables, no faulty installations, no thinking about the voltage, 12 VDC or 24 VDC.

Just Wi-Fi!

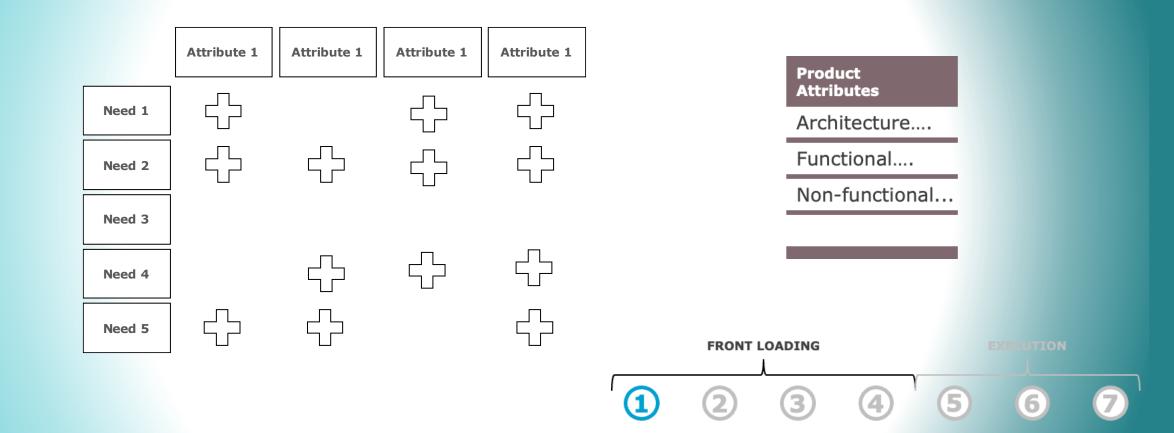
Makes my day a lot easier, I love it.



Product Attributes

Learning Cycles

The physical architectural attributes



Priority Matrix

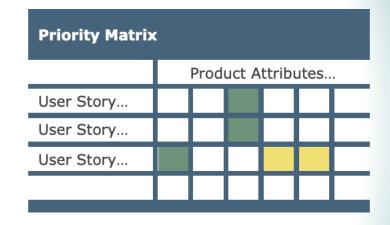
Prioritizing the most important attributes



2

Priority Matrix

Use the matrix to prioritize the product attributes that contributes to the most important user stories.





Priority Matrix

Prioritizing the most important attributes



Simple Life

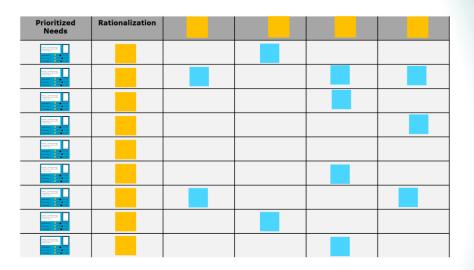


Add access control capability to any interior door



The global leader in door opening solutions

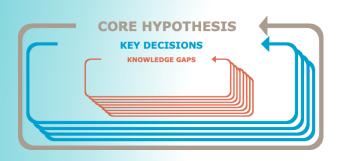
ASSA ABLOY



Key Decisions

Defining the most important knowledge

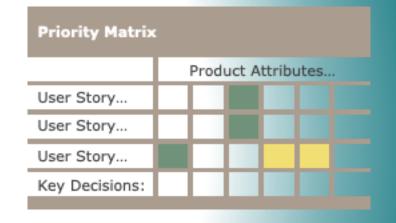




3

Key Decisions

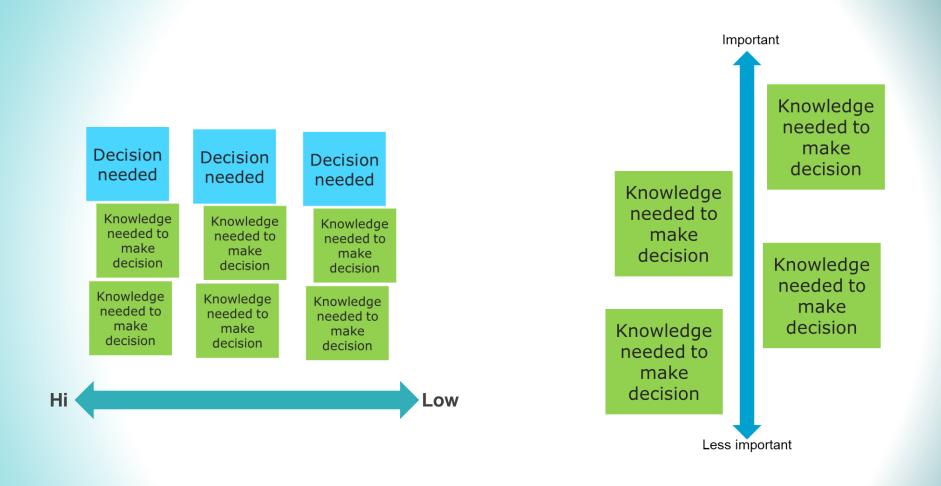
Identify the critical decisions needed to deliver the core hypothesis, and the knowledge needed to make those decisions in a fact-based manner.





