

Document id	Title	Organisation /Author	Date	Status
	Business Case: Asset Management	bSI/Jan Karlshoej	20130312	b

Business Case

Descriptive name: Asset Management

Summary

Background

Assets such as buildings, equipment, and the built environment generally hold high values for society and individual owners. Production, productivity, safety, and comfort are directly influenced by the state of such assets, whether they are used for manufacturing, education or for living.

Asset management is a systematic process of cost-effectively operating, maintaining, upgrading, and disposing of assets. The fact that societies, owners, and investors often have different planning horizons means that the way in which management of the asset is carried out often varies. Therefore, there will be differences in the tools and information required to manage these assets.

Asset management can be supported by IT systems that can be used to simulate, analyze, store and retrieve information. In order for an asset management system to be operational, it must have access to information about the assets and how they are used. The traditional process of identifying and registering information about the assets has been a manual and time-consuming effort.

Objective & Proposal

The objectives of this business case are to significantly reduce the time required to create the necessary information to operate asset management tools, and to enable the tools to make alternative solutions and more coherent analyses. This will lead to increased optimization and will produce more predictable results. The business case will be limited to buildings, the built environment, and infrastructural elements. The availability of information about different assets will make it possible for tools to combine effects from several systems of assets and lay a better foundation for decision making.

The factor that makes it possible to achieve the objectives is the use of standardized and computer-interpretable flow of information that is based on open standards. The buildingSMART Data Model has been developed to enable information flow in a computer-interpretable format on buildings, and is expected to support infrastructural assets within a decade. The buildingSMART Data Dictionary is partly populated with properties related to buildings.

Page no.	Author

Alternatives

There are alternative to the proposed solution. One option is to continue the existing time-consuming process of collecting and selecting a minimum of information from different media in order to manage the assets. This option will retain the status quo and leave limited possibilities to increase the productivity and better use of the assets.

Another option is to leave the standardization efforts to the market and let the dominant player on the market decide the structure of the format. Although this is a realistic option, it makes it difficult for the owners of the assets to control the direction of the development. This could lead to monopoly that has historically been shown to develop an inefficient market situation and limited competition and innovation. Public clients in many countries are not allowed to specify specific products and data formats, which means they are forced to look for other solutions. As many buildings and infrastructural elements are owned by public clients, a proprietary solution is – both in general and from society’s point of view – a bad solution. From an investor’s perspective, this may be acceptable solution as it does not have a negative influence on profit.

Benefits

The proposed solution will provide benefits in many different areas. It will:

- Reduce costs of collection, sorting, and re-entering information into an Asset Management system by having access to standardized data in open formats.
- Provide more accurate and up-to-date information, both in relation to operation and decision making.
- Enable more resource-efficient solutions due to better information.
- Provide information to make more coherent decision based on combining information from different aspects.
- Increase utilization due to better overview of planning and allocation of the assets.
- Provide the freedom to select the best tool for the job rather than being limited to use tools from few or one vendor.

Disadvantages

Like many other processes in the construction industry, asset management is based on a mix of input from many different sources on an ad hoc basis. It is inevitable that there will be a process of identifying specific data element that should be used when managing, operating, and maintaining the assets, and it may be necessary to extend the standard.

It will only be possible to achieve the expected benefits if the communication based on open standards is supported by information providers that produce information of sufficient quality.

Page no.	Author

An initial disadvantage is likely to be the need to validate and add content to the standard. There will be a time gap until the revised version of the open standard is implemented in software products.

It is necessary to harmonize individual client specific requirements to the highest possible level in order to enable software tools that can provide information of high quality.

Consequences

In order to achieve the expected benefits, it will be necessary to require information that is delivered according the buildingSMART Data Model and buildingSMART Data Dictionary.

It is necessary to ensure that sufficient and relevant information is provided as specified; however, demanding use of certified software products and data should be validated before this information is submitted.

Finance

Identifying data elements

Harmonization of requirements

Education of staff

Demand digital delivery

Method

The information flow will be based on the use of open standards and mandated from the suppliers.

The overall process should be completed in measured steps that provide benefits, since significant and large steps have proved to be difficult to manage and be successful.

Work packages

Not specified.

Page no.	Author