

Clean Technology and Sustainability

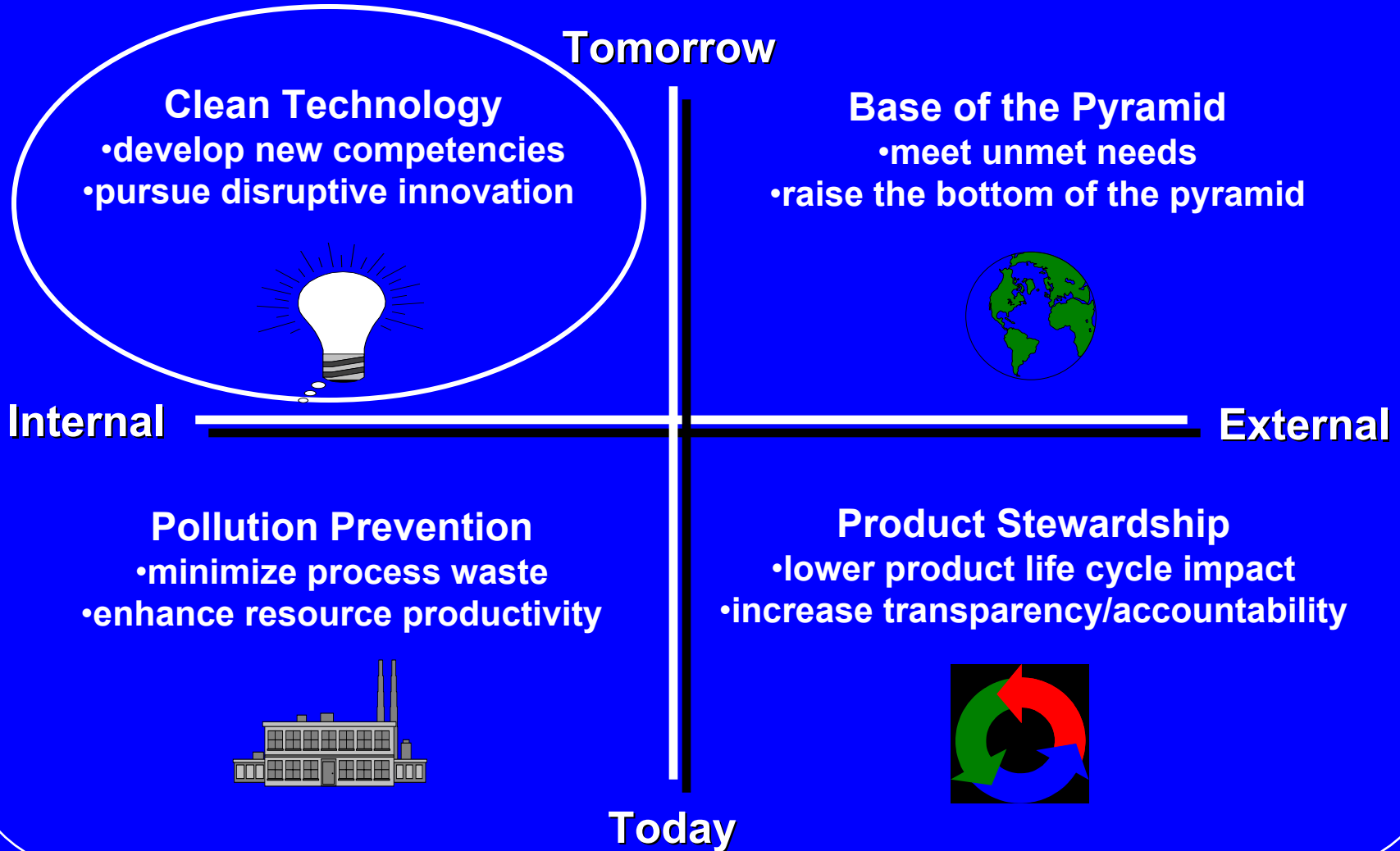


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The Sustainable Value Model



Point-of-use Water Treatment

Wireless Telecom

LED Lighting

Distributed Generation

Life Sciences

OLEDs

Solar Energy

Biomaterials

Microturbines

Micro-Finance

Biomimicry

Information Technology

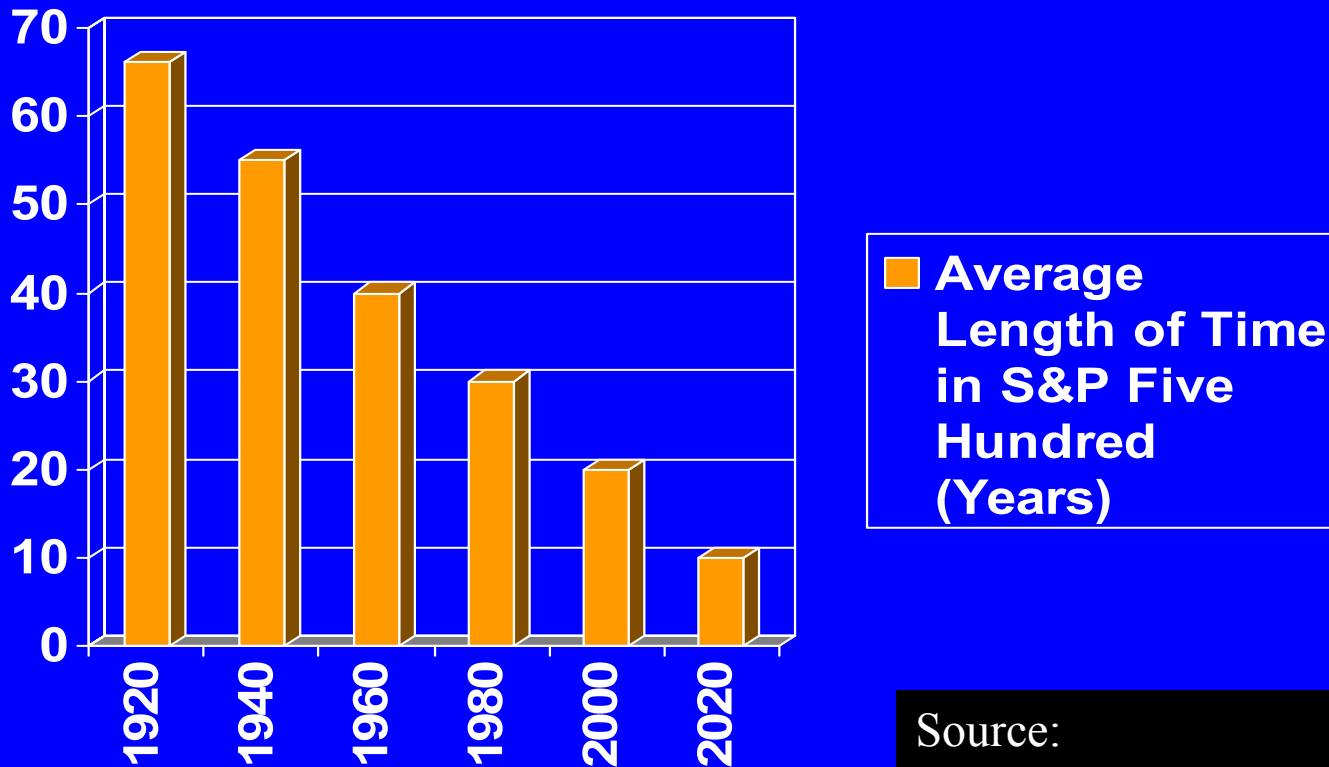
Fuel Cells

Who has heard of Joseph Schumpeter?

“... the problem that is usually being visualized is how capitalism administers existing {industrial} structures, whereas the relevant problem is how it creates and destroys them.”

Joseph Schumpeter, 1942
Capitalism, Socialism and Democracy

Creative Destruction is Accelerating



Turnover Rate:
1920: 1.5% per year
2020: 10% per year

Source:
Foster, R. and Kaplan, S.
Creative Destruction, 2001

“By 2020, more than three quarters of the S&P 500 will consist of companies we do not know today.”

