ABERDEEN CITY REGION DEAL:
Powering Tomorrow's World

To: Councillor Ian Yuill, Chairperson; Councillor Anne Stirling; Vice Chairperson; Councillor Christian Allard (ACC), Councillor Gillian Owen (Aberdeenshire Council), Councillor Gwyneth Petrie (Aberdeenshire Council), Councillor Miranda Radley (ACC), Professor George Boyne (ONE), Ms Jennifer Craw MBE (ONE) and Sir Ian Wood (ONE).

Aberdeen City Council Substitute Members:- Councillors Ryan Houghton, M.Tauqeer Malik and Alexander McLellan.

Aberdeenshire Council Substitute Members:- Councillors John Cox, Isobel Davidson and AllisonEvison.

ONE Substitute Members:- Stanley Morrice, Professor Steven Olivier and 1 vacancy to be confirmed.

Please note that a substitute member may only participate in the meeting when a substantive member is absent.

Town House,
ABERDEEN, 3 January 2025

ABERDEEN CITY REGION DEAL JOINT COMMITTEE

The Members of the **ABERDEEN CITY REGION DEAL JOINT COMMITTEE** are requested to meet in **Virtual - Remote Meeting on FRIDAY, 10 JANUARY 2025 at 11.30 am.**

ALAN THOMSON
INTERIM CHIEF OFFICER - GOVERNANCE

B U S I N E S S

1   Welcome and Apologies

2   Declarations of Interest/Transparency Statements

Members are required to intimate any Declarations of Interest or Transparency Statements in respect of the items on today's agenda.

3   5G ONE Pop-Up Project (Pages 3 - 14)

Should you require any further information about this agenda, please contact Mark Masson, email mmasson@aberdeencity.gov.uk, or telephone 01224 067556

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COMMITEE	Aberdeen City Region Deal Joint Committee
DATE	10 January 2025
EXEMPT	No
CONFIDENTIAL	No
REPORT TITLE	5G ONE Pop-Up Project
LEAD OFFICERS	Jennifer Craw
REPORT AUTHORS	Lindsay McKenzie
REPORT DATE	18/12/2024

1:	Purpose of the Report

   i.   To inform and seek approval from Joint Committee for 5G Pop-Up network project material change request.

2:	Recommendations for Action

It is recommended that the Joint Committee:

   i.   Approves the material change request (Appendix A).

3:	Summary of Key Information

   i.   Project 5G ONE Pop Up Network Digital Infrastructure Business Case Gap Analysis was approved at Aberdeen City Region Deal (ACRD) Joint Committee in November 2022.

   ii. The project objective is to drive the adoption of 5G in key sectors of the regional economy – including energy, utilities, ports and logistics. The potential to expand its activities by funding 'pop up ' coverage in the region to enable companies to test applications in a real-life environment.

   iii. The initial deployment revealed several challenges, including limited technical capabilities of businesses, delays in installation and suitability assessments, seasonal industry challenges, evolving equipment

3:	Summary of Key Information

specifications, high costs of Internet of Things and 5G devices, and longer deployment times needed.

iv. The recommendation of the material change request (Appendix A) is to proceed with Option 2 to change project delivery approach, adjust key deliverables and deployment timelines to maximise the impact for recipient businesses and deliver high-impact case studies and a playbook for regional digital transformation, focusing on fewer, more impactful deployments.

4:	Finance and Risk

i. The total budget of £327,200 and the overall project timeline remain unchanged. The revised claim profile will support continued project delivery.

2

Project Change Request			
Project Name	5G (Pop-up Project)	**Date**	**28/11/2024**
Project Manager	**Sarah Morgan**	**Version**	**3**

1. Change Request Information

Change Request Name	**5G Project Amendments following Pilot Phase**	
Indicate the nature of the change	☒ Material change	☐ Non-material change
Project Manager/PMO review date	**Aigul Gray**	**02/12/2024**
Date decision is required by		

2. Change Description

Background

Valuable insights from engaging in the initial 5G 'pop-up' deployment activity has prompted a review of the proposed implementation process and project programme to ensure the successful delivery of project outcomes. These learnings, particularly around technical challenges and deployment timelines, require changes to the project approach to maximise the impact for recipient businesses. This change request sets out proposed adjustments to key deliverables to focus on fewer, more impactful deployments within the overall project funding. These changes will enable businesses to make the best use of 5G technology and achieve sustainable outcomes by the close of Q4 2025/26.

