

# Skills and Digital

Tuesday 17 September 2024

# Futureproofing the Network – Transitioning Digital Innovation into BAU

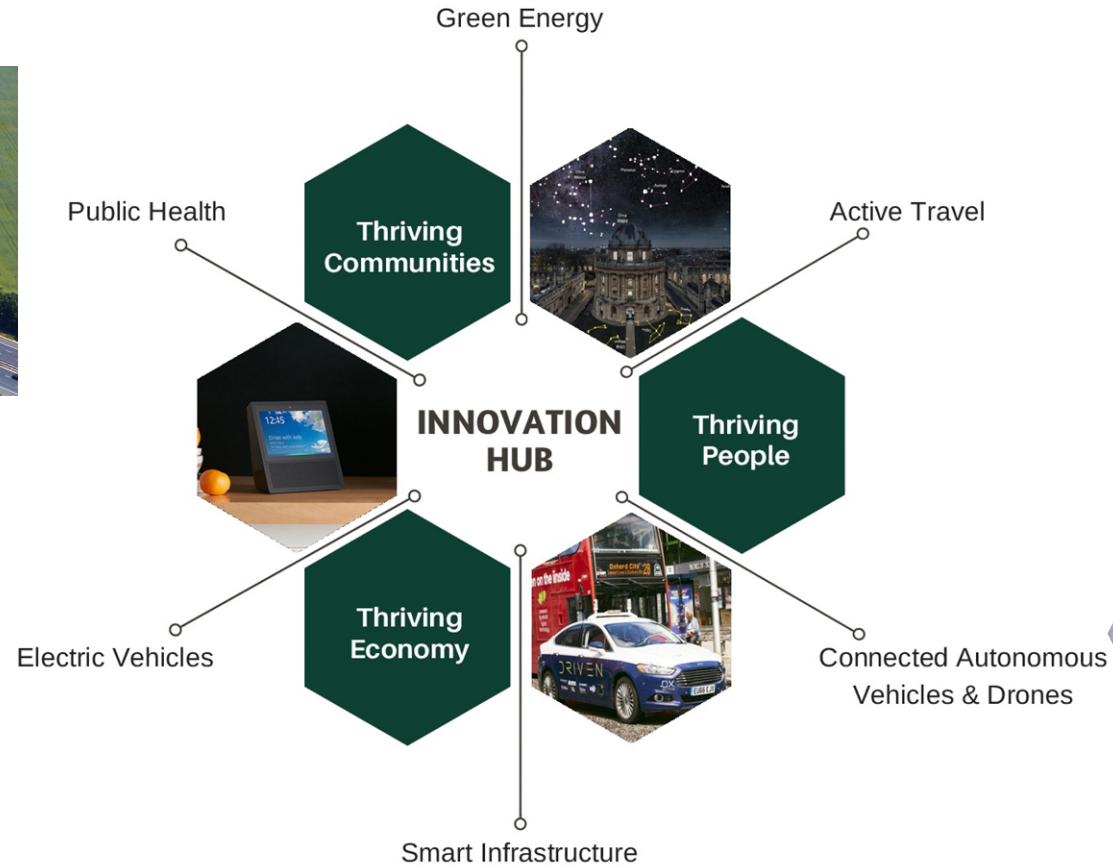


**OXFORDSHIRE  
COUNTY COUNCIL**

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Katie Parnell & Adam Symons  
Oxfordshire County Council Innovation Service

# OCC Innovation Service



# How is innovation different to BAU

## Innovation

- High risk of failure
- Might change (pivot)
- Niche implementation and trial solutions
- Value doing things differently-even if they don't succeed

## Business as Usual

- Low risk appetite
- Long term commitments
- At scale deployment and mature solutions
- Value consistency and reliability-even if opportunities are missed

Integrating new solutions into BAU is **the** hardest part of innovation and research. In start-ups that is often described as the *Valley of Death*.

