

Open RAN for Diversification

**Evie Ioannidi - Senior Interoperability and R&D Lead
Telecoms Diversification Unit, DCMS**

The Government's interest in Open RAN

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- The 5G Supply Chain Diversification Strategy was published in November 2020.
- It sets out the Government's plans to deliver a more **diverse, competitive, and ultimately resilient** 5G supply chain.
- **Open RAN** - and its promise of multi-vendor interoperability - is a **key enabler of that vision**.



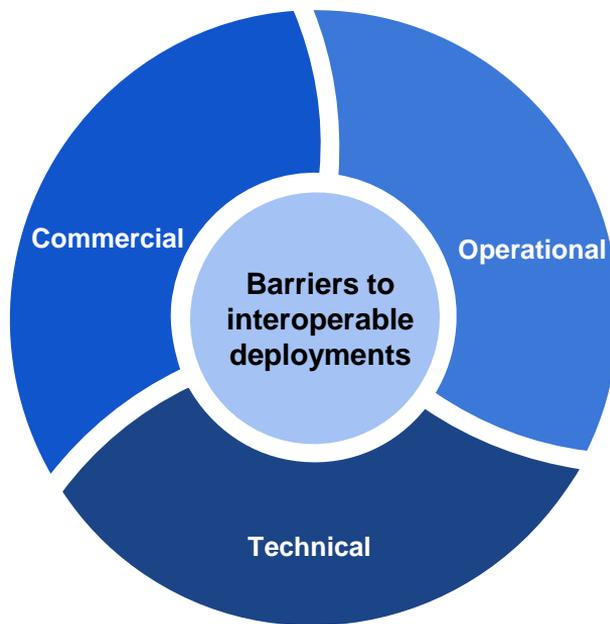
The barrier to widespread Open RAN adoption is multi-faceted

Intervention is needed to **develop** the supply side, and to kickstart the demand side to **deploy**

Economies of scale drive success in the supply market meaning that major suppliers are able to leverage their established market position to price out competitors.

Concentration of **valuable IP and patents** amongst market leading suppliers limits new market entrants from accessing licenses on the same terms as incumbents.

Vendor lock-in means a high cost of switching suppliers that often outweighs the benefits of a more flexible model.



Mobile operators rely on **vendors to manage large parts of their networks**, including maintenance of equipment. Larger suppliers can take on this role with an ease that smaller suppliers can't.

Going forward new vendors and interoperable solutions will require expertise and support services - such as **Systems Integrators** - to give operators confidence to change approach.

Operational inertia means operators prefer to keep suppliers with whom they have **established relationships** and contracts.

New market entrants and alternative deployment models - such as Open RAN - need major investment in **R&D** to be as **performant and efficient** to compete with established solutions. A supplier's product portfolio needs to be able to compete today, and continue to be competitive long-term. In addition the UK market requires specialisms - around spectrum and provision of legacy technologies.

Therefore, the **three areas** where the UK should focus its attention are:

Secure and reliable Open RAN products

Ongoing product and solution
development R&D

- R&D into key tech challenges & opportunities, domestically and internationally
- Knowledge-sharing and enabling R&D across the ecosystem

