



# ***Vegoils and Tanker Markets***

***Fred Doll  
Doll Shipping Consultancy  
March 2009***

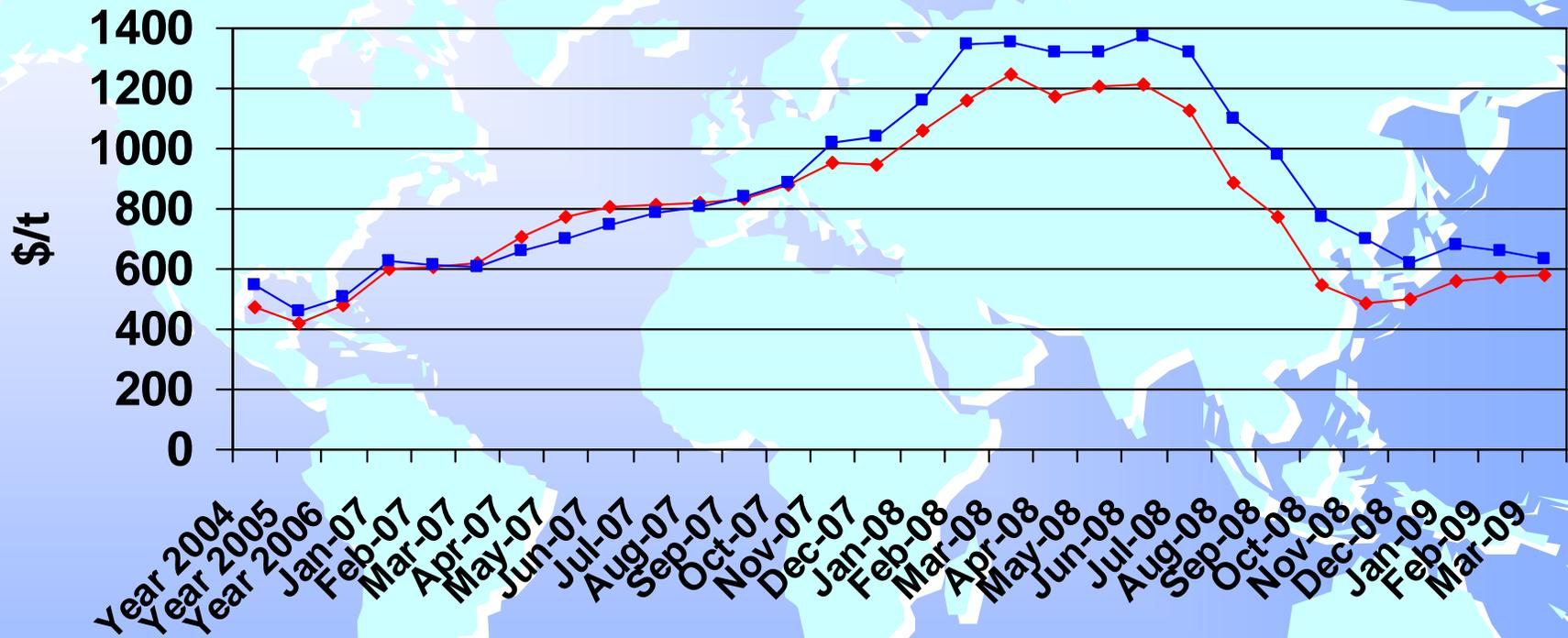
# Vegoils

- Overview
- Vegoil prices
- Seaborne vegoil trade
  - ◆ Palm oil
  - ◆ Soybean oil (“soy oil”)
  - ◆ Sunflower oil (“sun oil”)
  - ◆ EU imports
- Biodiesel
- Conclusions

# Vegoil trends

- Vegoils about 34% of chemical tanker trade
- “Traditional” usage has had strong growth
  - ◆ Food use
  - ◆ Oleochemical use
  - ◆ Driven by population growth, income growth and related improvements to diet and consumer products consumption
- Biofuel usage growing
  - ◆ Strong government support
- But short term trends working against biodiesel
  - ◆ Petroleum prices low relative to last year
  - ◆ Vegoil prices down, but not as much as petroleum
    - ◆ High vegoil and biodiesel prices relative to fossil diesel
    - ◆ Highlights need for government support

