

Opportunities and issues related to the export of dairy products to China

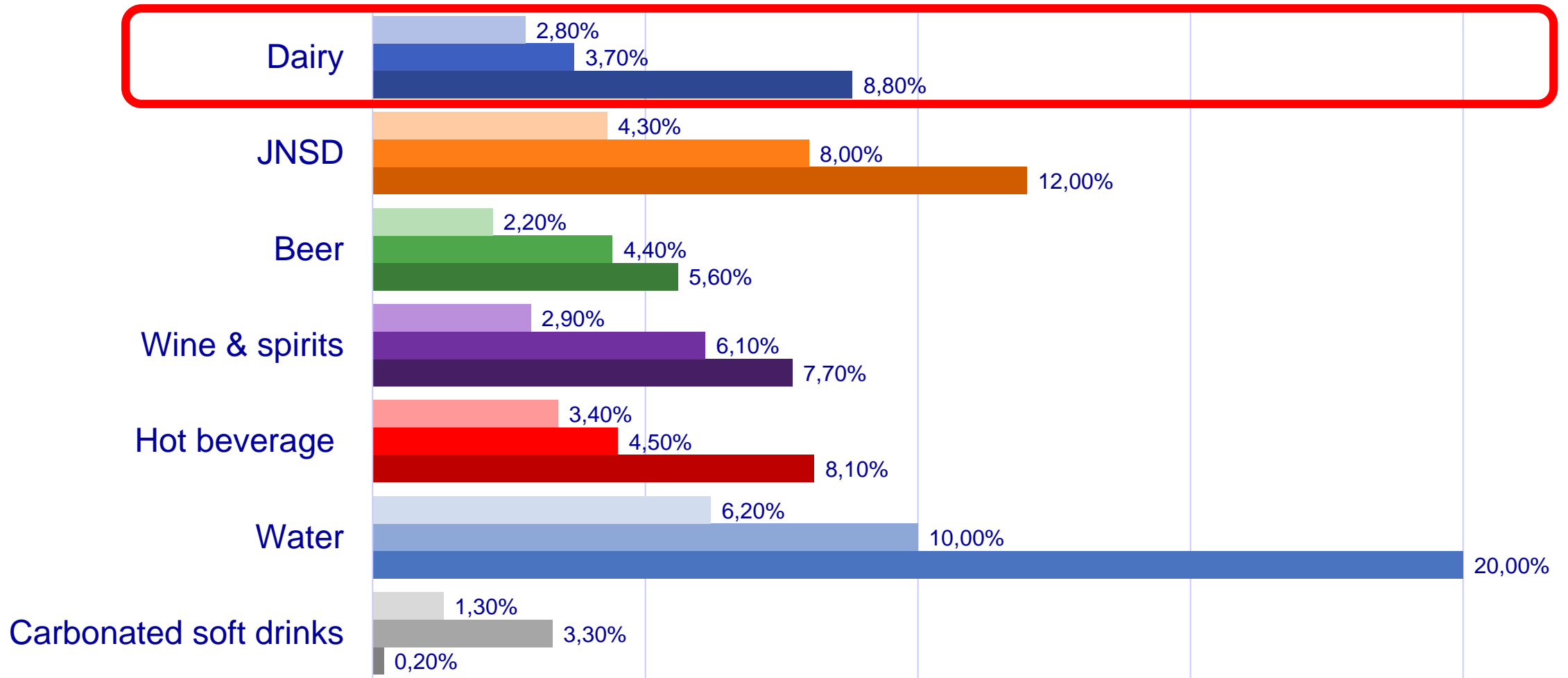
Dr. Bozena Malmgren
Tetra Pak , Lund, Sweden





Liquid products annual growth

Comparison of world, developing countries and China





Total dairy market growth in China

Annual growth between 2012 – 2017 by category

PRODUCT	2012	2017	An. growth
Basic milk	10,2%	6,3%	-0,2%
Middle price milk	2,3%	2,5%	11,8%
Premium milk	4,2%	6,0%	18,1%
Kid's milk	7,0%	9,1%	15,8%
Milk drinks	4,0%	5,2%	15,5%
Flavoured milk	3,4%	3,0%	6,8%
Yoghurt drinks	17,8%	13,4%	4,0%
Ambient yoghurt	0,7%	1,8%	31,2%
Yoghurt	7,9%	7,4%	8,6%
Probiotic	1,9%	3,5%	24,0%
Milk powder	3,7%	3,4%	8,0%
Infant milk formula	19,9%	21,1%	11,4%
Cheese	2,2%	2,4%	22,0%
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Lactic Acid Drinks

Composition

- ▶ A mixture of skimmed milk powder, sugar and water acidified using e.g. lactic acid or citric acid
- ▶ Chinese LAD usually containing 0.7% protein per 100 ml or 21% of dairy ingredient

