

Globalisation of Food Production: The Case of the Dairy Sector

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Session I B The evolving consumer



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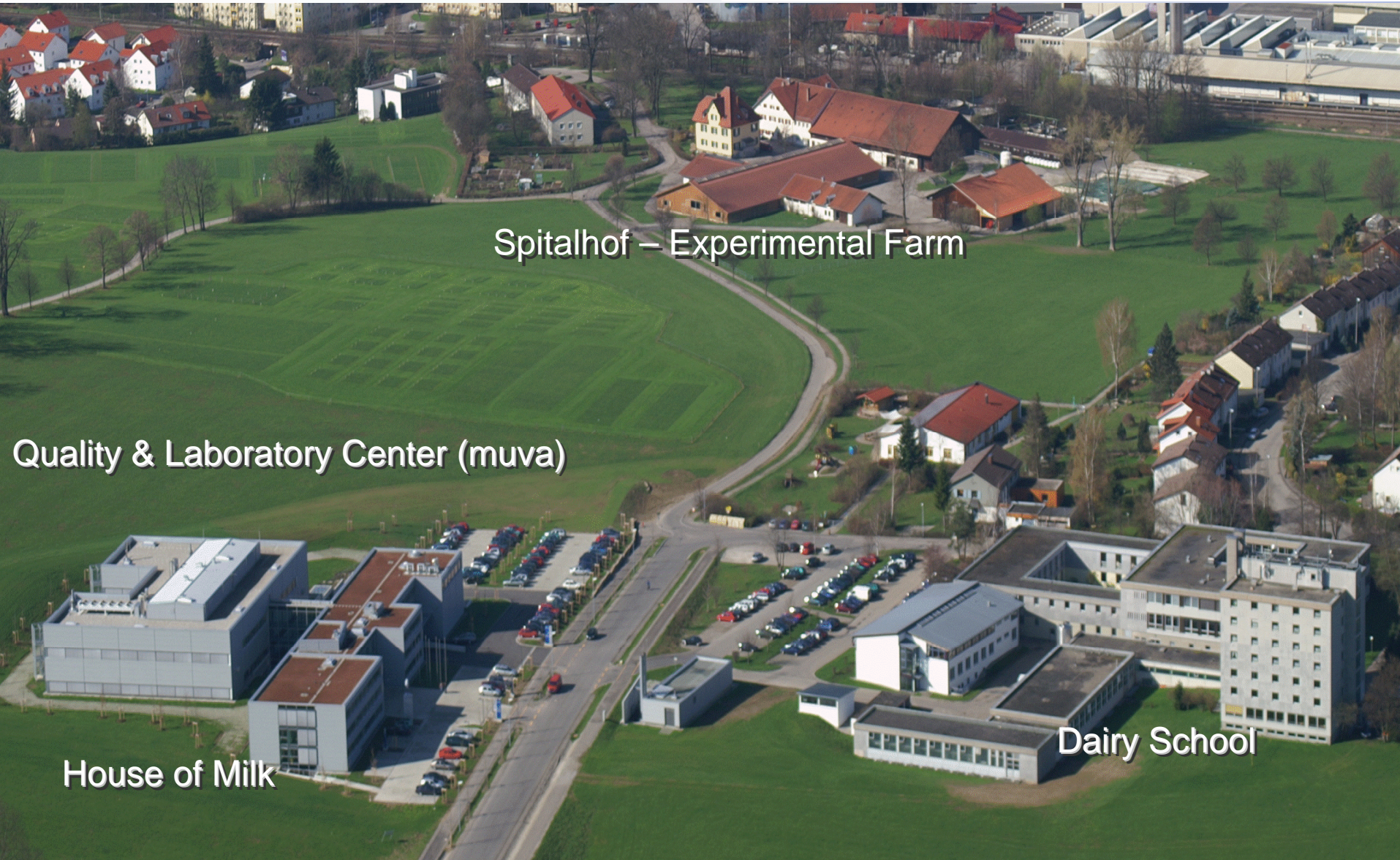
Milchwirtschaftliches
Zentrum Bayern
Kempten/Allgäu



Bavarian Milk and Dairy Center



Milchwirtschaftliches
Zentrum Bayern
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Spitalhof – Experimental Farm

Quality & Laboratory Center (muva)

House of Milk

Dairy School

Who is this?

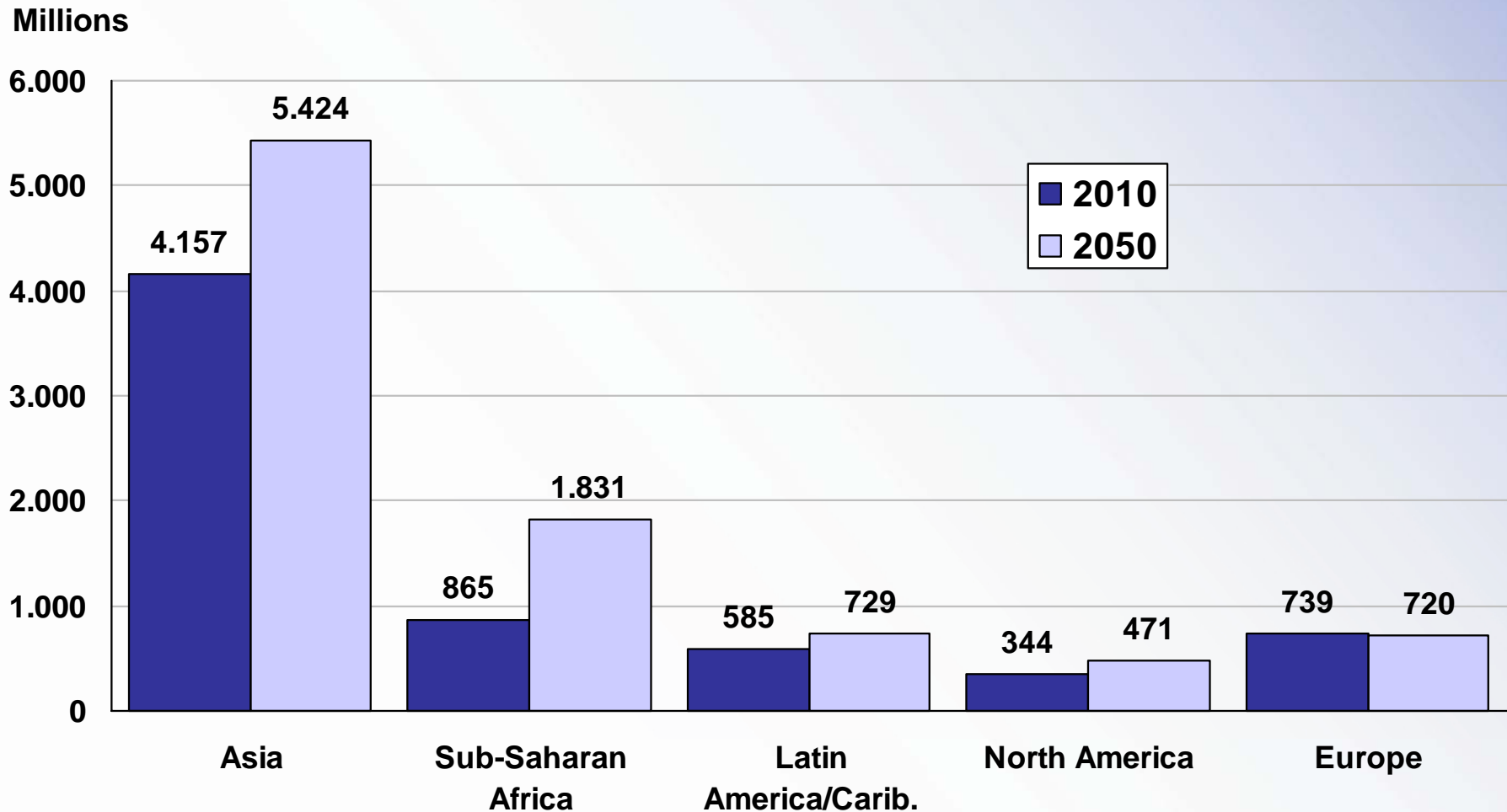


This is Danica Galura, born in Manila, October 31, 2011 and she is the 7th billionth human being here on our small planet

Our Challenge to serve more then 7 Billion Consumers

- Since a few days, the world counts more then 7 billion “CONSUMERS”
- As we all aware – as far as FOOD is concerned – milk and dairy products playing a leading role in the every day nutrition of most human beings in the world
- Even in countries without tradition in milk farming and manufacturing of dairy products – milk products, at least for baby food and school children, is becoming more and more popular
- Worldwide we are realizing a growing production of milk and increased processing to dairy products in industrial scale

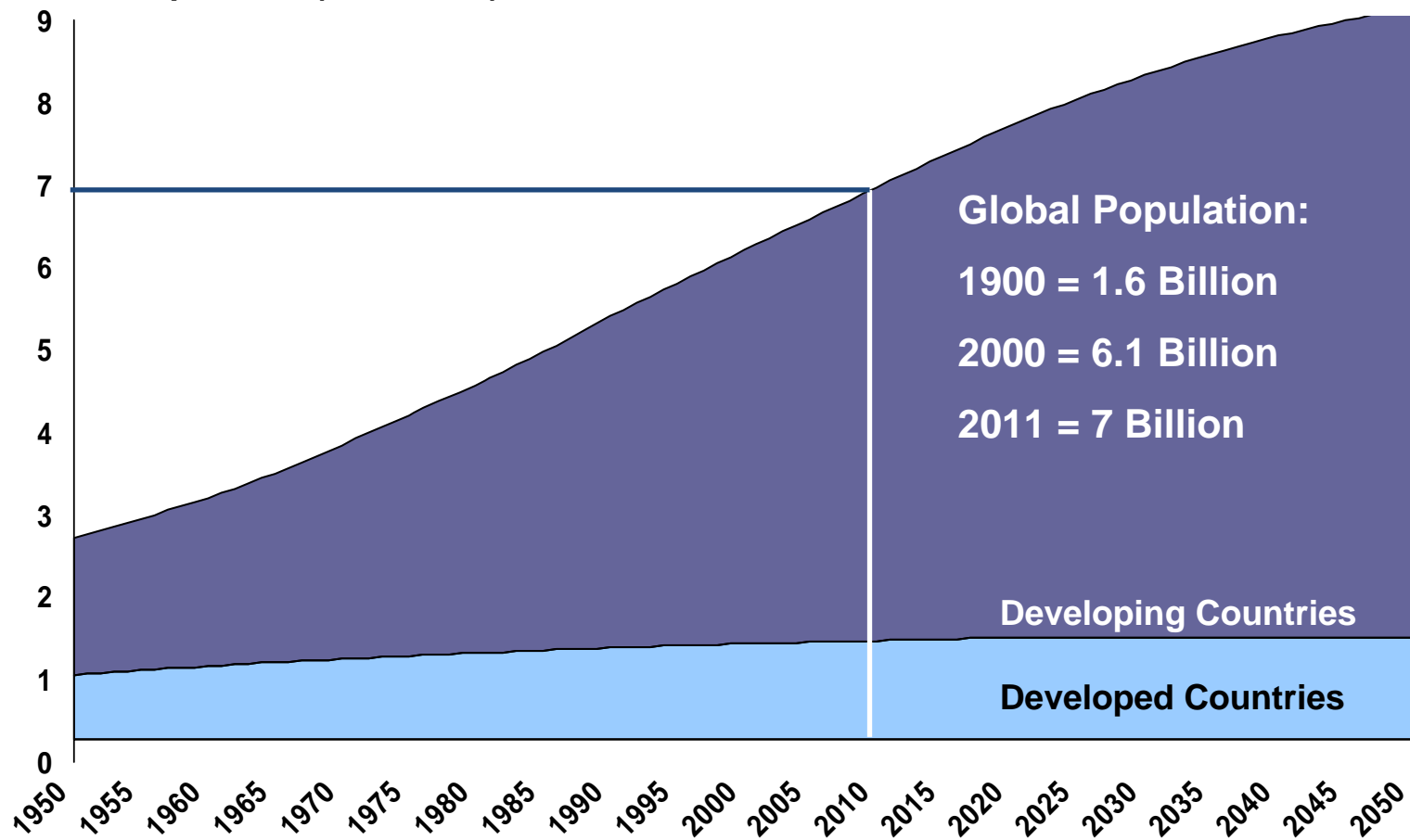
Population of the World's Regions, 2010 and 2050 Projected