Lessons learned

The initial deployment of 5G equipment along with challenges encountered in identifying and securing suitable businesses to implement the technology have demonstrated that the delivery mechanism set out in the original proposal will not deliver the desired outcomes. Many of the targeted rural businesses are unable to participate due to challenges such as project design, technical skill gaps, staffing shortages, equipment procurement, and limited telecom support. Lessons learned from the work undertaken to date include:

1. **Limited Technical Capabilities of Businesses**: Businesses require significant levels of support in setting up devices and managing their outputs, particularly around data project planning, collection, processing, and presentation. This can be provided by local digital tech companies, Data Lab, and utilising Interface vouchers, but still requires extensive project management and dedicated time from the business and the ONE Digital Tech project team. This limits the number of potential companies for deployment both through their willingness to take on these costs and the scope of the ONE Digital Tech team to support the implementation.

2. **Delays in Installation and Suitability Assessments**: The time required for third parties to assess the suitability of a site and develop an installation plan is significantly longer than anticipated (over 2 months). This can be partly addressed by making modifications to the 5G equipment to simplify future deployments, requiring local support rather than specialist contractors.

3. **Seasonal Industry Challenges**: The seasonal nature of some of the industry sectors has caused significant scheduling difficulties for planning, surveys, applications, and approvals and impacts on the number of deployments that can be delivered.

4. **Evolving Equipment Specifications**: Equipment requirements continue to evolve, and additional minor components often need to be purchased to meet the specific needs of individual sites, complicating the procurement process.

5. **High Costs of IoT and 5G Devices**: To maximise the benefits of utilising the 5G equipment, additional IoT and 5G-enabled devices are required, and these costs were not built into the original deployment costs. Businesses are unable to invest in this equipment when they only have access to the mobile 5G kit for a short period of time.
6. **Time to obtain a Spectrum Licence**: Each deployment requires a spectrum licence application for radio airspace, which can take up to 40 days to process, causing delays in deployment.
7. **Longer Equipment Deployment Needed**: To gather meaningful data, develop new skills, and validate their ideas, businesses need the 5G equipment onsite for an extended time, giving a period of stable deployment. The initial six weeks envisaged for the deployments is required for set up and resolving teething issues around installation and commissioning.
8. **Scotland 5G Centre Test Bed and Business Development Support**: The decommissioning of the Scotland 5G Centre's test bed in ONE Tech Hub has removed the opportunity for pre-launch testing and risk mitigation. Additionally, the 5G Centre withdrew dedicated support for the 5G project in March 2024, leaving businesses reliant on remote staff managing multiple 5G projects across the country. External, paid for, consultancy support may be required to implement future projects.

Proposal

The proposal is to focus on deploying the equipment to fewer businesses, leading to greater impact and more meaningful results. This approach avoids spreading efforts thinly across smaller deployments, where the likelihood of demonstrating success in utilisation of 5G technology is limited.

Leveraging ONE's strong relationships with seafood, agricultural, and food manufacturing businesses in Aberdeenshire, the ONE team has developed a solid pipeline of larger, longer-term projects. Scoping is already complete or in progress with three businesses, however these deployments cannot be delivered within the current funding structure.

This change request proposed the delivery of fewer, more impactful, projects by:

- reducing the number of deployment grants reduced from 9 to 3;
- increasing the duration of deployments increased from 6 weeks to 3-4 months;
- increasing the value of deployment grants available to businesses, and
- providing funding for additional equipment required to maximise the success of each deployment.

The resulting case studies will deliver the overall desired outcomes and learnings from the project, demonstrating excellent in use cases across three diverse sites, within the original project budget.

