



## ***Delegated Decisions by Cabinet Member for Future Economy and Innovation***

***Friday, 5 September 2025 at 1.00 pm***

***Room 3 - County Hall, New Road, Oxford OX1 1ND***

If you wish to view proceedings, please click on this [Live Stream Link](#).  
However, that will not allow you to participate in the meeting.

### ***Items for Decision***

The items for decision under individual Cabinet Members' delegated powers are listed overleaf, with indicative timings, and the related reports are attached. Decisions taken will become effective at the end of the working day on 10 September unless called in by that date for review by the appropriate Scrutiny Committee.

Copies of the reports are circulated (by e-mail) to all members of the County Council.

**These proceedings are open to the public**

Martin Reeves  
Chief Executive

August 2025

Committee Officer:

**Email:**

***committeesdemocraticservices@oxfordshire.gov.uk***

*Note: Date of next meeting: 6 October 2025*

**If you have any special requirements (such as a large print version of these papers or special access facilities) please contact the officer named on the front page, but please give as much notice as possible before the meeting.**

## Items for Decision

### 1. Declaration of Interest

See guidance below.

### 2. Questions from County Councillors

Any county councillor may, by giving notice to the Proper Officer by 9 am two working days before the meeting, ask a question on any matter in respect of the Cabinet Member's delegated powers.

The number of questions which may be asked by any councillor at any one meeting is limited to two (or one question with notice and a supplementary question at the meeting) and the time for questions will be limited to 30 minutes in total. As with questions at Council, any questions which remain unanswered at the end of this item will receive a written response.

Questions submitted prior to the agenda being despatched are shown below and will be the subject of a response from the appropriate Cabinet Member or such other councillor or officer as is determined by the Cabinet Member, and shall not be the subject of further debate at this meeting. Questions received after the despatch of the agenda, but before the deadline, will be shown on the Schedule of Addenda circulated at the meeting, together with any written response which is available at that time.

### 3. Petitions and Public Address

Members of the public who wish to speak on an item on the agenda at this meeting, or present a petition, can attend the meeting in person or 'virtually' through an online connection.

Requests to present a petition must be submitted no later than 9am ten working days before the meeting.

Requests to speak must be submitted no later than 9am three working days before the meeting.

Requests should be submitted to [committeesdemocraticservices@oxfordshire.gov.uk](mailto:committeesdemocraticservices@oxfordshire.gov.uk)

If you are speaking 'virtually', you may submit a written statement of your presentation to ensure that if the technology fails, then your views can still be taken into account. A written copy of your statement can be provided no later than 9am on the day of the meeting. Written submissions should be no longer than 1 A4 sheet.

### 4. Mobile Digital Twin (Pages 1 - 6)

*Cabinet Member:* Future Economy and Innovation

*Forward Plan Ref:* 2025/184

*Contact:* Craig Bower, Programme Director

[Craig.bower@oxfordshire.gov.uk](mailto:Craig.bower@oxfordshire.gov.uk)

**The Cabinet Member is RECOMMENDED to:**

- a) approve a G-Cloud call off contract for a total contract value of up to £5m;  
and**
- b) approve the Council's contribution of £500k toward the total cost of the contract to go alongside contributions from other programme partners.**

## **Councillors declaring interests**

### **General duty**

You must declare any disclosable pecuniary interests when the meeting reaches the item on the agenda headed 'Declarations of Interest' or as soon as it becomes apparent to you.

### **What is a disclosable pecuniary interest?**

Disclosable pecuniary interests relate to your employment; sponsorship (i.e. payment for expenses incurred by you in carrying out your duties as a councillor or towards your election expenses); contracts; land in the Council's area; licenses for land in the Council's area; corporate tenancies; and securities. These declarations must be recorded in each councillor's Register of Interests which is publicly available on the Council's website.

Disclosable pecuniary interests that must be declared are not only those of the member her or himself but also those member's spouse, civil partner or person they are living with as husband or wife or as if they were civil partners.