Population Reference Bureau, 2010 World Population Data Sheet

Global Population Growth takes not Place in North America and Europe

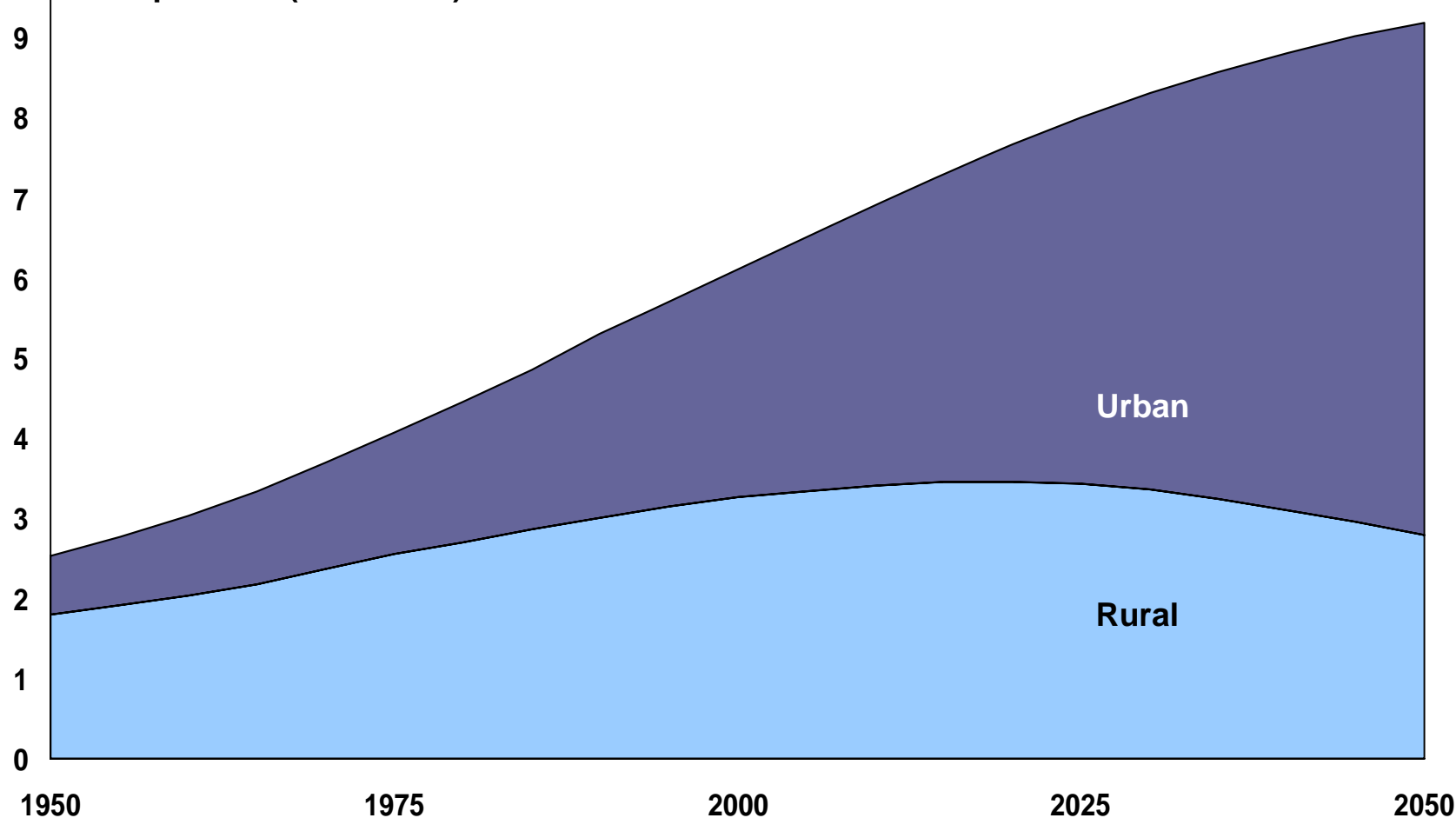
World Population (in Billions): 1950-2050



United Nations Population Division, *World Population Prospects, The 2008 Revision*.

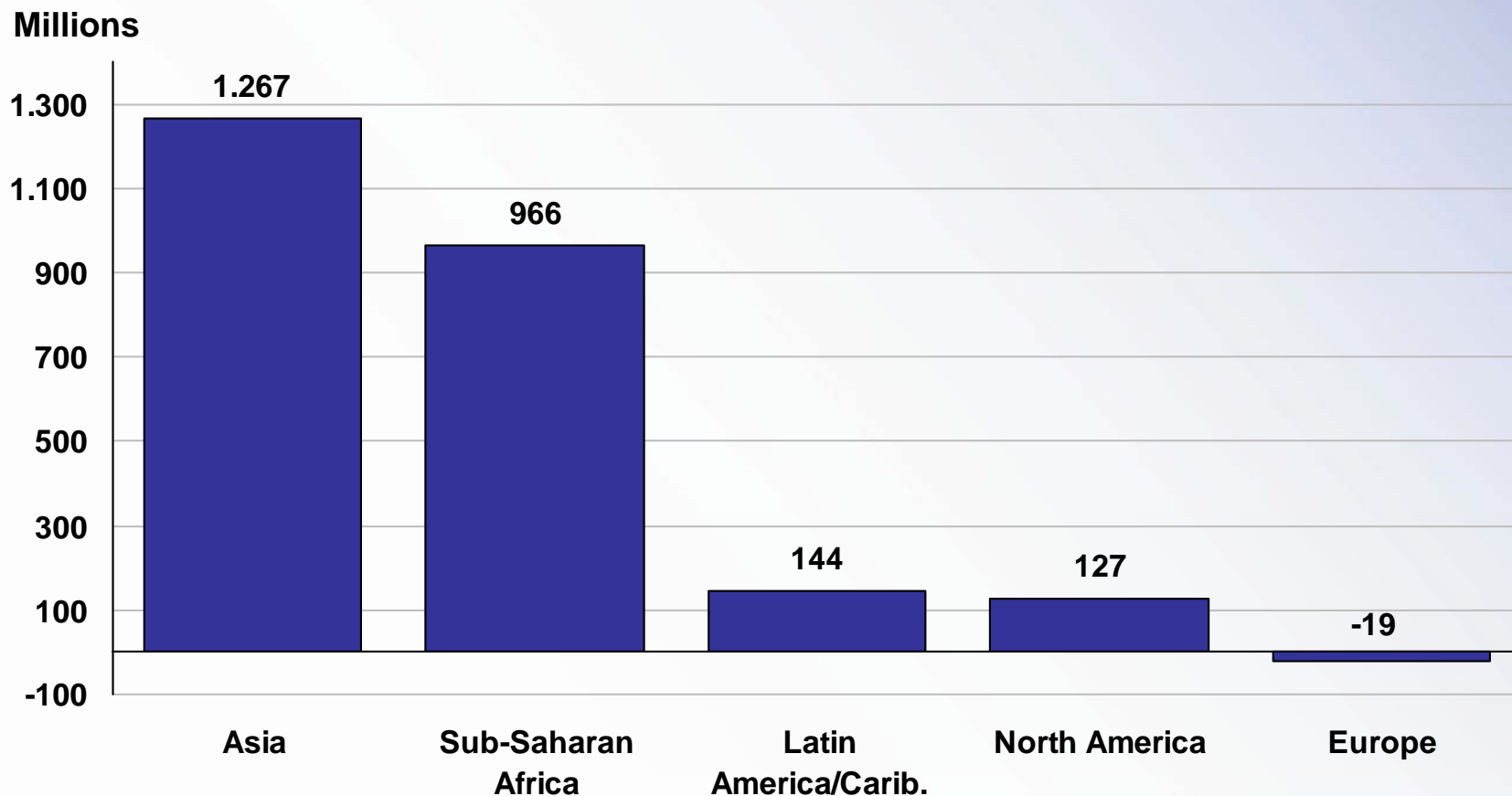
Future World Population Growth will be in Places defined by Countries as “Urban”

World Population (in Billions): 1950-2050



United Nations Population Division, *World Urbanization Prospects, The 2007 Revision*.

Projected Growth of World Regional Populations, 2010 to 2050



Population Reference Bureau, 2010 *World Population Data Sheet*

Production, Trade & Sales of Dairy Products increasingly managed by multinational Companies

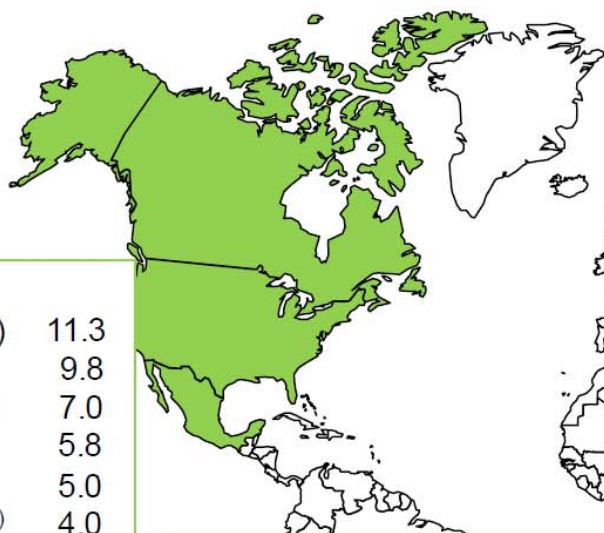


- Thanks to extensive trade in dairy products – globalisation of this market segment is a clear visible issue
- Food manufacturing and especially market and sales of food is in our globalized world concentrated on less and less companies operating worldwide



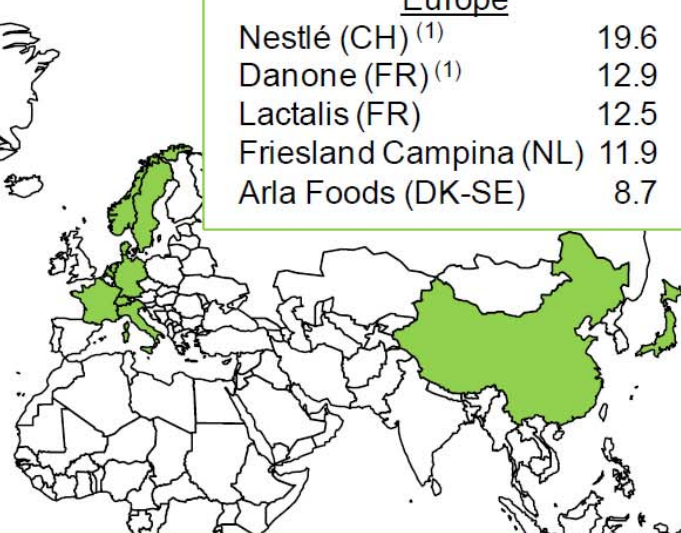
Concentration Processes in the Dairy Industry

