

A close-up, high-angle photograph of a tire tread pattern. The tread consists of several parallel longitudinal grooves, each containing smaller, more complex sipes and blocks. The lighting is dramatic, with strong highlights on the raised parts of the tread and deep shadows in the grooves, creating a sense of depth and texture. The overall color palette is dark, ranging from black to dark grey.

# Tires & Rubber

## *Maps, Flows, & Frictions*

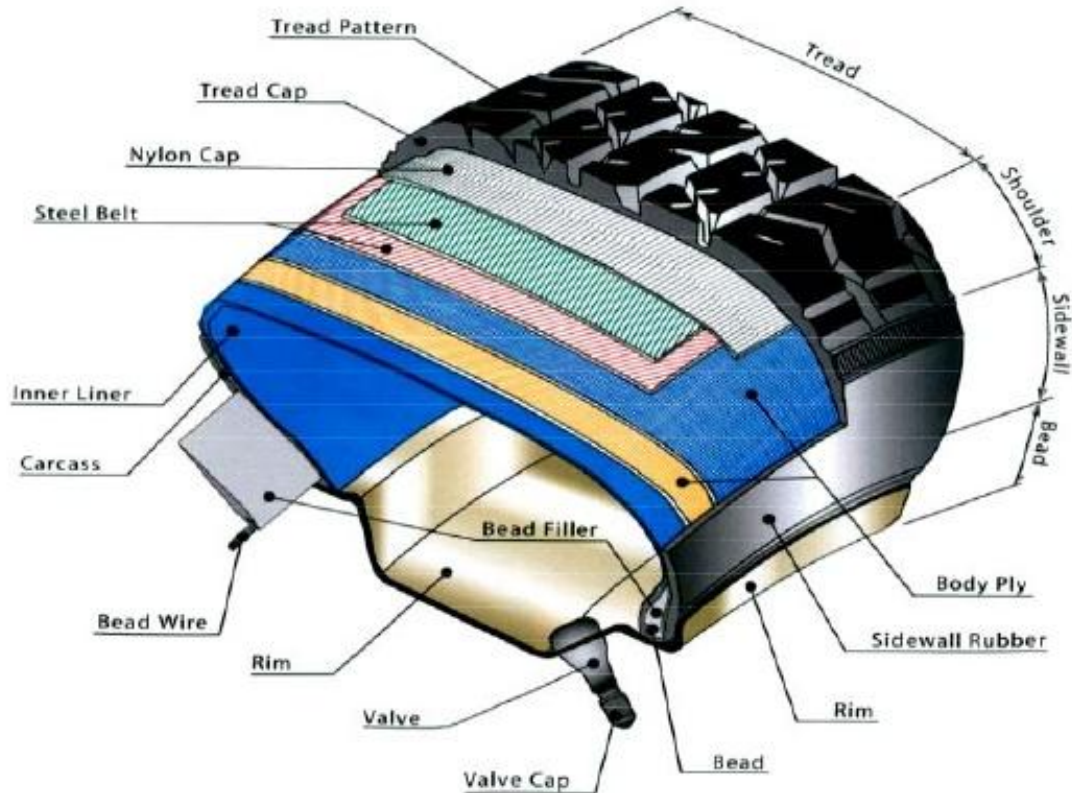
A presentation on International commerce by Alex Fonticoba



# What are Tires?

- Tires are the first (and hopefully) only point of contact between the driver and the road
- Modern tires are comprised of a blend of rubber and fabric along with other compound chemicals.
- They consist of a tread and a body. The tread provides traction while the body ensures support.
- Used on bikes, cars, trucks, busses, airplanes, etc.

