	Bidders Questions	Answers
Q1	As stated in the RFP "The company should have its officer and technical support team based in Bhutan (ideally in Thimphu)." It is also expected that "All Services could be performed remotely" Could you please confirm if the services can be delivered remotely, is there a need for the team to be based in Bhutan or can we deliver this from an offshore location outside of Bhutan?	The companies with on ground presence (who can deliver in person) would get preference.
Q2	Can you provide any further details on the 10 indicators to be monitored through the dashboard? Will there be a requirement to visualise/analyse spatial data?	10 indicators (and scalable) for now will be from relevant ministries, departments and agencies. Data analytics and visualization should be incorporated into this for better data management and use.
Q3	Data Sources • Currently, how many data sources are functioning and can you please specify they are on prime or Cloud? • Is there any set of data coming directly from flat files (excel, CSV, etc..)? • Is there any ETL process running in the system? If yes, please specify the ETL tool (ODI, Informatica, etc) • Currently, Are there any real-time/streaming data sets present in the system?	The main data sources for the dashboard are relevant ministries, departments and agencies and should be integrated with all relevant Management Information Systems. Data should be consumed and published in open format in any of the following formats (not limited to): CSV, XLS, ODS, XML, RDF, KML, GML, RSS/ATOM, SQL, SPV, SAV, JDBC, ODBC, JSON, and any other suitable format for data sharing.
Q4	Reporting • Is there any BI tool functioning now? If no, please provide the preferred tool like (Ex. Power BI, Tableau, OBIEE, etc.) • please provide the number of users who will have access to BI Tool and do we need to provide the license as well? • Please brief us on the requirements of Data Analytics like Forecasting, Trending, Predictive analytics, etc. • Power BI Training: Please share with us the required training like - Functional Training, End-user Training, Development Training and how many people need to be trained?	No BI tool is used currently. Vendor may recommend the BI tool as per the requirement Different Ministries and Agencies will provide upload/entry into this system as a single data providing platform. Data analytics and data visualization should be incorporated into this for better data management and use. The system shall be role-based (Data provider, Data approver, Data Publisher) and report modules including provisions for monitoring of data providing status, custom reporting, trending, data searching. Dashboard should provide users with visualization and business analysis tools options, or simply manage metadata along with links to the complete dataset stored on other separate, publicly accessible servers. The data platform should support data export/import/view in open, non-proprietary formats such as CSV, XML, and JSON (but not limited to). Data Receiving Layer shall be developed in a way that providers can upload data into the system
Q5	Is it acceptable to have a cloud(internet) based BI solution - Data will be uploaded to cloud	For now, data will be uploaded to on-premise applications/servers

Q6	1. What is the present technology landscape? 2. How many source systems are available at present (including structured and unstructured)? 3. How many dashboards are required to be built and related KPI? 4. Which reporting tool they are using currently (Power BI, Tableau, etc.)? 5. At one point it is mentioned the services can be provided remotely (10.4 Place All Services could be performed remotely, page 11 of 15) and at other it was mentioned, "Company profile including services and experience in business intelligence and data analytics field. The company should have his officer and technical support team based in Bhutan (ideally in Thimphu) (page 14of 15)"? 6. What is the duration of the project?	1. There is no system as a single data providing platform. Different ministries and departments provide data and reports in the form of different formats on a need basis. 2. Data originates mainly from administrative records maintained either offline in register or in different MIS. Many of the MIS are siloed systems and data sources' accuracy are questionable. Therefore, 3. Upto 11 dashboards (1 central overall dashboards + 10 KPI related dashboards 4. No reporting tool, Microsoft excel/ google sheet is widely used across the government for data sharing/reporting. 5. The companies with on ground presence (who can deliver in person) would get preference. 6. Initial development to be completed by August followed by maintenance and refinement until December 2021.
Q7	Please confirm the development work can be carried out remotely. Is it essential to have an officer and technical support team based in Bhutan? Kindly clarify the terms and conditions separately for ''Warranty'' and ''Support & Maintenance''? It is mentioned in the RFP that Warranty is required for one year but Support & Maintenance for 6 months.	The work can be carried out remotely but companies with on ground presence (who can deliver in person) would get preference. While warranty is one year, it is expected that service providers will carry out refinements to the system within the agreed scope for 6 months (until December 2021)
Q8	Can you please provide the names of 10 digital government services at this stage? 1. How will the data be fed or fetched for 10 digital government services for preparing the analytical dashboard? Will the data be imported from data files to Web APIs? 2. Will there be a central source of data or the data will come for different sources? 3. How many numbers of data fields / parameters will be stored in the system? 4. Do you have the list of indicators that need to be generated?	10 digital government services can be categorized into following 10 ministries: 1. Ministry of Home & Culture Affairs 2. Ministry of Finance 3. Ministry of Economic Affairs 4. Ministry of Foreign Affairs 5. Ministry of Labour & Human Resources 6. Ministry of Education 7. Ministry of Health 8. Ministry of Work & Human Settlements 9. Ministry of Agriculture & Forestry 10. Ministry of Information & Communications 1. Authorized Data Providers of different government or relevant agencies who do not have any Management System, will upload data manually directly to the system using their credentials. Management Information System of different government agencies will be able to provide data via common API gateway to the system or