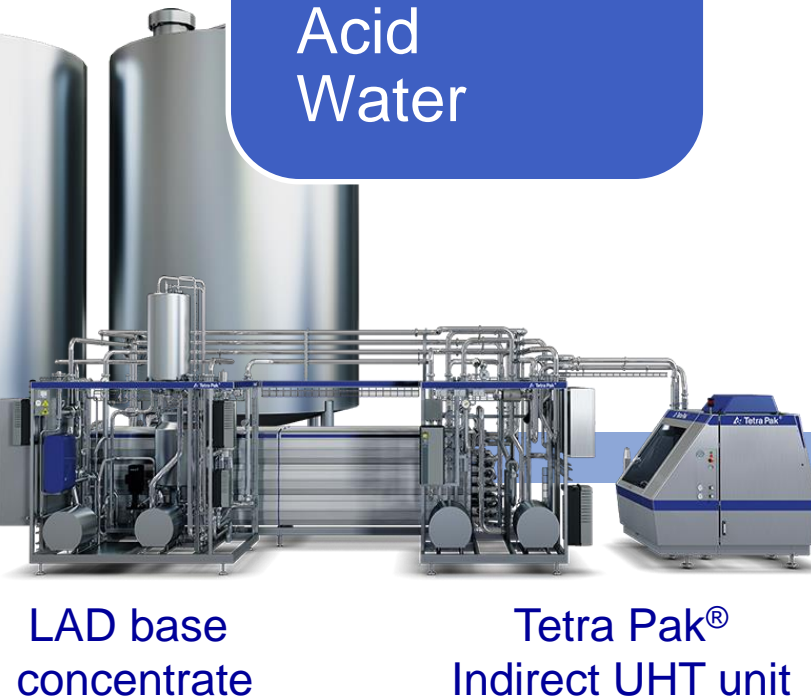




Lactic Acid Drink concept

Short cut to acidified products

Milk powder
Sugar
Stabiliser
Acid
Water

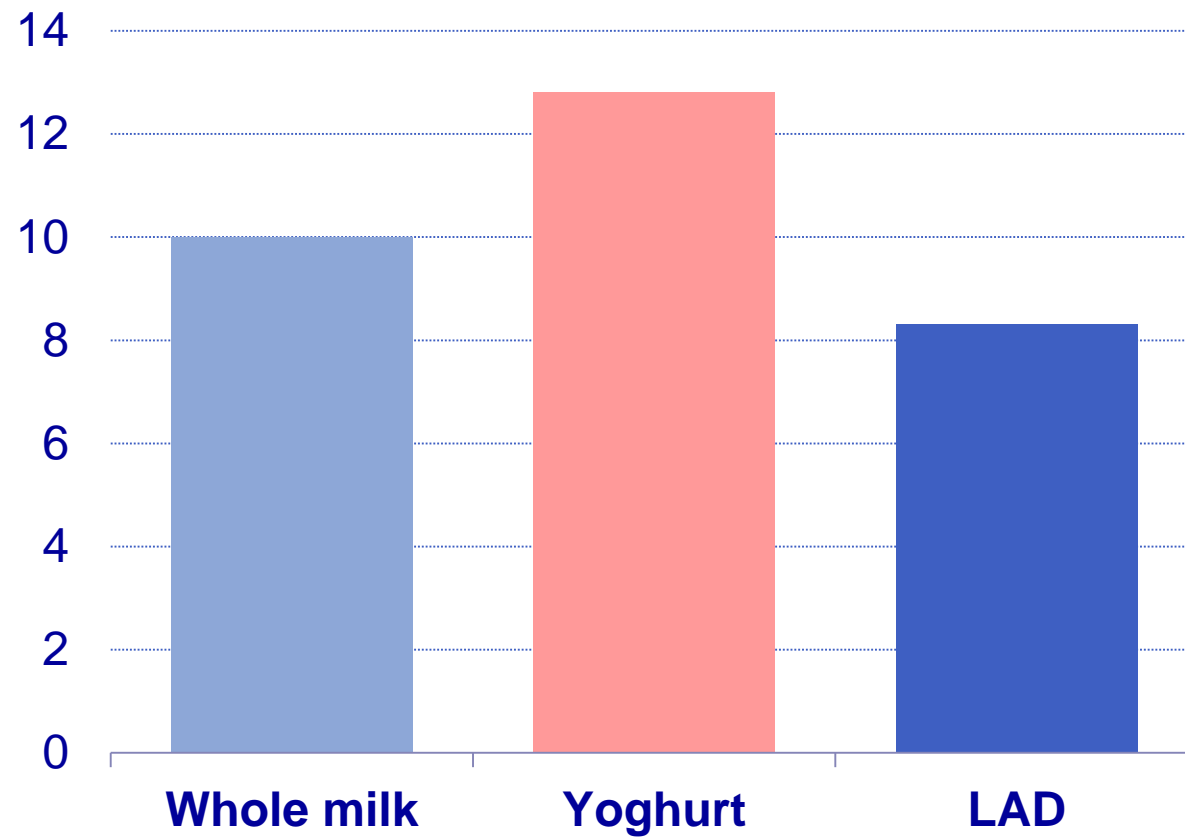




Lactic acid drink in China

Affordable price is the key

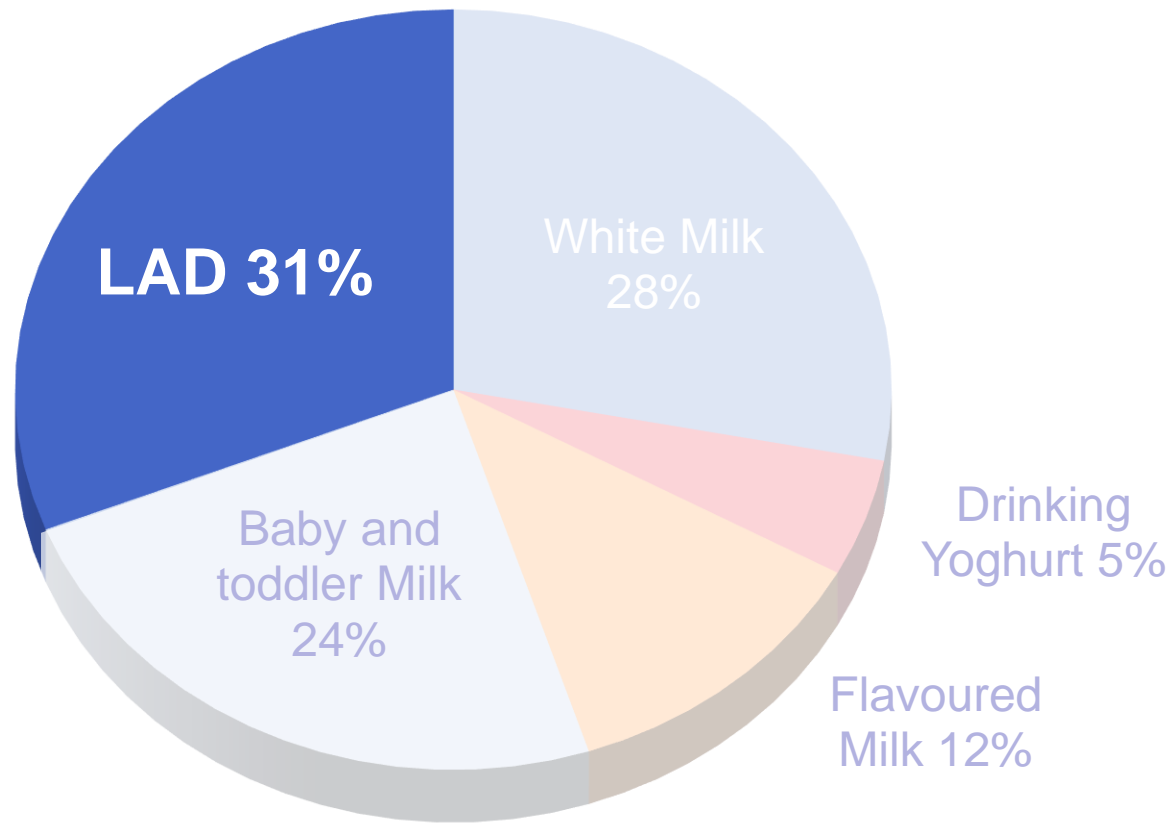
Yuan/litre





Lactic acid drink

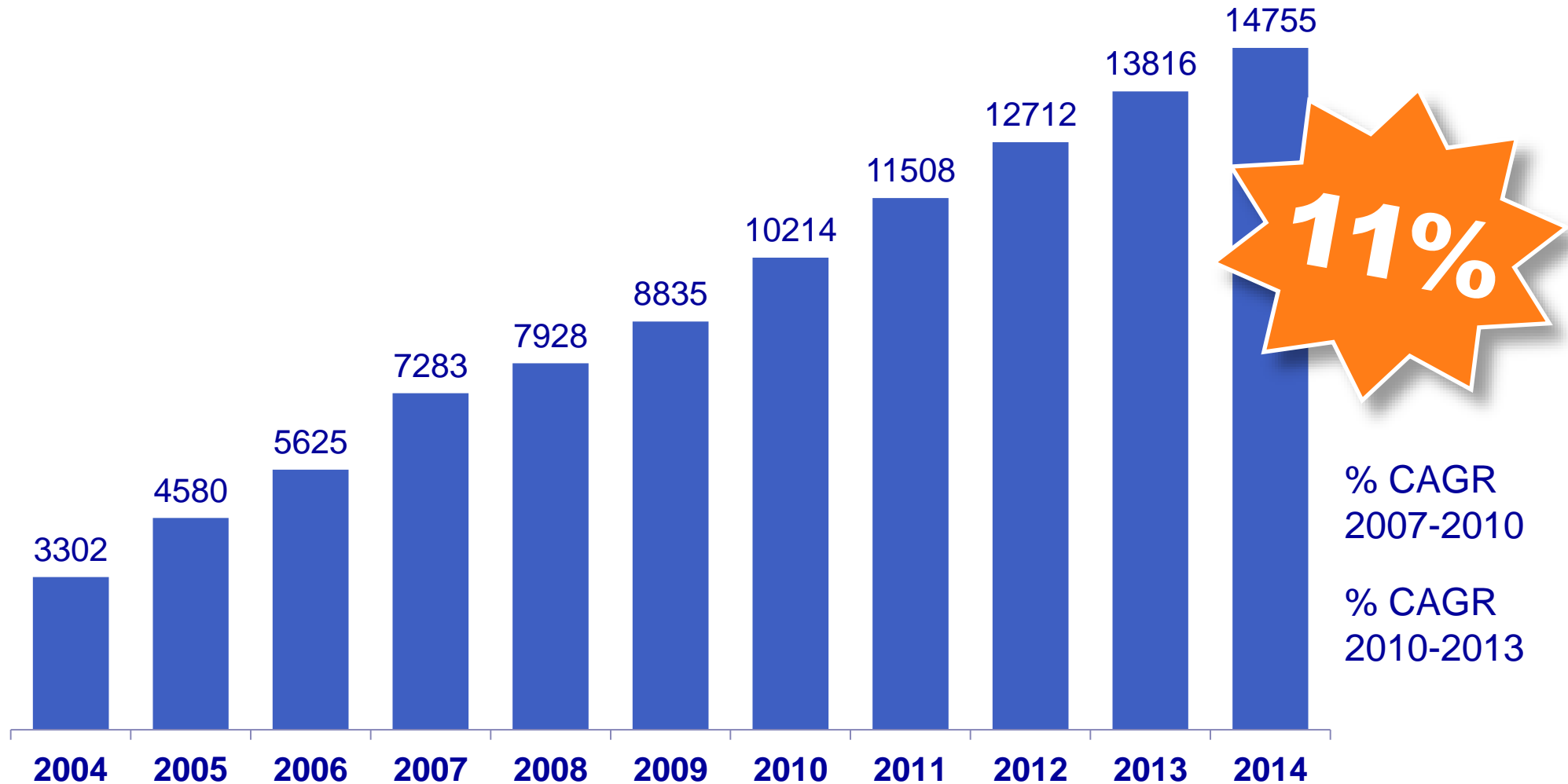
Dominating beverage in China in litres