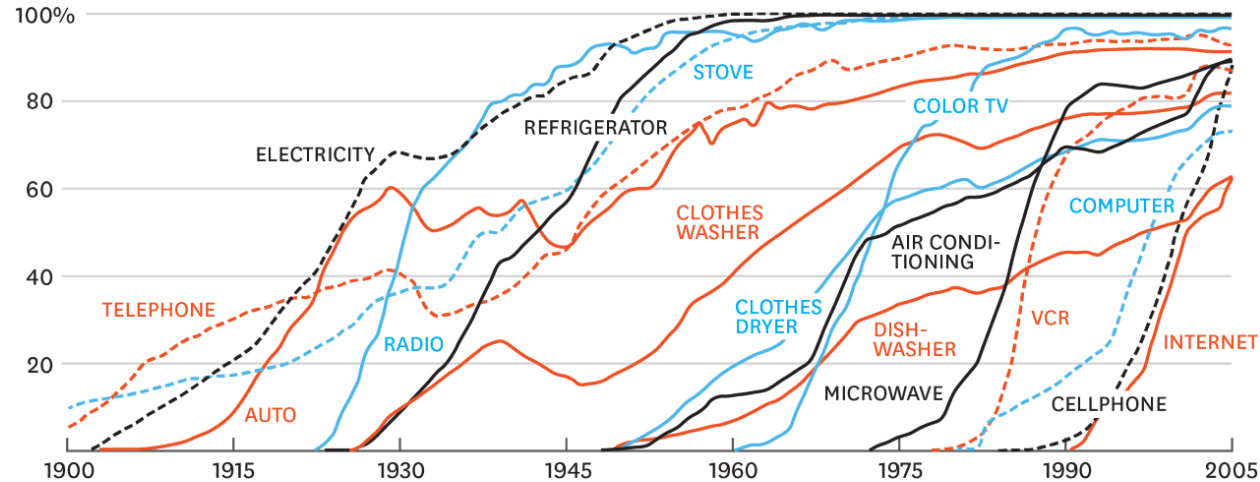




# The need for Innovation

## CONSUMPTION SPREADS FASTER TODAY

PERCENT OF U.S. HOUSEHOLDS



SOURCE NICHOLAS FELTON, THE NEW YORK TIMES

HBR.ORG

Source: BlackRock, Asymco, Tony Seba

## Futureproofing:

- Fast pace of innovation

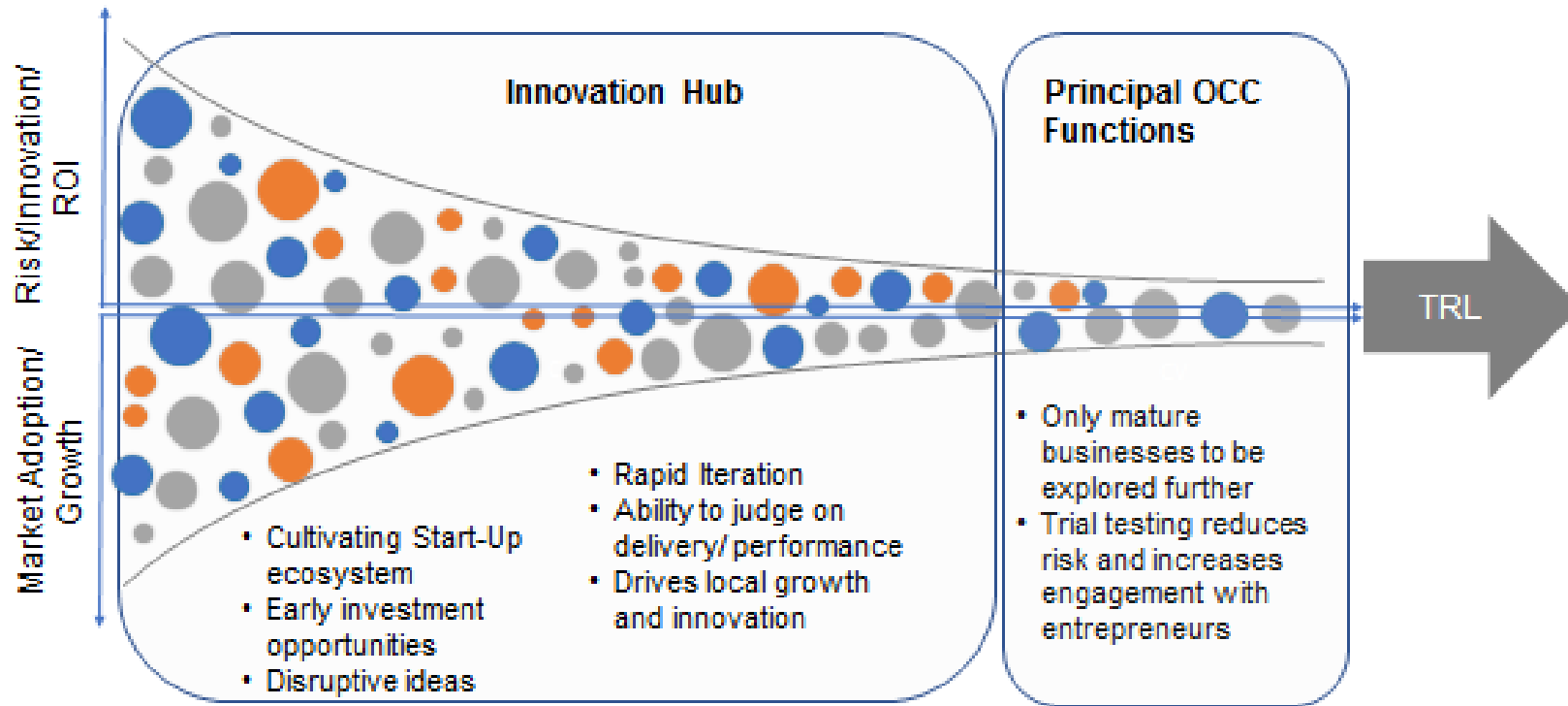
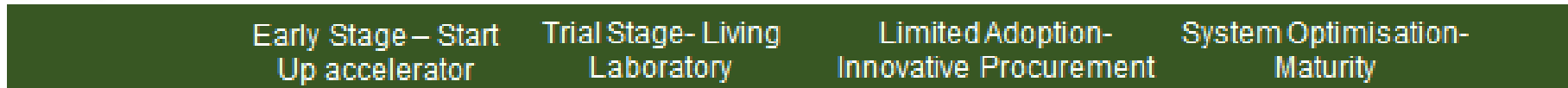
## Avoid need for retrofit:

- Retrofit can be costly
- It can increase maintenance requirements
- It is inefficient – increases disruption (e.g. network delays)

## We can leverage innovation:

- Climate emergency
- Aging population
- Financial challenges





(The different circles represent different projects/companies)



# Example: Alchera Data Platform

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The original problem was how to support new forms of mobility (CAVs/UAVs) through traffic management.

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Secured £1.25M fund to trial solutions from Cabinet Office's GovTech Catalyst Fund

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5 feasibility studies were chosen from over 70 bids, which led to two PoC that were trialled in OCC with real users

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Alchera's solution provided a one-stop shop for all the diverse data sources, link them, and incorporate new feeds. That was most valuable for both current operations and future mobility needs.

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Provides easy access to Transport Monitoring, and enables better policy evaluation through integration of existing and new (e.g. Telraam) sensors

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Innovation provided business case evidence of benefits of a more specific solution, refined through the trials. One stop shop meeting multiple internal clients' needs.

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**Through innovation, the value proposition changed, and final solution both delivers on current needs and is futureproofed.**

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Key resource for more innovation projects, that are future-focused (eg FRONTIER)

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In the future, making use more accessible to light users, form the base for Digital Twin, and adding visualisation layers.

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## Phase 1: Small scale feasibility

GovTech Catalyst: 5\*£50K Feasibility Studies for Network Management for New Mobility, incl CAVs & Drones. 70+ Applications



## Phase 2: Proof of Concept

- 2\*£500K GovTech Catalyst funded application to scale up internal projects. Bridging future potential systems with operations



## Phase 3: Embedding into BAU

- Funding from OCC to centralise, link and data findable and useful
- Flexible architecture to incorporate new sensor