# Vegoil prices



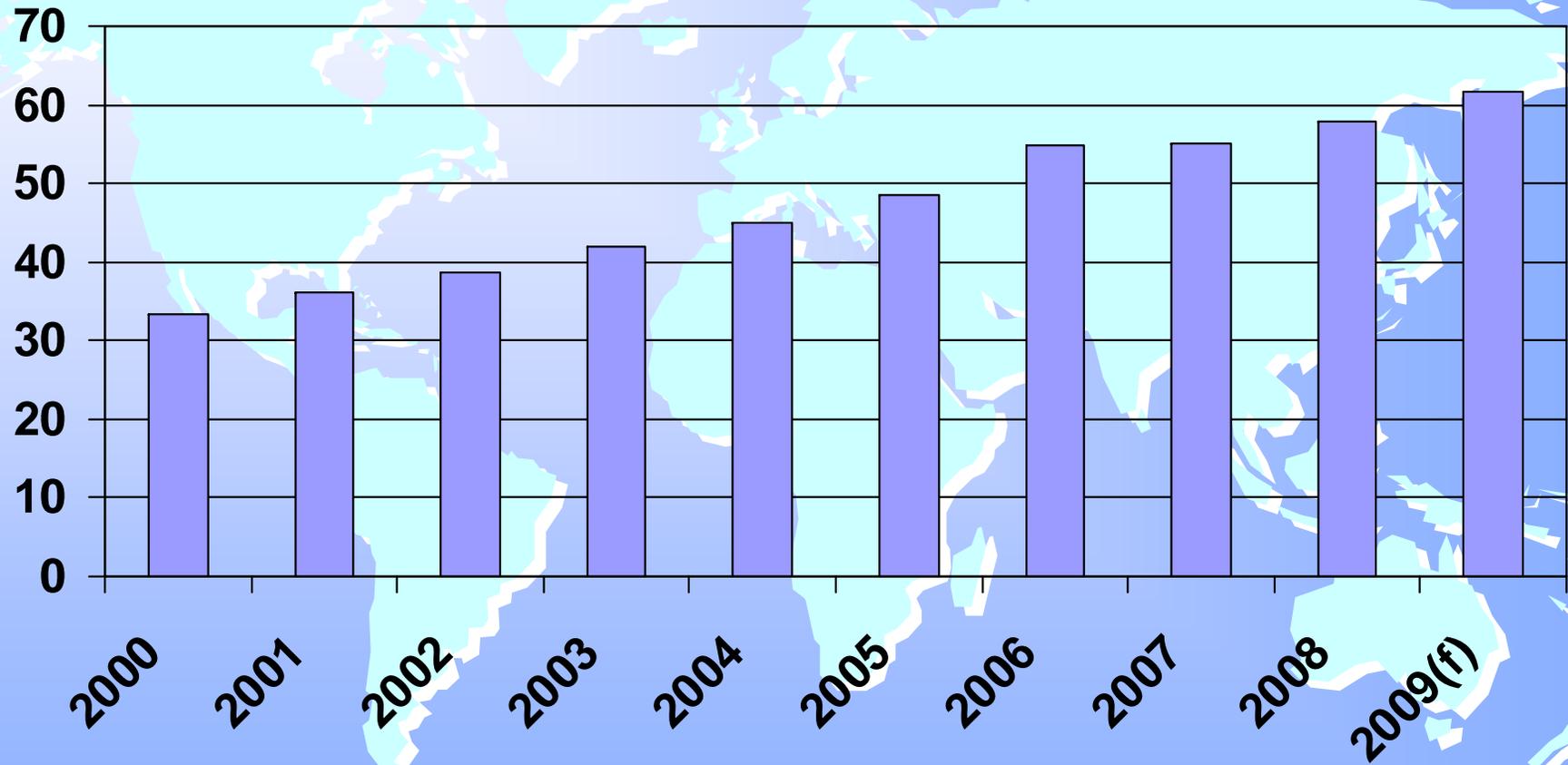
Source: ISTA Mielke

—◆— Palm oil cif NWE    —■— Soy oil fob Arg

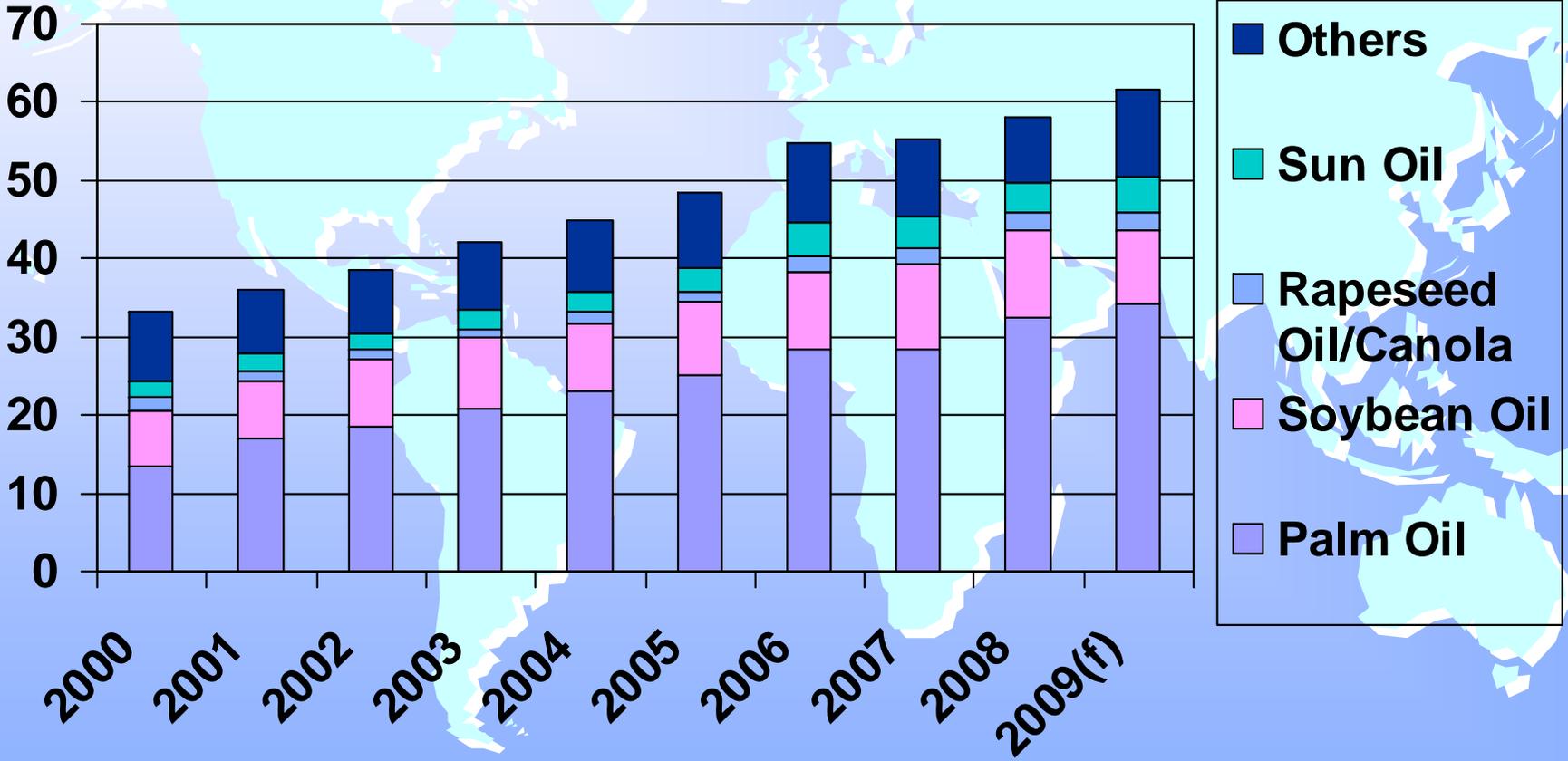
# Vegoil prices

- 2008 vegoil prices were double 2004 levels
- Starting late in 2008, high vegoil prices and economic slowdown caused slowdown in vegoil demand growth
  - ◆ Expected food/oleochemical demand growth did not occur
  - ◆ Lower petroleum price reduced biodiesel parity
- High production/low purchases led to stockbuild
- Result: Vegoil price decreases to pre-peak levels
- Vegoil prices have not decreased as much as fossil
- Food demand still growing (at slower pace)
  - ◆ Low purchases meant that end user stocks were reduced
  - ◆ Demand up slowly but at lower price levels than peak
- Trade and demand growth trends shown in rest of presentation based on assessment above

