



Introducing Digital Tools to Scotland's Railway:

Learning Lessons from others

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THALES
Building a future we can all trust



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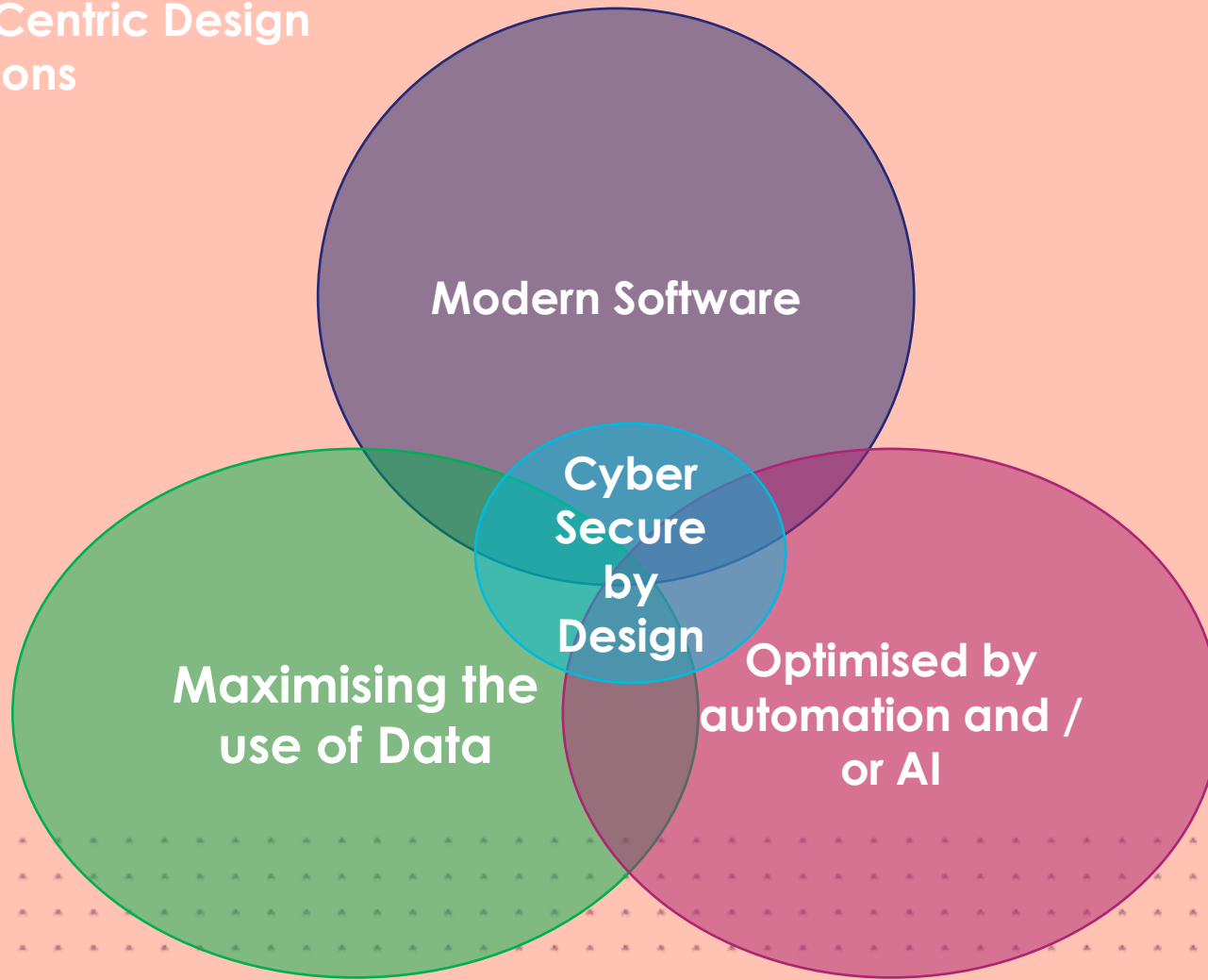


Safety Moment – Lessons Learnt never get old!



What is digital?

User Centric Design Solutions



Deployed to an eclectic set of hardware



How could Digital Solutions help Scotland?

