



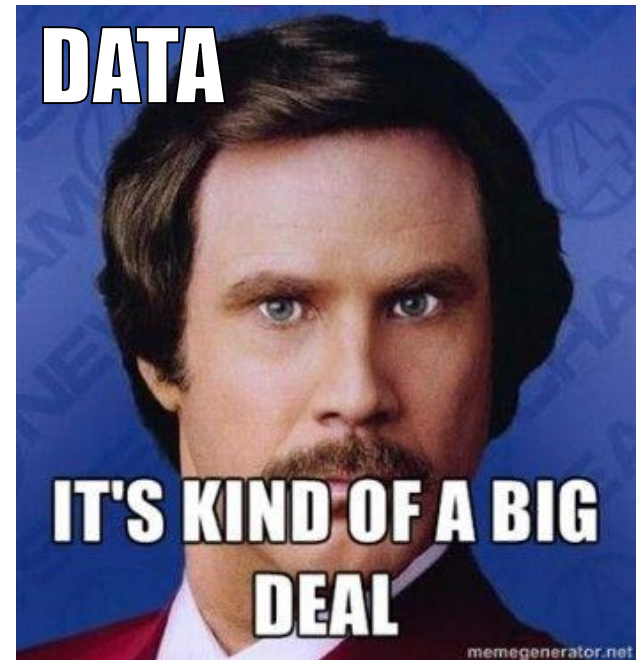
Data Analytics – Beware of Shiny Objects

Allen Turner – Innovative Solutions
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Data Analytics – Beware of Shiny Objects

The Road Ahead...

- Headline news
- Value proposition
- Focus on the foundation
- Takeaways



“Sixty percent of the time it works every time”

- Ron Burgundy (Anchorman)

Headline News! Data is a big deal

“Without big data, you are blind and deaf and in the middle of a freeway.” – Geoffrey Moore



**“In God we trust, all others bring data.”
— W Edwards Deming**

“Data is the new Bacon.”

**“Where there is data smoke, there is
business fire.” — Thomas Redman**

**“You can have data without information,
but you cannot have information
without data.” — Daniel Keys Moran**

“Data beats emotions.” — Sean Rad

Data: The Currency of Modern Business

- More data has been created in the past two years than in the entire previous history of the human race. *~40 Zetabytes of data exist (2019) = 40 billion terabytes*
 - 95% of businesses need to manage unstructured data. (Forbes, 2019)
 - For a typical Fortune 1000 company, a 10% increase in data accessibility will result in more than \$65 million additional net income (Forbes, 2015)
 - Businesses that use **Big Data** saw a profit increase of 8–10% and a 10% reduction in overall cost. ([Entrepreneur](#), 2019)
 - It's a precious commodity - worth mining & refining
- **At the moment < 0.5% of all data is ever analyzed and used
....imagine the potential**

Sources: Waterford Technologies (2017); Entrepreneur (2019), Forbes (2015, 2019)

Data: The Currency of Modern Business

Big data (/big/ /'dɑdə,'dādə/)

