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13

years

AEC industry

\$8B

prjs

Electrical EOR

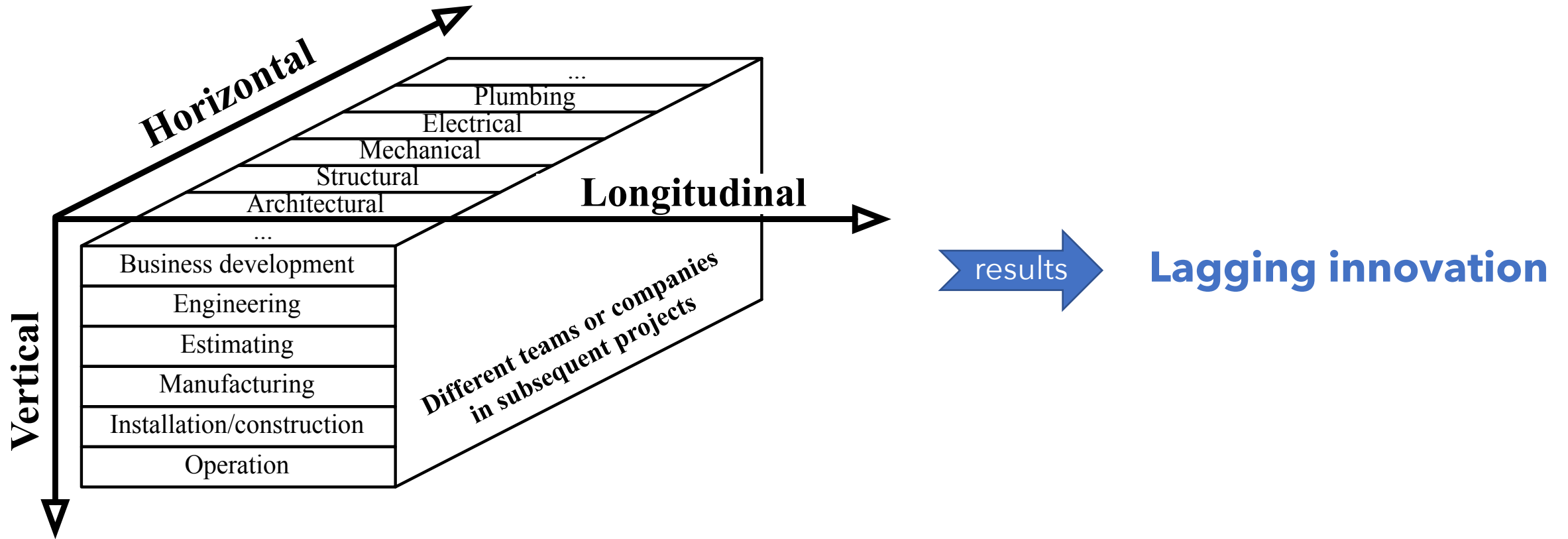
\$1B

rev

AEC SW+HW

- Multiple patents for AEC tech
- Created UL & NEC standards

Fragmentation in Construction networks



Integrate to innovate?

Developer-Owner

Some vertical integration

Involved in all phases, but mainly in definition and operations.

Can make decisions based on long term operations.

Design-Build

Vertically integrated pre-operation.

Can make decisions that improve constructability, costs, and schedule for specific discipline.

One-Stop shop

Vertical, Horizontal, and Longitudinal integration.

Has full control over all phases of a project and can drive innovation as sees fit.

Difficult to create.

EPM (prefab) supplier

Provides assemblies to reduce field time.

Borrows techniques from DB and often have ongoing partners like one-stops to create longitudinal synergy.

Sweet spot when done right.



Where do "Modular Companies" fit?

Most (majority of modular startups) don't know themselves.

Am I:

EPM supplier?

OR

One-Stop Shop?



All have a common goals:

Reduce time

Reduce cost

Improve quality

How does this impact engineers?

Think like the integrated companies throughout design.

How can I:

Reduce time?

In the field through:

- Clarity and precision
- Incorporate feedback on constructability.

Reduce cost?

