

Extract



# Dairy Report 2018

For a better  
understanding of  
the dairy world



**IFCN**

The Dairy Research Network

## Dear Friends,

This IFCN Dairy Report 2018 compiles in a most comprehensive overview, the status of the dairy world and gives insights into the IFCN Research.

## The IFCN Mission and Vision

**IFCN Mission:** We create a better understanding of the dairy world by providing comparable data, knowledge and inspiration.



## IFCN Content work 2018

**Sustainability:** IFCN has developed a tool to measure sustainability indicators for different farm types.

**Farm economics:** Special attention was given to the following areas: short descriptions for all farms in the analysis, implementation of the new milk standardisation method, calculation of different variables measuring the buffer capacity and thus the resilience of dairy farms.

**The dairy sector work:** To understand the dairy world better, it is important to observe the global dairy trade. By monitoring the monthly trade of 25 HS 6-digit dairy commodities and creating trade profiles for different countries, IFCN is able to draw conclusions on milk surplus and deficit worldwide.

**Outlook 2030:** As dairy business is changing very rapidly, IFCN has developed scenarios for the long-term outlook of the dairy world for over 200 countries until 2030.

## Highlights – IFCN events in 2018

### IFCN Dairy Conference 2018

The focus of this conference was 'Farm technology: Past, present and future'. Teagasc hosted this event in Cork, Ireland, in June.



### IFCN Supporter Conference 2018

This event was held in September in Parma, Italy. The topic explored how Big Data will change dairy farming and the supply chain in the future. Cargill was the event hosting partner.

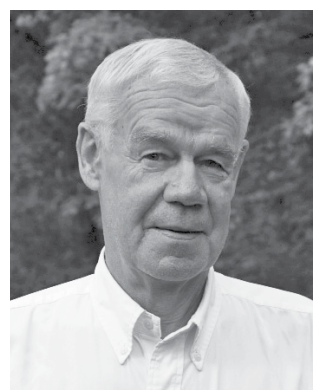


### IFCN Dairy Economic Workshop 2018

The workshop took place for the 4<sup>th</sup> time to transmit profound knowledge of the backgrounds of the dairy market to novices in the field of dairy economics.

### IFCN Regional Workshop 2018

The 7<sup>th</sup> of its series workshop will be organised in Pune, India from 28<sup>th</sup> to 29<sup>th</sup> November. Focussing on milk quality and exports potential of India. The event will be sponsored by Schreiber-Dynamics, Kemin, Prabhat, Neogen and Promethean power.



## Status of the IFCN Research Network in 2018

The dairy sector analysis covered over 200 countries. In the farm comparison, 177 typical dairy farms from 65 dairy regions and 53 countries were analysed. In 2018 the research network grew substantially via new countries in farm and dairy sector analysis.

## IFCN Dairy Report 2018

**Chapter 1: Cost comparison** summarises results on costs, returns, profitability and productivity of dairy farms worldwide. Real time cost estimates for 2018 have also been included for some countries. A special focus lies this year on sustainability and resilience of dairy farms.

**Chapter 2: Global monitoring** provides a broad overview on specific dairy issues such as milk prices, feed prices and milk:feed price ratio and monthly milk price transmission.

**Chapter 3: Dairy sector and chain profiles** prepared for 115 countries, representing 98% of world milk production with comparable information on

- Major milk processors per country
- Milk supply and demand developments
- Milk processing profile per dairy product
- Monthly farm gate and world milk price
- Consumer prices and margins in the chain

Moreover, the key results are summarised at the beginning of the chapter via world maps.

**Chapter 4: IFCN Methods:** This chapter is dedicated to explain the methods used for the IFCN Analyses. Moreover it highlights the following topics: a) status of the model TIPI-CAL, b) monthly demand data, c) monthly supply forecast model, and d) changes in milk standardisation for the farm and sector data.

## Acknowledgement

We would like to thank all IFCN Research Partners, Supporter Partners, Institutional Partners and the colleagues working in the IFCN Dairy Research Centre during the last year. It was a pleasure to work with you and strengthen the network in 2018. We are looking forward to our activities in 2019.

