Agile Fundamentals

Version 8.1 – Workbook

SOFT ED

Copyright © Software Education, 2021

Expectations

What are your expectations for the course?

Review

How well were your expectations met?

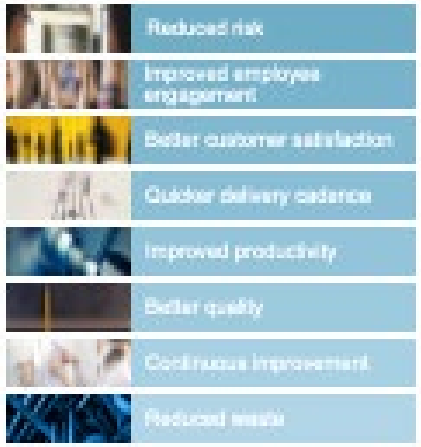
Note up to three things you will change or start doing as a result of this course:

Benefits of Working in Agile

What does the manifesto mean in terms of the work that you do?

Eight Drivers for Change

Companies adopt agile for any number of reasons, usually stemming from a dissatisfaction with how things are currently working and a desire to improve.



The Agile Manifesto – Values

What does the manifesto mean in terms of the work that you do?

The Agile Manifesto – Principles

What do the Agile Principles mean in practical terms? What are your feelings about it?

The Agile Manifesto – Principles

1. Our highest priority is to **satisfy the customer** through early and continuous delivery of valuable software.
2. **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.
3. **Deliver** working software **frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must **work together daily** throughout the project.
5. Build projects around **motivated individuals**. Give them the environment and support they need and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is **face-to-face conversation**.
7. **Working software is the primary measure of progress**.
8. Agile processes promote **sustainable development**. The sponsors, developers and users should be able to maintain a constant pace indefinitely.
9. **Continuous attention to technical excellence** and good design enhances agility.
10. **Simplicity**—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements and designs emerge from **self-organising teams**.
12. At regular intervals, the team **reflects** on how to become more effective, then tunes and adjusts its behaviour accordingly.

Learn more...
agilemanifesto.org

The Seven Lean Principles...

1. **Eliminate waste** – Lean philosophy regards everything not adding value to the customer as waste (muda).
2. **Amplify learning** – Development is a continuous learning process based on iterations.
3. **Decide as late as possible** – The more complex a system is, the more capacity for change should be built into it, thus enabling the delay of important and crucial commitments.
4. **Deliver as fast as possible** – The sooner the end product is delivered without major defects, the sooner feedback can be received, and incorporated into the next iteration.
5. **Empower the team** – People need motivation and a higher purpose to work for – purpose within the reachable reality, with the assurance that the team might choose its own commitments. Respecting people and acknowledging their work is one way to empower the team.
6. **Build integrity in** – The customer needs to have an overall experience of the system. This is the so-called perceived integrity: how it is being advertised, delivered, deployed, accessed, how intuitive its use is, its price and how well it solves problems.
7. **Optimise the whole** – Modern software systems are not simply the sum of their parts, but also the product of their interactions.

Learn more…
https://en.wikipedia.org/wiki/Lean_software_development

The Heart of Modern Agile

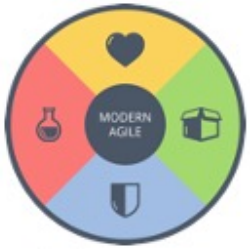
What does this mean to you?

The Heart of Modern Agile

Modern Agile

Make People Awesome

Experiment & Learn Rapidly



Deliver Value Continuously

Make Safety a Prerequisite

Modern Agile has no roles, responsibilities or anointed practices. Instead, it is defined by four guiding principles

Heart of Agile

Increase the quality of listening

Small changes

Small and soon

Pause – Check data and emotions

1. How do we improve collaboration and shorten the distance ideas need to travel?
2. How do we deliver more frequently?
3. How do we ensure we take the time to reflect?
4. How do we embed continuous improvement into our culture?

Learn more…
modernagile.org / heartofagile.com

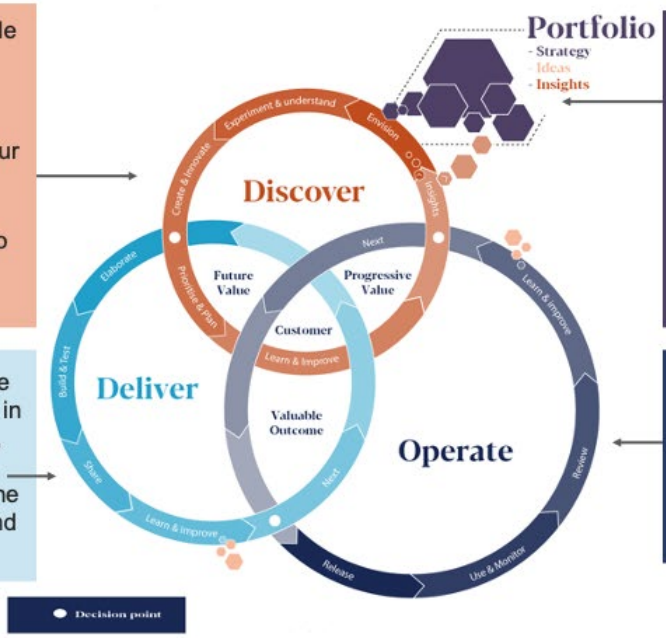
The Agile Lifecycle

What does the Agile lifecycle mean in terms of the work that you do?

Agile With SoftEd – The Value Life Cycle

Discover – is a fast cycle to validate assumptions and enhance our understanding of the elements flowing from our portfolio. Here we are learning and improving with customer insights to define future value

Deliver – elaborating the learnings from Discover in order to deliver tangible, valuable outcomes that are again validated by the customer for learning and improving.



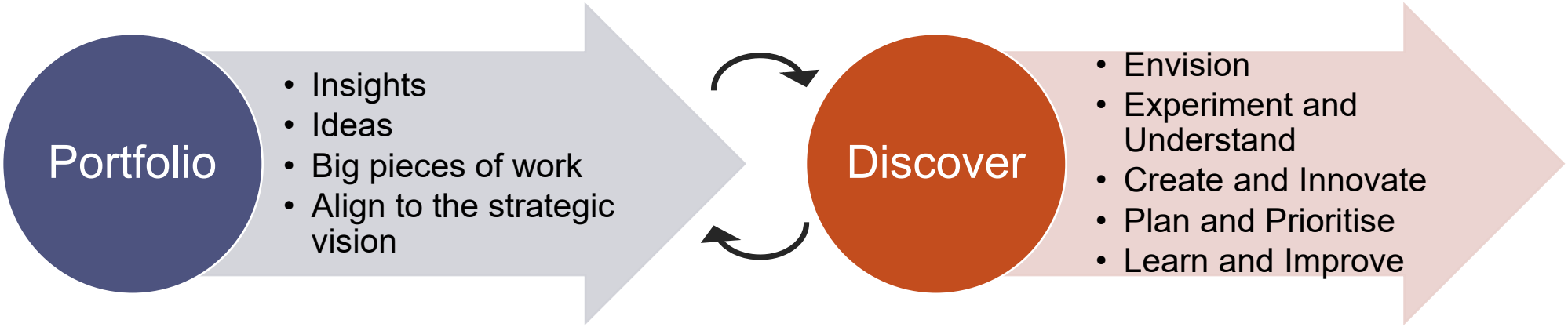
Portfolio –ideas, insights and the organisation's strategic vision to services their customer's needs now and into the future. A large collection of work that is broken down into smaller elements so that we can quickly learn the value provided.

Operate – is the usual business function where we are constantly looking to add progressive customer value and where many ideas and insights are generated.

Portfolio and Discover

Portfolio – ideas, insights and the organisations strategic vision to service their customers needs now and into the future. A large collection of work that is broken down into smaller elements so that we can quickly learn the value provided.

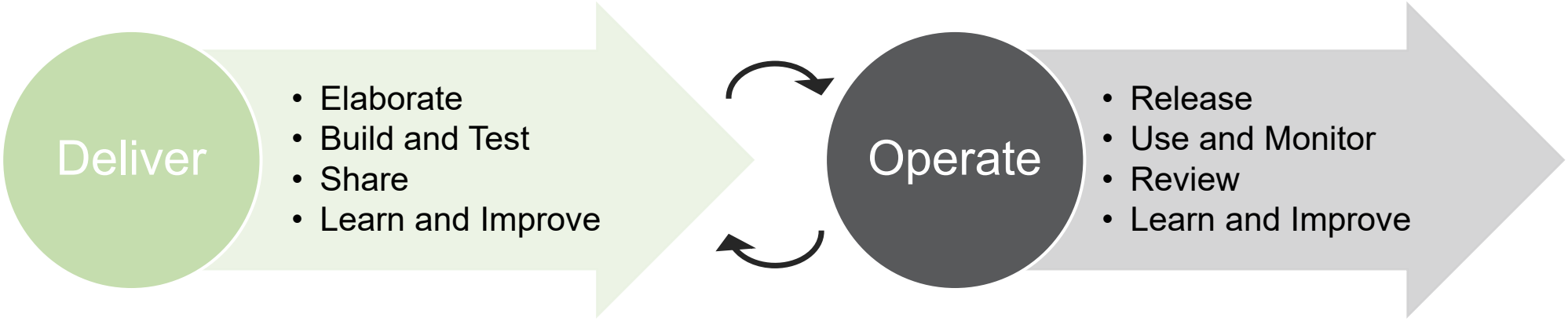
Discover – is a fast cycle to validate assumptions and enhance our understanding of the elements flowing from our portfolio. Here we are learning and improving with customer insights to define future value.



Deliver and Operate

Deliver – elaborating the learnings from Discover in order to deliver tangible, valuable outcomes that are again validated by the customer for learning and improving.

Operate – is the usual business function where we are constantly looking to add progressive customer value and where many ideas and insights are generated.

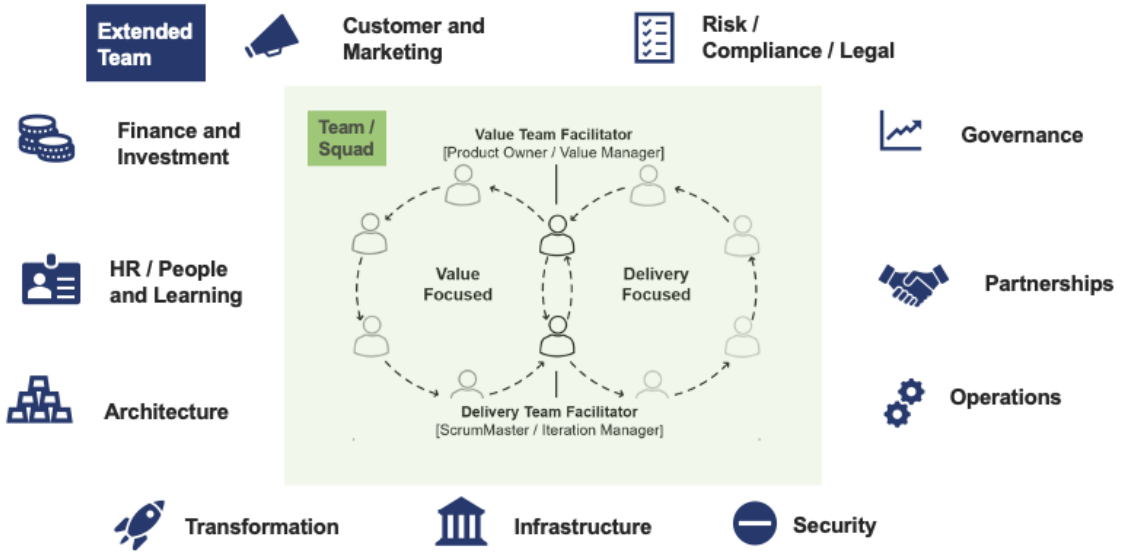


One Team

What does a team structure similar to this mean in your context?

However, They Are All Part of One Team...