24 groups generated dairy sales exceeding 3 billion USD in 2010



America

Dean Foods (US)	11.3
DFA (US)	9.8
Kraft Foods (US)	7.0
Saputo (CA) ⁽³⁾	5.8
Lala (MX) ^(e)	5.0
Schreiber (US) ^(e)	4.0
Land O'Lakes (US)	3.5
Agropur (CA)	3.2



Europe

Nestlé (CH) ⁽¹⁾	19.6	Sodiaal (FR) ⁽⁴⁾	5.3
Danone (FR) ⁽¹⁾	12.9	DMK (DE) ⁽⁴⁾	5.3
Lactalis (FR)	12.5	Parmalat (IT)	5.2
Friesland Campina (NL)	11.9	Bongrain (FR)	4.7
Arla Foods (DK-SE)	8.7	Bel (FR)	3.2
		Tine (NO)	3.1



Asia

Meiji Dairies (JP) ⁽³⁾	7.0
Morinaga (JP) ⁽³⁾	5.2
Mengniu (CN)	4.5
Yili (CN)	4.4

14 countries and 4 continents concerned



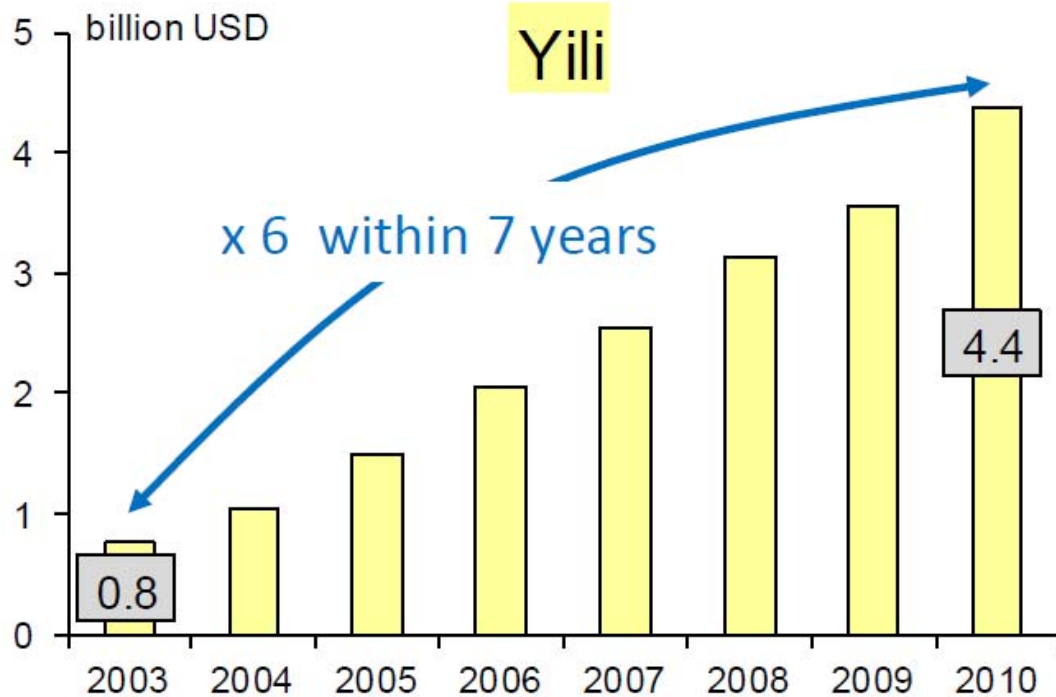
Oceania

Fonterra (NZ) ⁽²⁾	11.9
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World dairy companies: restructurations and investments
Benoît Rouyer - CNIEL

- (1) : infant formula excluded
- (2) : fiscal year ending in July 2010
- (3) : fiscal year ending in March 2011
- (4) : pro forma
- (e) : estimate
- NB: Unilever not ranked

The Asian Market is realizing strong dynamic Growth



Statistic Source: Benoit Rouyer



Asian Market is realizing strong dynamic Growth



Asian Market is realizing strong dynamic Growth



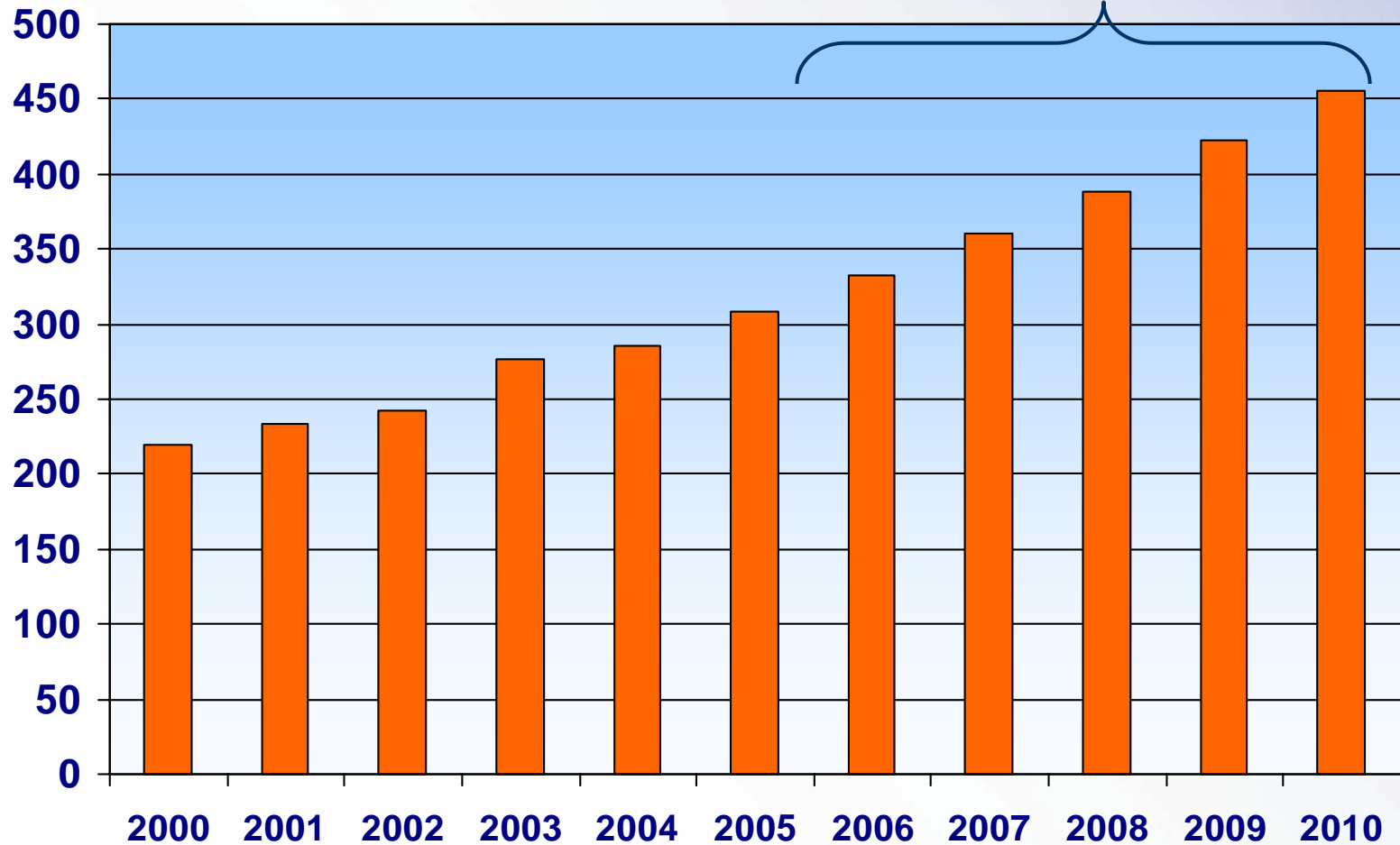
“Modern” Live fills more and more Supermarkets



Development of Retail-Sales in China

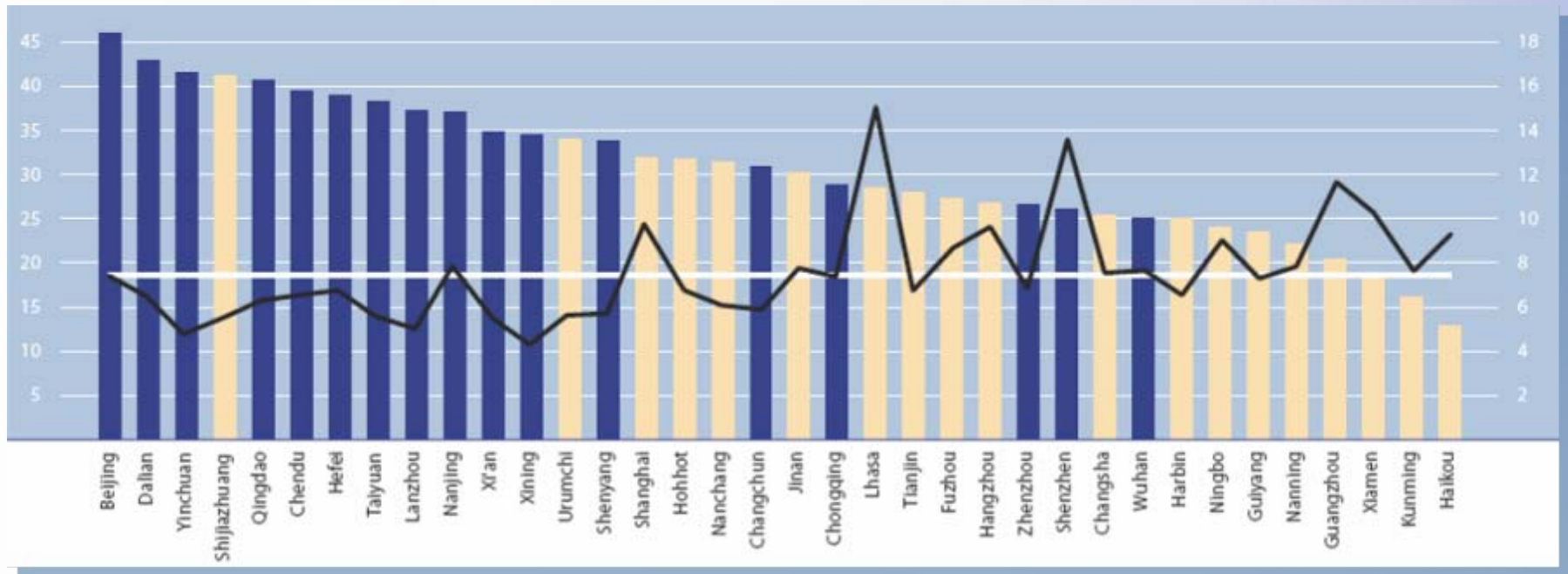
In Bill. USD

+ 48 % resp. USD 148 Bill.



