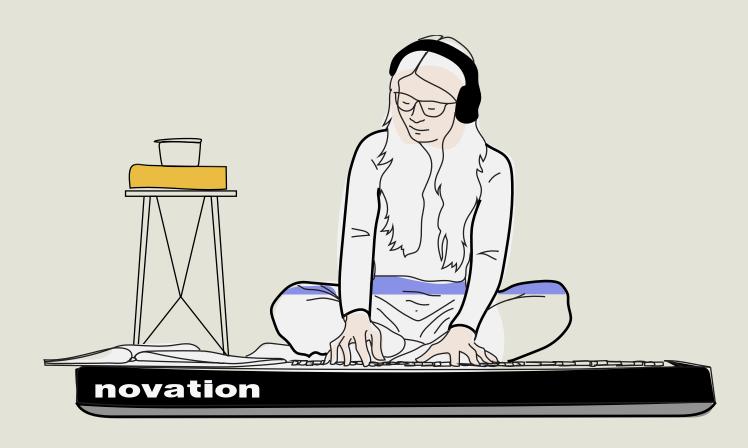


How long to clean this kitchen....





When is something Complex?

When is something Complicated?

How many aspects to consider?

Are they fixed, or do they vary?





How many aspects are there to consider?

SW **Funding** HW Sales Team experience Channel and skills Engineering Competition

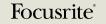
Practices

Not just scope or ambition which effects the size and type of the challenge











and Market

Scope or ambition

of elements & Likely unknowns

Complex or Complicated?













Med. SW

Med. HW

Low SW

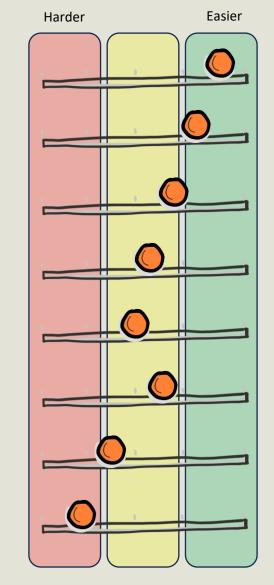
Low HW

Med. HW + Low SW

Med. SW + Low HW

Med. HW + Med SW

High. HW + Med SW





It depends!

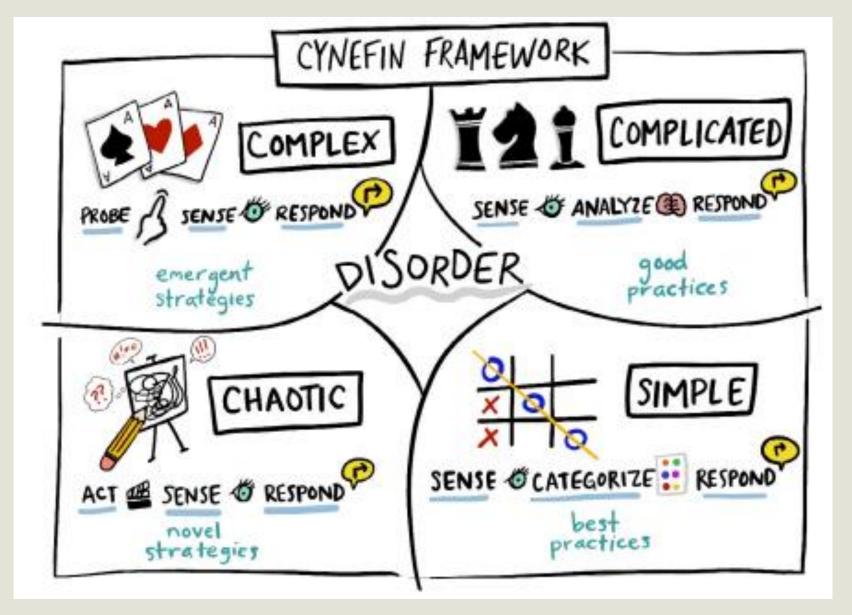


A <u>complicated</u> problem has lots of moving parts, but we *know* what all the parts are and what they do, just need to put 'em together.

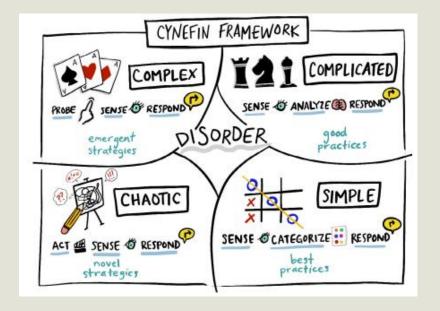
A <u>complex</u> problem involves many **interrelationships between factors**, along with Rumsfeld's famous "**unknown unknowns**" — we don't even know what all the involved pieces look like yet. Some discovery is required.



