



**NHS**

**North West  
Ambulance Service**  
NHS Trust



# Our Digital Journey - From Pirate to Pioneer

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# Who we are

- We serve more than seven million people across approximately 5,400 square miles – the communities of Cumbria, Lancashire, Greater Manchester, Merseyside, Cheshire and Glossop (Derbyshire).
- We receive approximately 1.3 million 999 calls and respond to over a million emergency incidents each year.
- We make 1.5 million patient transport journeys every year for those who require non-emergency transport to and from healthcare appointments.
- We deliver the NHS 111 service across the region for people who need medical help or advice, handling more than 1.5 million calls every year.
- We employ around 6,300 staff in over 300 different roles and we have over 1,000 emergency and non-emergency vehicles operating across the North West.



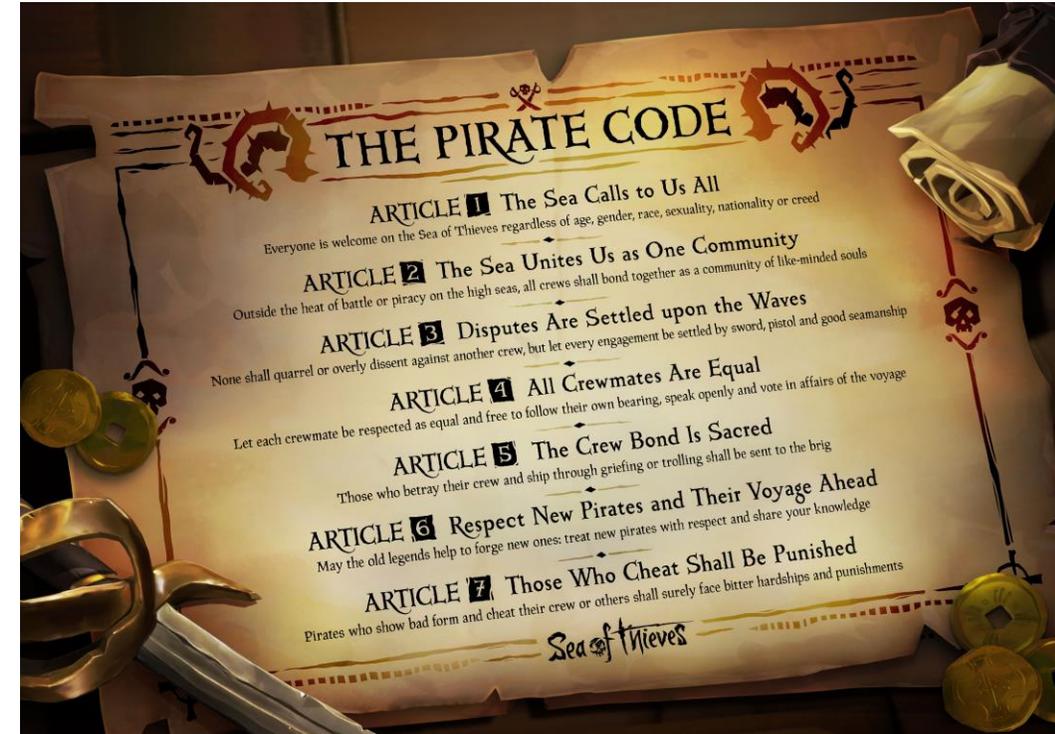
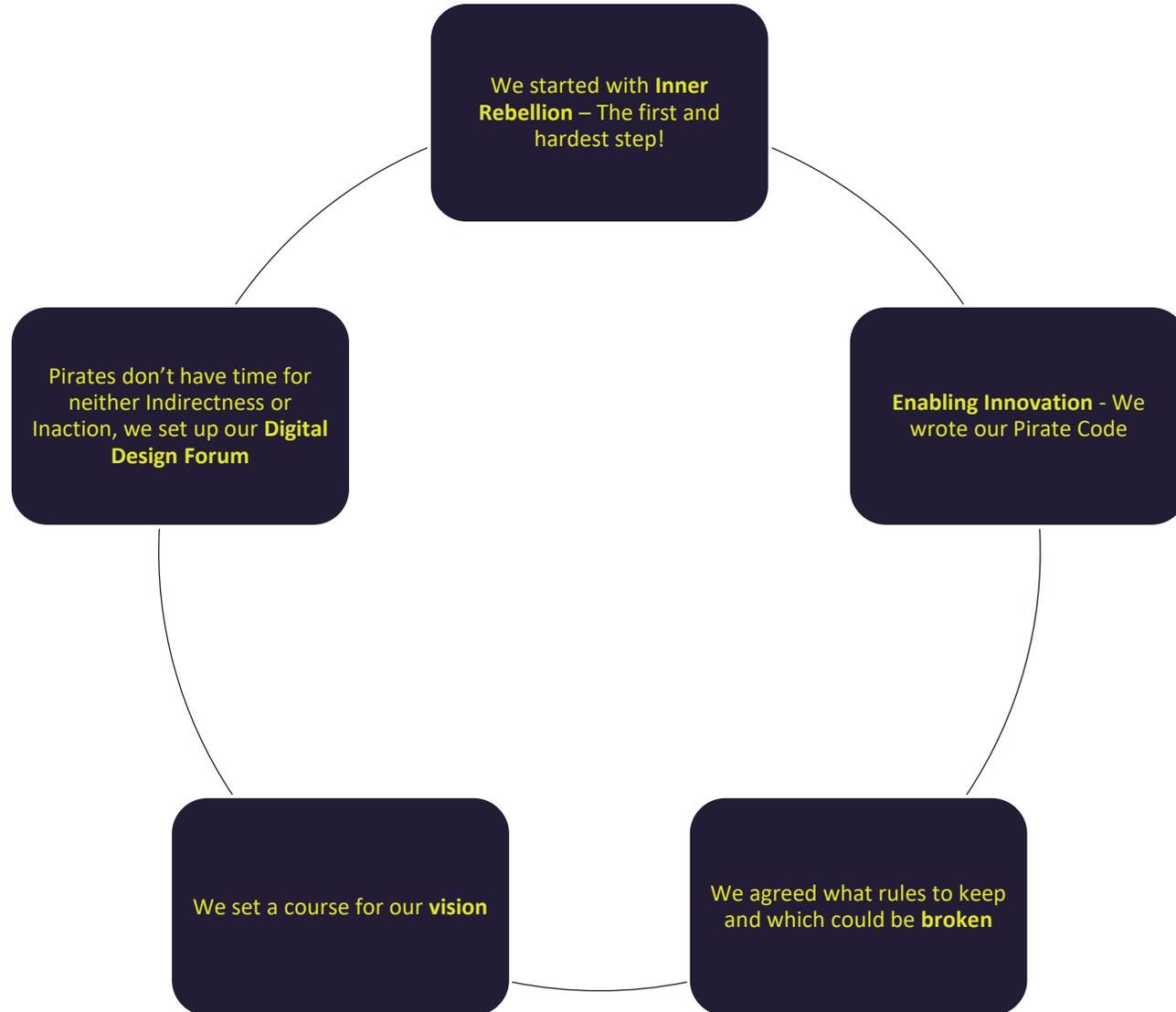




