



How fresh is

FRESH?

...and how does it relate to shelf life?

About me

- Dipl. Ing. Food- & Bio-engineering TU Munich
- PhD Food Science: Enzyme activity in UHT milk
- Research Scientist Arla R&D Food chemistry

My area:



What is fresh?

Convenience

Shelf life/
Age

BB 07121

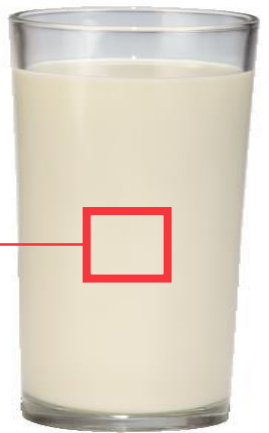


Packaging/
Marketing

Belief

Preference

Sensory



Fresh in different dairy categories



Milk

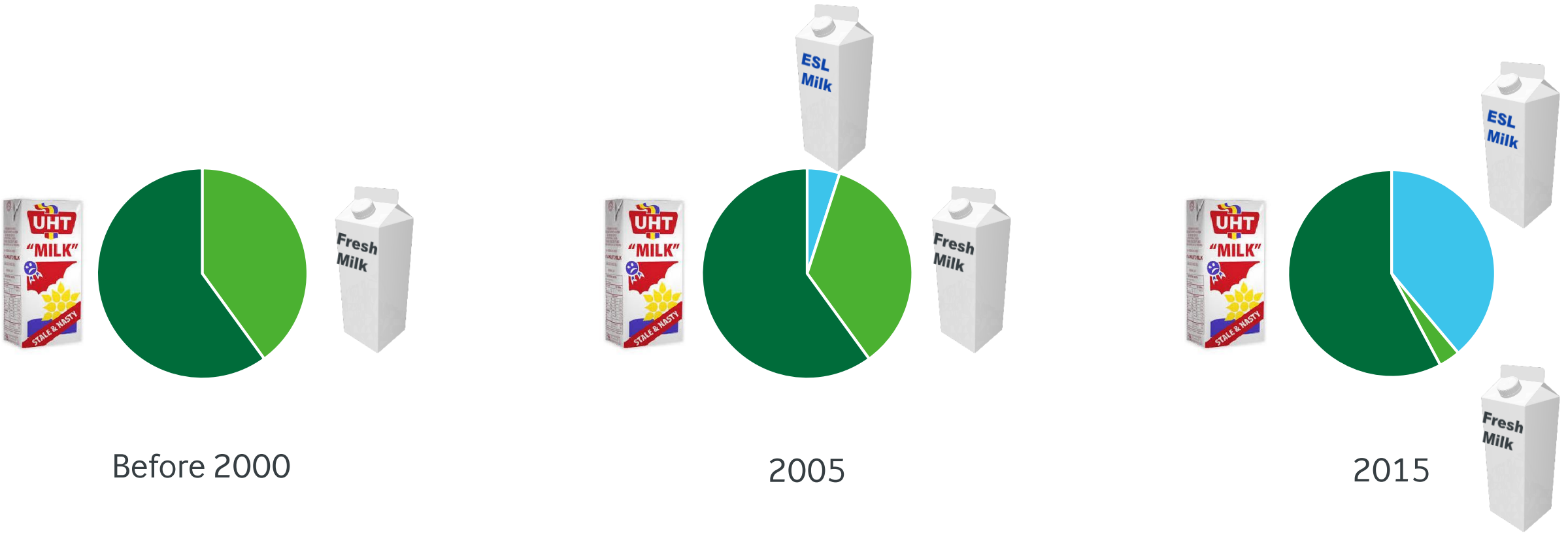


VS



ESL milk in Germany

Market share drinking milk



ESL milk in Germany

Times are changing...going back to "traditional"



Fermented dairy products and cheese

I am alive!



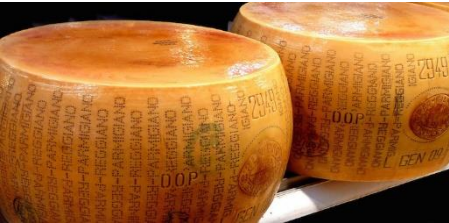
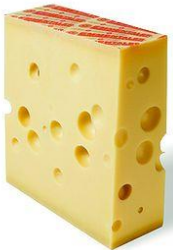
Me too!