Source: KPMG

Per Capita Consumption of Dairy Products in China

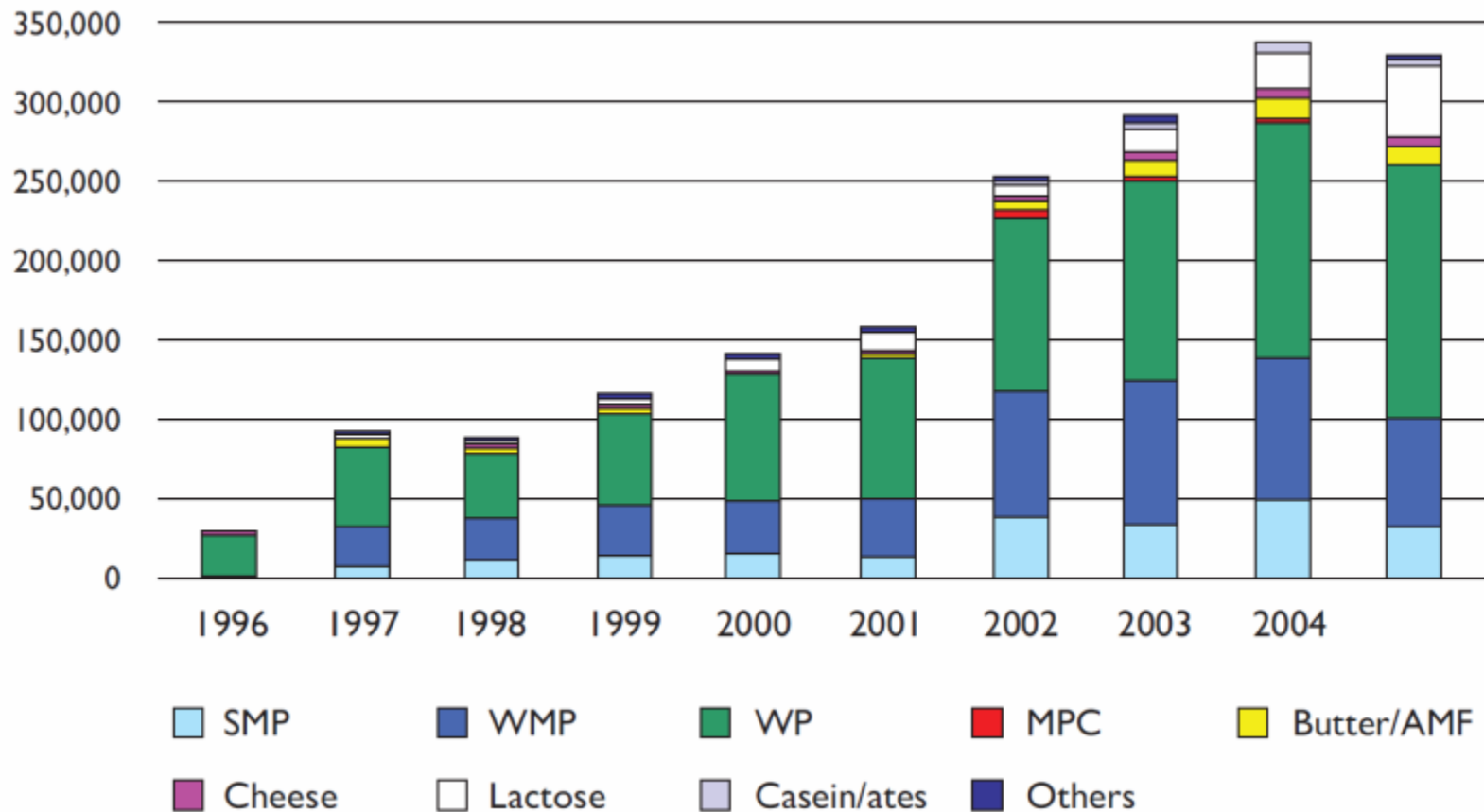


North-China
 South-China
 Unit-Price
 Average-Price

Source: CNBS

Consumption in large northern cities is higher – prices are lower compared to the South

Growth in the main Items exported to China by the main Suppliers:



Source: IRIS Consulting

China Demand Growth Forecast for Key Products, 2006 – 2020

Year	SMP, tonnes	WMP, tonnes	Whey powder, tonnes	Butter / AMF, powder	Cheese, powder	Lactose, tonnes
2006	37,721	77,273	176,378	20,965	10,551	58,506
2007	42,247	88,091	195,779	31,447	14,771	73,133
2008	46,894	98,662	215,357	37,737	19,203	87,760
2009	51,584	110,502	234,739	43,397	21,123	96,535
2010	56,742	121,552	253,518	47,737	23,235	101,362
2011	61,849	133,701	271,265	50,124	25,559	106,430
2012	67,415	145,741	287,541	52,630	28,115	111,752
2013	72,808	157,400	301,918	55,261	30,926	117,339
2014	77,905	166,844	313,994	58,024	34,019	123,206
2015	82,579	175,186	323,414	60,926	37,421	129,367
2016	86,708	183,946	333,116	63,972	41,163	135,835
2017	90,176	193,143	343,110	97,171	45,279	142,627
2018	92,882	202,800	353,403	70,529	49,807	149,758
2019	94,740	212,940	364,005	74,056	54,788	157,246
2020	96,635	223,587	374,926	77,758	60,367	165,108
Growth	62,956	156,393	217,445	64,655	53,233	121,770

Source: iRIS Consulting based on trade statistics

Mengniu's Prairie Expansion

Mengniu's **Prairie Expansion**

生态牧场 Eco-prairie



丰富草料 Rich Fodder



机械挤奶 Automatic Milking



动物福利 Animal welfare



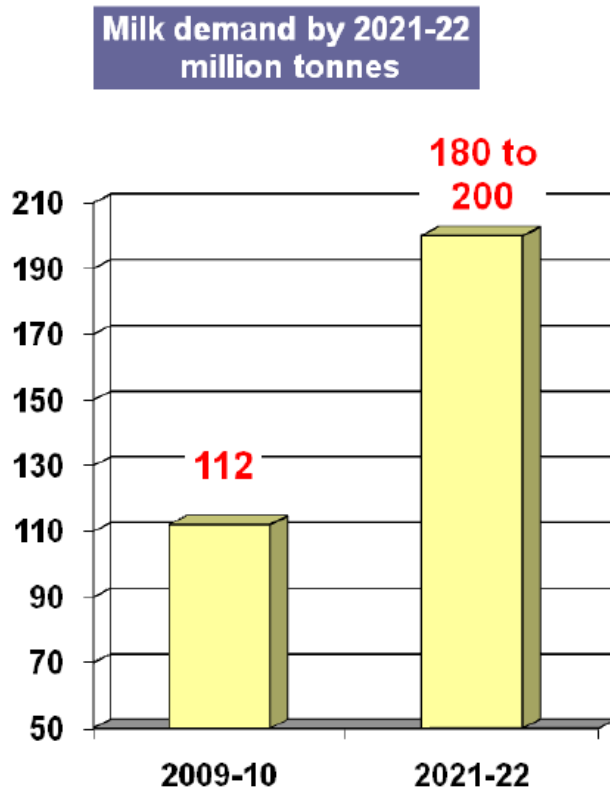
Wenjun Yang
October 16, 2011

Mengniu's Production Base

Mengniu has established 40 large scale production base covering whole China. Production capacity exceeds 6.6 million tons



Projected Development of Milk Production in India until 2012/22

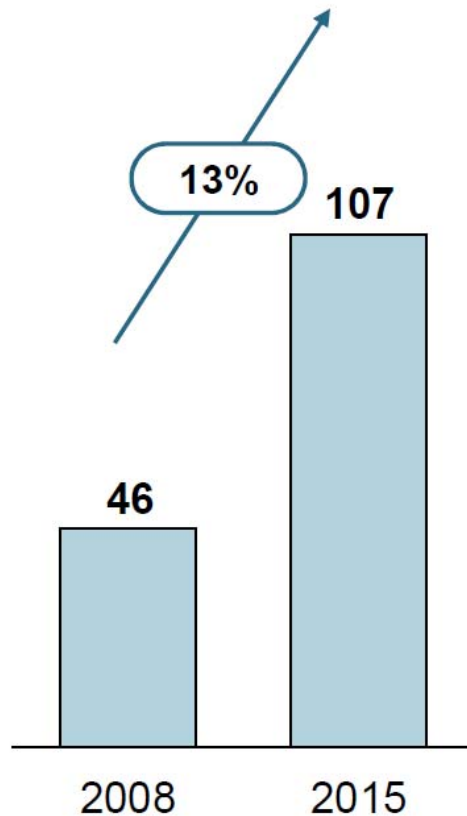


Source: D. Tikku Chairman, NDDB Dairy Services India

- GDP is expected to grow at 8 to 10 %
- Demand for milk and milk products will increase rapidly
- Projected to be between 180 million tonnes to 200 million tonnes
- Production has to continue to increase by about 4 % per annum

Development of packaged Food & Beverages in India

F&B market size [USD bn]



Key sub-sectors

- Dairy
- Processed F&V
- Snacks
- Bakery
- Ready to Eat Foods
- Ready to Cook Foods
- Beer

Source: Tata Strategic, Roland Berger

Small Scale Milk Production and Processing

Example from India



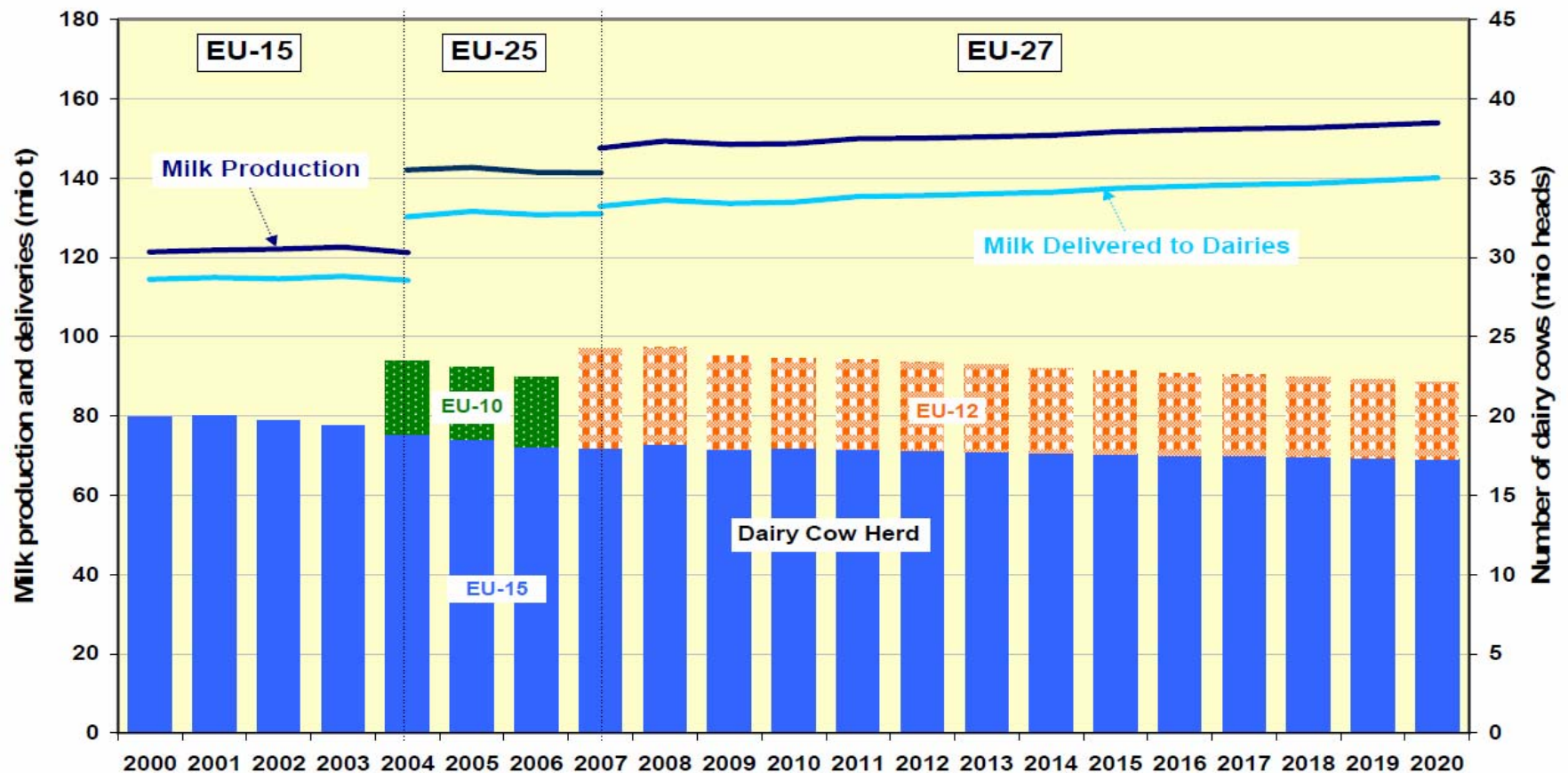
Source: Kuldeep Sharma, Entrepreneurship and Technology Development Center Noida

