

ScrumMaster.dk



AgileLeanHouse

The eXtended Story Map, the 4W Pattern - the history, benefit and application

AgileLeanHouse - a subsidiary of ScrumMaster.dk -
builds the agile tool

現 agemba

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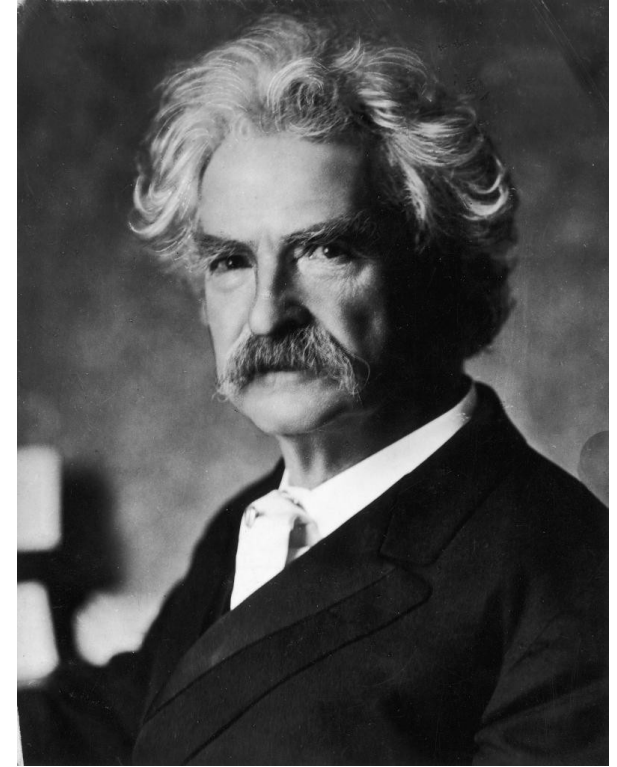
What brought us here?



"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."

Mark Twain

A lot of decisions in organizations are based on hear-say or distorted information, coming through long channels of reporting.

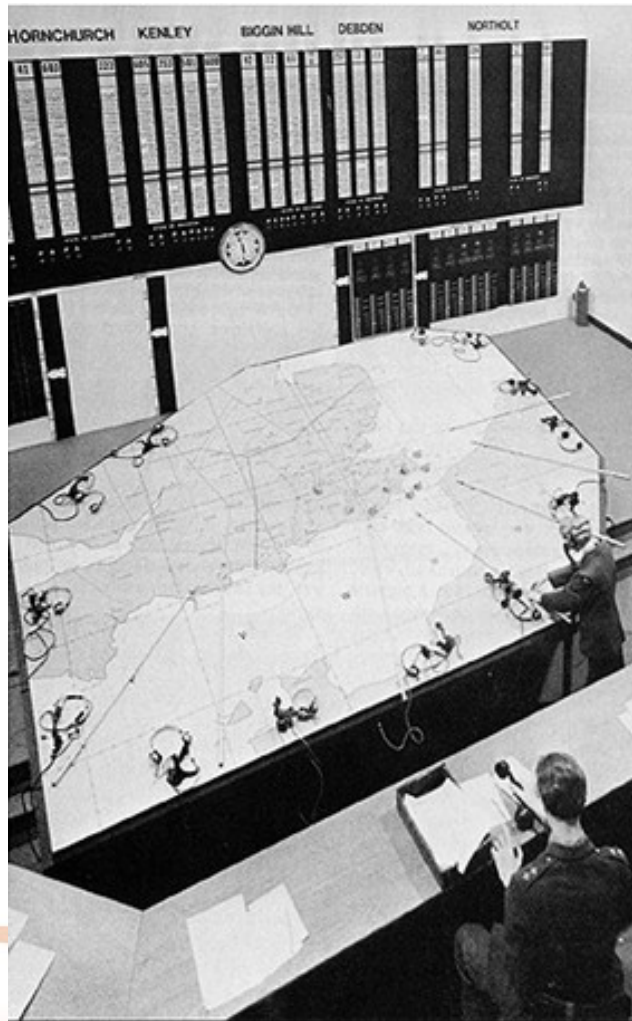


Improving visibility



- We need visibility to enable Empiric process control
- Complex situations require simple key information