3. Available Options and their Impact	
Option 1	Do nothing beyond completing the first deployment
Cost	No additional costs to be incurred beyond spend to date
Spend	See appendix 2 – equipment, etc spend to date (£103,000)
Time	The project will cease at the end of Q4 2024/25 and none of the remaining milestones will be delivered.
Scope	None of the remaining targets and outputs would be delivered.
Benefits	One limited case study will be delivered
Legal Implications	None identified.
Other	Decision to be made on the future use of purchased 5G equipment beyond existing deployment.

Option 2	Reduce number of deployments and increase funding allocated to each to deliver more impactful and successful projects demonstrating the value of private 5G networks.
Cost	No change in total project budget
Spend	Revised Spend table shown in appendix 3
Time	Revised Milestone table shown in appendix 4
Scope	Revised Output / Target table shown in appendix 5
Benefits	The agreed benefits will be fulfilled. ONE will accelerate regional digital technology innovation, in areas where it will have most impact, by having the ability to deploy the 5G hub rurally in situ and demonstrate effective benefits. ONE Digital Tech and the business support available through the partnership, will provide the region's key sectors, (such as food and drink, agriculture) with a unique opportunity to innovate and adopt state of the art digital technology at pace. ONE will enhance the region's reputation for digital tech innovation, by bringing new ways of thinking, and demonstrating the benefits of 5G technology
Legal Implications	No contract or obligations are held with 3rd party contractor and telecoms specialist Telent. The agreement with the Scotland 5G Centre, as outlined in the MOU, remains in place with no current impact. However, if the Scotland 5G Centre is unable to provide support beyond 31 March 2025, with the revised budget allocation requested, ONE will collaborate with local contractors to ensure continued project delivery.
Other	n/a

4. Recommendation

To deliver high impact case studies and the playbook that the region requires, the only route forward is Option 2 (fewer, more impactful deployments). Option 2 will enable the delivery of impactful 5G demonstration projects and high-quality case studies. The Aberdeenshire-based food, drink, and agricultural businesses currently engaged are eager to implement substantial digital transformation in their operations, such as moving from paper-based stock management to digital systems. This transition not only enhances essential digital skills within their workforce but also better equips these businesses to meet the demands of new customers and international markets, ultimately driving revenue growth and workforce expansion, which will contribute to the region's economic development.

By concentrating on a small number of businesses during this critical phase of their digital transformation, we can help them realise the long-term benefits that 5G connectivity and digital innovation offer. This focused approach enables ONE to showcase their achievements as case studies, positioning them as innovation leaders within the regional sector.

5. Legal Authority / Change Control Approval Steps

As per UK/SG Change Control Guidance 2021 'Deal Change' can be described as something that modifies to any degree the terms of the agreements previously struck between Governments and local partners. Such agreements are variously described within the terms of the Heads of Terms, the Full Deal, the terms of approved Business Cases, and the terms of the Grant Offer (the Four Documents). Outwith the

agreements described in the Four Documents, Government would still have an interest in any proposed change however for the most part would expect matters to be resolved locally.

Changes to the project's key parameters such as Benefits, Scope, Spend and Time should be escalated as an issue. The Project Lead, Programme Manager and PMO to provide an assessment of likely impact and follow the prescribed escalation process in the Aberdeen City Region Deal Change Control Process document located here.