Cynefin framework – decision making



Cynefin framework



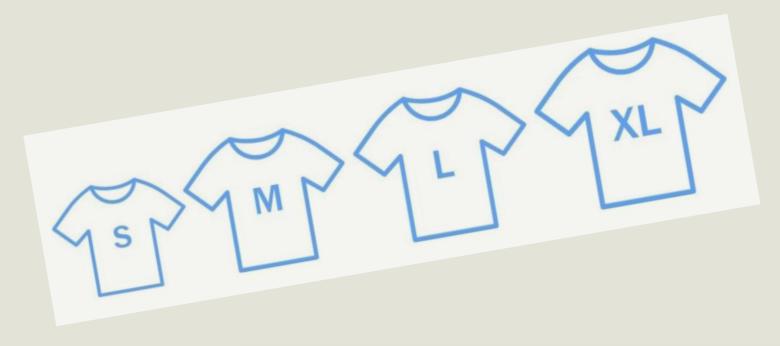
Complex and Complicated

- Tools and approach for these areas
- Software/Firmware estimating and forecasting
- In parallel with Hardware and business planning (Waterfall)
- Handling uncertainty as we try to make decisions and commitments

Forecasting



Sizing Methods

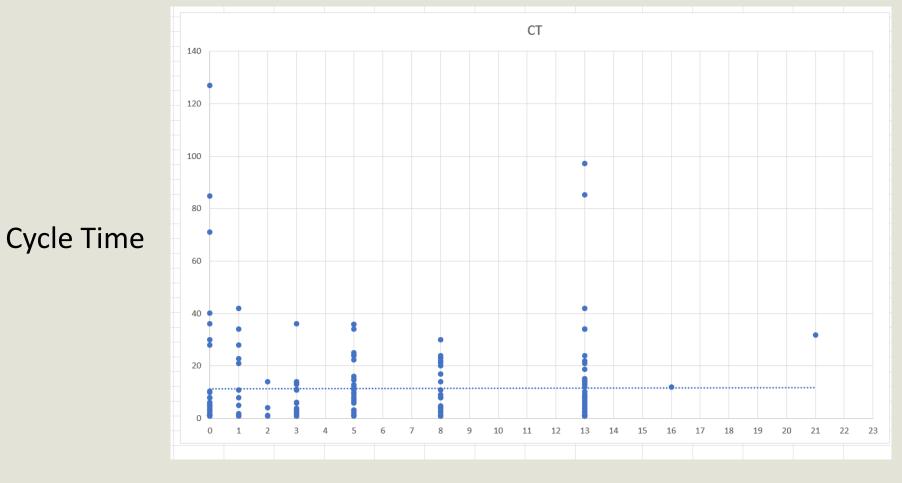


Fibonacci sequence

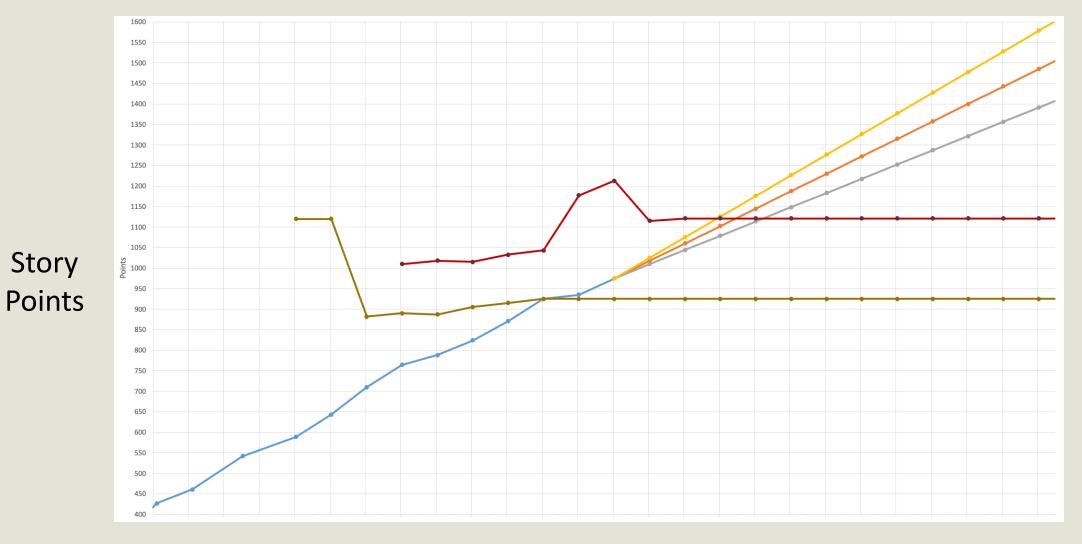


Task	% Complete	S	М	Т	Week 1	T	F	S	S	М	Т	Week 2 W	Т	F	S
Feature 1	100%														
Feature 2	100%														
Feature 3	100%								П						
Feature 4	100%											-			
Feature 5	100%														
Feature 6	100%														

We still have a problem....



