American Society of Sugar Beet Technologists

General Session

Orlando, Florida – February 25 – 28, 2009

"Selected Key Drivers Shaping the World Sugar/Ethanol Economy"

Dr. Peter Baron, Executive Director, International Sugar Organization

ISO

International Sugar Organization
Biggest Commodity Organization Worldwide

Membership consists of 84 countries representing:

- 83% of world sugar production
- 65% of world consumption,
- 95% of world exports, and
- 40% of world imports

Selected Key Drivers

- Market fundamentals (Production / Consumption, Trade Balance)

- Diversification (ethanol, production, consumption, trade)

- Advancements in research and technology

- Policy drivers:
  - WTO – Doha Round
  - US Farm Bill
  - EU Sugar Policy Reform

World Sugar Balances

(mln tonnes, raw value)

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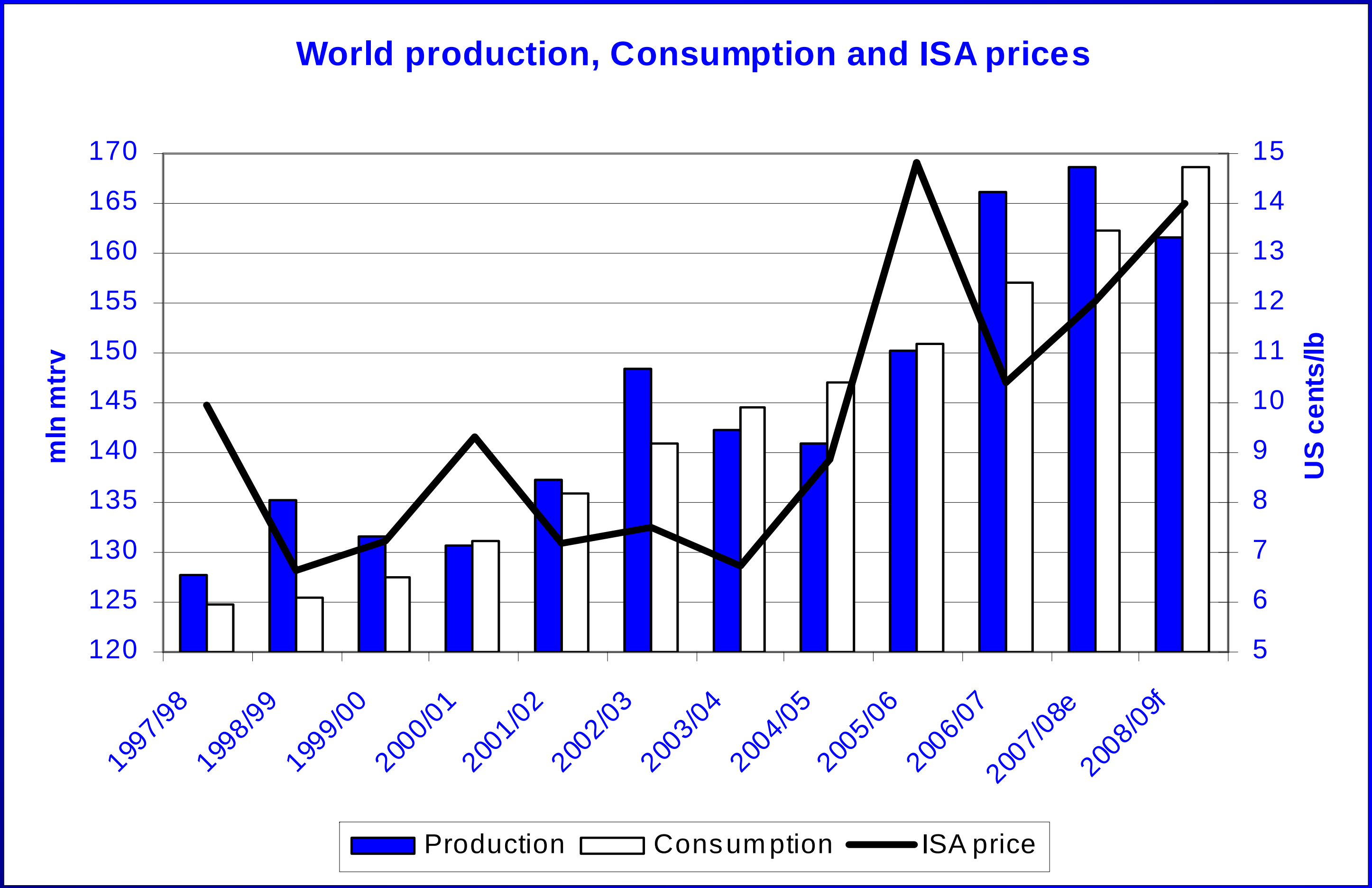
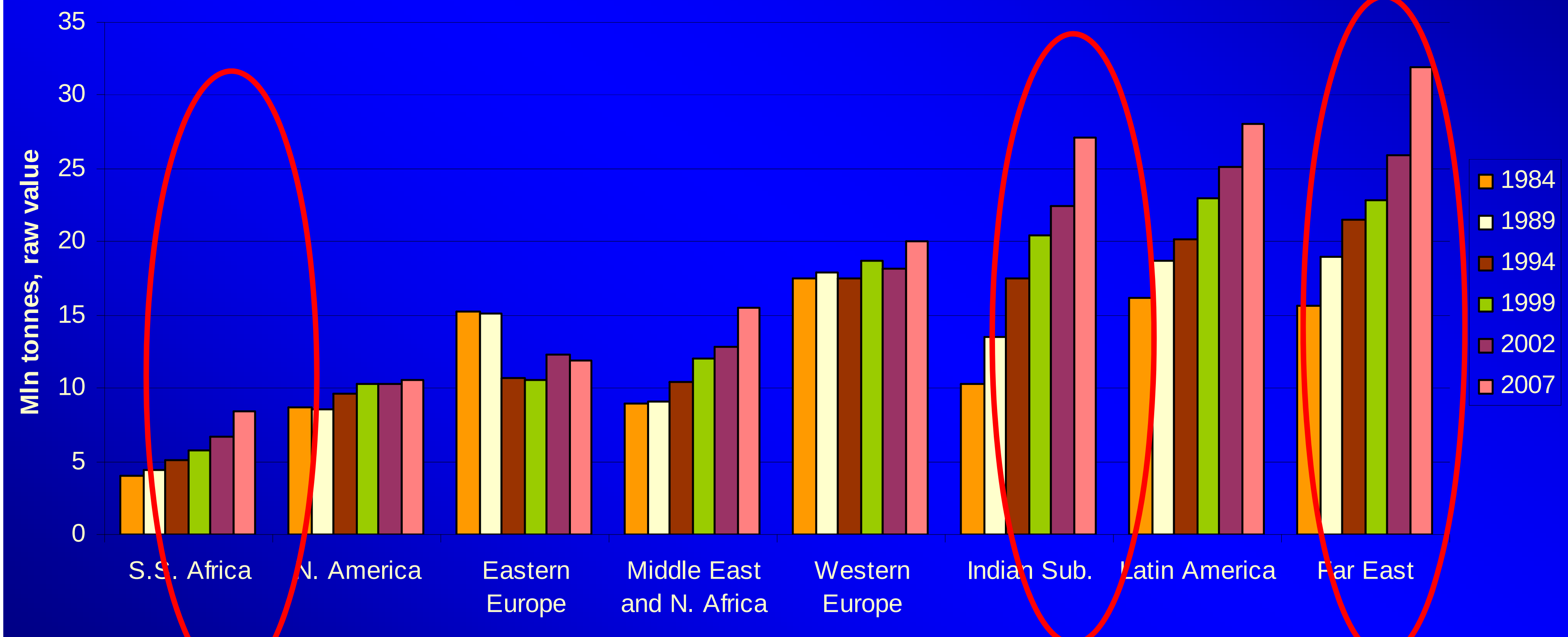
	2008/09	2007/08	Change	
			in mln t	in %
Production	161.527	168.611	-7.084	-4.20
Consumption	165.801	162.241	+3.560	+2.19
Surplus/ Deficit	-4.274	+6.370		
Import demand	49.621	45.942	+3.673	+7.99
Export availability	49.608	46.245	+3.363	+7.27
End Stocks	66.272	70.533	-4.261	-6.04
Stocks/consumption ration in %	39.97	43.47		

World Sugar Production, Consumption and ISA Prices



Consumption by region



Percapita in kg 11.7 32.2 39.7 32.5 39.6 17.1 47.2 14.8

Comparative advantages of sugar crops as feedstocks

- Productivity per hectare is highest;
- Production costs per unit are lowest;
- The energy balance is the most positive one; and
- CO_2 footprint gives sugar crops the best environmental credentials.