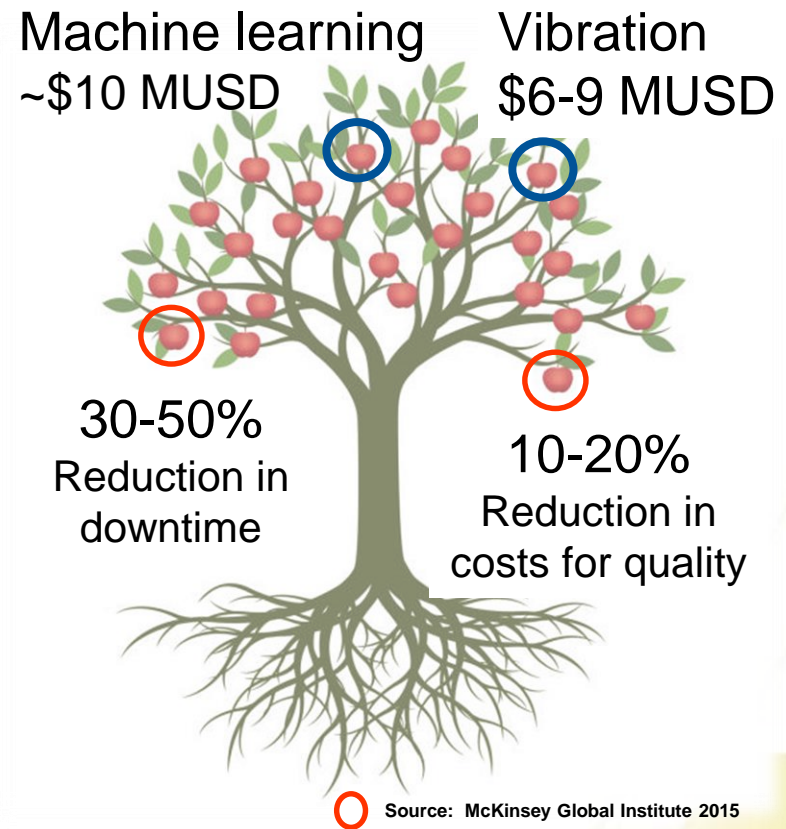
A term that describes the large volume of data – both structured and unstructured – that **inundates** a business **on a day-to-day basis**.

But it's not the amount of data that's important. **It's what organizations do with the data that matters.** Big data can be analyzed for insights that lead to better decisions and strategic business moves.

