

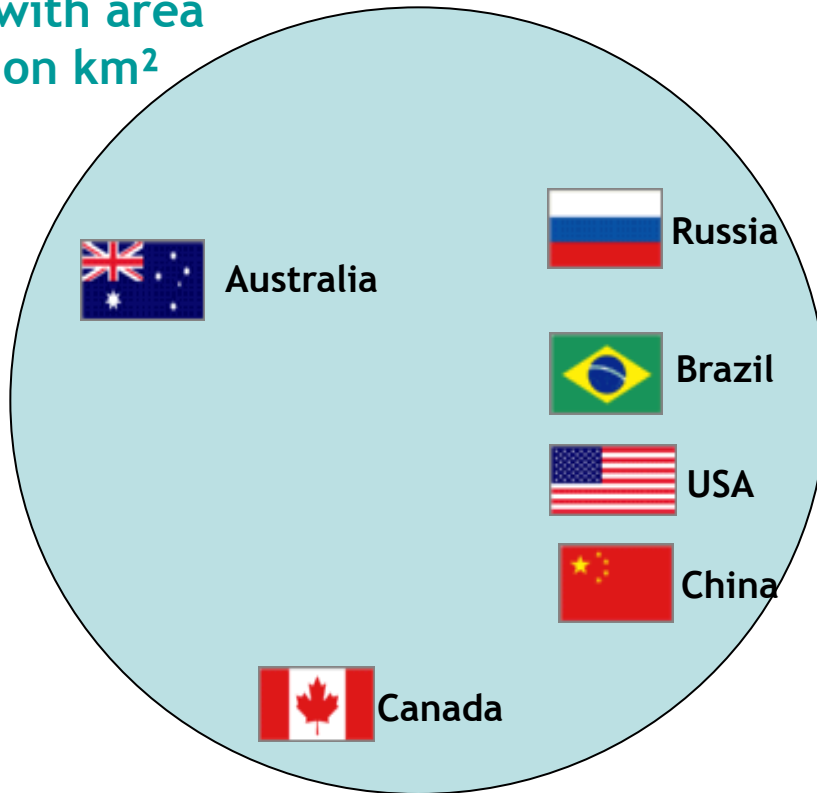
BRAZIL – Opportunities 2010/16



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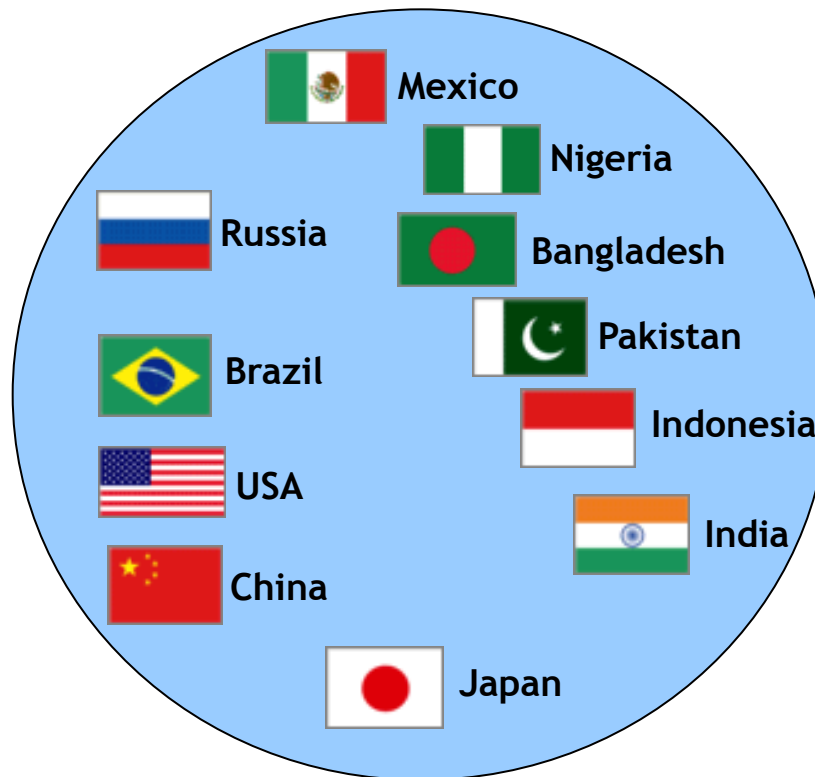
Brazil's Significance