Lactic acid drink

Forecasted to continue in the future





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Total Chinese dairy market

Growth between 2012 and 2017 – 61%

Hundred millions RMB

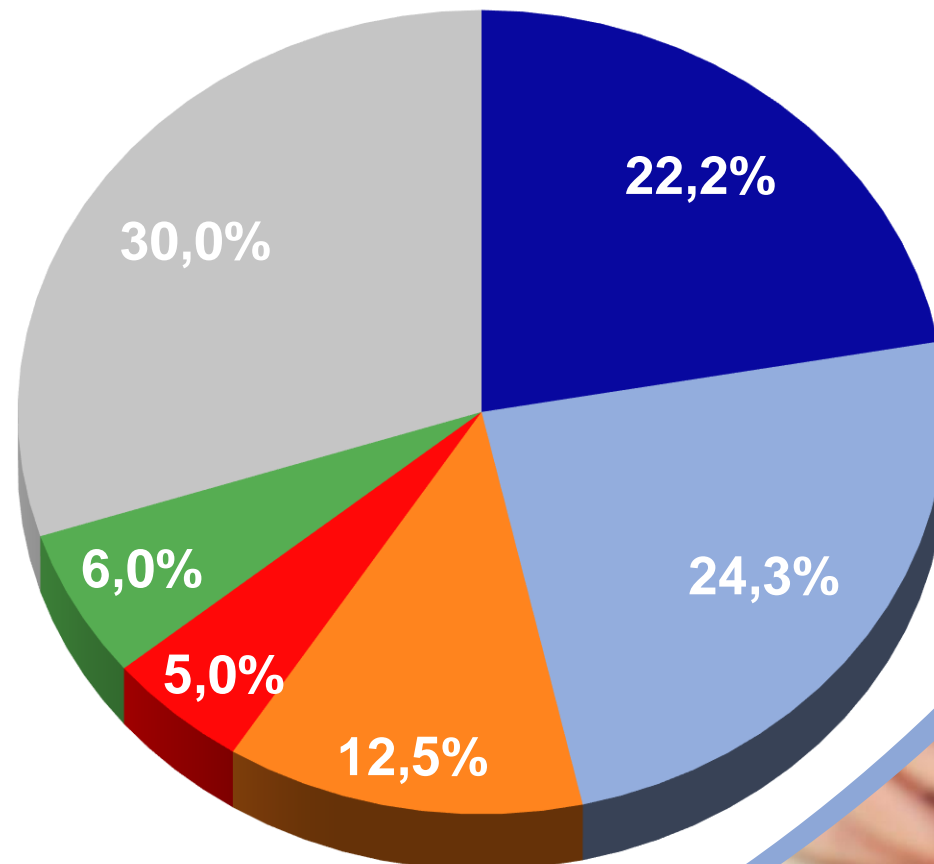




Liquid dairy products market in China

Centralization

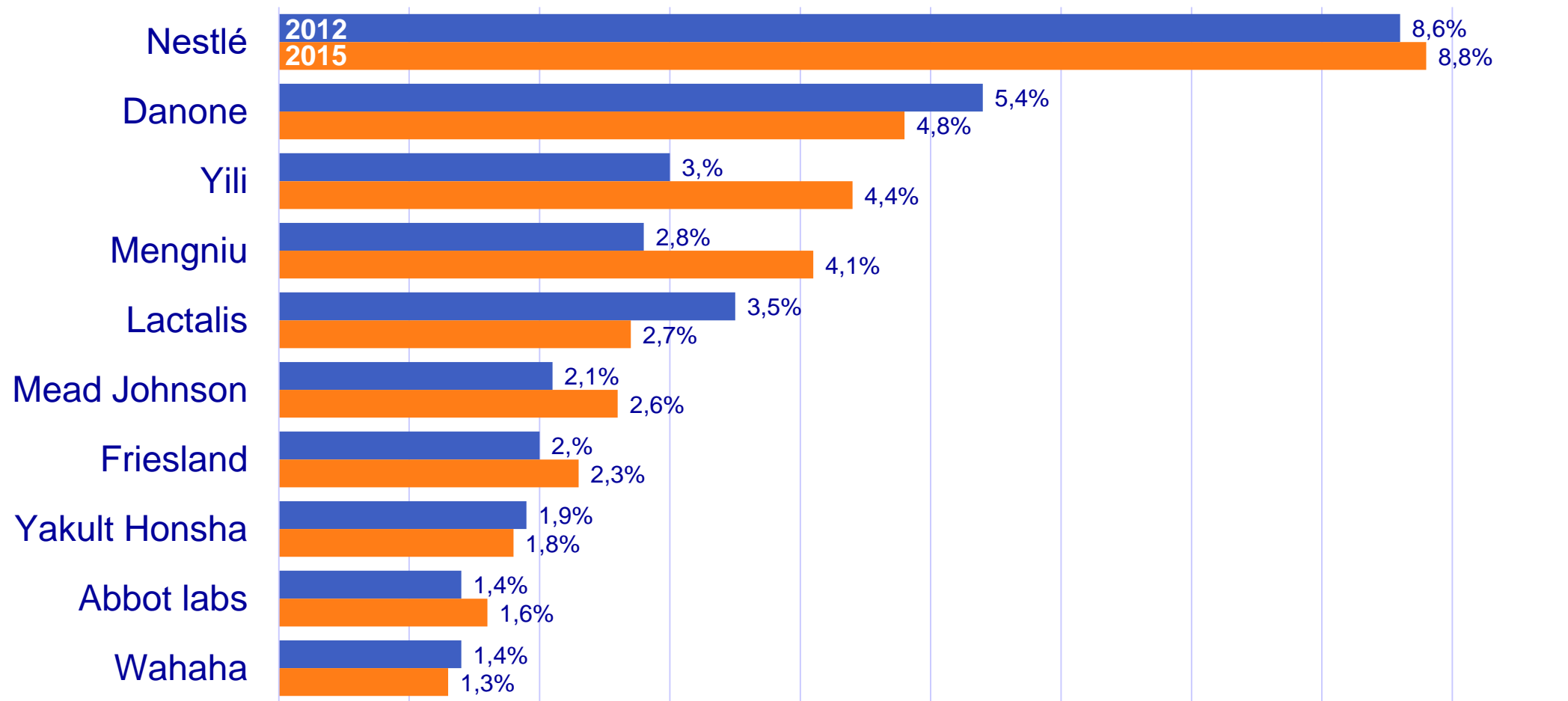
- Mengniu
- Yili
- Wahaha
- Yinlu
- Bright
- Others





