

BUILDING COMMISSIONING AS A TOOL FOR RISK MANAGEMENT

Most people familiar with commissioning recognize the quality assurance benefits of the commissioning process. Building design and construction projects are inherently complex and there are numerous opportunities for errors and omissions. Commissioning brings the benefit of an expert review to the design documents and installed systems. By identifying design and construction issues for the owner and project team, a commissioning agent helps to improve the overall quality of a building project.



Commissioning rooftop solar panels.

Commissioning as Risk Management

While quality assurance is an important aspect of the commissioning process, a more owner-centric concept is emerging in the commissioning industry: risk management. Risk management is basically a process of evaluating a system or product for potential sources of negative impacts on performance (operational, financial, etc.) and prioritizing the application of resources to mitigate the probability and severity of the impacts. Risk management is important for building owners because it helps to protect the returns on their financial investments.

The early adopters of risk management in commissioning are not surprisingly those that face some of the greatest risks for system/product failures. Risk management is an important part of

pharmaceutical manufacturing – an industry that faces considerable risks in terms of product waste and product safety. The International Society of Pharmaceutical Engineers (ISPE) has incorporated “Risk-Based Commissioning” into its approach to facility commissioning and has developed a guidance document on “Applied Risk Management for Commissioning and Qualification.”

Minimizing Risk, Maximizing Value

At this year’s NCBC (National Conference on Building Commissioning), Wayne Dunn presented risk management as a concept for understanding the cost and value of commissioning. In the figure below, Mr. Dunn illustrated that the minimization of risk and maximization of value is a function of a project’s commissioning scope (both the scope of systems and the scope of project phases). As the scope of the commissioning effort increases, there is an opportunity to manage more of the risk associated with the project elements.

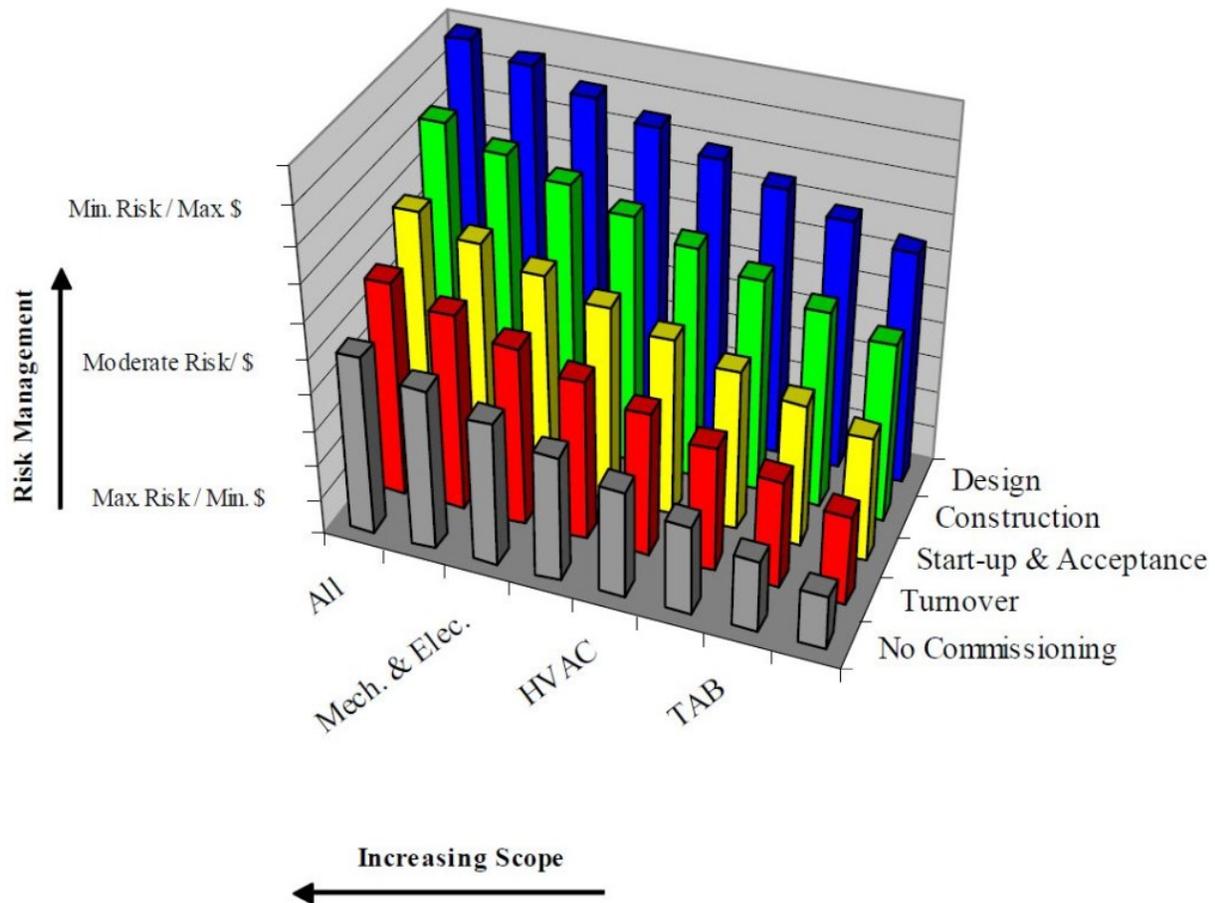


Figure 1: General relationship between risk management and Cx scope (system types and project phases) [Dunn, W. "Wayne's World: 21 Years of NCBC." 21st National Conference on Building Commissioning, Denver, CO, May 8, 2013.]

Although "risk management" has not yet become a part of the conversations I have regularly with commissioning clients, it is evident that our clients are increasingly seeing the value of an expanded commissioning scope. For some clients, this means including systems beyond the typical MEP or Mechanical, Electrical, Plumbing scope (such as security systems and fire protection). For other clients, a higher degree of involvement via regular project meetings and site visits is a means for staying on top of potential issues. The fact that our clients are willing to pay more for these types of services indicates the value we bring to their investments.

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