

A Future for Making Buildings

**Be Ready! - Adapt to and Embrace Unwanted
Change**

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ncx+
ARCHITECTURE

“An architect draws things and gives the drawings of things to other people who build buildings”.

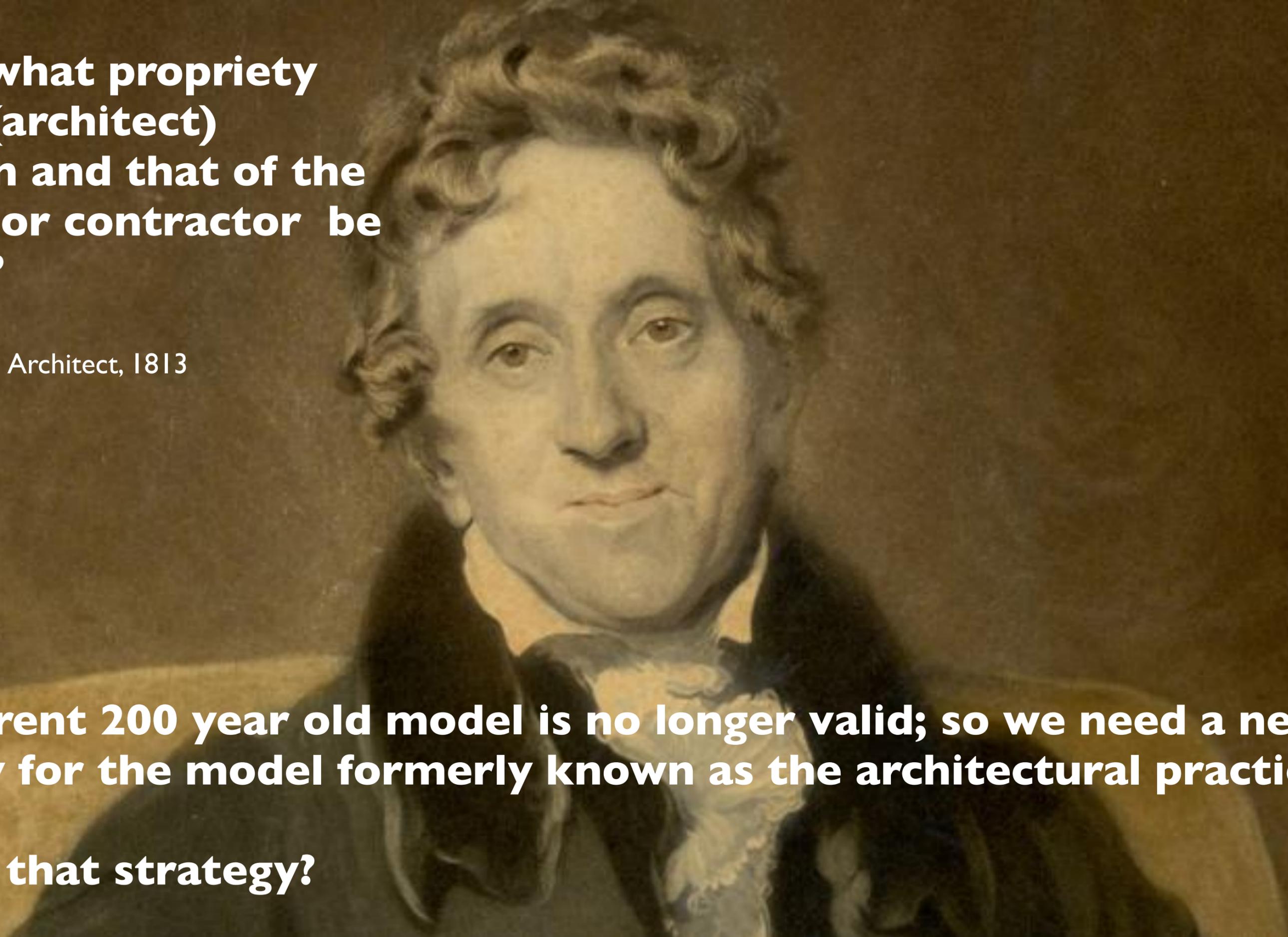
3rd Grader, New York State

**“ With what propriety
can his (architect)
situation and that of the
builder, or contractor be
united?”**

Sir John Soane, Architect, 1813

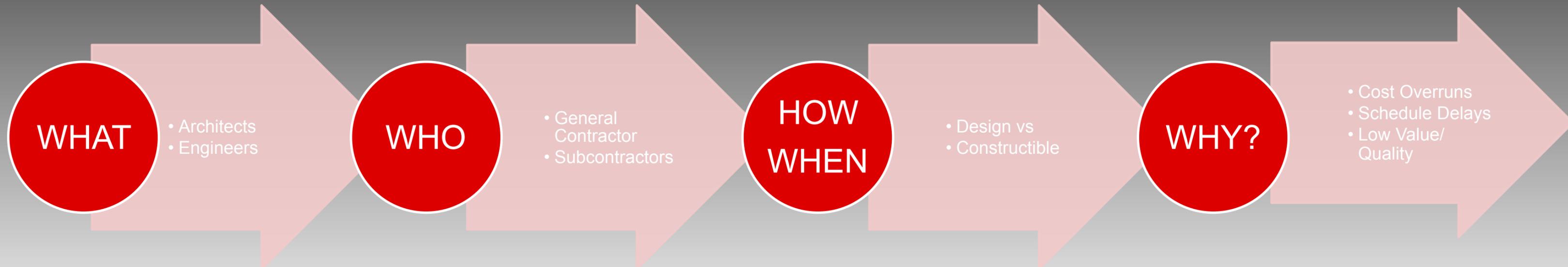
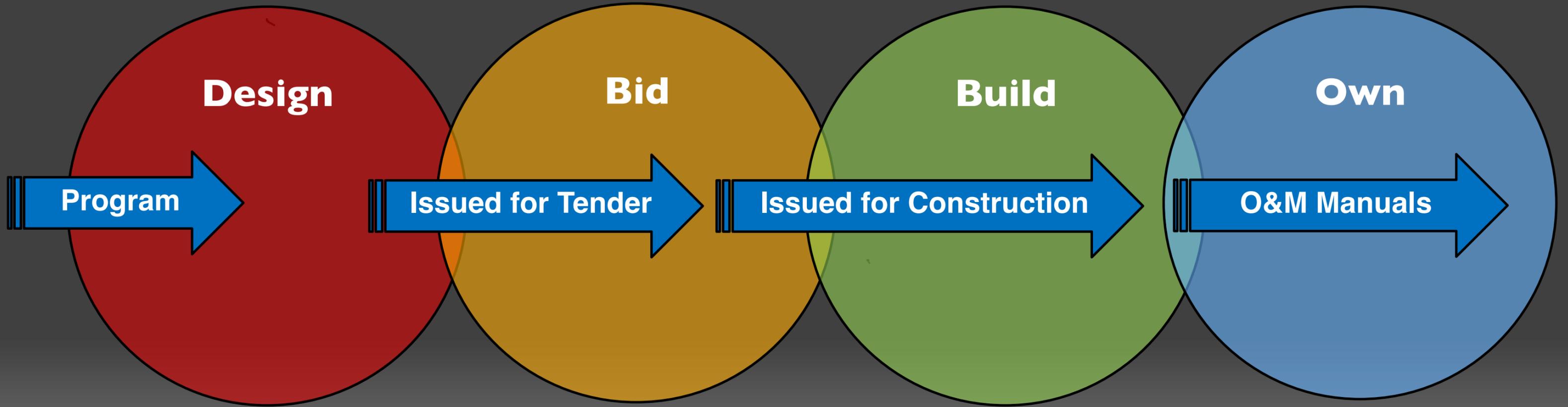
**The current 200 year old model is no longer valid; so we need a new
strategy for the model formerly known as the architectural practice**

What is that strategy?



- Architects **de-emphasize written and verbal communication** and put too much trust in drawings and renderings
- Architects **underestimate** the importance of a working understanding of **economics, finance and management**
- **Art** and **Analysis** are thought of as **mutually exclusive**
- Architects work **individually** and **competitively** rather than collaboratively and resist sharing a common professional knowledge base

Source: Fisher, Thomas R. [In the Scheme of Things: Alternative Thinking on the Practice of Architecture](#), Minneapolis: University of Minnesota Press, 2000