Global share of top 10 producers of liquid dairy products

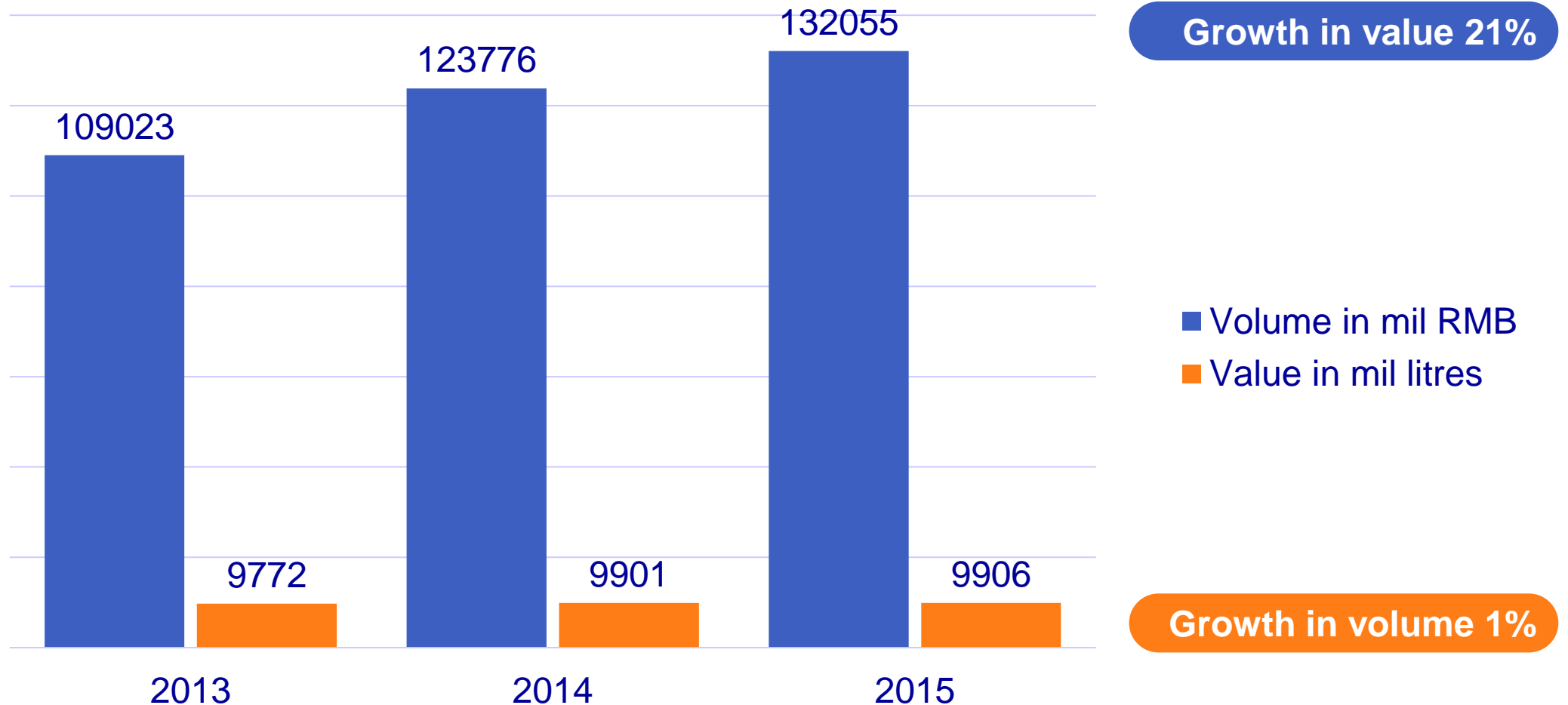
Growth 2012 – 2015





Liquid dairy market growth in China

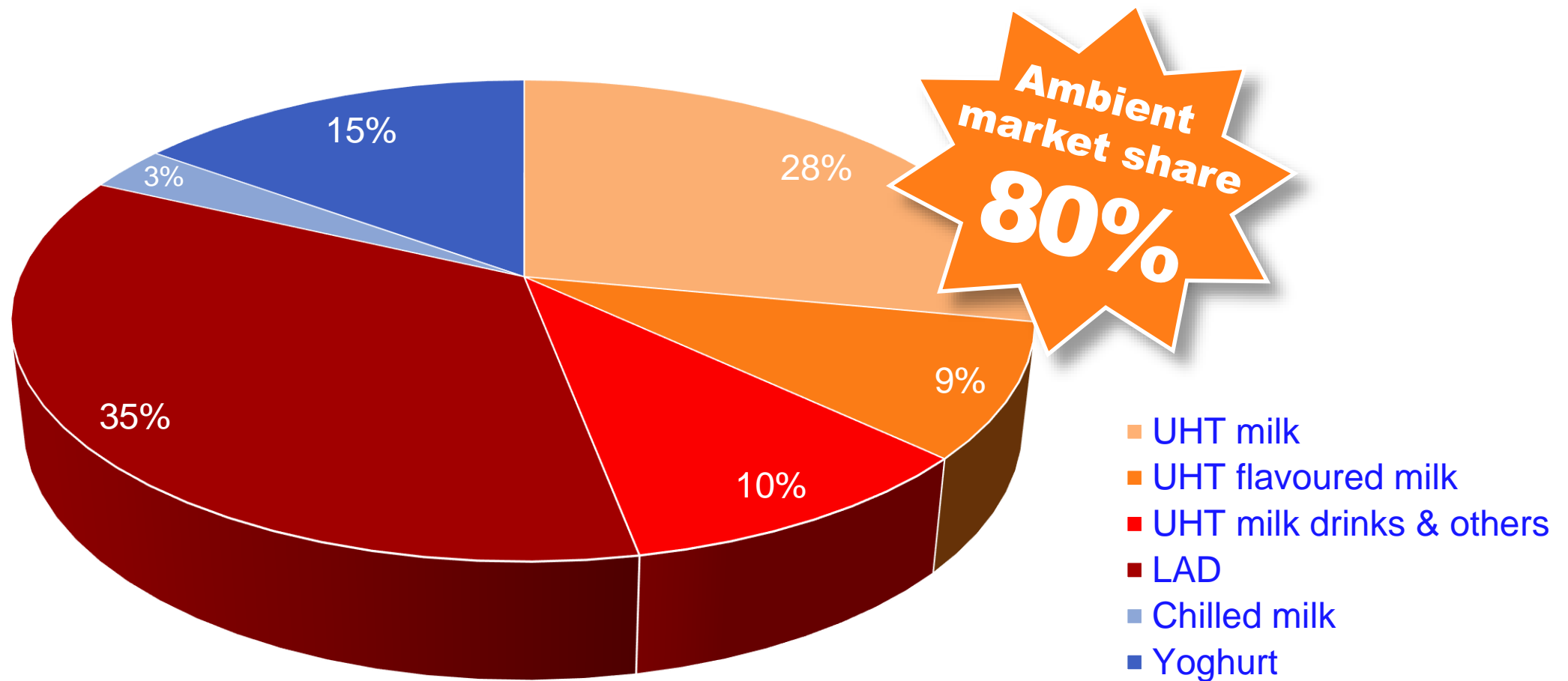
Growth between 2013 – 2015





Liquid dairy products market in China

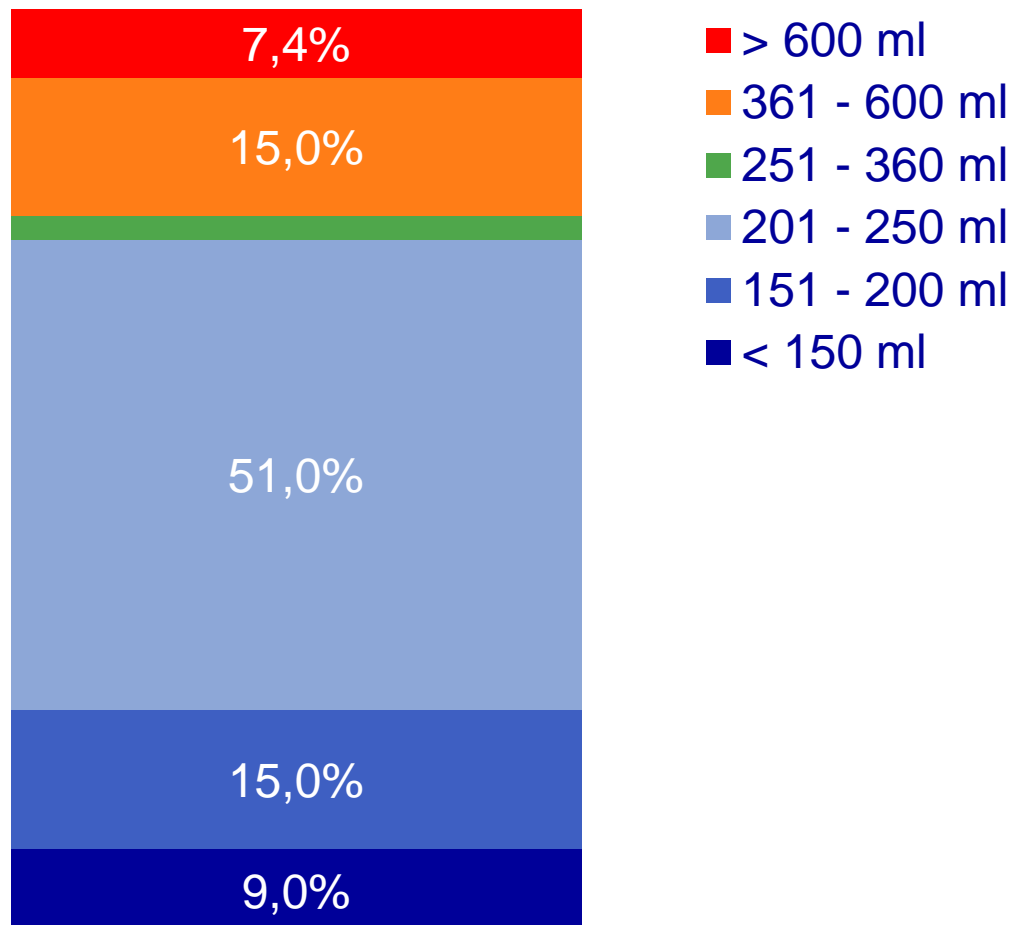
Split between ambient and chilled distribution 2015





Liquid dairy products in China

Percentage of Volume of products packed in different sizes in 2013





UHT milk imported to China

Examples





Chinese market

Another way of buying liquid dairy products

- ▶ Carton portion packs
- ▶ >40% buy in internet shops





Imported Liquid Dairy Products

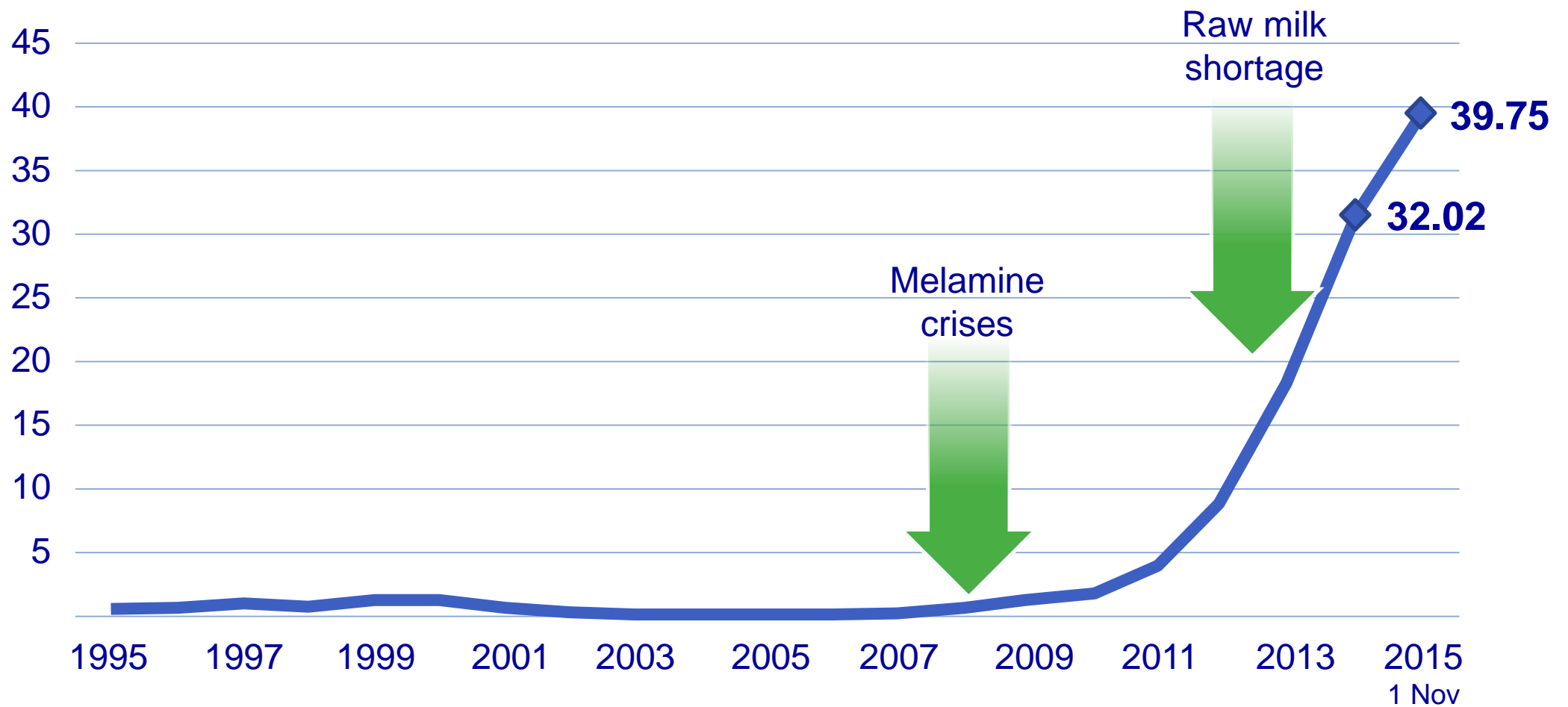




Import of liquid milk to China

Volumes for last 15 years

10K tons





UHT milk market in China

Prices of local and imported UHT milk

UHT white milk	Package	Importer price USD / litre incl. VAT	On-shelf price USD / litre
Local	Premium 250 ml	\$ 2,24	\$ 3,17
	Regular 250 ml	\$ 1,32	\$ 1,72
	Regular 1l	\$ 1,16	\$ 1,40
Imported	Branded 1l	\$ 1,42	\$ 1,85 - \$ 1,97
	Private label 1l	\$ 0,92	\$ 1,13 - \$ 1,21