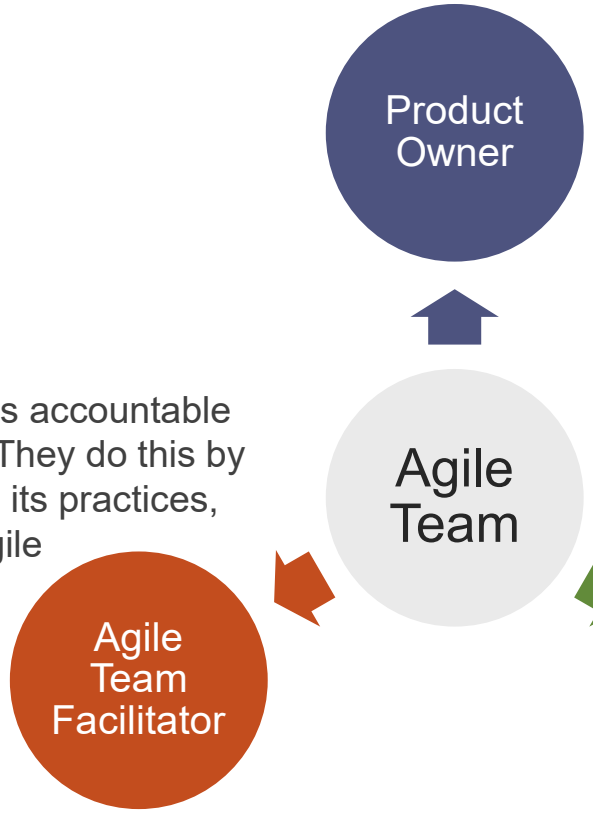
Within an agile team, there are no sub-teams or hierarchies. It is a cohesive unit of professionals focused on one objective at a time, the Product Goal. The team works with the broader extended team.



One Team

An Agile Team May Have These Roles...

Agile teams are cross-functional, meaning the members have all the skills necessary to create value each Sprint. They are also self-managing, meaning they internally decide who does what, when, and how.



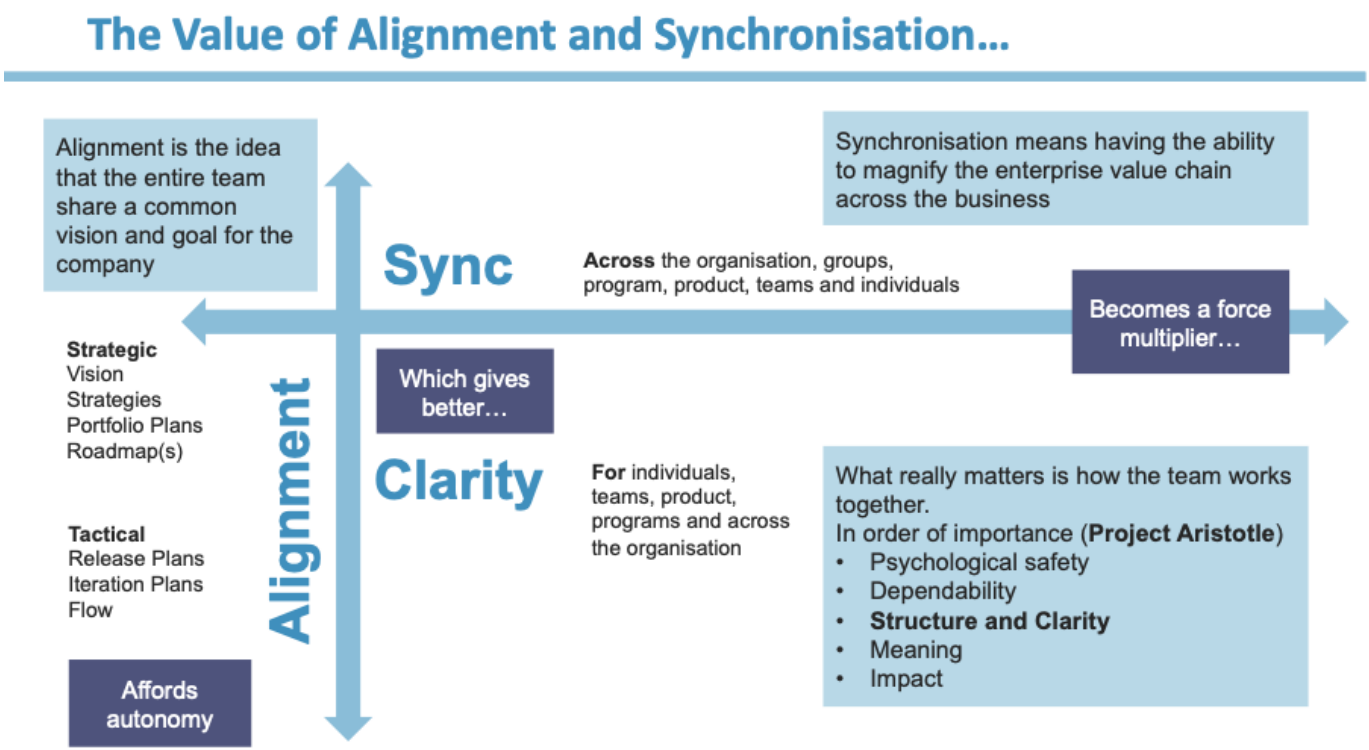
The Product Owner is accountable for maximising the value of the product resulting from the work of the team. For Product Owners to succeed, the entire organisation must respect their decisions. These decisions are visible in the content and ordering of the Product Backlog, and through the inspectable Increment at the Iteration Review.

The Agile Team Facilitator is accountable for the team's effectiveness. They do this by enabling the team to improve its practices, within an agile framework. Agile Team Facilitators are true leaders who serve the team and the larger organisation.

Team Members are the people in the team that are committed to creating any aspect of a usable Increment within each Iteration. The specific skills needed are often broad and will vary with the domain of work.

The Value of Alignment...

Why would this be important?



The Importance of a Growth Mindset

A growth mindset is the belief that abilities and intelligence can be developed – and that **failure is an opportunity to grow.** This requires individuals to practice emotional intelligence.

I made a mistake!

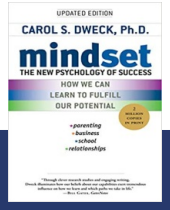
Mistakes help us learn

This is too hard!

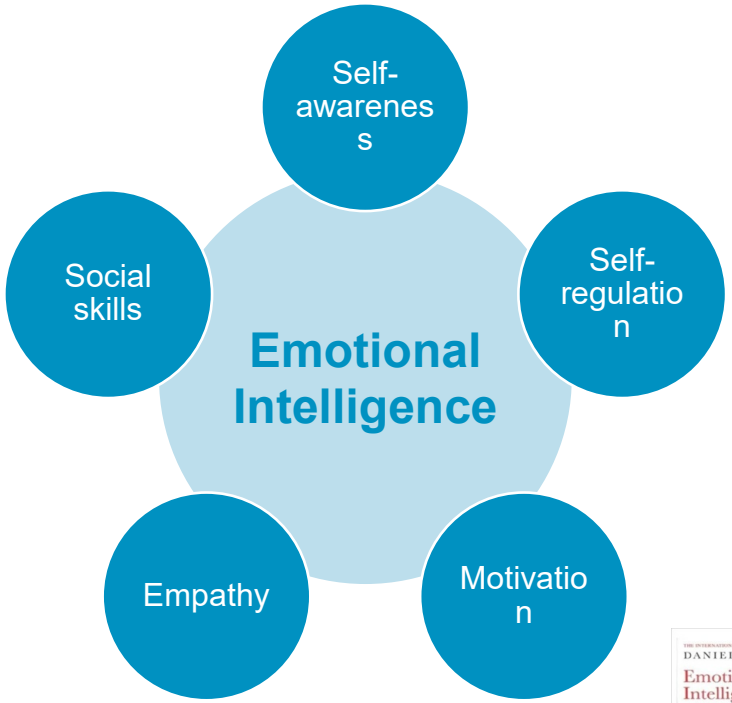
This will take some learning and effort

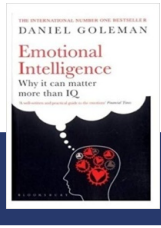
I give up!

Let's try another way



Learn more…
Carol S. Dweck, *Mindset: The New Psychology of Success*





Learn more…
Daniel Goleman, *Emotional Intelligence*

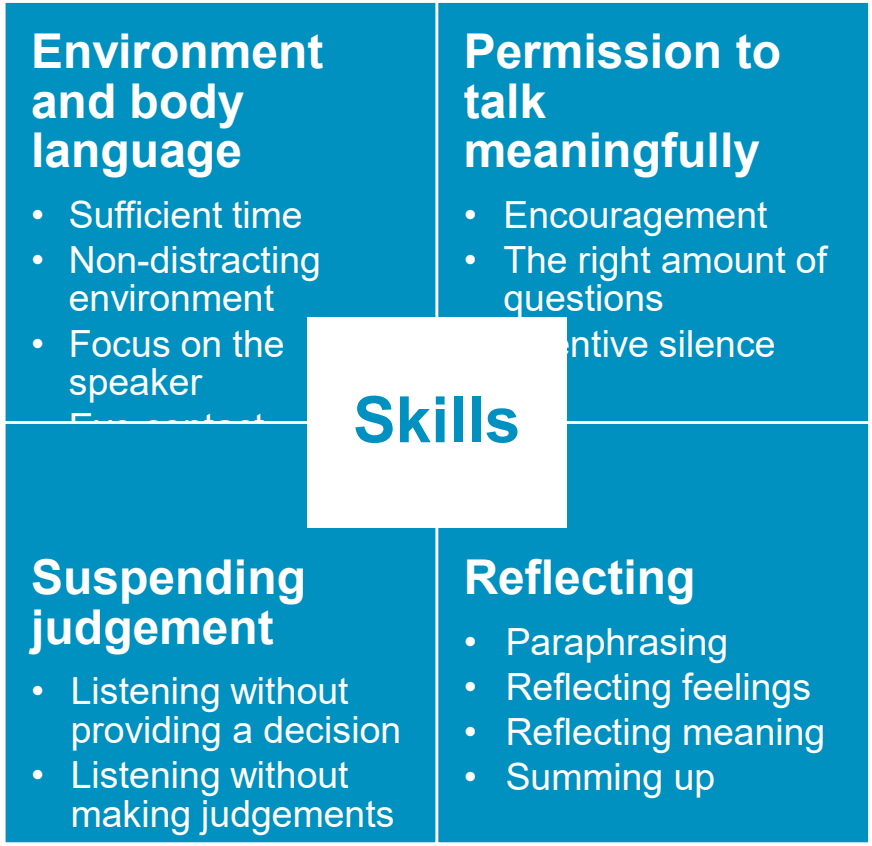
Building a Growth Mindset

"With a growth mindset, **individuals (and teams)** may achieve more than others because they are worrying less about seeming smart or talented and **putting more of their energy into learning**" (Dweck, 2016).

Create a new compelling belief	Acknowledge and embrace your imperfections; don't hide from your weaknesses
View failure as an opportunity to learn	View challenges as opportunities for self-improvement
Cultivate self, team and organisational awareness	Cultivate a sense of purpose, and keep things in perspective
Be curious and commit to learning	Try different learning tactics and strategies; don't consider any strategies one-size-fits-all
Get comfortable with challenges	Disassociate improvement from failure; "room for improvement" does not mean "failure"
Do what you love and love what you do	Use the phrase "not yet" more often, as in, "I haven't mastered it yet"
Be tenacious	Cultivate your grit (determination and perseverance)
Inspire and be inspired	Commit to being an inspiration to others and use the success of others to get inspiration as well

Better Listening

Listening is the ability to accurately receive and interpret messages in the communication process.



- **Level 1:** The listener creates a safe environment in which difficult, complex, or emotional issues can be discussed.
- **Level 2:** The listener clears away distractions like phones and laptops, focusing attention on the other
- **Level 3:** The listener seeks to understand the substance of what the other person is saying.
- **Level 4:** The listener observes non-verbal cues, such as facial expressions, perspiration, respiration rates, gestures, posture, and numerous other subtle body language signals.
- **Level 5:** The listener increasingly understands the other person's emotions and feelings about the topic at hand and identifies and acknowledges them. The listener empathises with and validates those feelings in a supportive, non-judgmental way.
- **Level 6:** The listener asks questions that clarify assumptions the other person holds and helps the other person to see the issue in a new light.

Informal Feedback

Two types of informal feedback that could be useful:

Reinforcing

- Showing appreciation for what someone has done, noting the positive impact on the team
- Encouraging someone to continue practicing a habit

Re-directive

- Seeking respectful permission for feedback
- Pointing out the negative impact of specific behaviours
- Exploring ways to do things differently

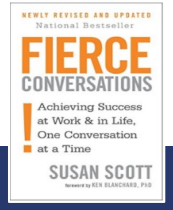
INSTEAD OF	TRY
Can I give you some feedback?	Here's my reaction.
Here's what you should do.	Here's what I would do.
Here's where you need to improve.	Here's what worked best for me, and here's why.
That didn't really work.	When you did *x*, I felt *y* or I didn't get that.
You need to improve your communication skills.	Here's exactly where you started to lose me.
You need to be more responsive.	When I don't hear from you, I worry that we're not on the same page.
You lack strategic thinking.	I'm struggling to understand your plan.
You should do *x* [in response to a request for advice].	What do you feel you're struggling with, and what have you done in the past that's worked in a similar situation?