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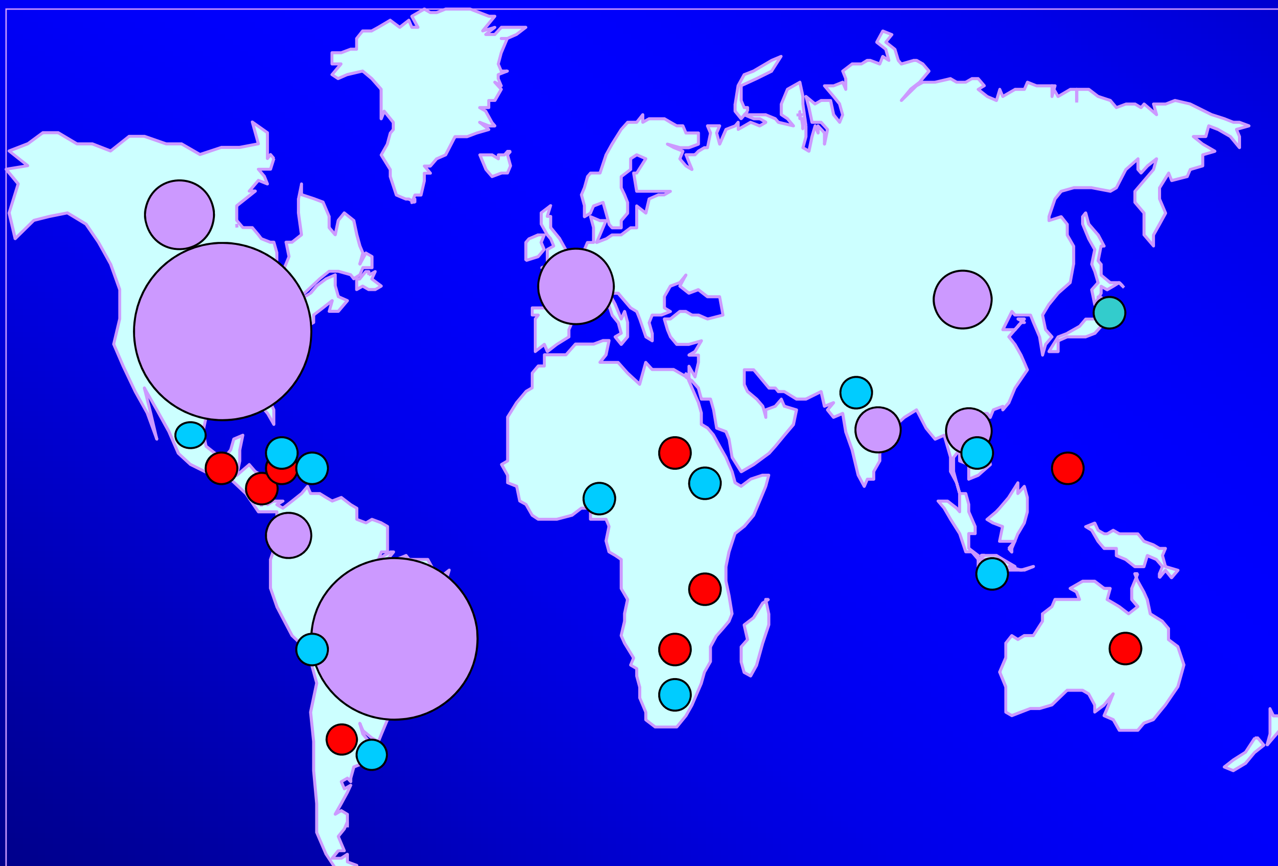
Fuel ethanol programmes