During the battle of Britain, the RAF war room at Uxbridge saved Britain

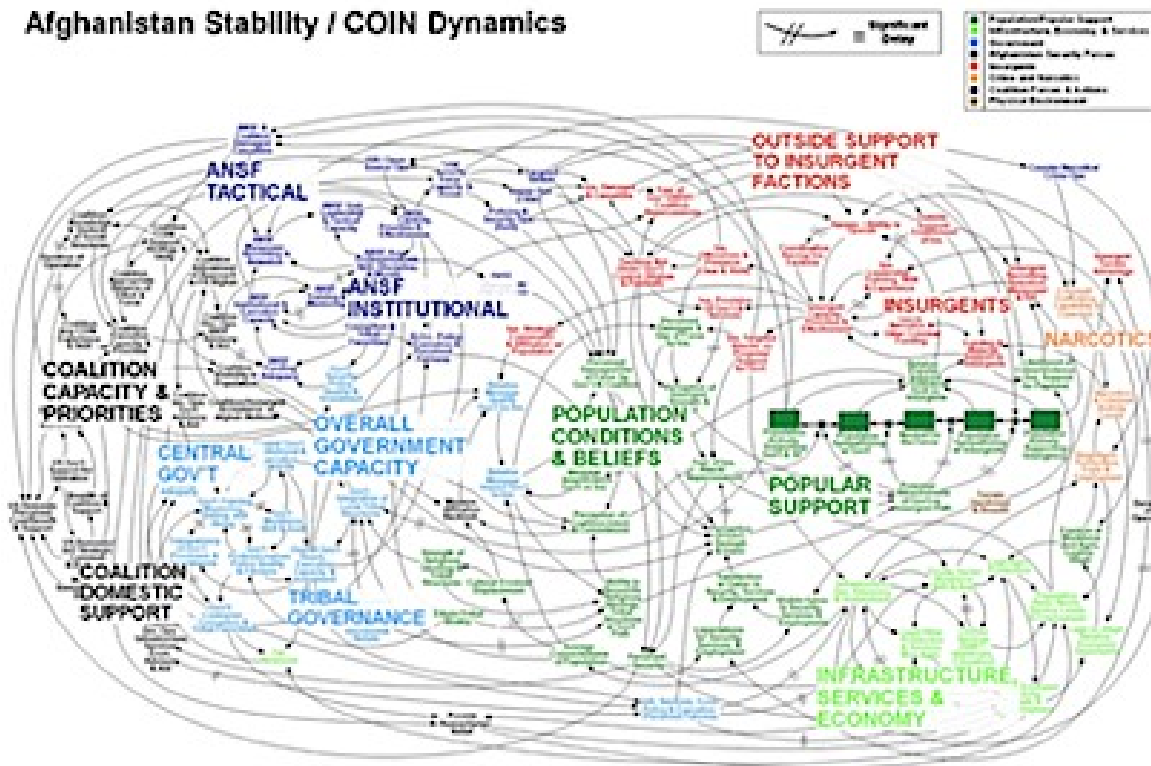


RAF GROUP OPERATIONS ROOM - UXBRIDGE

Visibility - requires simplicity



Afghanistan Stability / COIN Dynamics



General McChrystal was heard to comment: "When we understand that slide, we'll have won the war".

W. Edwards Deming said this in 1950



"The emphasis should be on why we do a job."

"Quality is pride of workmanship."

"Export anything to a friendly country except American management."

W. Edwards Deming

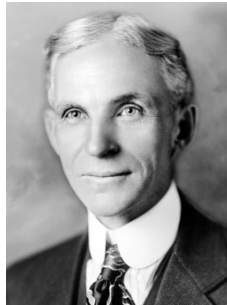


Deming helped rebuild Japan after WWII with focus on purpose, quality and respect for the individual.

Management or Leadership?