True, performant interoperability

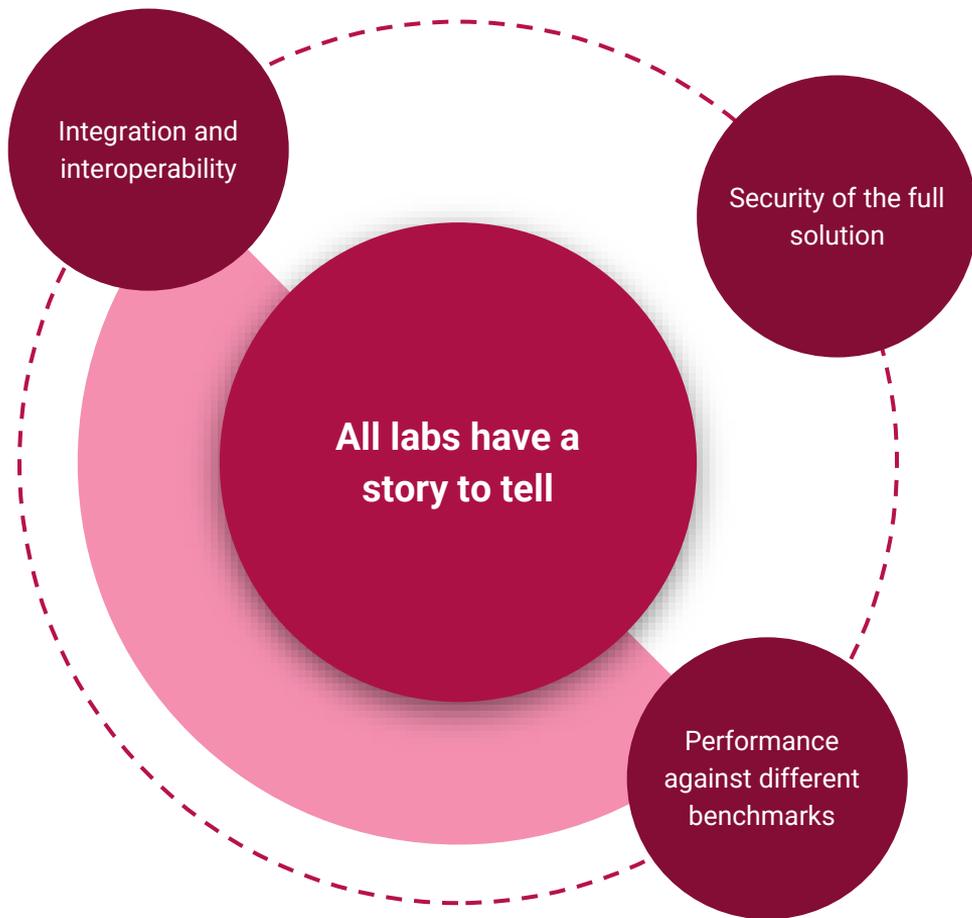
A clear way of assessing and
promoting interoperability

- Clear working definition of interoperability that is outcomes-led and realistic
- **Neutral testing facilities like SONIC Labs and the UK Telecoms Lab**
- Monitoring and influencing standards-setting

Adoption and scale

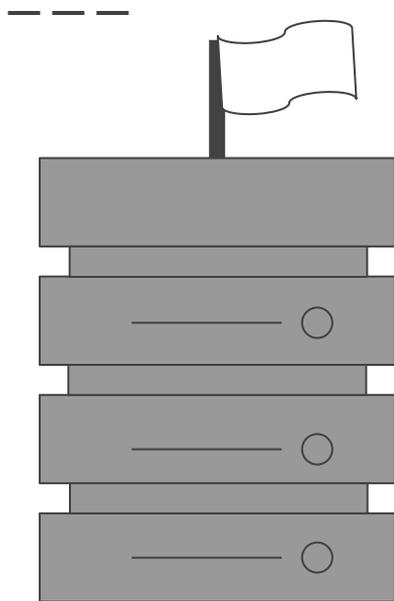
De-risking and supporting
earlier adoption into the
macro network

- Public ambition for what success looks like
- Early urban trials to demonstrate performance
- Removing policy and regulatory deployment barriers
- International engagement to help build scale

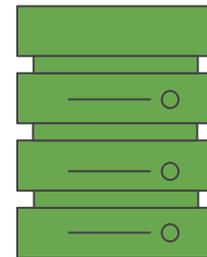
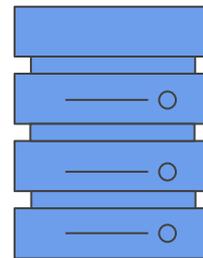
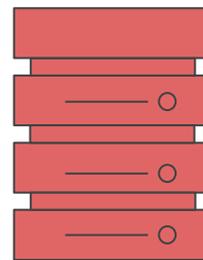


All of which have implications for **implementation of specifications** and ultimately **deployment costs**.

Vendor-neutral labs can reveal a more holistic picture



- Broad trends in interface implementation
- Interoperability testing beyond just commercial integration
- Collaboration to stress test interoperability
- Knowledge sharing and internationalising





Nathan Lawrence  

@NathanBLawrence



I am a connoisseur of weird robot vacuum issues, because they all seem to get at least one thing slightly wrong, but this might be my favorite.

I discover this happened almost every morning.



The value of testing in different combinations and environments.

Barriers and hurdles



Route to commercialisation: this is less clear when the testing isn't happening as part of a defined integration activity



Time and resource: these come at a premium, and testing true interoperability can drop down the priority list



Differentiation: companies' competitive edge will likely still need to be developed in-house, rather than in a neutral environment