



in partnership with **MEXICONOW**



Border Trade Alliance

Presents:

Trade & Security: The Impact On Logistics

August 2, 2012
Four Seasons Hotel
Mexico City

TRADE AND SECURITY: *The Impact on Logistics*

BRINGING MANUFACTURING HOME

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August 2, 2012 – Mexico City



Rural Rail Transportation District



Asociación Mexicana de Parques Industriales



PARTNERS & ADVISORS



Complexity of Doing Business

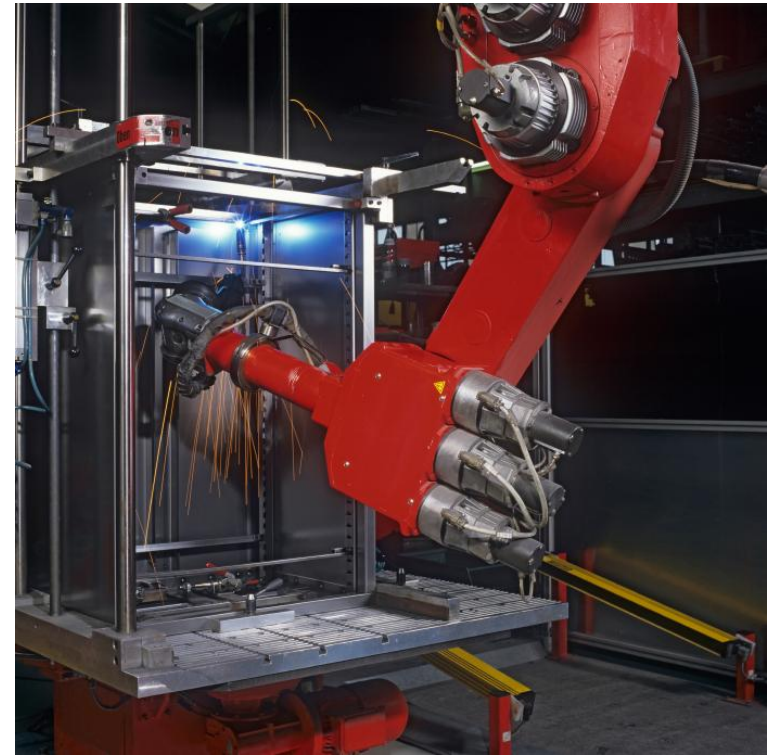


Level of Risk

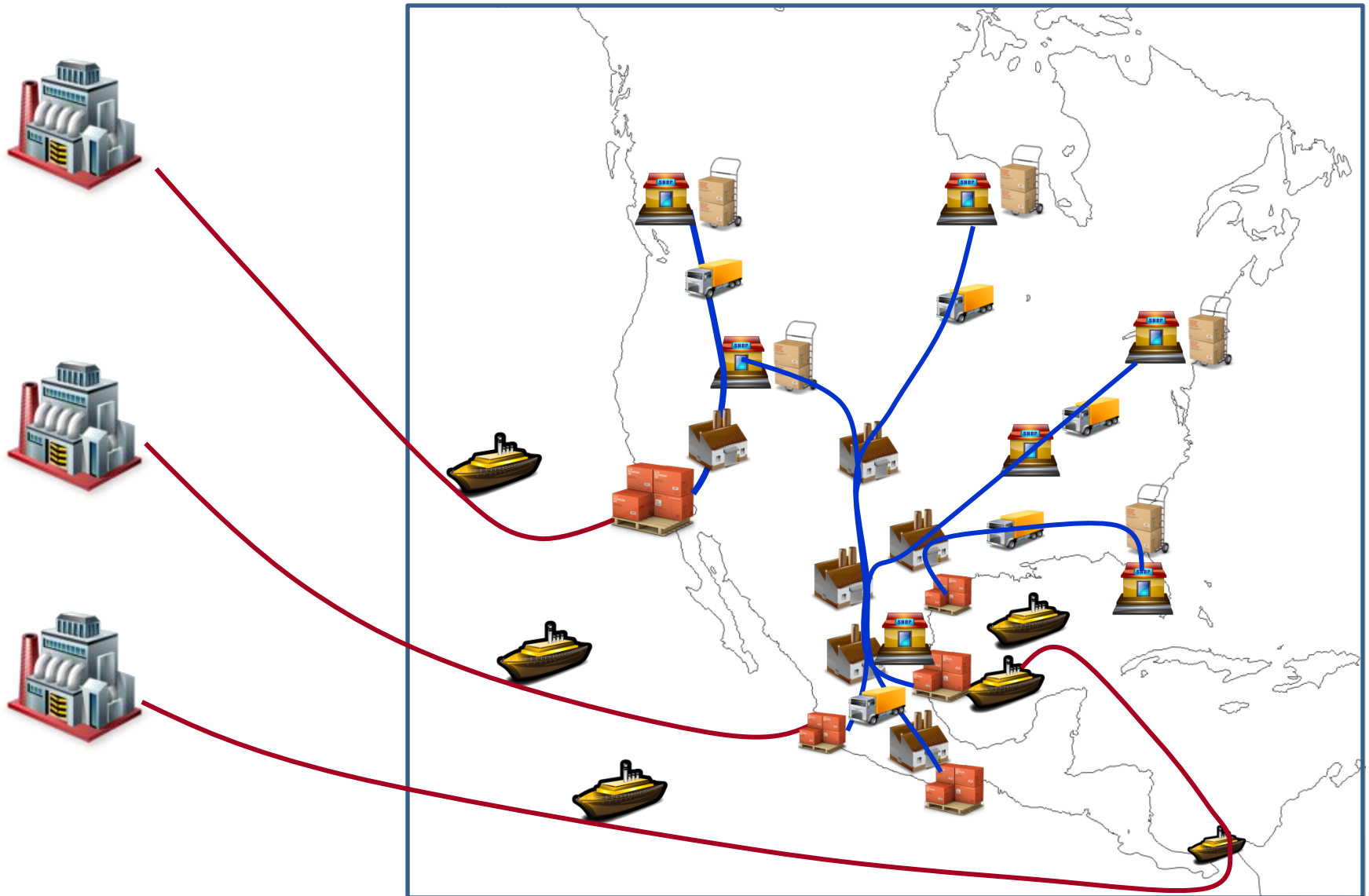
Risk Factor	China	Mexico	USA
Market Opportunity	High	Medium	Low
Labor Cost	Low	Medium	High
Facilities Cost	Low	Low	Low
Utilities Cost	Low	High	Low
Shipping Cost	High	Low	Low
Expediting Cost	High	Low	Low
Financial Cost	High	High	Low
Bureaucracy Cost	Medium	Medium	Low
Security Cost	Low	High	Low
Inventory Level	High	Low	Low

The Impact on Logistics: How?

