# Open NaPTAN Verification Tools Package

**Background**

Due to the redevelopment of the Naptan service for completion by September 2020, this has created the possibility of providing an open source version of the Naptan system internal verification system for local authorities and transport service providers to use for verifying naptan additions and amendments. This also allows other open source parties to replicate and improve upon the existing functionality of the Naptan Visualisation tool that is currently provided by third party organisations that our ending their contracted support in September 2020. Therefore, the need to provide a readily accessible and open source system for verifying naptan data is currently a keen objective of the Data Unit. This will also help raise the issue

**Challenge**

While documentation exists that explains how the tests work in practice in combination with the current visualisation tool. The code for the automated checks is not accessible for analysis. Additionally, many of the checks listed have never been automated and require complex geospatial analysis of available data and comparing to open source API sources of geographical data

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| Work involved | The creation of a code base, including the checks, documentation, code test cases in Python3. This will be made available via public source control for sharing with the wider transport data community. |

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| Scope of project | The development phase will be split into 5 milestones,   1. Proof of Concept, replication of current geospatial visualisation of methods in the Naptan ITO World Tool Viewer. 2. Exploration of the Geospatial methods required to support the verification of the geospatial positioning of Naptan nodes, areas, locality, 3. First version of Internal Data Consistency package, providing verification of all Naptan data fields and checks that do not require geospatial analysis to verify. 4. First Version of the Geospatial Verification Package, providing verification for automate checks and require geospatial Analysis 5. Visualisation and deployment presentation of Open Naptan Analysis Package. |
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| Deliverables | DU will deliver:   * An open source library package consistencing of a series of methods and checks that can be used to verify the accuracy of Naptan data entries, deletions and amendments. * Documentation to support the use of said package. * Deployment in a manner for maximum accessibility to technically limited local authorities. |

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| Risks & dependencies | The table below identifies potential risks to the successful delivery of this project, along with their impact, likelihood and the measure we have put in place to mitigate these risks. |

| Risk factor | Impact | Impact rating | Likelihood | Contingency |
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| Unable to get the data | Failure of project | H | L | We own the data and there are numerous historic backups. |
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| Stakeholders | Bus Open Data Team (BODS), Meera Nayyer,  Data Unit, Giuseepe Sollazzo |

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| Project sprints  **and reviews** | The project will be delivered using an agile approach.  The Project will begin in March 2020, Estimated Delivery time is |

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| Roles | Product Owner: Giuseppe Sollazzo  Development Team: Sam Fowler, Kimberley Brett, Giuseppe Sollazzo  Delivery Manager: Sam Fowler? |

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| Data handling policy | System and relevant data will be stored on encrypted standalone development platform and source code will be housed in a DfT private repository for the main development period of the project. |

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| Changes to ToR | Any changes to the Terms of Reference, or problems with meeting deadlines, should be notified to the other party as soon as possible, in order that action can be taken to minimise the impact of any delays. |

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| **Analytics and Data Division**  Analysis and Science Directorate  Department for Transport | 01/10/19  Latest amendment:  **Version:** **1.0** Amendment made by: |