A Constructive Model for Re-Directive Feedback

Re-directive feedback can be misunderstood, uncomfortable or emotive. A simple format can make it more effective.

Positive intent	• State your positive intention • Ask permission to give feedback
Specific observation	• Describe what you observed on one occasion • Do not include assumptions or generalisations
Impact	• State the impact that the action had • Focus on the effect of the behaviour, not the person
Time to respond	• Give the other person the chance to respond • Listen to understand what is being said
Focus on the future	• Focus any further discussion on the future • Trust the other person to own their actions

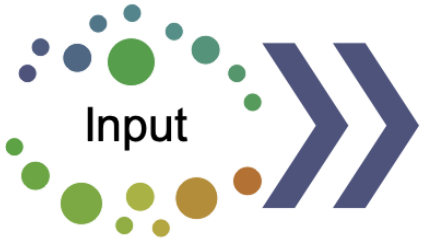
Learn more…
Susan Scott, *Fierce Conversations*



Tools To Help Create Agility – Part 1

Tools – Iteration Planning

The purpose of the iteration planning meeting is for the team to commit to the completion prioritised items based on the team's capacity and the length of the iteration timebox.



Backlog
Capacity
Constraints
Work status

Iteration Planning
Why?
What?
How?

Iteration Goal refined
Prioritised/committed backlog

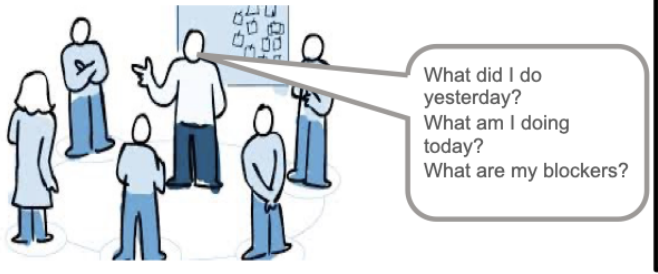
Iteration Planning…
- Promotes Just In Time planning
- Allows work to be discovered, estimated, prioritised and signed up for
- Allows for a common understanding of the product
- Creates collaboration and team building
- Improves knowledge
- Explores different perspectives

Learn more…
www.softed.com

Tools – Daily Stand-Ups

The problem that I frequently see crop up is that people tend to treat the Daily Stand-up as simply individual reporting… The more optimum approach is closer to a football huddle.

Jeff Sutherland, *The Origin of The Daily Stand-up*



Tips for an effective stand-up
1. Choose the right meeting cadence for your team
2. Schedule the stand-up meeting for a recurring time
3. Give all team members ample ways to participate
4. Have clear meeting leadership
5. Keep it short
6. Clearly define the goals for the meeting
7. Stop unrelated or unproductive discussions

How do these practices help us become more efficient?

Tools To Help Create Agility - Part 2

Tools – Showcase

The **purpose** of a showcase is to **inspect the outcome** of the Iteration and determine future adaptations. The team presents the results and progress of their work.

Transparency

Demonstrate the value that was created during the Iteration

Stakeholders and customers are invited

Inspect

Demonstrate created value

Elicit feedback

Adapt

Incorporate any feedback into future planning

Evaluate potential pivots to strategies based on feedback

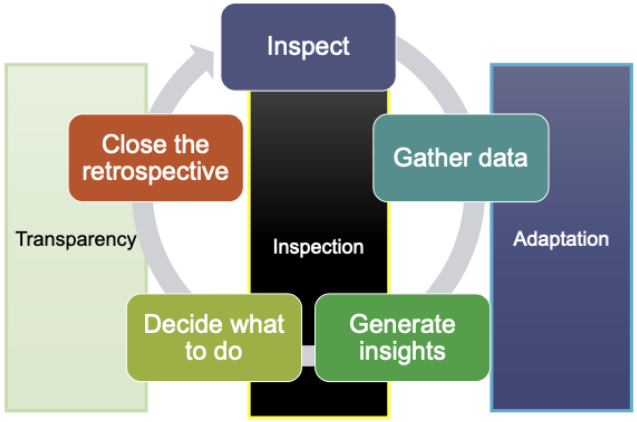
Showcase

- Review the Iteration results
- Discuss and demonstrate the work
- Understand progress towards **product goal**
- Update the status of the work
- Collaborate on the plan ahead
- An Iteration Review should not become a distraction or significant detour for the team; rather, it should be a natural result of the Iteration

Learn more… www.softed.com

Tools – Retrospectives

The **12th agile principle** states: *At regular intervals, the **team reflects on how** to become **more effective**, then tunes and adjusts its behaviour accordingly.*



How to Perform a Retrospective by asking the following…

- What's working
- What's not
- What can be improved
- What can be added to the process
- What can be removed from the process

Learn more… www.softed.com

How do these practices help us become more efficient?

An Iterative Workflow

An Iterative Workflow...

An iterative that helps people, teams and organisations generate value through **adaptive solutions** for **complex problems**.

Product Backlog

The Product Backlog is an emergent, ordered list of what is needed to improve the product. It is the single source of work undertaken by the Scrum Team

Legend

Artifacts
Events

The Sprint Backlog is composed of the Sprint Goal (why), the set of Product Backlog items selected for the Sprint (what), as well as an actionable plan for delivering the Increment (how)

An Increment is a concrete stepping stone toward the Product Goal. In order to provide value, the Increment must be usable

Learn more...
https://www.scrumguides.org/scrum-guide.html#purpose/

Agile Team Events Overview

Showcase

Finished work is shown to stakeholders and customers. The team receives feedback and Product Owner will adjust the backlog based on the response.

30 mins – 1 hour

- Whole team
- Customer
- Stakeholders

Retrospective

The team reflects on the last Sprint, shares lessons learnt, and creates actionable items to allow for continuous improvement.

30 mins – 1 hour

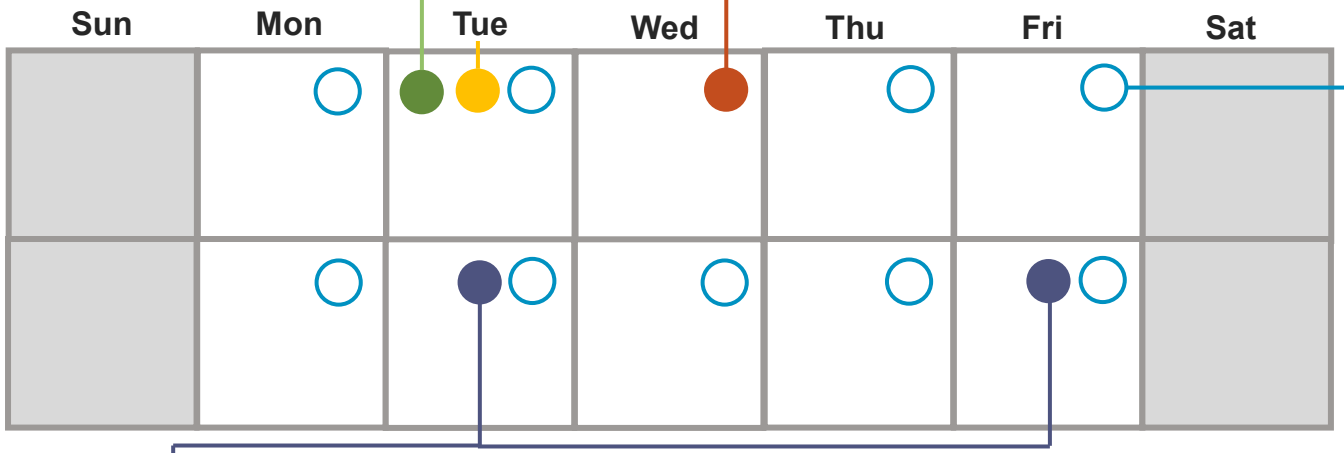
- Product owner
- Scrum master*
- Team

Iteration planning

The team aligns on what is to be delivered within the Iteration, how much is achievable and how to best achieve it within the sprint. If possible aligned to an Iteration goal.

1 – 2 hour (4 hrs max)

- Product owner
- Scrum master*
- Team



Iteration

A repeating timebox to plan and deliver a fixed amount of work. Focusing on delivering a working increment of potentially shippable solution.

Daily Stand-up

The team meets daily to synchronise on work to co-ordinate the team effort so that the Iteration goal is being reached and impediments are identified and removed.

15mins

- Product owner
- Scrum master*
- Team

Backlog refinement (optional) *recommended

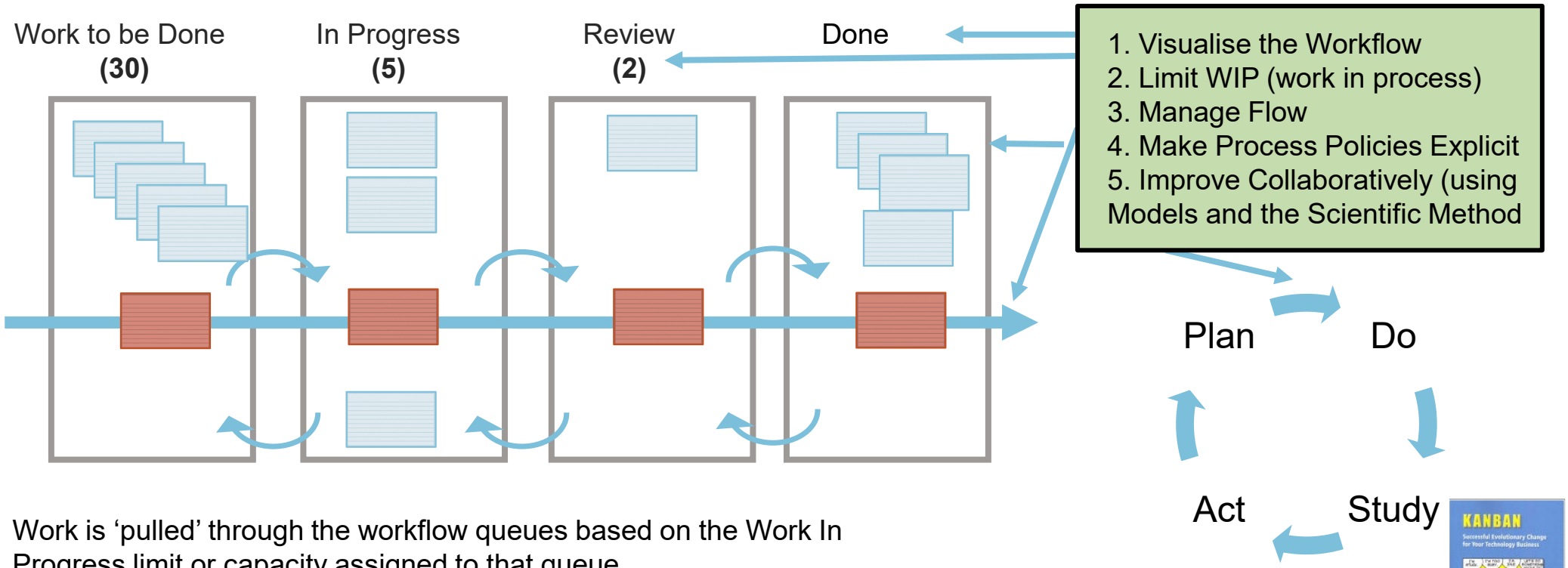
The team agrees on the highest priority backlog items and for each item aligns on scope, the effort required, and the acceptance criteria, in preparation for the Sprint Planning session.

1-2 hours

- Product owner
- Agile Leader*
- Team

Continuous Workflow

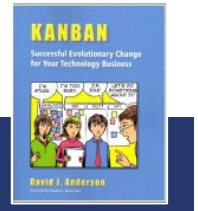
Work items are visualised to give participants a view of progress and process, from start to finish.
Kanban is the mechanism to make **Kaizen** (Continuous Improvement) work.