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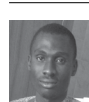
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## Myanmar

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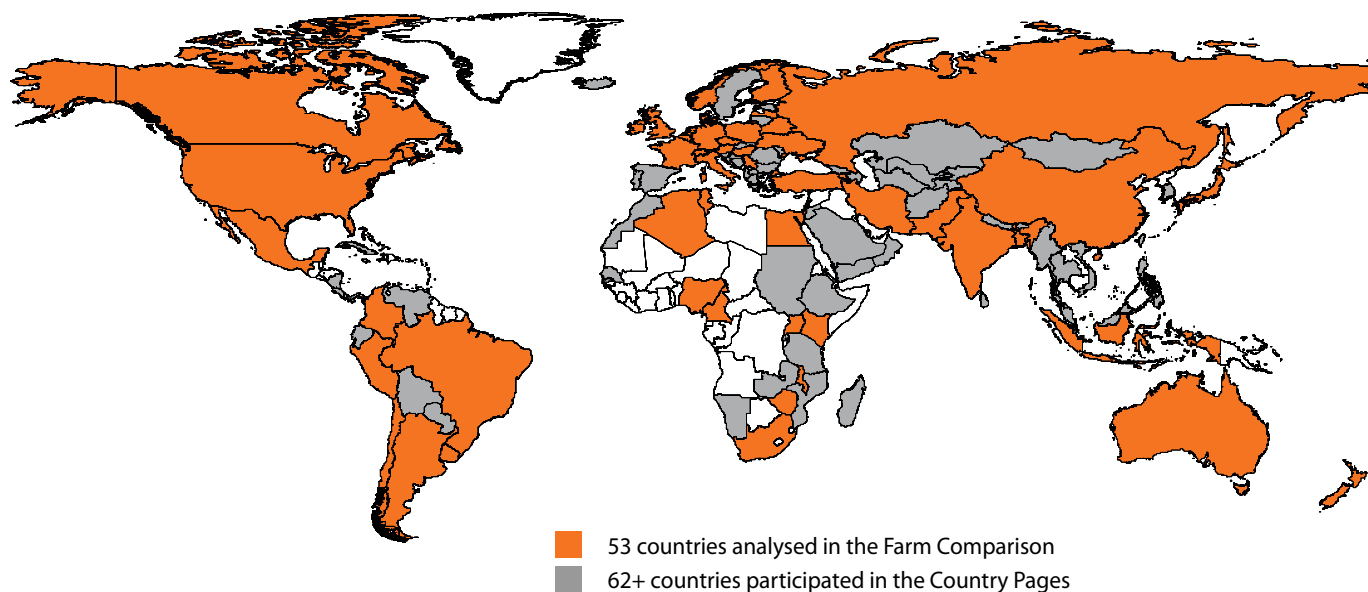
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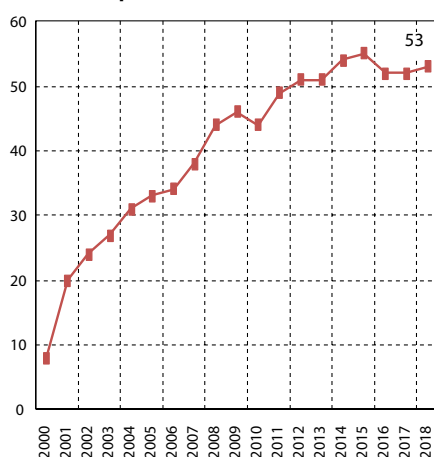
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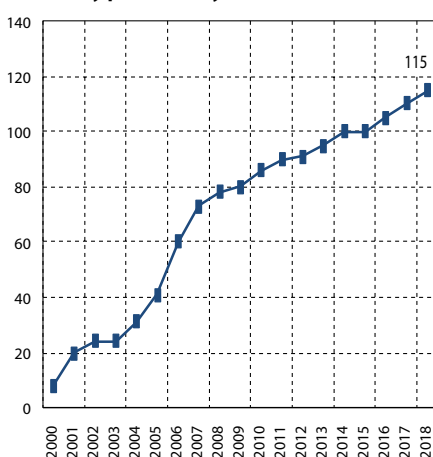
Which countries are participating in the IFCN Dairy Report activities in 2018?



