

State of the Art

*In this a continuing series on problematic words and phrases in project and contract management we consider the term **State-of-the- Art**.*

Contractors supplying process plant for the steel and oil industries will be familiar with the term “state of the art”. The term appears often in contracts as an obligation on the part of the supplier to provide specified equipment that is “state of the art”. But what does it mean?

Some Definitions

On its face the term seems to be somewhat wide and open. Given the use of the word “art” it appears to be subjective in nature rather than objective. What one man regards as state of the art may not be similarly regarded by an other.

The first documented use of the term was in 1910 when it appeared in a textbook about gas turbines. Since then certain technical dictionaries have attempted to define its meaning. The most widely accepted is:

The level to which technology and science have at any designated cut-off time been developed in a given industry or group of industries

And more generally:

Latest most effective and reliable, superseding earlier standards

Conceptual Issues

The term and the widely accepted definitions have three conceptual elements that are important to a deeper understanding of the term.

The first is the clear implication that the level to which a technology or science has developed must be known or understood. A state of the art obligation does not mean that a supplier must meet a moving target or strive for improvement in a technology. The obligation implies that the level a technology has reached is part of the “public domain”.

A reference to some recent developments in patent law helps make this clearer. In considering an application for a patent on some new invention the relevant authorities are concerned with finding out whether or not the invention is really new. For example, the European Patent Convention contains some strikingly useful terms:

Another may not similarly regard what one man considers state of the art.

An invention shall be considered to be new if it does not form part of the state of the art.

State of the art is then defined:

The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing the European patent application.

This is clearly supportive of the proposition that state of the art is something that is known or deemed to be known.

The second conceptual element, supportive of the first, is that there must be a cut-off date from which to measure state of the art otherwise the term is meaningless. In a supply contract that cut-off date if not specified would at least be regarded as the date the contract was concluded. However, this may not of itself prevent arguments. Improvements in technology move quickly whilst contract negotiations move slowly. From a supplier's perspective it may be better to define a cut-off date in a contract as being the date the first offer or tender was made.

The third conceptual element is to do with the very wide nature of the term. Without any limitation in a supply contract to the contrary, state of the art may be regarded as relating to the current level of technology in the industry in which the supplier operates. This may cause problems, particularly in highly competitive industries where the competing suppliers attempt to distinguish themselves by marginal improvements in their respective technologies. If one supplier has made improvements in his technology prior to another entering into a supply agreement with a buyer that includes a state of the art obligation, the seller may be required to adopt the improvements made by the other supplier in order to meet the obligation. This of course does not obligate the seller to use technologies that may be subject to another's patent, however it is a potential area of conflict with a buyer.

Internal State of the Art

One way of preventing this is to define state of the art in the supply contract and limit it to the "internal state of the art" of the supplier. One possible definition may be:

State of the Art means the level to which the Supplier's internal processes and technology relating to the Scope of Work have been developed, tried and tested prior to the date of the Supplier's offer.

This should at least ensure that a buyer is getting the best, proven technology of the supplier and limit any arguments over the making of improvements during execution.