## Phase 4: Further innovation

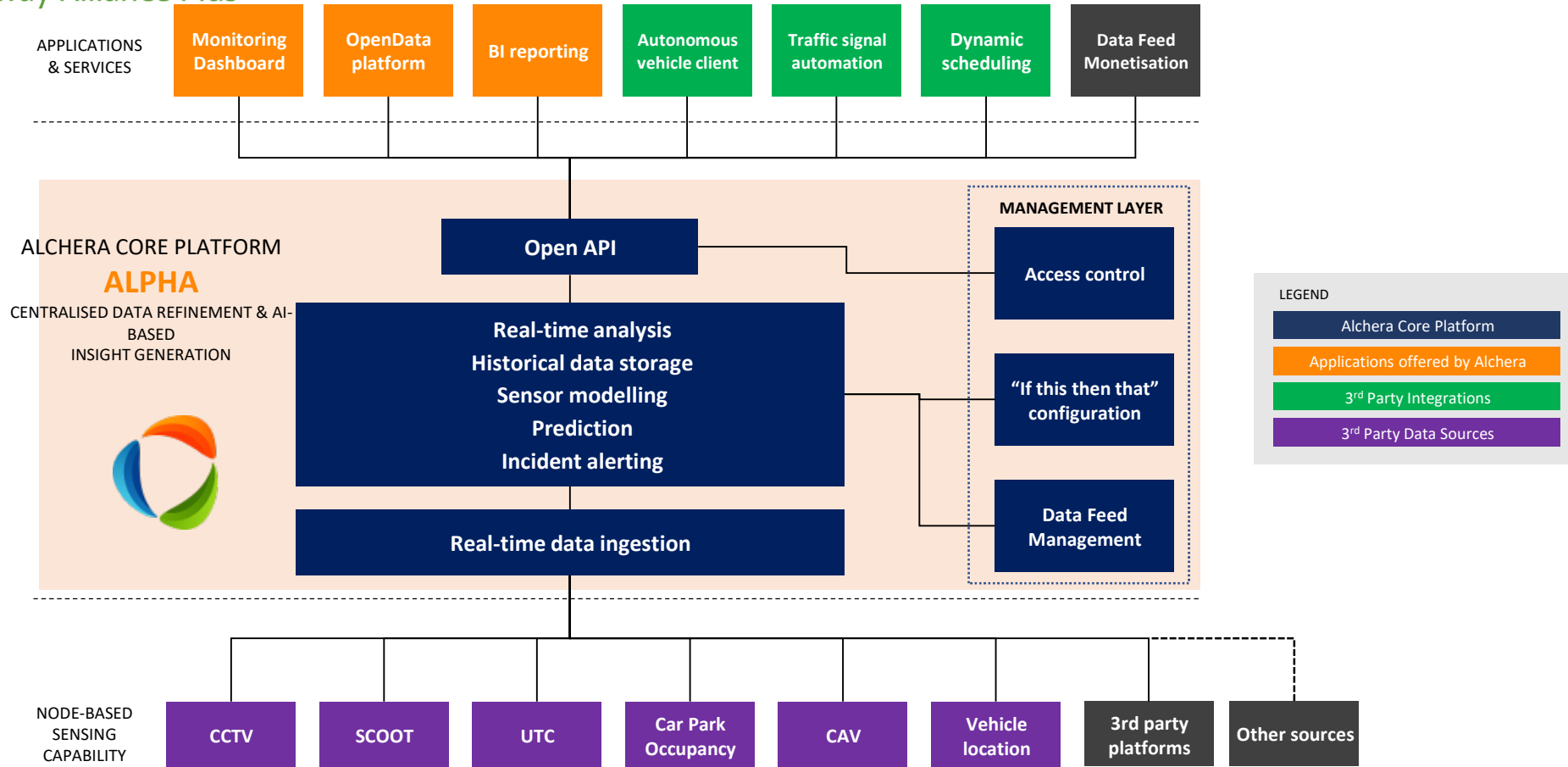
- Making it more accessible for more users
- Enabling Innovation Projects more quickly (FRONTIER, GREENLOG)





Midlands Highway Alliance Plus

# Alchera Data Hub Architecture



# Surviving the Valley- 10 lessons learned

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Innovation service needs its **own operation** – “skunkworks”

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Have a **clear mission and outcomes-based objectives**. Focus on the *what*, and figure out the *how*

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Secure **senior leadership champions**. Needs can be identified at working level, but their job description and objectives are set higher.

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**Gateway reviews** are critical and need to be ruthless. Aim to pivot/kill/interrogate projects as soon as possible. Accountability is key.

