



Delegated Decision Report

30th January 2024

Subject: 5G and Future Connectivity Programme – 5G Healthcare Innovation Hub

Report of: Digital Infrastructure Delivery Manager

Portfolio: Clean Energy and Connectivity

Report Summary

NTCA Cabinet previously approved an indicative allocation of £7m for a *5G and Future Connectivity Programme*, with the overall ambition to drive advanced connectivity adoption in key sectors where there is local capability and opportunities to unlock economic benefits, new markets and improve competitiveness. The programme was split into two phases, with up to £3.5m of the funding allocated to the current programme period.

At its meeting on 27th July 2021 (Item 8), NTCA Cabinet delegated responsibility to the Chief Executive in consultation with the Director of Finance and relevant Cabinet Members to take next steps in designing the 5G & Future Connectivity Programme, including undertaking market engagement activity, inviting forward proposals, and allocating funding in consultation with Investment Panel, Portfolio Holder and the Mayor.

The programme recognises that coordinated investment to support commercialisation of new technologies is required – increasing the opportunities for the area to benefit from the exploitation of future connectivity developments.

The purpose of this report is to approve 5G & Future Connectivity Investment Fund funding of £0.985m to deliver a 5G Healthcare Innovation Hub within an NHS healthcare setting, which aims to support the development of 5G applications to improve the patient flow and discharge process and the establishment of virtual wards. The Hub will be situated within one of the primary care locations of the Northumbria NHS Foundation Trust with the exact location to be confirmed.

It builds on NTCA's intent to establish this region at the vanguard of 5G capability in the UK to position the North East's innovation ecosystem as the UK's leader for patient flow and discharge through a 5G enabled innovation acceleration programme which de-risks and opens early-stage adoption pathways into a health and care settings that enables accelerated adoption of new HealthTech devices for improved health outcomes, attracting innovators to the area. This project will complement a previous **£1.263m** investment in two projects which will deliver 5G enabled innovation labs in Port of Blyth and Eldon Square, providing access to leading edge tech and co-working space, removing barriers to accessing, testing, and piloting 5G technology solutions.

By undertaking this programme, in addition to identifying directly investible propositions, we have positioned the region well for the Government's Wireless Infrastructure Strategy (WIS) released 11/04/23, where the NE has been successful in our bid to secure £3.8m of funding from the first competition to emerge from this strategy – **DSIT 5G Innovation Regions**. This programme will see a further £3.8m come into the LA7 region of which £1.2m direct to NTCA region and used to fund an Agritech project with Newcastle University to improve farm efficiency & environmental impact in the sector.

The NTCA Technical Officer Group and Investment Panel were consulted on this proposal on 18th December 2023 and 11th January 2024 respectively and recommended the project for approval in line with the existing delegation to the Chief Executive based on the fit with the NTCA Investment Plan, value for money and deliverability.

Recommendations

The Chief Executive, in consultation with the Director of Finance, the Mayor and relevant Cabinet Member and in accordance with the scheme of delegation, is recommended to approve the following funding award, and authorise entry into required agreements to facilitate approvals, as set out in this report:

1. Investment Fund funding of the amount of £0.985m to be awarded to CPI for the delivery of the 5G Healthcare Innovation Hub project set out at paragraph 1 and subject to the conditions of funding set out in 1.14 of this report.
2. To authorise the Chief Finance Officer and Monitoring Officer to:
 - a. prepare the necessary documentation and to enter into grant agreements or contracts with the lead applicants.