Data: Its Kind of a Big Deal *(but show me the money)*

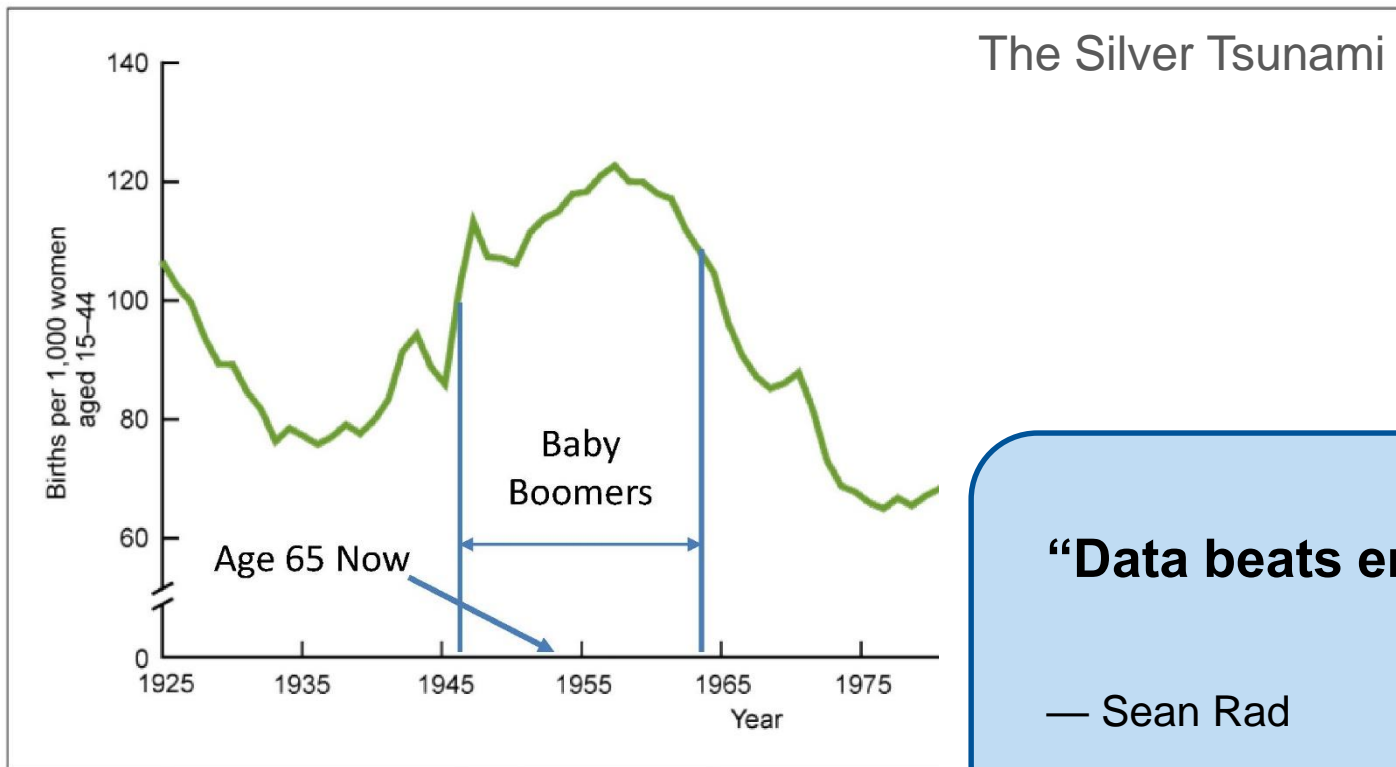
What's driving Industry 4.0

- Lower Operating Costs
- Improved Equipment Reliability
- Increased Uptime/Performance
- Improved Quality



Data: Its Kind of a Big Deal

We are moving from experience-based, leader-driven decisions to data-driven decisions



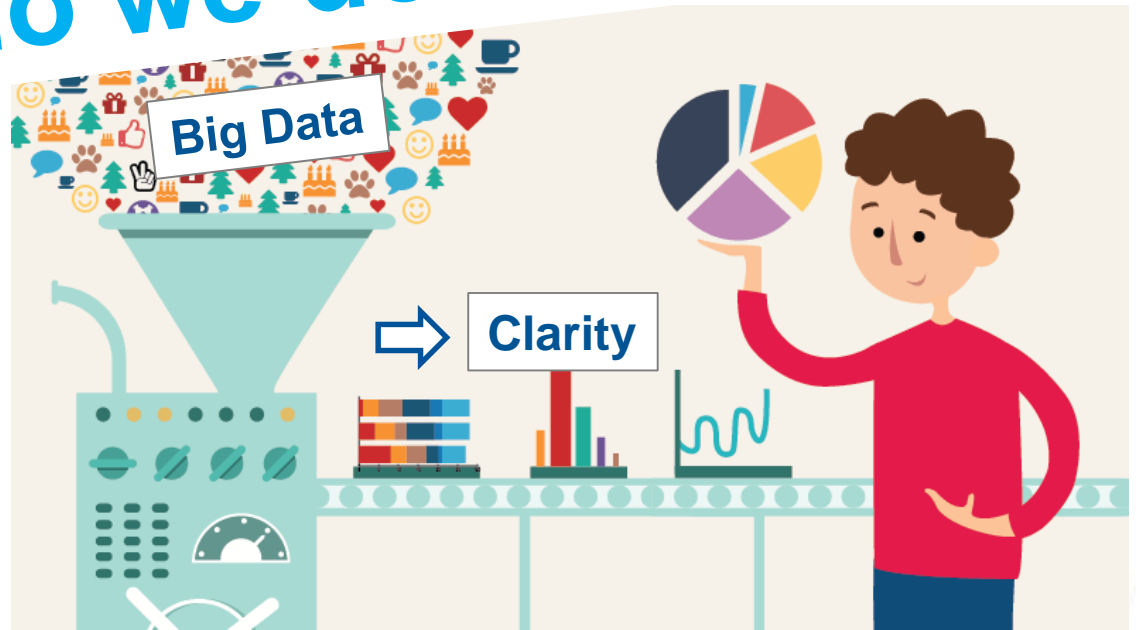
NOTES: Data for 2009 are preliminary. Access data table for Figure 1 at: <http://www.cdc.gov/nchs/data/datab>
SOURCE: CDC/NCHS, National Vital Statistics System.