Safe, Robust and Reliable Services

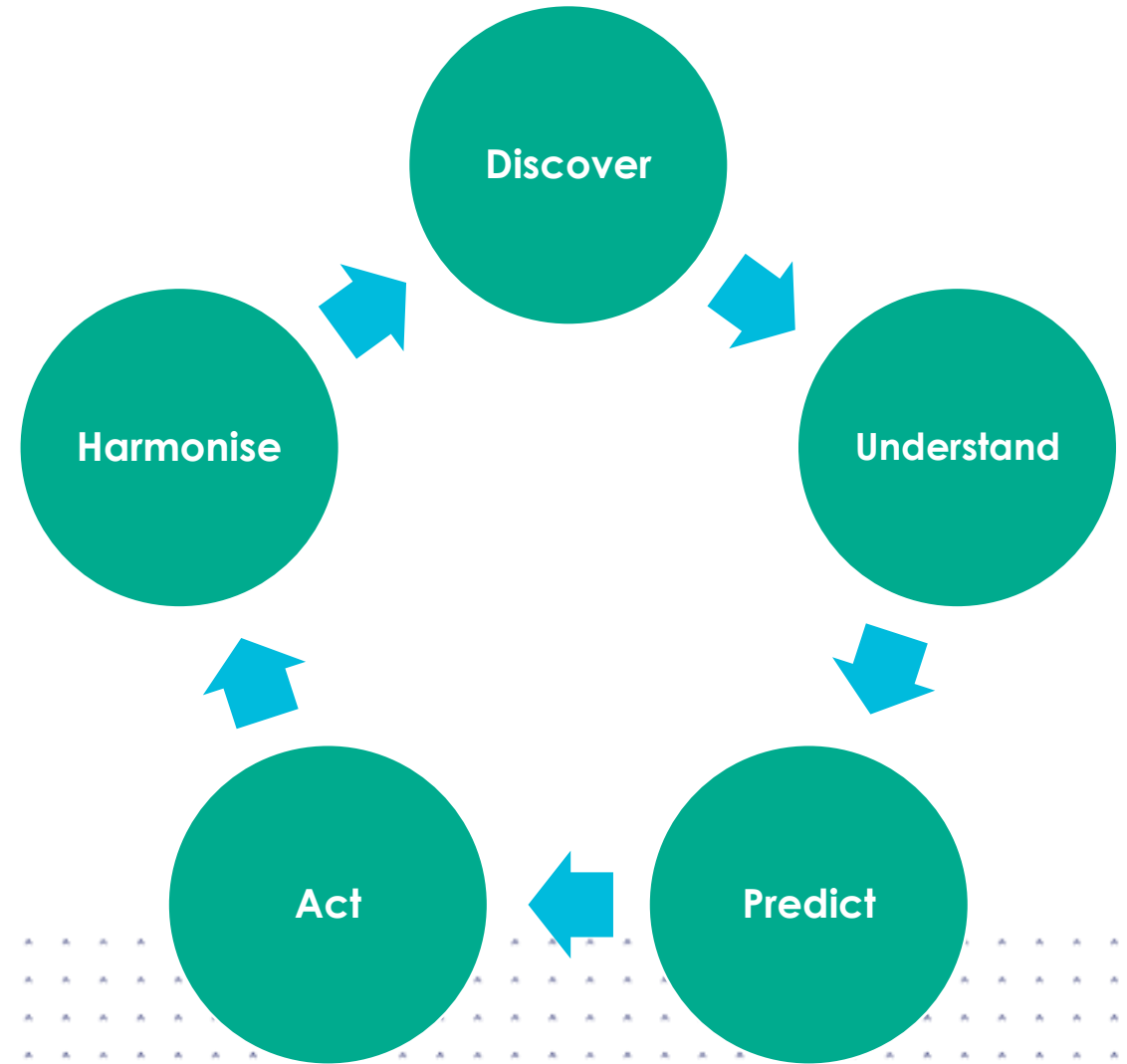
Optimum use of capacity and capability

Meeting the 'net cost' challenge for the network and delivering Value for Money

Effective Integration

Inclusive and sustainable economic growth

Achieving Net Zero and climate change adaption and resilience



People First Digital Solutions

EMMA TURNER - PICOP

Emma Turner, a seasoned Railway Protection Specialist. With a background in civil engineering and a passion for ensuring railway safety, Emma plays a crucial role in coordinating and overseeing possession activities. As a Railway Protection Management Specialist, she plays a pivotal role in ensuring the safety and efficiency of possession activities. She leads by example, prioritising safety above all else and instilling a culture of accountability and vigilance among her team members.



PICOP
35 years old | 5 years experience
C1 | Doncaster
• Strict
• Avid Planner
• Compassionate

Needs/Goals

- Safety: Emma's primary need and goal is to ensure the safety of personnel and the public during railway possession activities.
- Efficiency: Emma aims to optimize the efficiency of possession activities while maintaining safety standards.
- Effective communication: It is essential for Emma to coordinate with stakeholders and ensure everyone is well-informed.
- She needs to stay updated on railway regulations and safety standards to ensure that all possession activities are compliant.
- Continuous Improvement: She strives for continuous improvement in possession management processes and procedures.