Work is ‘pulled’ through the workflow queues based on the Work In Progress limit or capacity assigned to that queue

Feedback occurs all the way through – this may not be a linear flow

Learn More…
David J . Anderson, *Kanban: Successful Evolutionary Change for Your Technology Business*



Planning

Why do we need multiple layers of planning?

Aligning Idea Through to Strategy Through to Work

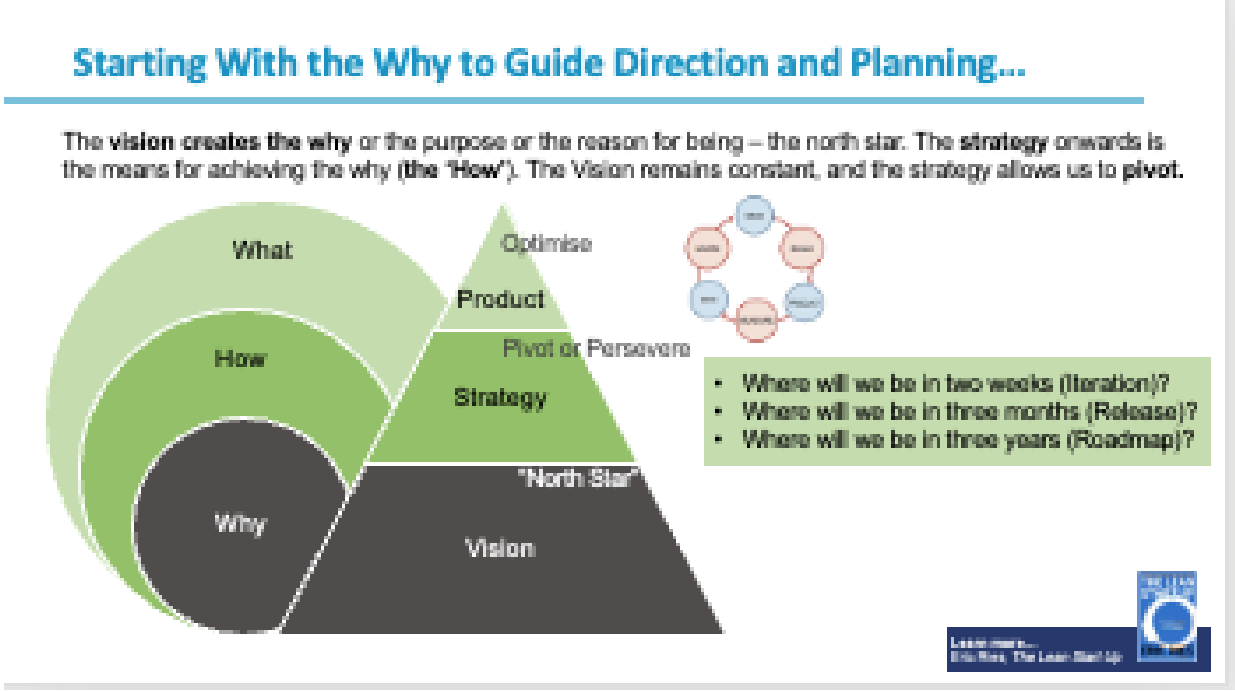
Agile strategic planning and execution methods drive organisational agility by aligning effort and resources, bringing value to activity, reducing churn, and producing strategic and operational results.

Learn more...
http://agilemodeling.com/

Planning

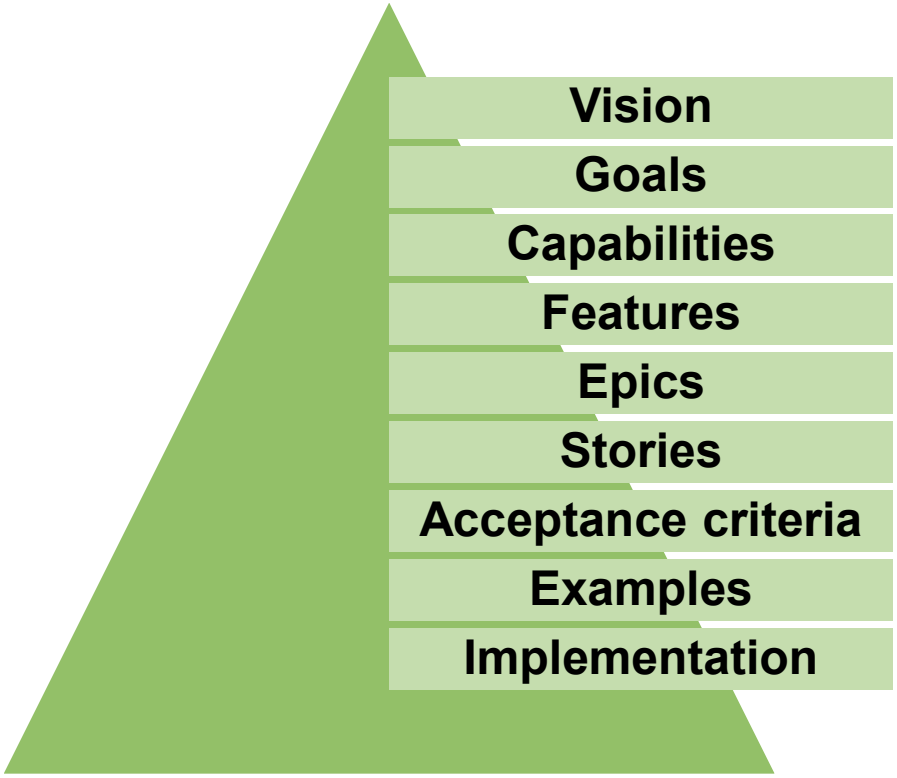
Starting With Why...

Why is it important to understand 'the why'?



What Are Our Levels of Alignment?

Our alignment begins with the why (high level) and then filters down to the detail which are stories, acceptance criteria, examples and implementation – from strategic down to tactical with built in feedback loops throughout.



Elevator pitch

Benefits to the organisation and its customers

What users and stakeholders need to achieve the goals

What are we building that can help them?

Break features and epics into stories

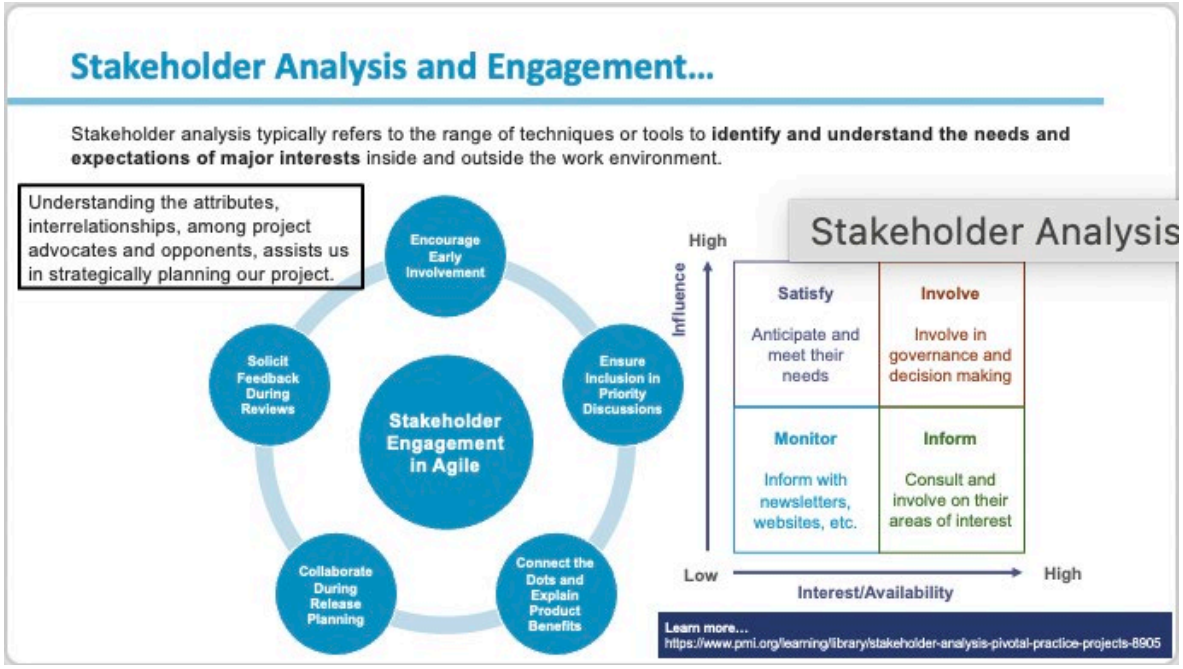
Clarify stories

Concrete examples are easier to understand

Notes

Stakeholder Analysis

Why is it important to understand the needs of our stakeholders?



Persona Matrix

The persona matrix is used to document the different subsets of a target audience – to identify the similarities and differences in our identified audiences.

	Role	Profile	Goal
	Mary Smith – Barista	Make the right coffees for the right people at the right time	Accurately process orders and changes
	Park Ji-Min – Coffee Lover	Regular customer, always in a hurry due to busy work/family life	Be in and out of the store as fast as possible, getting a high quality coffee
	Moana Sua – Store Manager	Person who uses the software occasionally, recipient of exception and status reports	Ensure SLA's and KPI's are met. Maximise profitability and return business, reduce staff turnover in store(s)

Other stakeholders . . .

Crafting a Persona

Personas help a product team maintain a constant focus on their target users, ensuring that the designed product conforms to their needs and requirements.

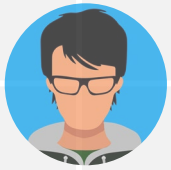
- Give each persona a name and a sketch:
  - Make it easy to relate to in future conversations
- Imagine a background for such a person:
  - Typical habits
  - Demographics
- Identify Who, How, What and Why this person will interact with our product or service
- From this foundation, Agile teams will imagine and explore capabilities and features

Who?

Who is this person?
- Akhil
- 63 year old
- Stock manager
- Plays golf most weekends
- Techno-phobic – grandkids configure his TV

How?

How has this person come to use the product?
How does this person use the product?
- 8am-6pm, Monday-Friday
- Workstation on warehouse floor



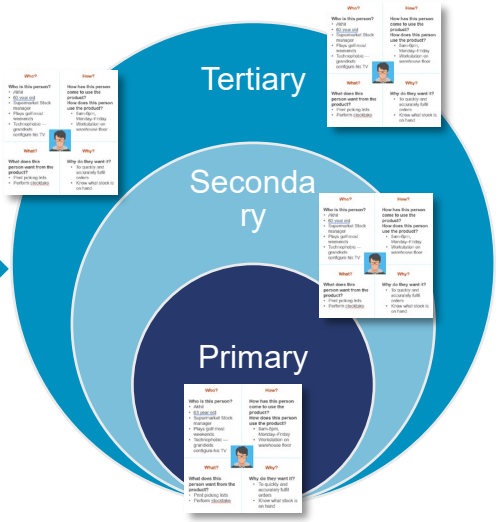
What?

What does this person want from the product?
- Print picking lists
- Perform stocktake

Why?