Additional worldwide Demand of industrial Dairy Products between 2005 and 2020

Product	Growth in Demand, 2005-2020, tonnes
Lactose	423,000
WMP	443,000
Whey Powder	414,000
SMP	385,000
Cheese	252,000
Milk fat Products	208,000
MPC	103,000
"Others"	46,000
Total	2,274,000

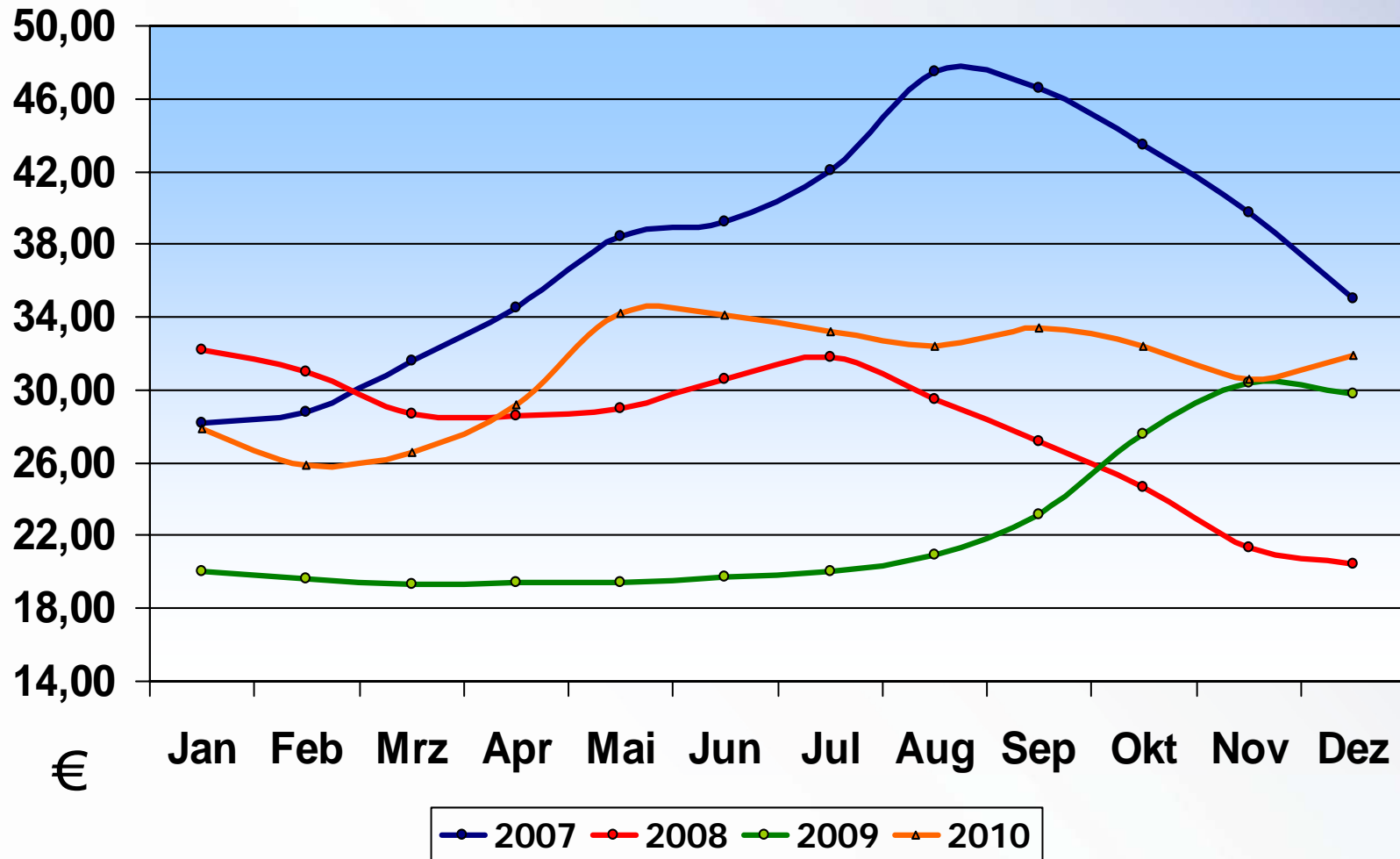
Source: iRIS Consulting analysis

Expected Milk Production in Europe (EU 27)



Source: European Commission Directorate-General for Agriculture and Rural Development

Milk Price Volatility in Europe – Example Germany



EU Production of Dairy Products

January – July 2010 - 2011

000 t	January to December			January - July			July
	2009	2010	10:09	2010	2011*	11:10 *	11:10*
Liquid milk	32.623	32.832	+ 0,6%	19.128	19.227	+ 0,5%	+ 0,4%
Cream**	2.370	2.400	+ 1,3%	1.381	1.404	+ 1,7%	+ 2,5%
Fermented Products**	8.597	8.794	+ 2,3%	5.246	5.261	+ 0,3%	- 7,6%
Butter	1.842	1.812	- 1,6%	1.095	1.128	+ 3,0%	+ 8,7%
Cheese	8.177	8.340	+ 2,0%	4.899	4.950	+ 1,0%	- 0,4%
WMP etc.	759	761	+ 0,2%	458	441	- 3,9%	- 7,2%
SMP	1.080	1.003	- 7,1%	641	709	+ 10,7%	+ 27,4%
Condensed milk**	1.077	1.052	- 2,3%	609	612	+ 0,5%	+ 4,1%

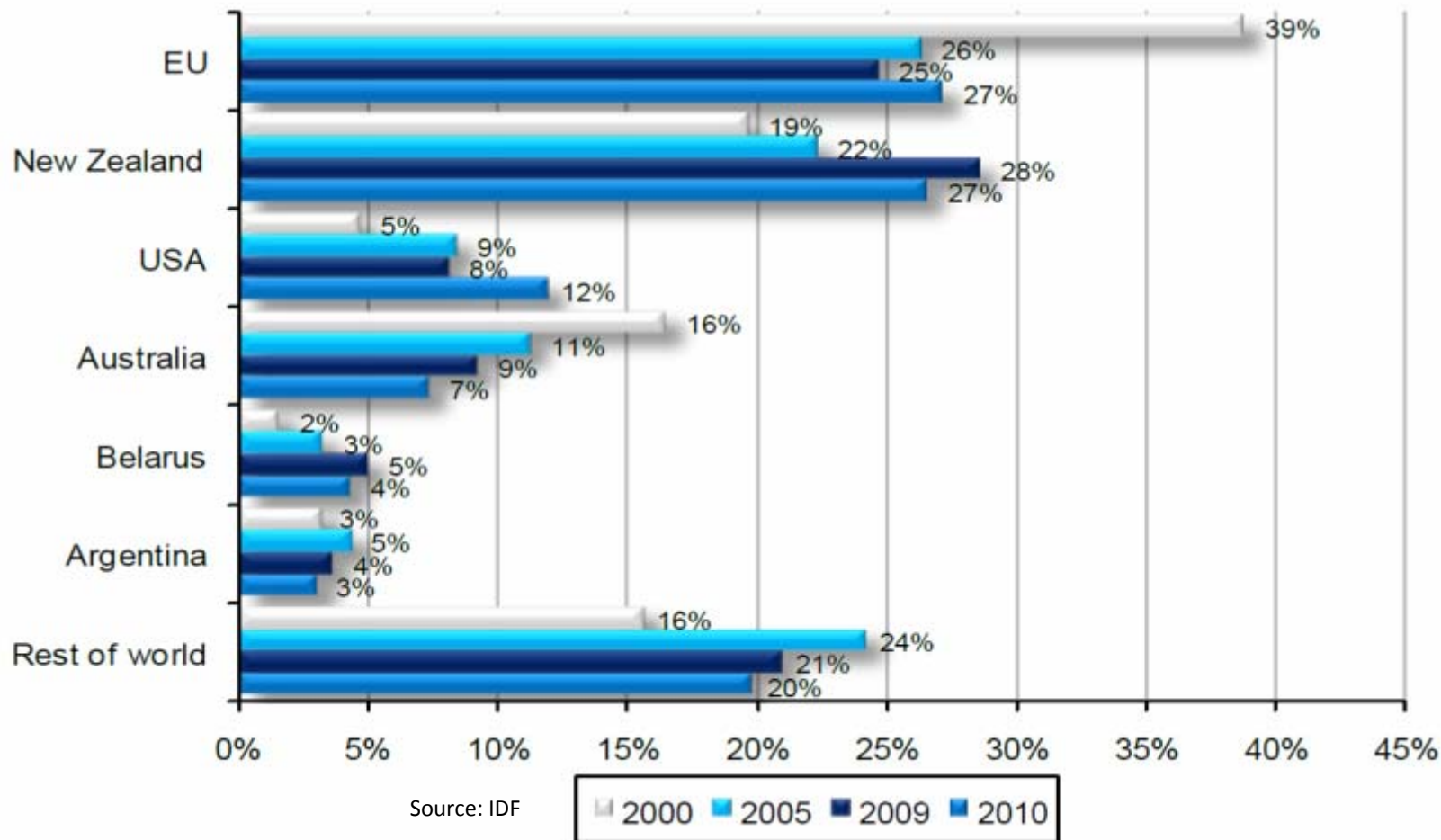
*) Provisional.

Sources: ZMB, Eurostat, national statistics.