Frederick
W. Taylor



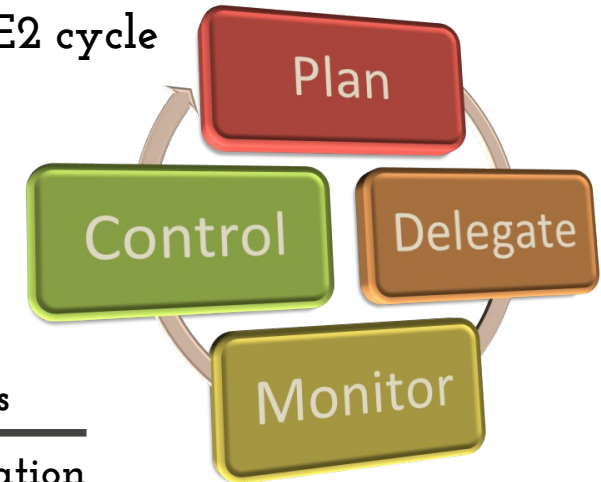
Henry
Ford



Alfred
Sloan



The PRINCE2 cycle

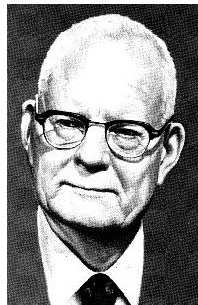


Plan and numbers

People and innovation



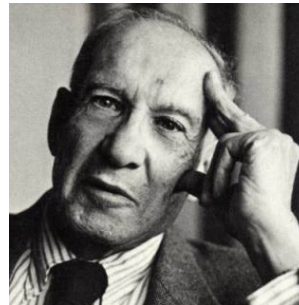
Walter A.
Shewart



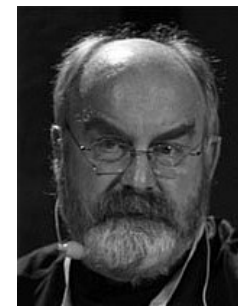
W. Edwards
Deming



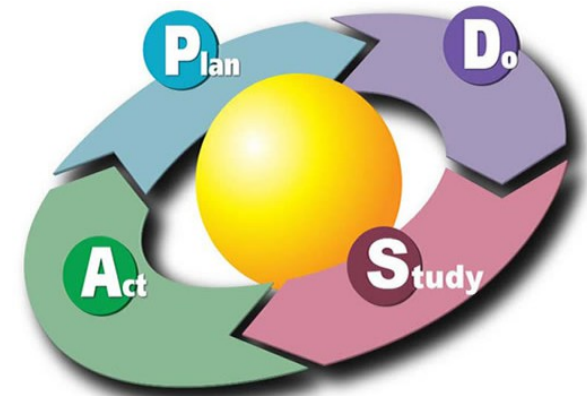
Peter
Scholtes



Peter Drucker



Dave
Snowden



The Deming PDSA cycle



Tom Gilb



Jeff
Sutherland



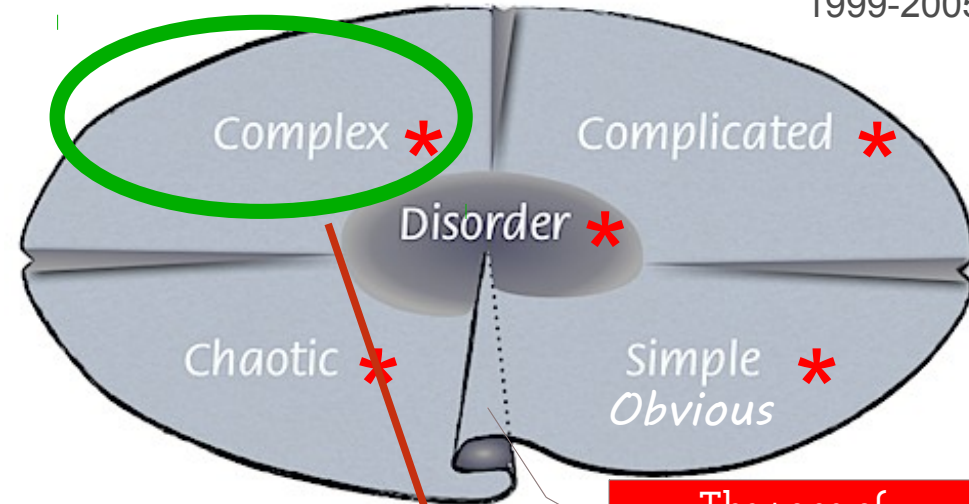
Ken
Schwaber

Cynefin framework - David Snowden



- **Simple/Obvious**, in which the relationship between cause and effect is obvious to all. We can apply best practice.
Sense – Categorize – Respond.
- **Complicated**, in which the relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge. We can apply good practice.
Sense – Analyze – Respond.
- **Complex**, in which the relationship between cause and effect can only be perceived in retrospect, but not in advance. We can sense emergent practice.
Probe – Sense – Respond.
- **Chaotic**, in which there is no relationship between cause and effect at systems level. We can discover novel practice.
Act – Sense – Respond
- **Disorder**, which is the state of not knowing what type of causality exists, in which state people will revert to their own comfort zone in making a decision.

Developed by Dave Snowden & Cynthia Kurtz
1999-2005



The zone of complacency

- Probe, sense, respond
- Create environments and experiments that allow patterns to emerge
- Increase levels of interaction and communication
- Use methods that can help generate ideas: Open up discussion (as through large group methods); set barriers; stimulate attractors; encourage dissent and diversity; manage starting conditions and monitor for emergence

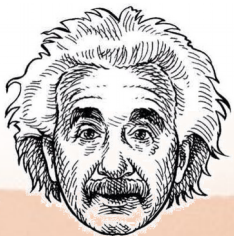


Experience from the field



- Scrum Product Owners have persistently presented some needs:
 - Help to work with specifications, demands, requirements etc from Stakeholders, to make sense of it all
 - Help to prioritize, what to do and what not to do, What to do first
 - Help to keep the overview of the solution even when decomposing specifications into manageable sizes.
 - Help to report goals, impacts, risks, progress, solutions, impediments to Stakeholders
- Managers have presented similar needs:
 - Keeping an overview, actually having transparency and visibility into what is going on
 - Being alerted as to when to intervene
 - Being as certain as possible that no important issues and ideas are forgotten
- Others have added:
 - Consolidating developments, projects and operations: Issues, ideas and larger goals into one stream to prioritize
 - This is where ITIL contributes and the new buzzword DevOps starts to have an impact
- Business Owners and CEOs have the same set of problems