DESIGN

Schematic Design >
Design Development >
Contract Documents

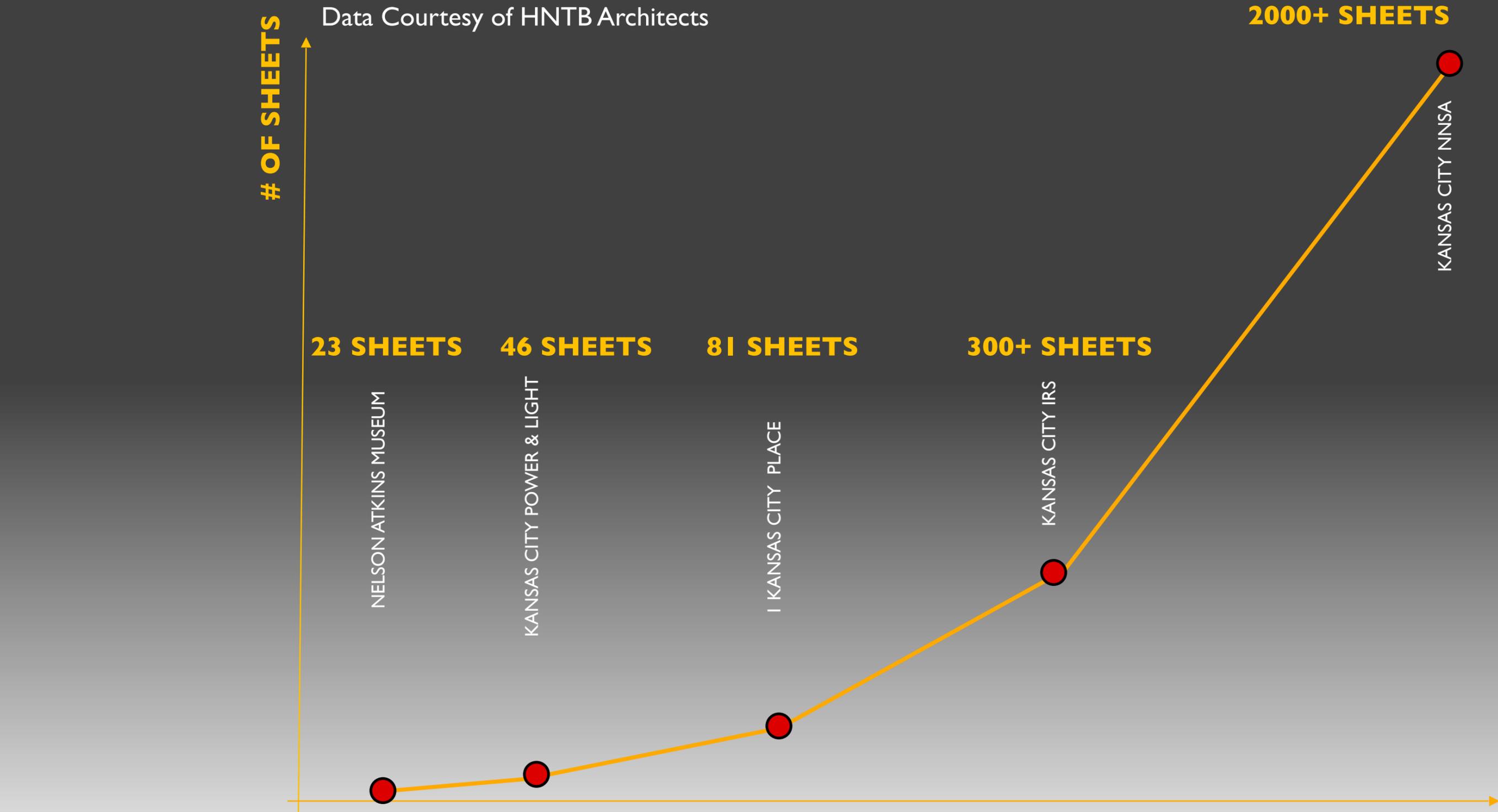