Established programmes

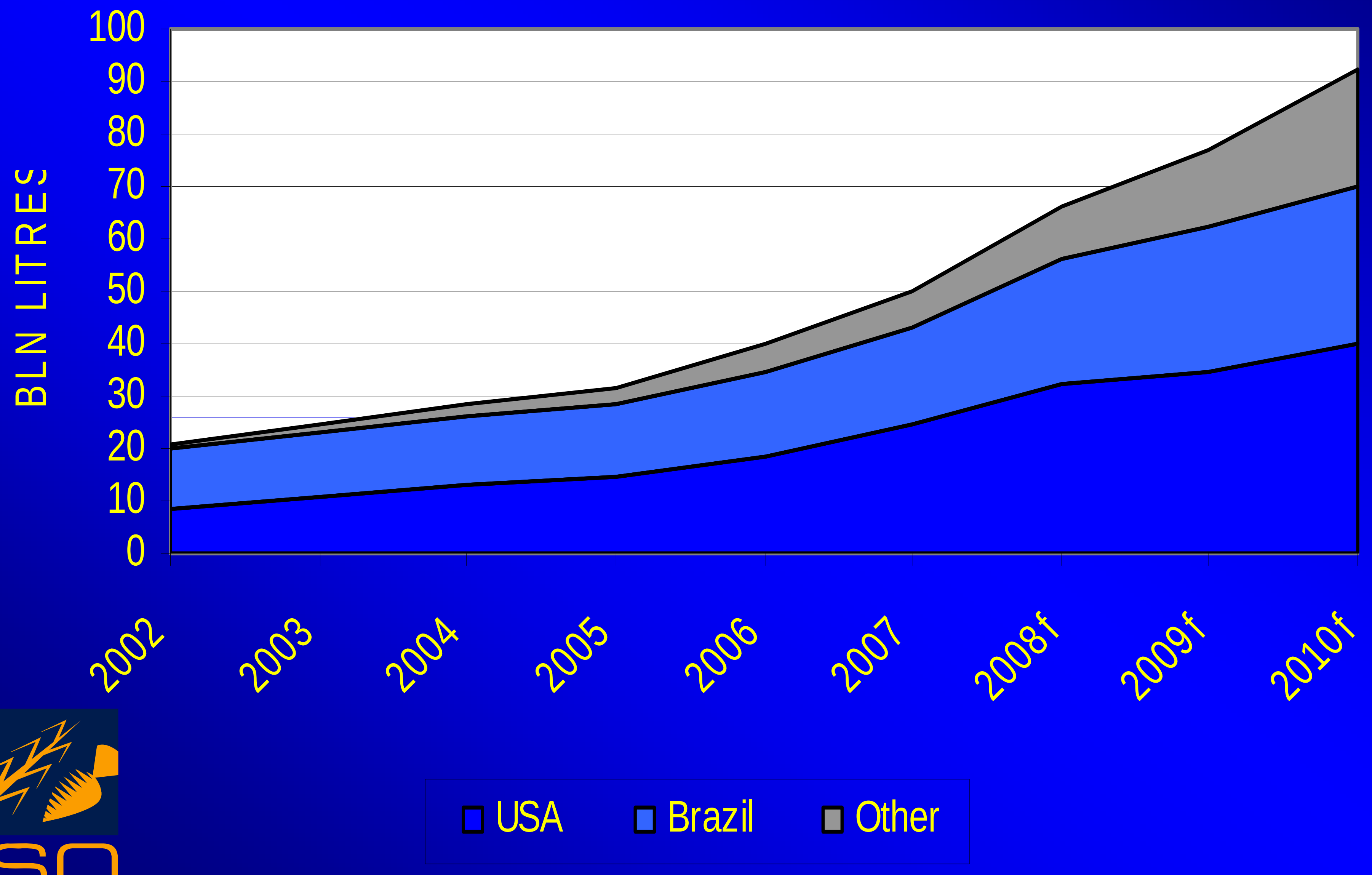
Fledgling programmes

Planned programmes

Sugar and fuel ethanol

- Main countries producing ethanol from sugar cane juice: **Brazil, Colombia**;
- Main countries producing ethanol from sugar beets: **European Union** countries (France, Germany, UK, Czech Republic, Austria), **Turkey**
- Main countries producing ethanol from sugar cane molasses: **India, Thailand**, **Colombia**