### **Declaring an interest**

Where any matter disclosed in your Register of Interests is being considered at a meeting, you must declare that you have an interest. You should also disclose the nature as well as the existence of the interest. If you have a disclosable pecuniary interest, after having declared it at the meeting you must not participate in discussion or voting on the item and must withdraw from the meeting whilst the matter is discussed.

### **Members' Code of Conduct and public perception**

Even if you do not have a disclosable pecuniary interest in a matter, the Members' Code of Conduct says that a member 'must serve only the public interest and must never improperly confer an advantage or disadvantage on any person including yourself' and that 'you must not place yourself in situations where your honesty and integrity may be questioned'.

### **Members Code – Other registrable interests**

Where a matter arises at a meeting which directly relates to the financial interest or wellbeing of one of your other registerable interests then you must declare an interest. You must not participate in discussion or voting on the item and you must withdraw from the meeting whilst the matter is discussed.

Wellbeing can be described as a condition of contentedness, healthiness and happiness; anything that could be said to affect a person's quality of life, either positively or negatively, is likely to affect their wellbeing.

Other registrable interests include:

- a) Any unpaid directorships

- b) Any body of which you are a member or are in a position of general control or management and to which you are nominated or appointed by your authority.
- c) Any body (i) exercising functions of a public nature (ii) directed to charitable purposes or (iii) one of whose principal purposes includes the influence of public opinion or policy (including any political party or trade union) of which you are a member or in a position of general control or management.

### **Members Code – Non-registrable interests**

Where a matter arises at a meeting which directly relates to your financial interest or wellbeing (and does not fall under disclosable pecuniary interests), or the financial interest or wellbeing of a relative or close associate, you must declare the interest.

Where a matter arises at a meeting which affects your own financial interest or wellbeing, a financial interest or wellbeing of a relative or close associate or a financial interest or wellbeing of a body included under other registrable interests, then you must declare the interest.

In order to determine whether you can remain in the meeting after disclosing your interest the following test should be applied:

Where a matter affects the financial interest or well-being:

- a) to a greater extent than it affects the financial interests of the majority of inhabitants of the ward affected by the decision and;
- b) a reasonable member of the public knowing all the facts would believe that it would affect your view of the wider public interest.

You may speak on the matter only if members of the public are also allowed to speak at the meeting. Otherwise, you must not take part in any discussion or vote on the matter and must not remain in the room unless you have been granted a dispensation.

This page is intentionally left blank

## **DELEGATED DECISION BY THE CABINET MEMBER FOR FUTURE ECONOMY & INNOVATION**

**05 SEPT 2025**

### **Mobile Digital Twin – Report by The Director of Economy and Place**

#### **RECOMMENDATION**

1. The Cabinet Member is **RECOMMENDED** to:
  - a) approve a G-Cloud call off contract for a total contract value of up to £5m; and
  - b) approve the Council's contribution of £500k toward the total cost of the contract to go alongside contributions from other programme partners.

#### **Executive Summary:**

2. The council will lead on developing and delivering a mobile digital twin for use by the public sector and owned by the public sector. The council will commit up to £500k to develop the platform based on Oxfordshire data. Several other Local Authorities have expressed interest in co-investing and the potential scope could reach £5m as the toolset is developed via a Local Authority partnership model. The council would be the accounting body and would own the IP under license with the rights to sub-licence this.. The platform will be procured as goods and services via G-Cloud. The council is in full control of cashflow and liabilities by means of the termination for convenience clause in the contract.
3. The Digital Twin creates the platform which provides robust evidence for intervention requirements and proposes solution architectures. In some cases, the evidence will enable evidence-based discussions with individual Mobile Network Operators such that they can (at their cost) amend the parameters of their 4G/5G radios on macro or micro cell sites. In many cases there will need to be physical new mobile infrastructure installed and funding for this will need to be separately sourced.
4. The total contract value of the programme will be up to £3m with the ability to increase this up to £5m, of which £500k will be initially met by OCC and £2.50m (or £4.5m in the event of the increase detailed above) will be funded by other programme partners. The run rate of the programme will be managed so that the Council's contribution never exceeds £500k, and if the Council is unable to secure the additional funding from the other programme partners the contract will be terminated early before the £500k commitment is reached.