# Seaborne vegoil trade mtpy



# Seaborne vegoil trade mtpy



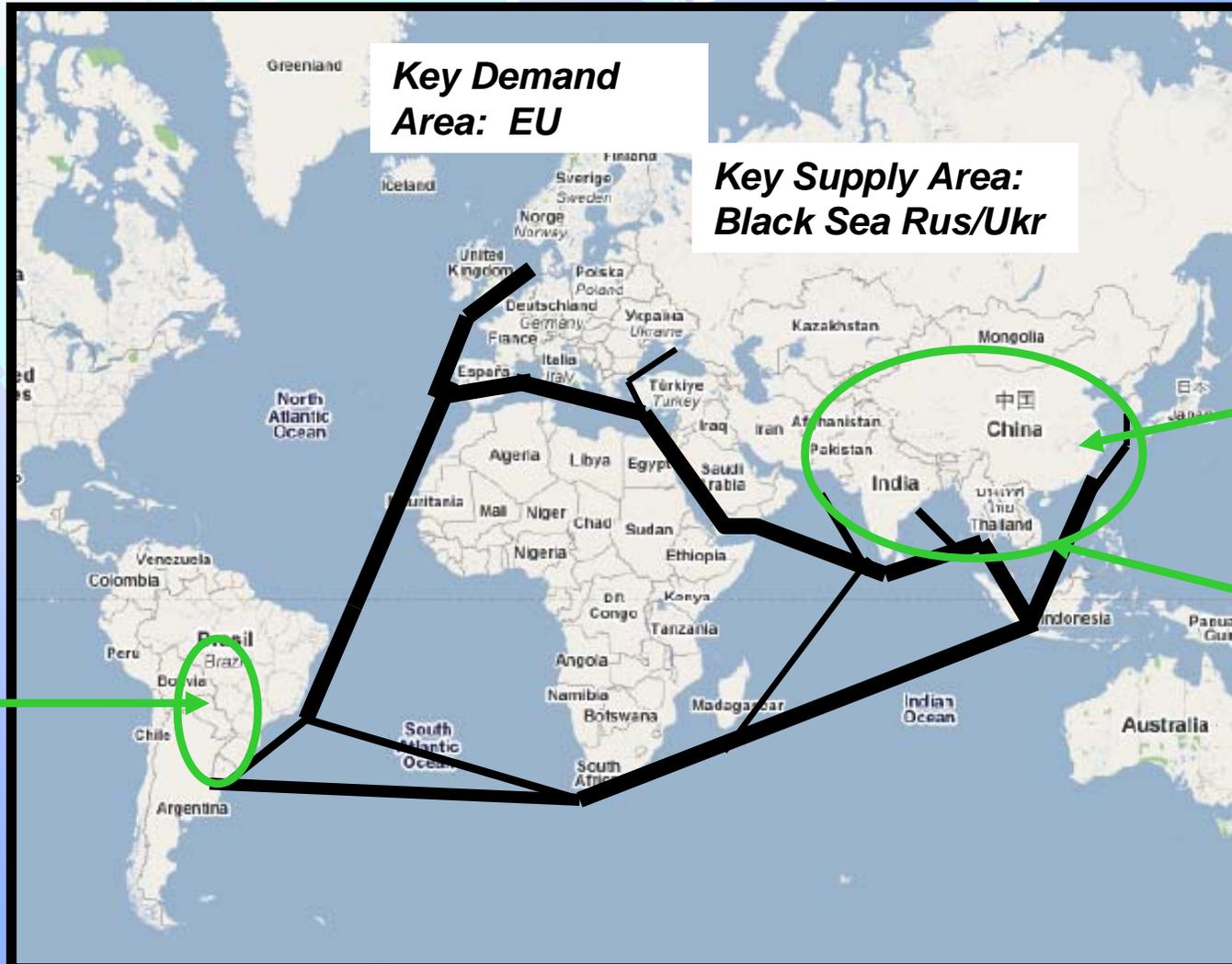
# Seaborne vegoil trade

- Seaborne vegoil trade grew from 33 mt in 2000 to 58 mt in 2008 with forecast growth to 62 mt in 2009
- Primarily food and oleochemical use until 2005
  - ◆ Thereafter biofuels significant element in growth
- Palm oil trade as grown from 13 mt in 2000 to 32 mt in 2008, with 34 mt forecast for 2009
- Soybean oil has grown from 7 mt in 2000 to 11 mt in 2008, with only 9.5 mt forecast for 2009
  - ◆ Argentine drought

# Seaborne vegoil trade

- Rapeseed (canola) oil trade decreased from 2 mt in 2000 to 1 mt in 2003 and grew to 2.0-2.3 mt in 2006-2009 due to biofuels demand
  - ◆ High yield of oil
- Sunflower oil grew from 2 mt in 2000 to 4.5 mt in 2006 then decreased to 3.8 mt in 2008 due to S. Europe drought
  - ◆ Recovery to 4 mt forecast for 2009 with normal weather
- Remaining vegoils have grown from about 9 mt in 2000 to 11 mt in 2009