World Fuel Ethanol Production



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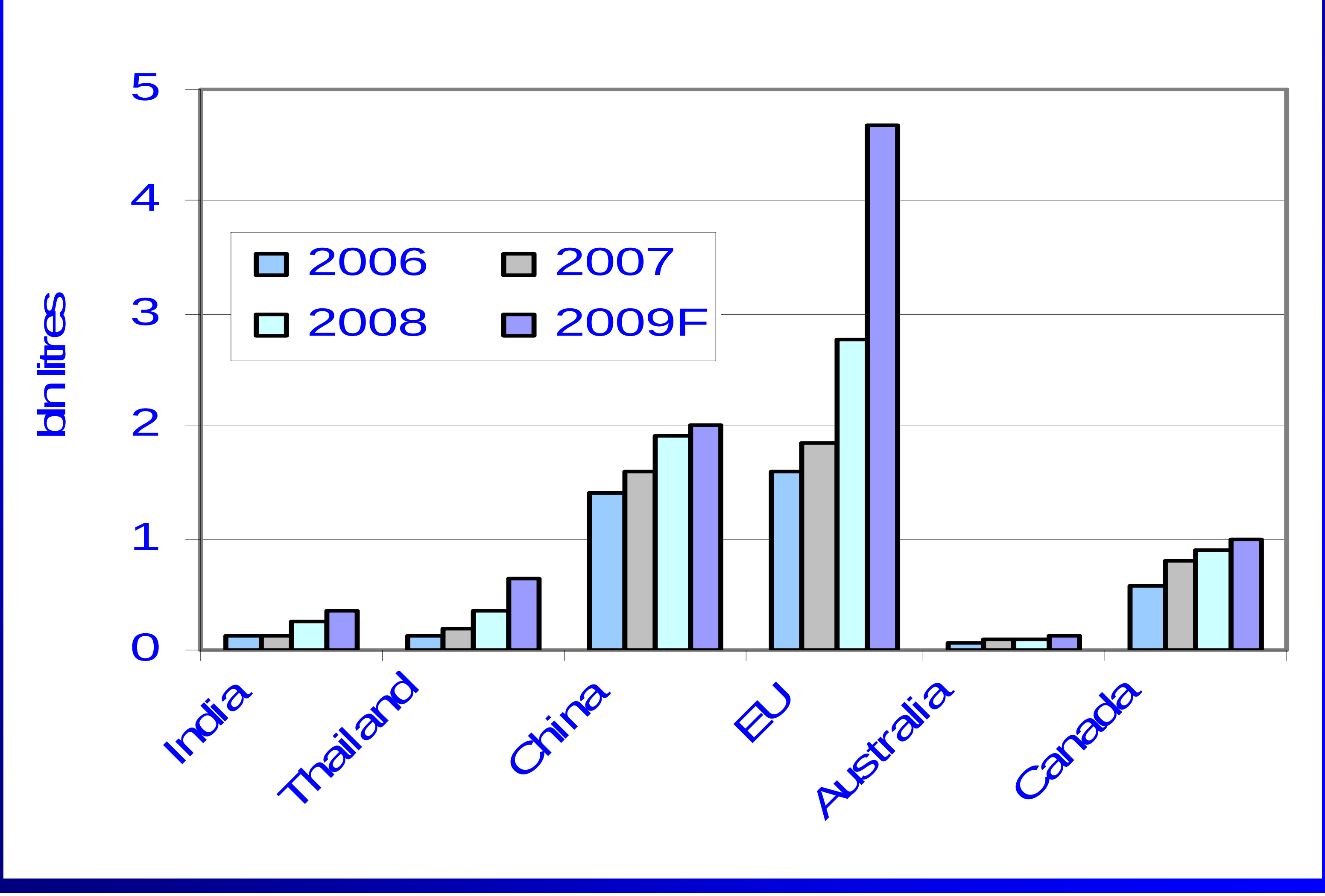