CONSTRUCTION

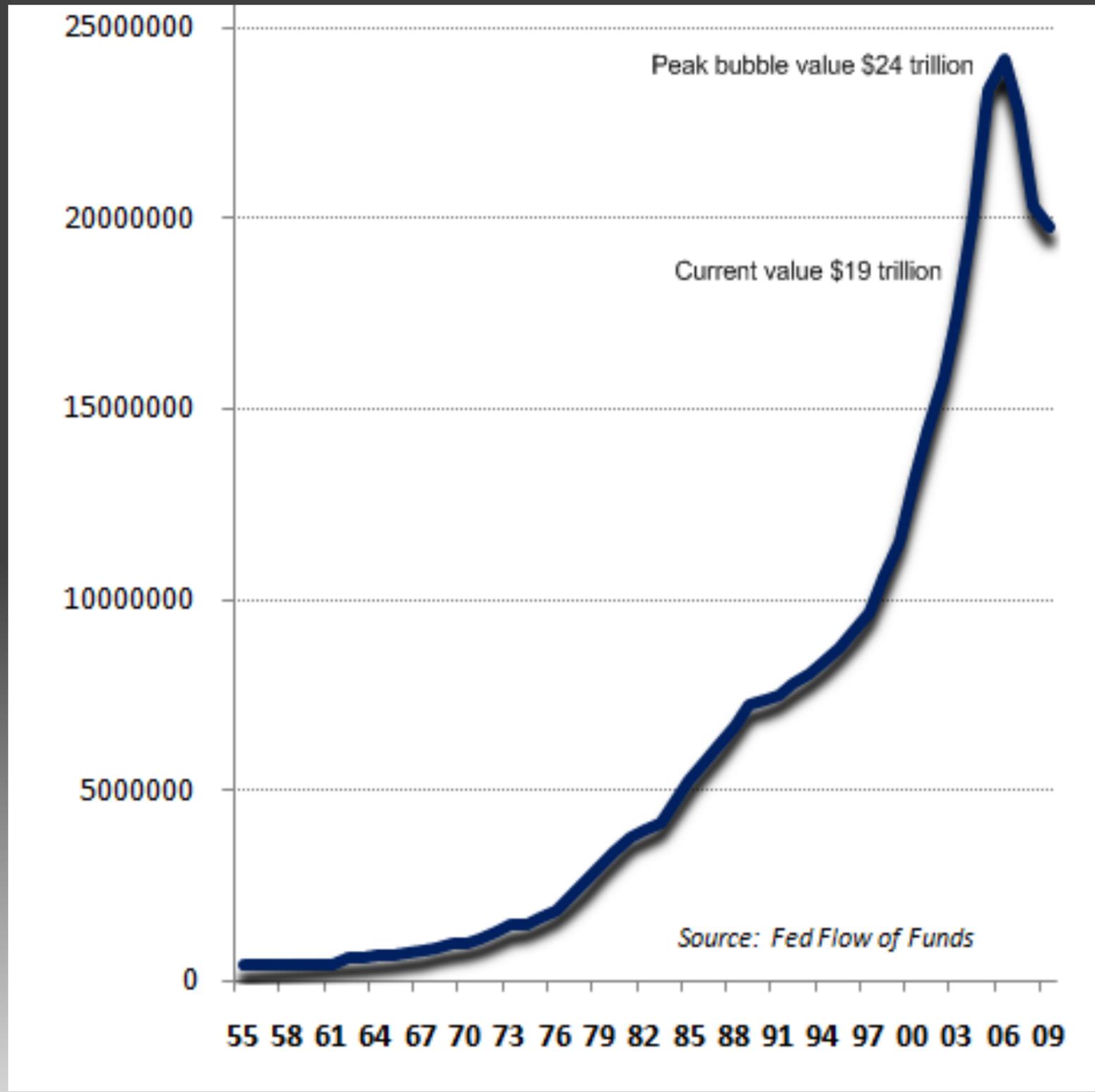
Bidding/Negotiation >
Construct >
Close Out

