

**Rice Global Engineering &
Construction Forum**

Roundtable Discussion



AIR LIQUIDE

TM

Assuring Predictable & Sustainable Performance in a Global Delivery Context

*Chris Lloyd-Jones
VP Major Investments
November 2010*

Air Liquide - Global Delivery Context

E&C Cryogenics

● 2,000 employees in 7 Engineering centers
(* of which 4 have a Manufacturing center)

E&C Lurgi

● 1,500 employees in 7 Engineering centers



World has changed...

- New geographies
- New customers
- New competitors
- Bigger projects

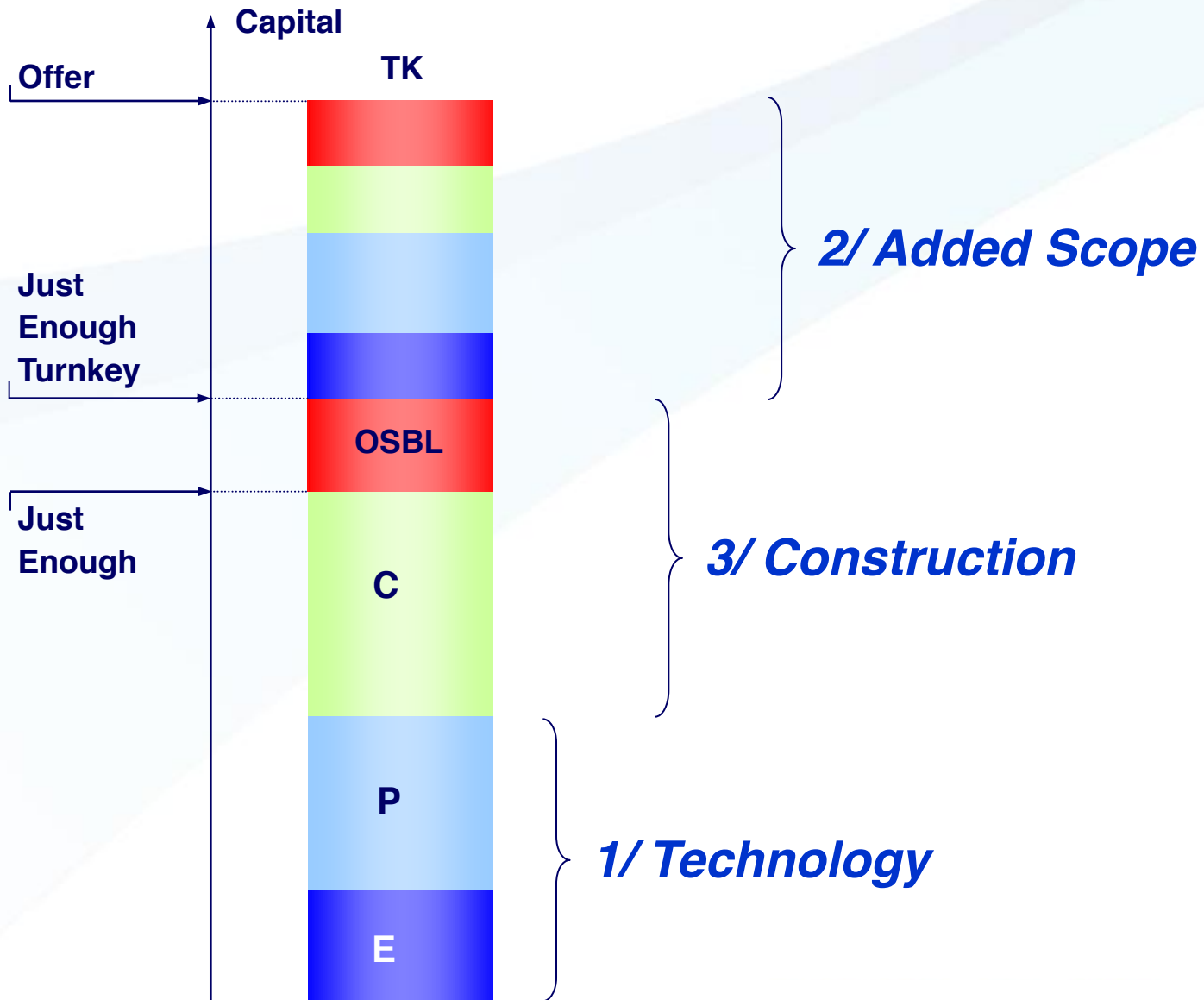
... and new ambitions

Requires...

