Health checks for our testing processes

Steve Watson, HUSTEF, October 2022





A little bit about me...

I have been in testing for a number of years working across a variety of industries

I am Head of Quality Engineering at Octopus, responsible for our testing approach across our 5 delivery teams



I've spoken at a number of conferences, written for Test Magazine, and blog at stevethedoc.wordpress.com

You can also find me on LinkedIn https://www.linkedin.com/in/sjwatsonuk/

When I'm not testing, I present a weekly radio show on a station based in southern England





Testing, testing



Today we are going to discuss **health checks**



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We have them for our cars, for our appliances and for our bodies, so why not have them for our **testing processes**?

We did, and this is our story of how it came about, what we learned and our journey



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It started with an idea...



In December 2021 we asked a Test Consultancy to look at how we work in terms of our distributed architecture and make recommendations



Getting off the starting block



We engaged **nFocus** to help

Tony our consultant had 15 days

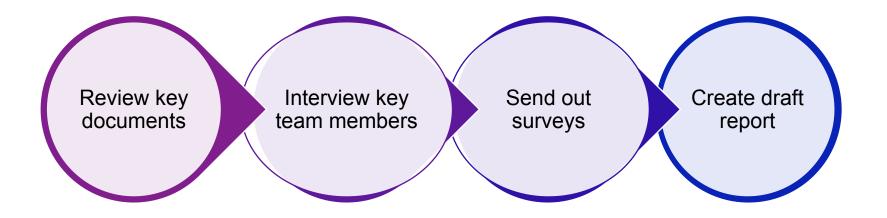
His task - to independently assess how we test and report back





Tony's approach





• We agreed roughly the time to spend on the activities

• And had **daily catch-ups** to cover off any queries/questions



The plan

Day 1	Day 2 - 6	Day 4 – 6	Day 7	Day 7 – 12	Day 13
Tony reviewed docs Steve booked interviews	Interviewing and note writing	Stakeholders completed the survey	Survey results sent to Tony	Tony collated his findings Produced draft report	Draft report walk through Video produced





Summary of findings...

Quality Engineering is in a **good place** \odot

A high degree of **satisfaction** with testing

There are some **improvements** we can make

Stretch goals for the next 3 years would help

There are 3 main challenges:

- Test Data
- End To End Testing
- Distributed Architecture





Challenges...



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Test data

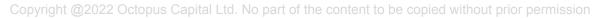
- A copy of Production Data is taken twice a year and obfuscated for testing
- This takes about **5 days to complete** and has some limitations

E2E testing

- There are no comprehensive end to end test suites
- The 5 teams work in vertical streams **focusing on Sprint objectives**, and not holistically

Architecture

- The system is **complex and distributed** across multiple applications, databases and technology platforms
- Some systems are third party controlled
- Not all have test environments and some are on older technology