*"A perfection of means, and confusion of aims, seems to be our main problem."
Albert Einstein*



A Consolidated Pattern for Strategic Thinking



- We learned from a host of clever people
 - Walter A. Shewart, W. Edwards Deming, Tom Gilb,



- Mike Cohn, Noriaki Kano. Jeff Patton
 - Dave Snowden
- So implemented and described a consolidated view of:
 - Value Mapping
 - Impact estimation, complexity estimation, Kano estimation
 - Time based constraints, milestones given or to be met
 - Global constraints on technology, performance, language etc.
 - The story of the solution: the Story Map
- In total the "4W Pattern"



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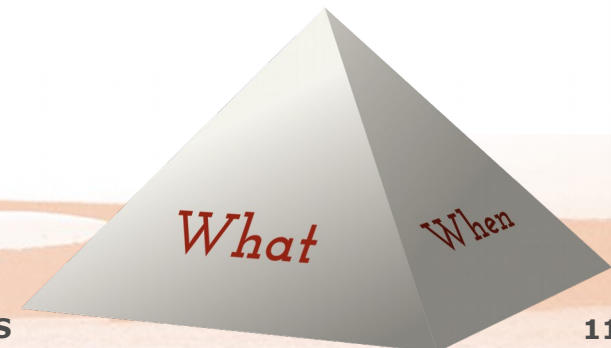
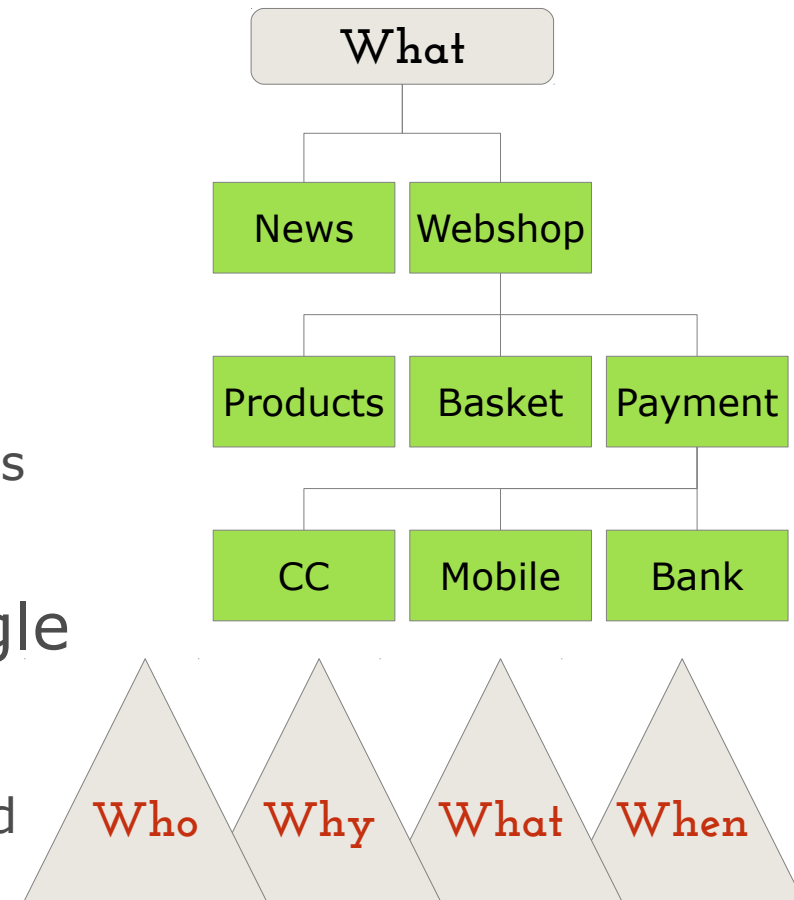
Who, Why, What and When

A Bird Eye's view

The 4W pattern



- The 4 Wizards: Deming, Gilb, Schwaber and Snowden
- Each of the four “Ws” is a tree structure
 - We understand hierarchical structures
 - They can be visualized
- We illustrate this tree as a triangle
- So we have four triangles
 - Put together they make up a pyramid
- But the world is not that simple
 - There are relationships between the four
 - It is not a linear process, you have to go back and forth between them



The Pyramid Roof of the building



■ Why?