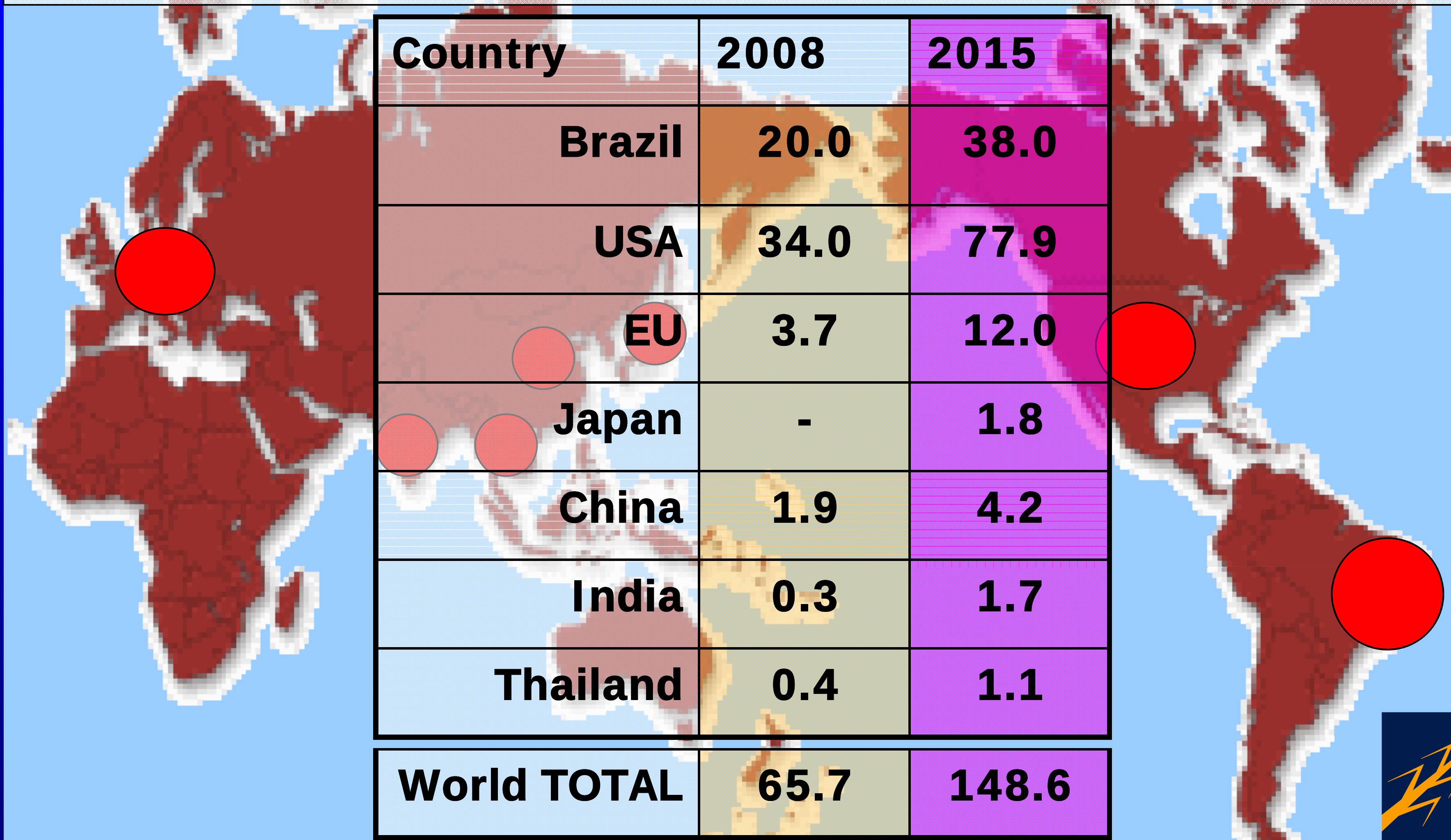
Fuel Ethanol Production outside Brazil and US