- In-depth market know-how
- Clever solutions
- Precise product definition
- Predictable Outfall Cost - Earlier
- Efficient scope adaptation
- Robust execution strategy – Risk Confidence
- Effective decision-making processes
- Innovation and Differentiated Products

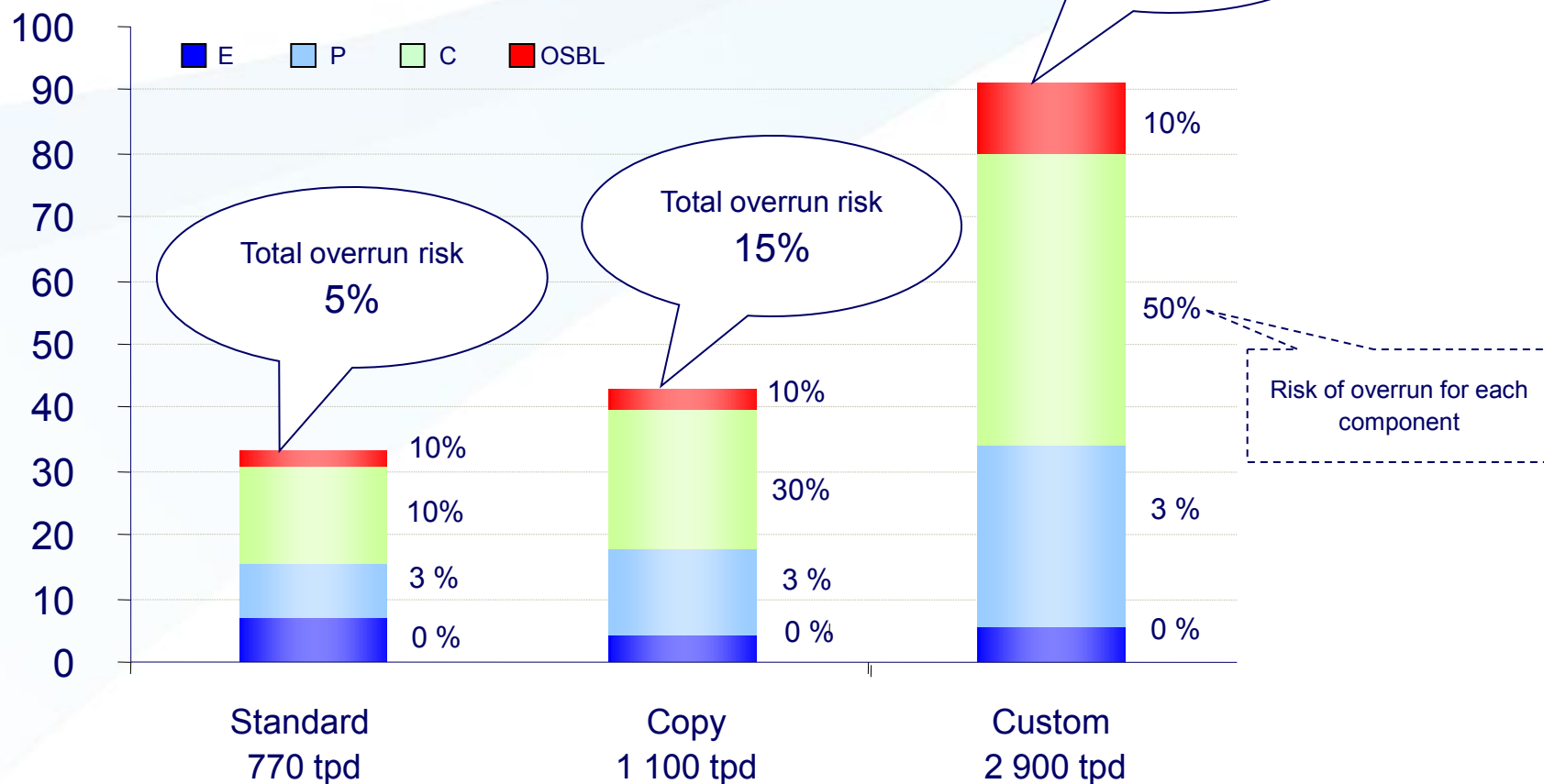
...Disaggregated Solution-eering

Perspective on competitiveness...