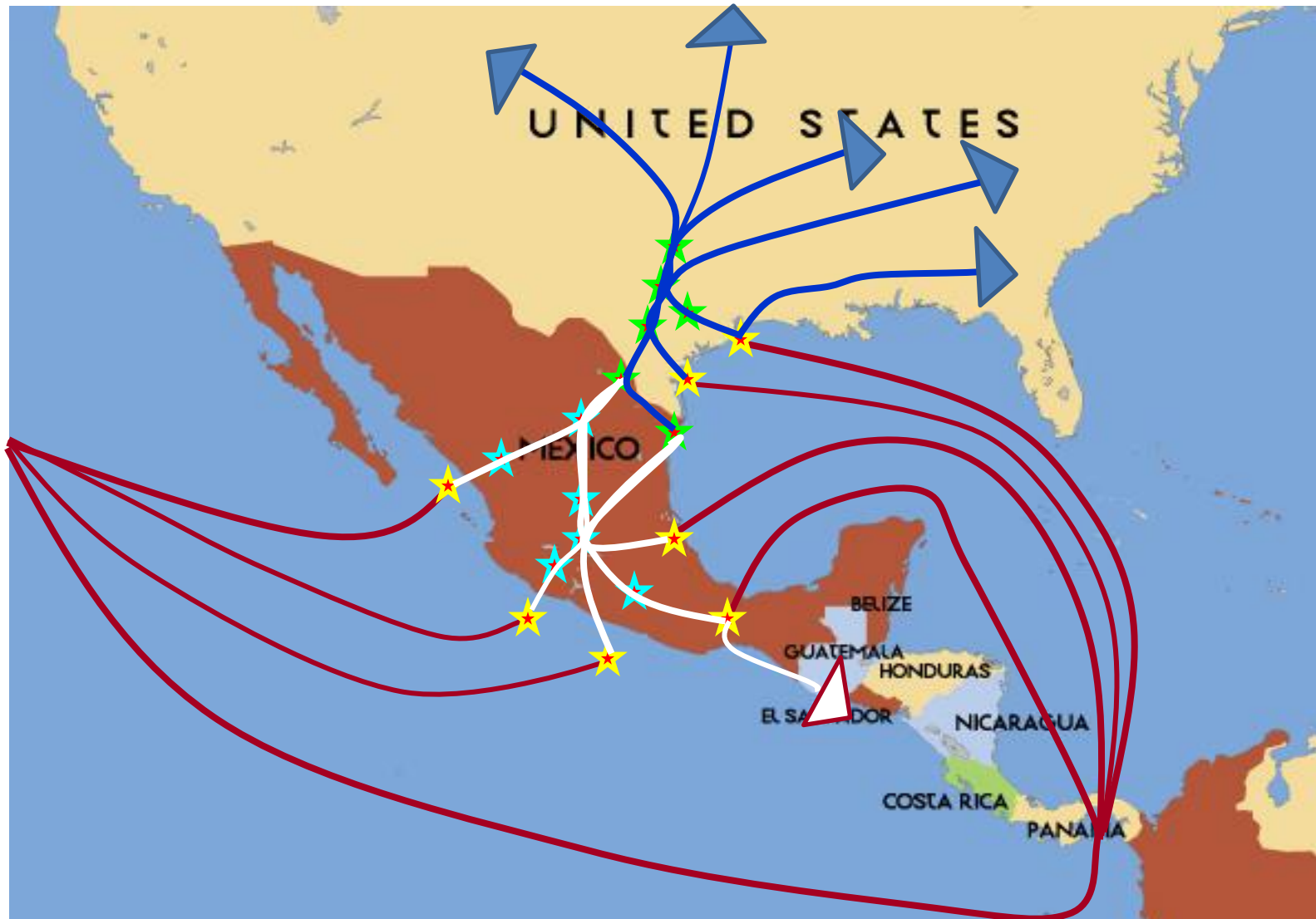
- Abandoning China is not an option for many firms.
- Postponement is an option:
 - Manufacturer owned?
 - 3PLs?
 - Distributors?



Manufacturing Postponement



Logistics Postponement



Manufacturer Owned

- Advantages:
 - Customer contact
 - Brand protection
 - Intellectual property protection
- Disadvantages:
 - High cost
 - Lack of a sales and marketing team
- Enablers:
 - Automation



3PL

- Advantages:
 - More locations close to customer (lower cost)
 - Outsourcing
- Disadvantages:
 - Lack of market touch
 - Product knowledge
 - Brand promotion
- Enablers:
 - ISO and lean process developments



Distributors

- Advantages:
 - Sales and marketing reach
 - Local presence
 - Customer relationships
- Disadvantages:
 - Manufacturer trust
 - Investment
- Enablers:
 - Alliances



