



# The Need for European Dairy Futures Seminars

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**Copa-Cogeca, WP on Milk and Dairy Products,  
July 05<sup>th</sup>, 2019, Brussels**

# Agenda

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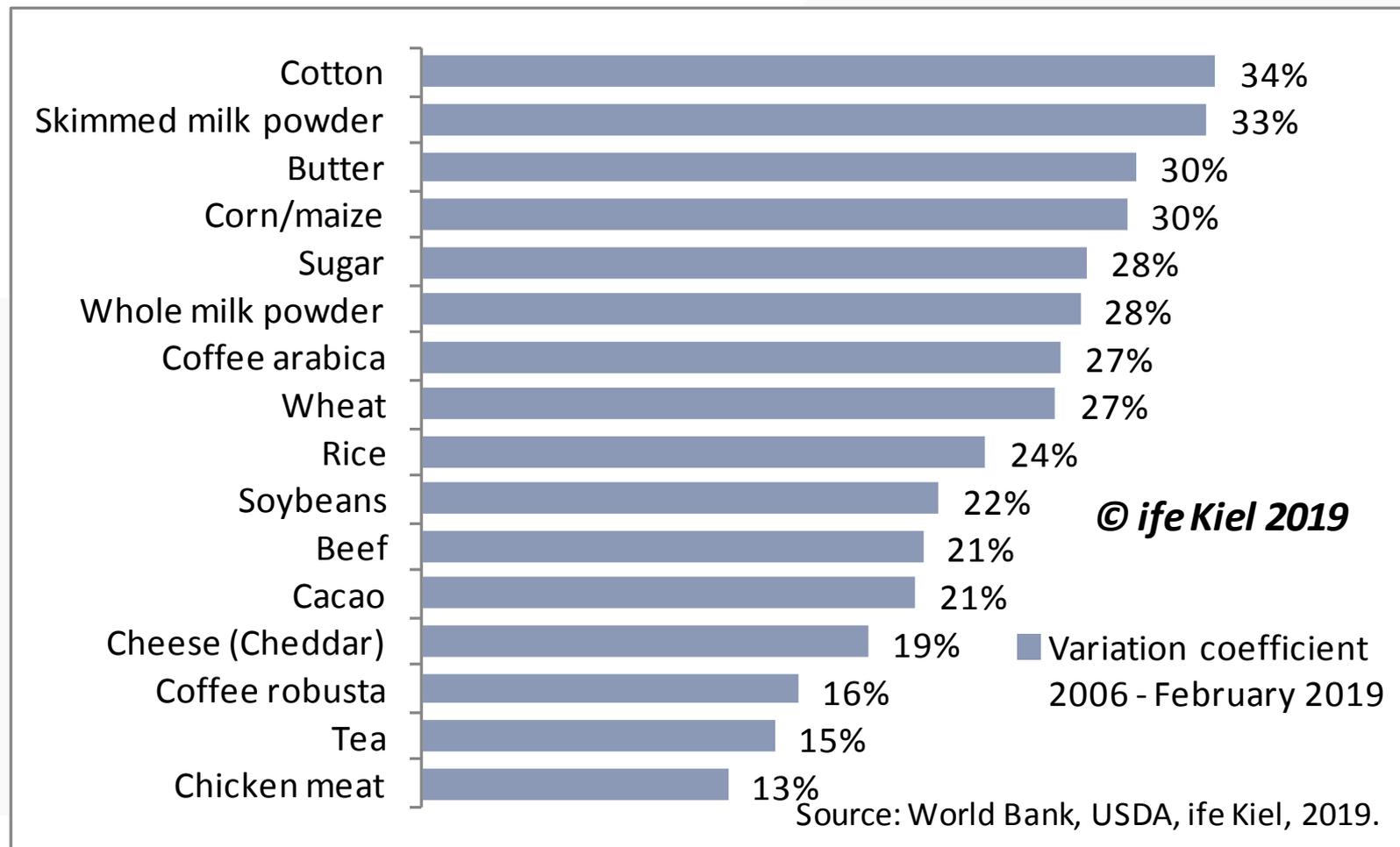
- Introduction
- The Need for Risk Management in European Milk Markets
- The Supply of Risk Management Tools in Europe
- The Need for Dairy Futures Education
- Conclusion
- Discussion