WARRA NTY

Highly Document Centric

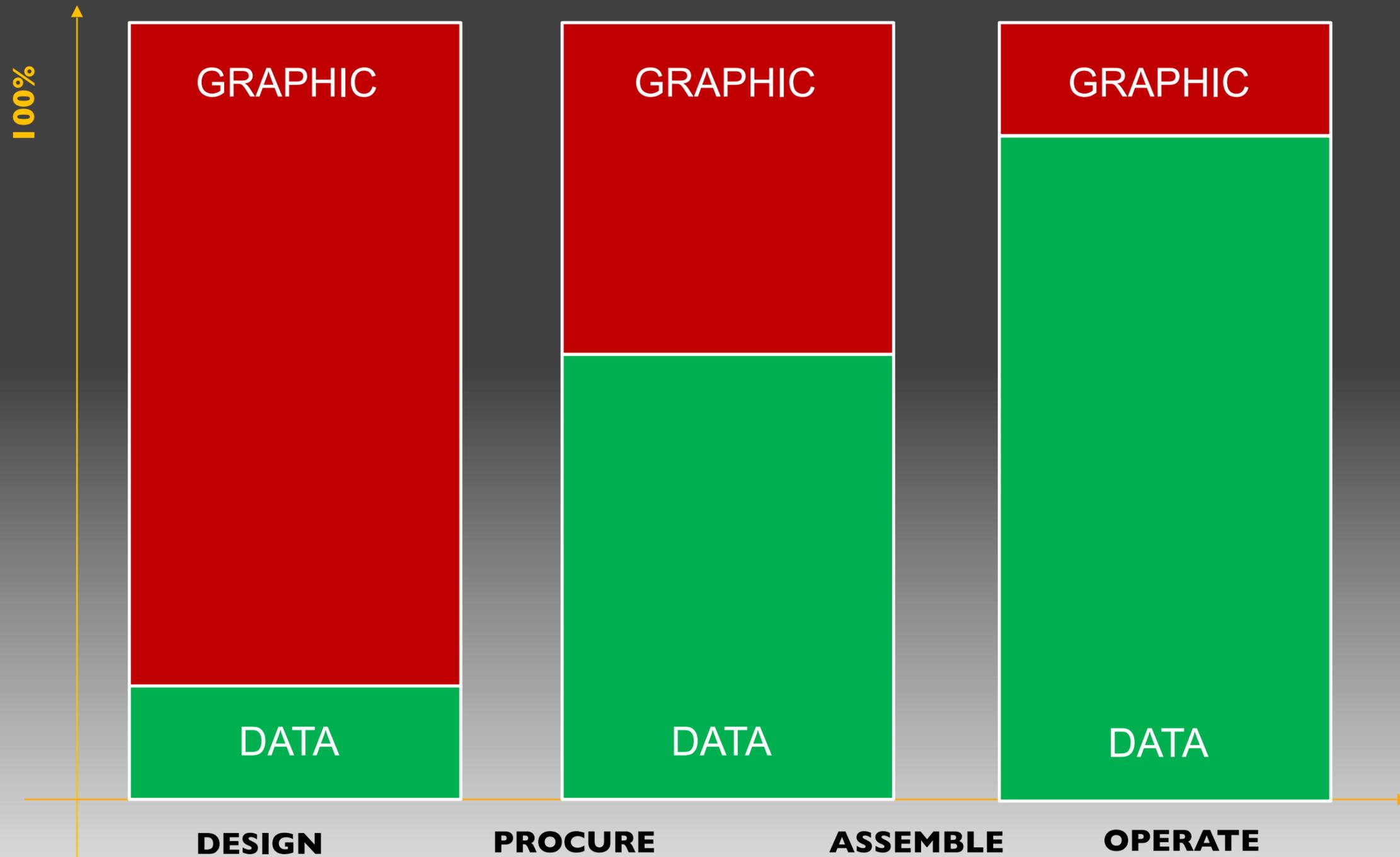
BIM = CADD 2.0





- **40% of an architect's salary comes from construction documents**
- **60% of construction documents hold no value to the project**
- **70% of Clients believe document quality is decreasing**
- **60% of building clients are convinced that those drawings are completed by subs and consultants**

Source: Bernstein, Philip G. "Will Architects Become Irrelevant?"