Import of UHT milk to China

Overview of exporters and Country Shares

1. Europe

more than 30 producers

2. Australia & New Zealand

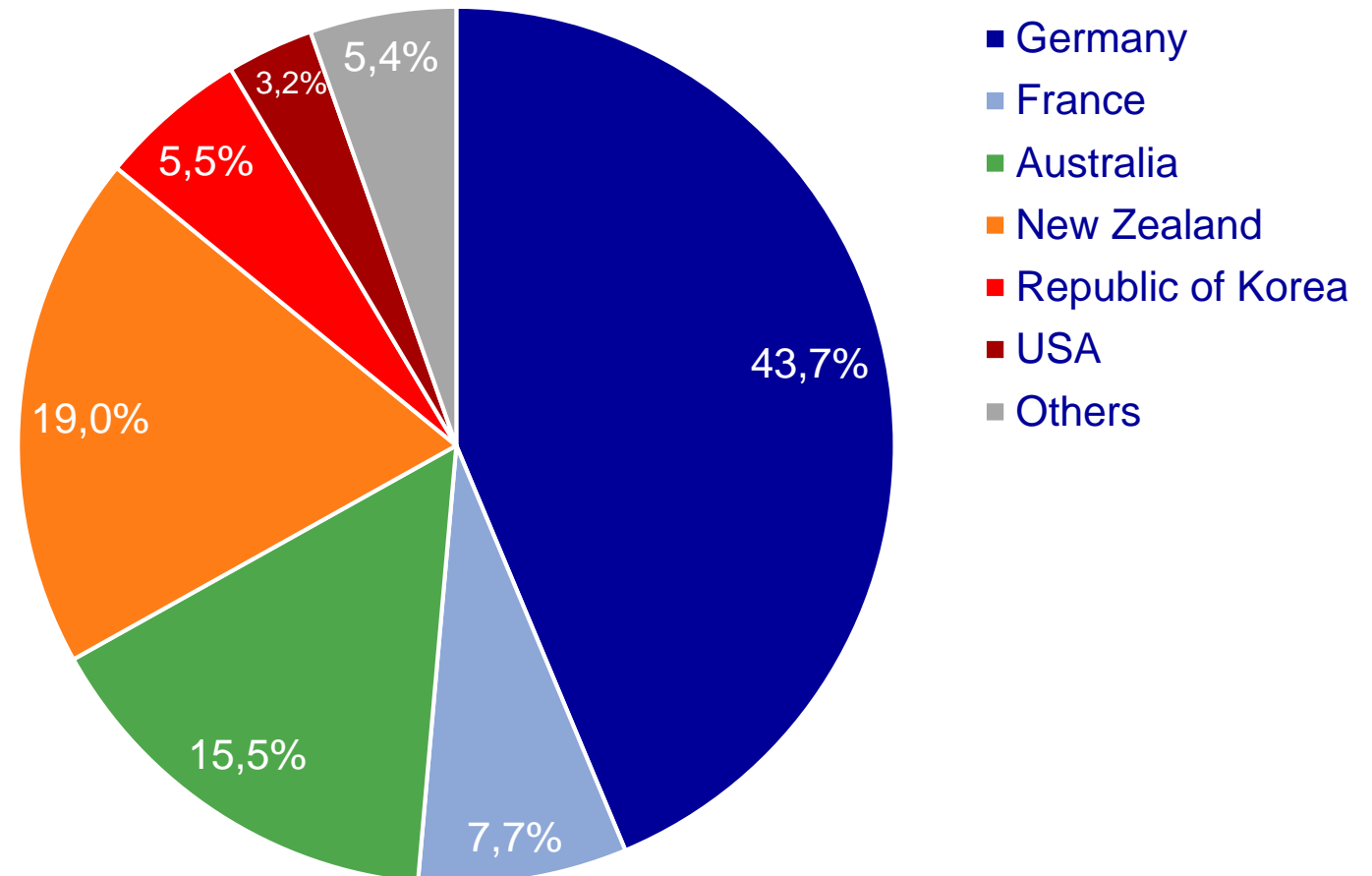
more than 15 producers

3. USA

less than 5 suppliers

4. Others

Korea, Uruguay...





UHT milk import to China

Top 10 brands



1.
Oldenburger
Germany



2.
Devondale
Australia



3.
Country Goodness
New Zealand



4.
Lactel
France



5.
Aka
Germany



6.
Suki
Germany



7.
Fine Food
Germany



8.
Meadow Fresh
New Zealand



9.
MUH
Germany

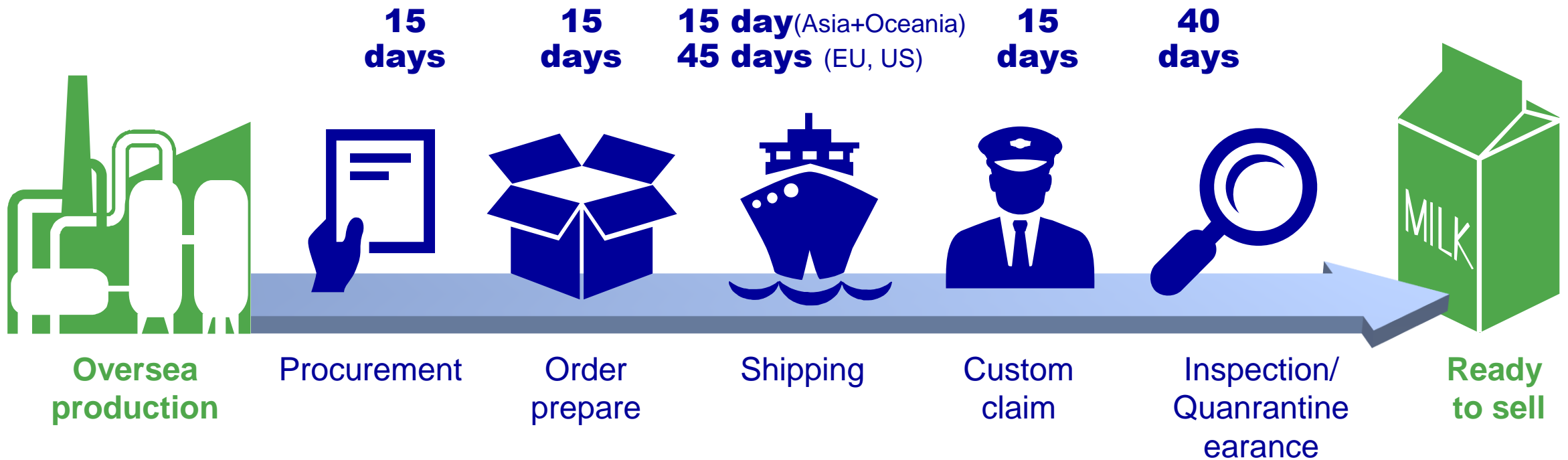


10.
Binggrae
Republic of Korea



Logistics from the producer to the E-shop in China

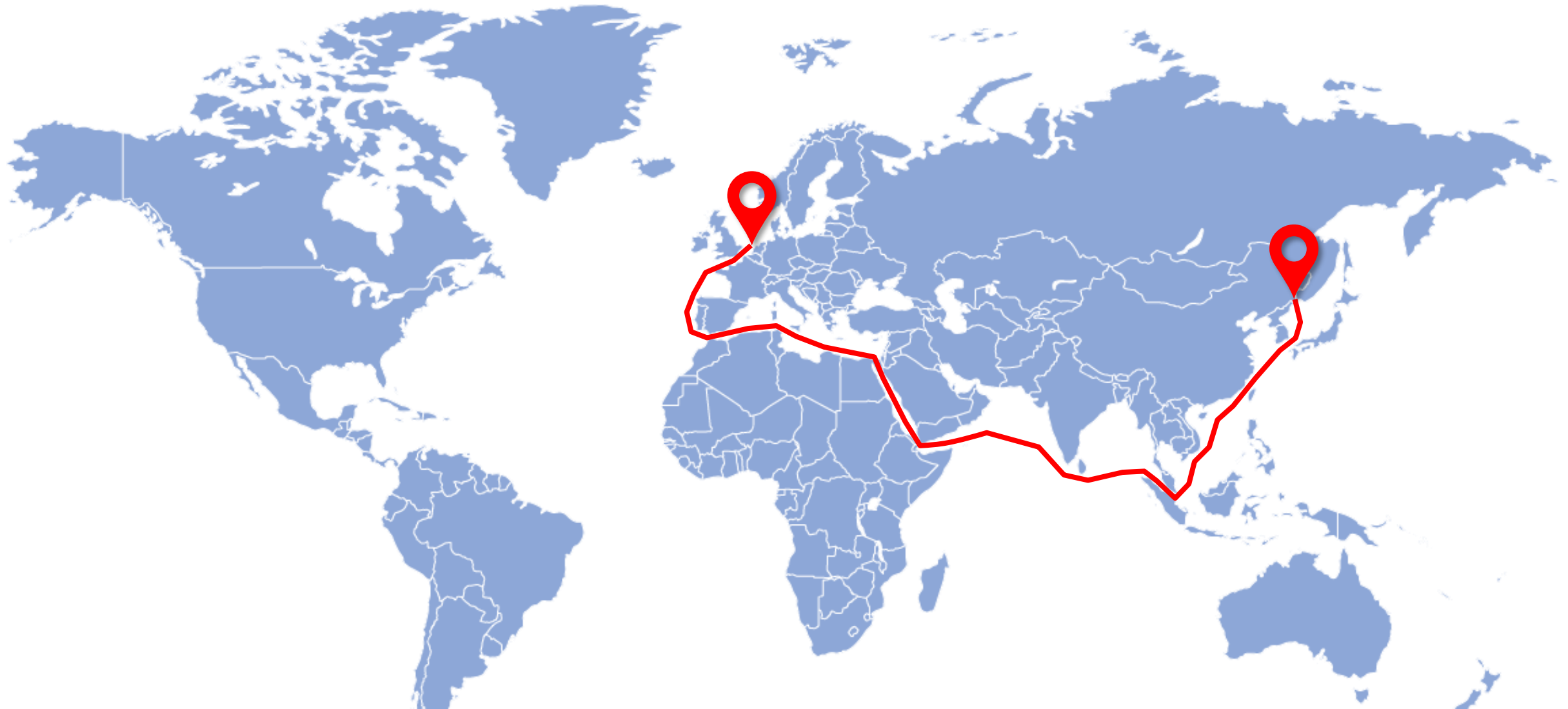
The total trip from Oceania is 100 and from US & Europe 130 days