**PIRATES DIDN'T SET OUT  
TO CHANGE THE WORLD**

**They set out to  
change THEIR  
world!**

# Our 'Be More Pirate' movement



# Our Vision

Our aim is to use digital solutions to radically improve how we meet the needs of patients and staff; every time.



## Solving everyday problems

- Getting the basics right
- Staff experience
- Patient experience
- Personal safety
- Digital skills
- Listen, test and learn



## Our digital journey

- 'Digital first' culture
- Leadership and governance
- Operating model
- Integrated organisational approach
- Digital partnerships



## Secure and joined-up systems

- System integration and interoperability
- Privacy and cyber security
- Cloud and Edge
- Open standards
- Core business platforms
- Proactive risk and renewal



## Smarter decisions

- Better data
- Better access
- Better insight
- Better collaboration
- Better operating procedures



## Digital pioneers

- Preventing harm from deterioration
- Innovation partnerships
- Cultivating innovation
- Rapid deployment of innovation



# Some of our current Treasures



•Our new telephony platform went live in 111 in January. PTS (Patient Transport Services), corporate and 999 will follow

Unified Communications



•We work hard to ensure that we can provide the most up to date and supported digital infrastructure. There was a lot to do and sometimes this causes disruption, but this enables us to be strong and stable into the future with more reliable systems