World Sugar and Fuel Ethanol

Fuel Ethanol Consumption Projections

Consumption potential: Bln litres (source: MECAS(08)17 – Fuel Ethanol Trade)



Country	2008	2015
Brazil	20.0	38.0
USA	34.0	77.9
EU	3.7	12.0
Japan	-	1.8
China	1.9	4.2
India	0.3	1.7
Thailand	0.4	1.1
World TOTAL	**65.7**	**148.6**

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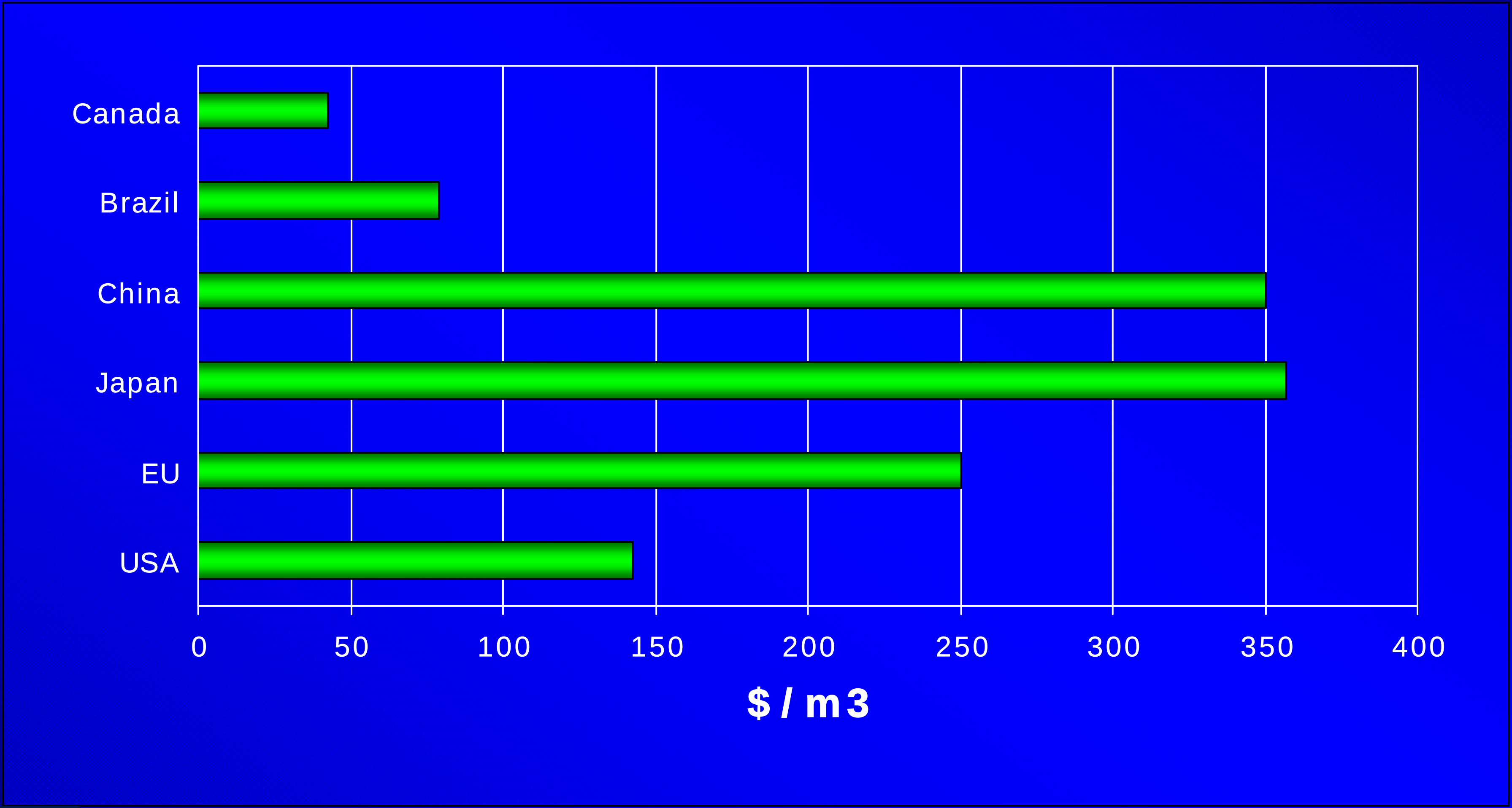
Ethanol blending requirements

Country	Blend %	Time
Argentina)		
Peru)	E-10	2010
Uruguay)		
Bolivia	E-10	2010
Brazil	E-25	2007 (+ flexi)
Canada	E-5	2008
China	E-5	2008
Colombia	E-10	2008
Dominican Rep.	E-7.5	authorised
India	E-5	in 17 of 25 states
India	E-10	2008 put on hold
Indonesia	E-10	2009
Jamaica	E-10	2009
Mexico	E-5	2012
Philippines	E-5	2009
Philippines	E-10	2011
Thailand	E-20	by 2015
Vietnam	E-5	2009

Ethanol import tariffs



Source: F.O. Licht

- **Food versus biofuel issue often led by polemics**

- **There is a general consensus that biofuels should be produced sustainably, be market-driven, and have a minimum impact on food production**

US Farm Bill 2008 - New Sugar Programme Main elements:

- Loan rate remains at 18cts/lb for 2008 crop, then incrementally increased to 18.75 cts/lb until 2012/13
- Loan rate for refined beet sugar will be increased from 22.9 cts/lb step by step to 24.09 cts/lb till 2013
- 85% guaranteed share of domestic consumption regardless of import volumes under TRQ or NAFTA – production in excess of 85% share still to be stored at producers' expense
- Any accumulation of excess sugar in case of high import levels (NAFTA) will be diverted to ethanol production
- TRQs for raw cane and refined sugars to be established at minimum level necessary to comply with obligations under international trade agreements (WTO+CAFTA+Peru): 1.256 mln short tonnes. In case of shortages domestic marketing allotments and TRQ can be increased.

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Market Impacts of the EU Sugar Policy Reform

- 36% price cut
- 6 million tonnes less domestic production
- Market access increases from 1.3 to 4-5 million tonnes
- Main beneficiaries mainly ACP countries and LDCs, via Economic Partnership Agreements (EPAs) and Everything but Arms (EbA) scheme.