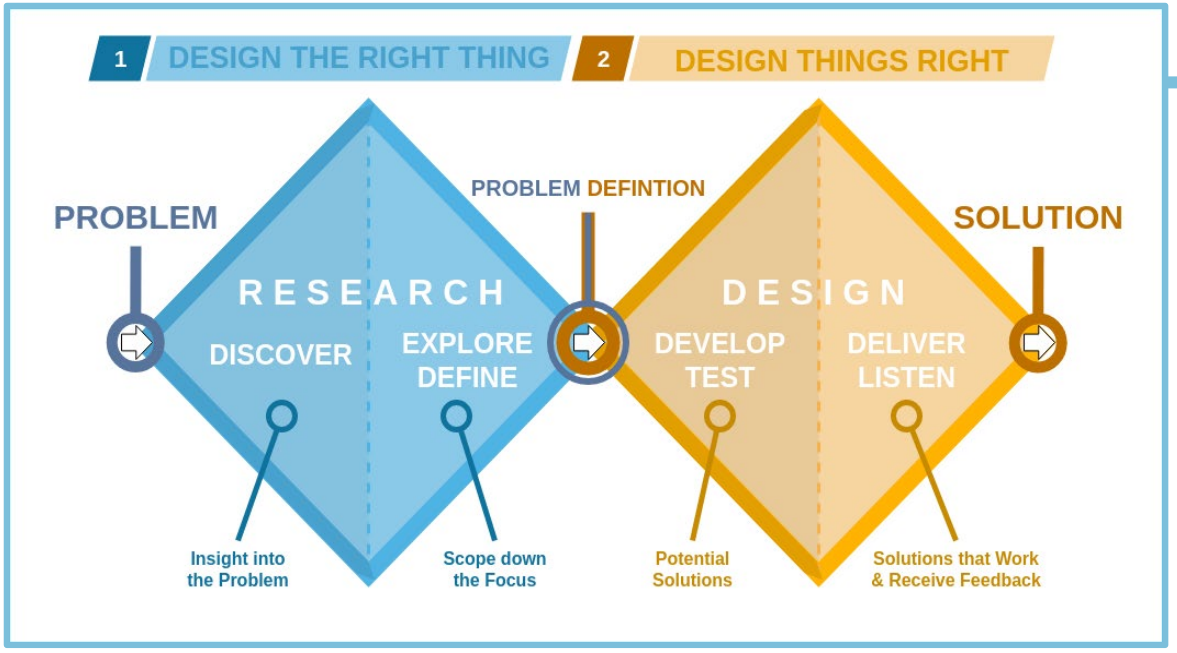
Why do they want it?
- To quickly and accurately fulfil orders
- Know what stock is on hand

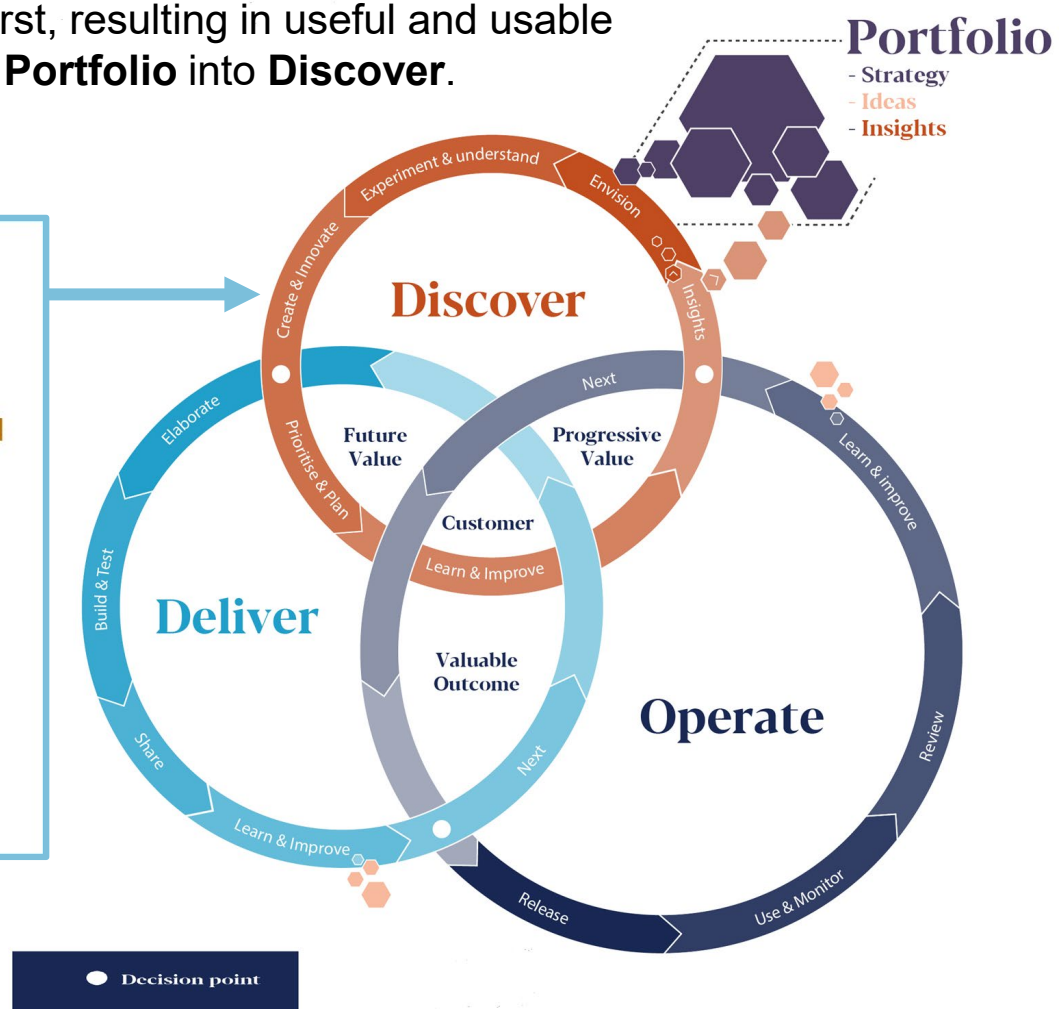
Which allows us to prioritise our crafted Personas



The Value Life Cycle – Looking for Ideas In Discover

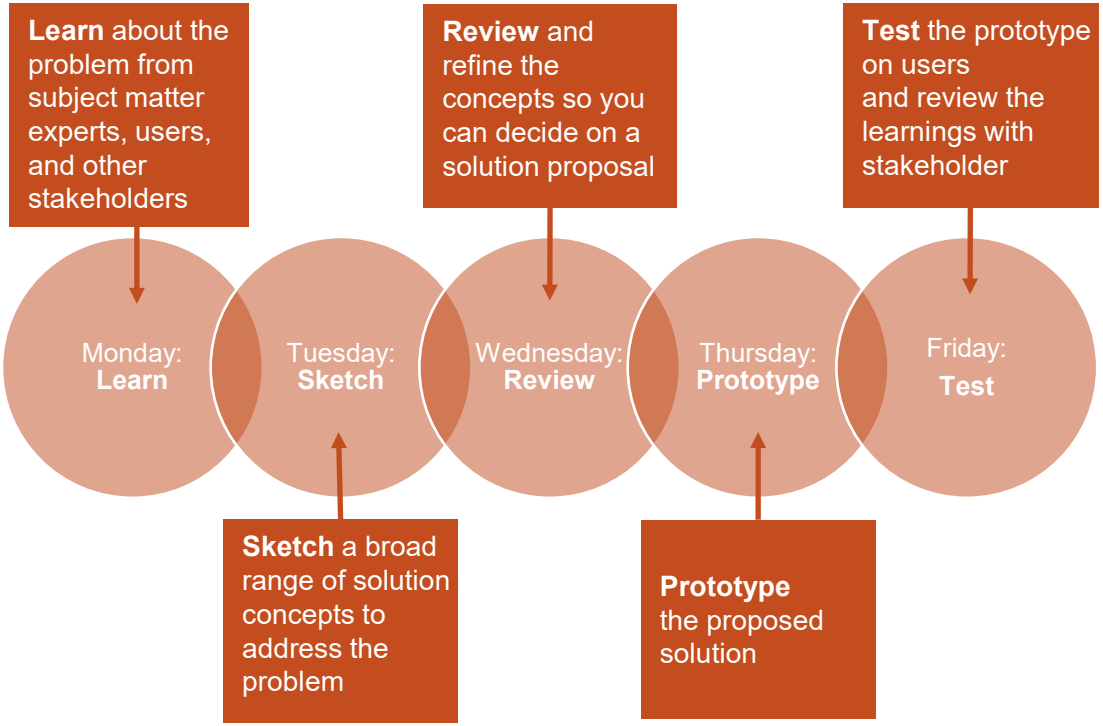
Design Thinking is a design approach that puts the users first, resulting in useful and usable products and services. This is about taking the ideas from **Portfolio** into **Discover**.

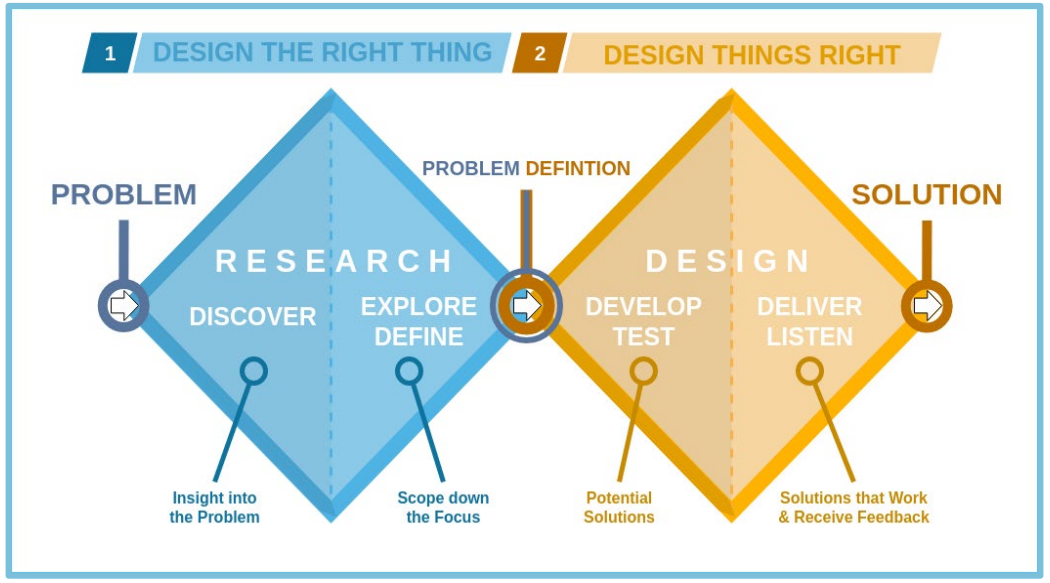




Design Thinking to Solve Knotty Design Challenges

The sprint is a five-day process for **answering critical business questions** through **design, prototyping**, and **testing ideas with customers**.





Design Sprints are a 5-step framework for powering through challenging design problems, often done as an intensive 5- day workshop

Learn more…
Jake Knapp, *Sprint: How to Solve Big Problems and Test New Ideas in Just Five Days*

User Stories

What is a user story and why would we use them?

Card – User Stories (or Just Stories)…

A user story describes functionality that will be valuable to either a user or customer of a solution.
A user story "***represents*** customer requirements rather than ***document*** them."

As a frequent flyer
I want to upgrade my reservation
So that I can travel in comfort

Card

is a promise to have a…

Conversation

and evaluate the…

Consequence

so we can begin…

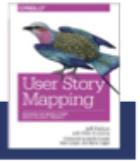
Construction

where we identify acceptance through…

Confirmation

- A story card contains a short description of user- or customer-valued functionality.
- A story card is the visible part of a story, but the important parts are the conversations between the customer and developers about the story.
- Stories are prioritised based on their value to the organisation.

"The best solutions come from collaboration between the people with the problems to solve and the people who can solve them."



Learn more…
Jeff Patton, *User Story Mapping*

Card – A User Story Template...

The intent of a user story conveys the idea that it is a starting point for further conversation around the topic of the story.

- Stories describe the functionality that will be delivered by the project
- A story is a promise to have one or more conversations later – deferring the detail closer to the time when we'll act on it, keeping it fresh in mind

As a [role]

I want to [do something]

So that [achieve valuable outcome]

As a frequent flyer

I want to be able to see my points balance

So that it's clear if I can use it to pay for my ticket

> Anyone can write user stories. It's the product owner's responsibility to make sure a product backlog of agile user stories exists, but that doesn't mean that the product owner is the one who writes them.
>
> Also, note that who writes a user story is far less important than who is involved in the discussions of it.
>
> **Mike Cohn**

User Stories – Different Templates...

Card – What if the 'As a...I Want...So That' Format Doesn't Fit?

The best user story is a sentence or two that describes something important to the customer. The shorter the story the better. The story represents a concept and is not a detailed specification.

Putting the Value first

So that [achieve a valuable outcome]
I want to [do something]

So that I can pay for my ticket

I want to be able to see
my points balance total

Non-user related stories

[action] **the** [result] **by|for|of|to|in**
[object] – *Then add success criteria*

Apply updates and patches to Web Server

- Server OS patched to version 1907 and all hotfixes applied.
- Check server is marked as compliant in System Centre

Putting the 'Why' first

In order to [why we doing something]
I want [to do something]
So that [achieve a valuable outcome]

In order to pay for my ticket
I want to be able to see
my points total
So that I can pay for my ticket

INVEST in Good Stories

Why is it important to INVEST in writing good user stories?

Confirmation – Acceptance Criteria

Why do we need to consider acceptance criteria so that we can prove the story works?

