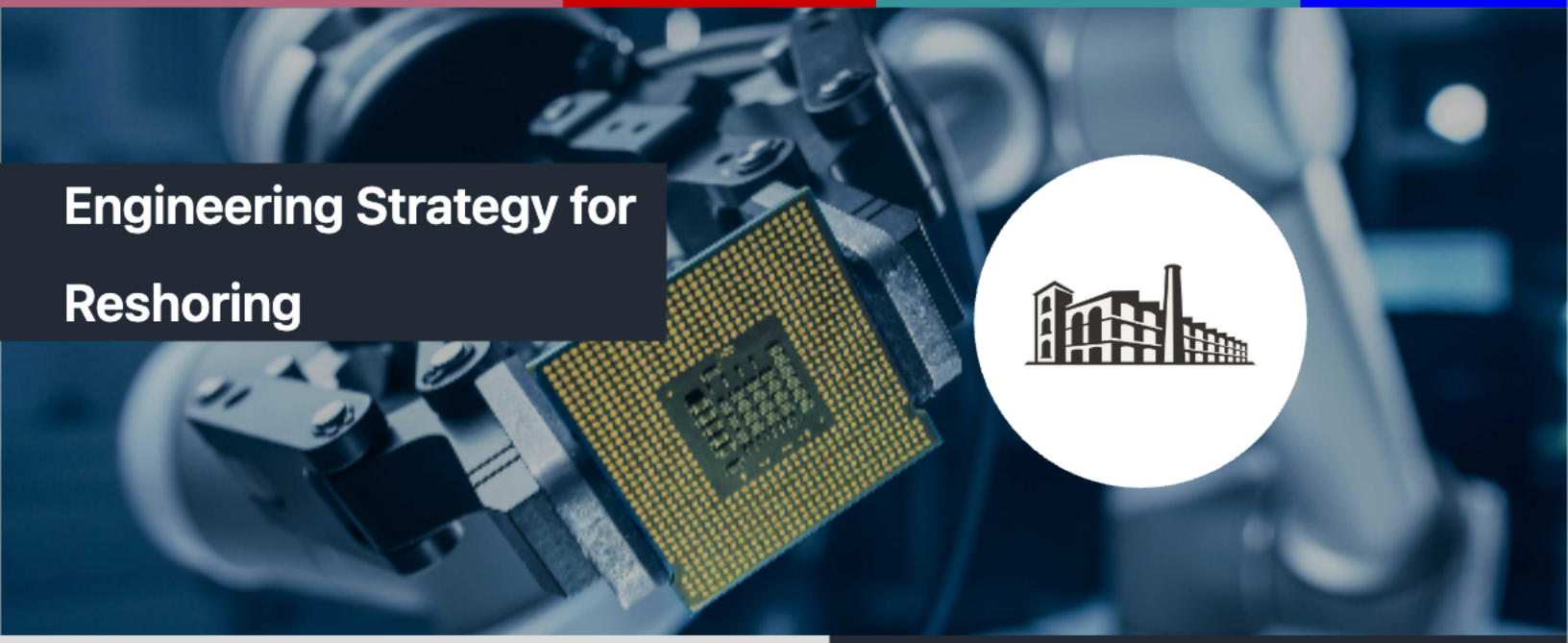
Product design / development / engineering | Industry components | Improved process performance | Ranking Systems



Engineering Strategy for Reshoring

BUSINESS PROBLEM

Re:Build seeks to find industries and value chains where it can leverage its capabilities and investments to successfully and profitably build manufacturing related businesses. Therefore, the project is to search very widely for opportunities, and assess those that look promising for addressing ReBuild's business problem by considering market intelligence, current programmatic pursuits, and existing portfolio strengths and capabilities. The project will thereby provide an independent, data-driven assessment of reshoring opportunities and Re:Build's product portfolio strategy.

APPROACH

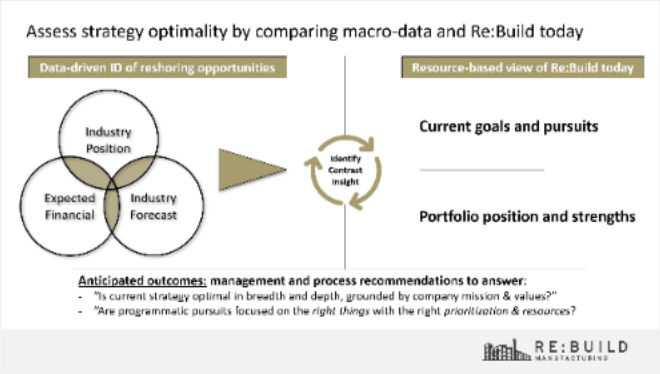
Conduct global trade and supply chain value assessment to identify and rank attractive product archetypes to reshore; validate business development efforts against company stated goals; map existing product portfolio to form resource-based view of capabilities. Compare and contrast aforementioned results to yield insights on strategic positioning.

DATA SOURCES

US trade data by HTS-10 product codes (US Trade Commission);
US Supply-Use Table by industry (Bureau of Economic Analysis);
OECD Input-Output Table by country and industry (OECD);
industry sector profitability data (multi-source, aggregated);
industry sector growth projections (multi-source, aggregated);
Total Cost of Ownership Calculator (Reshoring Initiative)

Data Types and Format

Time-series, MS Excel, and CSV



Author: Jack Easley

IMPACT

Re:Build has many opportunities knocking on its doors as the young company enters growth stage with a portfolio of capabilities. Against such backdrop is a strategic question of how it may best achieve its aspirational growth, balancing focus between capitalizing on existing products and endeavoring on new pursuits. Under such context, this project serves to provide an independent assessment of reshoring opportunities and uncover management/process recommendations to answer 1) "Is the company's current strategy optimal in breadth and depth, grounded by stated values?" And 2) "are the right things being pursued with the right prioritization & resources? A successful outcome will inform and help shape the company's growth strategy to achieve its long term mission.

DRIVERS

With both resiliency of extended global supply chain tested by COVID and the increase in geopolitical risk such as armed-conflicts in Europe, the idea of reshoring manufacturing capabilities has gained momentum both in popular press and in studied business decisions. There is interest to look broadly at what the prime candidates for reshoring are, and such analysis would be more useful when viewed under established strategy frameworks.

BARRIERS

The biggest barrier to the project are data availability and detail sufficiency. Specifically, global supply chain data availability, cross-source concordance, and levels of detail proved challenging to find and merge for insight.

ENABLERS

The project benefitted from direct support of supervisor and project sponsor as well as overall company culture of collaboration and openness to experiment.

ACTIONS

The key framework that enables project success is the Deming cycle of iterative development. As the project naturally evolves to maturity, it is important to set the overall framework but allow for room to absorb additional information to support a systems level solution on the strategy question.

INNOVATION

Macro-data analysis and join of information across sources to form a reshoring opportunity ranking model that produces results at a Harmonized System (HS) - 4 level of detail. This goes a step beyond traditional studies of reshoring which focus on generalized reshoring characteristics.

IMPROVEMENT

Establishment of a strategic tool based on synthesized HS roadmap to compare/contrast business positions today, near term expansion opportunities, and a gauge on "cost" to pursue for new ventures; the tool may also serve as a screen for assessment of new product strategic fit, general reshoring attractiveness, and Re:Build's capabilities to support rapid growth.

BEST PRACTICES

Ensure model interpretability and data source traceability.

OTHER APPLICATIONS

Immediate adjacency applications may include research in support of international trade policies and industrial investment decision support.