Continuous Improvement vs. Creative Destruction

Strategies for Greening

Focus on Existing:

*products
processes
suppliers
customers
shareholders*

Characteristics:

*Incremental
Continuous Improvement
Rationalizes Industry*

Example: Responsible Care

Strategies for Beyond Greening

Focus on Emerging:

*technologies
markets
partners
customers
stakeholders*

Characteristics:

*Discontinuous
Creative Destruction
Restructures Industry*

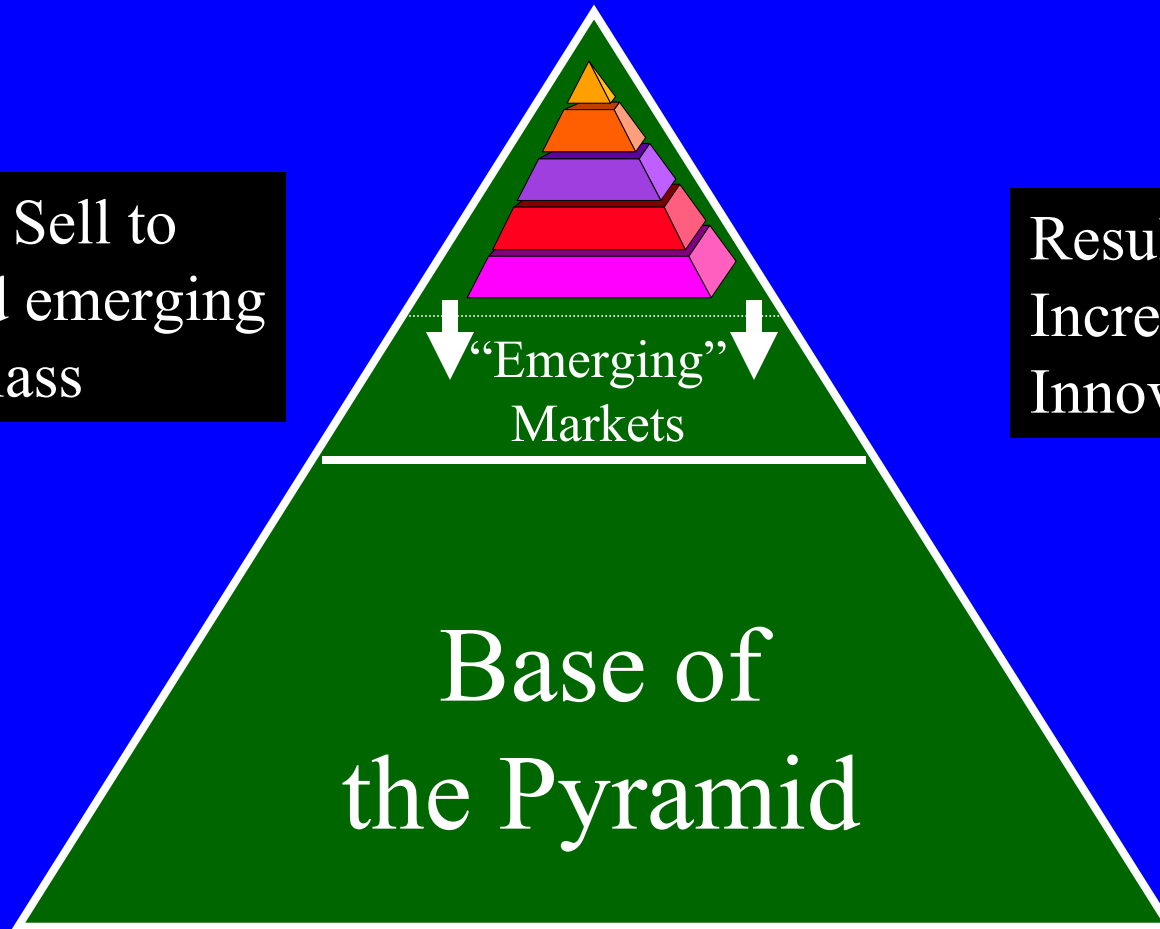
Example: Chemical Industry

**Question: Where will the
growth come from?**

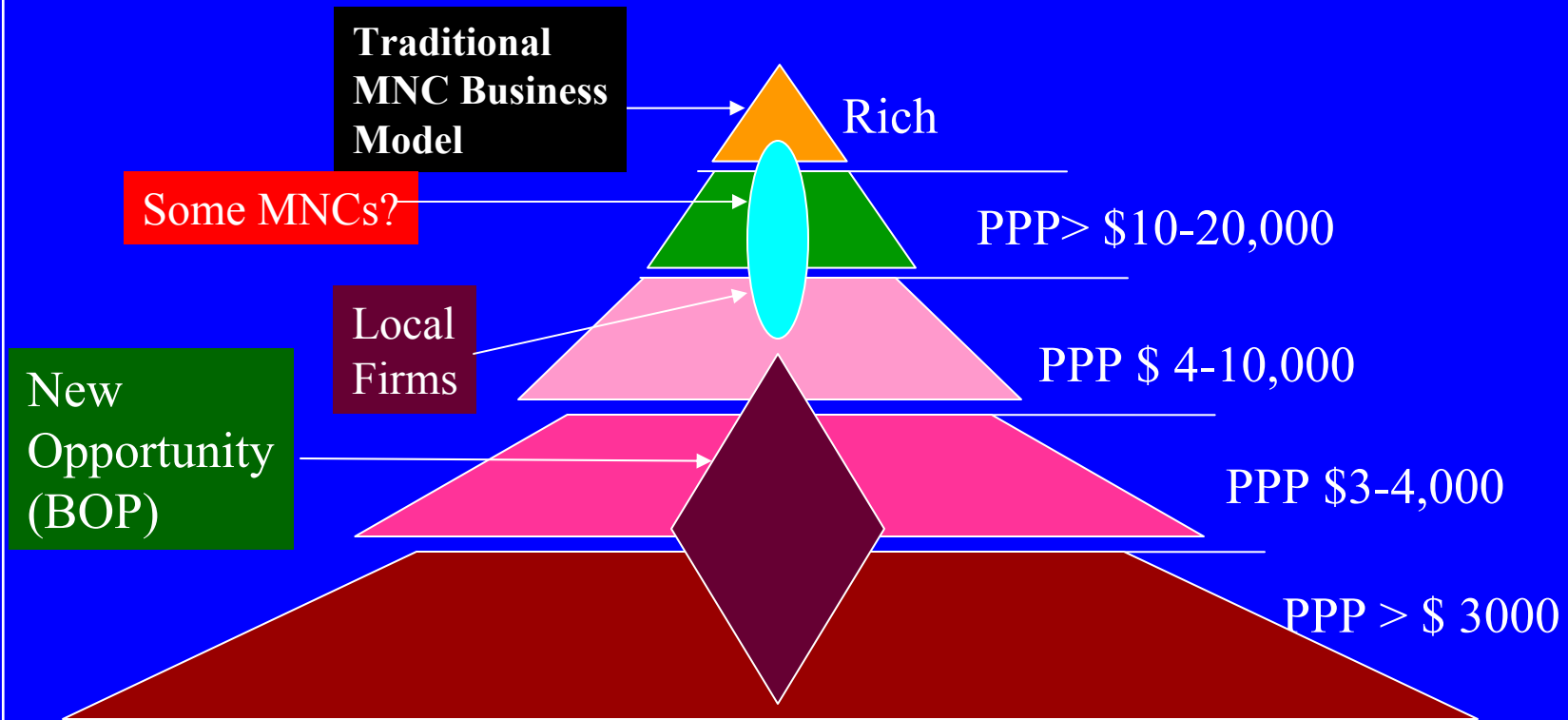
Emerging Markets: Incremental Extension

Strategy: Sell to elites and emerging middle class