Countries with area
> 4 million km²

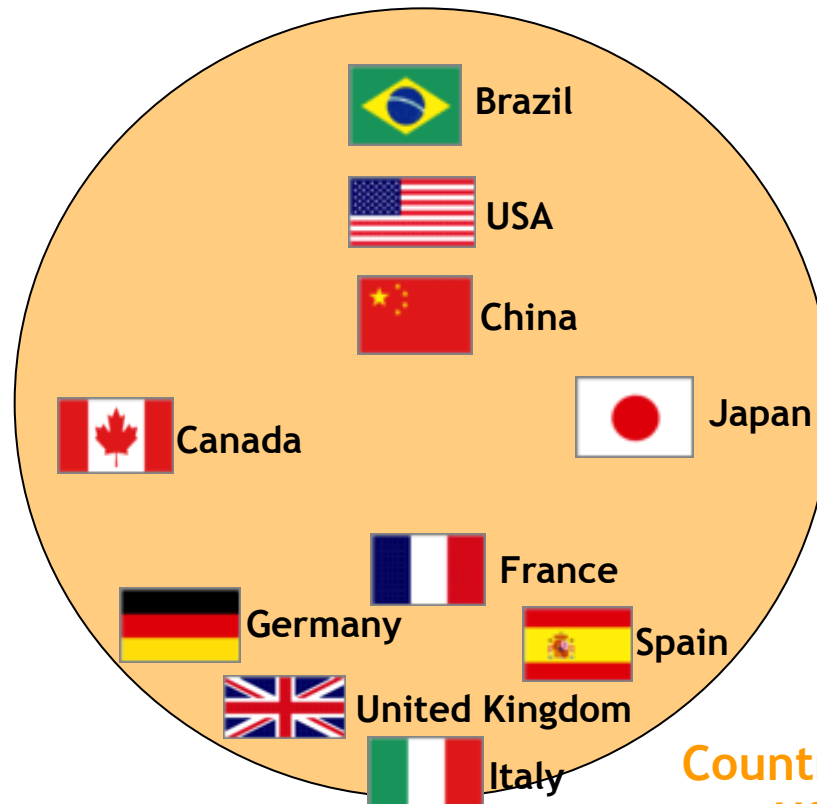


Brazil's Significance

Countries with population
> 100 million

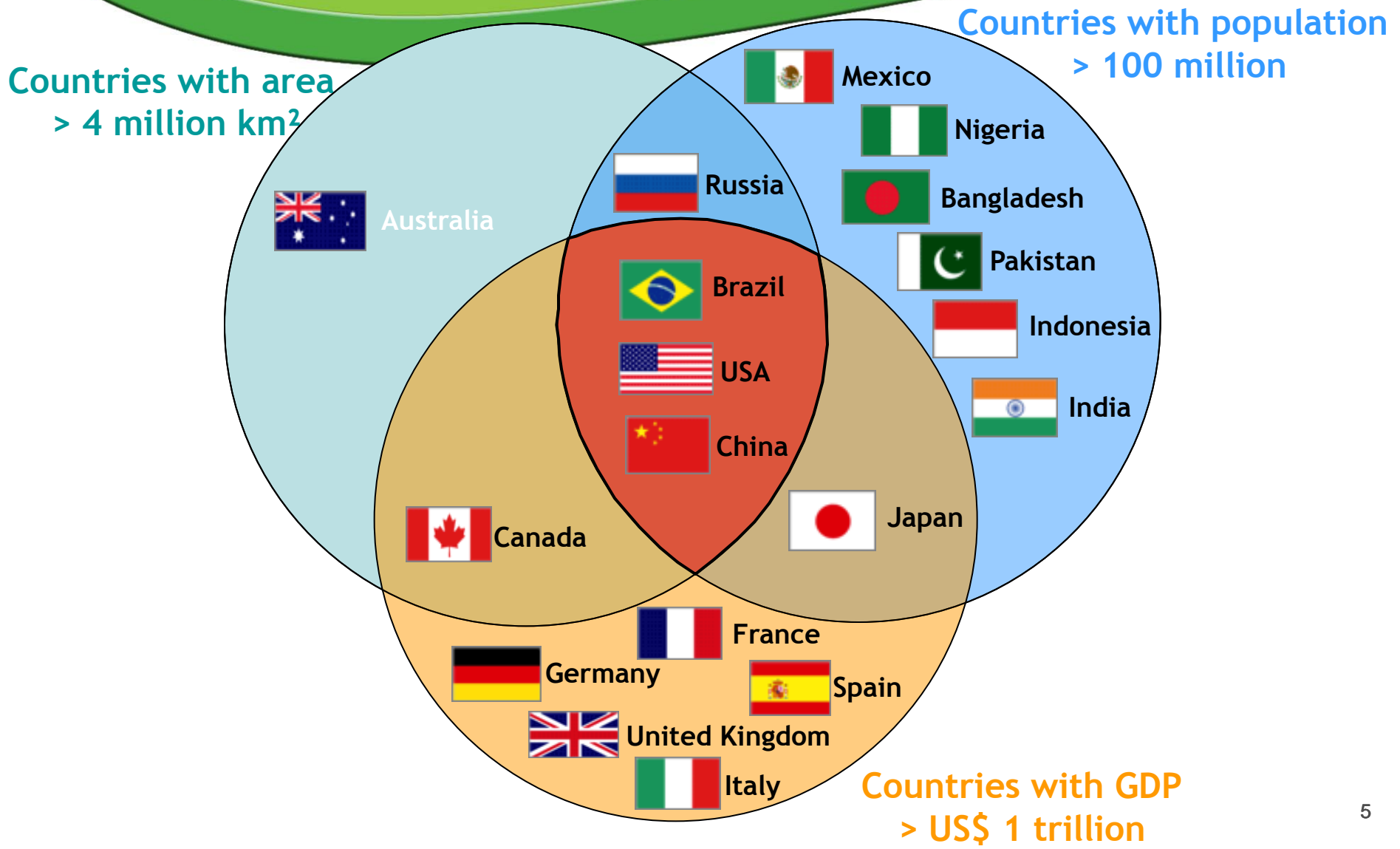


Brazil's Significance



Countries with GDP
> US\$ 1 trillion

Brazil's Significance



Brazil - Economic Trends

- Brazil is self-sufficient in energy, food & raw materials.
- Its economy has rapidly recovered from financial crisis in 2009 given its strong domestic market and 2010 GDP growth is estimated to be +6%.
- Improved distribution of income & more credit (in last 5 yrs +20 million people have entered the middle class).
- US continues to be Brazil's major trading partner – Brazilian Real has revalued by +27% vs. US\$ in 2009.