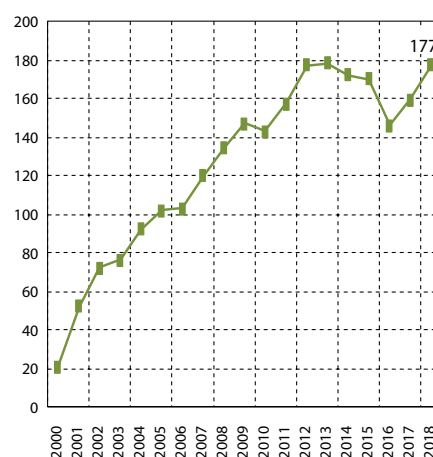
Number of countries included in farm comparison



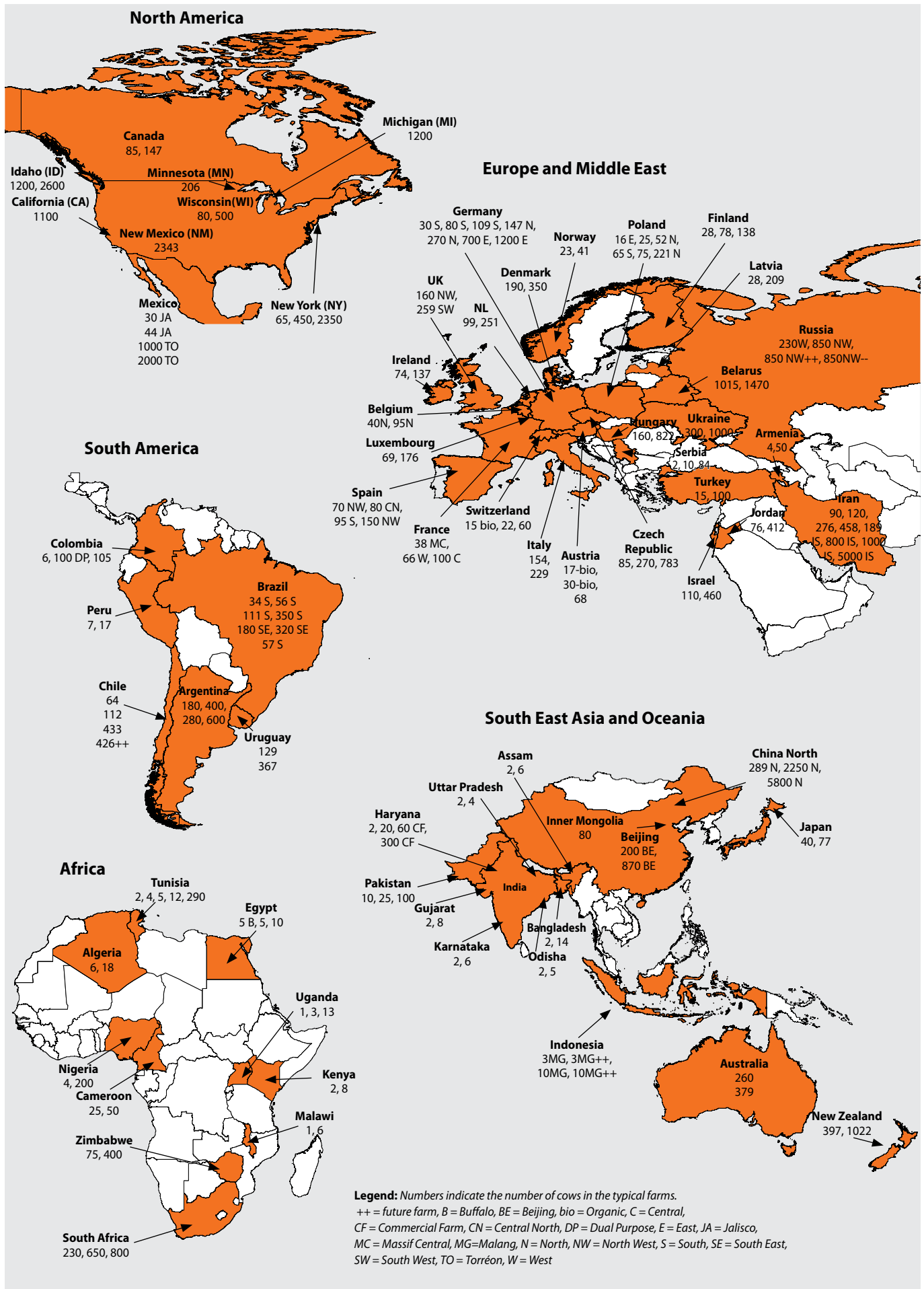
Number of countries included in country profile analysis