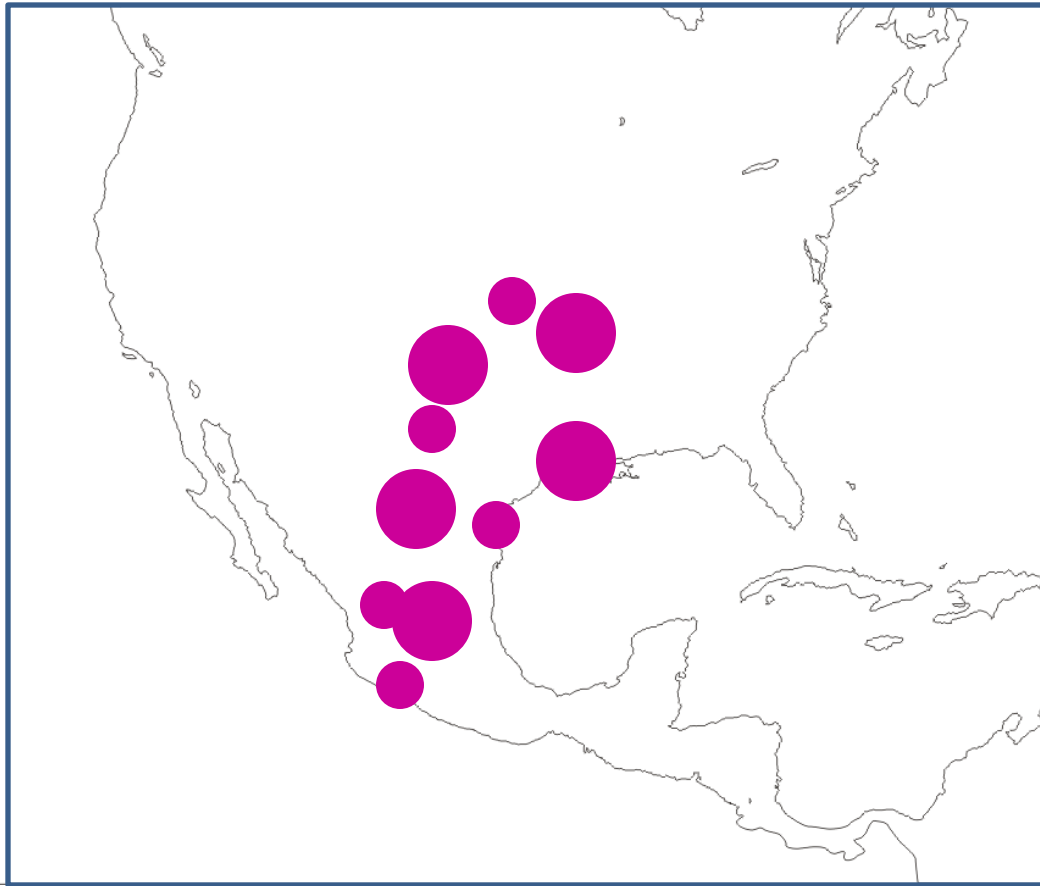
Why Postponement?

- Asset Reduction
 - Improved forecasting (less inventory)
 - Reduced cost of inventory in supply chain
- Agility
 - Better customer intelligence
 - Quicker response to changing customer needs

What Must be Done

- Support the vision
 - Demonstrate how it will work
 - Create the brand for the region
- Reach out to distributors and logistics firms positioned to be players
- Control risk

Bringing Manufacturing Home



$$\text{ROI} \uparrow = \frac{\text{Revenue} \uparrow - \text{Expenses} \downarrow}{\text{Assets} \downarrow}$$

Bringing Manufacturing Home

✓ Manufacturers Location Calculator



Best Practice:
Lean Manufacturing

$$\text{ROI} \uparrow = \frac{\text{Revenue} - \text{Expenses} \downarrow}{\text{Assets}}$$

