



# Potential monitoring indicators for the UK-South Korea project

## Introduction

This document contains a list of potential monitoring indicators for the UK-South Korea project. These will provide evidence of the impact of the project to feed into the overall DCMS 5G Testbeds and Trials Programme Evaluation.

The winning project consortia will need to collect data such as that given below, and collate this within a DCMS spreadsheet template, as a regular deliverable. During early engagement meetings with DCMS, specific metrics will be agreed for the particular use-cases proposed and where Technology Readiness Levels are appropriate (those areas labelled 'By agreement' below). The project will then deliver an updated spreadsheet quarterly, with the expectation that early quarterly spreadsheet returns will include project information, lessons, plus the baselines and targets of agreed measures, with later returns containing actual results from the trials. In addition, project partners will be expected to participate in occasional Programme evaluation surveys and interviews.

The collected information will feed into the Programme's evaluation, but will also inform the 5G Programme's ongoing work and, if projects give their permission for particular excerpts, be shared more widely via the UK 5G Innovation Network. We also hope this information will help project partners in developing future business opportunities.

### PROJECT INFORMATION (Mandatory)

Indicator	Purpose for collection
Type of funding <ul style="list-style-type: none"><li>• Business-led</li><li>• Academia-led</li></ul>	To understand the split of funding allocation
Amount funded (£)	To know the amounts being awarded
Type of project [ <i>type of intervention, basic research, proof of concept, feasibility study etc</i> ]	To understand how the project/sub-project is being taken forward at project level
Industry / research sector(s)	To be able to map the project/sub-project against the main sectors
Infrastructure investments (£) <ul style="list-style-type: none"><li>• Type of infrastructure</li></ul>	To understand where portions of the fund are going on infrastructure investments
Business-to-business	To know how many collaborations between businesses are occurring

Business-to-academia <ul style="list-style-type: none"> <li>• New collaboration</li> <li>• Collaborated within the last 5(?) years</li> </ul>	To know how many collaborations between businesses and academic institutions are occurring and where these are new collaborations or building on existing relationships
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**INFORMATION ON PARTICIPATING ORGANISATIONS (including suppliers/ sub-contractors)(Mandatory)**

Indicator	Purpose for collection
Business Name	To contact businesses for case studies and surveys
Trading and registered address	To understand link between place and project/sub-project impact
Contact name and details (e-mail, phone etc)	Business surveys achieve a higher response rate if a named contact is available
Companies House Number; Unique Taxpayer Reference (for unregistered businesses)	In order to match with ONS data for long-term impact assessment
Staff (FTE) <ul style="list-style-type: none"> <li>• Number of which will be allocated to the project</li> </ul>	To understand size of businesses engaged in project/sub-project and the proportion that are involved in the project activity
Turnover (if trading)	To understand the turnover of businesses engaged in project/sub-project
Type of business	To gain insight into the whether the businesses involved are from the private sector, public sector, another funded programme, an international organisation or other
Previously received funding from DCMS?	To gain information on proportion of new businesses being engaged by the project/sub-project

**INVESTMENT STIMULATION (Mandatory)**

Indicator	Purpose for collection
For each participating organisation, provide: <ul style="list-style-type: none"> <li>• Current R&amp;D investment levels (5G related)</li> <li>• Additional £ spent on R&amp;D due to the funded project</li> <li>• Third party investment attracted (domestic/foreign)</li> <li>• Further investment/ collaborations building on project's outputs</li> </ul>	To assess project's contribution to the 5GTT Programme's objective of stimulating further investment in 5G in the UK

## TECHNOLOGY READINESS LEVELS (TRLs)<sup>1</sup>(By agreement)

Indicator	Purpose for collection
<p>For each application/product/service being developed, provide:</p> <ul style="list-style-type: none"> <li>• Current TRL</li> <li>• Target TRL</li> <li>• Expected time to market without DCMS funding</li> <li>• Target time to market</li> <li>• Sales/ revenues (volume/£; % of total revenues)</li> <li>• Exports/ revenues (volume/£; % of total revenues)</li> </ul>	<p>To monitor TRLs of network and use cases, and revenues to participating organisations from developing new applications/ products/services.</p>

## TESTBED MONITORING (By agreement)

Indicator	Purpose for collection
<p>For each KPI (e.g. latency, coverage, speed and reliability, network cost), provide</p> <ul style="list-style-type: none"> <li>• Value at the start of the project</li> <li>• Target value</li> <li>• Baseline: expected value without DCMS funding (if known/ applicable)</li> </ul>	<p>To monitor network performance against agreed KPIs (project dependent).</p>

## USE CASE MONITORING (By Agreement)

Indicator	Purpose for collection
<p>For each KPI (e.g. improved health outcomes), provide</p> <ul style="list-style-type: none"> <li>• Value at the start of the project</li> <li>• Target value</li> <li>• Baseline: expected value without DCMS funding (if known/ applicable)</li> </ul>	<p>To capture (dis)benefits from trials, including potential benefits/ efficiency gains to businesses, individuals, local economy, and public sector; insights on new business models; and end users' experience.</p> <p>KPIs are project/sub-project dependent.</p>

## KNOWLEDGE DISSEMINATION (Mandatory)

Indicator	Purpose for collection
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<sup>1</sup> <https://www.gov.uk/government/news/guidance-on-technology-readiness-levels>

Research outputs (e.g. patents applications/ granted; prototypes; research publications; patent/publication citations)	To monitor dissemination activities.
No. and type events (including attendance rates)	
Other communications activities	
Increased revenue from knowledge transfer (e.g. licensing)	
Attraction and retention of qualified personnel	
Staff training (no. staff/spend)	
Number of new Master/PhD graduates in the specialised fields	
Number of spin-offs generated	
Any other	

### LESSONS LEARNED (Mandatory)

Indicator	Purpose for collection
Qualitative information on any lessons learned during project delivery (e.g. barriers to deployment and solutions identified; best practices; new business models identified)	To capture wider lessons learned and, where possible, share them widely among 5GTT Programme participants/ publicly via UK5G
Analysis of how the costs of the chosen testbed approaches compare to those of more standard deployment approaches, such as 4G and Wi-Fi (e.g. % cheaper per bit/ second).	To understand the economics of the proposed deployment approaches
Assessment of the scalability of the proposed testbed approaches and associated cost implications (taking account of potential economies of scale)	