About NPL

- Founded in 1900
- UK's National Metrology Institute
- A public corporation owned by the Department for Science, Innovation and Technology (DSIT)
- Based in Teddington (London) with locations in Strathclyde, Surrey, Cambridge, Huddersfield and Birmingham
- Strategic partners DSIT, the University of Surrey and The University of Strathclyde
- >800 scientists and engineers with a breadth and depth of metrology expertise.

Introduction to NPL: Programmes to deliver confidence in Security and Resilience
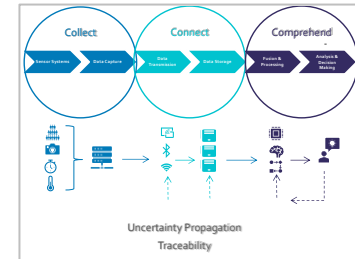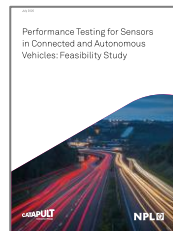
National Timing Centre

UK Telecoms Lab

Sensor Assurance Framework

AI Standards Hub

NPL Quantum Programme
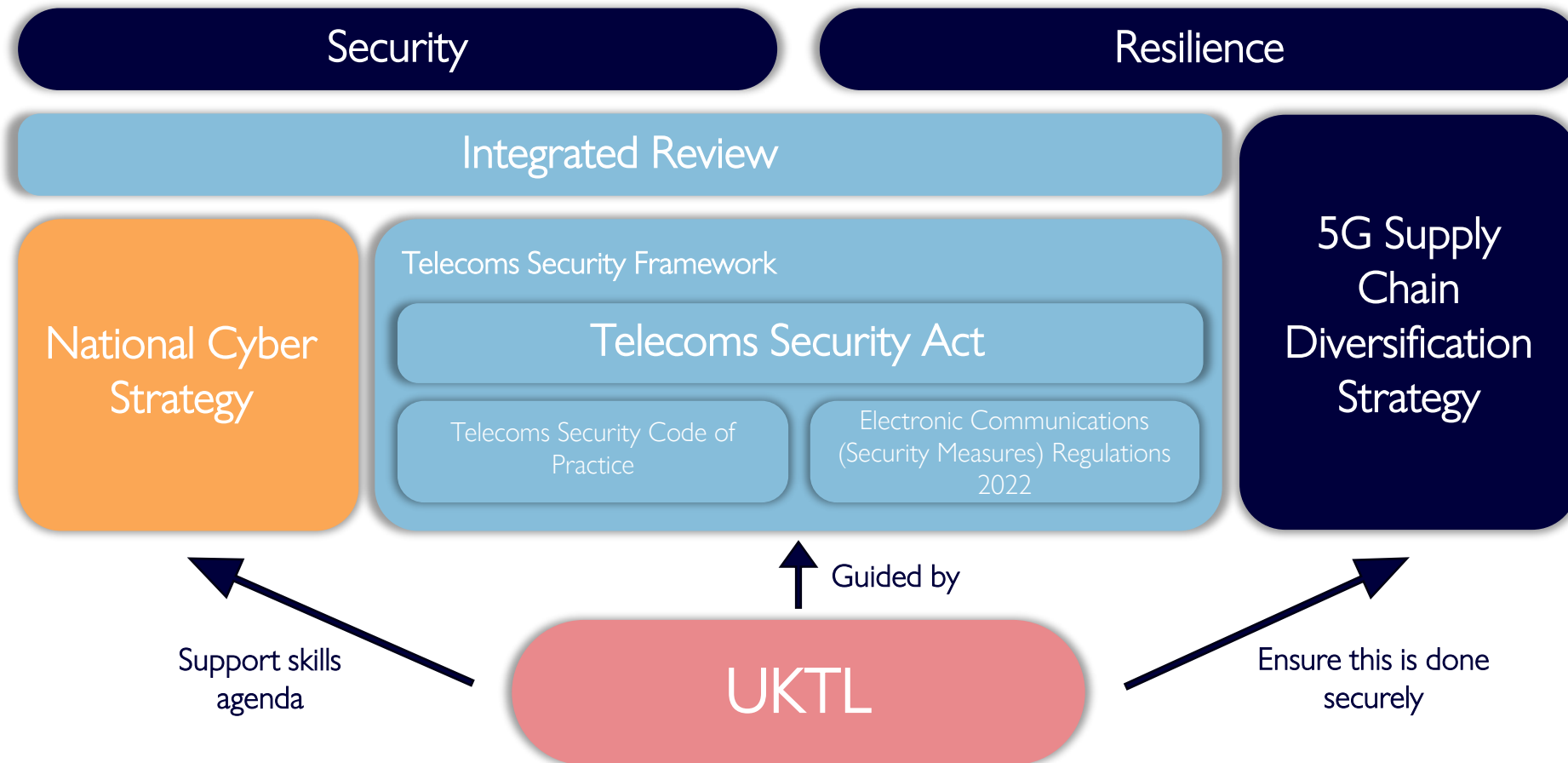
Digital NPL

UK Telecoms Lab

NPL

UKTL

19 May 2024

What is UKTL…

- The new telecoms security lab, operated by NPL, with funding from the Department for Science, Innovation and Technology (DSIT)

- A high security data centre where experts can advise industry in a neutral, trusted environment to help test security and resilience of our telecoms systems.

- UKTL will help the UK diversify its supply chain, enhance confidence and boost UK industry.
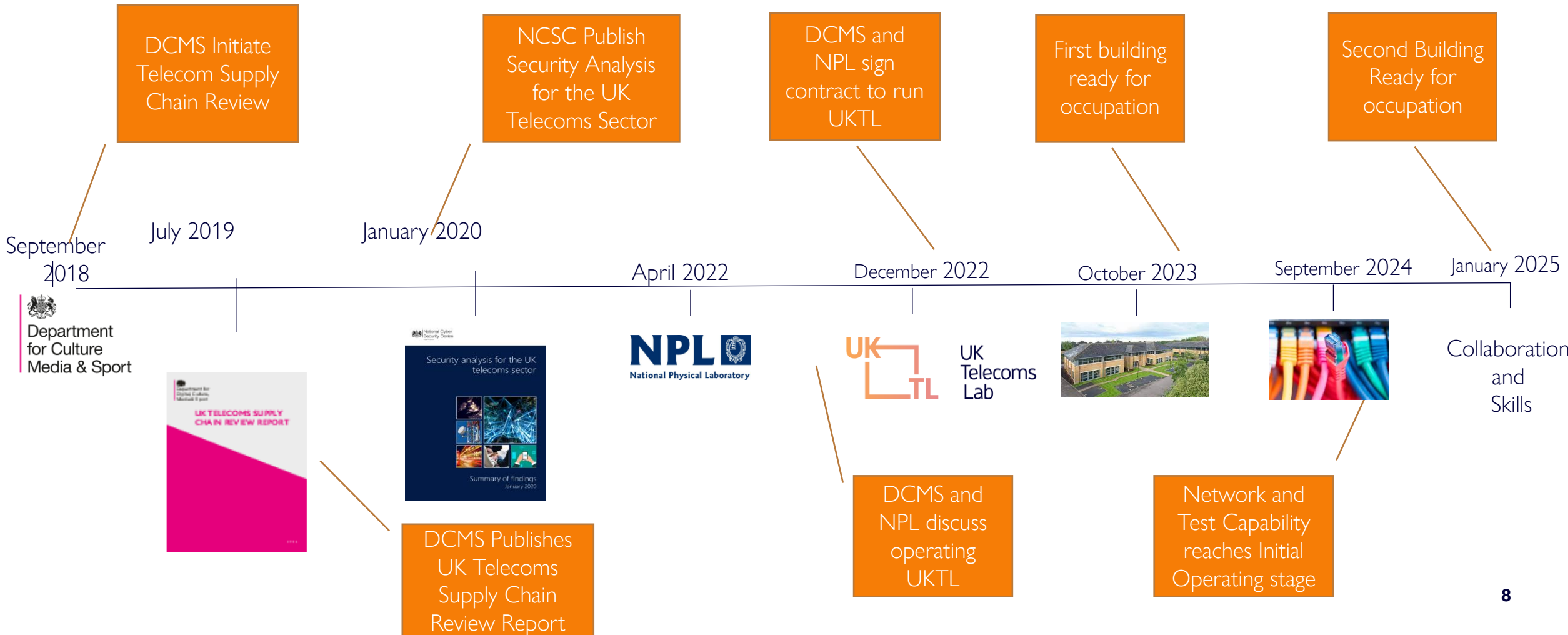
What is UKTL…