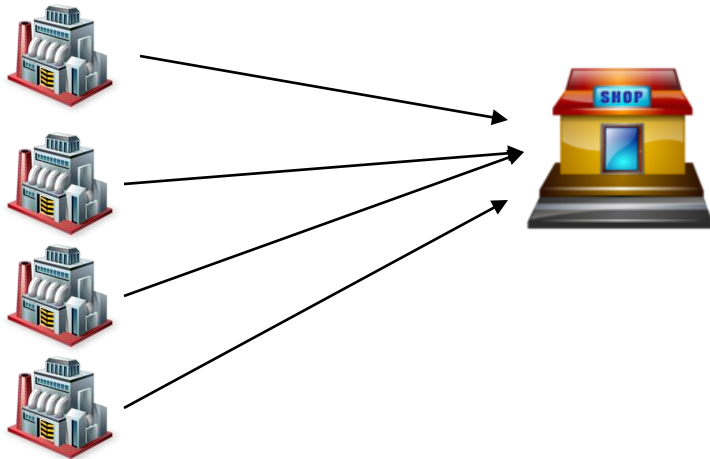


Best Practice:
Market Penetration

$$\text{ROI} \uparrow = \frac{\text{Revenue} \uparrow - \text{Expenses}}{\text{Assets}}$$

Bringing Manufacturing Home

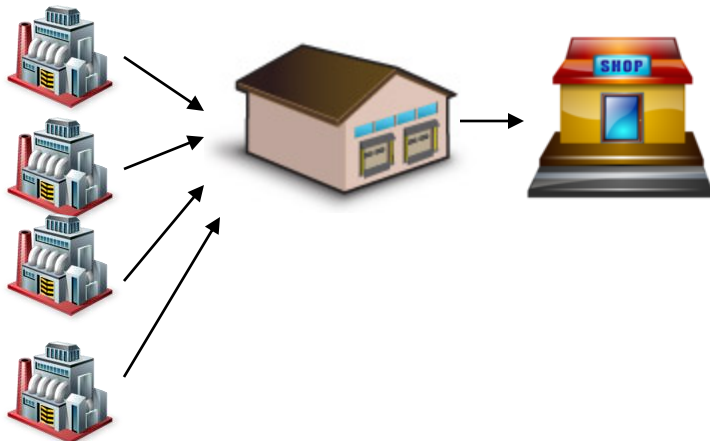
✓ Distributors Value Calculator




**Best Practice:
Lead Time**

Lead Time  → Inventory 

$$\text{ROI} \downarrow = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets} \uparrow}$$



**Best Practice:
Lead Time**

Lead Time  → Inventory 

$$\text{ROI} \uparrow = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets} \downarrow}$$