# Key Production Areas and Shipping Routes



**Key Demand Area: EU**

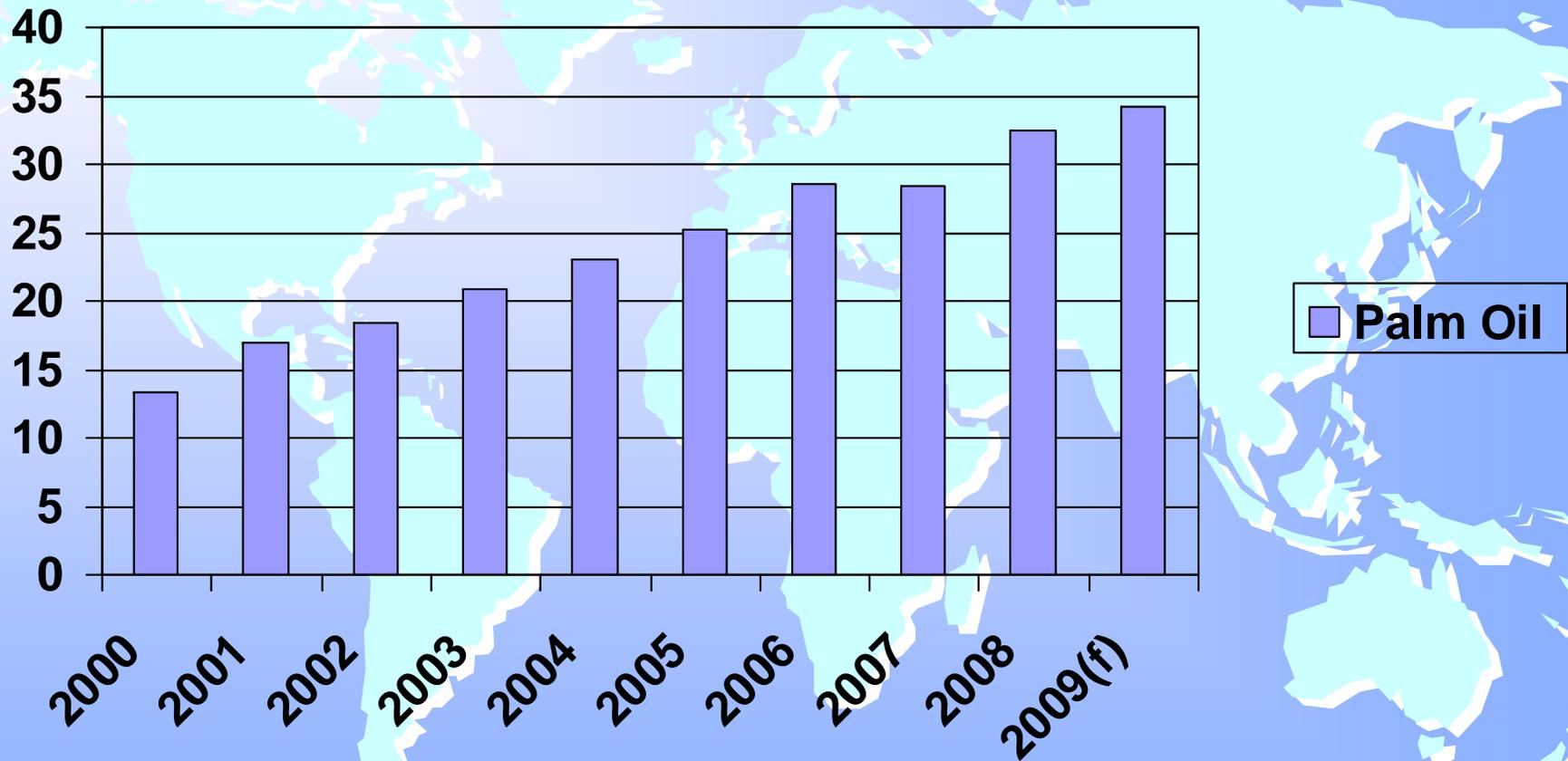
**Key Supply Area: Black Sea Rus/Ukr**

**Key Demand Area: Developing Asia**

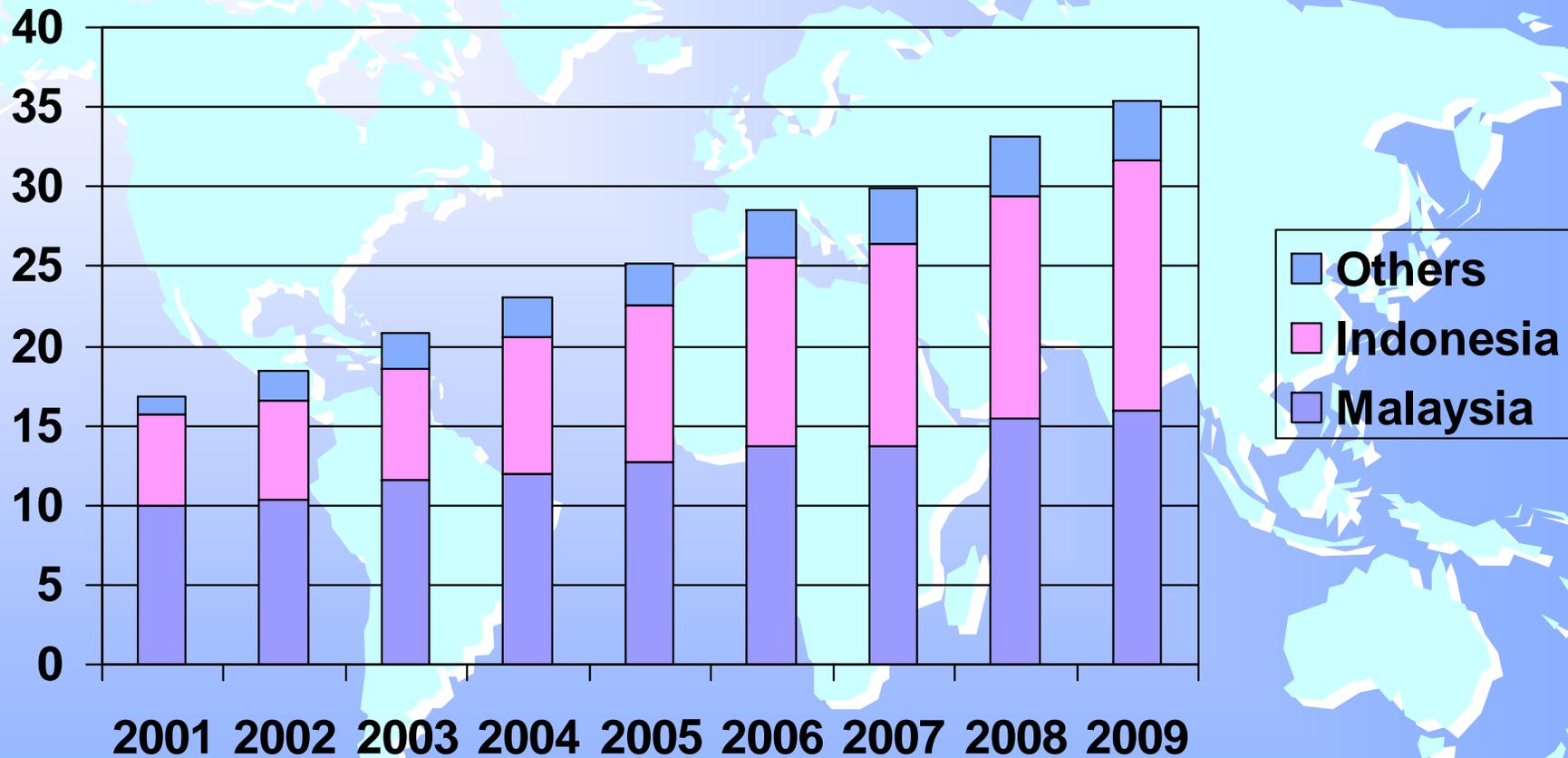
**Key Supply Area: Brazil, Argentina, Paraguay, Bolivia**