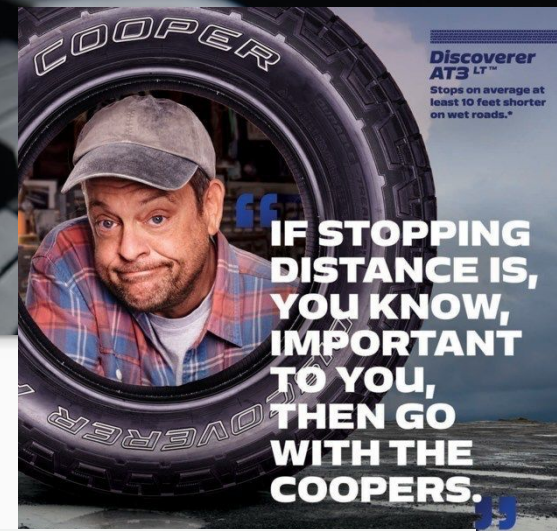
# Diagram:





# Advertising

- Tires are presented as keystone of safety when it comes to transport
- Reliability, function, and quality are highlighted
- The value of transport especially quick transport is irreplaceable in current society



# Tapping



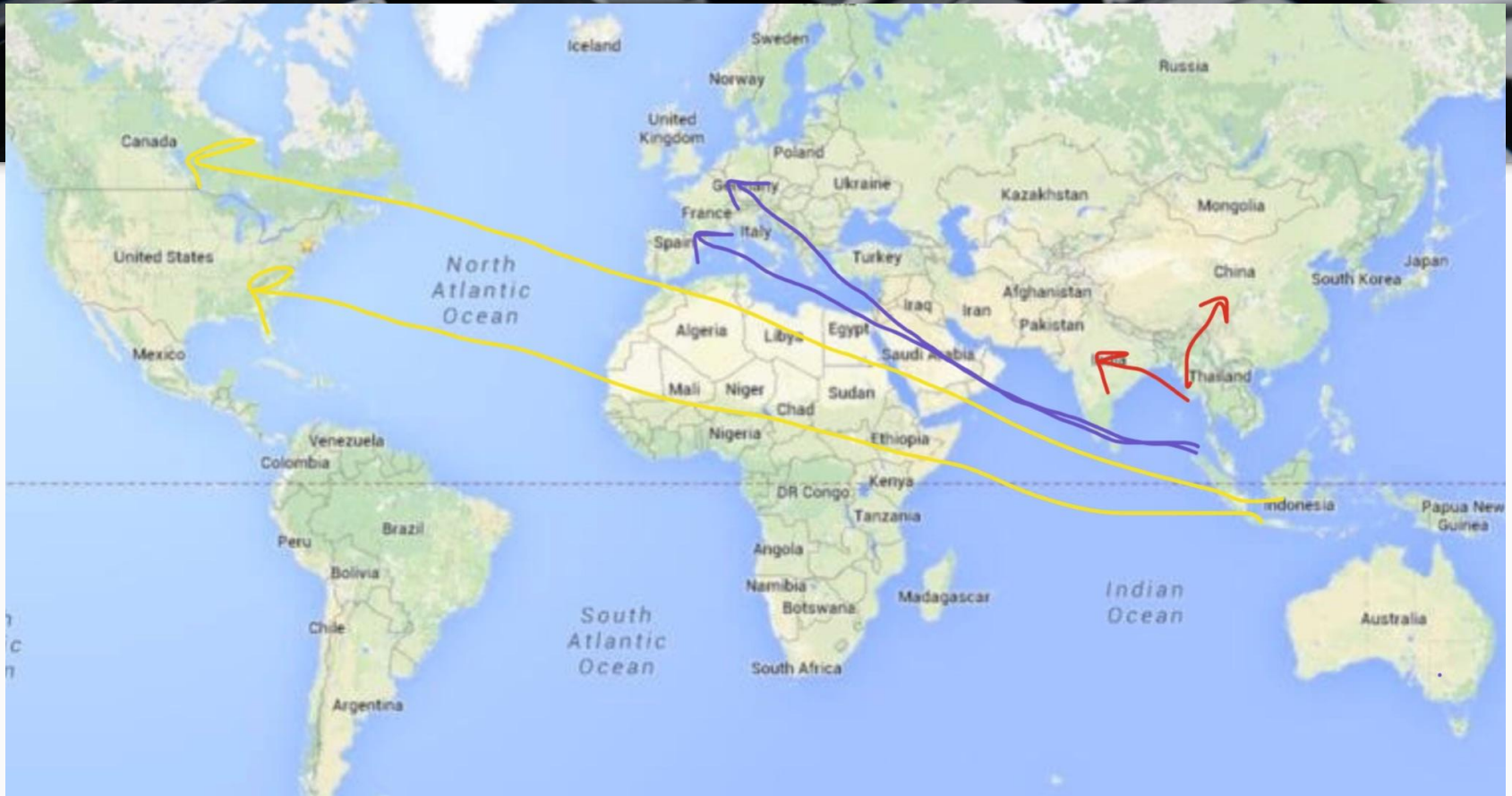


# Rubber is Treated, Onto the Tires

- Vulcanised rubber material is heated and kneaded
- Polyester fabrics are rubberized to support the shape of the tire
- Threads of metal are rubberized and laid along the inside of the tire rubber to provide the strength necessary to stay on the wheel