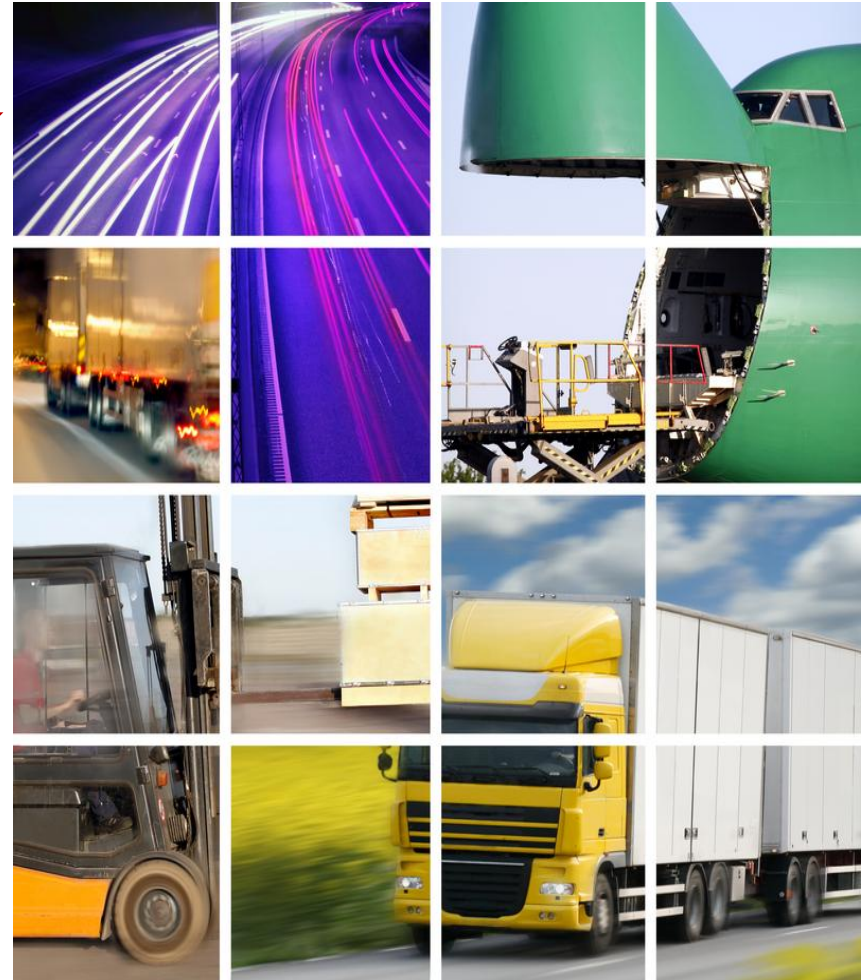
Bringing Manufacturing Home

✓ Supply Chain Solution Providers

- Inventory
- Facilities
- Logistics

$$\text{ROI} = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets}}$$

A green arrow points up to the ROI variable, and a red arrow points down from the numerator (Revenue - Expenses) to the denominator (Assets).



✓ Industrial Parks & Cities

- Skilled Work Force
- R&D
- Logistics Capability

$$\text{ROI} = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets}}$$

A green arrow points up to the ROI variable, and a red arrow points down from the numerator (Revenue - Expenses) to the denominator (Assets).

Bringing Manufacturing Home

✓ Automation & Technology Providers

- Streamlining Operations
- Lower Overhead Cost

$$\text{ROI} = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets}}$$

The equation is visually enhanced with a green upward arrow next to the equals sign and a red downward arrow next to the denominator 'Assets'.

✓ Federal & State Agencies ROI calculator



- Automation
- Skilled Labor

$$\text{ROI} = \frac{\text{Revenue} - \text{Expenses}}{\text{Assets}}$$

The equation is visually enhanced with a green upward arrow next to the equals sign and a red downward arrow next to the denominator 'Assets'.



What Do We Need to Know?

- Labor content and cost versus the other components in the location equation
 - Calculations are straightforward but have not been done
- How to calculate the size and value of the market
 - Forecasting on more than government economic data
 - Reaching inside the customer and market segmentation process
- How to improve forecasting through local market knowledge
 - Building alliances, sharing knowledge, establishing forecasting analyses that leverage richer, more timely information

What Do We Need to Know?

- How to develop proper support for value add manufacturing (cluster development)
 - Selecting the right industry verticals and providing the right educational and infrastructure support
- How to provide investment funding for industrial development
 - Understanding what resources are necessary for SMEs to conduct value add manufacturing and developing programs to make them available
- How to decrease costs and increase the ease of doing business for the right industries
 - After selecting the right verticals and company types, streamlining processes that hinder business investment

What Does this Mean to Mexico?

- Mexico is playing and will play an even bigger part in this “distributed” manufacturing model
- Distributors and logistics firms have an important role to play
 - Mexico needs to develop these industries
 - Ports and free trade zones can support the new manufacturing model
 - Mexico’s market is a strong attraction for postponement as well

Bringing Manufacturing Home Consortium

- Analyses on the cost structures of manufacturing zones as compared to North America and their impact on a firm's ROI
- Calculation with a comprehensive set of cost implications for best practices in differing manufacturing environments
- Comparisons of efficient supply chain best practice solutions and the impact on decisions as to where to produce

THANK YOU!



**GLOBAL SUPPLY CHAIN
LABORATORY**

TEXAS A & M UNIVERSITY

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