Number of farm types analysed







### The dairy world today

Today the dairy world serves over 7 billion consumers and provides livelihoods for approximately 1 billion people living on dairy farms. The key challenges for the dairy stakeholders lie in its complexity and the high rate of change in a globalised world.

### About IFCN

IFCN is a global dairy research network. By addressing challenges in the dairy world, IFCN can contribute to a more resilient and more sustainable future for all of us.

### What does IFCN do?

IFCN provides globally comparable dairy data, outstanding knowledge and inspiration to stretch one's imagination. Its core competence lies in the field of milk production, milk prices and related economic topics.



### How does IFCN operate?

IFCN creates a better understanding of the global dairy world. The IFCN – International Farm Comparison Network – started in 2000 with basic analytics. Step by step the knowledge bases are being deepened and widened every year.

Knowledge is created via a network of dairy researchers from over 90 countries. The data and knowledge are managed and analysed by the IFCN Dairy Research Centre staff.

The IFCN Economic Models and standards ensure comparability between countries and provide a global picture.

More than 100 dairy related companies and organisations support the IFCN and use the knowledge to solve challenges in the dairy world better.

IFCN has innovative ways to share this knowledge with its partners and with the dairy world as a whole. The IFCN Events are a key element in developing the network spirit.

### IFCN Values: Trust – Independence – Truth

**Trust** among the IFCN Partners is vital for open sharing, cooperation and a network that really works. The IFCN is **independent** from third parties and is committed to truth, science and reliability of results. **Truth** means that IFCN shows the dairy world as it is and as accurately as measurements allow. IFCN describes realities and reports without having any hidden agendas.

### IFCN Vision

**We are the leading, global knowledge organisation in milk production, milk prices and related dairy economic topics.**

### IFCN Mission

**We create a better understanding of the dairy world by providing comparable data, knowledge and inspiration.**



**Dairy data:** We provide globally comparable dairy economic data and forecasts.

**Knowledge:** We create knowledge out of our data, models and analysis. Our core competence is in the field of milk production, milk prices and related economic topics.

**Inspiration:** We inspire people in the dairy world to build a better future. We inspire passionate people to develop a successful career in the dairy world.

### What does IFCN offer stakeholders in the dairy chain

- 1. Farmers:** IFCN gives you a voice to reach other players in the dairy world. Up to date global milk and feed price trends and helpful IFCN Publications are presented on the IFCN Website. Farm comparison work allows you to judge the competitive position of milk production in your region.
- 2. Researchers and advisors:** IFCN makes you part of the leading global dairy network. IFCN helps to serve your dairy stakeholders better and to develop your professional career in the dairy world while strengthening your dairy economics profile in your country.
- 3. Companies:** IFCN provides dairy related companies such as milk processors and farm input companies, a comprehensive and continuously updated picture of the dairy world. We help you develop your business.
- 4. Global and national organisations involved in policy-making for agriculture, environment and food supply:** IFCN provides holistic dairy knowledge to be used for your policy decisions and conferences.
- 5. Consumers:** IFCN illustrates milk-production, its fascinating diversity and value creation in rural areas.
- 6. Colleagues in the IFCN Centre:** You are invited to build a life time career in the IFCN Centre to operate globally and enjoy a stable local life. You are also welcome to use IFCN as the ideal stepping stone for further developments in the dairy world.