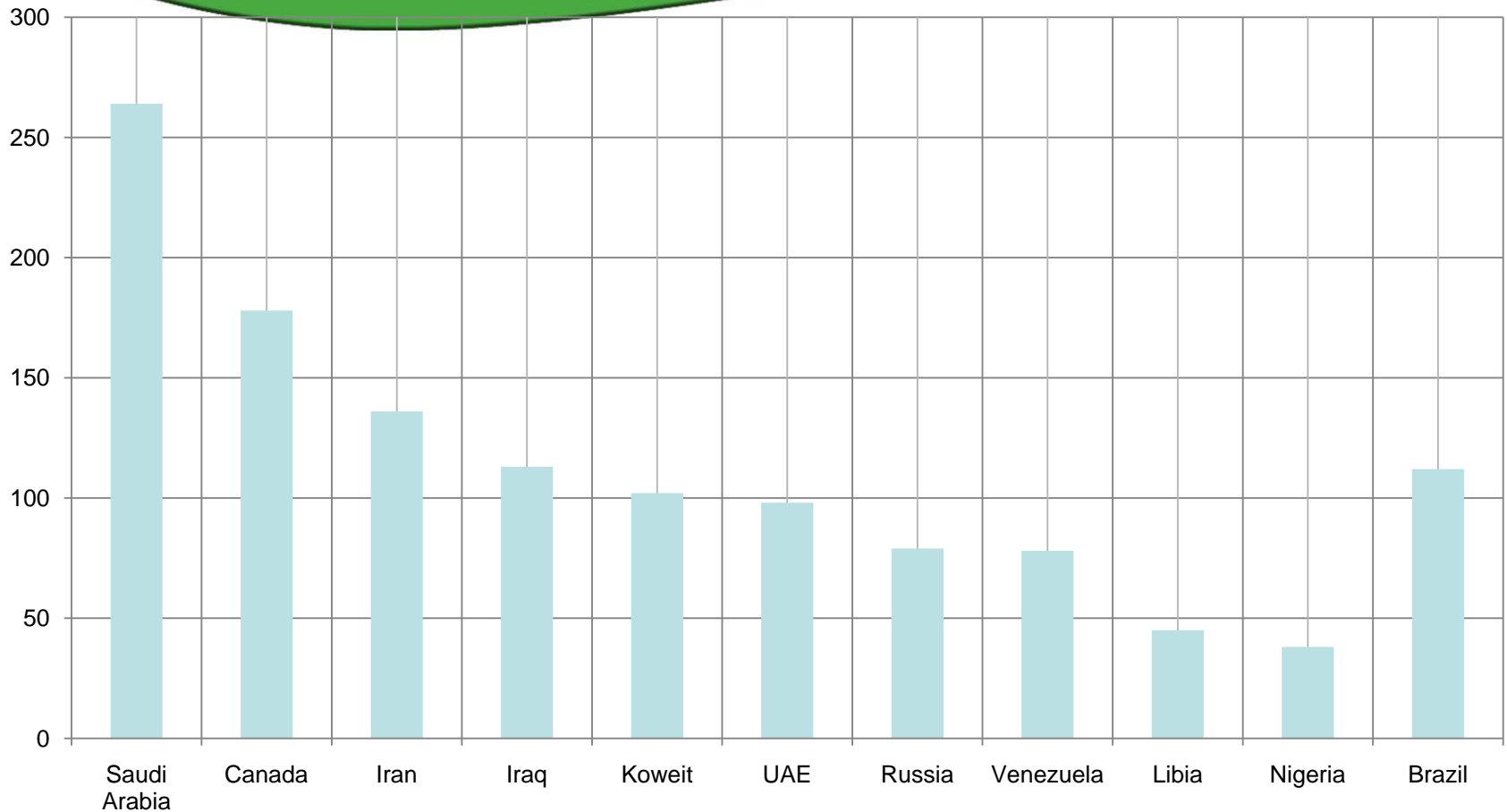
Brazil in South America



- Região Norte
- Região Nordeste
- Região Centro-Oeste
- Região Sudeste
- Região Sul



Top 10 Oil Reserves – including Brazil's Pre-Salt Reserves * (Bi Barrels)



Relevant Changes Last Decade

- **Economic Stability & Vast Natural Resources & Popular Democratic Govt led to**
 - Strong domestic market
 - Popularity of President Lula in and outside Brazil
 - Attraction of FDI
 - Trade swing towards new and developing economies
 - Sponsor 2014 World Soccer Cup
 - Sponsor 2016 Olympic Games in Rio
 - Became 8th Economy in 2009 and plans to be 5th in 2020

Relevant Public Projects 2010 to 2016 in Execution or Funded via PAC (Accelerated Growth Plan – US\$600 Bi in 6 rs)

- | | |
|-----------------------------------|-------------|
| ■ High Speed Train Rio-SP | US\$18 Bi |
| ■ Hydro Powerplant Belo Monte | US\$ 8 Bi |
| ■ Hydro Powerplant Santo Antonio | US\$ 7 Bi |
| ■ Hydro Powerplant Jirau | US\$ 5 Bi |
| ■ Nuclear Powerplant – Angra 3 | US\$ 5 Bi |
| ■ Oil Platform P57 | US\$ 3 Bi |
| ■ Railroad North South | US\$ 3 Bi |
| ■ Railroad Transnordestina | US\$ 3 Bi |
| ■ Highway SP Ring | US\$ 2 Bi |
| ■ Oil Platforms P52 and P54 | US\$ 2 Bi |
| ■ Oil Platform P53 | US\$ 2 Bi |
| ■ Natural Gas Pipeline with 949km | US\$ 1.8 Bi |
| ■ Natural Gas Pipeline with 661km | US\$ 1.7 Bi |