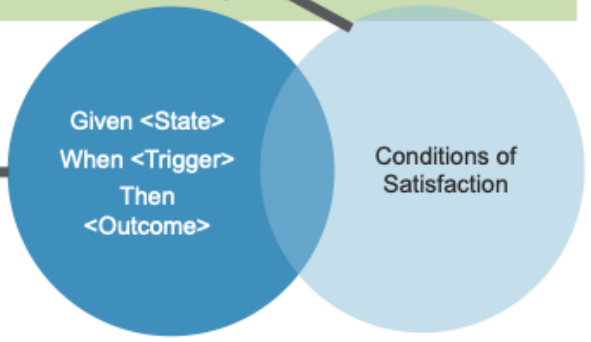
Confirmation – Acceptance Criteria for Stories

Acceptance Criteria (AC) are the conditions that a user story should meet to be accepted by a user, a customer, or other system. They are unique for each user story and define the feature behaviour from the end-user's perspective.

As a frequent flyer
I want to upgrade my reservation
So that I can travel in comfort

Insufficient Air Miles
- Reservation in economy from Sydney to Singapore
- 10,000 air miles available on account
- Upgrade from Sydney to Singapore costs 20,000 air miles
- The upgrade should be denied if requested (lack of air points)
- Air miles balance should still be 10,000
- Original reservation should remain unchanged

Happy Days
Given I have a reservation in economy from Sydney to Singapore
And I have 50,000 air miles
And an upgrade from Sydney to Singapore costs 20,000 air miles
And there is a seat available in business class
When I request an upgrade
Then the upgrade should be provided
And my air miles balance should be 30,000
And the economy seat should be released
And the business class seat should be reserved

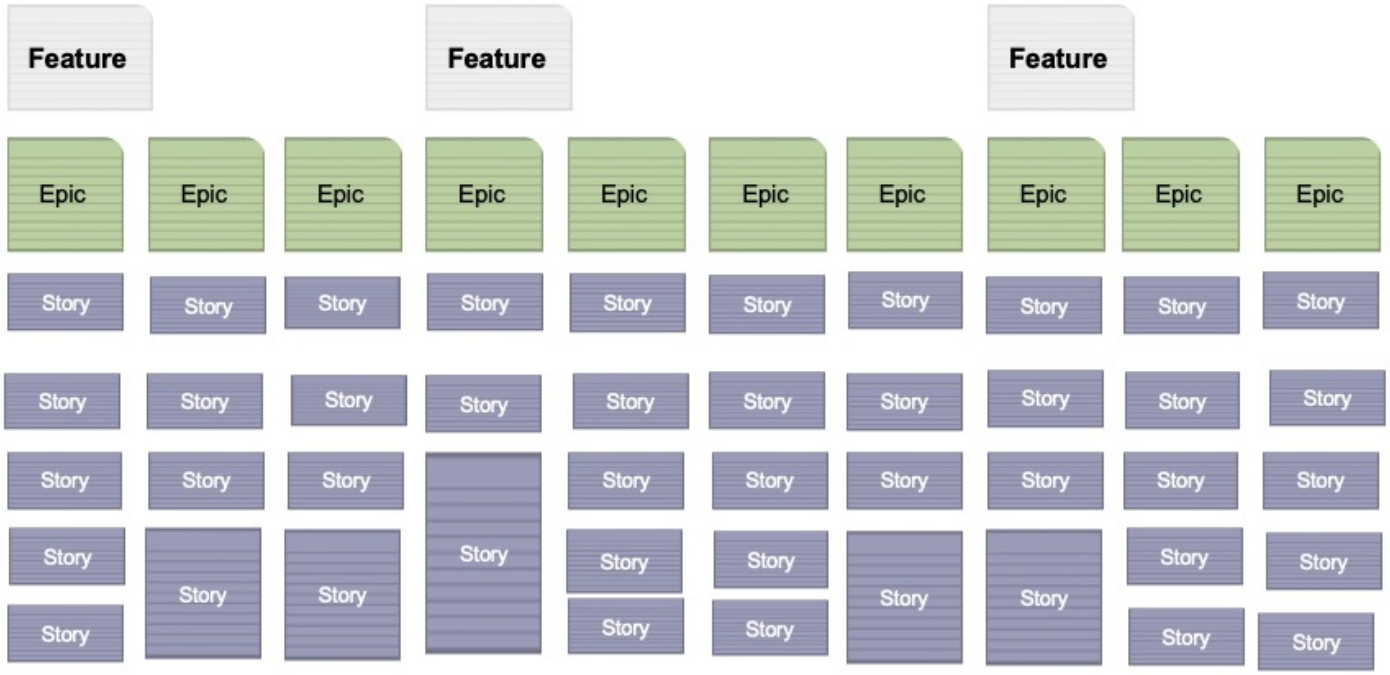


Story Mapping

How can we utilise a story map for the work that we need to do?

Expanding and Visualising our Stories Through Story Mapping

Maps are organised **left-to-right** using a **narrative flow**: the order in which you'd tell the story.



Prioritise – Backlog and Work Items

Why is it important to prioritise our work?

Prioritise – Backlog and Work Items

The MoSCoW method is a prioritisation technique used to reach a common understanding with stakeholders on the importance they place on the delivery of work.

Focusing on specific target outcomes is the secret to prioritising development work.

Must Have
- Minimum Viable Product
- Minimum Usable SubseT (MUST) of user stories

Should Have
- Important but not vital
- May be painful to leave out but the solution is still viable

Could Have
- Desirable user stories but less important

Won't Have…Yet
- Agreed that user stories need not be delivered in this timeframe…yet

The MoSCoW method asserts that all requirements are essential, but they should be ordered to deliver the most significant and most immediate business benefits early.

Learn more…
https://www.agilebusiness.org/content/moscow-prioritization

Prioritise – Backlog and Work Items

How does work prioritisation help us maximise the amount of work not done? Why is that important?

Minimum Viable Product...

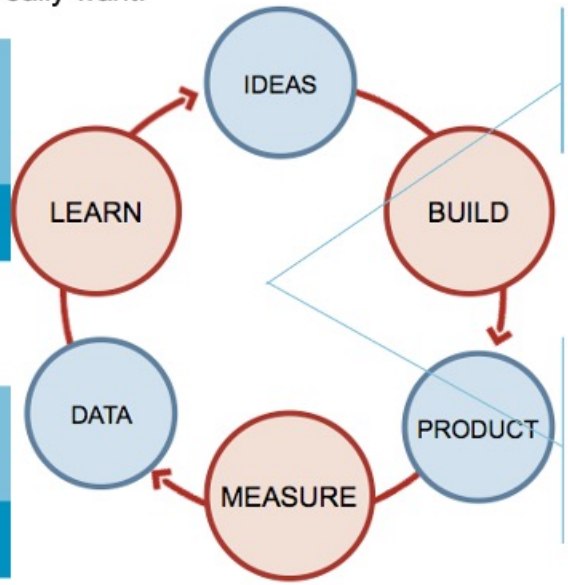
What does MVP mean in your context?

Minimum Viable Product - Iterate until its Viable

An MVP is a version of a new product that is created with the least effort possible to be used for **validated learning about customers.** MVPs are used to run experiments to explore a hypothesis about what your customers really want.

Release – A minimum set of features set to satisfy a goal

Earliest **Lovable** Product



Iteration n1 – An end to end walking skeleton

Earliest **Testable** Product

Minimum Marketable Features is the smallest set of **functionality** that must be realised in order for the customer to perceive value

Product – Prioritised Work

Minimum Viable Product (Solution) is also the smallest thing you could create or do to prove or disprove an assumption

Earliest **Usable** Product

Learn more...
Eric Ries, *The Lean Startup*

THE LEAN STARTUP
ERIC RIES

Definition of Done

Why is Definition of Done useful?

Definition of Done – What is it (and some pitfalls)...

The team agrees on, and displays prominently somewhere in the team room, a list of criteria which must be met before a product increment "often a user story" is considered "done". Failure to meet these criteria at the end of a sprint normally implies that the work should not be counted toward that sprint's velocity.

The Definition of Done provides a checklist which usefully guides

- Pre-implementation activities: discussion, estimation, design
- Definition of Done helps limit the cost of rework once a feature has been accepted as "done"
- Having an explicit contract limits the risk of misunderstanding and conflict between the development team and the customer or product owner

Common Pitfalls
Obsessing over the list of criteria can be counter-productive

- The list needs to define the minimum work generally required to get a product increment to the "done" state
- Individual features or user stories may have specific "done" criteria in addition to the ones that apply to work in general
- If the definition of done is merely a shared understanding, rather than spelled out and displayed on a wall, it may lose much of its effectiveness
- A good part of its value lies in being an explicit contract known to all members of the team

Learn more...
https://www.agilealliance.org/glossary/definition-of-done/

Definition of Done – An Example of DoD...

Definition of Done provides a checklist which usefully guides pre-implementation activities: discussion, estimation, design.

on 3+ Levels

Initiative

- All defined work completed
- All compliance approved
- Communications plan executed
- Training completed
- Documentation completed
- Rollout completed

Release

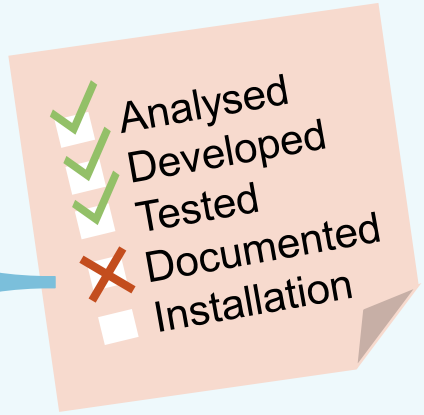
- Required iterations completed
- Compliance tests completed
- User Acceptance tests completed
- Performance / Security Testing passed
- Documentation updated
- Communications plan updated
- Rollout plan instigated

Iteration

- Backlog updated
- Iteration plan generated
- Stories elaborated, written, tested, documented
- Documents commenced
- Training plan commenced
- Rollout plan commenced
- Comms plan commenced
- Showcase delivered

Work Item / Story

- acceptance criteria
- Quality defined
- Sys Test cases identified
- Auto Test built
- Coded to standard
- Unit tests created
- Sys test pass (M+A)
- Test summary report produced
- No defects
- Quality criteria met
- Release note written
- 'How to' written



> The team agrees on, and displays prominently somewhere in the team room, a list of criteria which must be met before a product increment "often a user story" is considered "done".
>
> **Agile Alliance**

Definition of Done

Why is it important to understand our delivery cycle?

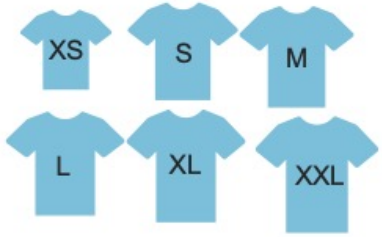
Relative Estimation

Why do we need to estimate?

Estimation – Estimating based on effort and complexity

During **release planning**, the Agile team **estimates the effort** needed to complete the release—this includes estimating **testing effort**.

- **Planning poker** is a common, consensus-based technique used in Agile.
- During **release and iteration planning**, the Agile team estimates (e.g., with the aid of planning poker), the **size of each user story** (often estimated in story points using the Fibonacci sequence).
- **Planning poker** formulates relative estimation size, i.e., where the estimates are related to one another.