		other system integration methods.
		2. data will come from 10 different or more sources.
		3. data fields may vary based on the mandates of different ministries/data source
		4. the list of indicators will depend on the mandates of the ministries/departments.
Q9	What types of visualizations (charts, graphs, tables) do you need in the system? What all sort of graphs would you require in the system?	The visualizations and analytics tools should be dynamic and configurable/changeable based on the user requirements.
Q10	Please confirm if this web application will be used for internal operations only or will there be any sections for public dissemination of information?	Both for internal operations and public information but should be dynamic and configurable.
Q11	The requirements shared in the TOR are high level requirements. It is quite difficult to provide accurate effort estimates with the limited information provided. Please confirm the vendor will be allowed to rescope the project after the requirement gathering phase is completed (and BRD & SRS are delivered)?	Any rescoping of the project is subject to agreement by ITU.
Q12	Please share the details of e-Government Interoperability Framework (e-GIF), the standards that need to be followed to ensure interoperability?	Visit eGIF portal at https://egif.dit.gov.bt/
Q13	Kindly share the security requirements in details? If there is any standard security guideline defined, please share it	no specific security standard, but recommended to follow OWASP
Q14	Will it be correct to assume that the application interface will be developed using ReST web services?	Yes
Q15	If the number of reports and visualizations generated by the system are less and modified infrequently a custom solution will be more apt else the number of reports is high and is modified frequently we can provide a solution with integrated ready made BI solution. Please specify your needs.	the system should handle multiple and dynamic real-time reports and visualizations. It should be scalable - generate more reports and visualization on need basis

Q16	Dashboard for 10 digital government services Real-time monitoring and provide alerts Concerns:Is it real time or can we update data every half an hour or one hour (power bi premium per user license has 48 times refresh/day or standard license has 8 times/day)	Real time
Q17	Can use existing BI(Power BI) or customising software(new internally developed software)?	Any software without recurrent expenditure
Q18	Proposal should include train-the-trainer of IT, who would be responsible for maintaining the dashboard or making amendment?	In the first six months by the supplier and after that the identified IT team in Bhutan
Q19	Build the business requirements and system information for developing a dashboard consisting of identified priority indicators. The business requirements should specify the domains and data required, what data exist and where, structure of the data, any data sharing regulations.	Part of the contract
Q20	10 indicators generated in the first phase of the project-based priority and data availability	10 ministries data will be made available
Q21	The application should be available on desktop with the possibility to scale it up later to be used from anywhere, at any time and compatible with various devices and different operating systems. Concerns: Should we setup the application in an individual machine/ on premise server? usually the host machine should be up and running 24*7	Host on a premise server, accessible/viewable online 24*7

Q22	High standard and security from SA to end users, comply with national requirements <u>Concerns:</u> is it okay publish data in power bi cloud? (data are encrypted with power bi cloud, data security will not be compromised)	on premise software for now
Q23	Develop application interface that accesses existing data and enables users easily upload data at any time and from anywhere and integrate these data with the main database of the system. <u>Concerns:</u> Should we have an application to access or upload the existing data by end user or it would be sufficient to upload the data directly to the database using data migration process with the involvement of database architect?	The application should have role-based features to upload the existing day by different end-user
Q24	Develop models and algorithms needed for data analysis <u>Concerns:</u> Should we develop AI or ML Models?	Quality of technical proposal is an indicator for evaluation
Q25	Report should be exported in pdf or excel (editable formats)?	Options to export in pdf or excel or any other suitable formats for sharing
Q26	Training and KT to project team?	Yes
Q27	Maintenance and support of the system of 6 months?	Yes. A total six months. We expect 2 months to develop and maintenance and refinements to continue till December 2021.

Q28	Page 11 Section 10.5- Working language	The working language is English.