For further information please contact: [info@ifcndairy.org](mailto:info@ifcndairy.org)

## Organisational setup

**IFCN** stands for International Farm Comparison Network and is a global dairy research network. The IFCN has a **Dairy Research Center** (DRC) with 24 employees coordinating the network process and running dairy research activities.

### Managing Director



Torsten Hemme

### Network Management



Saleh Amiralai



Prashant Tripathi



Muzaffar Yunusov



Annika Jarrens



Zarif Omid

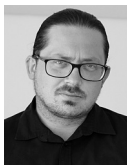


Swantje Bruhn



Birte Petersen

### Dairy Analysis Team



Łukasz Wyrzykowski



Katrin Reincke



Mateusz Węgrzynowski



Johanna Scholz



Oybek Kalandarov



Elgin Atakli



Philipp Goetz



Dorothee Bölling



Maria Schmeer



Amit Saha

### Office Management



Anna-Maria Woehl



Marieke Fischer



Elgin Giffhorn



Karin Wesseling



Sandra Bornhöft



Franziska Rekow



Ufukhan Hamurcuoğlu



IFCN Dairy Research Center



IFCN Board

The IFCN Board has the mandate to support the IFCN management in the strategic development and guarantee transparency in the operation to the members of the network.

The IFCN Board is composed of the following members: Anders Fagerberg (chairman), Luc Morelon (nominated by the supporters), Ernesto Reyes (nominated by the researchers), Uwe Latacz-Lohmann (Kiel University), Olaf Rosenbaum (legal and fiscal expertise) and Torsten Hemme (Managing Director IFCN).



Anders Fagerberg  
Chairman



Ernesto Reyes



Luc Morelon



Uwe Latacz-Lohmann



Olaf Rosenbaum



Torsten Hemme



# 19<sup>th</sup> IFCN Dairy Conference, June 9 – 13, 2018 in Cork, Ireland

## Farm technology: Past, present and future



The 19th IFCN Dairy Conference 2018 in Cork, Ireland, was attended by 83 participants representing 38 countries. The conference was proudly hosted by Teagasc. The event was also sponsored by DSM, Department of Agriculture Food and the Marine, Alltech, Ornua, icos, dairygold and Bank of Ireland.



Monday, June 11 <b>DAIRY WORLD STATUS</b>	Tuesday, June 12 <b>FARM TECHNOLOGY</b>	Wednesday, June 13 <b>DAIRY OUTLOOK</b>
<p><b>IFCN Strategy and board report</b></p> <p><b>Dairy sector – global overview</b></p> <ul style="list-style-type: none"> <li>Drivers of the world milk price 2017</li> <li>Panel discussion: What are the game changers of the dairy world in 2018?</li> </ul> <p><b>Key drivers for the dairy world</b></p> <ul style="list-style-type: none"> <li>The Irish dairy sector (<i>T. Donnellan, Teagasc</i>)</li> <li>What are the main stakes for dairy companies today? (<i>L. Morelon</i>)</li> <li>Technologies that are changing agriculture and the food supply chain (<i>R. Walker, Alltech</i>)</li> </ul> <p><b>Dairy farm economics</b></p> <ul style="list-style-type: none"> <li>Competitiveness of dairy farming worldwide</li> <li>Sustainability and resilience</li> </ul> <p><b>Network evening</b></p>	<p><b>Farm technology</b></p> <ul style="list-style-type: none"> <li>Challenges and opportunities for the Irish Dairy Industry (<i>P. Dillon, Teagasc</i>)</li> <li>Farm technologies by innovative companies (<i>G. Kau, DSM</i>)</li> <li>Mechanisation on dairy farms</li> </ul> <p><b>Workshop</b></p> <ul style="list-style-type: none"> <li>Values and benefits of an IFCN Researcher Partnership</li> <li>Areas, priorities and leadership in farm technology</li> </ul> <p><b>Poster session</b></p> <p><b>Farewell evening</b></p>	<p><b>Dairy outlook</b></p> <ul style="list-style-type: none"> <li>Future economic and environmental sustainability of EU dairy production (<i>T. Hennessy, Cork University Business School</i>)</li> <li>IFCN Long-term Dairy Outlook 2030 – the dairy world in the next 12 years</li> <li>Workshop: IFCN Partnership in 2030</li> <li>IFCN Short-term Dairy Outlook 2018/19</li> <li>IFCN Way forward – The IFCN Dairy Research Network in 2018/19</li> </ul> <p><b>Summing up and closing</b></p>