**Key Supply Area: SE Asia, incl. Indonesia, Malaysia, PNG, Philippines, Thailand**

# Seaborne palm oil trade mtpy



# Palm oil exports mtpy



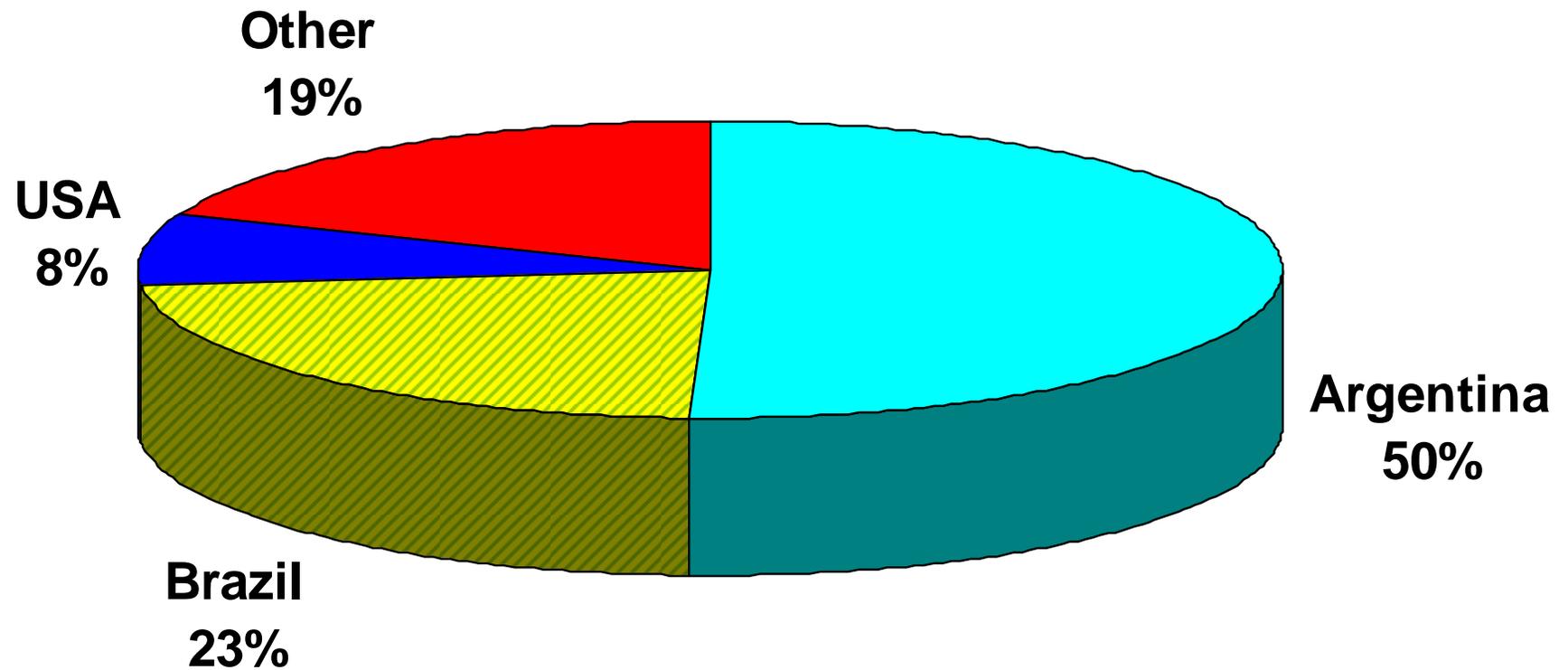
# Seaborne palm oil trade

- Palm oil trade has grown from 13 mt in 2000 to 28 mt in 2007 with 33 mt forecast in 2008, 35 mt in 2009
- Malaysia keeping position as world's largest palm oil exporter
  - ◆ 15 mt seaborne palm oil exports in 2008 for Malaysia versus 14 mt for Indonesia
  - ◆ Indonesia has land available, Malaysia land highly utilised
  - ◆ Papua New Guinea at 0.4 mtpy, growing, exports to Europe
- China (6.2 mt 2009 fcst), EU27 (5.1 mt), India (5.7 mt), Pakistan (1.9 mt), CIS (1.1 mt) world's largest importers
  - ◆ About half of trade, with remaining imports widely distributed

# Soybean production

Crop year	1994/1995	2007/2008	2008/2009(f)	13 yr CAGR to 2007/2008
Argentina	12.5	46.2	43.8	10.6%
Bolivia	0.9	1.1	1.2	1.5%
Brazil	25.9	61.0	57.0	6.8%
Paraguay	2.2	6.8	4.0	9.1%
Uruguay	0.0	0.8	0.9	34.9%
Region	41.5	115.9	106.9	8.2%
United States	68.4	72.9	80.5	0.5%
China	16.0	14.0	16.8	-1.0%
Others	11.7	18.1	20.0	3.4%
World	137.6	220.9	224.1	3.7%

# Soybean Oil Seaborne Exports 10.1 mt 2008



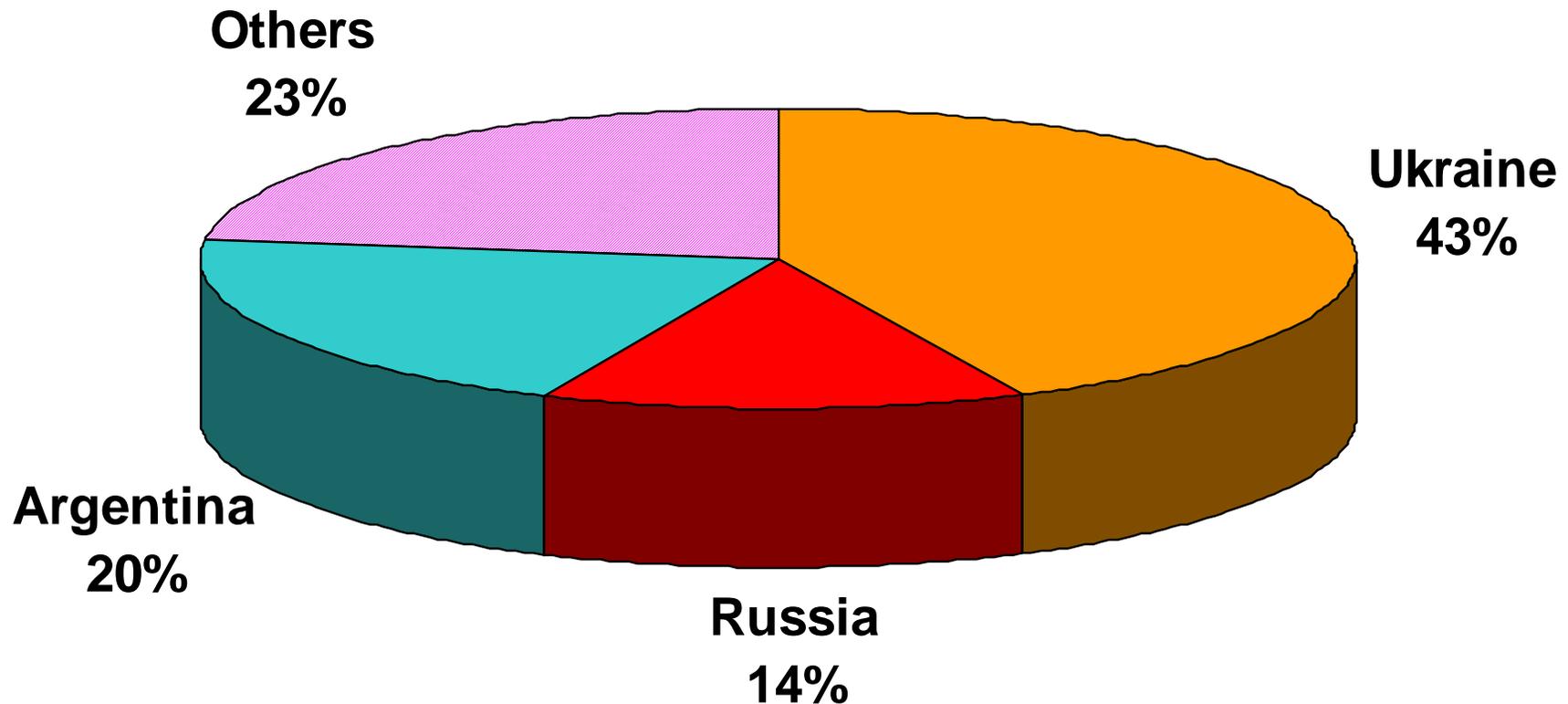
# Soybean oil: S. America Megatrend

- Biggest change in grain/oilseed trade is soybean production growth in Brazil, Argentina, Paraguay, Bolivia (Parana River Basin, PRB)
  - ◆ Up from 42 mt in 1994/1995 to 116 mt in 2007/2008 (52% of world)
- South America world role as commodity and biofuel source growing
- Argentina has heavily invested in crush capacity to capture more of value chain and to smooth seasonal peaks
- Argentina (50%) and Brazil (23%) account for 73% of world soybean oil seaborne exports (10.1 mtpy 2008)

# Soybeans: S. America Megatrend

- World's largest soy oil importers are China (2.3 mt 2008 est), India (0.6 mt), EU (0.8 mt), Iran (0.4 mt), Morocco-Algeria-Egypt region (0.8 mt)
- South America-China trade growing in soybeans and soy oil
  - ◆ China vegetable oil imports up from 7.6 mtpy in 2006 to 9.0 mtpy in 2007 with soybean oil from PRB accounting for 1.0 mtpy of the 1.4 mtpy increase
    - ◆ 10 mt total vegoil imports forecast for 2008
  - ◆ Soy oil has good cold weather characteristics liked by consumers
- Argentine soybean oil exports down from 6.5 mt in 2007 to 5.1 mt in 2008, decreasing exports forecast for 2009 depending on extent of drought