Story Points



Focusrite[®] novation

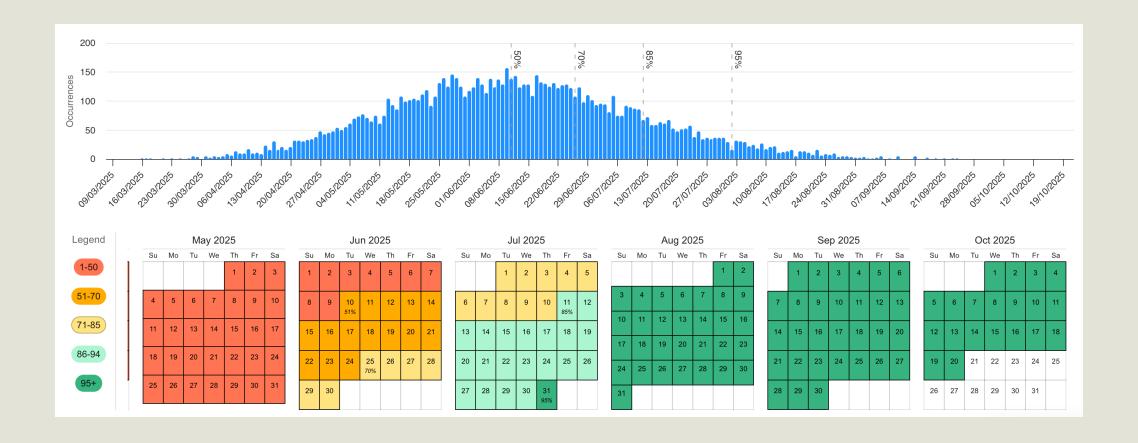
Story

Time

How much work is there...

Epic 1	Epic 2	Epic 3	Epic 4	Epic 5	Epic 6
			_	_	
Story	Story	Story	Story	Story	Story
Story	Story	Story	Story	Story	Story
					_
Story		Story	Story	Story	Story
Story		Story	Story	Story	Story

How long will it take...

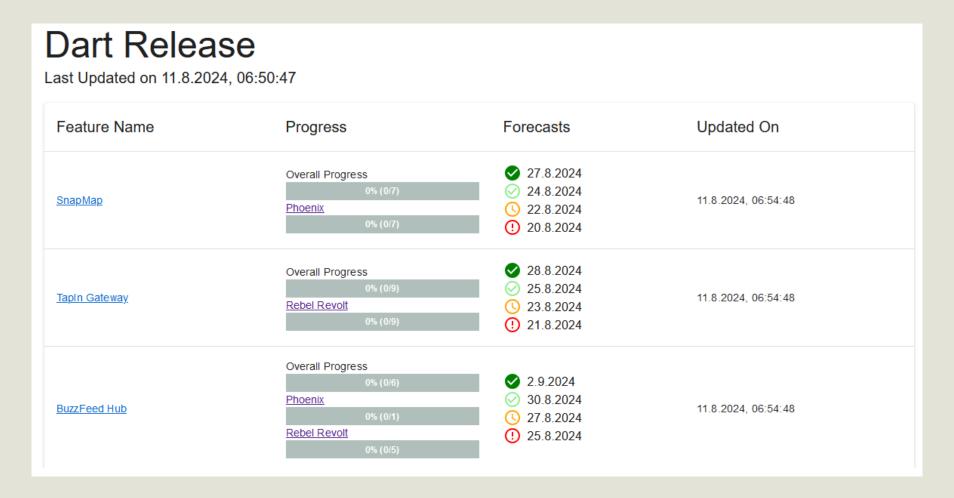


Actionable Agile

https://actionableagile.com



How long will it take...



Lighthouse

https://www.letpeople.work/lighthouse



How long will it take...?

Key take aways:-

Context dependent – sensing your situation

Scope is important but many other factors effect Complexity v's Complicated

Choose the right tools and frameworks for forecasting

Actionable Agile and Lighthouse – Probabilistic forecasting is worth a look

Thank you!





Ross Chisholm





Careers at Focusrite



Simon Holt



Chris Graves – Agile Coach, Focusrite Benjamin Huser-Berta, Lighthouse Developer IBM's Dave Snowden - Cynefin framework

[Cynefin image Created by @snowded, illustration via @CANTASDcenter] https://thecynefin.co/about-us/about-cynefin-framework/