Logistics from the producer to the E-shop in China

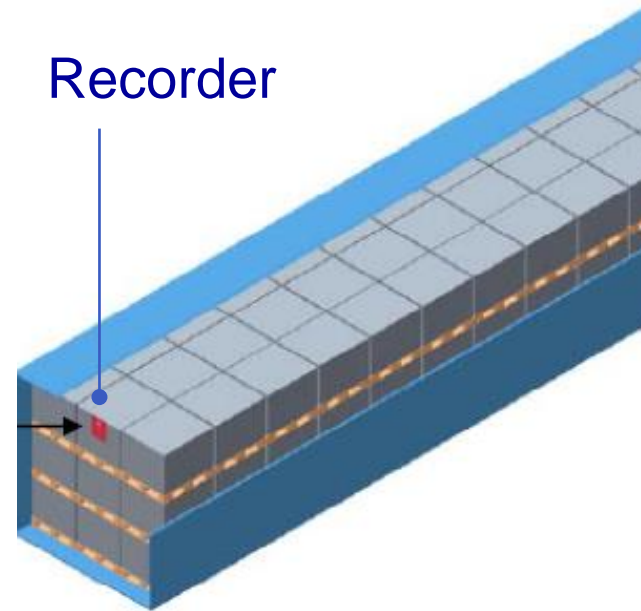
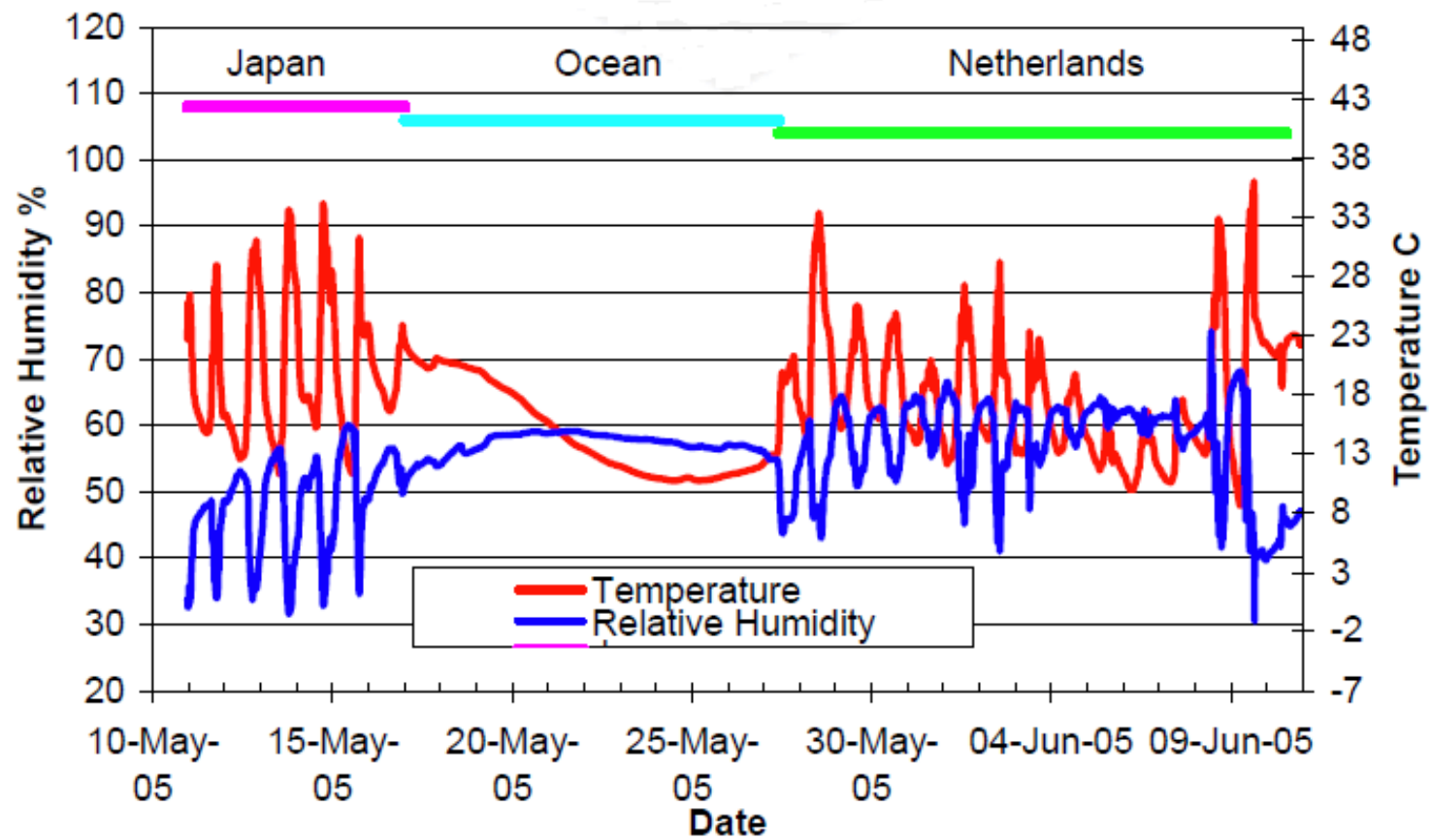
Transportation from Europe





Logistics from the producer to the E-shop in China

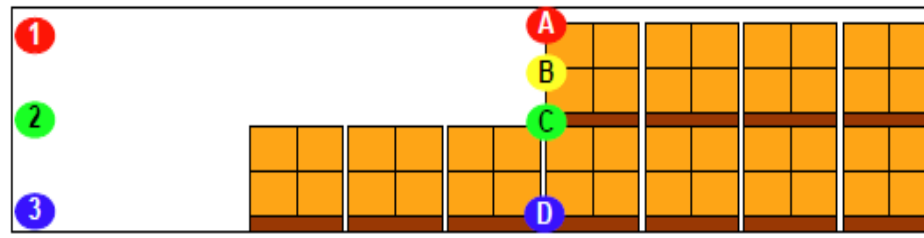
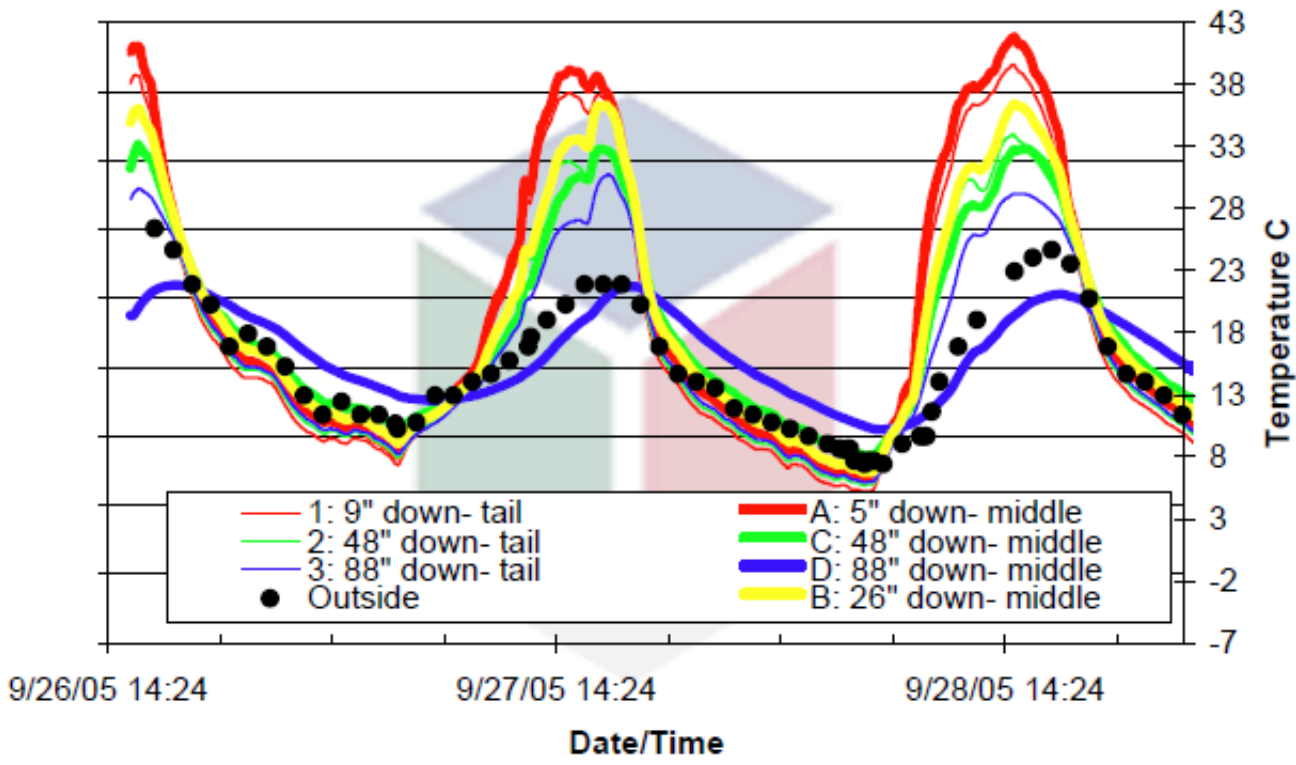
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Logistics from the producer to the E-shop in China