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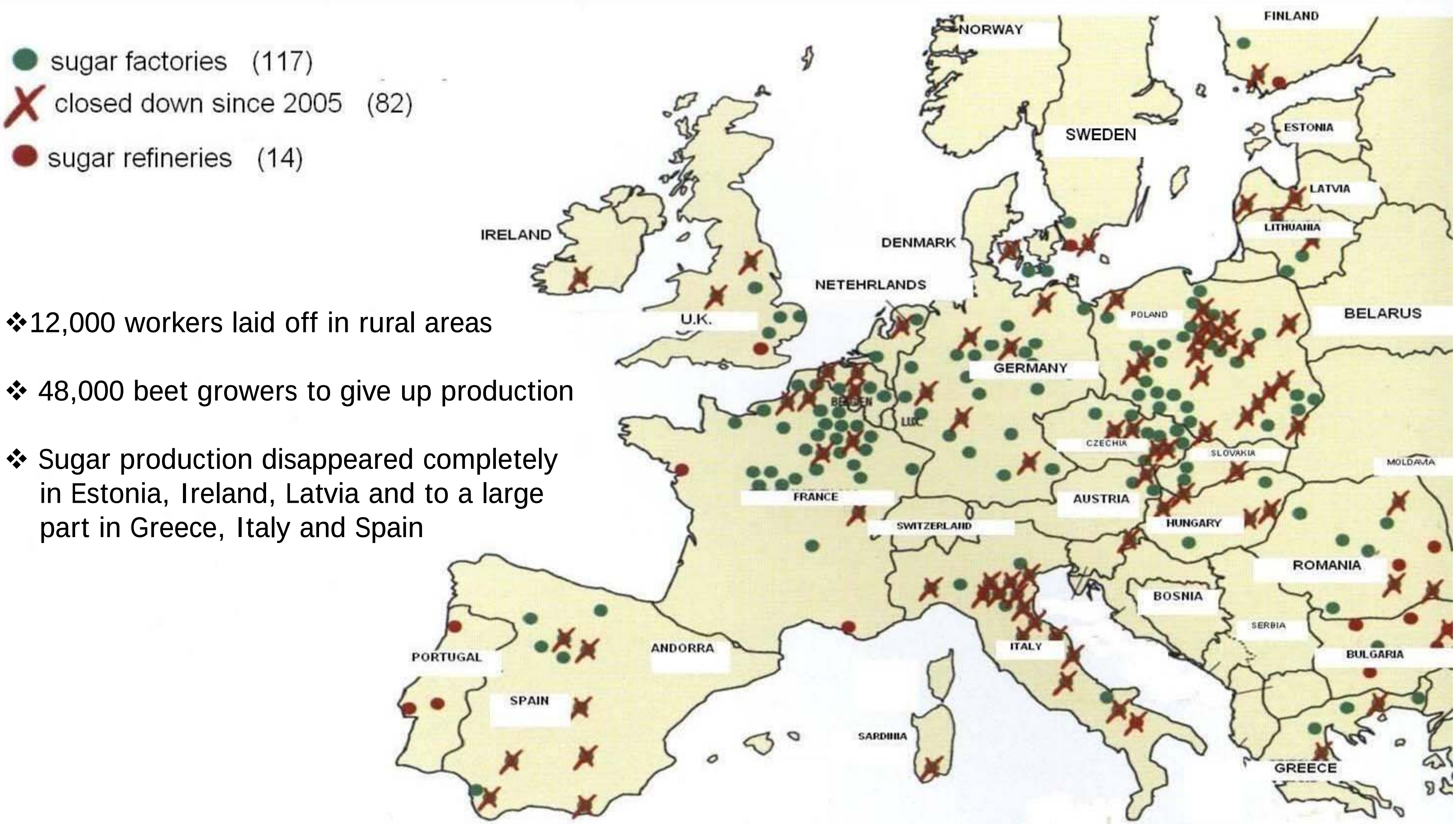
Structural changes in EU (27) sugar industry



❖12,000 workers laid off in rural areas

❖ 48,000 beet growers to give up production

❖ Sugar production disappeared completely in Estonia, Ireland, Latvia and to a large part in Greece, Italy and Spain

Conclusions

- Most constructive world sugar market outlook since 2005/06.
- Massive long term potential for sugar consumption growth.
- Production, consumption and trade outlook for fuel ethanol world wide is very positive; despite a possible slow down in investments in sugar and ethanol projects due to the global financial crisis.
- The EU Sugar Policy Reform is bearing fruit and showing results: little if any exports, increasing market access up to 4 to 5 million tonnes. Beneficiaries mainly ACP and LDCs.

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Thank you!