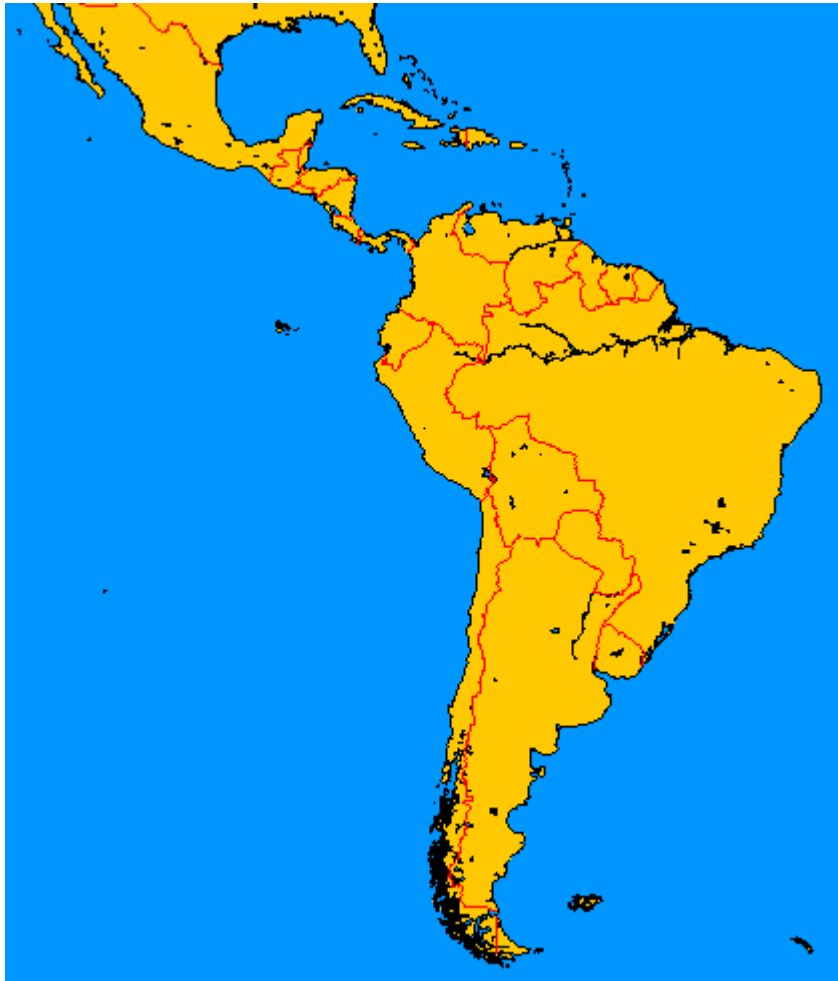

HUNTSMAN

Polyurea in Latin America

Areas Covered



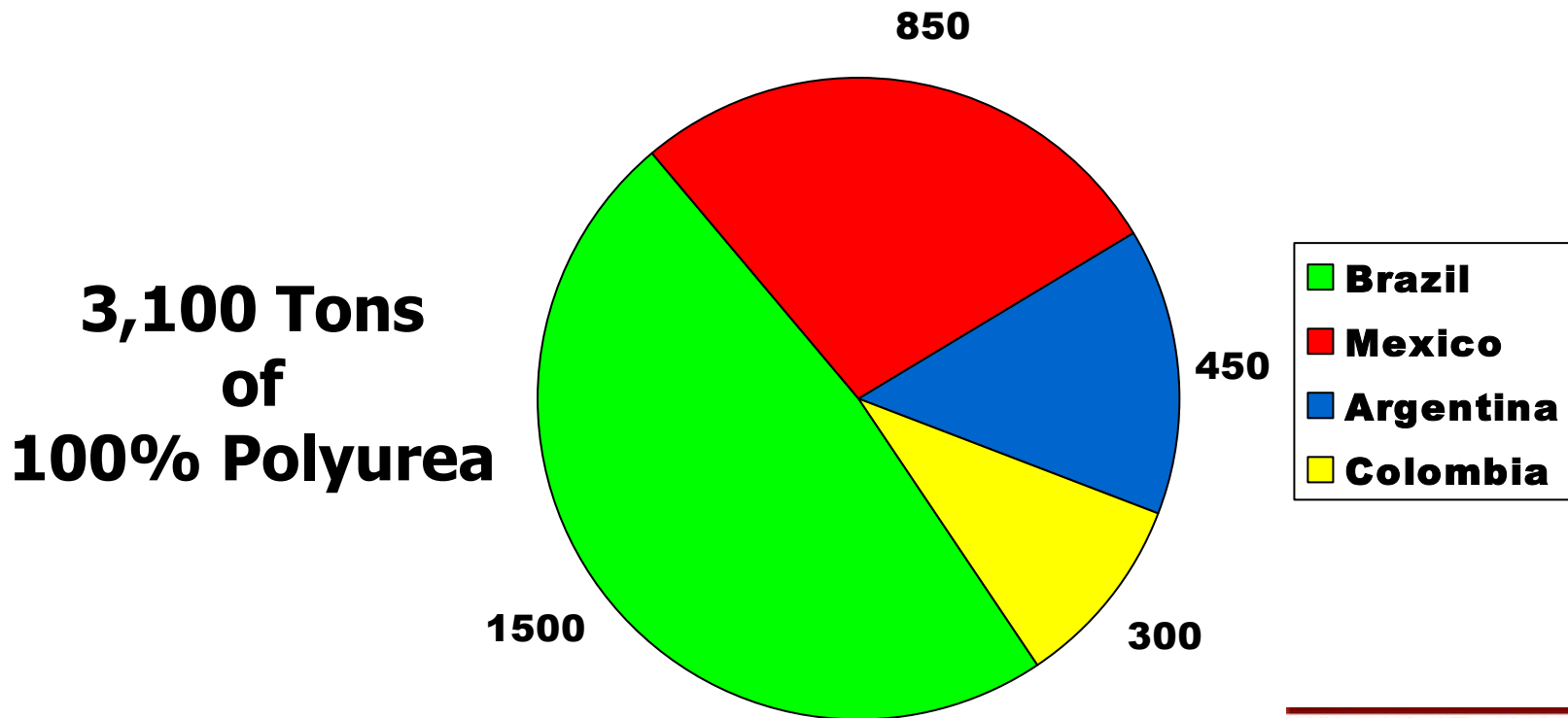
- Some developments in Brazil and Argentina, little elsewhere
- All of Latin America typically represents a market 10% of the size of the US
- Brazil is about 50% of most markets in Latin America