Key Decisions

Defining the most important knowledge



Search for Limits

Building the Right Knowledge

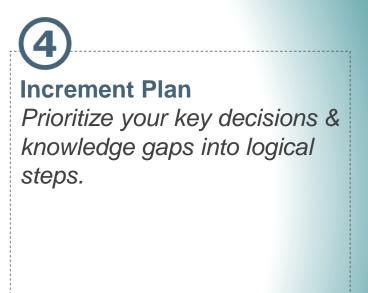


Increment Plan



Lay out the key decisions/knowledge gaps into logical steps

	Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6
Key Decisions						•
Knowledge Gaps	KG	KG	KG	KG	KG	KG
Risk Mitigation			RM		RM	

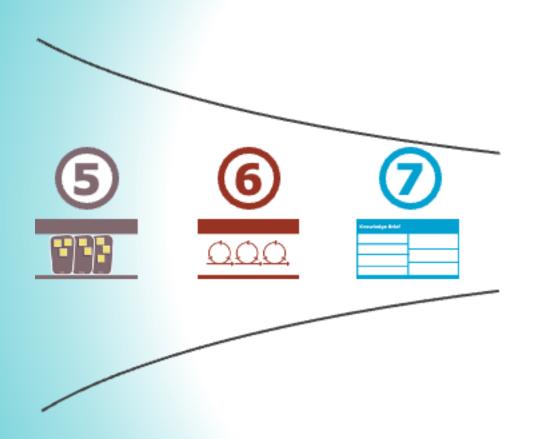




Execute

In Short Iterations





Execute

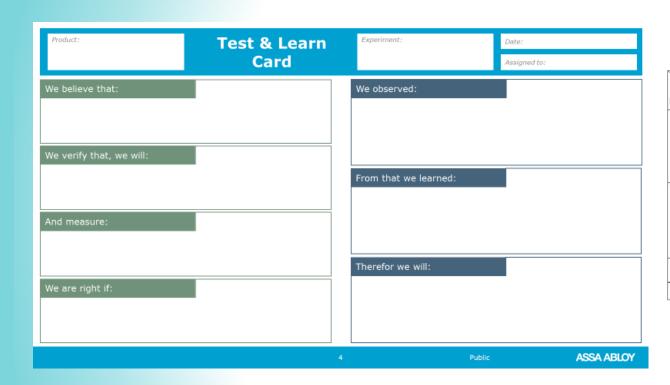
- 5. Plan the weeks experiment, risk mitigation activities, learnings.
- 6. Utilize daily stand-ups to drive the process
- 7. Document results & learnings



Document Learning

Simple and to the point



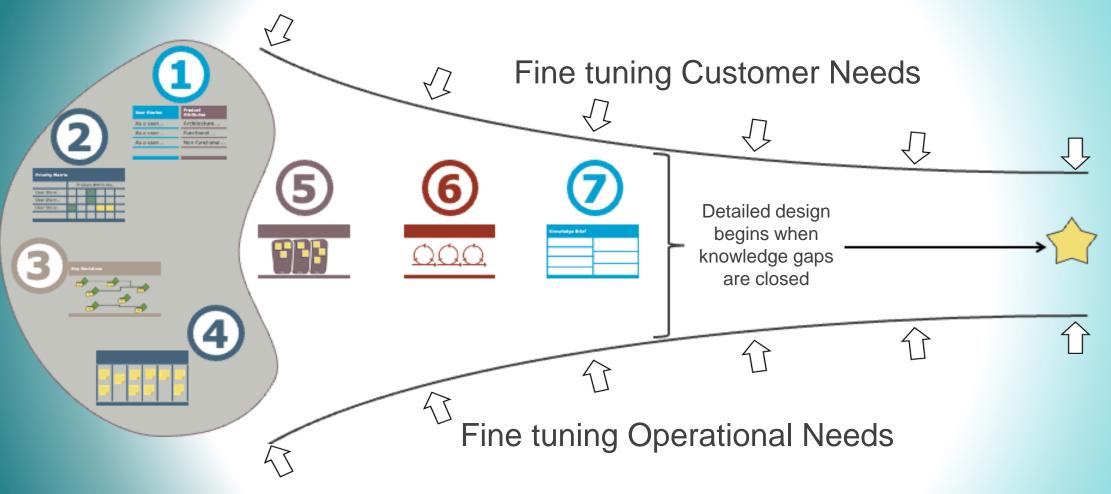


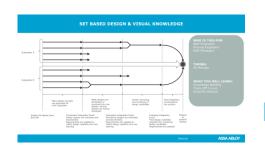
Concept Function	Α	В	С	D	E	F	G	н	1	J
Clutch	Torx/Spline eller Kombo, Flytta axel	Utskjutande Skenor/kilspår	Negativt Ingrepp/ Reversed Engagement	Rullar, linjära	Cykelnavsklackar/ Ratchet Hub	Utksjutande Stift	Spårkoppling	Rullar, radiella	Kulpetare	Torx/Spline eller Kombo, Flytta hylsa
Actuation	Motor som ger roterande rörelse	Motor som driver axel i fjäder	Tryckesrörelse	Motor som driver axel med trapetsgänga	Abloys variant	Solenoid Linjär	Solenoid Roterande	Stegmotor	Plezo	
Handle	Horizontal split	(3)						×		
Rose	Modular	Fasta tor 4								

Learning Cycles

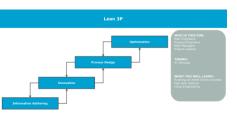
Use the Funnel







E-Learning





ASSA ARI OV

COACH

Biweekly

Lean PPD 4 Teams - Training

F2F-Training



COACH

Biweekly



Engineering/ Lean 3P
Lean Learning Cycles
Video:
Michael Kennedy
Allen Ward

Book: Katherine Radeka: High Velocity Innovation/ Allen Ward & Durward Sobek: Lean Product & Process Development

Thank You

Capturing the Right Knowledge