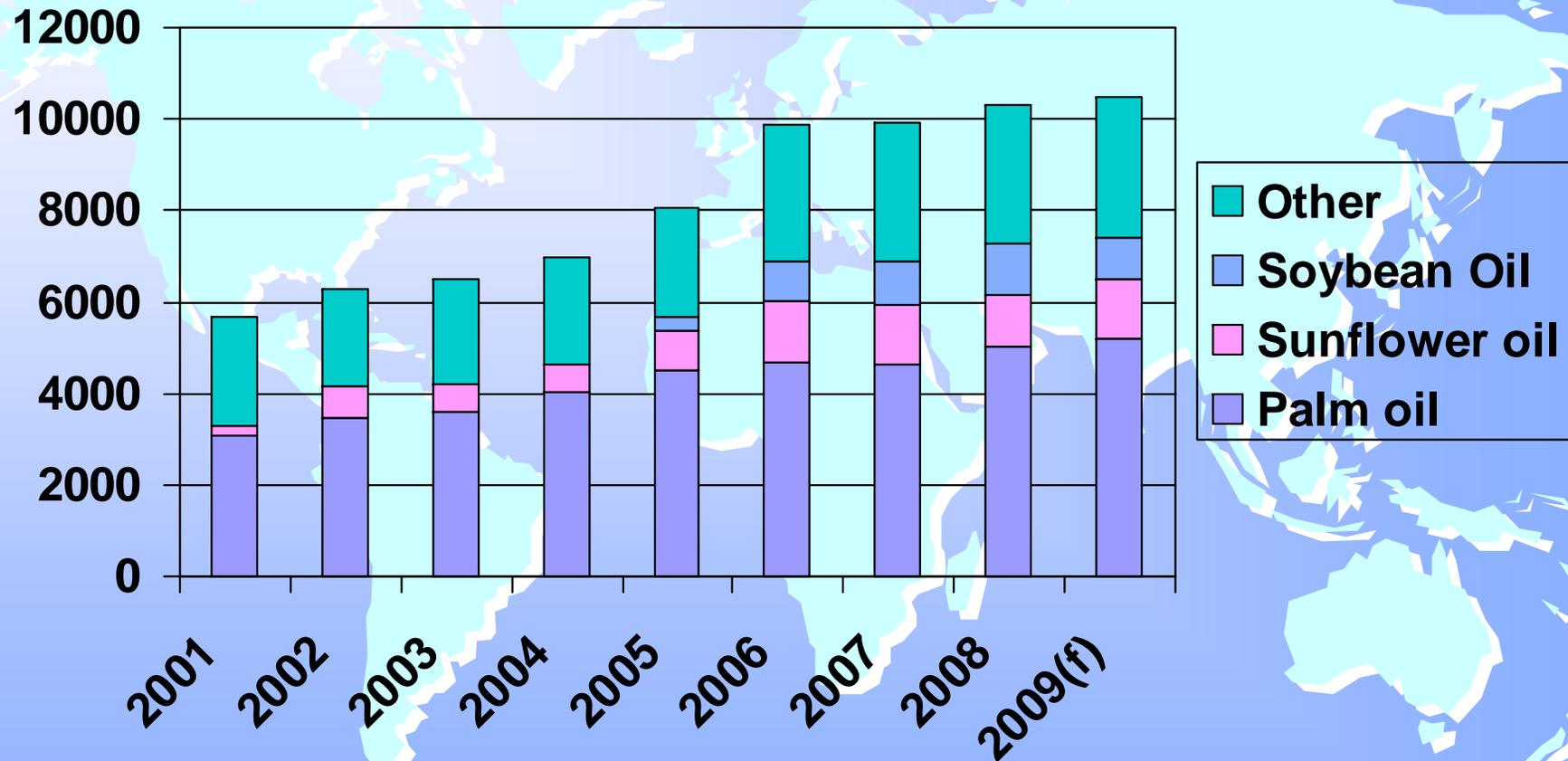
# Sun Oil Seaborne Exports 2009(f) = 4.4 mt (normal harvest)



# Sunflower oil

- Ukraine (43%), Russia (14%) and Argentina (20%) account for most of world seaborne soy oil trade
- World seaborne sunflower oil trade forecast to increase from 4.0 mt in 2008 to 4.4 mt in 2009(f)
  - ◆ Ukraine down from 1.9 mt in 2007 to 1.3 mt in 2008, 1.9 mt in 2009
  - ◆ Russia down from 0.6 mt to 0.2 mt, 0.8 in 2009
  - ◆ Argentina up from 0.9 mt in 2007 to 1.3 mt in 2008, 0.9 mt in 2009 due to drought
- S. Europe rains normal in 2008, good harvest and return to normal sun oil trade forecast for 2009
- EU27 largest sun oil importer (1.4 mt in 2008), Egypt-Algeria (0.5 mt), otherwise diffuse trade <0.2 mtpy
- Black Sea to EU and N Africa important small tanker trade