1. Background Information, Proposals and Timetable for Implementation

1.1 Background Information

- 1.2 NTCA Cabinet approved an allocation of up to £3.5m in the current programme period (with a similar indicative allocation for the next programme period) for a 5G & Future Connectivity Programme with the overall ambition to drive advanced connectivity adoption, with a focus on our key sectors where there is local capability and opportunities to unlock economic benefits, new markets and improve competitiveness.
- 1.3 £3.5m was made available through an EOI call in March 2023 and 13 EOI submissions were received across 3 lots (detailed below). Lot 1 and Lot 2 were progressed through to full business case with Lot 3 being advanced separately.
 - **LOT 1** – 5G/future connectivity test beds or ‘innovation labs’ to improve access to high quality connectivity innovation facilities, equipment, and co-working space for SMEs.
 - **LOT 2** - Projects that support private sector commercialisation of proven 5G use cases and deployment at scale in NTCA key sectors.
 - **LOT 3** – Infrastructure providers and mobile network operators invited to collaborate with NTCA/partners on opportunities for Full Fibre and 5G infrastructure deployment along the Northumberland Line Economic Corridor.
- 1.4 With input from NTCA Digital Executive Board and TOG, 3 EOI proposals were deemed to be scoped sufficiently to enable NTCA to identify a strategic rationale, deliverables, and benefits to proceed to the next stage (full business case).
- 1.5 A full external green book appraisal has been undertaken which identified that the projects have a strong fit with the Combined Authority’s Vision and key priorities and a strategic fit with wider regional and national policy. 2 of the 3 projects were approved back in September (Port of Blyth Innovation Lab and Eldon Square 5G Immersive Lab).
- 1.6 This project, led by CPI, is a strong collaboration between AHSN (Academic Health Science Network), Northumbria Healthcare NHSFT, North East and North Cumbria ICB, Waymark Digital and Cellnex.
- 1.7 The project combines the potential of cutting-edge late-stage R&D developed by SMEs with CPI’s 5G Healthcare Innovation Hub and real-world adoption through the NHS Trusts and care providers within the region, to showcase an accelerated adoption pathway from concept to market. It will use a competitive process to identify two SMEs that can apply disruptive 5G solutions into the regional health and care setting to address the challenge in patient flow and discharge for the region.
- 1.8 The overall risk rating of the business case is green with outstanding issues dealt with through the conditions of funding set out in paragraph 1.13.
- 1.9 The project is anticipated to begin to mobilise immediately following the delegated decision with delivery expected to begin in early 2024 and to run until June 2025 as per the implementation timetable below:

Activity	Deadline
Consideration and approval by Digital Executive Board	7 August 2023

Initial consideration by TOG/IP	7 Sept 2023
Follow up consideration by TOG	18 Dec 2023
Follow up consideration by Investment Panel	11 Jan 2024
Notification to applicant of successful assessment of FBC submission	Jan 2024
Contracting and Mobilisation of project	Jan 2024
Project Start Date	Feb/Mar 24
Project Close (latest)	June 2025

1.10 NTCA Outputs

Investment Fund Outputs	Total
001) Direct Jobs Created	4
002) Indirect Jobs Created	2
003) Direct Jobs Safeguarded	6
004) Indirect Jobs Safeguarded	10
005) Enterprises Receiving Support	40
005.3) Enterprises receiving non-financial support (12+ hours)	20
005.4) Enterprises receiving non-financial support (3-12 hours)	20
005.5) Enterprises supported to introduce new to market products	2
005.6) Enterprises supported to introduce new to the firm products	2
006) Creation or safeguarding of space shared for community and/or business activities	2

1.11 Value for Money

Innovation in healthcare is challenging due to the regulatory and ethical safeguards in place given the nature of the environment. This is reflected in the relatively modest volume of direct outputs anticipated within the project - with 40 companies provided with business support and advice and then 4 of these more intensively supported in their technological development and 2 projects taken to health and care proof of development principle. However, the wider benefits to the residents (virtual wards and improved patient flow and discharge) and the region (establishment of a 5G healthcare innovation ecosystem) are considered to be significant if the project delivery is successful.

To strengthen the impact of this project and ensure appropriate level of return on investment, we have worked closely with delivery partners to:

- increase the number of businesses supported from 20-40
- ensure projects down selected for scale up must demonstrate a minimum return on investment forecast of £0.5m.
- introduce a break clause which can be triggered if a minimum of 2 projects do not meet the minimum return on investment forecast of £0.5m.

1.12 Milestones

Project milestone	Delivery date
Project Start	Jan24
Call for Innovators in the program launched	Apr24
Demo competition complete	Sept24

5G Test Cases Complete	Jan25
2 Companies starting testing in health care setting	Jan25
Pilot Implementation Complete	Mar25
Project Close	Jun25

1.13 Appraisal

The project aligns with NTCA objectives and national objectives of improving the healthcare access and reducing NHS waiting lists by improving the patient flow and discharge, which would benefit NCTA residents. The project would also develop a 5G healthcare ecosystem in the North of Tyne, strongly positioning the region in this technological area.

The following table sets out the appraisal summary which was undertaken by external appraisal consultants.

Overall RAG assessment	
The Economic Case	GREEN
The Strategic Case	GREEN
The Inclusive Economy Case	GREEN
The Commercial Case	GREEN
The Financial Case	GREEN
The Management Case	AMBER
Overall Rating	GREEN

Proposed Funding Conditions

No.	Condition
Condition 1	Formal commitment of the healthcare setting to allow the use of the installed 5G infrastructure for further innovation projects by SMES
Condition 2	Satisfactory subsidy control status provided for all partners before the funding agreement
Condition 3	Engagement with Local Authority Social Care Directors to be offered prior to project commencement.