”Fresh” cheese



"Fresh" cheese



Cheese extremes



Fresh around the world



Long life ambient products





Ambient temperature



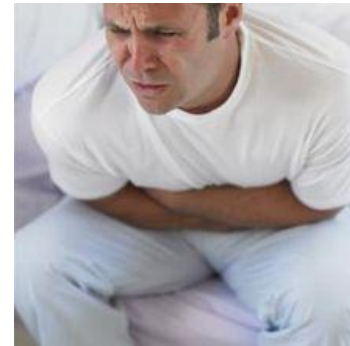
Shelf life definition

The shelf-life is defined as a period of time for which a product remains safe and meets its quality specifications under expected storage and use

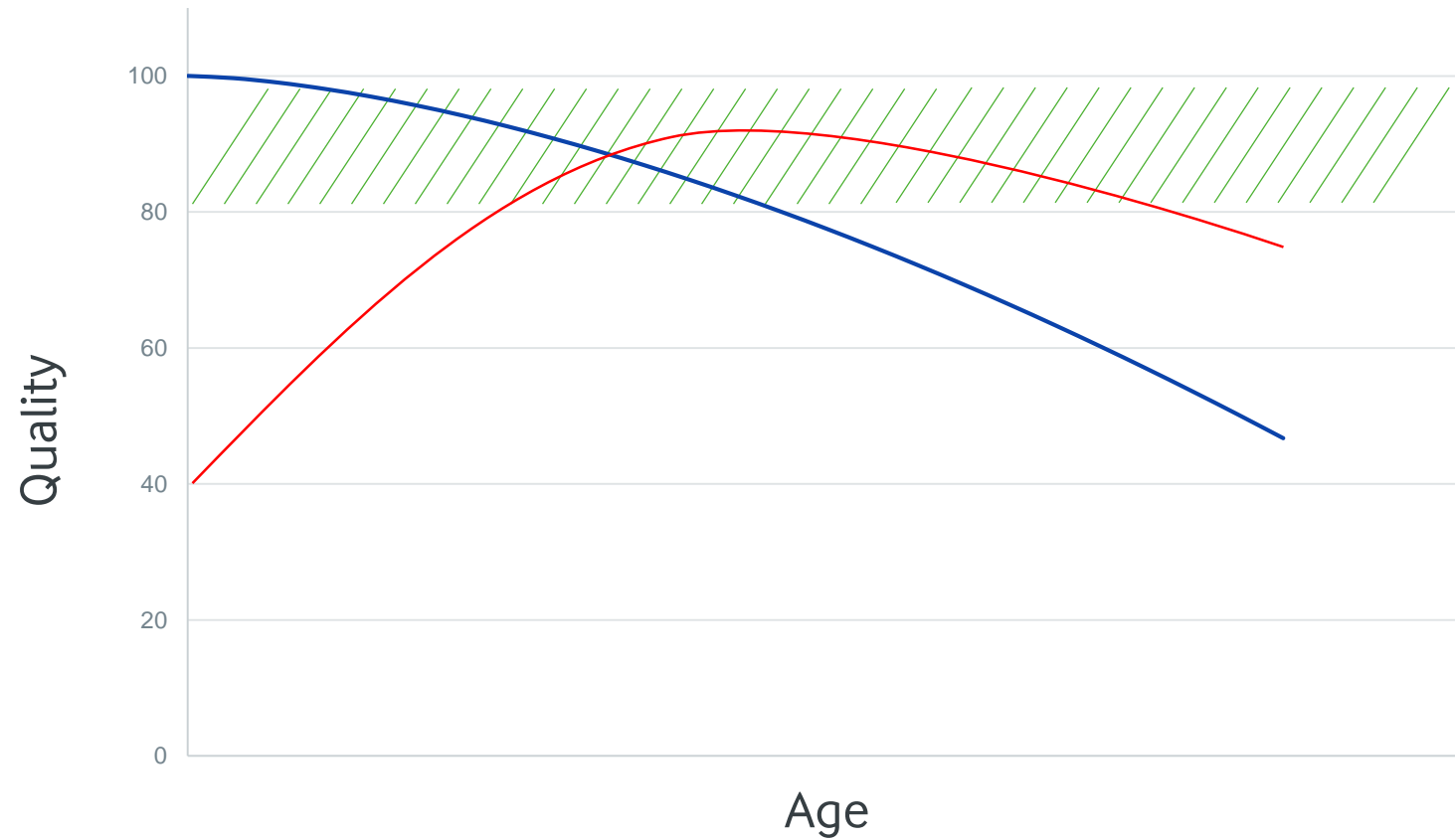
Sensory



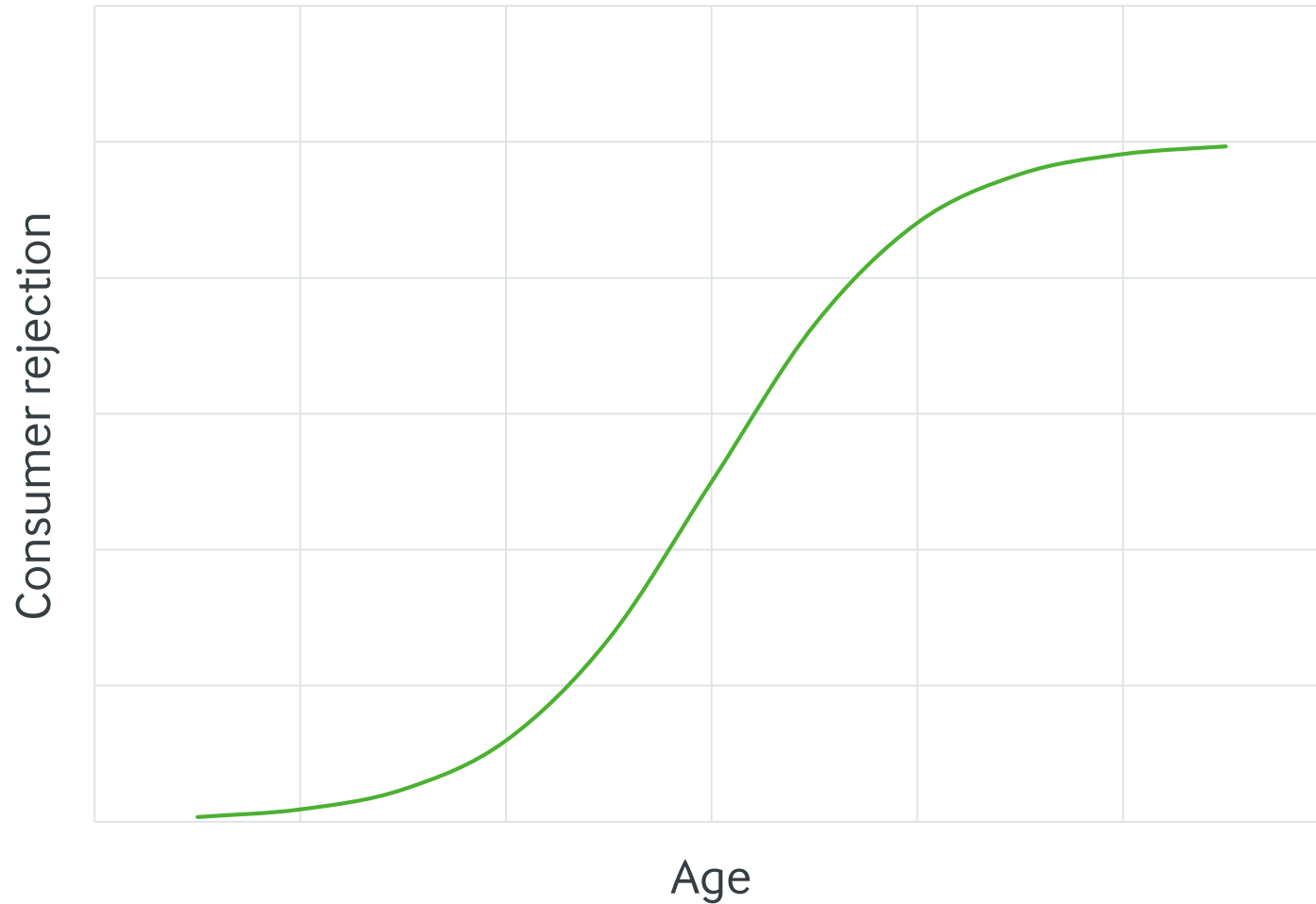
Safety



Shelf life dynamics and end of shelf life



Linking end of shelf life to consumers



What is fresh?

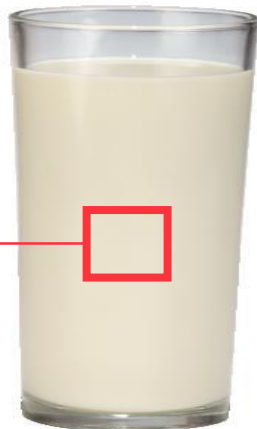
Shelf life/
Age

BB 071217



Packaging/
Marketing

Sensory



Sensory

- New & optimal processing
- Minimizing variation
- Extend shelf life
- Optimal packaging
- Minimize contamination
- Protective cultures

Convenience

- New & optimal processing
- Improve taste/sensory
- Extend shelf life
- Cool chain only in shop

Belief

- Minimal/Gentle processing
- New technologies (HPP)

Thank you

JELLYFISH IN ARMOUR



HOW MILK CONTAINERS SHOULD BE