- What is it we want to accomplish? What are the values or qualities, we would like to harvest, which risks or threats would we like to counter?
- This is a Value Map

■ Who?

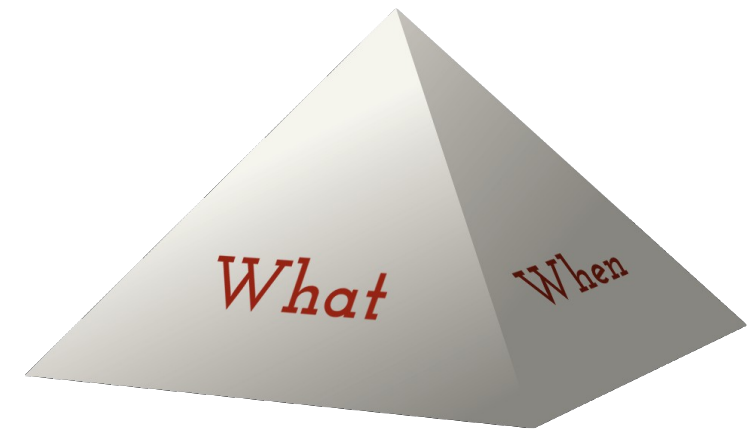
- Who are we serving, who will get the benefit of what we do? Who will use what we produce?
- This is a Stakeholder or User Map

■ What?

- What is it we create? What are our strategies to accomplish the desired values or qualities?
- This is the classic Story Map

■ When?

- Which deadlines are forced on us from the outside? Which Releases or Phases do we plan to work with? When do we have to deliver something out of the project or initiative? When will we get something delivered in form external parties?
- This is a Time Map