Upgraded Infrastructure



•We have made significant to ensure we are protected from cyber-attacks

Improved Cyber Defenses



•Following a pilot in the Blackpool / Fylde area, we have started the roll out of our Electronic Patient Record

Implemented our EPR



•We have focussed on staff being able to access data when and how they want to see it. We have invested in and introduced Power BI, which allows the migration of all informatics outputs to be best-in-class and on an engaging platform

Deployed PowerBi



•We have safely enabled a significant increase in remote working - this has helped especially with our COVID response

Remote Working



•We have implemented a video consultation solution to support clinical decision making in both NHS 111 and our Clinical HUB

Video Consultations



•We have implemented Cleric, our new single patient management system, in 111 and the clinical hub and upgraded to the new Cleric in PTS (Patient Transport Services)

Cleric



•One of our first "Smart" solutions to enable digital innovation - a replacement for paper vehicle and medicine check books. It provides real time management and reporting and has been developed by an in-house team who have been shortlisted for a HSJ Award.

Safecheck ©

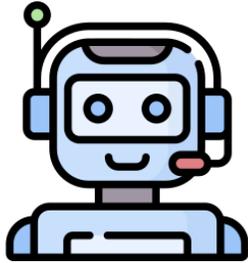


•We have focussed on sharing information internally & externally. We are the only ambulance trust in the UK who can pass calls to all other ambulance services. We now have agreement across the North West about how we will access & share patient records.

Information Sharing



# Our Future Voyages

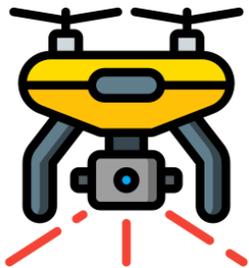
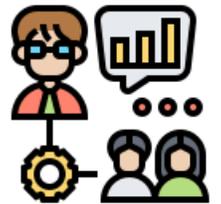


## Robotic Process Automation (RPA)

- We are working with the other trusts of the NAA (Northern Ambulance Alliance) to establish an RPA capability
- The business case has been approved by the 4 NAA trusts and early scoping/design work is underway
- Blue Prism selected as our RPA technical partners
- There are numerous manual processes across the trusts, which we will aim to deploy RPA onto

## Artificial Intelligence & Machine Learning

- Initial scoping work with NHSx to establish AI/ML proof of concept
  - The initial project would look to deploy AI using our Data, in order to risk stratify and secondary triage 999 and 111 calls
- This is currently a manual process and improvement here would really help the patient, especially when every second counts



## Drone Capability

- Initial scope will be evaluating state-of-the-art drone capability through simulation/proof of concept flights
- The aim of the project is to deliver drone capability on 3 use cases:
  - Delivery of an AED (automated external defibrillator) on scene for cardiac arrests in rural areas
  - Delivery of life saving medication, such as an Epinephrine Auto-Injector (EpiPen) on scene in rural areas
  - Scene surveillance, this may include hard to reach areas (e.g. forests) or dangerous areas (fires/chemical/water), providing real-time intelligence for our dispatch team and live route mapping whilst in-flight
- Simulation work will commence with our Partners, AVY and SkyPorts, through ongoing support from NHS E/I



# Our Future Voyages (2)



## Natural Language Processing (NLP)

- A recent deep-dive analytics spring highlighted an opportunity to use NLP in our live emergency calls
- Real time NLP will identify language and tone markers in emergency situations, such as immediate mental health crisis
- NLP will then be able to either inform the call handler or automatically dispatch a resource if appropriate