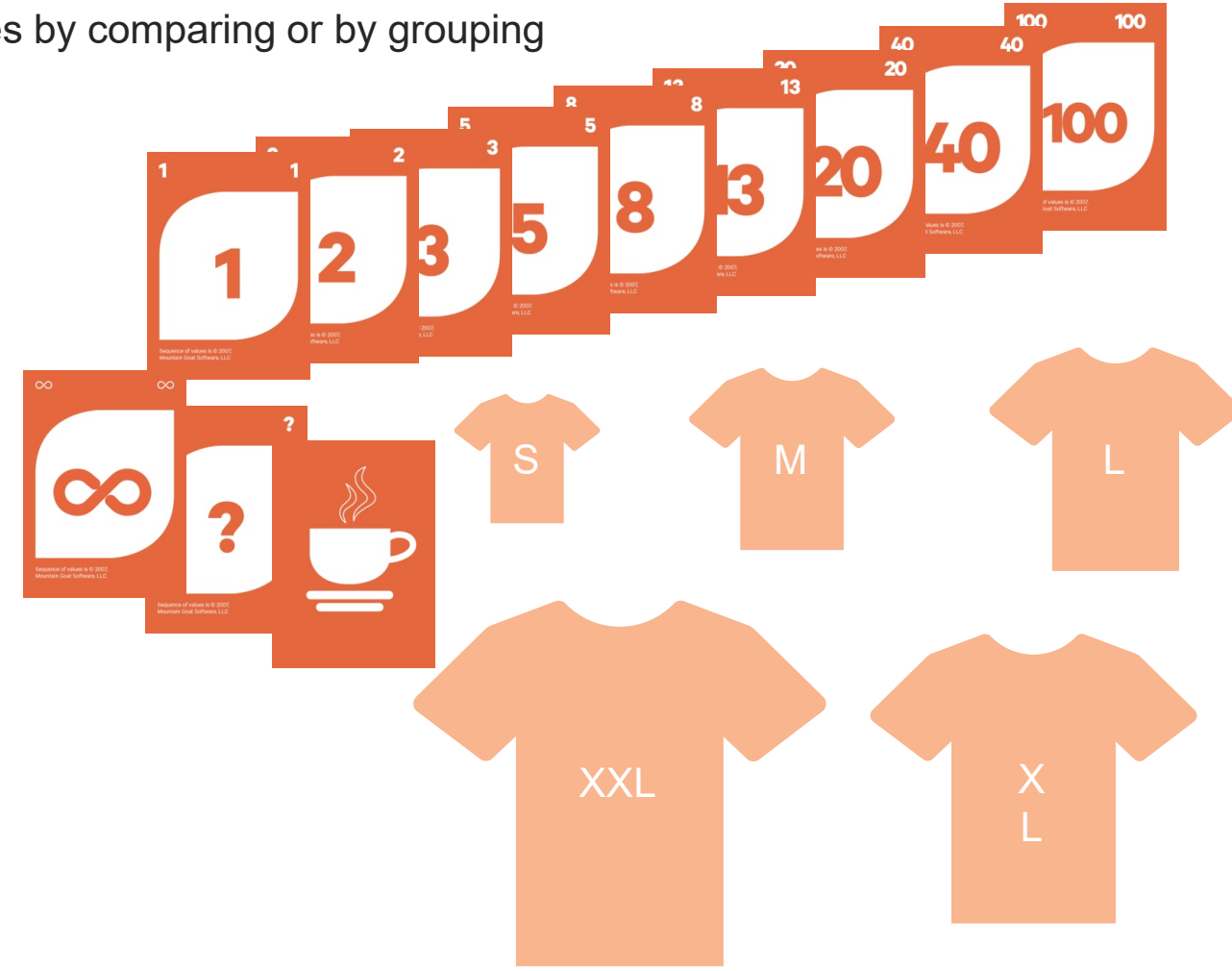
Estimation With Planning Poker and T-Shirt Sizing...

Relative estimation is estimating user stories by comparing or by grouping together items of equivalent difficulty.

Each player needs one deck of cards
Numbers 1, 2, 3, 5, 8, 13, 20, ?, break, ∞

Instructions

- Choose around 10 stories
- Discuss one story
  - Play your cards to estimate the story
  - Discuss the greatest differences
  - Repeat these steps until you converge close enough
  - After 10 stories, compare your forecasts for consistency
- Repeat until you run out of stories or time-box



Estimation – Converting Story Points to Time

Conversion Factor = $\frac{\text{Time from task breakdown}}{\text{Size of sample story in points}}$

- If a 2 point story takes 3 person days
  then the conversion factor is 1.5

Total Time = Conversion factor * Total story points

- If there are 800 story points
  then the build time is 1,200 person days
- If there are 10 people on the team
  then the build time is 120 team days
- If the iterations are two weeks = 8 build days
  then the number of iterations is 15
  and the total time is 150 team days (30 weeks)

Estimated Velocity = $\frac{\text{Time in iteration}}{\text{Conversion factor}}$

- Since the iterations are two weeks = 8 build days
  and there are 10 people on the team
  then the estimated velocity is 53
  *(8 * 10 / 1.5)*

Relative Estimation

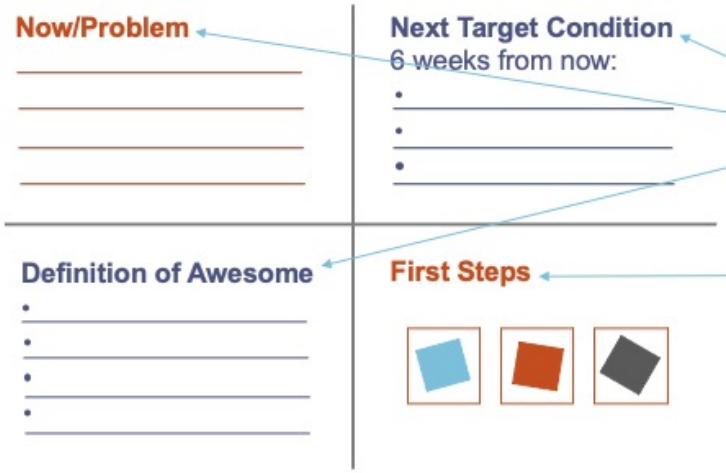
What does this mean for the work that we do?

How would an improvement kata help us become better?

Agile RI

Toyota Kata is a **structured way** to **create a culture** of continuous **learning** and **improvement** at all levels.

Improvement Theme



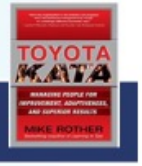
The improvement kata is a routine for moving from the current situation to a new situation in a creative, directed, meaningful way.

It is based on a four-part model:

1. In consideration of a vision or direction...
2. Grasp the current condition.
3. Define the next target condition.
4. Move toward that target condition iteratively, which uncovers obstacles that need to be worked on.

Wikipedia

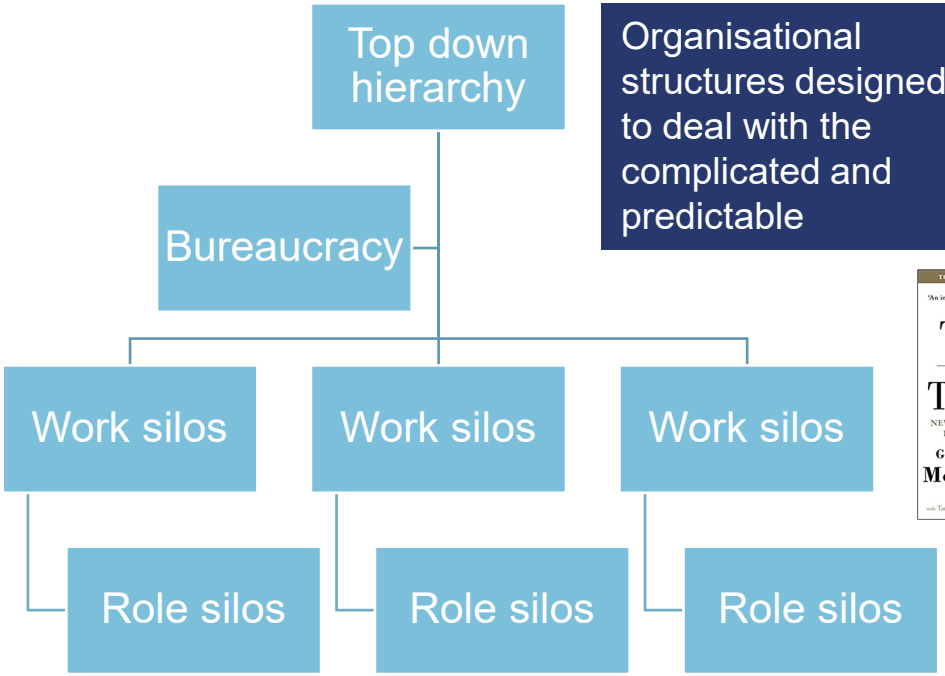
Learn more...
Mike Rother, *Toyota Kata – Managing People for Improvement, Adaptiveness and Superior Results*



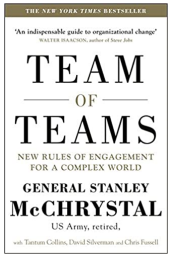
Dealing With Complexity...

Organisational structures that are ‘network designed’ to better align and deal with complexity.

The fact is that **VUCA** (Volatility, Uncertainty, Complexity, Ambiguity) impacts how individuals and organisations make decisions, plan forward, manage risks, foster change and solve problems.

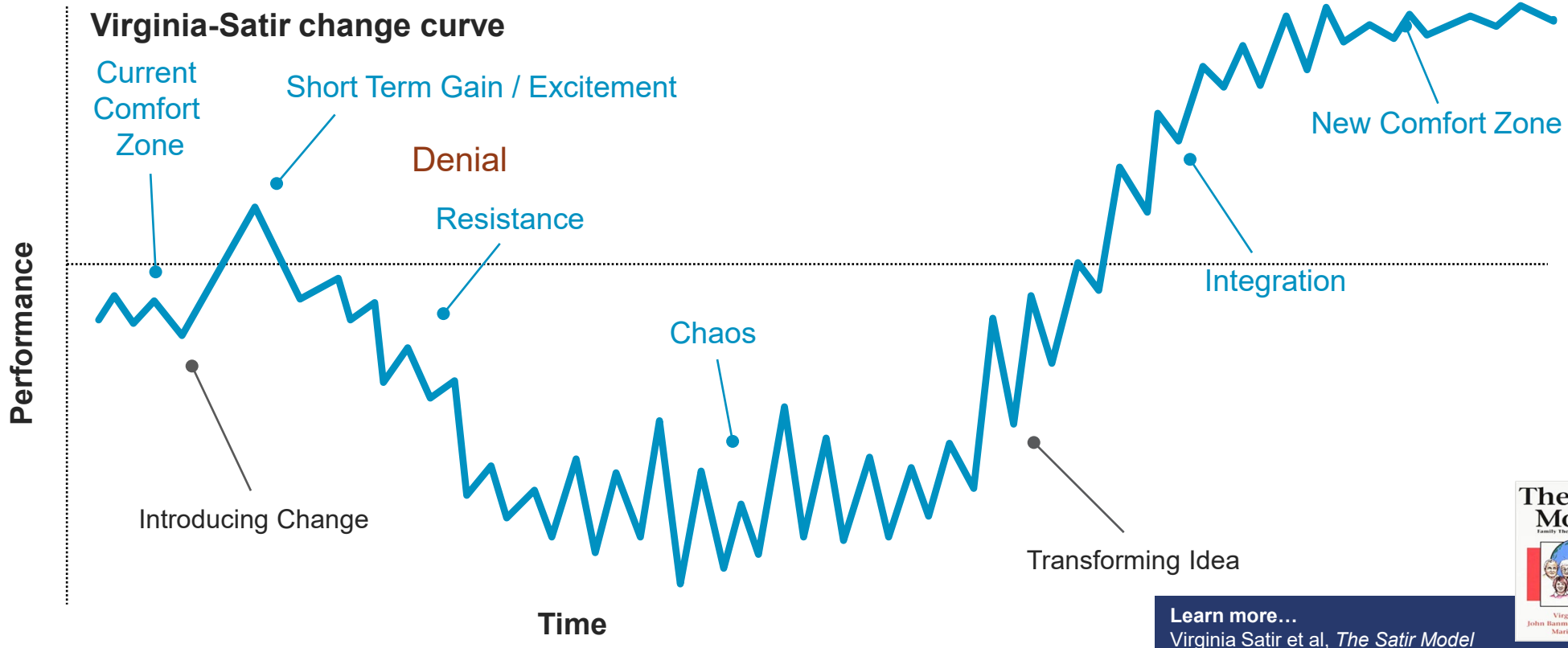


Organisational structures designed to deal with the complicated and predictable

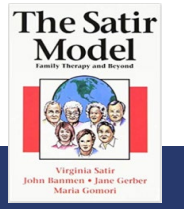


Change Takes Time

The Virginia Satir change model of how individuals, teams and organisations experience change. The Model says that as we cope with unexpected or significant change, we predictably move through four stages: Late Status Quo, Chaos, Practice and Integration, and New Status Quo.



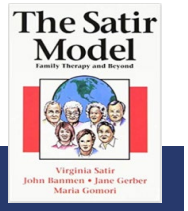
Learn more…
Virginia Satir et al, *The Satir Model*



Actions to Help Facilitate Change...