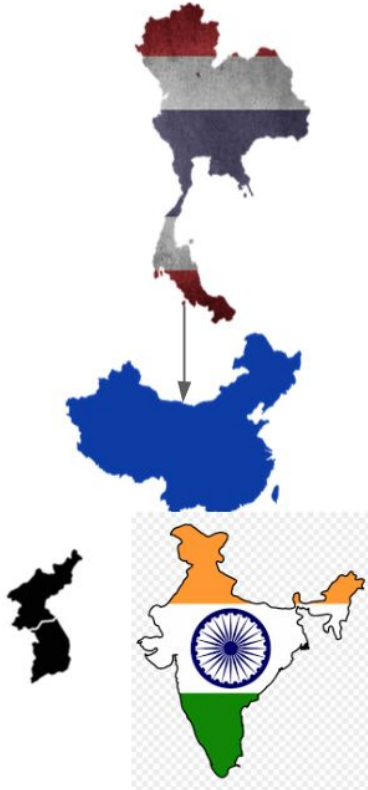


# Flow map of Rubber exportation



# Map of Rubber exportation

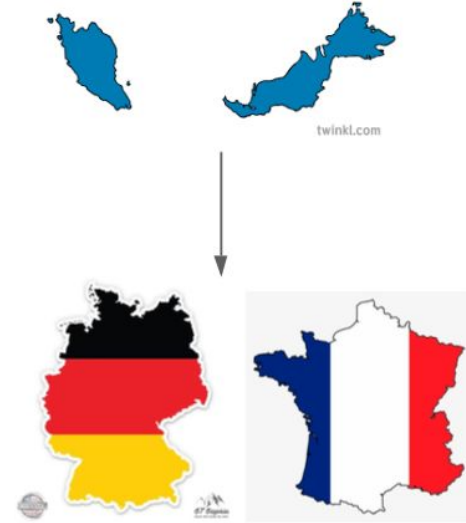
#1 Thailand



#2 Indonesia



#3 Malaysia





# Processes & Institutions that enable/Hinder these flows

- Coalitions of several small farmers in the 3 main exporting countries allow for a constant output of natural rubbers
- Huge Tire manufacturing businesses in the importing countries
- Safety testing and DOT standard



# Labor issues

- International Agency for Research on Cancer (IARC)
- Vulcanizing rubber releases N-nitrosamines and polycyclic aromatic hydrocarbons, both known carcinogens.
- “Tire Tattoos”
- 59609 measurements

collected from 523 surveys in  
333 factories between 1956 and 2003.



# Opposition & Social Movements

- Several Environmental groups oppose the production and disposing of Tires as plastic pollutants have harmful effects on the environment
  - Plastic ocean foundation
  - Plastic Pollution coalition
  - Clean ocean fund
- ReRubber is one of the leading groups advocating for change in the rubber industry.
- TIRE Act of 2008 by the House of Representatives





# Strategy to Combat problems

- Public Transport
- Sign petitions to remove rubber pollution from oceans
- Purchase items made of recycled rubber or reuse tires



A close-up, black and white photograph of a computer keyboard, showing the keys and their arrangement. The lighting creates strong shadows and highlights, emphasizing the texture and depth of the keys.

# Petitions

- [https://wwf.panda.org/act/take\\_action/plastics\\_campaign\\_page/#plasticspetitionform](https://wwf.panda.org/act/take_action/plastics_campaign_page/#plasticspetitionform)
- <https://www.change.org/p/united-states-environmental-protection-agency-immediately-remove-all-remaining-tires-debris-from-the-osbourne-tire-reef-osbourne-natural-reef-ft-lauderdale-florida-usa>



# Sources

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