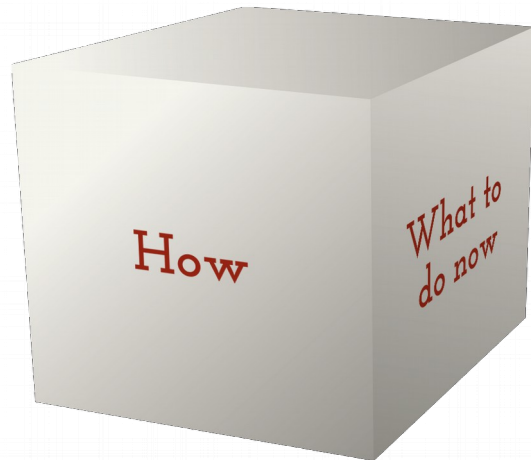


The Pattern Visualized

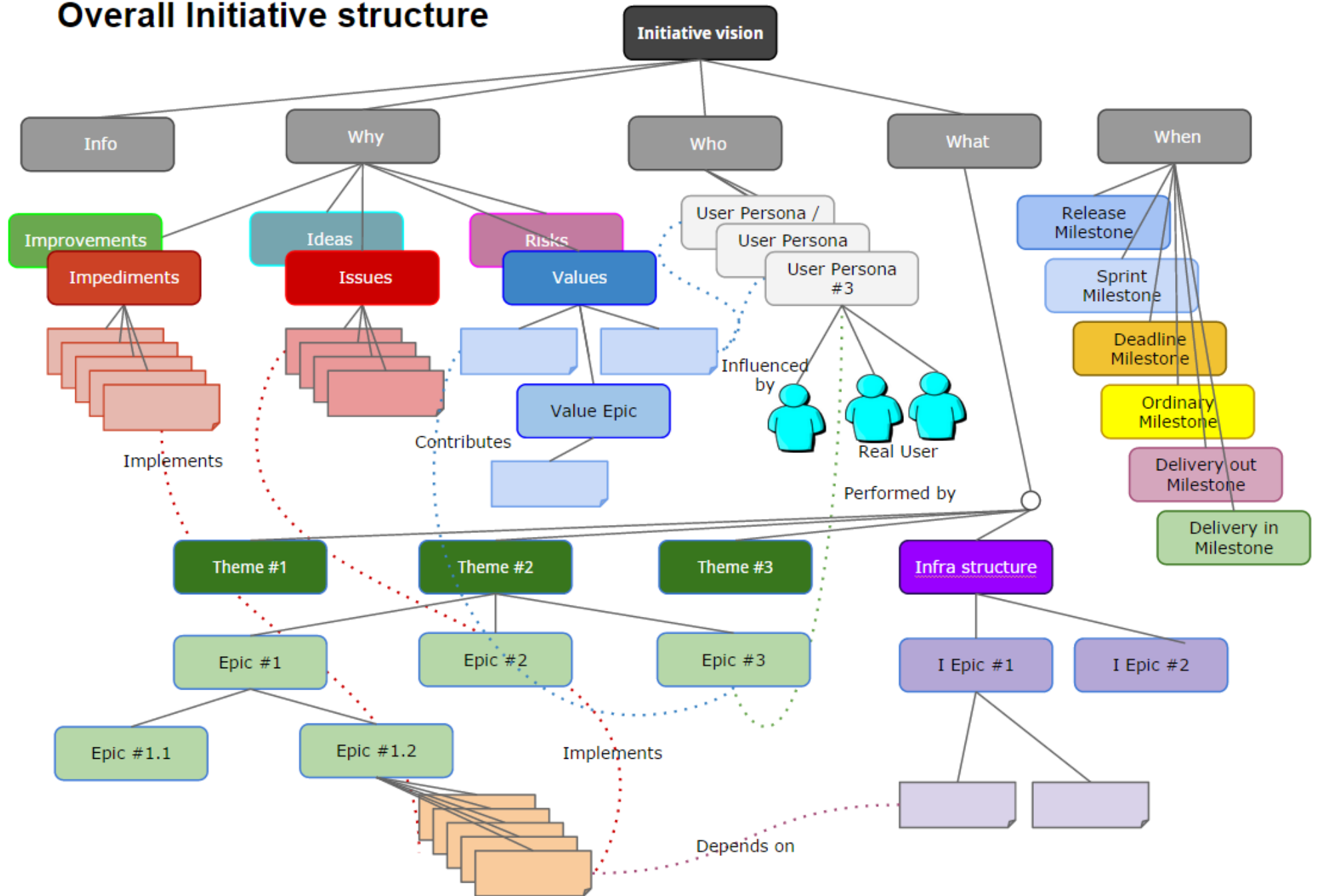


■ What we have in Scrum

What to improve	How	What to do now	What's the status
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Overall Initiative structure



Attributes and Relationships



■ Attributes

- All Items, can be “Mandatory”
- “What” Items can be: Must Haves, Exiters, and Satisfiers (plus indifferent and reverse), this is Kano's principle
- “What” Items can be “MUV” (Minimal User Value), formerly known as MMF (Minimal Marketable Feature)
 - Further break down makes no sense to the user

■ Relationships

- “What” Items can “Implement” “Issues” and “Ideas” in the “Why”
- “What” Items can “Contribute” to “Values” and “Drawbacks” in the “Why”
- “Who” Items (Users and Teams) can “Influence” “Why” Items
- “Who” Items can “Perform” “What” Items
- “Why” and “What” Items can be “Locked” to “When” Items (Milestones, deadlines etc. including releases)

The 4W Pattern - when to use



- When confronted with the request for action, driven by forces from the outside or a desire to improve or innovate, the 4W pattern can be used
 - It is deliberately iterative in an acknowledgment of the need for building understanding and knowledge on the way
- These requests should be in the form of a request for value, a top level "Why"
 - Sometimes Values are negative, we call them "Drawbacks"
 - Always be suspicious of requests for action without an explanation of why
- Try to decompose the top level request into a set of "Authentic Values"
 - Make the initial stakeholders agree on these
- Always include the operative people as soon as possible
 - Sometimes they are still unknown, use plausible representatives (proxies)
 - Sometimes it is not practical or economical feasible to involve all, let them choose representatives
- Now start iterating the 4 sections – the 4 maps
 - Why, Who, What and When
 - It is like an upside-down building project, where you start with the roof
 - We call this trawling, we have to make several passes to get a reliable picture

The 4W pattern #2, continued...



- Trawl the Who – trawl for the Roles
 - Identify Product Owner and Key Stakeholders. Dialogue and common understanding is everything
 - Identify those who will use “What” is produced to create value
 - Identify those who can help with “What” is produced
- Trawl for Must Haves or Mandatories in the 4 story maps
 - Why – Those values, we HAVE to harvest and the threats and risks, we HAVE to meet.
 - Who – The Stakeholders we HAVE to improve something for.
 - What – The things, we know, HAVE to be implemented
 - When – The deadlines that we MUST meet
- Trawl for the first Authentic Epics
 - Create the first set of stories (narratives) of “What” could be done
 - Together they will satisfy all the “Must Haves”, as far as can be seen.
 - Let the Stakeholders express them if they can.
- As Epics unfold, several things will surface
 - Constraints in all 4 maps, common acceptance criteria
 - Risks tend to surface, make note of these
 - Working in “What” section tend to provoke stuff in the other sections to the surface, more values, more users in the “Who” section, more deadlines in the “When”
- Move between the 4 sections until you sense a certain stability