## Farm technology: past, present and future

Farm mechanisation enters the digital age now, creating an unprecedented amount of data and new decision-making capabilities. Therefore, farm technology, both in developing and developed countries, is high on the agenda. This year's IFCN Dairy Conference, hosted by Teagasc and sponsored by DSM, the Department of Agriculture, Food and the Marine, Alltech, Ornua, icos, dairygold and Bank of Ireland, explored the past, present and the future of farm technology around the world. During intense days of discussion between IFCN Researchers and representatives from international companies, it became clear that technology plays an important role everywhere although on different levels.



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine



## Farm technology today

Annually IFCN attempts to define the status quo of current developments by means of a survey and, in this way, catch a glimpse into the future of dairy farming. The 2018 results of the opinion survey (n=131, 48 different countries) show that:

- The highest density of robotic milking systems can be found in Western Europe.
- One third of all analysed farms uses pedometers for heat detection and one quarter uses automatic calf feeders.
- Replacing labour with technology is an important issue for dairy farms of all sizes. However, certain technologies are more relevant for larger herd sizes.
- Levels of dairy farm mechanisation, which are related to labour productivity, are spread unequally between the Northern and Southern Hemisphere.



## Farm technology innovation in the future

The conference participants, divided into working groups, discussed the future developments of dairy farms in relation to their specific region. The main focus areas varied depending on the different parts of the world: Big data play an important role in Europe and the USA. A great amount of data has already been collected but there is a lack of interfaces and the proper technology to combine this mass of data from different sources, and to analyse it. Research Partners agreed that a more efficient use of big data would help to give advice to farmers and to improve farm management. In general, better milking machines are considered as impactful technology to influence farm profitability, e.g. in Colombia and Bangladesh. Milking robots are the ideal milking system for smaller farms (50-200 cows), while rotary platforms are more common on larger farms. In the case of Switzerland, robot milking might

Source: HEMMET (2018): Outcome Paper from the 19<sup>th</sup> IFCN Dairy Conference.  
<https://ifcndairy.org/press/>

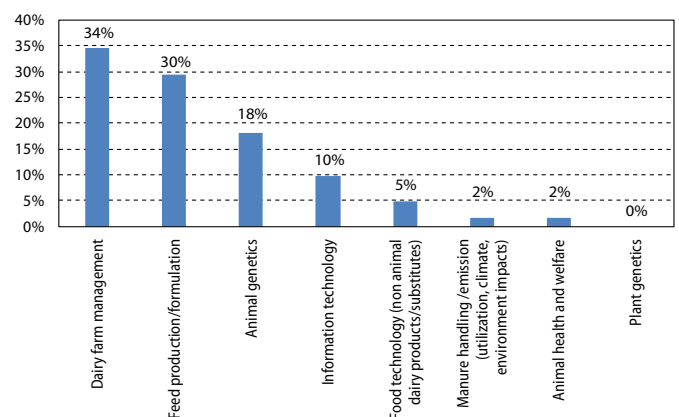
improve farm profitability on smaller farms, especially if second hand robots were used. Mobile robot-milking is useful in full grazing systems. In countries with a hot climate like Mexico, Iran and Jordan, the cooling of cows and milk, plays an important role for future technology development. The focus, for developing countries, lies on fodder production and the improvement of its quality. For example, in Zimbabwe, better harvesting and high-tech equipment (e.g. irrigation systems) would help to improve efficiency and productivity. On the other hand, IFCN Research Partner from Jordan, considers that technologies to improve feeding and the use of water would be more impactful in his region. Overall, in every country, the trend, which is mainly driven by the industry, is moving towards higher milk quality, better fodder and greater labour productivity, although the levels of technology are very diverse.