# EU Vegoil Imports '000 tpy



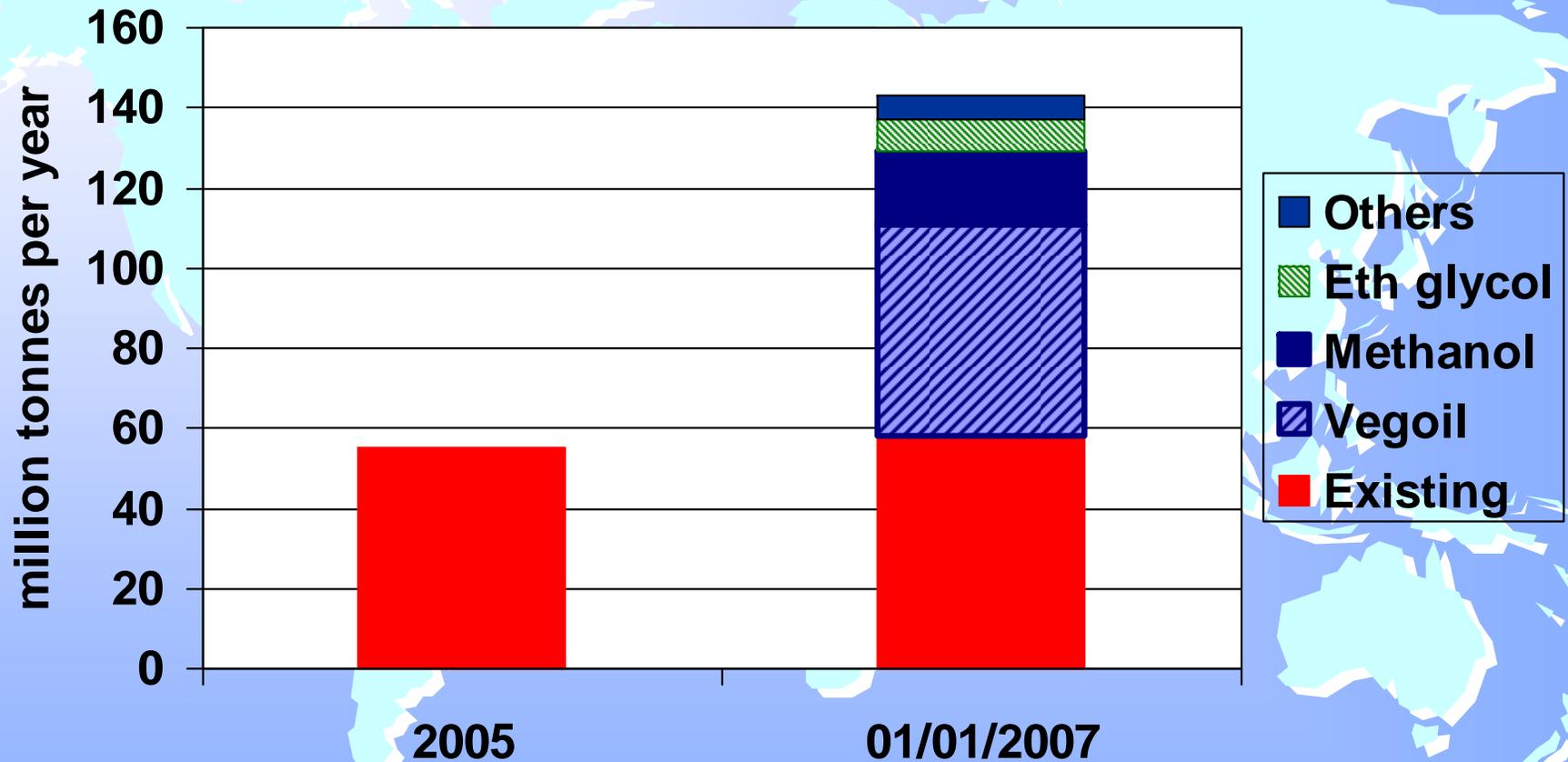
# EU vegoil imports

- EU vegoil imports have grown from 5.7 mt in 2001 to 10.3 mt in 2008 with 10.5 mt forecast in 2009
  - ◆ “2 yrs in 1” in 2006, pause in 2007, resume growth in 2008
- Palm oil imports have grown from 3.1mt in 2000 to 5.0 mt in 2008 with 5.2 mt forecast for 2009
- Sunflower oil imports have grown from 0.2 mt in 2001 to 1.4 mt in 2006-2007, then down to 1.1 mt in 2008 due to drought
  - ◆ Recovery to 1.3 mt forecast for 2009
- Total of remaining vegoils grew from 2.1 to 3.1 mt
  - ◆ Mostly increase in soybean oil, up 1 mt

# Biodiesel

- EU has imposed countervailing duties in response to US \$1 per gallon “splash and dash” blending credit
  - ◆ Duty Eur 260-410 per tonne (\$328-517/t@1.26)
  - ◆ Atlantic Basin B99 (1% fossil diesel) trade benefited from credit
    - ◆ 0.5 mt in 2006 to 1+mtpy in 12 mos up to 1Q2008
- Pure rapeseed oil not competitive with fossil diesel
- Existing biodiesel plants in Europe reportedly operating at about 50% utilisation
  - ◆ Example: Italy 2008 2% biodiesel mandate ~ 0.9 mt
  - ◆ Production 0.7 mt, imports 0.2 mt
  - ◆ Biodiesel production capacity 2 mtpy in 2008
  - ◆ Mandate increases to 3% in 2009, ~1.2 mt requirement
- Local mandates driving biodiesel use in Asia and Latin America

# Reclassification of vegoils/chems



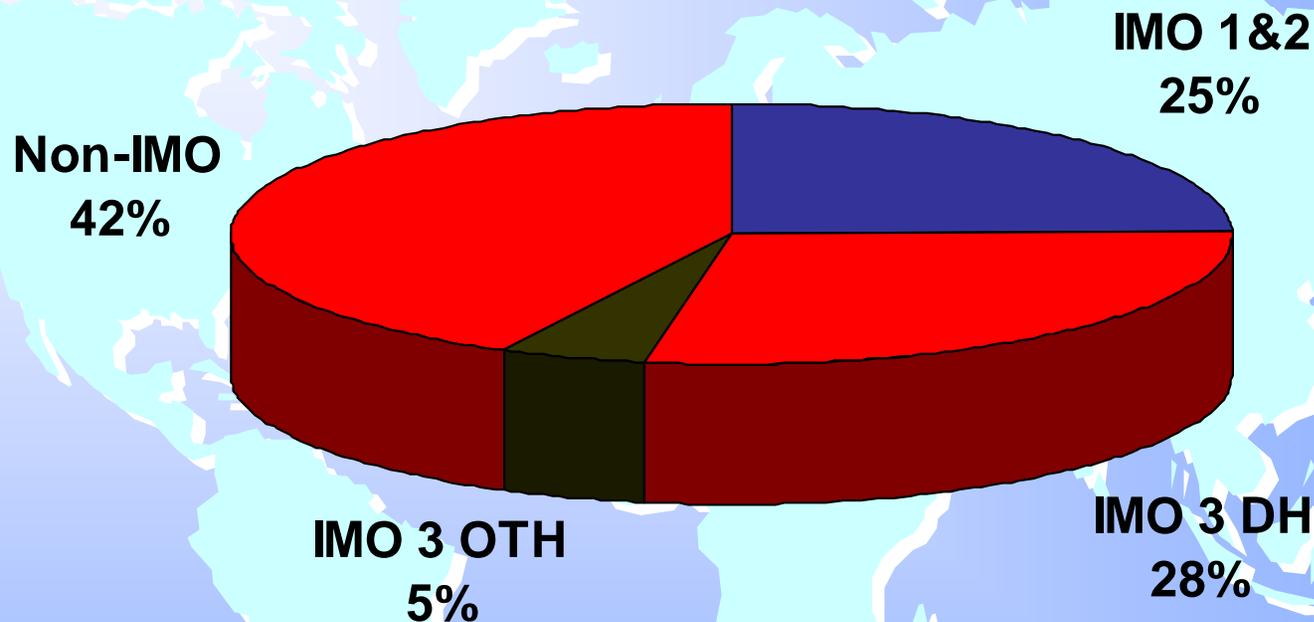
# MARPOL Annex 2

- MARPOL Annex 2 reclassification increased seaborne trade under regulation from 55 mt in 2005 to 145 mt in January 2007
- Major changes included
  - ◆ Methanol 18 mt
  - ◆ Ethylene glycol 8 mt
  - ◆ Vegoils 56 mt
- Vegoils must be carried on IMO 2 chemical tankers since January 2007
  - ◆ Double hull IMO 3 chemical tankers may be used for specific vegoils with permission of the Flag State

