

It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts.

- Sherlock Holmes, "A Scandal In Bohemia"

ir Arthur Conan Doyle's character, Sherlock Holmes, is a master at using data. With his unparalleled intellect and observational skills, Holmes has an uncanny ability to collect data—but collecting isn't enough. In order to solve his cases, he needs to not only collect data, but understand which elements apply to the issues at hand and which to discard as irrelevant. Holmes needs the "right" data.

The short story "A Scandal In Bohemia" was first published in 1891. At that time, collecting data implied a lot of painstaking, time consuming, and sometimes—for a certain

detective named Holmes—dangerous work. In 2016, data collection is facilitated by computers and is oftentimes fully automated. As our ability to generate and collect information continues to grow exponentially, the question arises of how this vast repository of information—this data—can be used. Perhaps just as importantly, we need to ask when it should be used and when it should simply be ignored.

Both the private and public sectors are intrigued by the possibility that data can change the way PPP projects are structured, implemented, and monitored. If appropriate data

is collected, analyzed, and shared, it can be valuable to a multitude of stakeholders, including public authorities, private sector partners, lenders, insurance and technical advisors, and the general public. Where data collected or analyzed serves no practical application, it can unnecessarily overburden both the public authority and private operator.

This article addresses certain issues surrounding data within PPP contracts. We'll examine this from the perspective of the public authority involved in the procurement of a PPP project which must, prior to tendering a project, consider the type of information that is required to be collected and the effect this information will have on the project being procured.

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DATA AND THE PPP CONTRACT

PPP projects have the potential to generate huge amounts of data. In the context of a tolled highway project, for instance, a PPP contract may require the private operator to collect, in real time, information regarding weather and traffic conditions, toll collections, vehicle types, license plate information, and power usage, to name but a few. Depending on the PPP contract, some or all of this information will end up in one or more reports that the private operator will be required to deliver to the public authority periodically.

The effect, if any, of this information on the PPP contract entered into between the public authority and the private operator will vary between projects and jurisdictions.

Some of this information will have a direct and relatively straightforward impact on the obligations of the public authority and pri-

vate operator. For instance, in circumstances where demand risk is allocated to the private sector, payments to the private operator can be linked with the number of project users. A private operator can also be placed in default where reports are not delivered on time or do not contain required information and/or analysis.

Furthermore, information collected by a private operator and delivered to the public authority through periodic reporting, during the term of the PPP contract, can serve to monitor the private operator's performance and compliance with the PPP contract or applicable law. Following expiration or early termina-

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tion of the PPP contract, this information can facilitate the private operator's successor's or the public authority's continued operation of the project.

Other information may have no direct contractual effect but will still be desirable by the public authority, such that the PPP contract will require its collection by the private operator. For instance, data correlating weather information with traffic accident reports can be used by a public authority to inform or justify a future public policy decision to automatically lower speed limits on bad weather days.

Still other information will have no immediate discernible purpose, either within the PPP contract or to the public authority, yet will be collected all the same.

## COLLECTING THE "RIGHT" DATA

Given the potential for PPP projects to generate massive amounts of data, public authorities need to carefully select the right data. Key to

this is considering what type of data should be collected, how it will be used, whether it will have an impact on the PPP contract, or whether it will have some other use.

Public authorities, and their advisors, can keep certain principles in mind regarding the types of data that should be collected, along with the manner in which such data is analyzed, used, or distributed. Decisions to be made in connection with those principles should be based on a number of factors relating to contract monitoring and quality/performance management, transparency, and public policy considerations.

To make effective use of the right data, it is important not only to structure the PPP contract in a way that maximizes the use of data being collected and reported, but also ensures that the private operator's collection and reporting obligations correspond with the needs of the project, the public authority, and, where applicable, others having access to the data. Both the public authority and the private operator need to understand and make a clear

connection between the data being collected and its effect, if any, on the PPP contract (e.g., financial penalties for unavailability or poor performance). Their legal advisors should ensure that these connections are reasonable, logical, and clearly set out in the PPP contract.

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To do so, the public authority, and its advisors, must carefully examine and determine what type of data they need, why they need it and what they want to do with it. For example, in the context of a highway project, a public authority may require accident reports to be prepared by the private operator. However, will the level of accidents on the highway affect payments to the private operator? Should the private operator be put in default if a report is not delivered? Will the information be shared with other governmental authorities or with the public? Is another party (the police or the

public authority itself) in a better position to collect this information?

Questions such as these need be asked in respect of each of the potential sources of information stemming from a project. The exercise must also always be carried out in consideration

of the specific context of the project being procured. Public authorities, and their advisors, should therefore be wary of using precedents and simply applying to a current procurement the same data collection and reporting requirements used for a previous procurement or an analogous procurement stemming from another jurisdiction.

Authorities should also recognize that while huge volumes of data can, with relative ease, be extracted or

collected, this data will be of limited to no use if it cannot be validated, analyzed, and presented in a form that can be understood. Indeed, while much of the responsibility for data collection and analysis can be allocated to the private operator, such data will serve little purpose if the public authority or, where applicable, other parties being granted access to the data (the public, academia, etc.), cannot use the data or if the data has no effect on the PPP contract.

Collecting, analyzing, and presenting data can be costly and to the extent this responsibility is allocated to the private operator, overall project costs may increase. Such increased costs will be difficult to justify unless the data impacts PPP contract management or is useful in some other way to the public authority or other stakeholders that may be granted access to such data.

## DIVINING THE FUTURE

The types of data being collected and the methods for analyzing such data continue to evolve at a rapid pace. Smartphone applications that track movements or provide constant connectivity to users were relatively unthinkable just 10 years ago. Given the long-term nature of PPP contracts (which oftentimes will have a term of 20 years or more), the question arises of how such contracts can allow public authorities to leverage data on an ongoing basis.

Given that it is difficult to grasp exactly how data will be generated, collected, analyzed, and used in PPPs in the future, PPP contracts should include structures which recognize the ever-evolving nature of data and allow enough flexibility for public authorities to continue using the right data.

Adapting a PPP contract to address this issue may not be so difficult. The contract could encourage a cooperative approach between the public authority and private operator to facilitate extracting value from PPP project data during the term of the PPP contract. In Canada for example, many projects contemplate committees staffed by representatives of the public authority and private operator. These com-

mittees are tasked, among other things, with the review of project reports and they have the capacity to make certain recommendations for the effective management of the project.

Such committees could be tasked with determining, throughout the term of a PPP project, what data is collected and how it could best serve the project and the public. To the extent changes to the private operator's responsibilities with respect to the collection or analysis of data are required, the PPP contract's existing change order mechanism would apply to enable such changes.

## CHOICES, CHOICES

Sherlock Holmes is a master detective not just because of his deductive capabilities but also because he excels at selecting information that is most relevant and discarding anything extraneous: he knows how to choose the right data to solve his cases.

Public authorities need to make choices as well when it comes to data and PPP projects. They need to structure their PPP contracts carefully, by determining what types of data need to be collected and how and whether they will have an effect on their contractual relationship with their private operator. They also need to ensure that mechanisms are put in place to enable them to leverage new sources of data as technology continues to evolve.