Frustrations

- Emma may feel frustrated when personnel fail to adhere to safety protocols or take precautions seriously.
- Ineffective communication among teams or stakeholders can hinder coordination efforts and lead to misunderstandings or delays.
- Dealing with unforeseen obstacles or emergencies during possessions can be challenging and may cause frustration if not handled effectively.
- Finding the right balance between safety and efficiency can be a constant challenge for Emma, especially when there's pressure to complete possession activities within tight timelines while ensuring strict safety standards are met.

Motivations

- Safety Impact
- Project Success
- Continuous Learning
- Team Collaboration

Psychographics



Frequently used apps



Daily Activities



"Success in possession management isn't just about meeting deadlines, it's about ensuring that every member of the team returns home safely at the end of the day."

"Precision in signalling is the backbone of a safe and efficient rail network. Clear communication and collaboration ensure we navigate the tracks seamlessly, keeping everyone on board and on the right track."

WILLAM JONES-SIGNALLER

Willam is a dedicated signaller for the B team. His role is crucial in managing all aspects of rail signals, including controlling possessions, blocking and unblocking tracks, and ensuring safe train movements. He is well-versed in the intricacies of the rail network, possessing in-depth signalling knowledge and having undergone specialized training.

Needs/Goals

- Willam seeks an effective and clear communication from COSS and ES for safety managing possession.
- Access to precise safety protocols and regular training for managing emergency situations.
- Efficient and user-friendly signalling systems that facilitate smooth operations and reduce the risk of errors.
- Access to mental health resources and support, given the high-pressure nature of the job and potential stressors.
- Task automation and reduced workload given the multitude of responsibilities he already faces.

Frustrations

- Incomplete or unclear information cause frustration for signaller, leading to potential misunderstandings or errors.
- Managing high workload and balancing different tasks which is stressful and challenging.
- Interruptions or distractions especially at peak time when managing lot of train movements.
- Collaborating with various parties involved in the railway operations can be troublesome, including track workers, possession managers, and other signaller.
- Signaller bear pressure to ensuring the safety and effective coordination.

Motivations

- Advocates for safety and sense of responsibility
- Motivated by the desire to streamline operations
- A commitment to providing excellent service

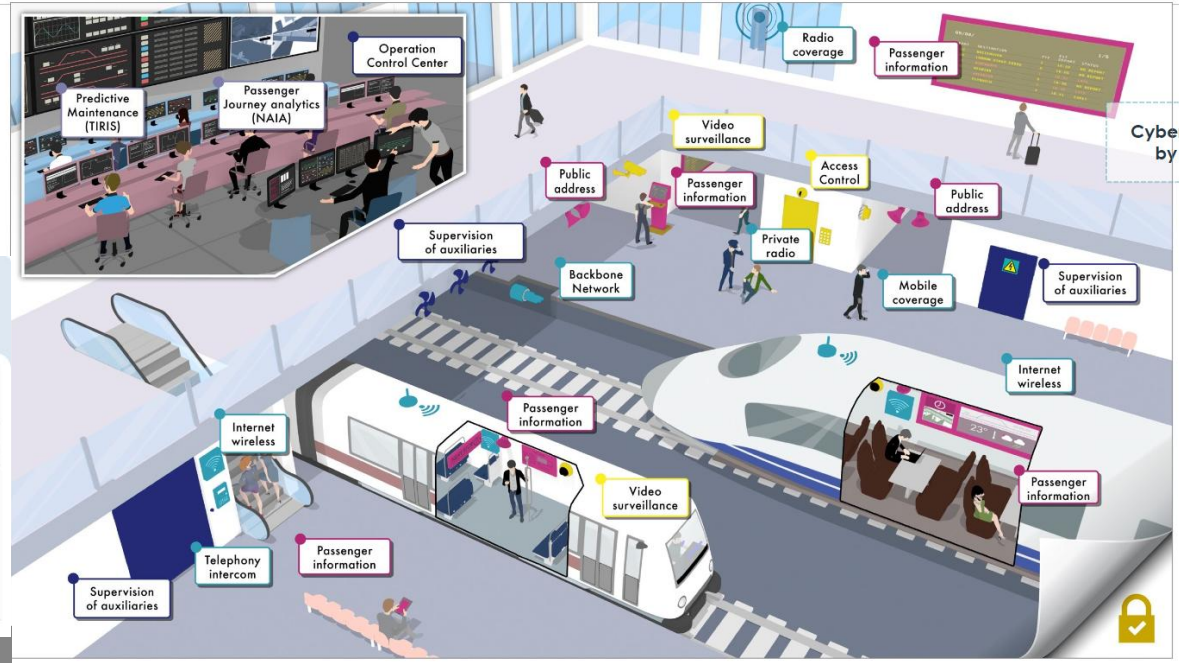
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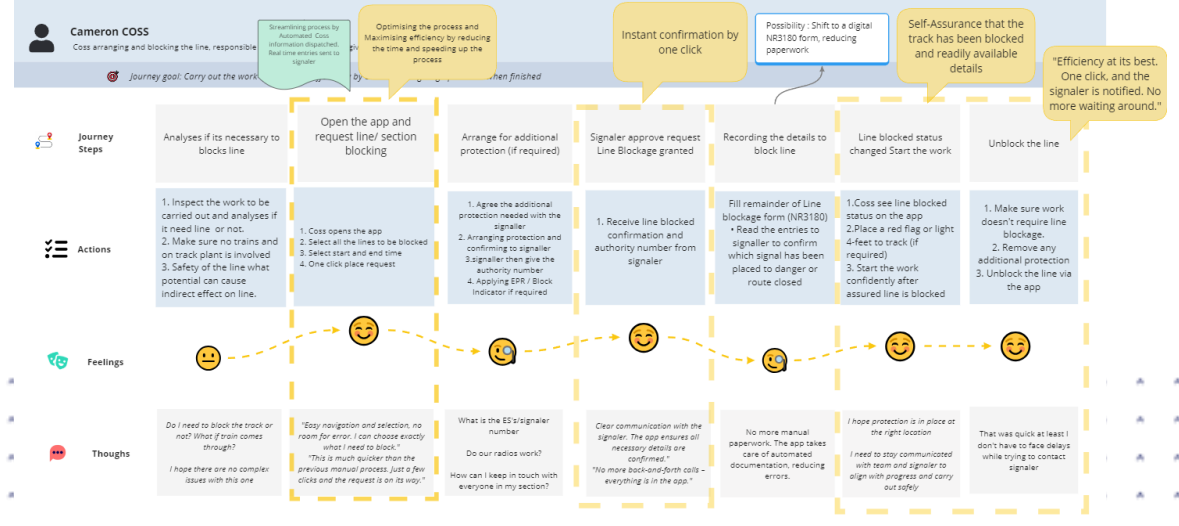
Daily Activities