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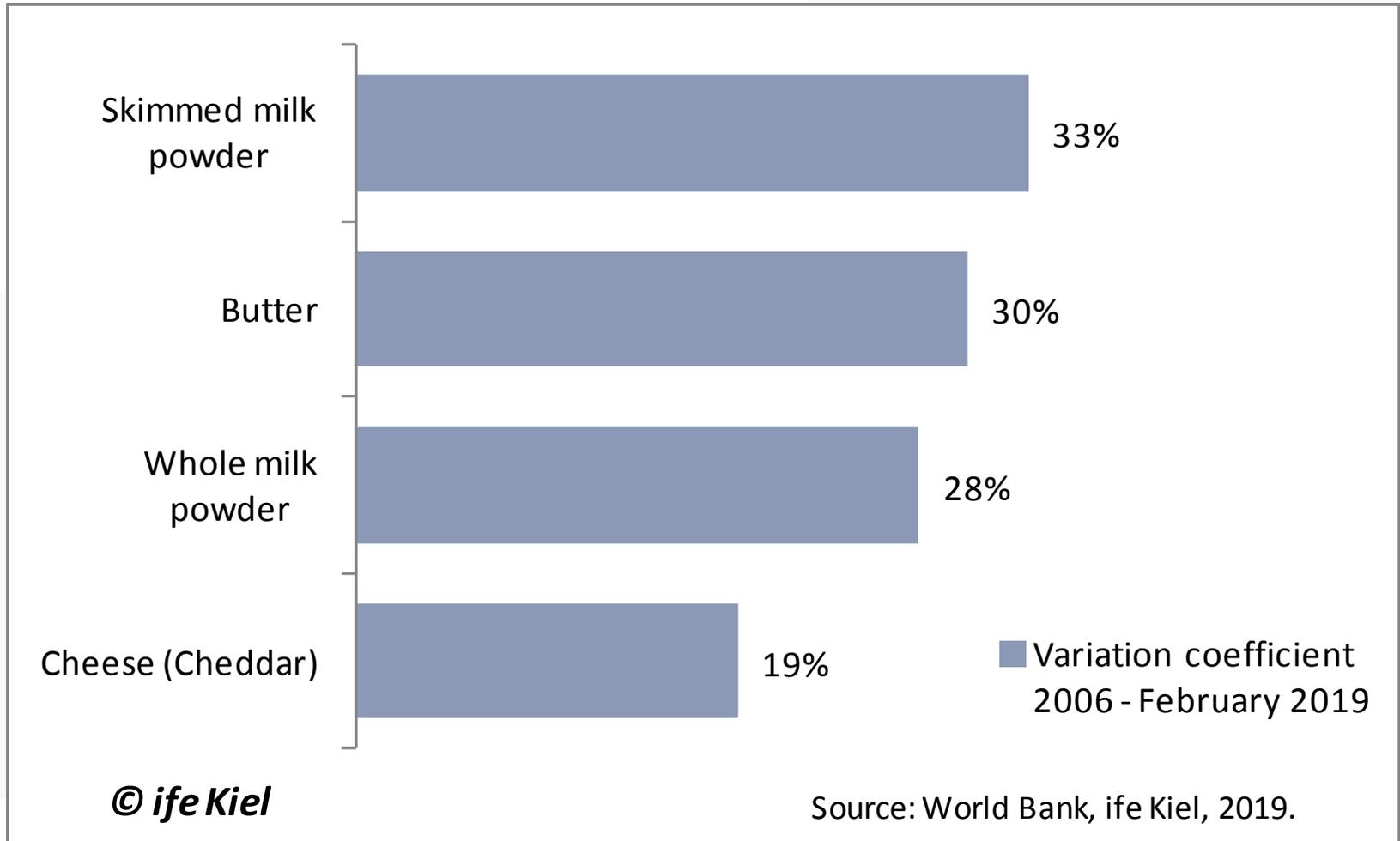
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# Dairy product prices are even more volatile than other commodities



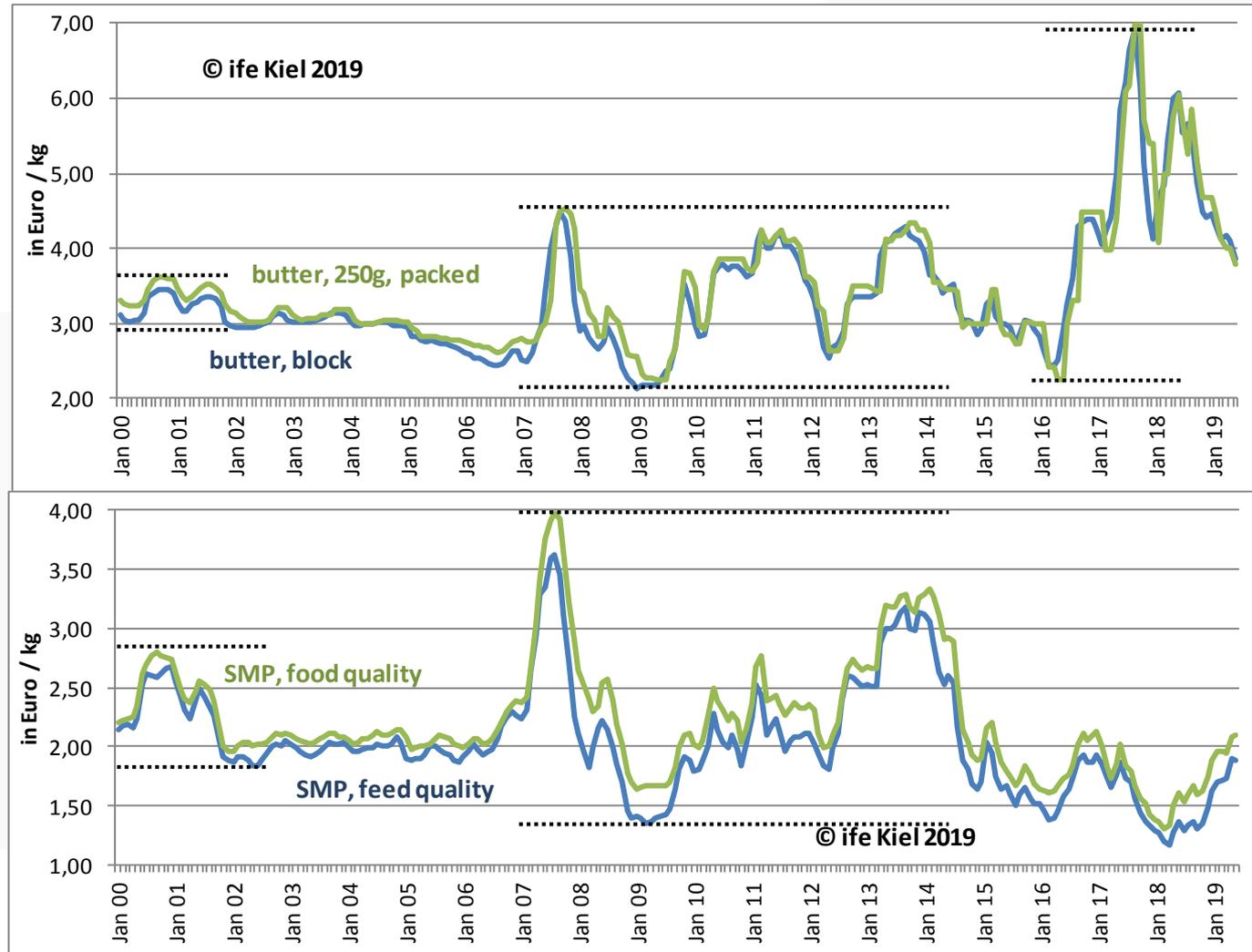
Source: ife Institute Kiel, 2019.