## The Proposition

5. At the centre of the proposed solution is a powerful digital twin of the public mobile networks.
6. A digital twin is a virtual representation of a system (or network) designed to reflect the operation of the physical system accurately. It spans the network's lifecycle, is updated from real-world data that it uses to simulate the model to provide insights into the end experiences of using the network, namely areas and times where the network can deliver a good service and where and when the network delivers a poor service. The "Mobile Twin" proposed differs from other solutions that only offer non-temporal insights and cannot model network congestion and other capacity impairments.

## Why build a Digital Twin?

7. Network augmentation to improve coverage and capacity can only be done if the existing / underlying network is well understood. There are many potential ways to enhance existing networks and/or build extensions, which might be integrated with public networks or operate on a standalone basis. At the heart of the problem that the Council is trying to solve are the economics of any deployment and what "bang for the buck" can be delivered using different deployment strategies. The "bang" is basically a coverage footprint and the mobile broadband capacity it can deliver. This in turn is dimensioned by the spectrum deployed on the cell site and generation of Mobile technology. To make good investment decisions using public monies a clear and independent understanding of what mobile network infrastructure can and does deliver must be created in order to run a variety of "What if" scenarios, that may trigger / justify market subvention.
8. The twin will be a digital representation of a network of real world mobile cell sites. End user demand will be simulated and calibrated using real-world crowdsourced measurements, in both the RF and Data traffic domains, matching its operation to the real cell site. This provides the basis for "What if" queries, which would include.
  - What network improvements can be obtained by adding additional spectrum to a public MNO site?
  - What improvement can be delivered by adding additional public network sites in a target area?
  - What is the improvement that can be delivered by an independent "neutral" capable of extending multiple public 4G and 5G Mobile Operator networks?
  - What improvement can be delivered by a 5G standalone, non-integrated private network?
9. Different "What if" scenarios can be considered, and each one can be costed. Once the improvement outcome to coverage and capacity is determined, it is then possible to determine answers to second-order questions that relate to the network's ability to support specific use cases. Business and consumer mobile services, ranging from "what Smartphone apps will work", can the network support a FWA service, can the network support IoT, Sensors or CCTV etc... A



key part of this analysis will be to load the digital twin with extra demand, relating to these use cases to determine if the existing or an augmented network can support them and at what quality (or specification) they can be supported.

## Basic Visualisation and Insights

10. The initial model (Digital Twin) would enable the end users to get a series of insights into MNO coverage and whether the target use cases can be supported, on a location-by-location basis. Initially this would be for outdoor services only. The first insight would be the ability to profile a specify area, for example a business park, a rural village, or a specific macro cell (based on its serving area). The “digital twin” can be tested to see if certain use cases can be supported, by loading additional traffic (from the use case) across the target location (in addition to the simulated current demand).
11. The visualisation / user interface concept is to define a polygon, that bounds the area of interest. This will call-out the mobile infrastructure that currently exists in that area for all Mobile Operators. It would show operational footprints. The representation would be based on a visualisation of layers, each layer relating to a specific service / use case, and colour coding for the quality of the service, including no coverage boundaries. Missing capacity and coverage will show up as a separate set of distinct polygons for each use case, which can be exported.
12. The real value of the digital twin is the ability to run “What-if” scenarios, which ultimately could be automated (via Machine Learning). The network of cell sites can be manipulated via a user interface. The user can select one, or a cluster of cells and perform transforms to modify the configuration of existing sites or add new sites into a defined area. As the user manipulates the target area, the impact will be calculated in real time (or as fast as possible).