1.14 Next Steps

Funding agreements will be put in place and the project will commence delivery.

2. Potential Impact on Objectives

2.1 The outputs and benefits associated with this project contribute to the objectives set out in the North of Tyne 5G & Future Connectivity joint vision which has been approved by Cabinet, by addressing the gaps in our innovation ecosystem, building on NTCA intent to establish this region at the vanguard of 5G capability in the UK.

2.2 A number of further benefits are outlined in the full business case proposals which align to NTCA's objectives for economic growth and inclusive economy: access to up-to-date 5G enabled innovation labs; wider impact on learning opportunities linked to growth sectors; public service innovation; a partnership with an NHS Trust and raising the profile of the region as innovators in this space with national government.

3. Key Risks

3.1 The risks associated with the delivery of the project are actively managed at several levels by the project sponsor and as a part of the regular claims and monitoring activity undertaken by the Programme Management Office.

4. Financial and Other Resources Implications

4.1 In line with our agreed claims process, grants will be paid at the agreed intervention rate quarterly in arrears and upon verification of costs. The financial completion date for the project is 30 June 2025.

4.2 Below is an approximate forecast projected spend profile:

Capital / Revenue Funding Stream Split	Financial Years		
	2023/24	2024/25	Total
NTCA Investment Fund Revenue	£303,461	£681,539	£985,000

An indicative £7m investment fund was allocated by Cabinet across two programme periods 2019-23 and 2023-2028 (up to £3.5m each period). **£0.985m** is requested here which adds to the **£1.263m** approved in September leaving a further **£4.752m**. To date, none of the £1.263m is legally committed as we are still working toward GFA signature. Should this application be approved, a balance of £4.752m will remain from the 5G & Future Connectivity programme of which £1.252m remains in the current spending period. Although we are predicting an underspend relative to the initial indicative allocation, the development of the programme has helped us and the wider region develop credibility and attract other forms of funding for example, £3.8m from *DSIT 5G Innovations Regions*.

5. Legal Implications

5.1 The comments of the Monitoring Officer have been included in this report.

5.2 The award is subject to compliance with the requirements of subsidy control advice received and the GFA shall include any conditions deemed appropriate in this respect.

6. Equalities Implications

7.1 As required by Section 149 of the Equality Act 2010, the Combined Authority has considered its obligations regarding the Public Sector Equality Duty and there will be no anticipated negative impact on groups with protected characteristics from this proposal.

An Equalities Impact Assessment will be undertaken and the implications of this will be considered in the project mobilisation and delivery stages.

7. Inclusive Economy Implications

7.1 The project contributes to the delivery of the inclusive economy objectives of the NTCA. The project applicant has submitted detailed responses to the Inclusive Economy case within its proposals and have been appraised.

7.2 The project offers specific opportunities linked to Participation and Equity; through the provision of increased and open access to 5G labs for residents and SMEs and the offer of educational and training facilities to varied cohorts of residents.

8. Climate Change Implications

8.1 The Combined Authority has considered the implications relating to climate change. 5G is a technology that proposes to help mitigate climate change, one of the biggest threats to health, the natural environment and economic prosperity. 5G will support key industries such as manufacturing, agriculture, transport, and energy in reducing their environmental footprints.

8.2 As a region, we are encouraging this innovation with the 5G Innovation Lab at Port of Blyth which will enable 5g innovation in the offshore and renewables sector and positively impact on our net zero ambitions.

9. Consultation and Engagement

9.1 Throughout the process, extensive consultation has taken place. This project has been discussed and approved at NTCA Digital Board, Technical Officers Group meeting, Investment Panel, at Officer level in NTCA. In addition, the project sponsor has undertaken engagement with relevant stakeholders.

10. Appendices

10.1 None

11. Background Papers

11.1 NTCA Cabinet Paper July 2021

[Cabinet Decisions July 2021 \(northoftyne-ca.gov.uk\)](https://www.northoftyne-ca.gov.uk/cabinet-decisions-july-2021)

12. Contact Officers

12.1 Janet Ross Digital Infrastructure Delivery Manager (5G & Future Connectivity Programme) Janet.Ross@northoftyne-ca.gov.uk

13. Glossary

13.1 None

14. Sign-off

1) Portfolio holder: Yes	2) Director of P&P/Head of Service: Yes	3) Director of Finance: Yes	4) Monitoring Officer: Yes
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