# Skimmed milk powder and butter have the highest price fluctuations

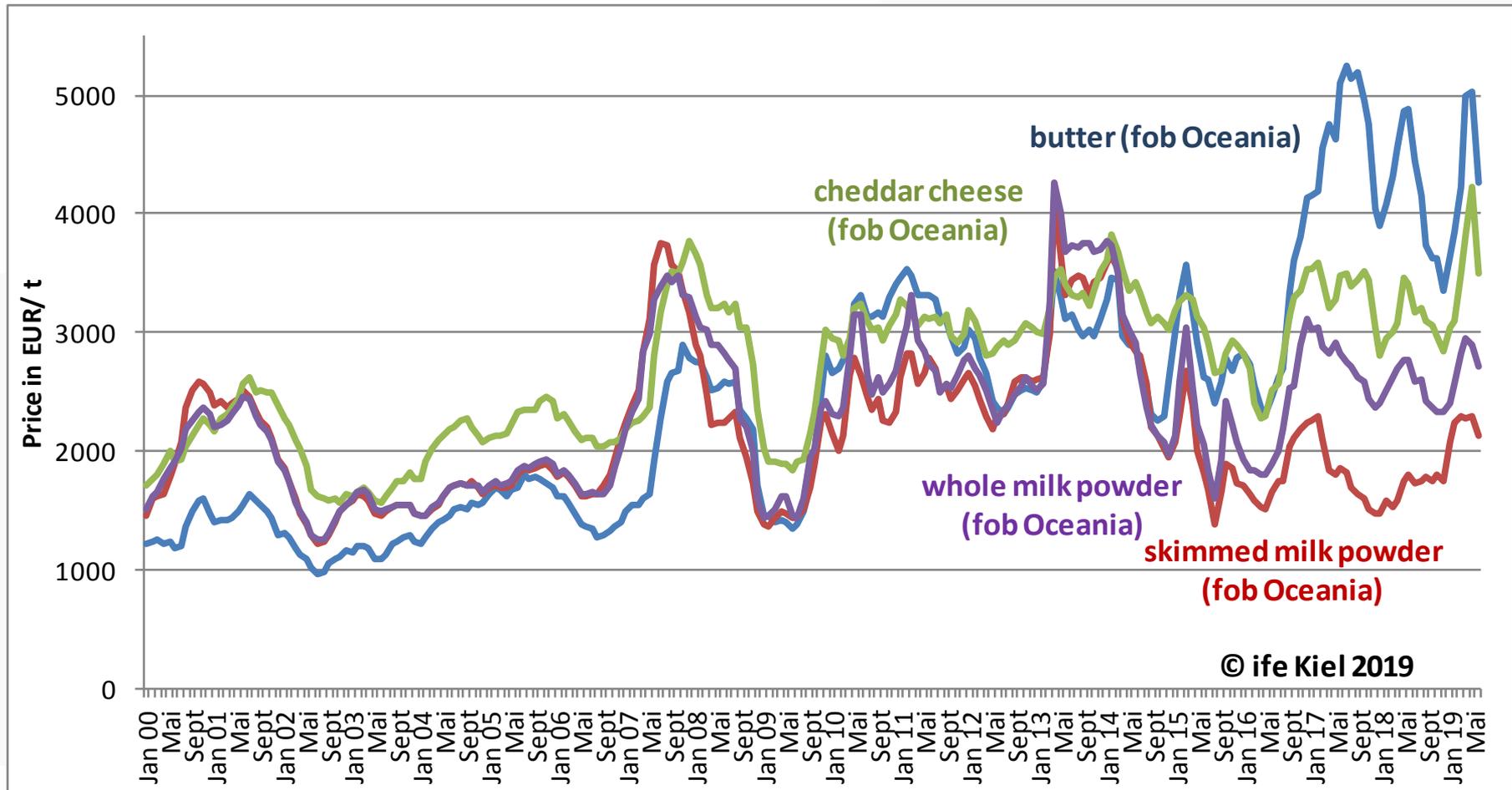


Source: ife Institute Kiel, 2019.