Non-linearity of Change

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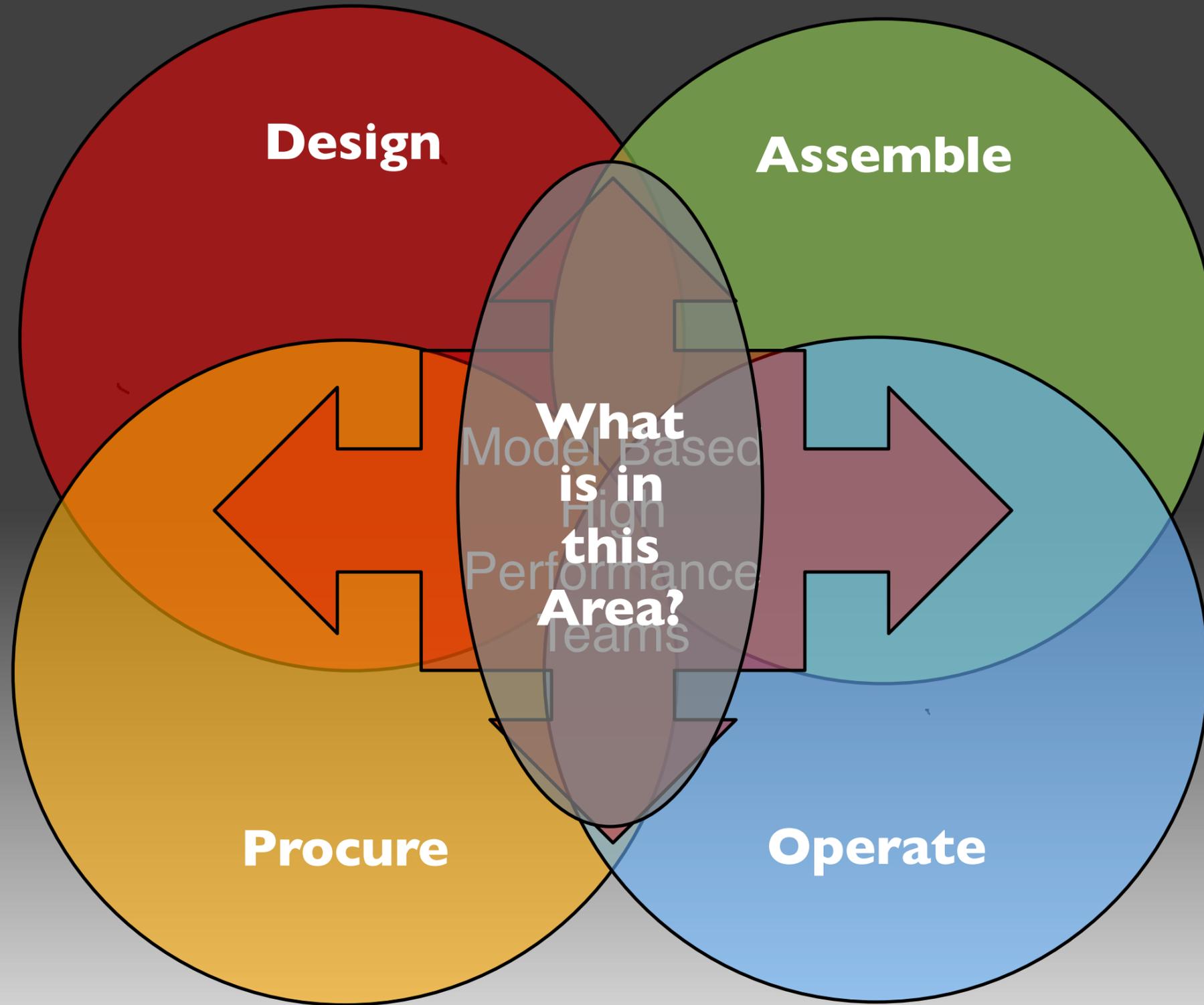


A Future for Making Buildings

**In the future the master
builder will re-emerge; not
as an individual but as a
process...**

**...not of design &
construction but of making
buildings, making places...**

**...that truly enrich the lives
of those that inhabit these
buildings; new or old.**



80% of All Buildings: <\$10 Million

(1) Arol Wolford - Building (in) the Future: Recasting Labor in Architecture – Bernstein/Deamer 2010

(2) U.S. Energy Information Administration; average size of all buildings 15,000SF, Approx. \$2 - \$10 Million, based on general cost about \$130 - \$640/SF

“75% of all our work is less than \$3 Million”

John Droog, PCL Construction, Alberta Association of Architects AGM 2018

- **It begins with restoring the designer/constructor relationship in a modern “Master Builder” role.**
- **It is based on identifying, assessing & prioritizing risks in making buildings**
- **It then involves the coordinated & economical application of all resources simultaneously to control those risks**
- **It establishes procedures to minimize, monitor, & control risk while maximizing the realization of opportunities & rewards**