# Handysize Tanker fleet (10,000-59,999 dwt)

- Total 2,887 vessels of 90 million dwt
  - Orderbook 1,072 vessels of 35 mdwt (40% of existing fleet)
  - Scheduled deliveries for 2009, 2010, 2011+ are 17 mdwt, 12 mdwt, 6 mdwt
  - 72 mdwt double hull
  - ~ 110 tankers of 3.7 mdwt converted double hull
- Chemical tankers cert to carry IMO 1, 2, or 3
  - 1,899 vessels of 56 mdwt
  - Capacity: IMO 1 0.3 mt, IMO 2 25.3 mt, IMO 3 30.6 mt
  - Includes 8.2 mt of stainless steel capacity
- Chemical tanker orderbook 692 vessels of 18 mdwt (35% of existing chemical tanker fleet)
  - Scheduled deliveries for 2009, 2010, 2011+ are 8 mdwt, 7 mdwt, 3 mdwt
  - IMO 2 capacity 11 mt, IMO 3 capacity 7.0 mt
  - Includes 2.9 mt of stainless steel capacity

# 10-59,999 dwt tanker fleet



**IMO 3 DH 28% of industry fleet**

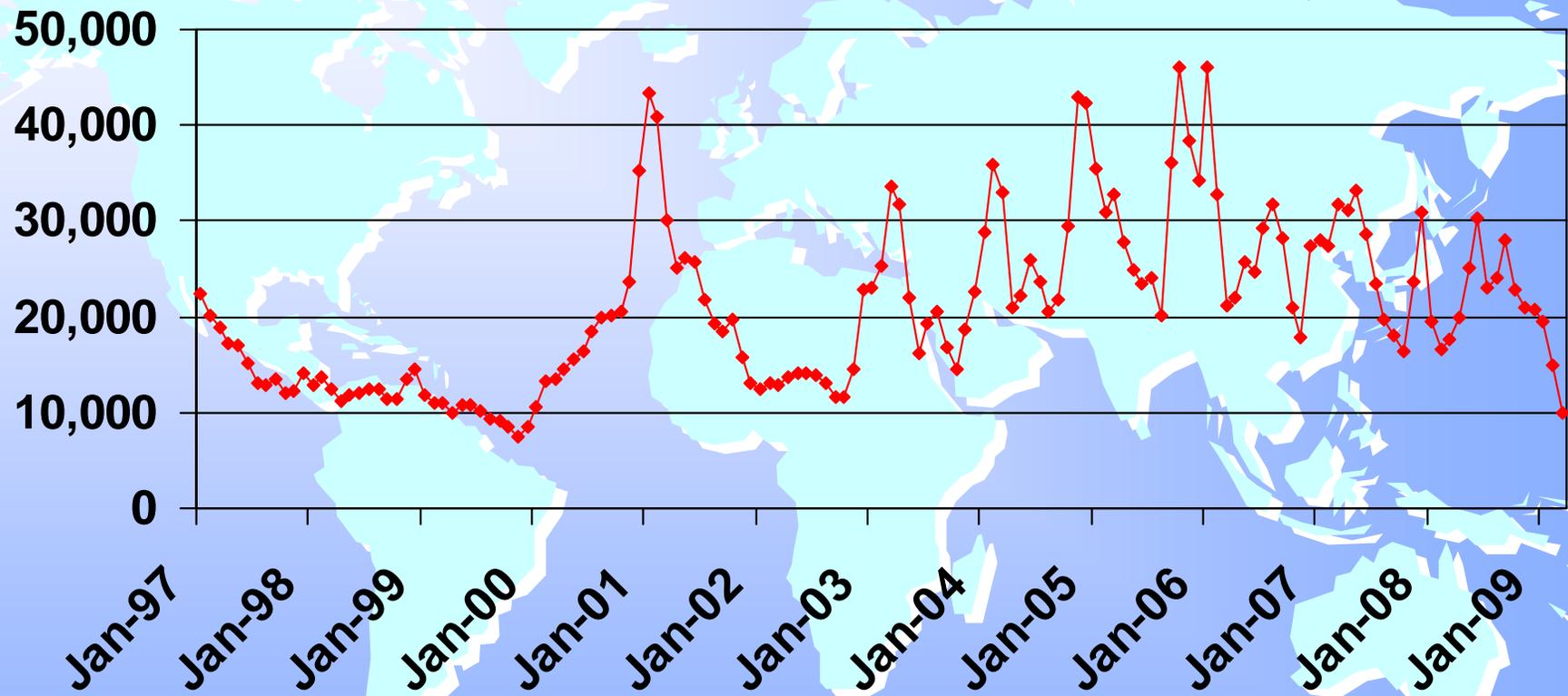
# More overlap between markets

- Double hull IMO 3 vessel key vessel type in chemical and edible oil tanker markets
- Double hull IMO 3 vessel also key vessel type in clean product tanker market
- DH IMO 3 vessels about 28% of 10-59 kdwt fleet
- DH IMO 3 vessels about 41% of 10-59 kdwt orderbook
- Many IMO 2 and IMO 3 vessels have been built for owners with no history of operating in chemical or edible oil markets
- IMO chemical class inexpensive option for newbuild
  - Many standard designs can be upgraded at low cost
  - Standard one deepwell pump per tank with sump design can meet stripping standard
  - Smaller vessels (indicatively, under 35,000 dwt) can meet IMO 2 class 3,000 m<sup>3</sup> limitation with standard tank configuration

# Clean product tanker market

- The logical tie point for these markets is the clean product tanker market
- Clearly, specialist parcel, chemical and vegoil tanker operators will continue to maintain and develop their franchise based on relationships with shippers
- However, if specialist rate differentials versus CPP product markets become too high, more CPP operators will be tempted to enter relatively easy “adjacent” sectors (e.g. easychems)

# Clean product tanker earnings



Source: Clarkson

# Handysize Tankers

- Clean product seaborne trade growth and increasing voyage length/complexity have led to recent dwt demand growth of 6-8% per year
- Sufficient to offset fleet growth of 7-9% per year
- Result: gentle decrease in earnings from 2006
- Outlook: Fleet growth increasing to 14% in 2009 and 12% in 2010
- Relatively high demand growth in vegoils (but low vs. recent history)
  - Bright spot when compared to chemicals and clean petroleum products
- Downward pressure on earnings and freight rates

# Conclusions

- Vegoils growing part of chemical tanker demand
- Palm oil seaborne trade growth resuming in 2008, growing to 32 mt in 2008 and 35 mt in 2009
- Soybean oil trade growth stalled in 2009 due to Argentine drought
- Sun oil trade back to normal after good 2008 harvest
- EU vegoil imports resumed growth (0.4 mt) in 2008 with slower growth (0.2 mt) forecast for 2009
  - ◆ Palm oil and sun oil each up 0.2 mt, soy down 0.2 mt
- Biodiesel splash and dash stopped by EU duty
- Industry Handysize tanker fleet growth increasing from 7-9% per year 2006-2008 to 14% forecast for 2009
  - ◆ Downward pressure on earnings and freight rates

# Contact Information

***Fred Doll***

***Managing Director***

***Doll Shipping Consultancy***

***Ashdown Place***

***Forest Row, East Sussex RH18 5LP U.K.***

***Telephone:***

***+44 (0)1342 825129***

***Facsimile:***

***+44 (0)1342 826975***

***Mobile:***

***+44 (0)7787 564091***

***E-mail:***

***dollship@aol.com***

***Web:***

***www.dollship.com***