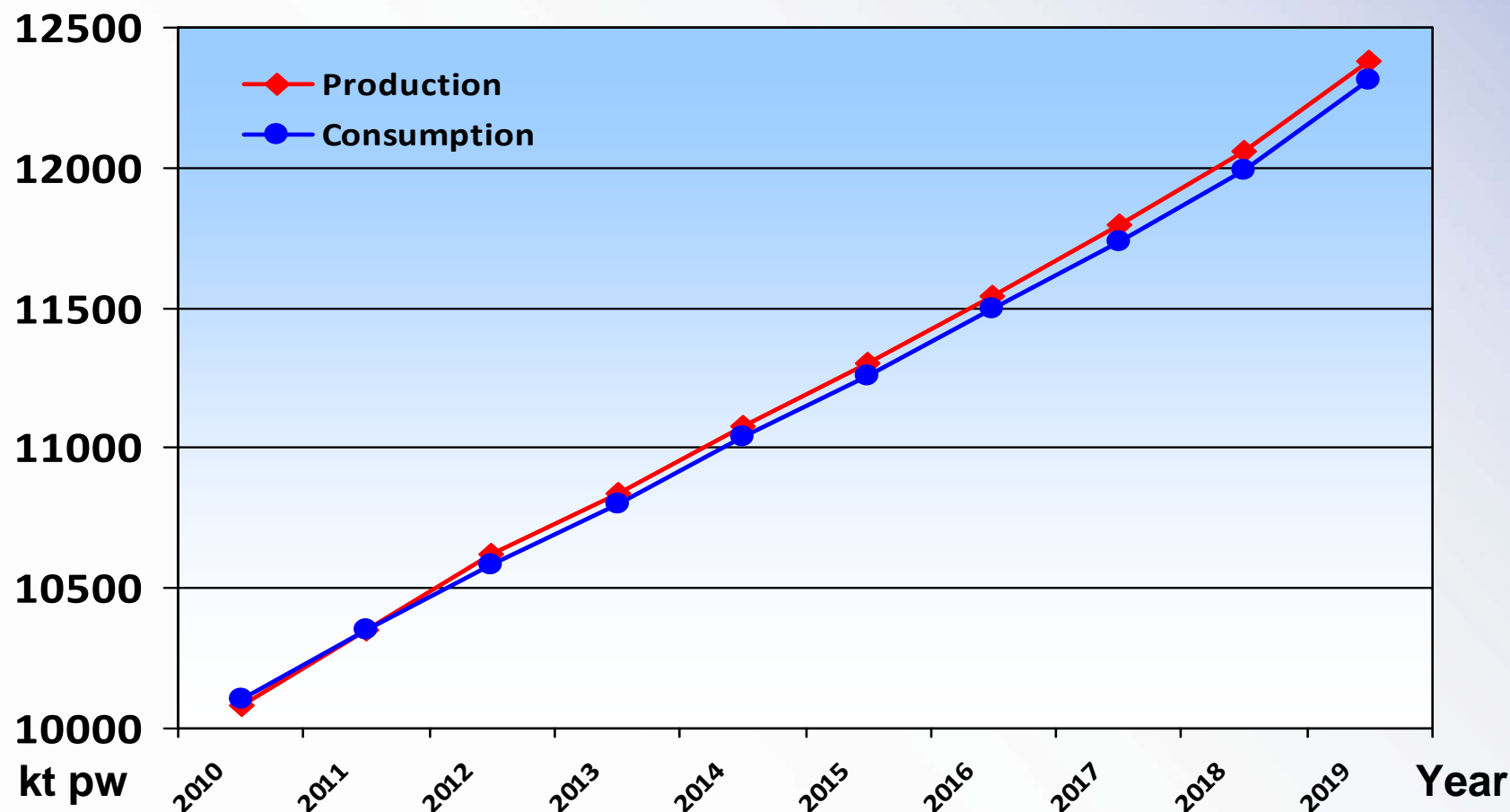
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Europe cannot be replaced as Exporter of Dairy Products

Export calculated on milk equivalent basis

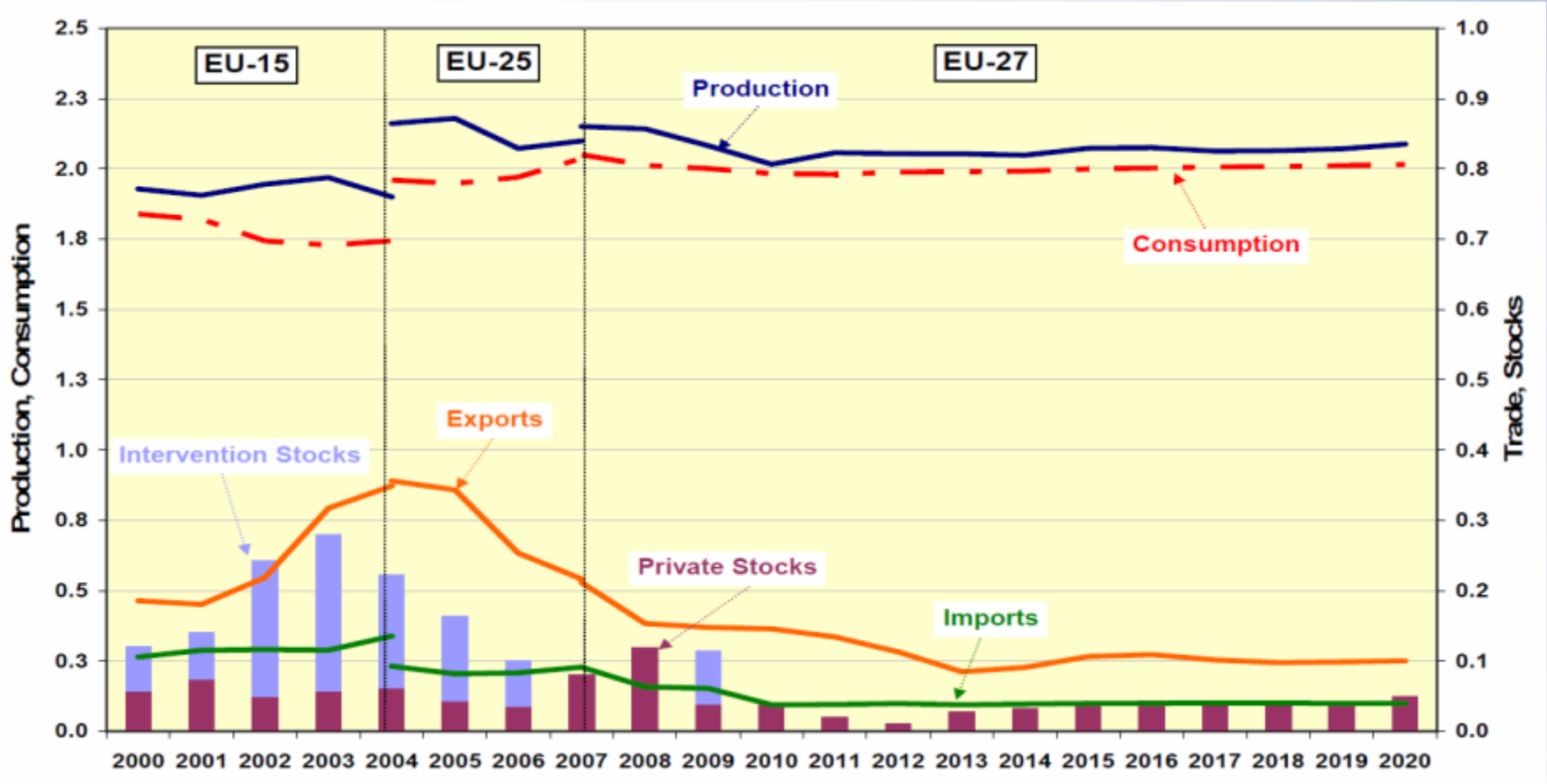


World Butter Production and Consumption*



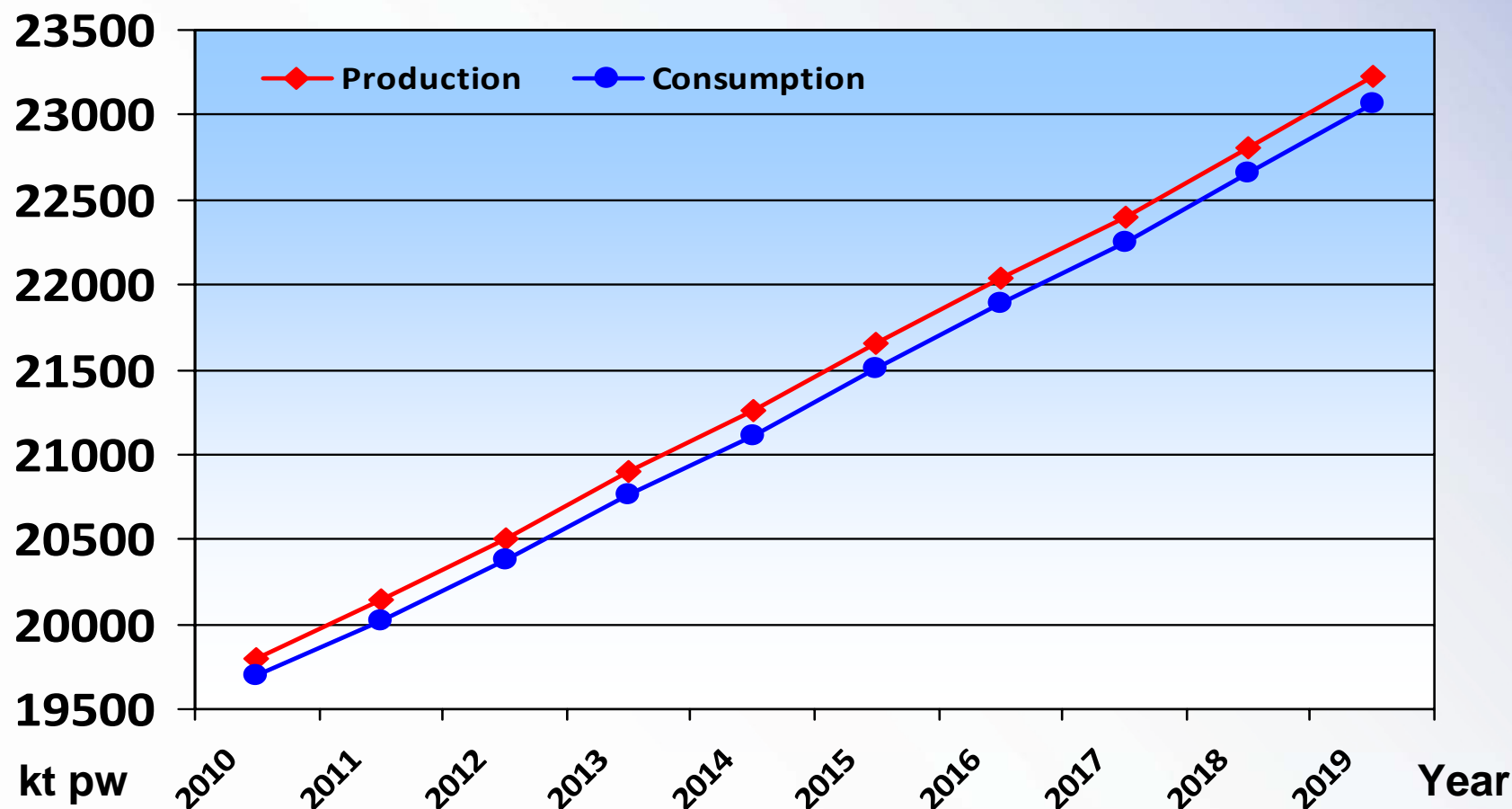
* Source: OECD & FAO Agricultural Outlook 2011 - 2020