- It will help keep our networks, which we increasingly rely on for our way of life (work and leisure), safer and more secure

- It is a state-of-the-art near laboratory with representative networks capability for security experts to work on new and existing technologies, in the West Midlands

- UKTL works in partnership, producing ground-breaking work and providing reassurance for industry, government, academia and UK citizens

- The data centre is part of the fast-growing West Midlands tech community.
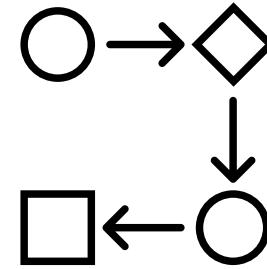
Security and Diversification Policy

A brief history…

DCMS Initiate Telecom Supply Chain Review

NCSC Publish Security Analysis for the UK Telecoms Sector

DCMS and NPL sign contract to run UKTL

First building ready for occupation

Second Building Ready for occupation

July 2019

January 2020

September 2018

April 2022

December 2022

October 2023

September 2024

January 2025

Department for Culture Media & Sport

Security analysis for the UK telecoms sector

Summary of findings
January 2020

NPL
National Physical Laboratory

UK TL
UK Telecoms Lab

UK TELECOMS SUPPLY CHAIN REVIEW REPORT

DCMS Publishes UK Telecoms Supply Chain Review Report

DCMS and NPL discuss operating UKTL

Network and Test Capability reaches Initial Operating stage
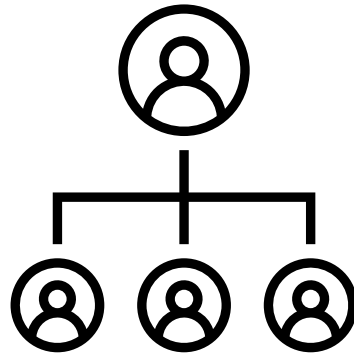
Collaboration and Skills

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So what is it, actually?

A programme to establish a capability

Capability

A facility

Processes and procedures

Teams of specialists

A technical deployment

That delivers outputs and outcomes;

- Technical work programme
- Skills
- Standards
- International

How will the UK Telecoms Lab solve these problems?

Security Research

Discovering and examining new and emerging vulnerabilities

Tool Development

Development of bespoke Telecoms testing tools

Security Testing

Raising the bar on the security of the UK's telecoms

Standards Research

Define the UK Telecoms Standards and contribute to development of International Telecoms Standards.

Vendor diversification

To ensure that security concerns don't hinder entry into the marketplace.

Skills Development & Training

Provides an environment where skills can be taught and developed to enhance the UK's technical capability.

Industry Engagement

Industry Advisory Group

Industrial community to ensure UKTL in driving seat of Telecoms security research and development in the UK

VP: what does / will UKTL provide?

- Technical expertise in research and testing across all networks

- Independent analysis of technical issues with complete implementation neutrality

- A neutral space for industry to work, share information and test on near-representative test networks. Access to representative testing environments will support identification of security, interoperability and compatibility issues that do not manifest themselves during component-level evaluations.

- Help for vendors to develop more secure products and identify vulnerabilities in already deployed equipment with focus TRLs 7 – 9

- Want to ensure work to meets industry's needs and provide relevant guidance e.g. could potentially provide operators with evidence of vendor maturity, with elements of the CoP and TSA via in house testing.