## Real-world Field Testing and Validation

13. Finally, a digital twin is only useful if it provides an accurate virtualisation of the real-world network infrastructure. A significant amount of effort does need to be expended testing and validating the twin to ensure the answers it provides are useful (and insightful). The project will develop a methodology for ensuring alignment over time, as a one-time snapshot can age quickly. The goal is to get good correlation between the twin and a real network, and this can be done using simple methods for example off-the-shelf Smartphone and MNO SIMs deliberately loading the network in key locations to determine the impact.

## Corporate Policies and Priorities

14. This project aligns with several key OCC strategies and aims:
  - **Digital Strategy** – mobile connectivity is a key element of the strategy.
  - **Digital Inclusion** – availability of mobile connectivity
  - **Partner of Choice** – by choosing the right organisations to develop purposeful relationships to deliver the best outcomes for our residents.

- **Place Shaper of Choice** – by identifying areas of poor mobile coverage and working with suppliers to bring mobile connectivity to those communities
- **Commercially aware** - The proposition aligns with OCC's ambition to be a more commercial smart organisation as it has the potential to spin out into a service or services that could be offered to other public sector bodies or at least to cover OCC's own operating costs.

## Financial Implications

15. The total contract value of the programme will be up to £3m, of which £0.5m will be initially met by the Council and £2.5m will be funded by other programme partners. The programme will be managed so that Oxfordshire County Council's contribution never exceeds £0.5m. The initial call off value is £0.5m and therefore is below the key decision threshold but the total contract value will be £3m (extendable to £5m). The Council's share of the programme costs will be met from Digital Infrastructure gainshare funding, which has sufficient budget available. OCC's liability will be capped at a maximum of £0.5m with the remaining costs funded by other programme partners, up to the value of £2.5m (extendable to £5m).

### Comments checked by:

Thomas James, Head of Financial Services,  
[thomas.james@oxfordshire.gov.uk](mailto:thomas.james@oxfordshire.gov.uk) (Finance)

## Legal Implications

16. The contract is being entered into via the CCS G-Cloud 14 framework which is compliant with the Public Contracts Regulations 2015. The contract is for a total value of £3m with the option to increase this to £5m and it is intended that the Council will only finance £500k of the total value with the remainder being financed by other councils which will be confirmed via legally binding contracts with those councils (to be put into place post signing of the contract). In the event of not being able to secure such commitments the Council will be liable for the full contract cost unless the contract is terminated early, the Council has the ability to terminate the contract without cause with 30 days' notice.

### Comments checked by:

Donna Creffield, Contracts Lawyer,  
[Donna.Creffield@oxfordshire.gov.uk](mailto:Donna.Creffield@oxfordshire.gov.uk) (Legal)

## Staff Implications

17. The project will be delivered by a small team of highly experienced consultants from Spirit Public Sector working alongside the Council's Digital Infrastructure Programme Team. The Digital Infrastructure Programme Team staff costs are already funded from the Digital Infrastructure Gainshare Fund.

## **Equality & Inclusion Implications**

18. There are no E & I implications considered relevant to the project.

## **Sustainability Implications**

19. There are no sustainability implications attached to this project.

## **Risk Management**

20. The Digital infrastructure programme has a detailed risk log which is continually assessed. The service outputs of this work are external and do not impact on any services directly delivered by the council. The risks will primarily be concerned with diligent contract, budget, and project delivery management. The contract has been drafted to enable these activities to be executed.

## **Consultations**

21. There are no consultations required for this project.

## **Robin Rogers, Director of Economy and Place**

Annex: Nil.

Background papers: Nil.

Other Documents: Nil.

Contact Officer: Craig Bower, Digital Infrastructure Programme Director,  
[craig.bower@oxfordshire.gov.uk](mailto:craig.bower@oxfordshire.gov.uk),

August 2025

This page is intentionally left blank