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Be clear about **timelines**: is it a 6 month or 10 year project. Implementation usually takes twice as long as trialling.

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**HR, Procurement and Digital are optimised for BAU**, not innovation. Work with them early, and don't be afraid to challenge.

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**Establish innovation partners/champions at all levels**, and embed into boards. Offer training on innovation, new tech and systems thinking. Embed an innovation a culture.

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**External funding (Innovate UK, Horizon Europe, Government) is useful to trial**, but need to support long term business case

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**Disseminate widely**, and give ownership. Be the “good news story”, but save the learnings. Identify and address concerns. Be very visible but manage expectations.

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**Evaluation and lessons learned are extremely valuable**- knowing what worked or not and why will steer future works. Need to be considered early on.





# Our Mission - Innovation for Public Services



**Experts in Innovation – but also in Public Sector**

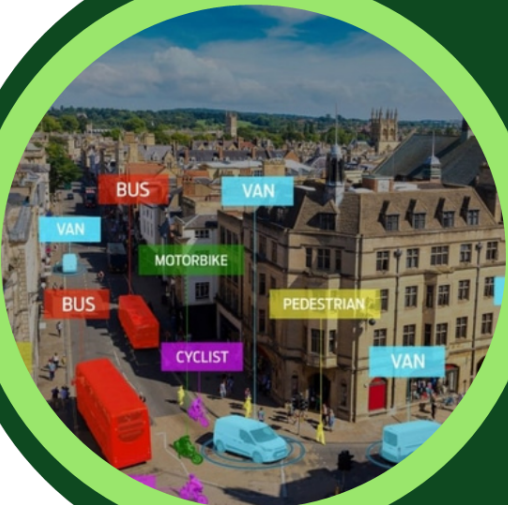
**A customised, collaborative approach**

**VFM for the Public Purse**



# Our Services

## Innovation Consultancy Unit



- Innovation Service Consultancy delivers **technical and project delivery expertise, alongside research and analysis** for external organisations.
- Our team understands the impact of innovation, carrying out **horizon scanning** and **implication mapping**. We provide expertise in **trialing, refining, and embedding new solutions** in the public sector.

## Monitoring and Evaluation Centre

- The Monitoring & Evaluation Centre **measures and demonstrates the impact** of your projects, policies and strategies and captures lessons learnt.
- We can provide this service for projects from **patient and public involvement and engagement** to **policy intervention schemes**.





## Innovation Skill Share



Offering **short-term skill exchanges**, we place innovation staff within other public bodies, providing help for service areas where they face challenges with short-term hiring and/or staff shortages, or to fill specific skills or knowledge gaps within the service.

This **provides learning opportunities for staff and teams** and allows the integration of innovative ideas into service areas.

## Strategic Partnerships and Bid Unit

We support partners in **finding, building, and managing strategic innovation relationships**, including with **universities, research institutes, startups, incubators, or investors**.

We offer **grant or tender bid writing and development** for funding innovation to support clients in preparing and submitting high-quality proposals for tenders or grants that align with their innovation goals and capabilities.





“For the Public  
Sector...  
...by the  
Public Sector.”

Secured funding and delivery for NHS, DCMS, Innovate UK, Horizon 2020, Department for Transport, Office for Zero Emission Vehicles.

Projects include Network Management, Drone Super-Highways, EV charging infrastructure, Smart Infrastructure, and Autonomous Vehicle whole ecosystem implementation.

Producing policy and strategy - including the Strategic Planning Innovation Framework, EV infrastructure, England Economic Heartland energy mapping, CAV standards and protocols.

Monitoring and Evaluation includes leading evaluation for: LTNs, Transport policy implementation, Health and Care Innovation analysis, and Benefit Realisation for transport changes.

Innovation Skill Share including Mobility Hubs, Central Oxfordshire Movement and Place, and Green Homes retrofit programme.







Business Development Manager,  
Adam Symons  
([adam.symons@oxfordshire.gov.uk](mailto:adam.symons@oxfordshire.gov.uk))



## Contact Us



Future Mobility & Placemaking Manager,  
Katie Parnell  
([katie.parnell@oxfordshire.gov.uk](mailto:katie.parnell@oxfordshire.gov.uk))