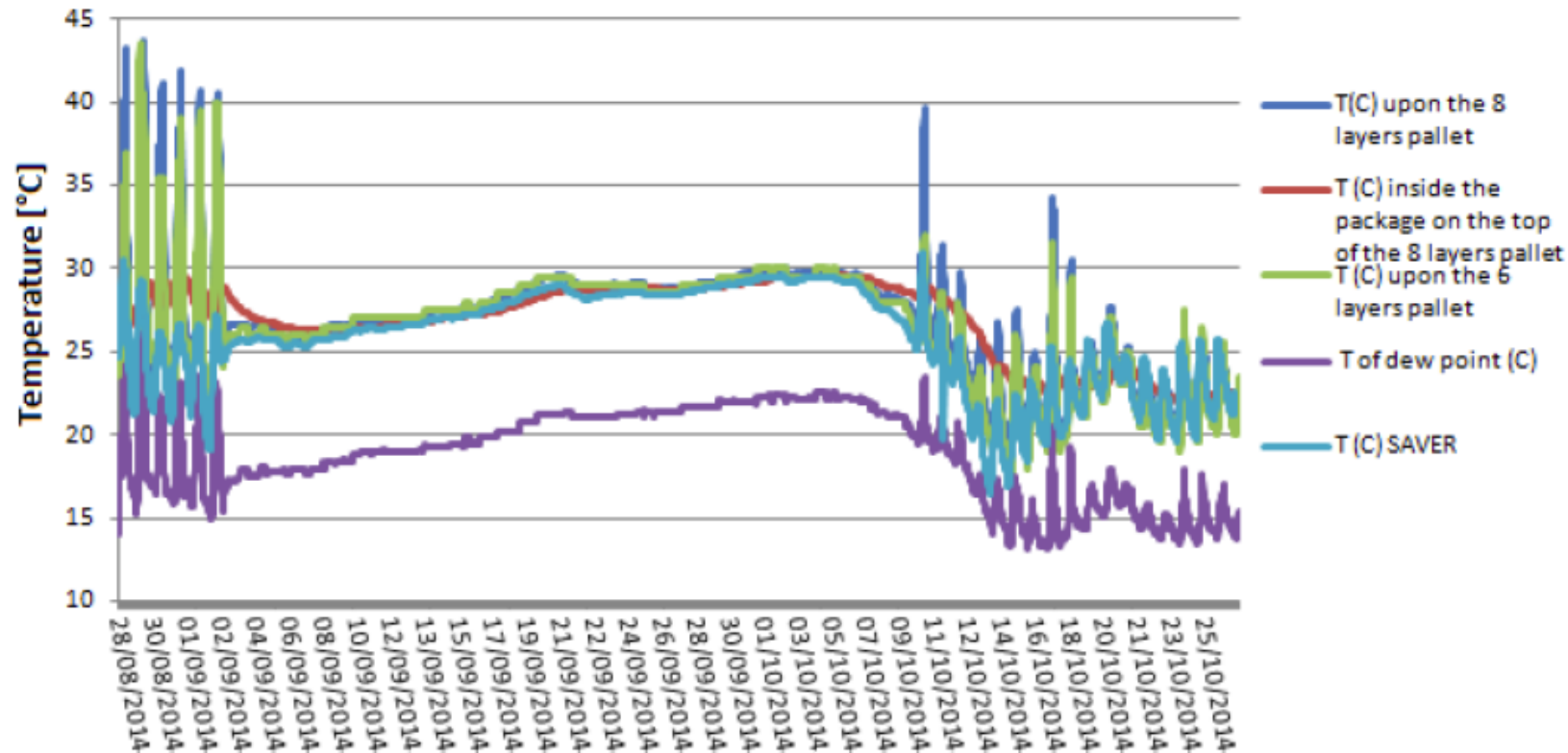
Transportation from Europe – Container temperature by location





Logistics from the producer to the E-shop in China

Transportation from Europe





Quality of the UHT milk imported to China

Legislation

Ultra high temperature, UHT

- ▶ Processing methods for the effective killing of micro-organisms and inhibition of thermophilic spores,
- ▶ heating in continuous flow conditions to at least 132°C and retaining the temperature for a very short time.

**132°C
for a very
short time**

UHT milk

- ▶ Liquid product produced with raw milk as the raw material, added with or without reconstituted milk, and passing UHT treatment, aseptic filling and other processes.
- ▶ After UHT sterilization treatment, the lactulose content of milk should be less than 600 mg/L.

**Lactulose
less than
600 mg/L**



Quality of the UHT milk imported to China

Legislation – distinguishing of recombined milk (powder addition)

UHT milk

- ▶ Where $L < 600.0 \text{ mg/L}$,
- ▶ $FT > 190.0 \text{ mg/100g}$ of protein

**$L < 600.0 \text{ mg/L}$,
 $FT > 190.0 \text{ mg/100g}$
of protein**

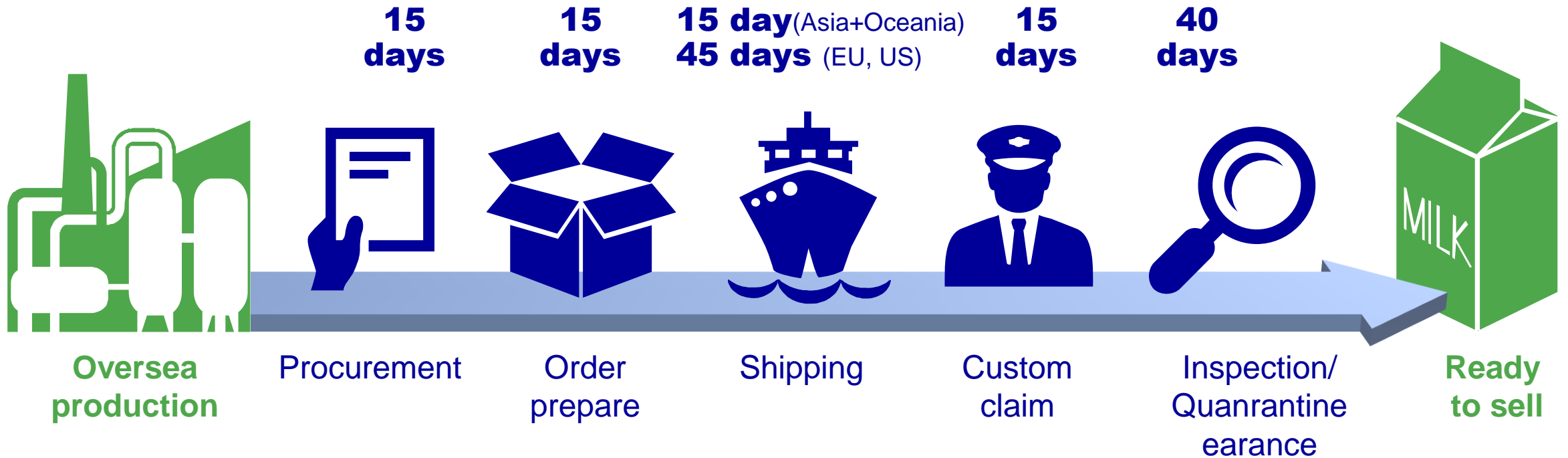
If lactulose : furosine $R < 1.80$, it is judged that the sample contains **reconstituted milk**.

$R < 1.80$



Logistics from the producer to the E-shop in China

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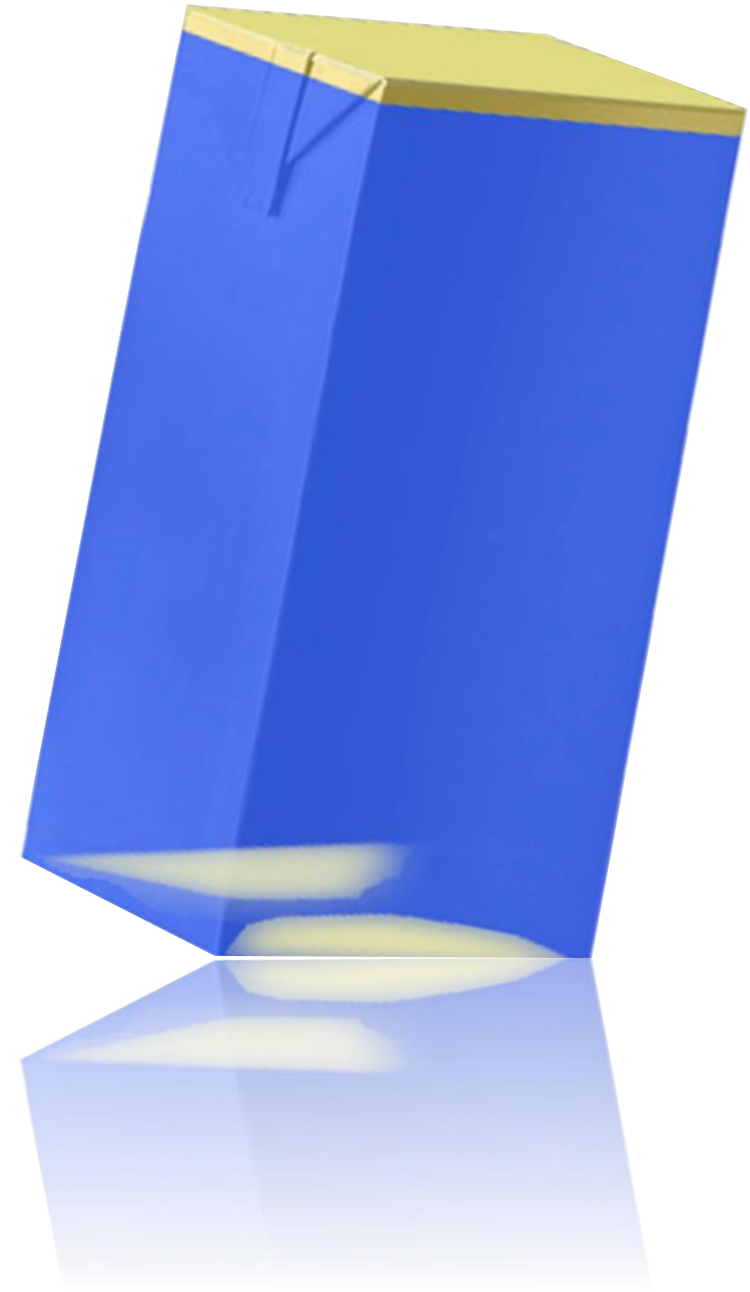