# High fluctuation with rising trend, the value of fat and protein has diverged strongly

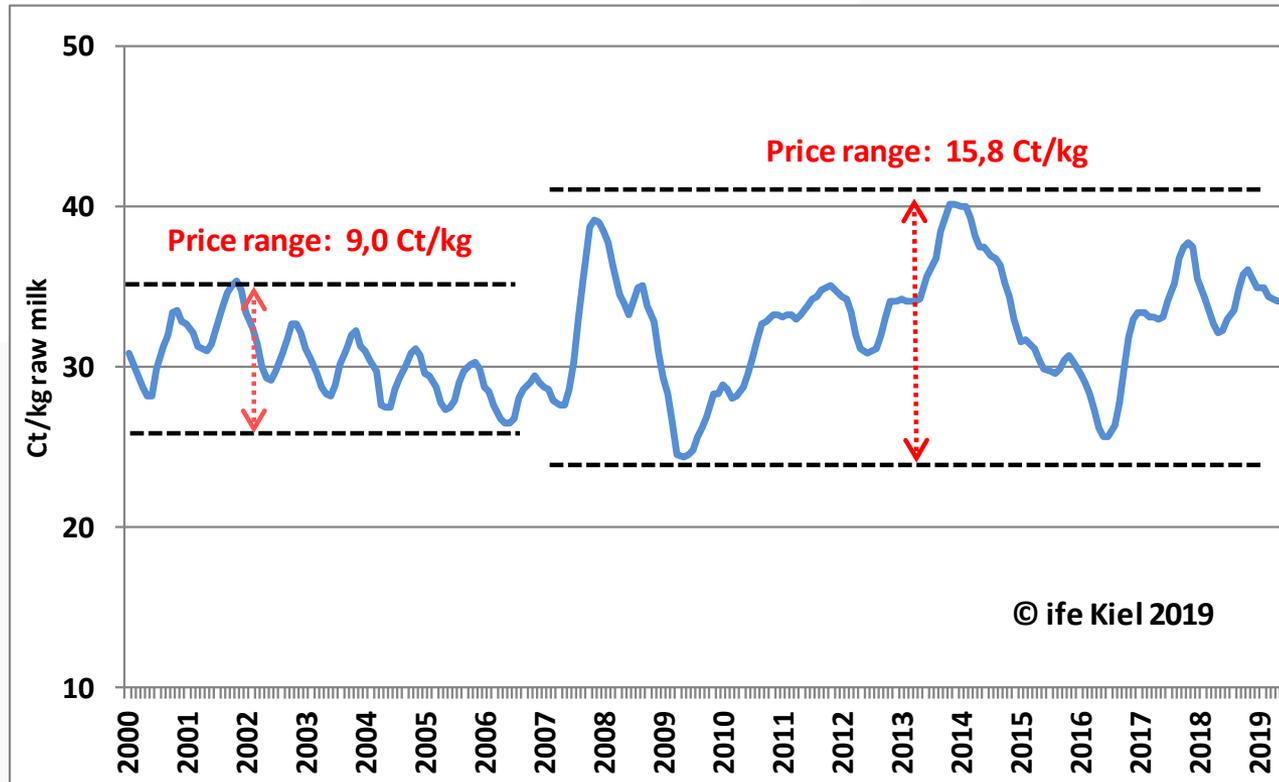


# Developments on the world market for milk in EUR/t: high fluctuations and currently declining prices



Source: ife Institute Kiel, USDA.

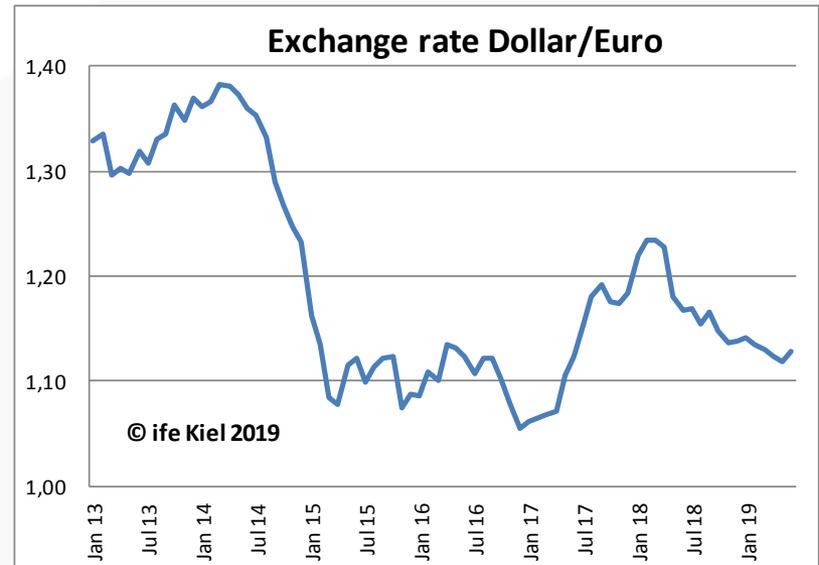
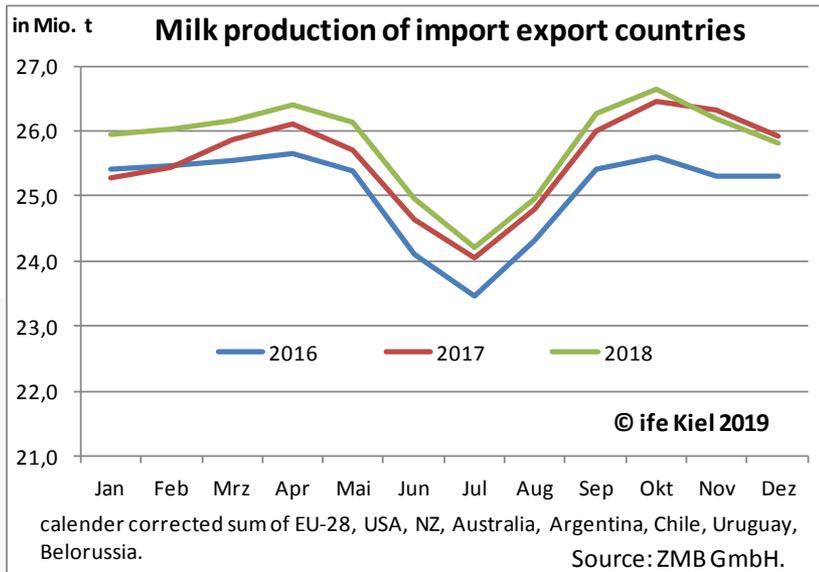
# Significant increase in price fluctuations of the raw milk price in Europe