Butter Production and Consumption expected to be firm in Europe



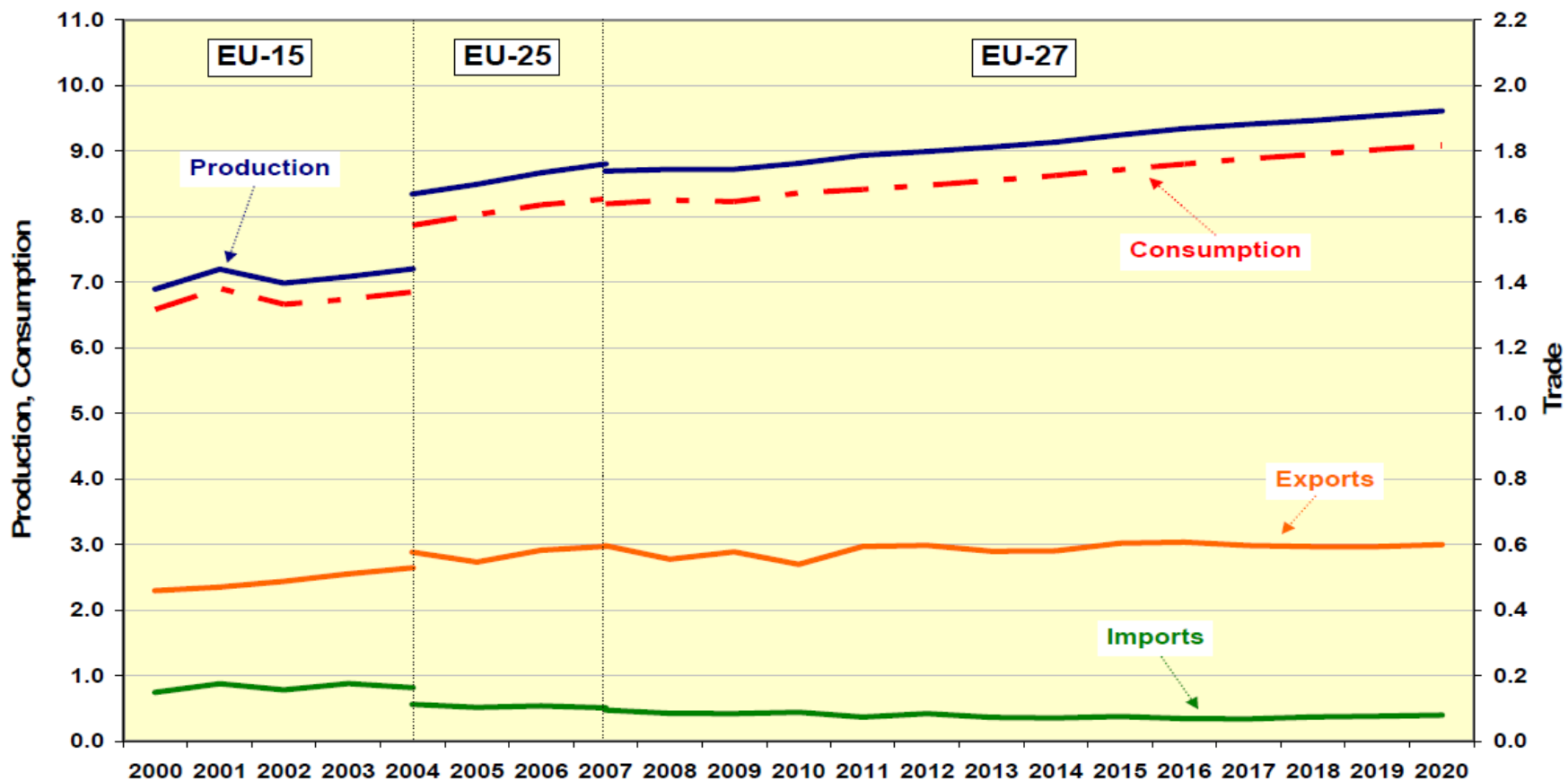
Source: European Commission Directorate-General for Agriculture and Rural Development

World Cheese Production and Consumption*



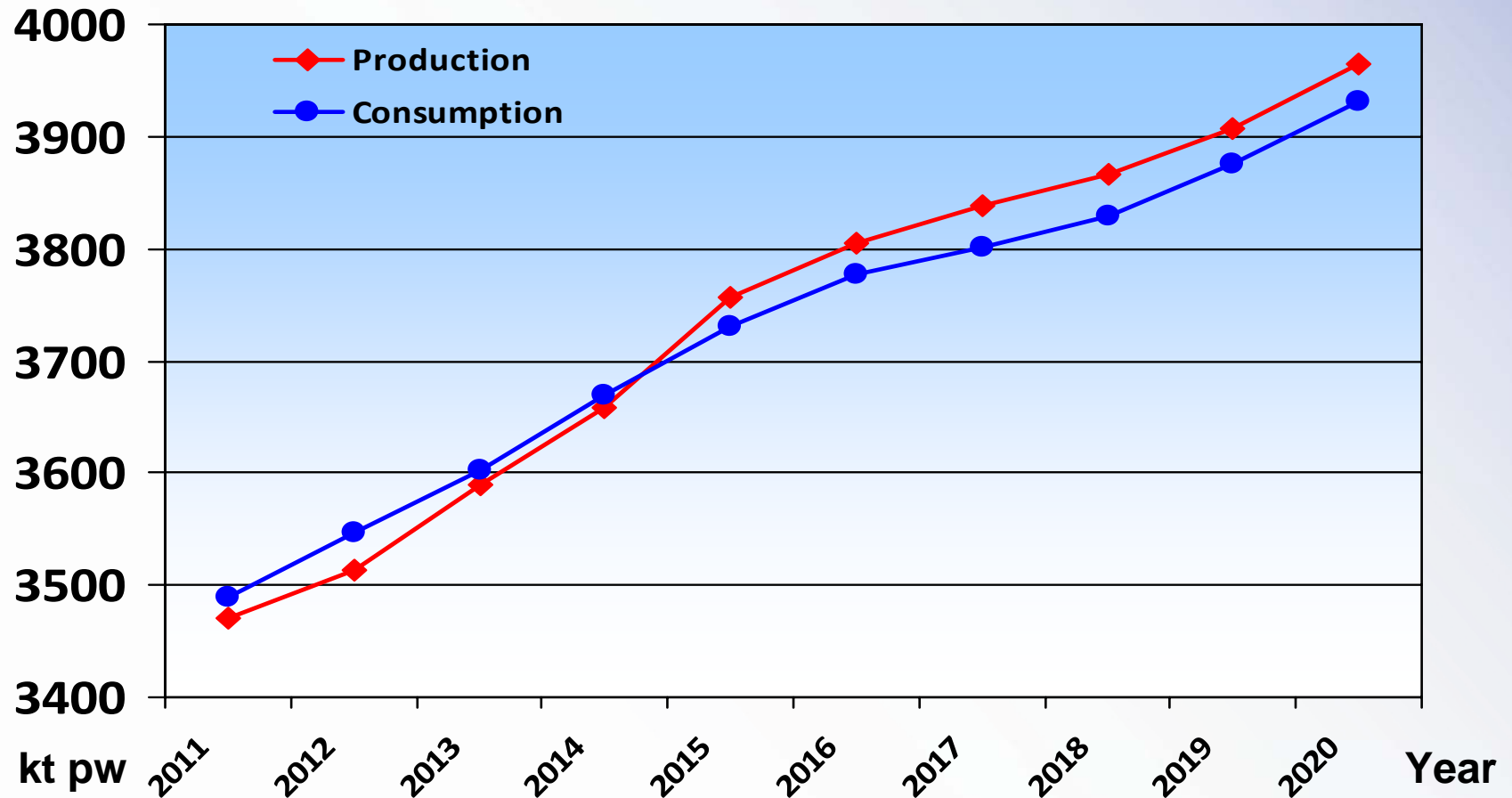
* Source: OECD & FAO Agricultural Outlook 2011 - 2020

Expected Development of the Cheese Market in Europe



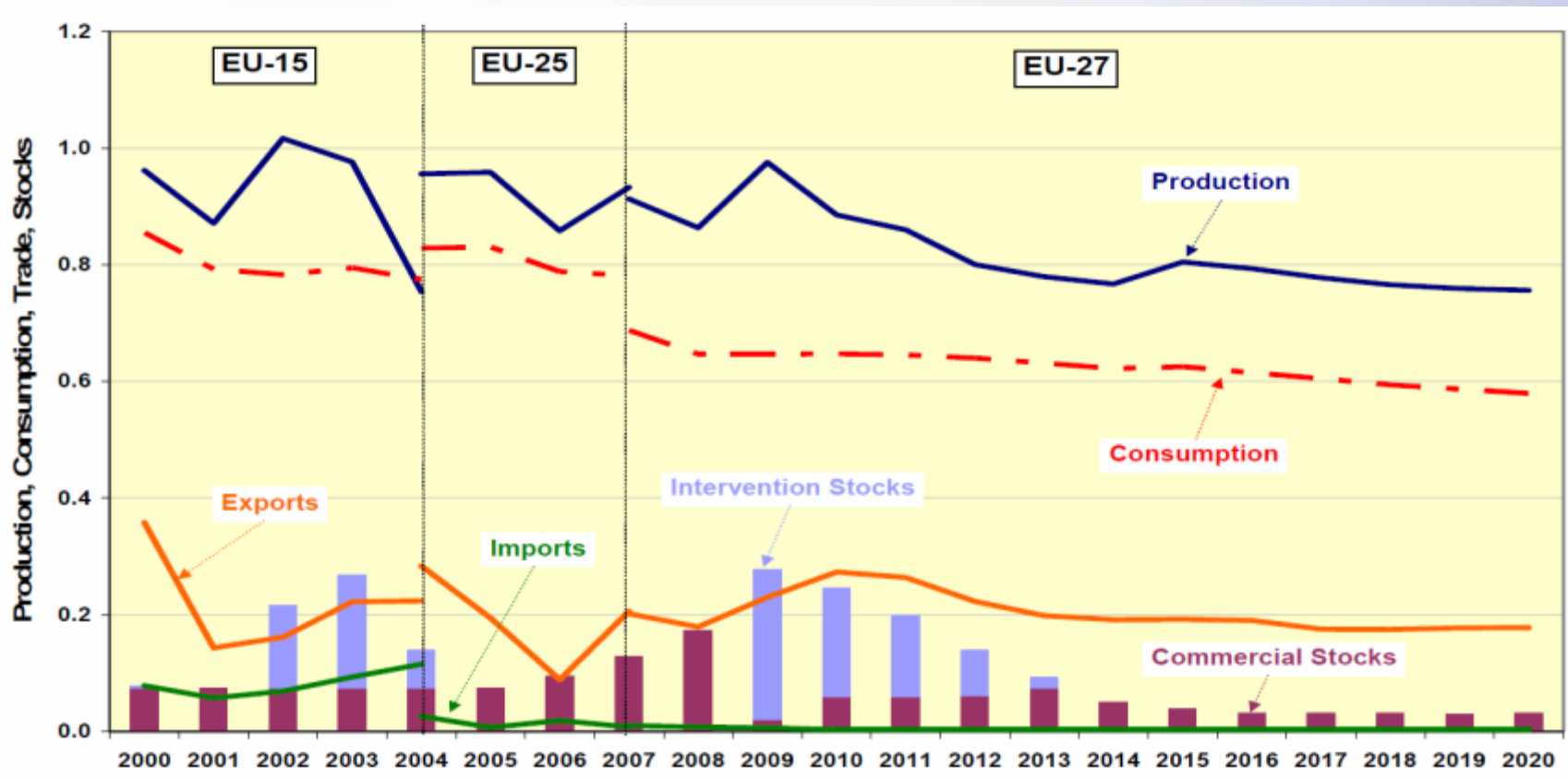
Source: European Commission Directorate-General for Agriculture and Rural Development