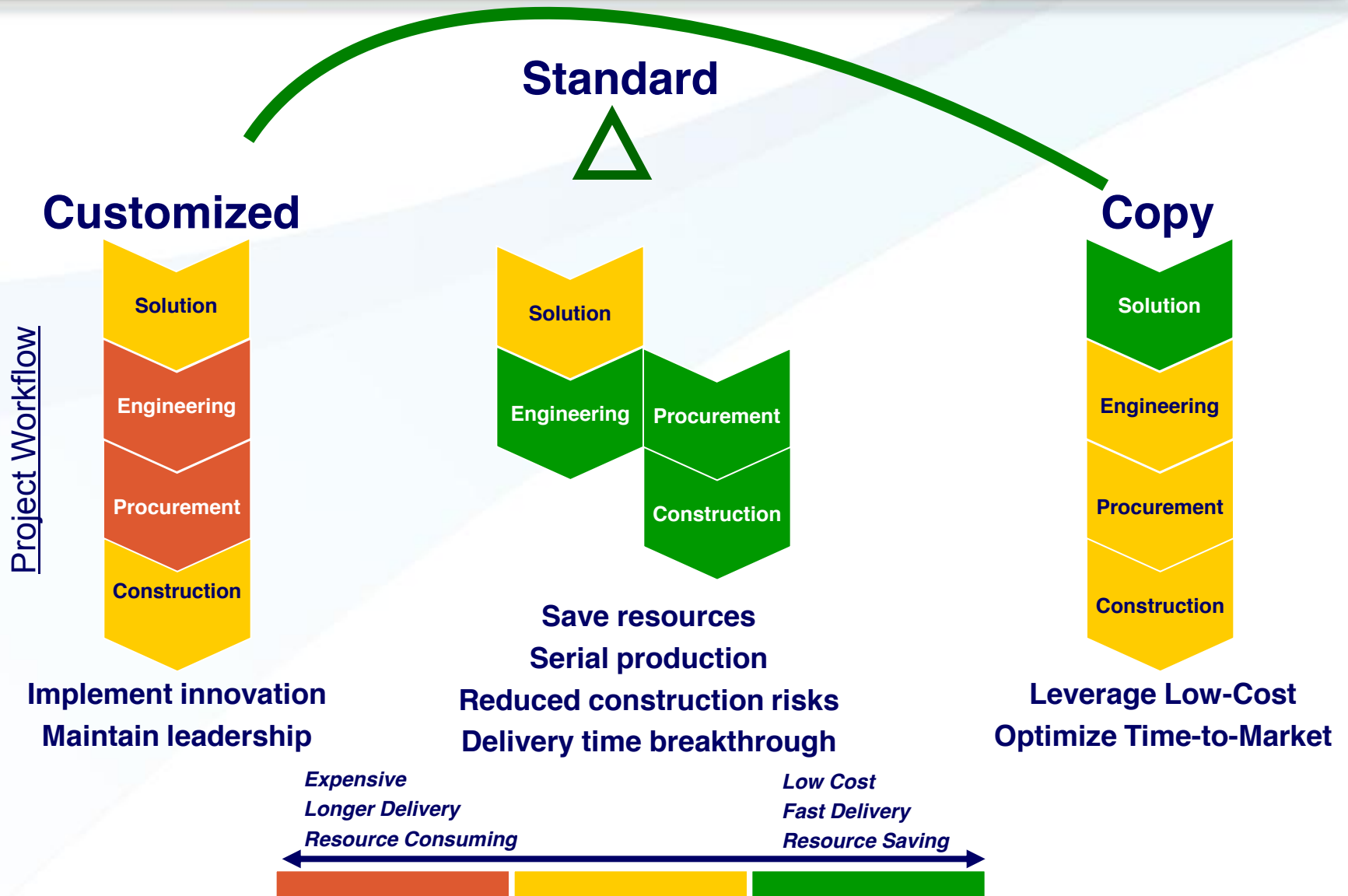


“C” is the major contributor to turnkey uncertainty, especially when plant size increases