- The nominal milk producer price level has increased by 12% since 2007.
- The volatility of milk producer prices in Europe has nearly doubled since 2007.
- The volatility of farm gate milk prices is higher than of many other farm gate prices.

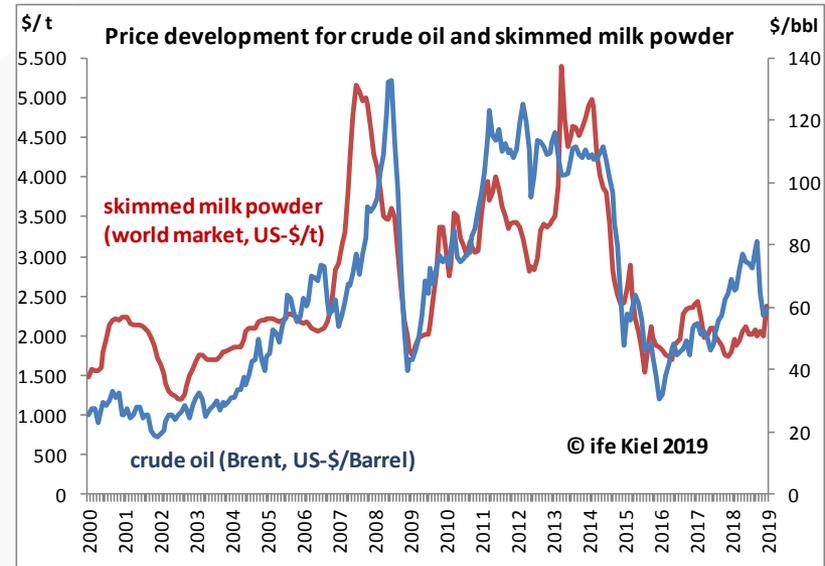
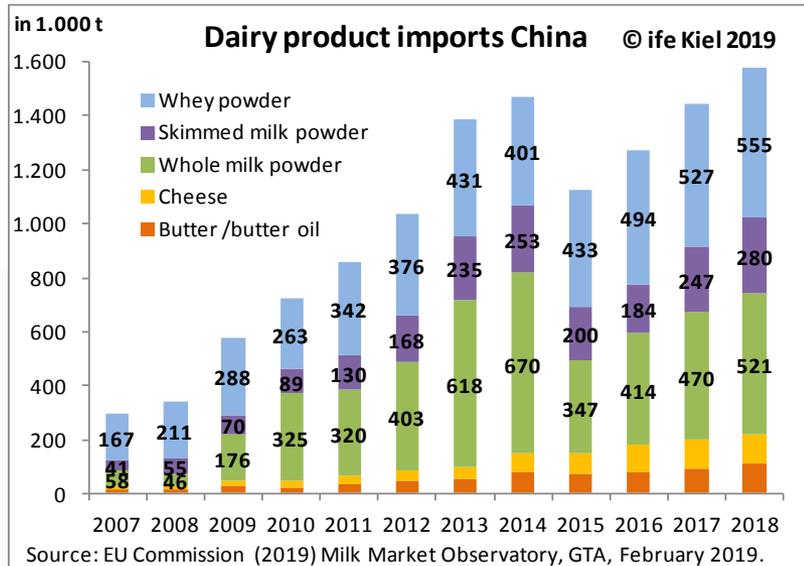
Source: ife Institute Kiel, EU Commission MMO, 2019.

# Important factors: Ongoing changes in world milk supply and exchange rates



- Changes in world milk supply worldwide: weather conditions and delayed adjustment reactions to market price changes in the dairy sector worldwide.
- Exchange rate effects and fluctuations have a major impact on the net value of the exports and thus on EU milk prices

# Important influencing factors: changes in the import demand due to economic and oil price changes



- Global demand fluctuates - e.g.: main importer of the world milk market China
- Import demand for milk of China depends on the economic situation
- Import demand for dairy products from some major importing countries depends on foreign exchange earnings and crude oil prices.

# Volatile milk and dairy product prices - perspectives

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- Dairy price volatility is the new normal in Europe!
- The dairy economic environment changes significantly!
- Dairy price volatility could rise even further!
- Strong need for professional risk management for European dairy farmers and dairy processors!