States in Order of Infrastructure

- Sao Paulo (SE)
- Minas Gerais (SE)
- Rio de Janeiro (SE)
- Parana (S)
- Espirito Santo (SE)
- District Federal (C)
- Bahia (NE)
- Rio Grande do Sul (S)
- Rio Grande do Norte (NE)
- Goias (C)

Transportation – Total Investment in Subways

US\$ 14 Bi

- **Major Expansions**

- Subway SP Line 2 US\$ 2.5 Bi
- Subway SP Line 4 US\$ 3 Bi
- Subway Rio Line 4 US\$ 1.4 Bi
- Subway Porto Alegre US\$ 1.3 Bi

Projects

- **Energy –**
 - Generation, Transmission and Distribution US\$170 Bi
- **Fuels**
 - Ethanol, Gas, Oil US\$80 Bi
- **Water and Waste Treatment**
 - Water, Sewage, Distribution, Dams, Irrigation US\$11 Bi
- **Transportation**
 - Airports and railroads US\$ 28 Bi
 - Highways and bridges US\$ 9 Bi
 - Subway US\$ 8 Bi
 - Ports US\$ 5 Bi

Energy Breakdown in Brazil

- **Non Renewables 54.7% (World 87%)**
 - Oil 36.7%
 - Gas 10.3%
 - Coal 6.2%
 - Uranium 1.5%
- **Renewable 45.3% (World 12.4%)**
 - Hydro 13.8%
 - Wood 11.6%
 - Ethanol 16.4%
 - Others 3.5%

Oil Reserves

- **2008 Oil Reserves – 13 Billion Barrels**
- **2009 Oil Reserves – 113 Billion Barrels (with Deep Sea Water – Pre- Salt)**
 - Current Exploration
 - 91% Sea
 - 11% Land
 - Intl Trade
 - Exports 158 Mi Barrels
 - Imports 149 Mi Barrels

Deep Sea Water Exploration - Challenges

- Oil reserves located 300 km from shore (50 to 100 Billion Barrels)
- Logistics to transfer oil from wells to ships
- Drilling at 2000 m deep
- High corrosion, pressure, precision drilling
- Investments by Petrobras only - US\$111 Bi +
- Virtuous circle – naval construction, specialty steels, equipment, refining capacity, logistics, software, training, financing
- Great opportunity for innovations from major R&D centers of excellence

Oil in Brazil – present day

- **Annual production**

- Sea - 596 Mi Barrels (90%)
- Land - 66 Mi Barrels

- **Location**

- Rio 547 Mi Barrels
- Espirito Santo 42 Mi Barrels
- Rio Grande do Norte 22 Mi Barrels

- **Mix**

- Diesel 37%
- Gasoline A 19%
- Fuel Oil 14%
- Gas 10%

Biofuels

■ Ethanol Producers

- USA 36 Mi m³
- Brazil 27 Mi m³
- China 4 Mi m³
- India 2 Mi m³

■ Biodiesel

- Soybeans 80%
- Animal fat 14%
- Cotton 3%
- Grains 3%

Doing Business in Brazil



Principal features of the economy -

- High Internal Taxes – city, state & federal
- Corruption
- Non-tariff barriers – customs and other difficulties
- Bureaucracy & slow legal system
- Language (Portuguese) - contracts
- Long distances & transportation costs
- High internal interest rates (8.25% pa)

Recommendations

- Identify a local partner
 - Agent
 - Representative
 - Distributor
- Include in your market entry strategy the long term potential of the Brazilian market
- Visit the market
- Don't overvalue initial reactions & responses
- Document all communications and favor binding legal contracts

Small and Medium Enterprises – Have Tos

- **Any product and service will succeed if:**
 - Innovative
 - Clear perceived value
 - Outperforms existent competition by 25% in productivity (~ import duty)
 - Persistency & long term planning
 - Local support
 - Company evaluates local partnerships in complementary products