Result: Incremental Innovation

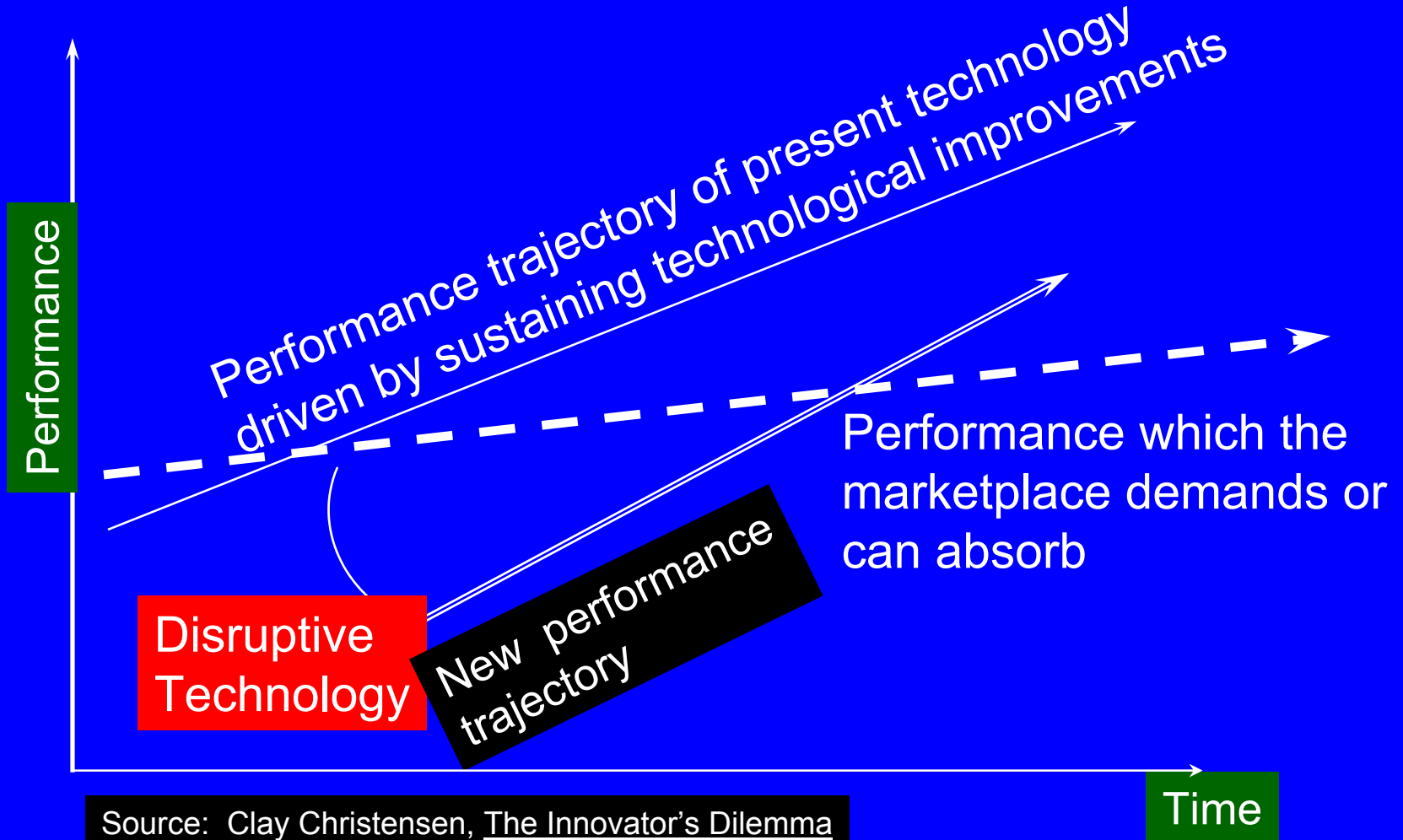


Emerging Market vs. BOP Focus



- Find the most exciting growth markets of the future
- Incubate the sustainable technologies of tomorrow

Disruptive Innovation: Incubating from the Bottom-Up



Source: Clay Christensen, The Innovator's Dilemma

“Down Markets”: Quirky and Small?