State of the Industry

- Lots of interest in physical benefits of Polyurea
- Latin Americans love new technology, but ...
 - Very difficult to translate that interest into real value
 - Tendency to favor lower cost options whether hybrids or other materials
- Many want to enter
- Some companies have had success
- Some off shore companies work through Distributors
- Some off shore companies use an approval and educational process for Applicators
- Some off shore companies provide machinery
- Some local Systems Houses / Formulators are working to develop systems

Hypothetical Market Size

- No hard numbers because of embryonic state of the industry
- Size estimates also clouded by hybrid systems
- Based on accessible coatings market



Advertising & Marketing

- Many companies advertise PUR or Hybrids
- Few actually have advanced beyond primary or secondary generations
- Most marketing is:
 - One-on-One, B2B
 - Application to test areas and then waiting beyond life cycle of competing materials like PU or Epoxy

Evolution of the Industry in the Future

- Dependent on long term reputation of participants.
- Can not be seen to be opportunistic
- Long term commitment means just that
- Those items valued in NA may not be in SA, therefore new approaches are necessary
 - for example, selling quick cure is probably not much of an issue except in small applications.
 - Long term durability is valued, but reapplication costs of competing materials is low
- **Entrants must be clear on the risks, liabilities and rewards. They are not like North America, Europe or Asia.**

Barriers to Entry/Development

- Difficult to succeed with high prices
- Ready to use imports are too expensive and risky for local businesses
- Need local people on board to make the development/sale
- Local components may be necessary
 - Local producers will undercut imports every time
- Need to educate the market
- Need to “touch and feel” the product over time

Some current approaches to the market

- Using an agent
- Sending ready made formulation
- May have a mechanism to train/screen applicators
- Have difficulty selling because of price and competition from local materials
- Non-Latin entrants tend to look at the market opportunistically
- Local formulators are struggling to find the right combination of benefits, technology and price

The Typical Latin American Customer

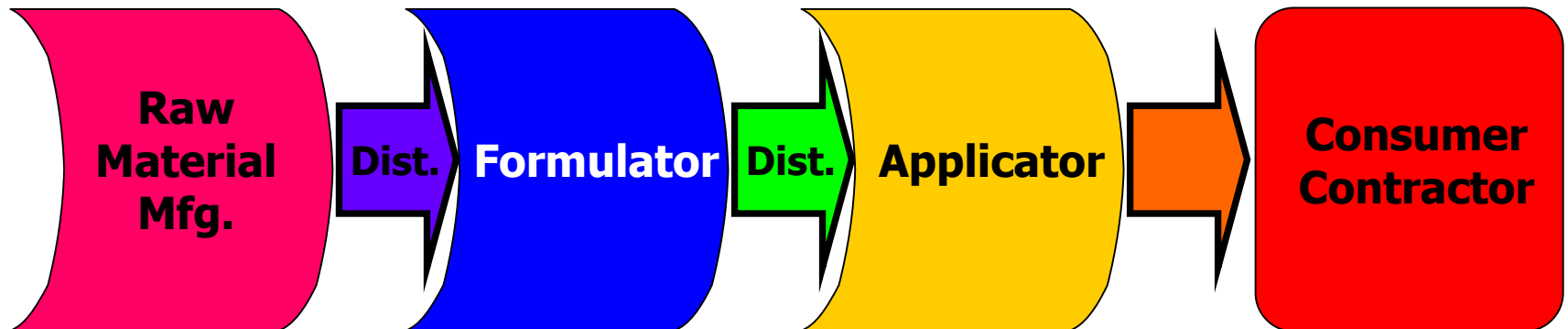
- Thinks the price for PUR is too expensive
- May not see the benefit of PUR features
- May not think the difference in performance is worth the extra cost
- Is conditioned to use existing materials
- Wants a guarantee
 - Supplier must develop applications technology and confidence locally to back it up

Applications in Mercosur

- Mostly Hybrid Systems
- Water Services
 - Swimming Pools
 - Water Tanks
- Petrochemicals
- Spill containment
- Flooring
 - Epoxy is dominant in Brazilian market
- XII Simpósio Brasileiro de Impermeabilização
 - São Paulo
 - October 1-3, 2003

Market Structure

An Opportunity Waiting



Lessons Learned

- Cultural - differences from North America and between countries
- Evaluation procedure is very long. A quick sale probably won't happen
- Supply chain is difficult especially with start up/development quantities unless someone holds working capital at risk
- Be careful of potential liability issues
- Difficulty of selling value versus price
- Governmental roadblocks - duties and tariffs to protect local manufacturers
 - Brazilian Law protects local producers with competing materials making the sale of value even more difficult
 - Outside Brazil it is still a hard sell
- The “Edge” - quality of local people and the confidence they sell.