Big Data Team Level Competency

**Team work**
- Ability to work collaboratively with others, developing and maintaining good working relationships and sharing information and knowledge.

**Interpersonal and communication**
- The ability to communicate with others in a fluent, logical, clear and convincing manner together with an ability to engage effectively with a wide range of stakeholders.

**Delivery of results**
- Ability to deliver outcomes on time and to a high standard and ensure that goals are achieved.

**Innovation and contextual awareness**
- Ability to observe environmental factors and exploit them for the work environment together with the ability to develop new ideas, concepts and solutions outside of established patterns.

**Specialist knowledge and expertise**
- Possess appropriate specialist knowledge and expertise to work effectively as part of the Big Data team.

**Statistical/IT Skills**
- Possess detailed knowledge and understanding of statistical methodology and concepts, ability to extract key messages or underlying trends within data and possess the IT skills relevant to statistical production and analysis.

**Data Analytical/Visualisation skills**
- Ability to work with structured and unstructured data and combine data processing techniques to achieve outcomes, possess knowledge and understanding of data visualization techniques relevant to big data.

**Big Data Team Level Competencies – Performance indicators**

**Team work**
- Shows respect for colleagues and co-workers
- Supports colleagues and takes views of others on board
- Is adaptive and works to achieve common goals
- Is able to work with a group of people in a constructive way and can motivate others
- Weighs information from all sources including team before making decisions

**Interpersonal and communication**
- Presents information clearly, concisely and confidently when speaking and in writing
- Projects conviction, gaining buy in by outlining relevant information and selling the benefits
- Develops and maintains networks of contacts to facilitate problem solving or information sharing
- Treats others with diplomacy, tact courtesy and respect, even in challenging circumstances
- Takes into account different views/perspectives and forms opinion on the basis of information and discussions

**Delivery of results**
- Maintains a strong focus on the ultimate goal and works to achieve this
- Sets measurable, achievable and clear objectives on own work
- Uses resources effectively, challenging processes to improve efficiencies
- Looks critically at issues to see how things could be done better
- Applies appropriate systems/controls to deliver efficient and high value results

**Innovation and contextual awareness**
- Awareness of environmental factors that could affect current policy
- Has the skill to translate external developments into statistical indicators
- Integrates diverse strands of information, identifying inter-relationships and linkages
- Is resourceful and creative, generating original approaches when solving problems and making decisions
- Comes up with innovative ideas and thinks unconventionally about questions or problems
- Challenges the established wisdom and adopts an open minded approach coming up with new solutions

**Specialist knowledge and expertise**
- Clearly understands the role, objectives and targets and how they fit into the work of the team
- Develops the expertise necessary to carry out the role to a high standard and shares this with others
- Has significant expertise in own field that is recognised and utilised by colleagues
- Is proactive in keeping up to date on issues and key developments that may impact on own area and office generally
- Ability to work with structured, unstructured and semi-structured data and ability to categorise data
- Ability to process data in batch and streaming modes
- Understanding of data base models associated with big data such as relational document, big value, NewSQL etc.
- Understanding of security and privacy issues associated with big data

**Statistical/IT skills**
- Is able to use core statistical skills for data analysis such as: quantitative and qualitative analysis, weighting, inference, validity and modeling
- Can use programming/scripting languages associated with statistical computing environments such as R, SAS, SPSS or equivalent
- Can combine various data processing techniques to achieve given analytical task
- Good knowledge of data science and data science methods
- Shows evidence of keeping up to date with new trends in data techniques and technologies
- Ability to process and generate large data sets using an appropriate programming model such as MapReduce
- Ability to use stream process technologies such as Apache Storm, Mapit etc.
- Ability to use batch process technologies such as Hadoop
- Ability to use open source cluster computing systems such as Spark
- Ability to use tools associated with machine learning algorithms such as regression, classification, cluster and dimensionality reduction

**Data Analytical/Visualisation skills**
- Strong ability to work with appropriate coding/scripting languages
- Ability to develop software for more advanced data processing tasks
- Can use high performance computing platforms in an efficient way
- Can operate on structured and unstructured data with a wide range of tools
- Ability to analyse complex data and identify what is relevant
- Can combine various data processing techniques to achieve a given analytical task
- Can assimilate information from a range of sources and organise complex information to make it accessible
- Understanding of machine learning algorithms such as supervised and unsupervised learning, semi-supervised classification and reinforced learning
- Ability to apply data mining techniques to unstructured data sets such as time-series data, streaming data, sequence data, graph data, spatial data and multimedia data
- Understanding of data visualisation techniques under the broad headings of spatial layout visualisation, abstract/summary visualisation and real time interactive visualisation