“Data beats emotions.”
— Sean Rad

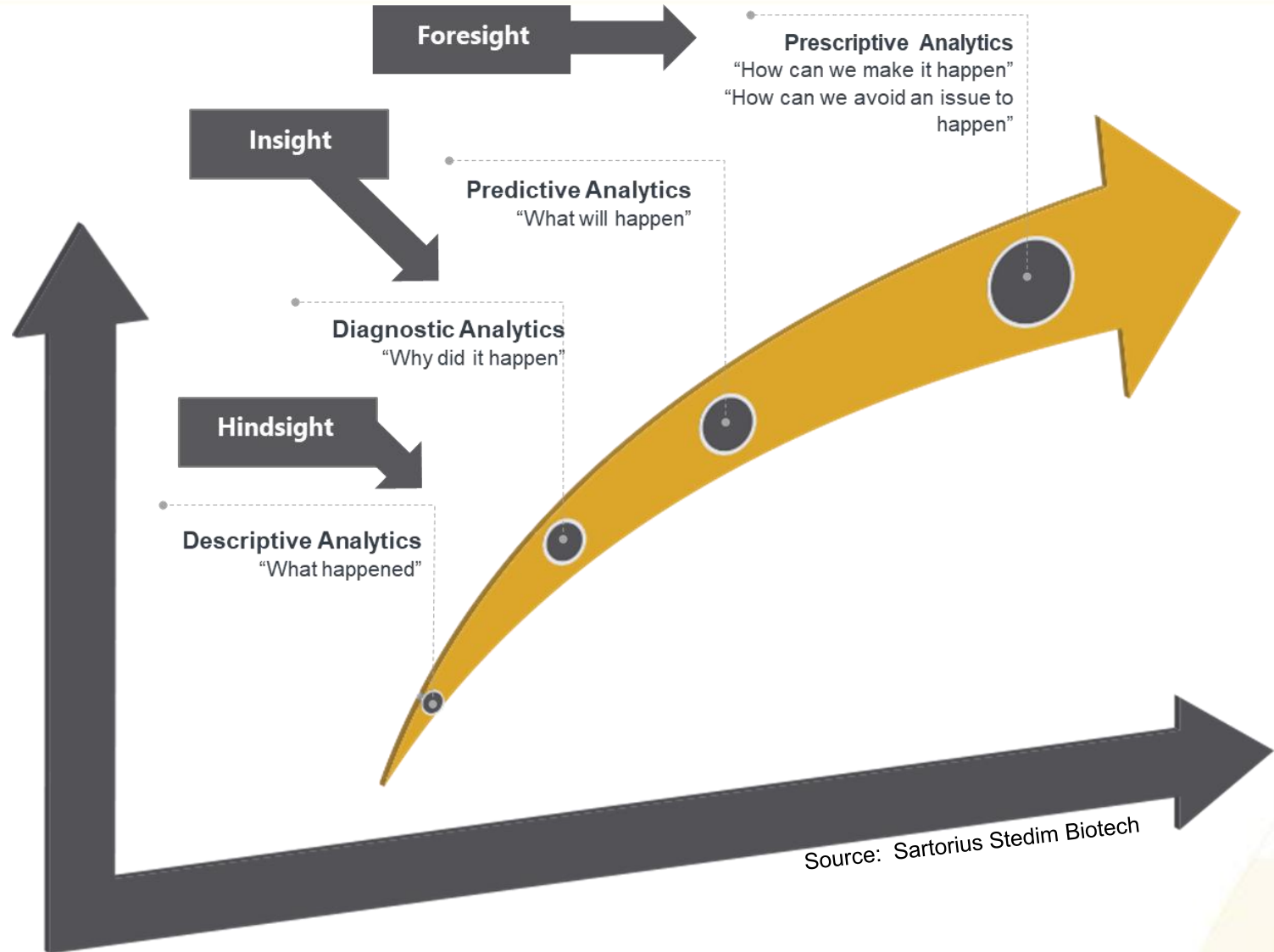
Data is **Valuable**

Data is Valuable...