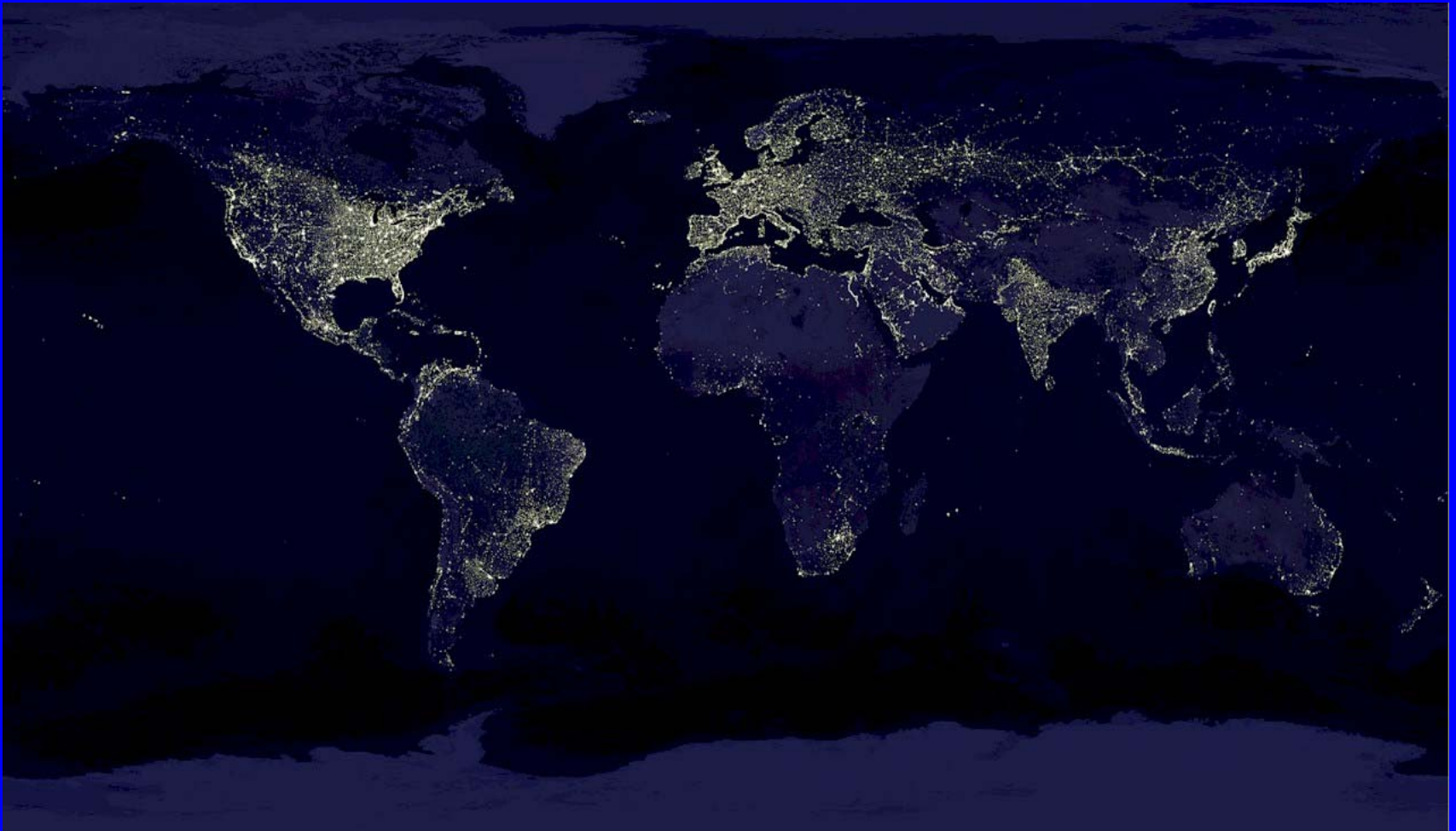
Base of the Pyramid: The Ultimate “Down” Market

Example: DG
2B without
power

Result:
Massive
growth
opportunity



Where is the Opportunity?



All sustainable technologies are disruptive, but not all disruptive technologies are sustainable