6. Consultation			
Confirm that this proposal has been properly assessed. If reviewers have any comments these should be captured in the space provided. Please add rows below as necessary.			
Who consulted		**Date**	**Comments**
Project Sponsor	Programme Board Member	16/12/2024	I have no objection to the change request.
The Chief Officer City Development & Regeneration, Aberdeen City Council	Chair of the ACRD Programme Board	19/12/2024	I am happy to approve this change request.
Interim ACRD Programme Manager, Aberdeen City Council	Programme Board Member	16/12/2024	I am supportive of the proposed material change request.
Head of Innovation & Place in NE, Scottish Enterprise	Programme Board Member	Offline circulation 05/12/2024 16/12/2024	No comments received by 19/12/2024
Chief Financial Officer, NZTC	Programme Board Member	Offline circulation 05/12/2024 16/12/2024	No comments received by 19/12/2024
Chief Executive, ONE	Programme Board Member	20/12/2024	Happy to support
Director, NESTRANS	Programme Board Member	Offline circulation 05/12/2024 16/12/2024	No comments received by 19/12/2024
ACRD Legal, Aberdeen City Council	Programme Board Member & Sub	18/12/2024	No issues with this.
ACRD Finance - Aberdeenshire Council Section 95 Officers	Programme Board Member	22/12/2024	No objection to the change as long as the cost envelop remains unchanged and that both governments are accepting of the spend profile change, and have agreed that the funding is not at risk
Director of Infrastructure, Aberdeenshire Council	Programme Board Member	Offline circulation 05/12/2024 16/12/2024	No comments received by 19/12/2024
Chief Officer Capital, Aberdeen City Council	Programme Board Member	Offline circulation 05/12/2024 16/12/2024	No comments received by 19/12/2024
Digital Connectivity Division, Policy Team, Scottish Government	-	17/12/24	SG fully supports the proposed change – Option 2. We see this the best means for this valuable

	Page 9		project yield high quality results and offer rich learning and experience that will inform future projects in Scotland. Further detail around how any future delays or challenges can be mitigated early – lessening impact – would be welcomed.

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Original Funding Forecast - As Per Funding Agrement

Item	Type of Funding	23/24	24/25	25/26	Total
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region	90,000.00			90,000.00
Support to cover cost of deployment	A grant scheme to support the adoption of Private 5G networks	20,000.00	120,000.00	60,000.00	200,000.00
Maintenance of kit	Needed to ensure ongoing running and upgrade of kit where required	31,000.00			31,000.00
Marketing	Need to promote the new initiative to the regions companies and start ups	5,000.00			5,000.00
License Fees	Licenses and associated costs needed to set up portable networks	1,200.00			1,200.00
		147,200.00	**120,000.00**	**60,000.00**	**327,200.00**

Latest Forecast Spend per October PSR

Item	Type of Funding	23/24	24/25	25/26	Total
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region	99,976.00			99,976.00
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region		3,600.00		3,600.00
Support to cover cost of deployment	A grant scheme to support the adoption of Private 5G networks		80,000.00	103,960.00	183,960.00
Maintenance of kit	Needed to ensure ongoing running and upgrade of kit where required		20,000.00	11,000.00	31,000.00
Marketing	Need to promote the new initiative to the regions companies and start ups		5,000.00		5,000.00
License Fees	Licenses and associated costs needed to set up portable networks		3,520.00	144.00	3,664.00
		99,976.00	**112,120.00**	**115,104.00**	**327,200.00**

Appendix 2 – Option 1 Spend Table

Option 1 - end Project after current deployment

Item	Type of Funding	23/24	24/25	25/26	Total
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region	99,976.00			99,976.00
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region		3,600.00		3,600.00
Support to cover cost of deployment	A grant scheme to support the adoption of Private 5G networks		20,000.00		20,000.00
Maintenance of kit	Needed to ensure ongoing running and upgrade of kit where required				-
Marketing	Need to promote the new initiative to the regions companies and start ups				-
License Fees	Licenses and associated costs needed to set up portable networks		1,760.00		1,760.00
		99,976.00	**25,360.00**	**-**	**125,336.00**

Appendix 3 – Option 2 Spend Table

Option 2 - deliver fewer, more impactful projects					
Item	**Type of Funding**	**23/24**	**24/25**	**25/26**	**Total**
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region	99,976.00			99,976.00
Portable 5G Network	Needed in order to provide and maintain a portable private 5G service in the region		3,600.00		3,600.00
Support to cover cost of deployment	Primarily a grant scheme to support the adoption of Private 5G networks. Where equipment / modifications will benefit more than one installation, this may be purchased directly by ONE. Maintenance cost has also been included within this heading to provide for ongoing maintenance and upgrade of kit. Licencing costs also incorporated here as this is an essential part of deployment		90,760.00	127,864.00	218,624.00
Marketing	Need to promote the new initiative to the regions companies and start ups		2,500.00	2,500.00	5,000.00
		99,976.00	**96,860.00**	**130,364.00**	**327,200.00**

