What’s The Matter With US Manufacturing?
There was a time...

- ...When the US had one of the best educated and best equipped work forces in the world

- ...When long-term thinking meant “years” rather than “ninety-day” intervals

- ...As a nation, we were on the cutting edge of innovation, quality, and reliability
Was there a technological shift that left us behind?

Not really
Did new discoveries change the balance? Did war or some natural disaster hinder us?

Again, no
As a matter of fact,

World War II,
The Cold War
The Race to the Moon,

...all contributed to our manufacturing prowess
So, how did our scientist and engineers lose that race?

- They didn’t...

Shortsighted business practices lost the race. Stale organizational philosophies accelerated our decline.
The Lowest Cost Manufacturer

VS.

The Most Effective Manufacturer
Both are interested in: 

*Reducing Cost of Goods Sold (CGS)*

- Industrialization, innovation, automation, outsourcing…
- This has always been the surest way to enhance earnings
CGS declined for many reasons, *some good*:

- Innovative designs
- New processes, materials and adhesives
- Automation
- Learning curves, training etc.
...And some *not so good*:

- Lower quality,
- Lower or absent compliance and reliability
- Lower wages, less training,
- Poor safety for workers and consumers,
- Compromised durability
The most shortsighted way to achieve low CGS turned out to be the cheapening of products and reducing consumer satisfaction.

And that is exactly what happened in the great majority of cases.

Under pressure from the financial market, businesses cheapened products and reduced customer satisfaction with the experience.
Business pundits and consultants sold a minimalist approach:

Why invest in bricks and stones, when you can have someone else do that for you?
Also...

- Why invest in R&D?
- Why have your own manufacturing capabilities?
- Why not outsource almost everything?

Ultimately, the recommendations came down to:

*Keep the couple functions that require little capital – outsource all else!*
What Followed...

- This disengagement eventually reduced business in the US to nothing more than:
  - Marketing and Advertising – mainly because the absence of substance required the increased presence of the façade
  - The need to replace what’s *not* there with a *perception* that it *is* there
The façade

Duracell Ultra Advanced and Duracell Ultra Power batteries were marketed as costing more but lasting longer...

It turned out the Ultra did not provide longer life than regular alkaline batteries

…Guilty of false advertising
The façade

“Made from sugar so it tastes just like sugar”

…not true…

J&J had to change it’s marketing to simply:

“no calorie sweetener.”
The Lowest Cost Manufacturer

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Successful business models tend to be aligned with the future.

- The future is not minimum-wage labor, cheapened products or watered-down experiences.

- To the contrary, the future is about producing and supplying quality and reliability at the best price.

- Here’s why…
Increasingly, we are consuming less energy and finding more of it. Abundant clean energy at much lower costs will be the norm.

Increasingly, robotics and automation are supplying efficiencies for production.

Increasingly, progressive organizations are demonstrating an edge in implementation.
In the US, these three trends are converging.
And, in the US, this convergence may pave the way towards recovering our edge in manufacturing.
Progressive organizations likely to lead the recovery will:

- ...enjoy smart internal communities and team members with advanced skills
- ...empower the internal communities to pursue intelligent practices, products and processes
- ...enable these communities to pursue smart science, engineering and business processes
The Effectiveness Criteria

- These characteristics will enable progressive organizations to achieve higher quality **AND** lower production costs.

  Higher quality will yield overall lower cost, starting with CGS.
  And
  cascading into every aspect of the business.
To maintain the highest quality and consistency:

- First and foremost, create a Fertile Environment where team members excel
- Integrate and invest heavily in education and infrastructure
- Own the processes
- Integrate and invest heavily in Automation and Process Development
For Those Still in College...

- Pursue team work opportunities
- Research the cultures of companies
- Pursue internship with progressive companies
- Inquire about the mission of companies that interest you

Ultimately, develop a career; don’t just look for a job
For Our Nation:

- We must provide real and affordable education
- We must pursue good government that:
  - monitors and enforces safety and compliance
  - ensures open markets
  - fights predatory practices, and
  - protects consumers
For Our Nation...

A salute to
French economist Jean Tirole,
winner of this year’s Nobel Memorial Prize
in Economic Science

In a great number of situations, the market is neither efficient nor self-correcting

The sooner we update our assumptions, the sooner we recover
Thank you!