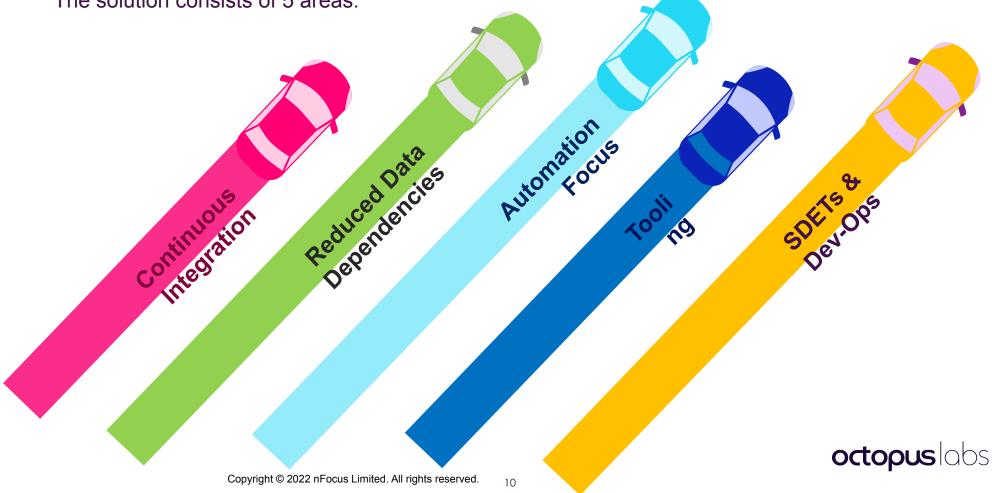




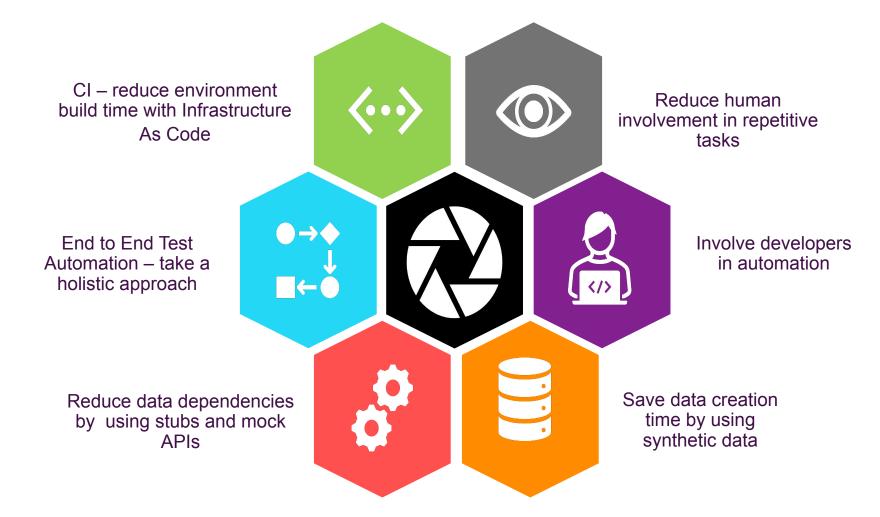
The 5 key areas

nFocus: "Our proposed solution should be considered a journey towards Quality Engineering goals, with different lanes progressing independently to the same destination"

The solution consists of 5 areas:



What does this mean?



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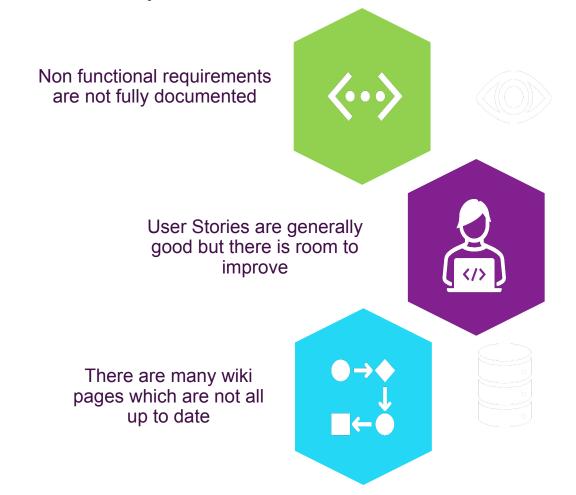


To achieve a robust CI-CD solution, including upskilling existing team members or recruiting in the required skills, can take around <u>3 years</u> as highlighted in the 2021 GitLab Dev-Ops survey results.



Other observations

Other than the 5 key focus areas, there were some other observations noted:





Digesting the report

Review the nFocus report.	Create The Vision	Create The Plan	Ensure Stakeholder Support
Share with relevant stakeholders for feedback	What Does "Good" look like for Octopus	Create a Milestone Plan	Create a Comms Plan
Decide what elements of the report merit action and what elements don't	Create a list of Prioritised Outcomes	Create a Skills Plan	Present the benefits Create a Beta Test Group
Establish a set of Quick Wins (<u>e.g.</u> Sprint Break, Entity Diagram, Tools POC)	Determine the steps to achieve them		



Presenting to management

I reviewed the report and picked out the suggestions to move forward with:

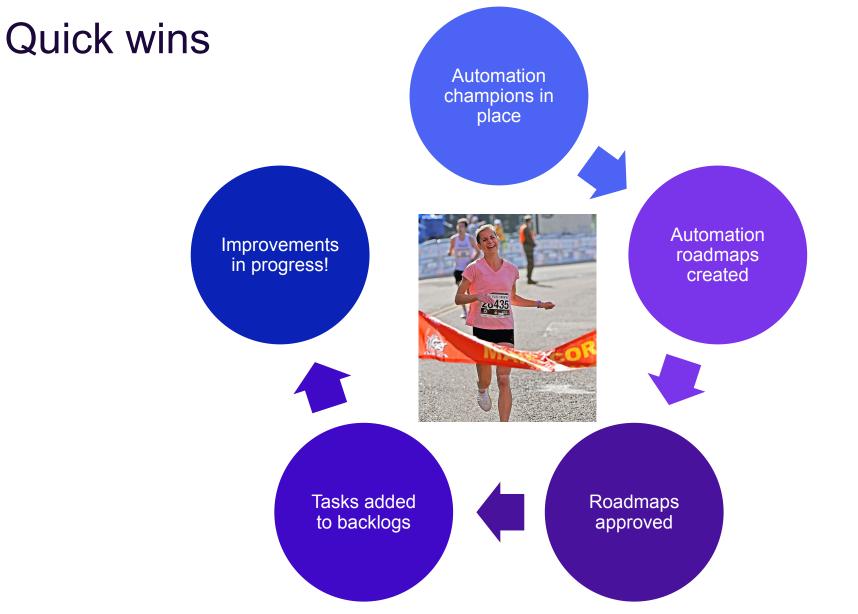


These were shared in a leadership meeting at an offsite afternoon in April, where we agreed to proceed with the short term goals



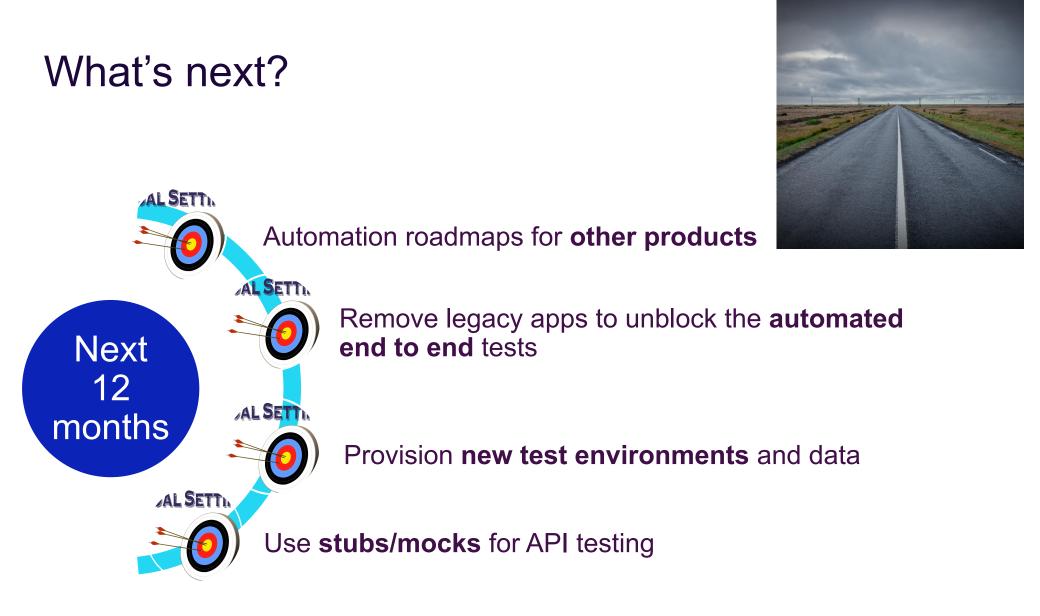
A high level plan

Workstream	March	April	Мау	June	July	August	September	October	November onwards
Test Automation Approach		maps created 3. Testers ring-f	···· ienced admaps approve	ed					
Define NFR's			reviewed for each NFR's updated a		e completed	•			
Automation Regression Coverage				systems map created added to automat 3. Rema		ps approved			
Environments and Data							ments spun up on c te environments for		
Stubs and Mock API's						2. Syr	bs and API's as par athetic Data created f build		•
Test Automation Expansion							 Improved unit te E2E tests compl SDET mindset a 	eted 🗕	
	, T	oday			Ongoing	test automation impr	ovements		



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We can be **biased** and potentially **blind** to existing problems

An independent view can highlight things we are unaware of

The independent report gave us a **balanced view**

Knowing what to improve is good, but **knowing how to do** it is better!

An independent report and a good action plan are easier to sell