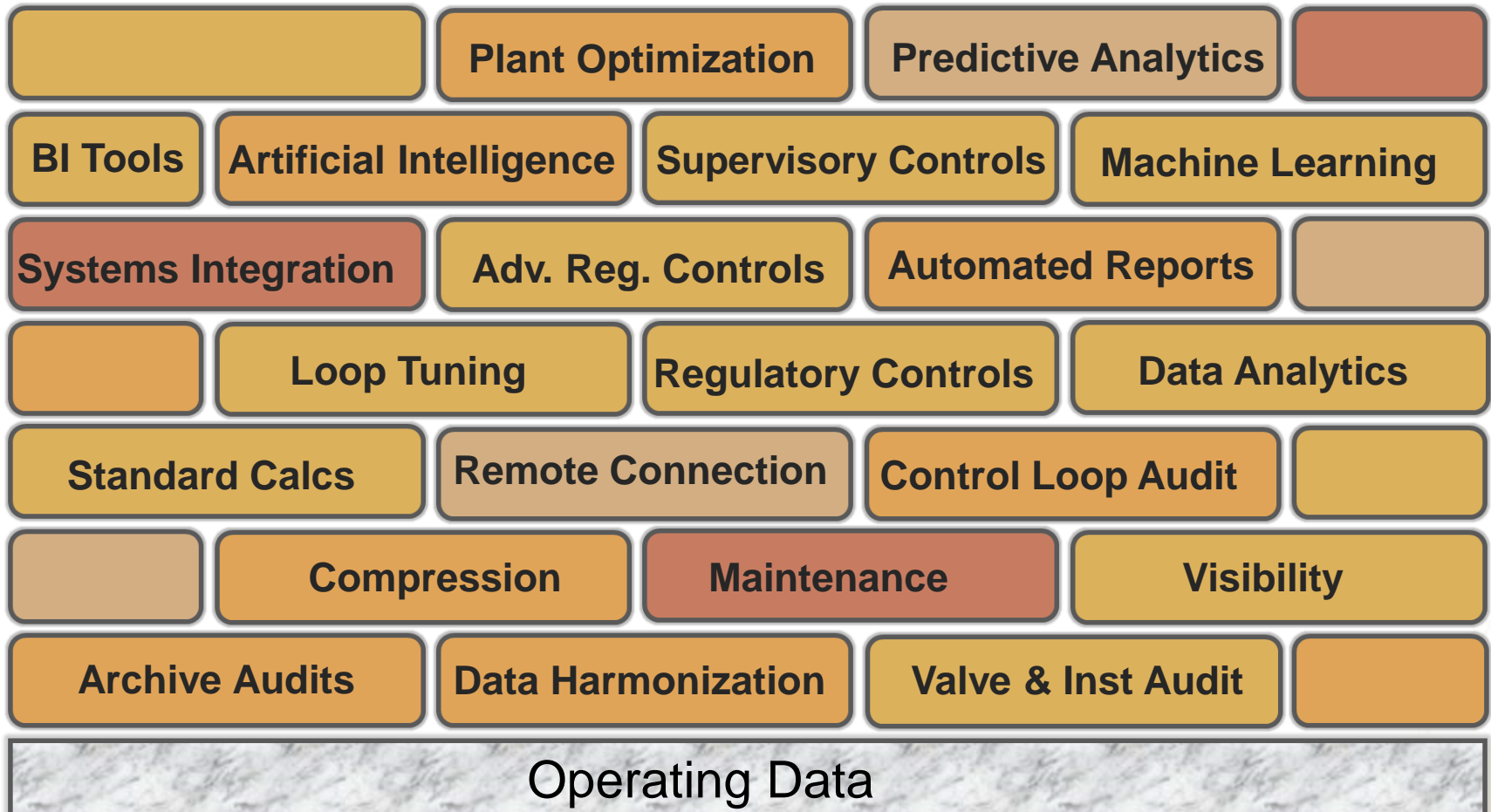
Now what do we do with it?