## Scale-up of “Smart” Stations

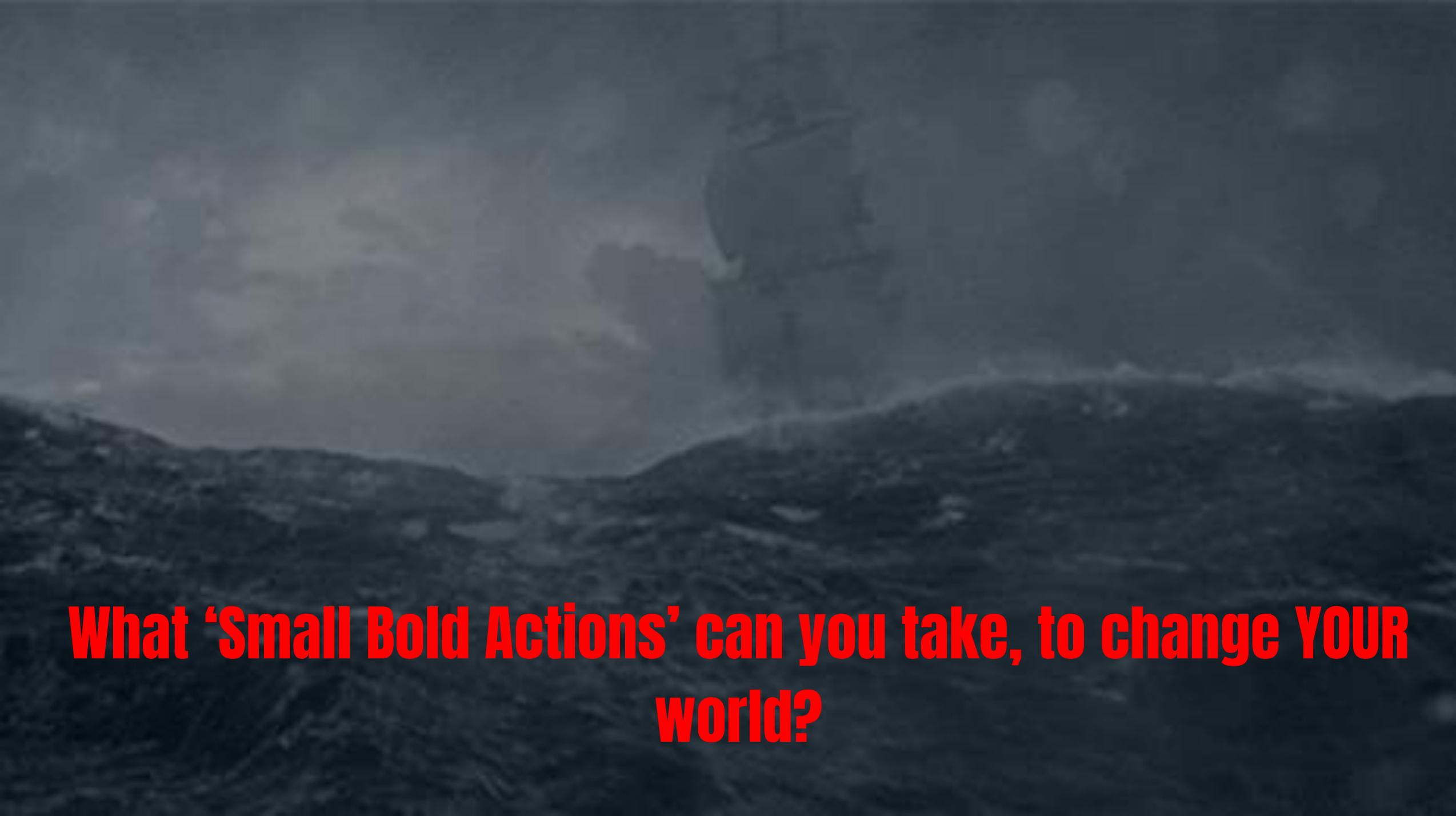
- Several key initiatives have already been trialled in some stations, these include:
  - Smart Lighting
  - Digital Wallboards
  - Access Control
  - Digital Key Cabinets
- Through funding via the NHSx Unified Tech Fund, we are able to now expand some of these innovations



## One NWAS – One North West

- Working with NHS E/I North to implement initiatives such as shared care records and integrations with EDs
- Development and deployment of single patient flags (e.g. violence & aggressions markers across our 999 and 111 systems)
- Interoperability (mission interop), an internal group created to keep up the momentum of all our interoperability initiatives



A dark, atmospheric landscape with a large, faint, glowing figure in the sky. The scene is dimly lit, with a blue and grey color palette. The foreground shows a textured, possibly rocky or sandy terrain. In the background, there are rolling hills or mountains. A large, faint, glowing figure, possibly a person or a structure, is visible in the sky, appearing to be looking down or observing the landscape. The overall mood is mysterious and contemplative.

**What 'Small Bold Actions' can you take, to change YOUR world?**

# Thank you!