Appendix 4 – Option 2 Revised Milestone Table

Original Milestone	Original Date	Revised Milestone – Option 2	Revised Date
Equipment purchased and commissioned	Partially complete – first instal utilised borrowed equipment	Equipment purchased and commissioned	31 December 2024
3 deployment grants awarded	30 Jun 24	3 deployment grants awarded	31 December 2025
9 (total) deployment grants awarded	31 Mar 26	3 (total) deployment grants	31 December 2025
2 additional local private 5G networks in region	30 Sept 24 - network in ONE Tech Hub decommissioned	2 additional local private 5G networks in region	30 Sept 24
10 (total) local 5G private networks in region	31 Mar 26	2 (total) local 5G private networks in region	31 Mar 26
6 case studies developed and disseminated	31 Mar 26	3 impactful case studies developed and disseminated	31 Mar 26
Development of a playbook for businesses in the NE of Scotland looking to innovate and increase competitiveness/business growth through the successful application of 5G technology	31 Mar 26	Development of a meaningful, fit for purpose playbook for businesses in the NE of Scotland looking to innovate and increase competitiveness/business growth through the successful application of 5G technology, supported by local telecoms and technical support.	31 Mar 26

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Appendix 5 – Option 2 Revised Outputs / Target Table

Original Output / Target	Revised Output / Target – Option 2	Comment
Demonstrate 3 Case studies per year to key sectors in Aberdeenshire, showing how private 5G networks are revolutionising business and highlighting the economic benefits of each!	Develop three impactful case studies over the duration of the project showing how private 5G networks are revolutionising business and highlighting the economic benefits of each!	
Ensure a minimum in of 3 deployments of the portable network in the first year.	Deliver a total of three impactful deployments over the duration of the project.	No deployments in year 1 have been completed due to challenges outlined above.
Ensure a further 6 in the second year.	N/A	No target – covered above.
Support the deployment of at least 2 mobile networks in the region through the grant Scheme in year 1.	Support the deployment of one mobile networks in the region through the grant Scheme in year 1.	One deployment was achieved through the support of Scottish 5G Centre providing equipment as ACRD MOU funding was not confirmed in time to deploy in year 1.
Support the deployment of a further 8 networks in year 2.	Support the deployment of one permanent network in year 3.	It is anticipated that following the temporary deployment, one business will invest in a permanent 5G solution.
10 x Development of robust business cases leading to procurement/uptake of 5G tech.	3 x Development of robust and impactful business cases leading to procurement/uptake of 5G tech.	Three impactful case studies will lead to better business case development.
10 x Examples of innovation moving from the Lab into the field.	N/A	No longer able to deliver as Lab in ONE Tech Hub has been decommissioned by Scottish 5G Centre in light of reduced funding to organisation.
20 x new applications, new business processes, improved services, products etc.	Five examples of new applications, new business processes, improved services, products etc.	
Increased regional awareness and demand for digital innovation, 5G technology and ONE services.	Increased regional awareness and demand for digital innovation, 5G technology and ONE services.	No change.

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Revised Outputs table for dashboard

Business Case Benefit	Revised Measure	Revised Target	Revised Target Date	Current measure
5G Deployments	Deliver a total of three impactful deployments over the duration of the project	3	2026	In Progress
Grant Scheme Deployment	Support the deployment of one mobile network in the region through the grant Scheme in year 1	1	2024	In Progress
Grant Scheme Deployment	Support the deployment of one permanent network in year 3	1	2026	In Progress
5G Case Study	Develop three impactful over the duration of the project showing how private 5G networks are revolutionising business and highlighting the economic benefits of each!	3	2026	In Progress