UHT milk

Quality demands

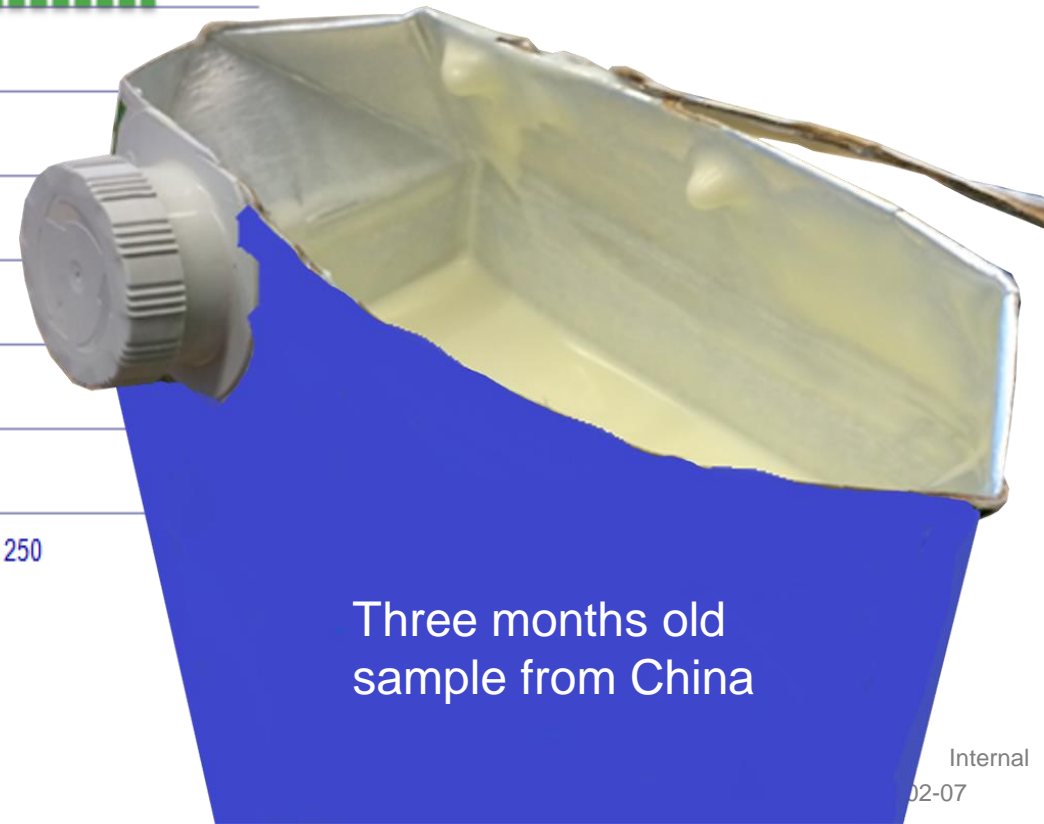
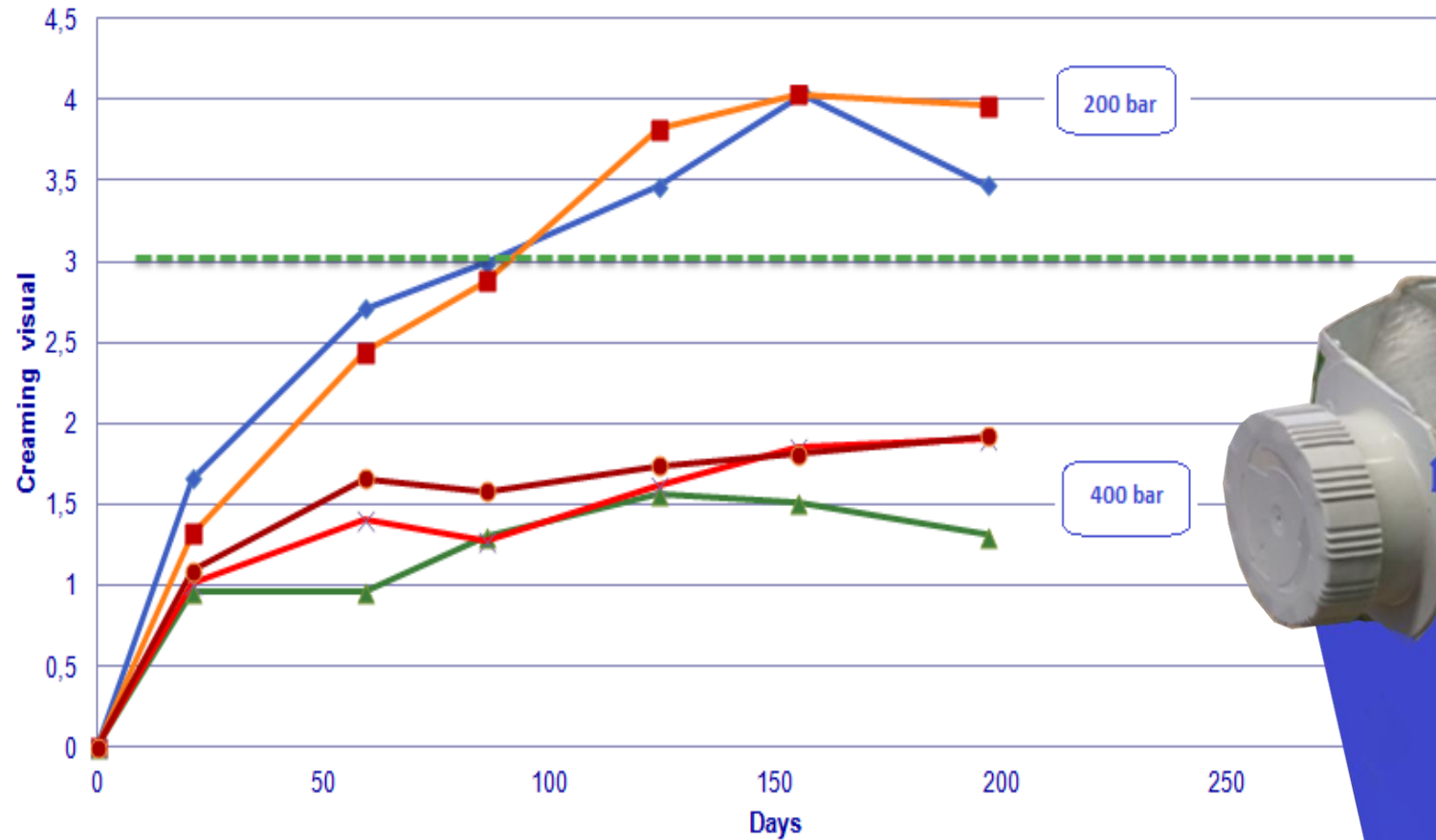
- ▶ UHT milk should remain stable and keep a good commercial value during the intended shelf life
- ▶ Typical quality defects are related to:
 - Fat separation
 - Sedimentation
 - Gelation





UHT milk sample 3,6 %Fat

Fat separation issues – Results of test after storage at 30°C













Three months old
sample from China



Stability of UHT milk with 3,5% fat content

Storage at 20°C

Storage Sample	1.5 months	2.5 months	5 months	8 months	12 months
Direct system					
Indirect system					

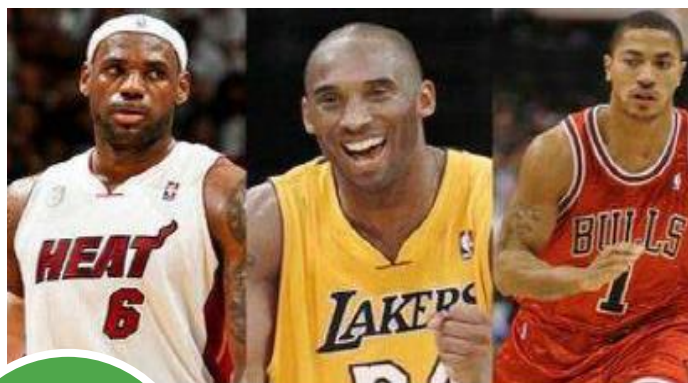


UHT milk imported to China

Consumer perception



US



EU



Oceania





Information from some distributors

on the situation at the moment

- ▶ 50% of distributors are not making any money
- ▶ 30% is making just a balance
- ▶ Only 20% are making money
- ▶ Distributors are preferring volumes – afraid of left overs
- ▶ They go more to internet market to reduce their costs
- ▶ Local milk prices are going down and imported milk has to compete
- ▶ The age on the imported milk is against it
 - 6-9 months shelf life of the domestic milk
 - 9-12 months on the imported

UHT milk market

Income per capita

