

Why not COBie?

Digital Engineering Framework

COBie is an internationally recognised form for sharing information about digital models in a spreadsheet.

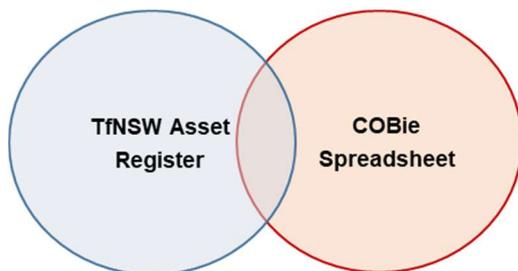
Why does TfNSW not mandate COBie as a deliverable under the Digital Engineering Framework?

Support for broad range of transport infrastructure assets

Including buildings, linear assets and fleet.

COBie was design for the exchange of design/construction information related to “buildings” and does not support a broader range of transport assets such as linear asset and fleet.

Although there has been efforts to extend COBie to support infrastructure (notably “COBie for All” in 2014) the standard has not evolved sufficiently to fulfil the requirements of TfNSW.



Asset Data Exchange requirements are broader than design/ construction/ asset handover

TfNSW is seeking to support a broad range of asset information exchange scenarios across the entire asset lifecycle.

This includes:

- **Project Asset Data Export** – supporting the export of data from an Asset Register and providing this data to a project to assist with understanding current state of assets
- **Project Asset Data Update** – supporting the ability for Projects to provide updates to asset data, documents, etc. to a centralised Asset Register (potentially at multiple stages of the project)
- **Service Provider Asset Data Export** – segmentation of asset data by contract in the Asset Register and providing this data at contract changeover to asset maintenance service providers, cognisant of what data is new or was modified
- **Service Provider Asset Data** – supporting the ability to receive asset data updates from a service provider to the Asset Register to keep the asset owner information up to date

If mandated, COBie would constitute a second required spreadsheet of asset information. Some data in the COBie spreadsheet would be a duplicate of data in the asset register, and what isn't a duplicate would likely be information which the owner or operator considered unnecessary.

Supporting a broader range of information types (exceeding COBie)

In order to support the information exchange scenarios stated above, the range of

information that TfNSW requires in information exchange submissions exceeds the scope and design of COBie.

For example:

- Asset owner
- O&M Contract information
- Asset Condition and Remaining Service Life
- Installation/commissioning details
- Asset Risk

Adherence to the principle of aligning data with the BIM model

The TfNSW approach adheres to a common principle that asset information exchanged should be aligned with the BIM model.

Hence, assets identified in the data exchange must be able to be identified in the BIM model.

Asset Location & Asset Assets

The structure of the TfNSW Project Asset Register accommodates for separation of

Project Locations with Project Assets. This is very similar to COBie, however, the TfNSW approach is more extensible and not constrained by fixed location or asset configuration hierarchy.

Alignment with Standards

The most directly applicable international standard, ISO 19650-1:2018, does not mandate COBie. Instead it leaves the content and format of information requirements up to owners, operators and maintainers (or countries, if national annexes dictate).

One of the reasons for this move is because most large owners and operators have bespoke needs, and care about some bits of information a lot more than others. A general dataset such as COBie therefore frequently cannot satisfy all needs.

To find out more about the DEF, contact Digital.Engineering@transport.nsw.gov.au