World Skim Milk Powder Production and Consumption*



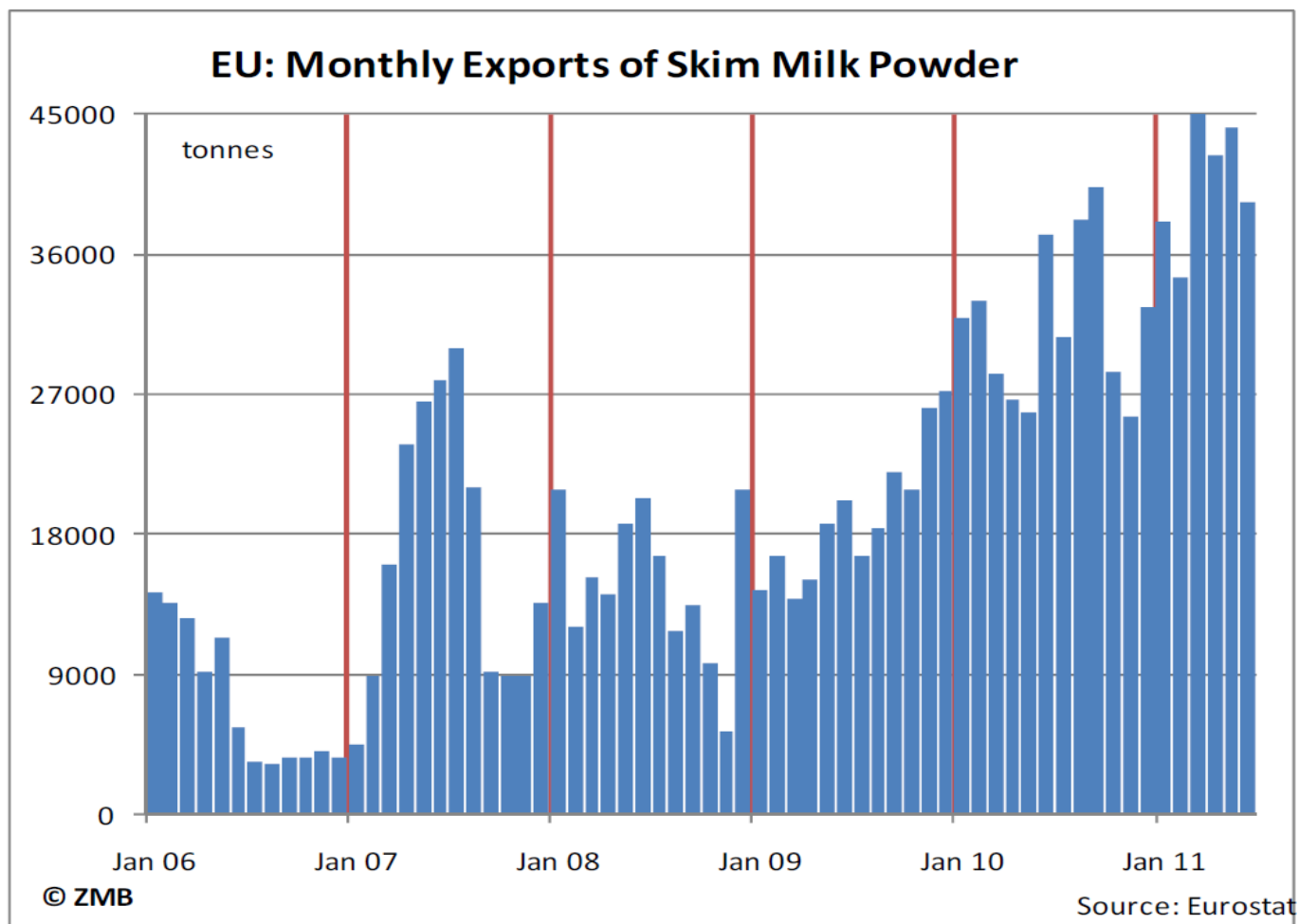
* Source: OECD & FAO Agricultural Outlook 2011 - 2020

Less Importance of Skim Milk Powder expected for Europe



Source: European Commission Directorate-General for Agriculture and Rural Development

Growing Export of EU



Strong international Demand of Skim Milk Powder

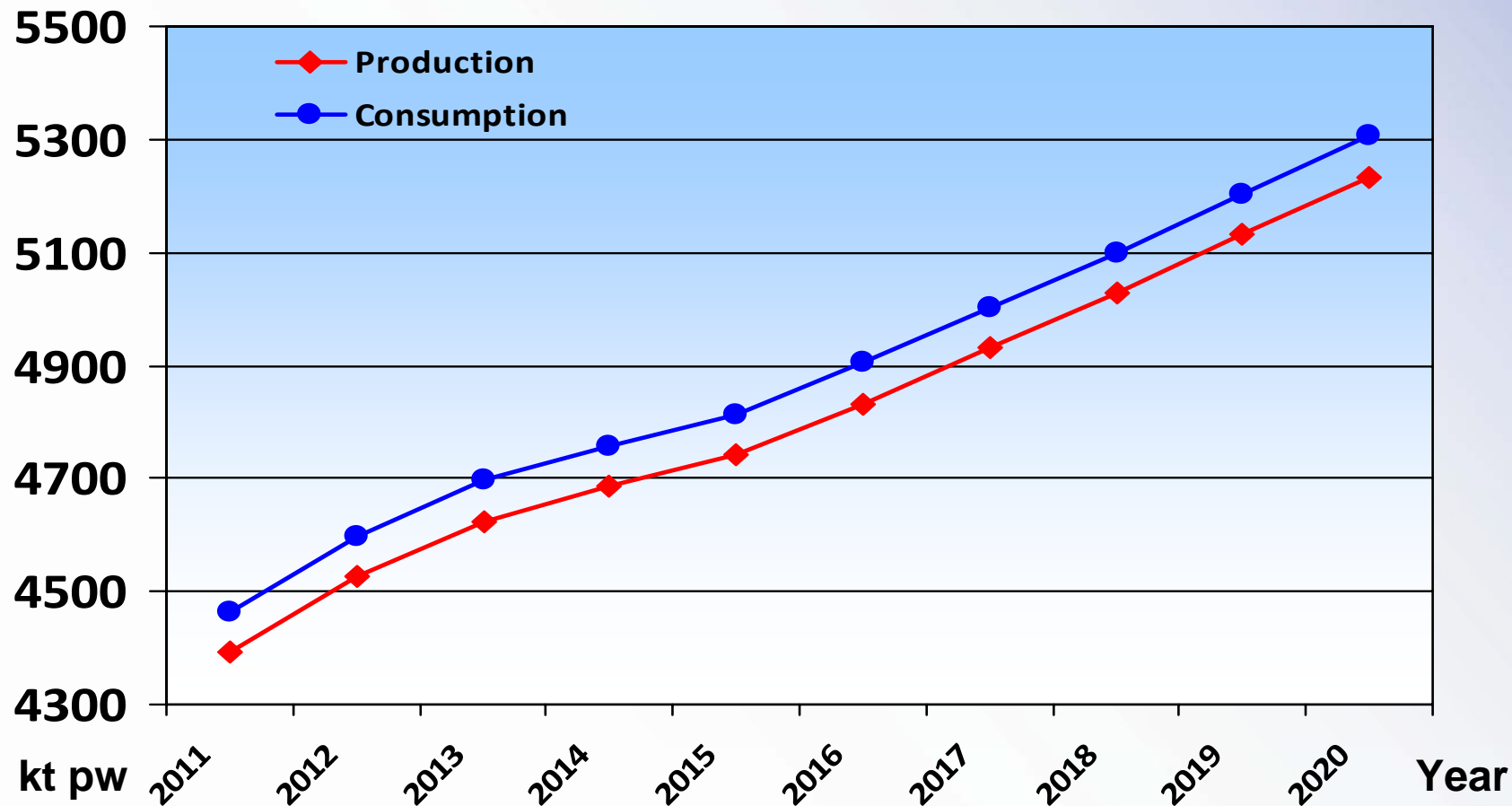
Exports of Skim Milk Powder

tonns		2010	2011	± %
EU-27	Jan. - July	213.300	283.000	+ 32,7
New Zealand	Jan. - July	207.149	212.991	+ 2,8
Australia	Jan. - July	53.661	77.772	+ 44,9
USA	Jan. - July	54.034	112.194	+ 36,2
Argentina	Jan. -Aug.	8.954	13.521	+ 51,0
Total amount		670.459	842.499	+ 25,7

Sources: ZMB, EU-Comm., GTA, national statistics

© ZMB

World Whole Milk Powder Production and Consumption



Strong international Demand of Whole Milk Powder in 2011

Exports of Whole Milk Powder				
tonns		2010	2011	± %
EU-27	Jan. - July	278.400	250.600	- 10,0
New Zealand	Jan. - July	544.276	668.729	+ 22,9
Australia	Jan. - June	52.757	58.373	+ 10,6
USA	Jan. - June	30.302	10.040	- 66,9
Brasilia	Jan. - July	3.861	1.111	- 71,2
Argentina	Jan. - Aug.	64.070	110.200	+ 72,0
Uruguay	Jan. - July	32.585	29.604	- 9,1
Total amount		1.006.251	1.128.657	+ 12,2

Sources: ZMB, EU-Comm., GTA, national statistics

© ZMB

Export of Whey Powder is growing faster then Production

Exports of Whey Powder				
tonns		2010	2011	± %
EU-27	Jan. - July	217.500	242.700	+ 11,6
USA	Jan. - July	251.979	244.655	- 2,9
Australia	Jan. - July	27.418	19.589	-29
Total amount		496.897	506.944	+ 2,0
Sources: ZMB, EU-Comm., national statistics				© ZMB

World Growth in Dairy Products according to OECD & FAO Agricultural Outlook

Product / ` 000 t	2011	2019	Difference
Cheese	20,144	23,224	+ 3,080
Butter	10,354	12,381	+ 2,027
Skim Milk Powder	3,470	3,908	+ 438
Whole Milk Powder	4,393	5,234	+841
TOTAL	38,361	44,747	+ 6,386

Indian Tradition in Dairy Products adapted to the Swiss and European Market



- One of the latest developments of fresh cheese specialist Züger in Switzerland
- For the “Ethnic market” but also for a growing number of domestic consumers





summilk
IDF WORLD DAIRY SUMMIT 2011



DAIRY SECTOR CAN BE POWERFUL TOOL FOR REDUCING POVERTY IN DEVELOPING COUNTRIES

According to one of the recent statements by FAO's Director,

“Global milk demand is growing by 15 million tons per year, mostly in developing countries. Production of this increased volume of milk by small scale dairy farmers would create approximately 3 million jobs per year in primary production alone”

Traditional Dairy Products in Developing Countries as Source for new Product Launches

Country	Product Category	Name
Bulgaria	Sour milk	Kiselo Mlyako
Iran	Sour milk	Doogh
India	Sweet sour milk	Lassi
Israel	Sour milk	Leben
Romania	Acidified milk	Lapte Batut
Russia, Ecuador	Fermented alcoholic milk	Kefir
Poland	Sour milk	Kwasne Mleko
Mexico	Sour cream	Cream Espesa
Serbia	Sour cream	Kisela Pavlaka
Croatia	Sour cream	Mileram/ Kiselo vrhnje
Paraguay	Diet Fresh Curd	Requeson Dietetico
Kenya	Sour milk	Akile Nukadwarak
Zaire	Acidified milk	Amacunda
Zimbabwe	Acidified milk	Amasi
Irgo	Sour milk	Ethiopoa
Kenya	Sour milk	Ambere
Malawi	Acidified milk	Chambiko

Traditional Dairy Products in Developing Countries
Prof. Jashbhai Prajapati, SASNET-FF, AAU, Anand, India



If the wind of change is blowing some
build walls and the others building
windmills