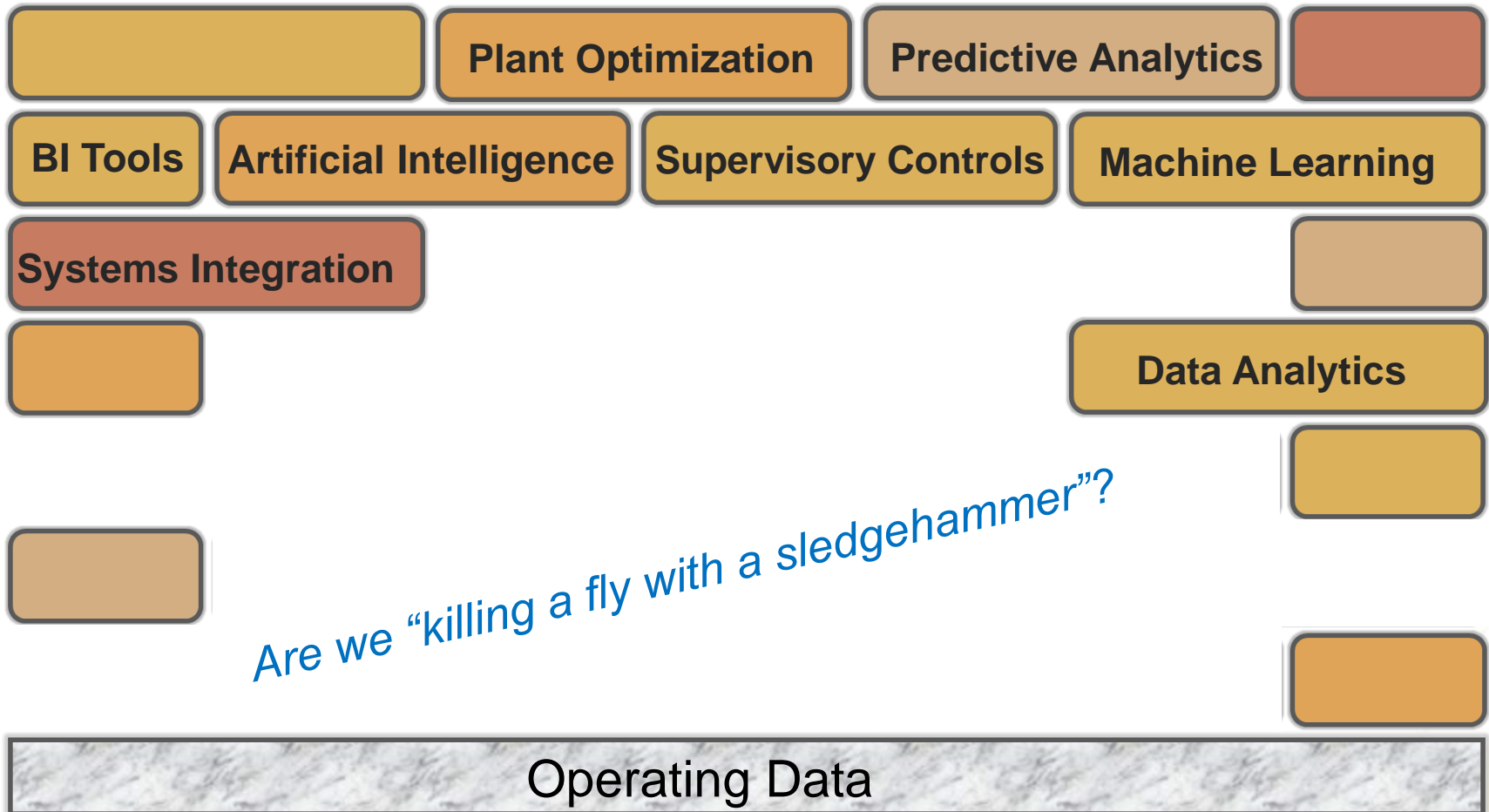
Data is Valuable...