The 4W pattern #3



- Now to the refinement
- Authentic Value decomposition
 - Decompose values to a level, where there can be a clear estimates (expected and worst case) of a quantifiable value and a strategy for measuring impact
 - Do not decompose into ridiculous detail, a maximum of 10 measurements
 - More detail may be appropriate for understanding, but don't drown in measuring to much detail
- Authentic Epic decomposition
 - Together with Stakeholders, create Epics and Stories that “Contribute” to the Values
 - Estimate what percentage, they contribute, expected and worst case
 - Dependencies to other things that have to be done surface, try to isolate “Infrastructure” epics
 - New values will appear, acceptance criteria will emerge. Milestones will also pop up. Go back to these sections again
- Strategic Hardening – Stress-test the construction
 - Use Kano analysis to discover must have features, isolate excitors etc.
 - Use Cynefin to understand complexity and right angle of attack
 - Decompose until estimates of costs are plausible. Try to get the operative people involved here
- Now prioritize for the first Backlog, the first Release, the first phase
 - Use Impact estimation if the prioritization requires more analysis



The top level decomposition

In dialogue with users and stakeholders:

The things people talk about

Level of Interest #1

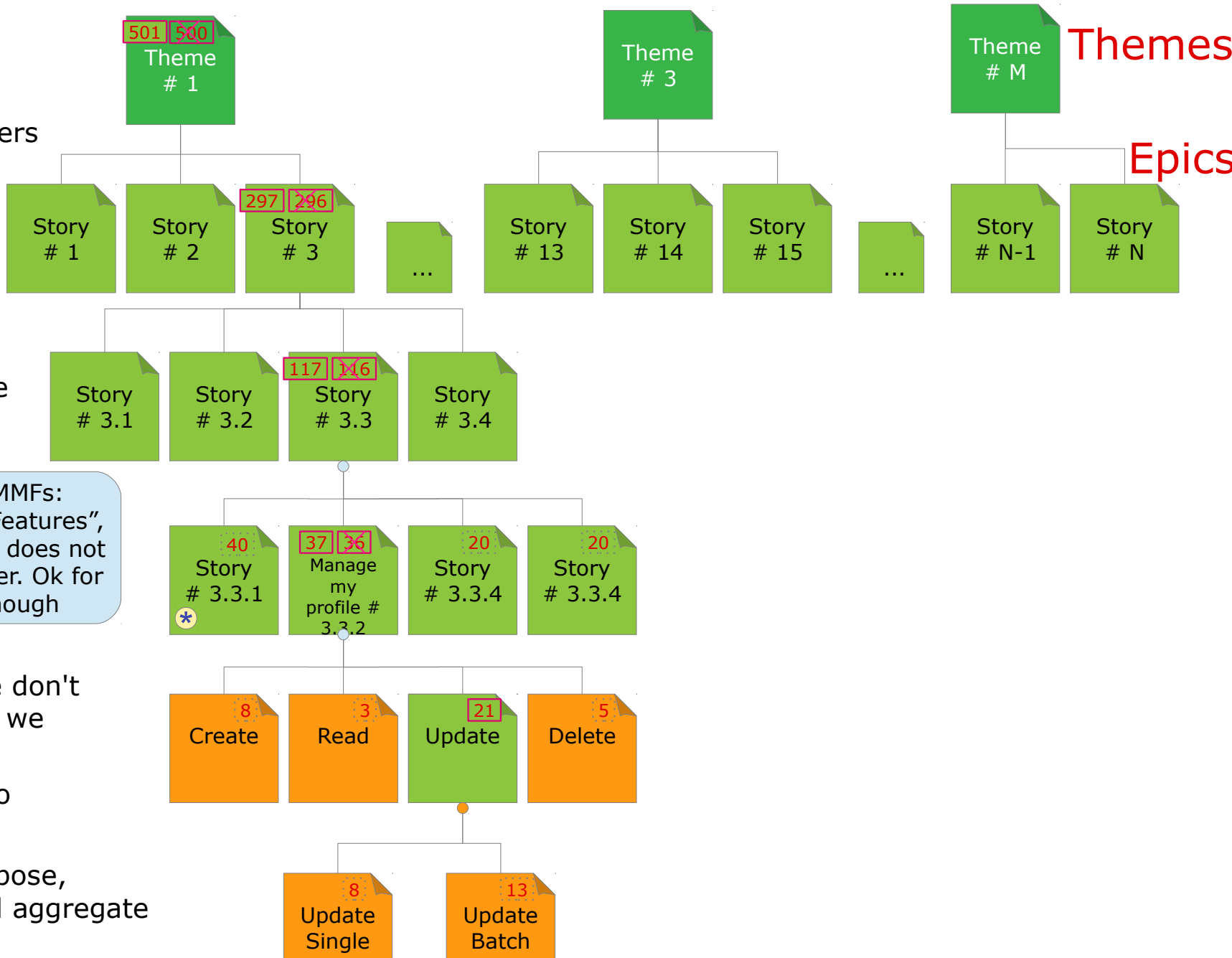
Then we decompose further:

* Some stories are MMFs: "Minimal Marketable Features", further decomposition does not make sense to the user. Ok for implementation though

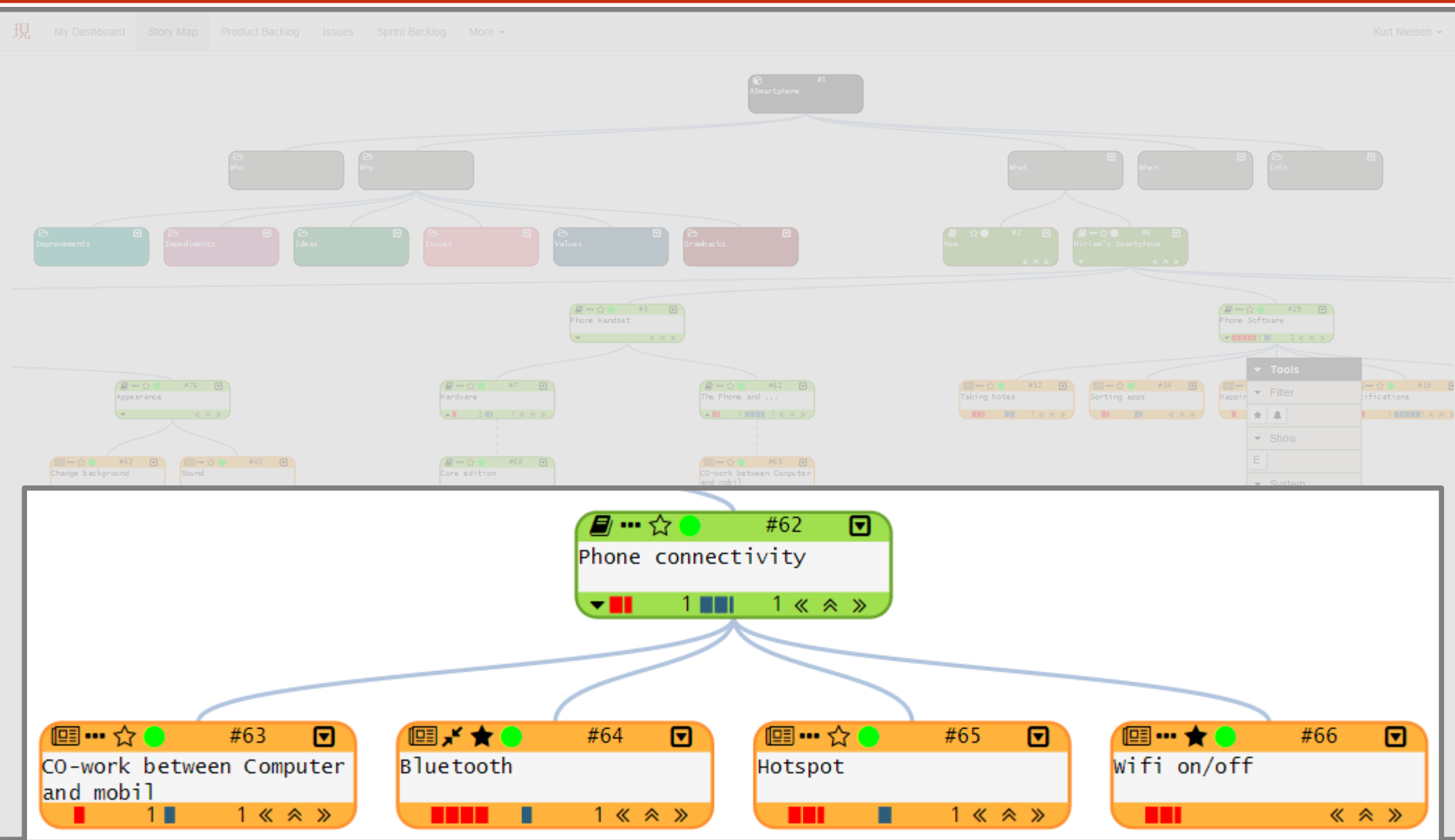
Now we believe we don't need to go further, we can implement:

We ask the Team to estimate cost

We have to decompose, estimate again and aggregate



The eXtended StoryMap



Complexity estimation



- The full scope of Cynefin can be to much
- We use a simplified and quick estimation
- We gain insight into the Team's perception
- We can plan Sprints with a good mix
- This can also be done with a set of cards like Estimation Poker

We can figure an experiment out	We know, of an experiment	We can figure a solution out or fi <div>User Story</div>
There must be a sensible experiment	We are lost and clueless	We know how to figure a solution out
We know, we don't know	Everybody knows how to	We know, how to – the solution