Cyber secured by design



Cyber secured by design



What is required to deliver successful digital solutions?

Partner Vs Supplier

A **commercial model** that supports exploration and continuous improvement.

A shared / agreed understanding of **what good looks like.**

Flexibility based on data and research findings.

A clearly defined, testable and **agreed ROI**

Well designed **data set** that enables current aims and future hopes to be achieved

Collaboration

Introducing new solutions – User Acceptance

People buy benefits, not features

Technology Adoption



Driving awareness and utilization is the challenge

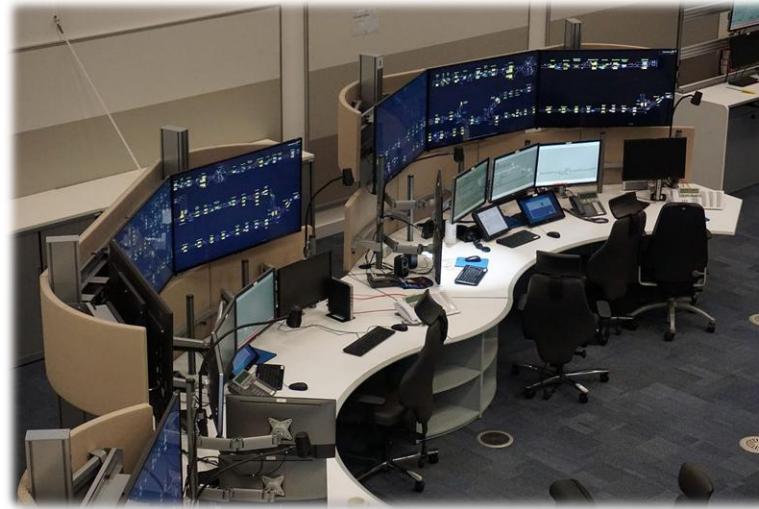
How do we introduce change?

> Gradual Vs Big bang

TMS

Committed to delivering improved Efficiency, Capacity & Performance

Vs



ETCS?



Summary

> To achieve these

Safe, Robust and Reliable Services

Optimum use of capacity and capability

Effective Integration

Inclusive and sustainable economic growth

Achieving Climate change adaption and resilience

> For this

Meeting the 'net cost' challenge for the network and delivering Value for Money

> Whilst meeting this

Achieving Net Zero

Need to embrace digital methods and solutions



Thank You

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Thank you

www.thalesgroup.com