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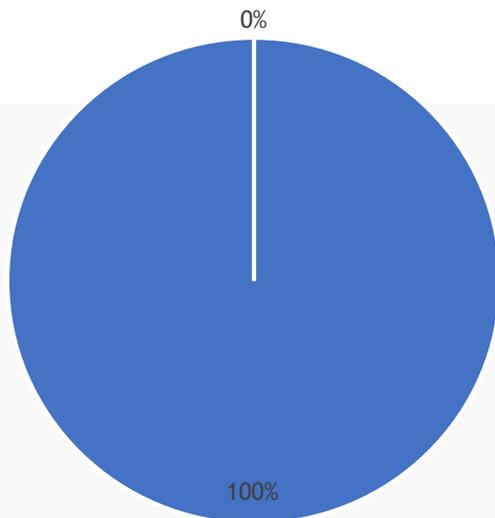
# History of Exchange based Risk Management

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- The earliest recognized futures trading exchange is the Dojima Rice Exchange, established in 1710 in Japan for the purpose of trading rice futures.
- The United States had the earliest official commodity trading exchange in the west, the Chicago Board of Trade (CBOT), formed in 1848.
- Western commodity futures markets started trading in England during the 16th century
- The first official commodity trading exchange in England, the London Metals and Market Exchange, was not established until 1877.
- The first traded futures contracts in the U.S. were for corn. Wheat and soybeans subsequently followed,

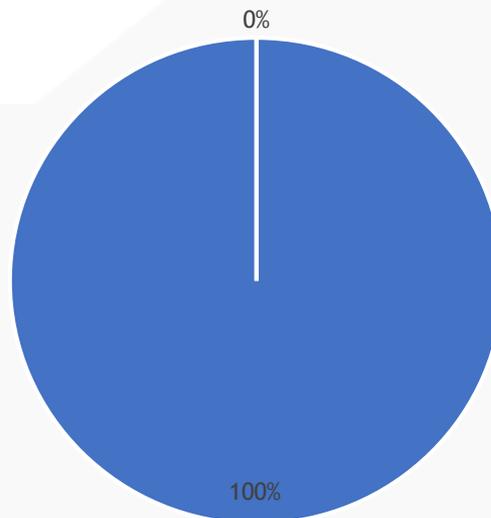
# Use of the commodity exchange in Germany

## Oilseed Trader



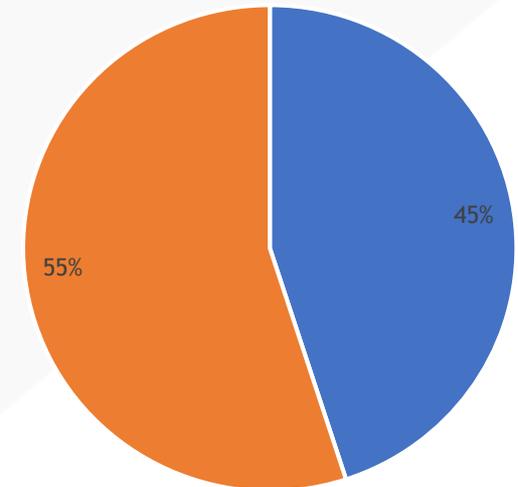
- Oilseed trader (private Companies, Coops etc.) using the commodity exchange
- Oilseed trader (private Companies, Coops etc.) without using the commodity exchange

## Grain Trader



- Grain Trader (private Companies, Coops etc.) using the commodity exchange
- Grain Trader (private Companies, Coops etc.) without using the commodity exchange

## Farmer



- Farmer (Grain, Oilseed and Corn, incl. Premium based contracts) using the commodity exchange
- Farmer (Grain, Oilseed and Corn, incl. Premium based contracts) without using the commodity exchange