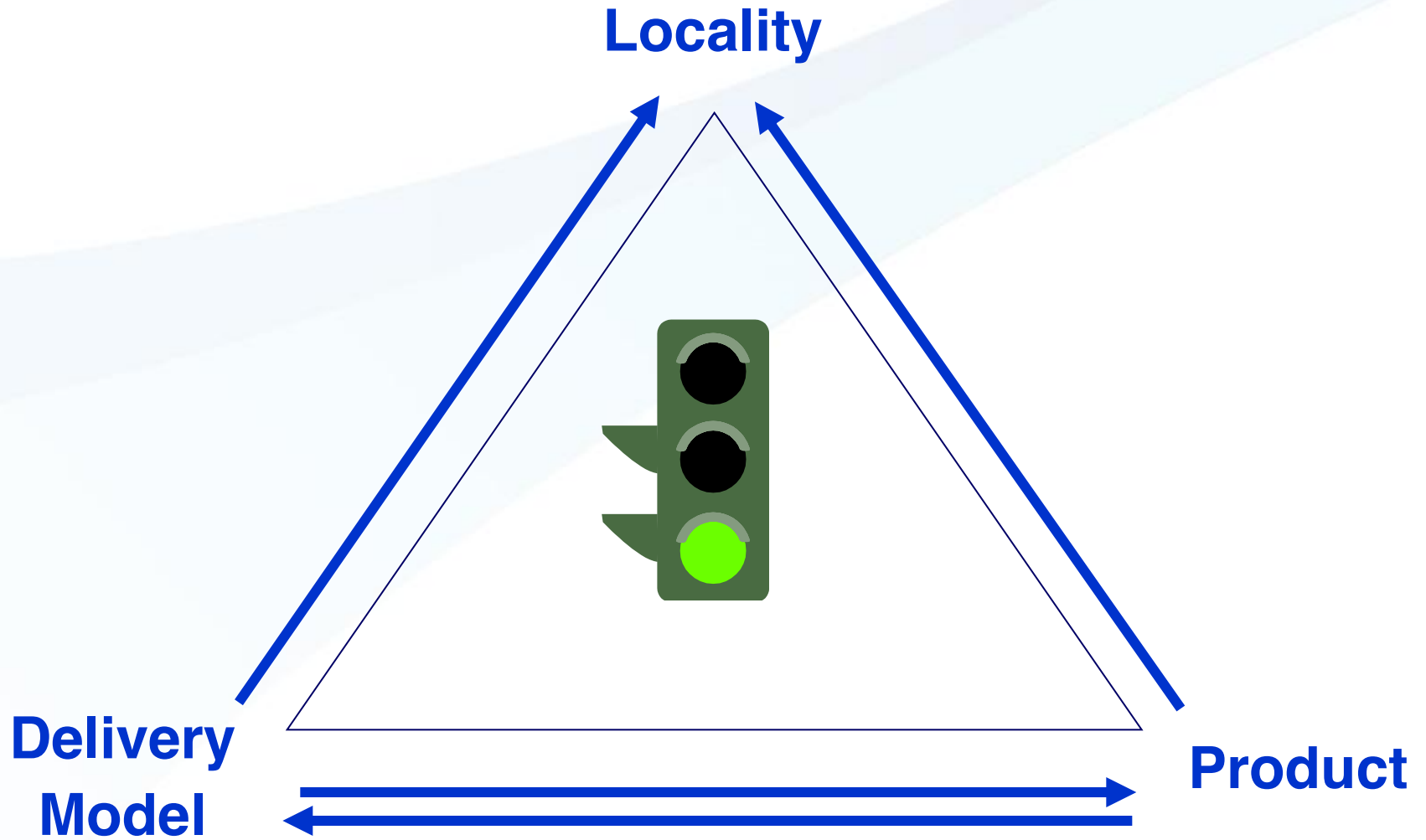
Turn Key Benchmark



The product portfolio

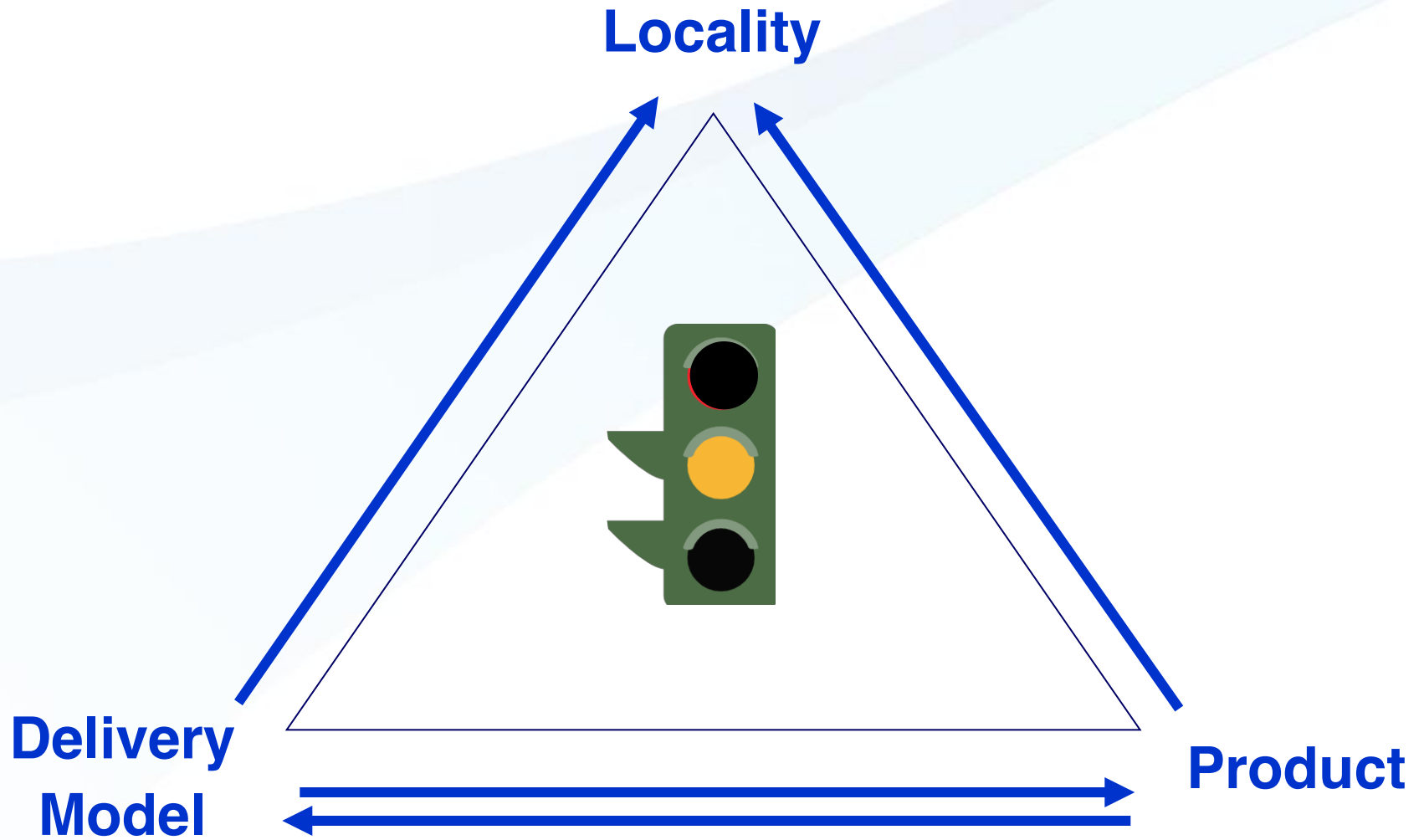


Success Dynamic - Opportunities



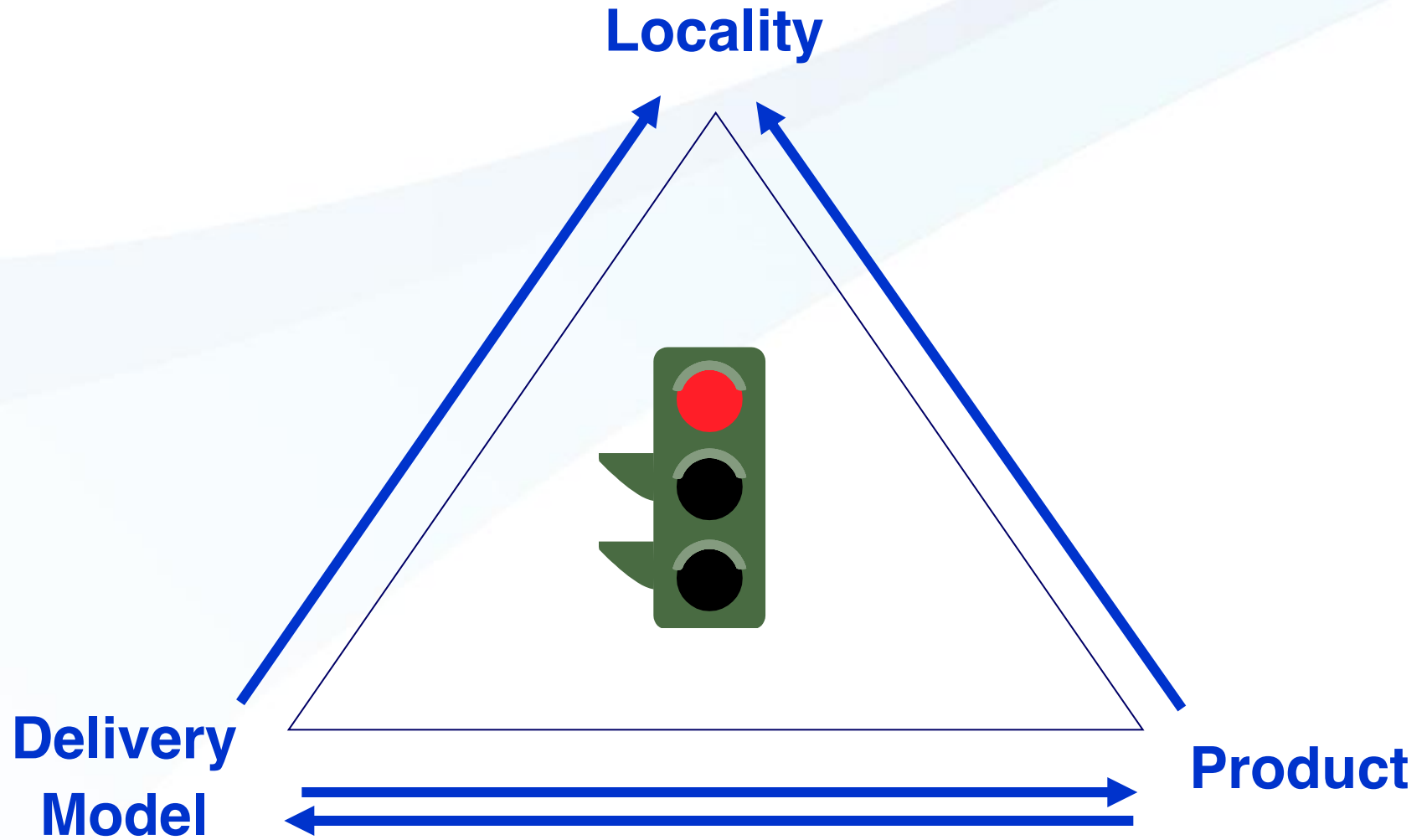
- Disaggregated Delivery – Skill Access
- High Value/Low Cost Services - Competitiveness
- Standard Solutions – Pull Through Value
- Local Know How – Common success motivators
- Culture – Work Share Leverage
- People – Growth & Movement
- Value to the Customer – Best option, Best value
- Competitive advantage – Unique Offering

Success Dynamic - Risks



- Disaggregated Delivery – Tools & Methods
- High Value/Low Cost Services – Quality & Expectation
- Standard Solutions - Temptation
- Local Know How – Enough to be dangerous
- Culture – Yes means no
- People – Motivation & Engagement
- Value to the Customer – Not needed, Not wanted
- Competitive advantage – Half Life

Success Dynamic - Dangers



- Disaggregated Delivery – Failed Schedule
- High Value/Low Cost Services – Poor Quality
- Standard Solutions – Wrong Solution
- Local Know How – Failed Approach
- Culture – Improper Methodology
- People – Negative Mix
- Value to the Customer – Cost not Value
- Competitive advantage – Unexpected Impact

Keys to Success – Predictable & Sustainable Performance

- Early Customer Solution-eering
- Long term Strategy
- Simplification
- Innovation
- Options
- Motivate and engage the Employees
-A Platform that Enables all the above....

Final Thoughts

- The future ain't what it used to be
- Insanity is....same approach...expecting a different outcome
- ARE WE A LEARNING INDUSTRY?

■ And finally:

This is a simple business if we do the simple things well

....it's just not as simple as it used to be!

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Thank You

.....Questions?

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