Of the project through:

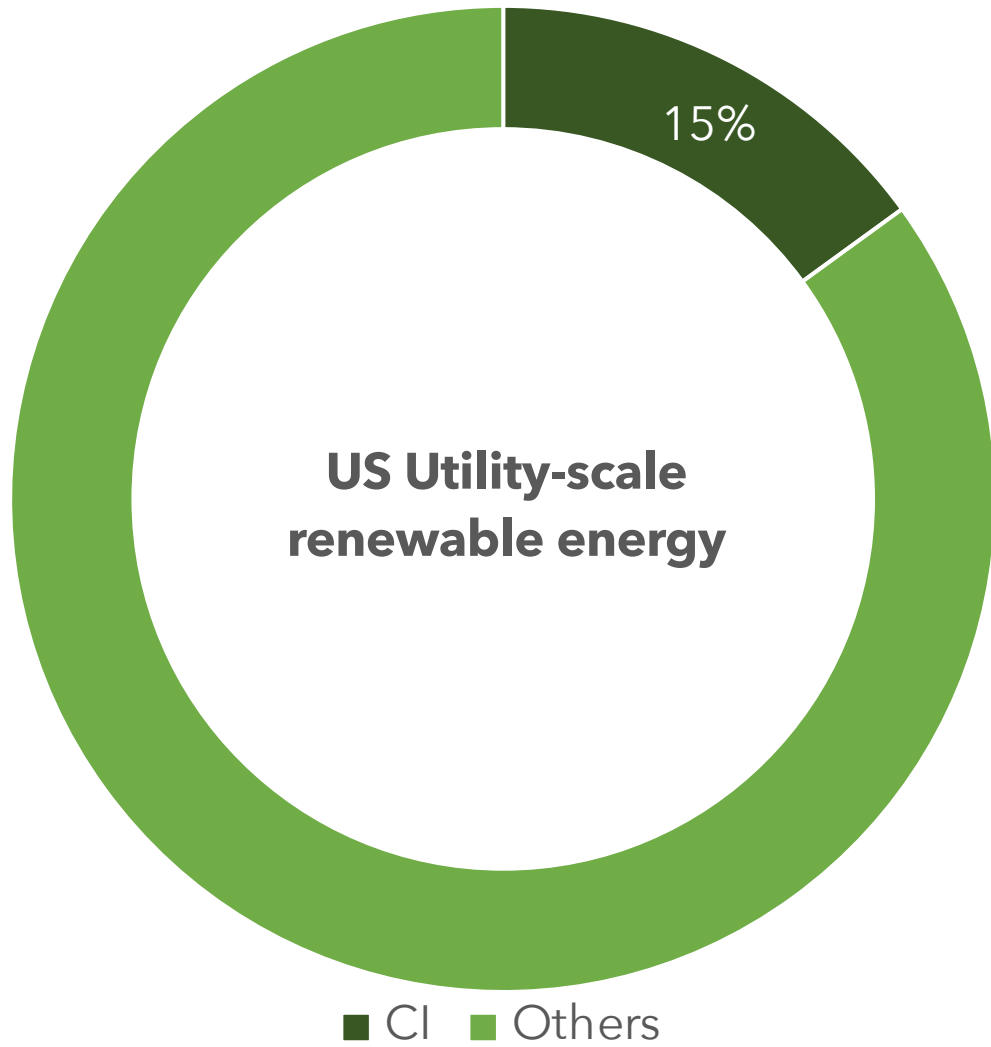
- Value engineering.
- Design with cost metrics in mind.

Improve quality?

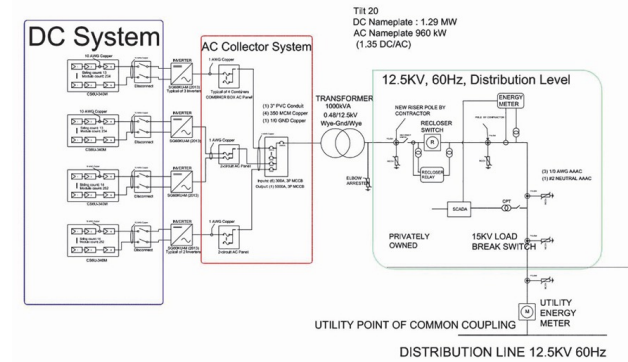
Of the product through:

- Engineer not copying
- Understanding life cycle of systems

Construction Innovations as a case study



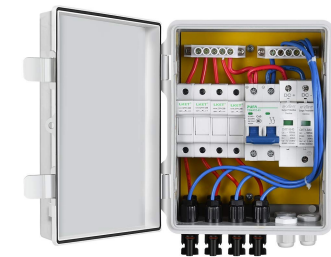
Take



Make



Skids



Combiners



Harnesses

Reducing Field time 50%+