# Overview Commodity futures exchange for dairy products



EUREX (today EEX)  
2010/ 2012



EURONEXT  
2010/ 2015



Chicago Butter and  
Egg Board (today CME)  
1919

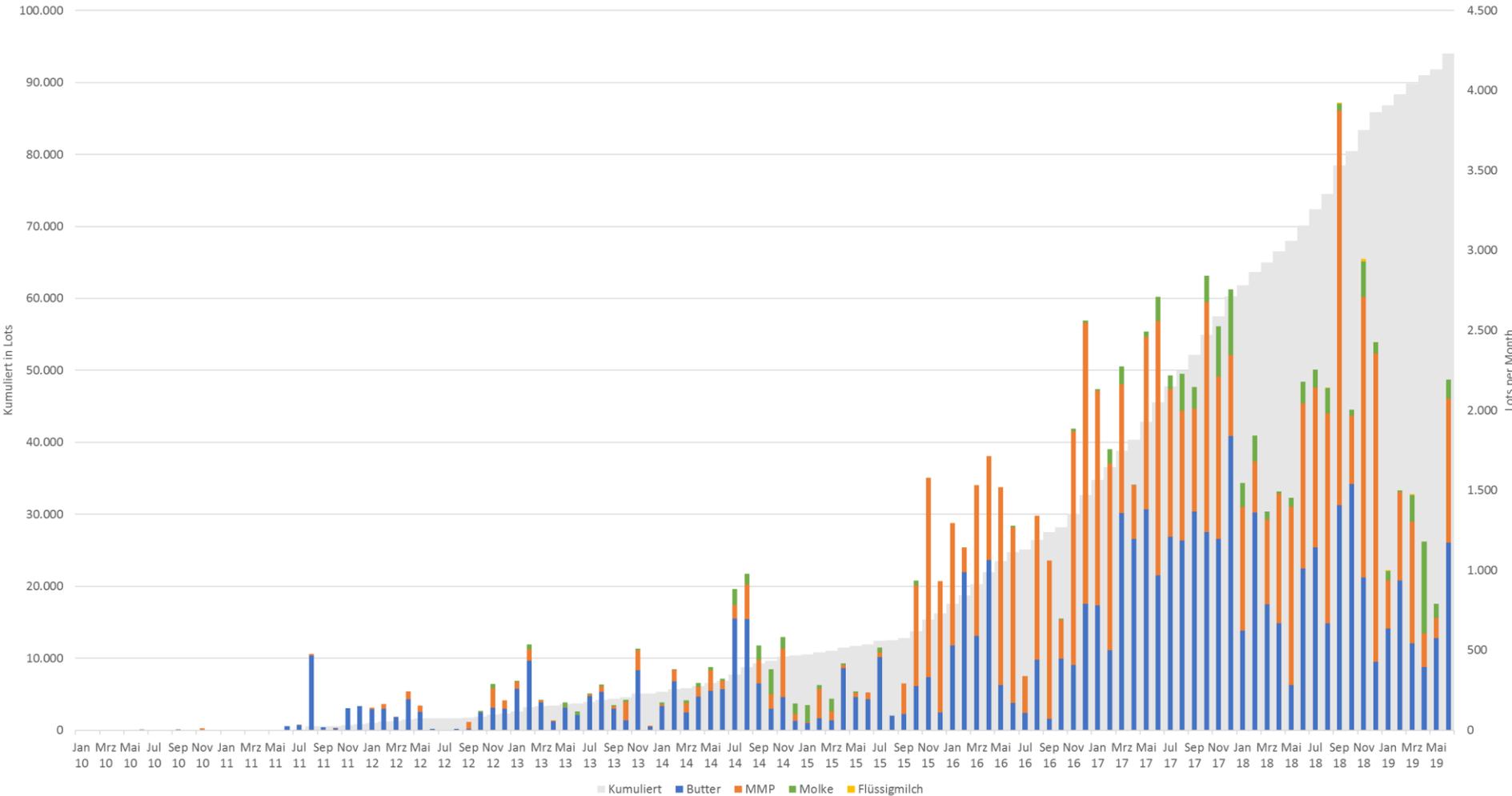


NZX  
2010

# Offered Future Contracts worldwide

CME	EEX	NZX	EURONEXT
Class III Milk Future	Butter Futures	Butter Futures	Butter Futures
Class IV Milk Future	Whey Powder Futures	Liquid Milk Future	Whey Powder Futures
Dry Milk Futures	Skimmed Milk Powder Futures	Skimmed Milk Powder Futures	Skimmed Milk Powder Futures
Whey Futures	Liquid Milk Future	Whole Milk Powder Future	
Butter Futures		Anhydrous Milk Fat Future	
Cheese Futures			

# Trading Volume EEX - The leading futures exchange in Europe



# EEX Market participants

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- Dairy farmers
- Food processors & dairy manufacturers (butter, cheese, ice cream, yogurt, etc.)
- Food industry (Pizza Producer, bakeries etc.)
- Traders and Exporting companies
- Retailer
- Food service companies (restaurants, grocery stores, etc.)

# The Future Contract

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- Standardized derivative financial contracts which obligate the buyer to purchase an asset, or the or the seller to sell an asset
  - Both have predetermined future date and price for transaction completion
- Standardized parameters involve contract size, weight and value (i.e. pricing per bushel, barrel, cwt, MT) as well as maximum and minimum price fluctuation
- Futures contract: a legally binding agreement providing for the physical delivery of commodities at a specific date in the future
- European Dairy Futures do not provide for physical (cash) delivery of the underlying commodity
- Hedging risk with futures allows participants to lock in the price of an underlying asset/commodity at a future date

# Risk management opportunities for dairy farmer

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Milk payments from dairy companies



Fixed price programs from dairy companies



Individual commodity exchange risk management

# The supply of risk management Tools: Conclusion

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- Futures exchanges have a long tradition and offer excellent risk management tools for farmer and other parties in the value chain
- Nowadays there is no commodity that is not hedged via futures exchanges
- Futures contracts can be employed on both buy and sell sides of transactions to reduce the price volatility
- Futures exchanges products can broaden the horizon for business profitability. Today the profit of tomorrow will be secured
- The combination of Future and Options products can significantly optimize the effectiveness of hedging
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- Futures and Options products provide tight market-price connections
- Futures boost business flexibility in responding to rapidly changing conditions
- Futures enhance supply-chain management and price flexibility

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# The need for dairy futures education

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- In 2010 the European commodity exchanges started offering new dairy future contracts.
- In 2010 ife Institute started the ife exchange based raw milk value and published it daily for free on the ife web page ([www.ife-ev.de](http://www.ife-ev.de)).
- In 2012 ife Institute of Food Economics in Kiel started with dairy futures training for dairy processors and dairy farmers.
- Since 2013 ife Institute together with partner organizations set up a new dairy future training tool.
- Until now ife and his partner organizations delivers dairy futures training to more than 2.500 dairy farmers and processors in 30 regions in Germany.
- Additionally we delivered dairy future presentations and seminars in Austria, Sweden, Netherland, Belgium and Poland.