Building the Mill of the Future – Plant wide Optimization

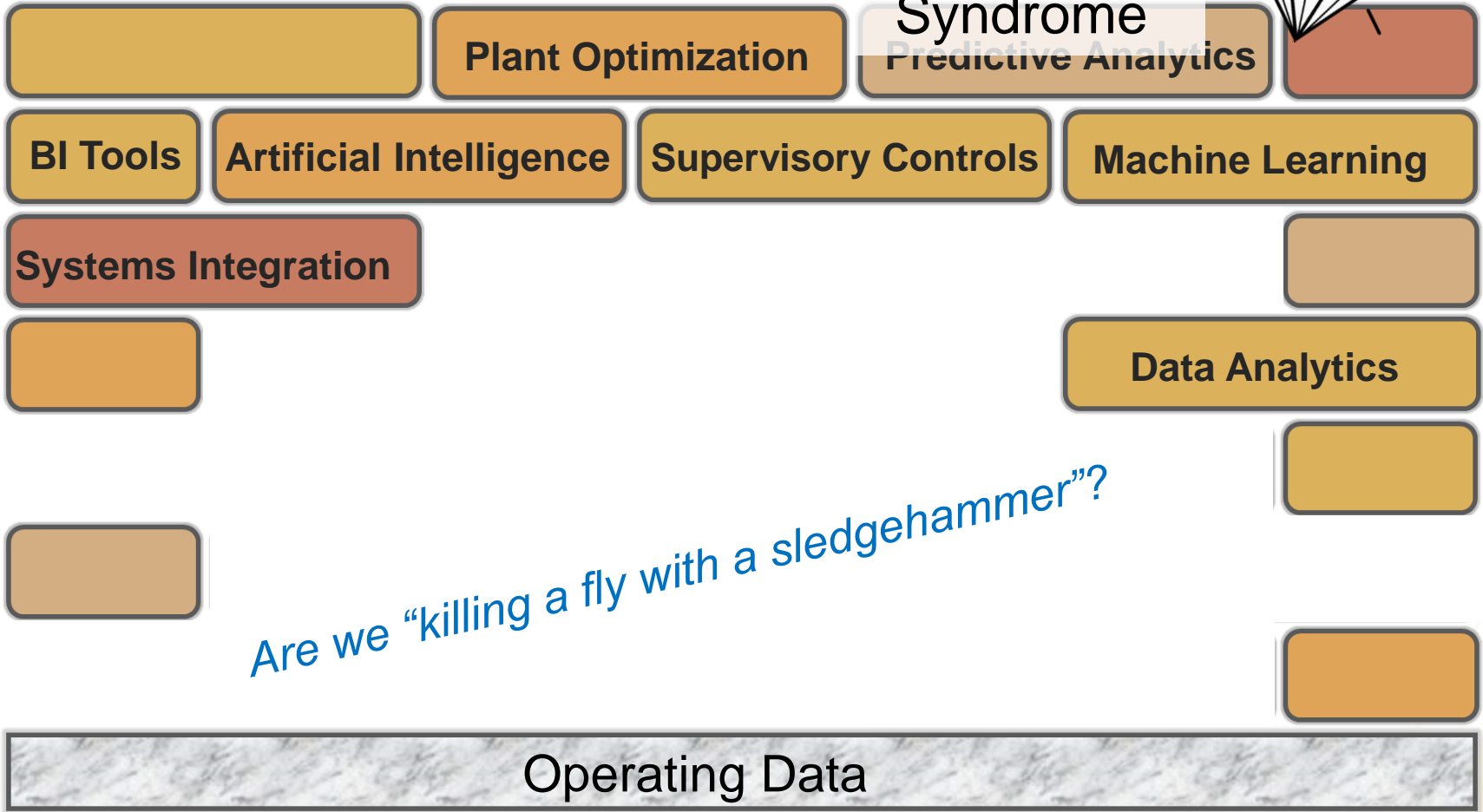


Building the Mill of the Future – Top Layer Focus



Building the Mill of the Future – Top Layer Focus

Shiny Object Syndrome



Are we “killing a fly with a sledgehammer”?

Data is Valuable

Data is **Foundational**

How to avoid Shiny Object Syndrome

Look before you leap

Archive Audits

Data Compression

Data Harmonization

PI Asset Framework

PI Vision / Tableau / Power BI

Standardized Tools

Standard Calculations



“Studies by the International Data Corporation show that only 22% of data is documented well enough to be analyzed and that only 5% is actually analyzed. “

- J. McKendrick

First things first – Things to Avoid

Beware of “plug and play” digital transformation technologies promising immediate returns...



Beware of shiny objects...

