

Low-Carbon Competitiveness and U.S. Hybrid Trucks

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What does it take to compete?

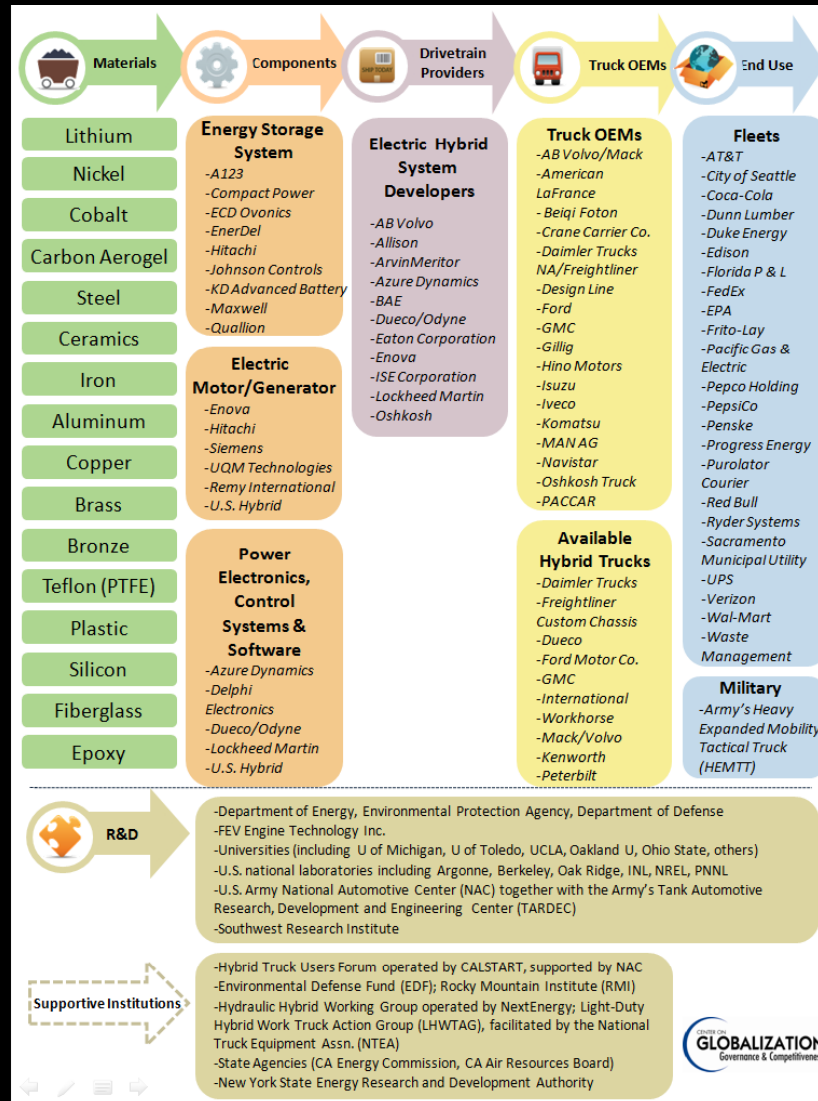


➤ **Nations**

➤ **Industries**

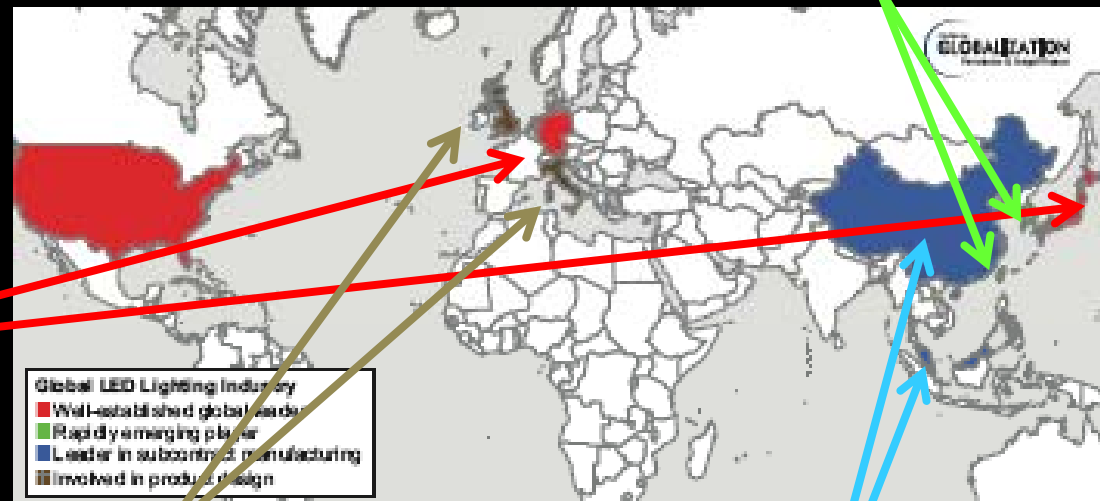
➤ **Firms**

Value Chain Analysis



Example: LED Lighting

Emerging players



Global leaders

Product designers

Subcontract manufacturers

Global Competitiveness



Low-Carbon Competitiveness

Manufacturing Climate Solutions

12 Studies

- **LED Lighting**
- **Solar power**
- **Wind power**
- **Hybrid Trucks**



Low-Carbon Competitiveness

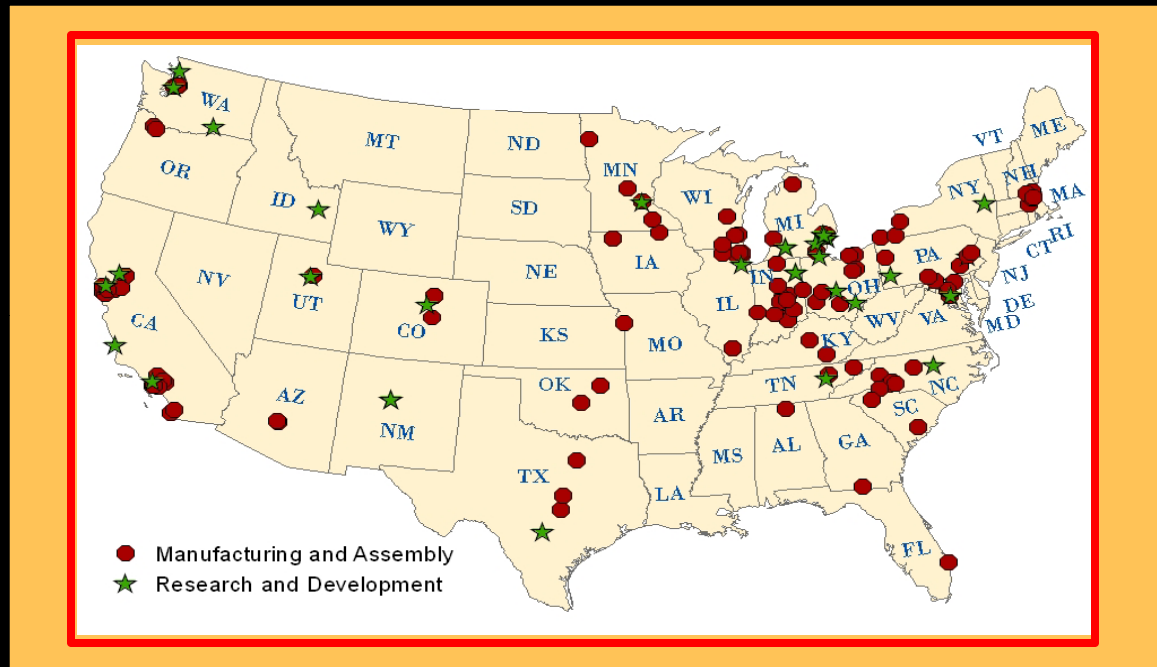
6 Characteristics:

1. Low Carbon
2. Manufacturers
3. Buyers
4. Innovation
5. Synergies
6. Smart Policy

1. Low Carbon

Hybrid Truck	CO ₂ saved per year
Medium Duty	3-8 tons
Heavy Duty	29-71 tons

2. Capable Manufacturers



- 25 truck makers
- 14 hybrid system developers
- Many more across the value chain

3. Large Buyers

95 truck fleets



4. Innovation

Hybrid
electric



Electric
vehicles

Hybrid
hydraulic

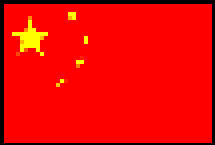
Plug-in
hybrid

Commercial
and military

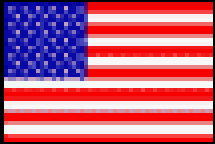
5. Synergies



What do these industry leaders have in common?



- **China** in solar panels



- **United States** in LED general lighting



- **Denmark and Spain** in wind power



6. Smart Policy



Support for R&D



Financial incentives

- rebates
- vouchers

Thank you for your attention!