# The market transparency of futures markets

ife Exchange Raw Milk Value, July 1rd, 2019

Kontrakt Monat	Kieler Börsen- milch- wert*	Änd.	Butter Future	Änd.	OI	MM- Pulver Future	Änd.	OI
	Ct / kg							
Jul 19	32,2	↘	3875	↘	305	2063	→	587
Aug 19	32,6	↘	3900	↗	291	2095	↘	592
Sep 19	33,3	↘	3955	↗	286	2140	↘	494
Okt 19	33,8	↘	4040	↗	326	2145	↘	307
Nov 19	33,7	↘	4025	↘	301	2150	→	273
Dez 19	33,9	↘	4050	↘	204	2155	→	192
Jan 20	34,7	↗	4140	↗	271	2190	→	5
Feb 20	35,0	↗	4188	↗	263	2200	→	6
Mrz 20	34,9	→	4150	→	252	2210	→	5
Apr 20	35,0	↘	4150	↘	6	2220	→	4
Mai 20	35,1	↘	4150	↘	6	2230	→	3
Jun 20	35,2	↘	4150	↘	6	2240	→	4
Jul 20	35,5	→	4175	→	7	2250	→	0
Aug 20	35,5	→	4175	→	7	2250	→	0
Sep 20	35,5	→	4175	→	7	2250	→	0
Okt 20	35,8	→	4200	→	0	2275	→	0
Nov 20	35,8	→	4200	→	0	2275	→	0
Dez 20	35,8	→	4200	→	0	2275	→	0
Jan 21	35,9	↗	4225	↗	0	2275	↗	0
Summe					2538			2472

Source: ife Institute of Food Economics, [www.ife-ev.de](http://www.ife-ev.de)

- Butter and SMP future contract prices of the EEX Exchange are translated daily to a raw milk value equivalent called „ife Börsenmilchwert“. Daily publication and free download.
- The „ife exchange raw milk value“ is based on 4.0 % fat and 3.4 % protein, farm gate, without VAT.
- Market transparency and forecast for October 2019:
  - Price of Butter: 4.040 €/t Butter
  - Price of SMP: 2.145 €/t SMP
  - ife Exchange raw milk value: 33,8 Ct/kg of Milk

# Our partners in dairy futures training



## One day dairy futures seminars and training



Kontrakt Monat	Kiefer Börsen- mäch- wert €/kg	Änd.	Butter Future		MM- Pulver Future	
			€ / t	Änz.	€ / t	Änz.
Apr 18	32,4	→	5450	→ 545	1323	→ 327
Mai 18	34,9	↗	5600	→ 383	1502	↗ 287
Jun 18	35,0	→	5606	→ 397	1510	↗ 281
Jul 18	35,5	↗	5766	↗ 304	1483	↗ 303
Aug 18	35,7	↗	5763	↗ 393	1506	↗ 273
Sep 18	35,9	↗	5719	↗ 289	1550	↗ 266
Okt 18	35,8	↗	5700	↗ 164	1543	↗ 99
Nov 18	35,9	↗	5600	↗ 107	1600	↗ 89
Dez 18	35,8	↗	5580	↗ 105	1600	↗ 79
Jan 19	33,5	→	5300	→ 10	1500	→ 1
Feb 19	32,8	→	5100	→ 5	1525	→ 1
März 19	32,6	→	5000	→ 9	1550	→ 1



# Structure of a regional dairy futures training

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- **Topic 0:** Introduction by a regional partner organization
  - **0 Speaker:** Local farmer or cooperative organization
- **Topic 1:** “The price volatility in the milk market and the instability of milk prices”
  - **1 Speaker:** Local farmer or cooperative organization
- **Topic 2:** “Basics of milk price hedging via dairy futures contracts”
  - **2 Speaker:** Milk future market expert
- **Topic 3:** “Different exchange base models how to hedge the milk price risk”
  - **3 Speaker:** Milk future market expert
- **Topic 4:** “10 steps to implement milk price hedging for the own business”
  - **4 Speaker:** Dairy market broker and trader with practical experiences
- “Open discussion with all speakers and participants”

# Specifics of our dairy futures training

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- Lead partner: ife Institute of Food Economics, Kiel.
  
- Our ife dairy futures training as a one day seminar has:
  - A time line from 09.30 am to 3.30 pm
  - Independency of interests (no-sales-pitch)
  - A cooperation with the local farmers or coop organization
  - High level speakers with real life experiences
  - Small groups of participants
  - Regional distribution due to regional specific structures
  - Deep knowledge and training necessary
  - Know how on futures but also on milk market intelligence
  - Enough time for open and critical discussion

Source: ife Institute of Food Economics, Kiel, Germany, 2019.

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# Conclusion I

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- Dairy price volatility and dairy price crisis are the new normal in Europa!
- Due to many factors European dairy price volatility could rise even further!
- Hence, there is a strong need for professional risk management for European dairy farmers and dairy processors!
- Dairy future contracts are such helpful risk management instruments to
  - (a) increase the transparency of dairy pricing and
  - (b) to stabilize the dairy farming and processing in Europe.
- Since 2010 a variety of different dairy future contracts are ready to use for processors, traders and farmers in Europe.

# Conclusion II

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- Dairy futures are market oriented risk management tools to stabilize the milk sector.
- But dairy futures are new for all dairy market participants and we need an upskilling of farmers and processors risk management education.
- ✓ Strong need for professional risk management for European dairy farmers and dairy processors!

# Conclusion III

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- ✓ Lessons learned from six years experiences of dairy futures seminars for farmers and processors in Germany - Need for seminars with:
  - independency of interests (no-sales-pitch)
  - small groups of participants
  - regional distribution due to regional specific structures
  - deep knowledge necessary
  - Know how on futures but also on milk market intelligence
  
- ✓ What is to do?
  - All modern dairy farmers and processors as entrepreneurs need to understand and to hedge the milk price risks in Europe!
  - We need to offer the regional dairy futures seminar format to all dairy farmers and processors in the European Union!