Stakeholders should see digital transformation as a means to compete in the future, not as a one-time bet (a capital project)“

First things first – Things to Avoid

Beware of building a skyscraper on a shaky foundation



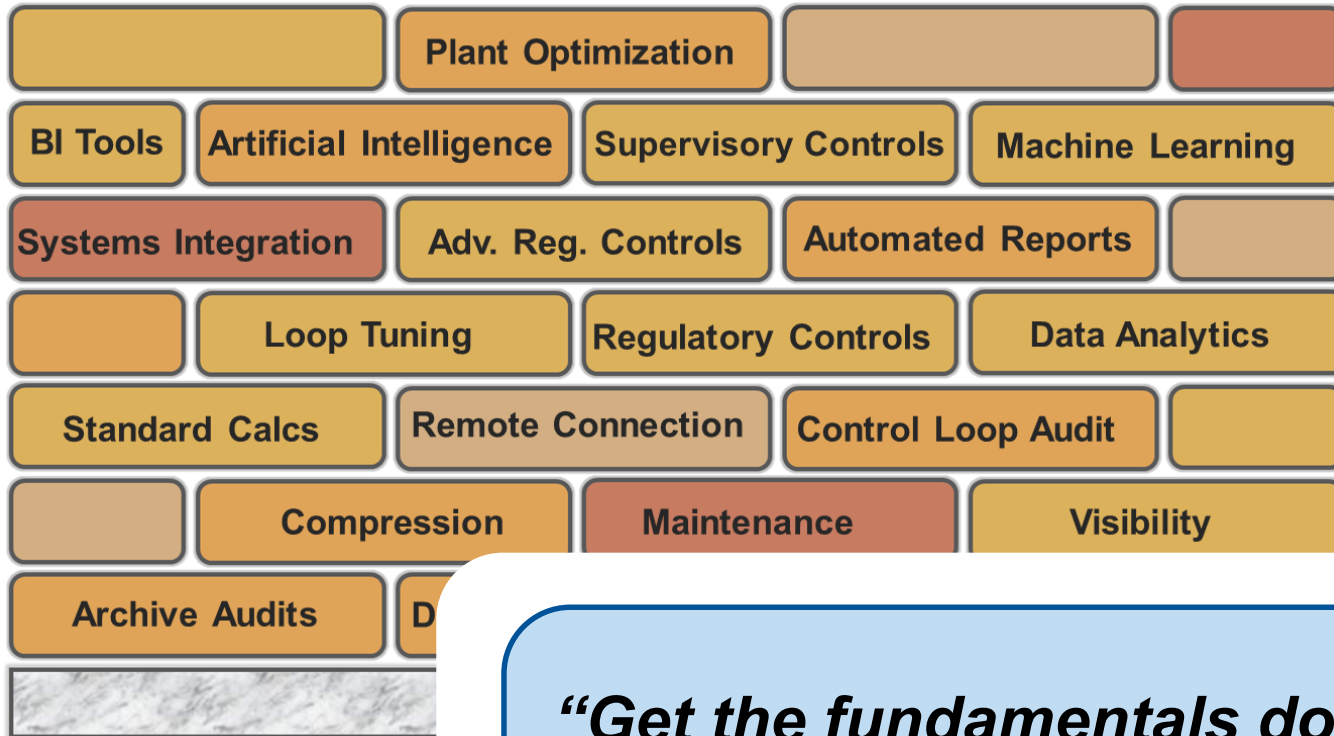
“Relying on aging systems to support business activities of the future is a losing strategy”

- Pluralsight

Everyone is in a hurry... *SPEED*



First thing First - Foundational Focus



“Get the fundamentals down and the level of everything you do will rise.”

– Michael Jordan

Three Takeaways...



➤ Data is **valuable**

- **Take** care of your data

➤ Data is **foundational**

- **Transform** the foundation while investigating the latest “shiny” objects

➤ **Don't allow** Industry 3.0 thinking and the need to move fast divert the focus on foundational, valuable data.

“Data that is loved tends to survive.”

– Kurt Bollacker

Thank You



“Some good predictive **analytics** software would have really helped us avoid this mess...”

(J.Carter)