- Expertise to improve technical and security capabilities and interoperability of products

- A collaboration space for vendors to work alongside industry peers on key issues facing the sector

The Benefits for Industry

Neutral space to work & test for industry

Data centre hosts representative networks with multiple vendor equipment

Data centre is offline, away from customer constraints – a unique capability

Technical expertise in research & testing across all networks

Independent analysis of technical issues with implementation neutrality

Help for vendors to develop more secure products & identify vulnerabilities

A trusted secure space to work alongside industry peers on key issues facing sector

Extensive range of test tools, including COTS, bespoke and unique inhouse capability

UKTL expertise – building confidence in new technologies, shaping the nation's readiness through standards, skills, and investment

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UKTL Championing Telecoms Security

UK Telecoms Lab set to shape future

The Government's state-of-the-art UK Telecoms Lab (UKTL) will open at UK Central in the Metropolitan Borough of Solihull, with plans to create up to 50 skilled tech jobs by March 2025.

The announcement was made during "Global West Midlands: The Tech That Makes Tomorrow Work" – a dedicated event hosted by the West Midlands Growth Company (WMGC) during Birmingham Tech Week 2023.

The event saw Birmingham Tech Week pivot towards a global audience for the first time, with WMGC actively targeting overseas firms looking to nurture new innovations in the UK.

The first of its kind in the country, UKTL was established as a response to the Government's 5G Diversification Strategy and aim to make the UK a "science and technology superpower" by 2030.

Funded by the Department for Science, Innovation and Technology (DSIT), it will be run on

Solihull telecoms lab to open in 2024

Location unveiled for Government's £80m UK Telecoms Lab

Technology
October 18 2023
Rachel Covill

Emma Haynes, partnerships director at NPL

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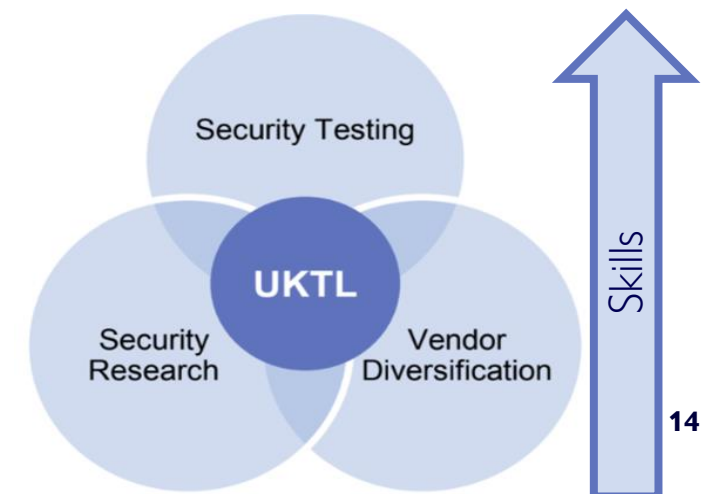
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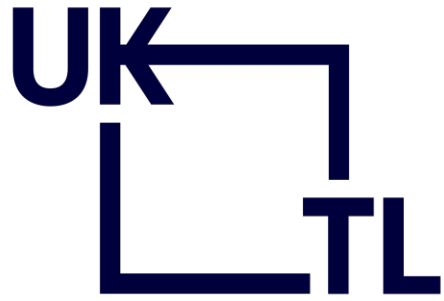
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UKTL Summary

- Reduce barriers to entry for new vendors (encourage supply chain innovation)
- Raise telecoms interoperability and security standards by enhancing expertise and capability of testing services in the telecoms industry
- Provide a near representative laboratory capability for security experts to work on new and existing technologies
- Nurture telecoms & cyber skills nationwide as a national capability
- Work in Partnership with Industry
- Help drive innovation

UK TL — UK Telecoms Lab

Operated by:

NPL

Funded by:

Department for Science, Innovation & Technology

Working in partnership with:

National Cyber Security Centre

Ofcom

UKTL: Find out more…

UKTL– breadth of partnerships

- Incumbent and new telecom vendors

- Communication Service Providers (Mobile and Fixed Operators)

- NCSC, DSIT Telecoms Diversification unit, Ofcom

- A wider range of industry, including partners in DSIT Open Networks Programme (SONIC, FRANC, FONRC, ONE)

- UK-TIN, TechUK

- Academia

- Regional, national, and international partners