Stage	Actions
1. Late Status Quo	•Encourage people to seek to improve how they do things •Encourage people to remain receptive to improvement ideas •Ask team members to look externally for improved ways of doing things
2. Resistance	•Encourage people to open up and express their feelings •Encourage people to talk to others, especially those that are more positive about the change
3. Chaos	•Help build a safe environment for people to express how they feel •Encourage team members to chat through their new ideas •Work through magical solutions with your team and help them to conclude that these are not usually the answer
4. Integration	•Encourage your team to explore and try out new ideas and ways of working •Offer support •Ensure your team members understand that it's okay to fail or find things difficult at this stage
5. New Status Quo	•Promote a safe environment so people feel free to practice and fail •Encourage your team to look for areas which could benefit from incremental improvement •Celebrate success

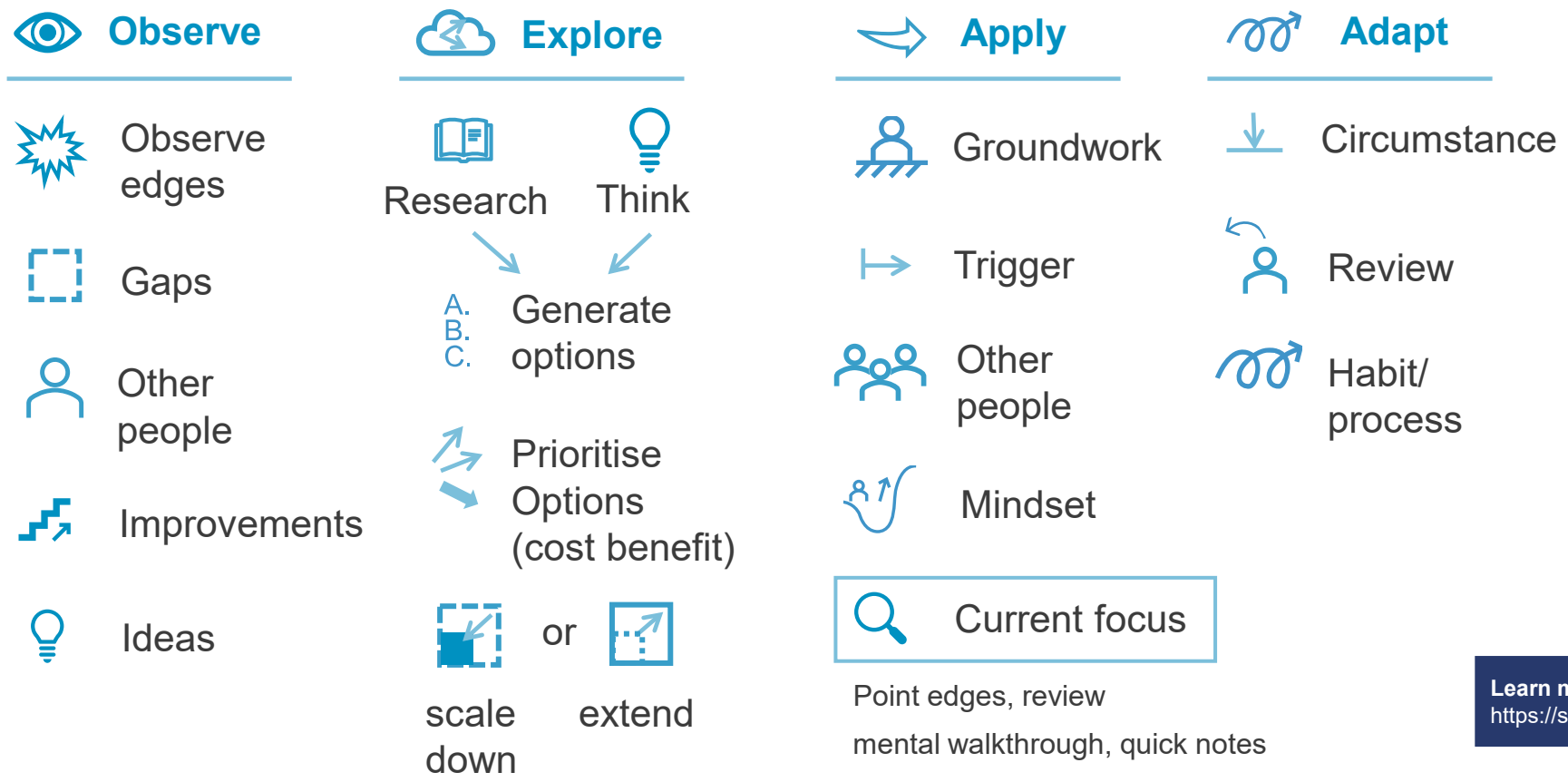
Learn more…
Virginia Satir et al, *The Satir Model*



Kaizen – Continuous Improvement

Kaizen…strives toward perfection by eliminating waste (**Muda**) in the workplace (**Gemba**)

Kaizen



Learn more…
https://sachachua.com/blog/

Ten Principles of Kaizen

The Kaizen method follows ten specific principles, which are described below:

1. **Improve** everything **continuously**
2. **Abolish old**, traditional **concepts**
3. **Accept no excuses** and make things happen.
4. **Say no to the status quo** of implementing new methods and assuming they will work.
5. If something is **wrong, correct it**
6. **Empower** everyone to take part in **problem solving**
7. Get **information** and opinions from **multiple people**
8. Before making decisions, **ask "why" five times** to get to the root cause. (5 Why Method)
9. **Be economical**. Save money through small improvements and spend the saved money on further improvements.
10. Remember that improvement has no limits. **Never stop** trying to **improve**

Retrospective

What worked well?

What could be improved?

What will we commit to in the next iteration?

Notes

Appendix

Case Study Overview – Coffee Ordering App

We operate a chain of highly successful coffee shops operating nationally as part of a large retailing chain called GreenMart. We have a large number of loyal customers as well as a not insignificant amount of foot traffic due to a variety of inner-city and suburban locations both standalone and linked to a number of our key stores.

Our coffee shops continue to attract existing and new customers and get great online reviews, however recently our customers have started to demand newer, faster and more efficient service approaches without compromising on quality. We have invested time and effort in conducting a customer survey which has identified that what your customers are really after, amongst other things, is the ability to save time ordering their beverages via their mobile devices before picking them up in the store. With our customer satisfaction at stake, it is now important to act on this newly gained knowledge and give our customers what they want!

Some important considerations to be aware of:

- Coffee has a shelf-life of 3 minutes; the drink must be in the customer's hand within 3 minutes of it being made or we have to waste it and remake the drink.
- Our shops sell a variety of hot and cold beverages (not only coffee!); they may even sell small baked goods and other snacks.
- Don't forget that we also have "drop-in" customers (i.e., non-regulars).
- Do our coffee shops provide seating? If so, how will "sit-down" customers be handled?
- Our coffee shops are part of a larger retailing chain; what other opportunities could this offer, and what are some of the disadvantages?

Project Charter

Description	Mobile ordering for loyal coffee drinkers		
Vision	We offer a frictionless service for regular coffee drinkers to order their drink from a mobile device and avoid waiting in long queues. This results in higher customer satisfaction, greater customer retention, more engaged staff due to shorter queues and higher profits for the group.		
Sponsor	Martyn Jones (MD)		
Organisation/division	GreenMart / Coffee Stores Division		
	Primary	Secondary	Tertiary
Increase Revenue		Increase revenue from repeat business customers by 10% within 3 months	
Reduce Cost			Reduce queues and consequent staff turnover, reduce wasted drinks
Improve Service	Increase customer satisfaction as measured by NPS by 20% within 3 months		

Elevator Statement Template

Elevator Statement

"**For** (customer), **who** (statement of need), **the** (product name) **is a** (product category) **that** (key benefit, compelling reason to buy).

Unlike (primary competitor),

Our product (statement of primary differentiation)."

Lean Initiative Canvas Template

LEAN INITIATIVE CANVAS

INITIATIVE

DATE

SOFTED

KEY PROBLEMS
Key problem or opportunity to be solved

SOLUTION / SCOPE
Proposed solution / scope for this initiative

VALUE STATEMENT
Explain the value of this initiative

KEY PARTNERS
Teams / Partners & estimated time required

CUSTOMERS
Core customer groups this addresses

ALTERNATIVES
Current or competitor approaches to this

OUT OF SCOPE
Key items that are not in scope currently

COMPETITIVE ADV.
Explain our point of difference

CHANNELS
Path to attract & serve customers

EARLY ADOPTERS
Sub-group who will jump to this initiative

TECHNOLOGY REQUIREMENTS
Technology required to support this initiative – new or existing

KEY RAIDS
Key Risks, Assumptions, Issues, Dependencies, Constraints

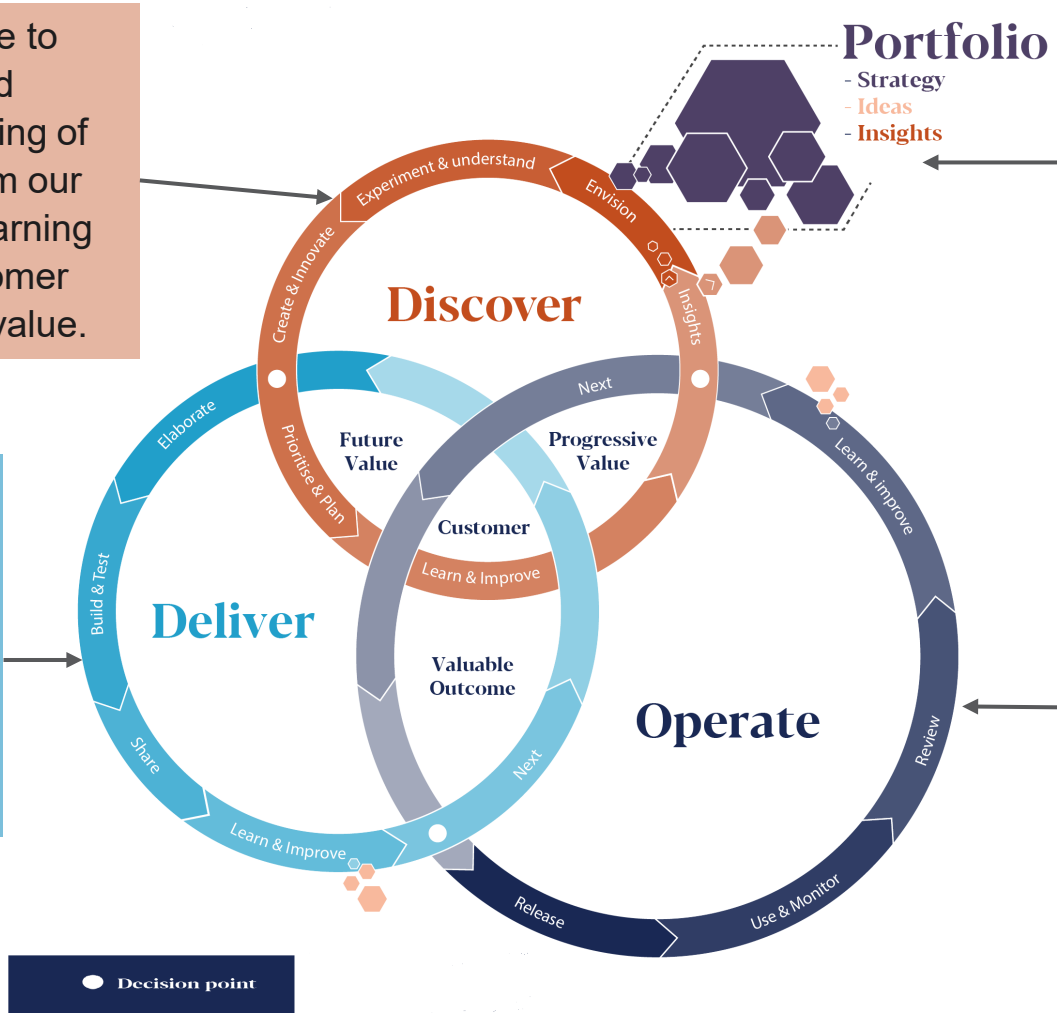
COSTS
Any additional costs required to deliver this initiative

BENEFITS & REVENUE
SMART goals and any key metrics / revenue targets

Agile With SoftEd – The Value Life Cycle

Discover – is a fast cycle to validate assumptions and enhance our understanding of the elements flowing from our portfolio. Here we are learning and improving with customer insights to define future value.

Deliver – elaborating the learnings from Discover in order to deliver tangible, valuable outcomes that are again validated by the customer for learning and improving.



Portfolio –ideas, insights and the organisation's strategic vision to services their customer's needs now and into the future. A large collection of work that is broken down into smaller elements so that we can quickly learn the value provided.

Operate – is the usual business function where we are constantly looking to add progressive customer value and where many ideas and insights are generated.

Notes

SOFT
ED

www.softed.com