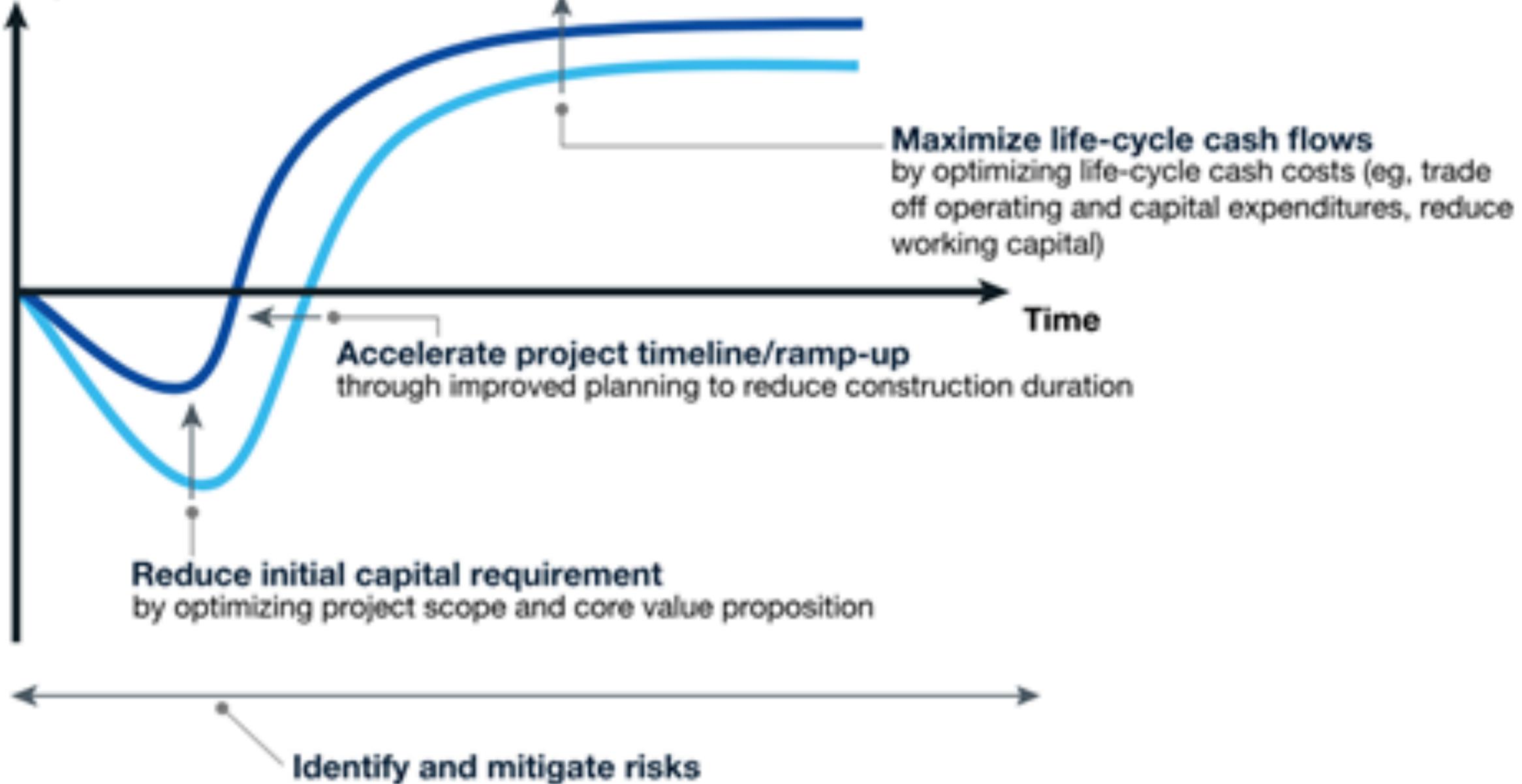
Risk?

=

Potential for both
Gain and Loss

■ Initial cash flow ■ Optimized cash flow

Project cash flow



McKinsey&Company

- **We need a new strategy for the making of buildings where:**
 - **In the post industrial economy, the central resource will encompass data, information & values known as actionable knowledge** (Dyson/Gilder/Keyworth/Toffler 1994).
 - **Such actionable knowledge will be knowledge (or information) used to create real value**
 - **Information is at the centre of the emergent technologies as a value proposition**
 - **The value of emergent technology must be **BIM****
not **BIM**

“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”

Buckminster Fuller

Conclusion

Architectural practice is moving towards increased specialization/commoditization that ultimately leads to dissolution of architecture as a specific profession,

- OR -

A new model of practice emerges that empowers architects to take over responsibilities and risks they have given up slowly over 200 years and more rapidly in the past seventy years.