## Voting results

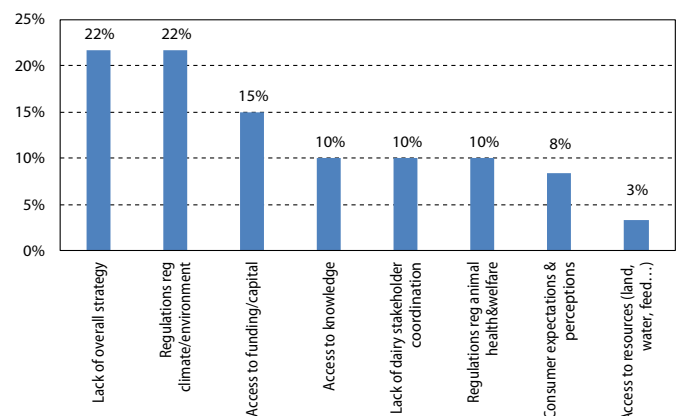
At the conclusion of the workshop, an electronic voting took place which generated results on drivers and limitations of farm technology development:

- In the next five years, the most important technology breakthrough in developing countries will take place in feed production/formulation and dairy farm management according to the opinion of the participants (chart 1). Out of 61 people, 46% thought that Information Technology plays the most important role in developed countries.
- Both in developing and developed dairy regions, Information Technology will have the biggest impact on dairy farm management.
- The most limiting factors for new farm technology in developing regions are access to funding and capital limits, while in developed regions they are the lack of overall strategy and regulations regarding the climate and environment (chart 2).

**Chart 1. In which area will the most important technology breakthrough in developing regions take place?**



**Chart 2. What are the greatest limitations to new farm technology development in developed regions?**





# 15<sup>th</sup> IFCN Supporter Conference, September 19 – 21, 2017 in Lucerne, Switzerland

## What makes a dairy region successful?



The 15<sup>th</sup> IFCN Supporter Conference was held in Lucerne, Switzerland. More than 80 participants from 70 dairy related companies attended the conference which was hosted by Emmi, Nestlé and Hochdorf.



<b>Tuesday, September 19</b> <b>THE DAIRY WORLD IN 2017</b>	<b>Wednesday, September 20</b> <b>SUCCESSFUL DAIRY REGIONS</b>	<b>Thursday, September 21</b> <b>DAIRY OUTLOOK</b>
<p><b>Pre Conference:</b></p> <p><b>Understanding industry needs towards IFCN</b></p> <ul style="list-style-type: none"> <li>• IFCN - The company and their products</li> <li>• IFCN Monthly Real Time Farm Economics – new development in the tools</li> </ul> <p><b>Official start of the conference</b></p> <ul style="list-style-type: none"> <li>• Welcome to the 15th IFCN Supporter Conference</li> </ul> <p><b>The dairy world today</b></p> <ul style="list-style-type: none"> <li>• The dairy world in 2017</li> <li>• IFCN Monthly Real Time Data – What are the latest developments</li> <li>• IFCN Farm Economics situation in 2017</li> <li>• Global farm structure development and trends</li> <li>• What made Switzerland a successful dairy region? (<i>C. Gazzarin, Agroscope</i>)</li> </ul> <p><b>Networking evening</b></p>	<p><b>Successful dairy regions</b></p> <ul style="list-style-type: none"> <li>• Successful dairy regions in the world</li> <li>• Developing successful dairy regions that are continuously more sustainable – (<i>Nestlé</i>)</li> </ul> <p><b>Workshop session 1</b></p> <ul style="list-style-type: none"> <li>• Which key drivers made a dairy region successful in the past</li> </ul> <p><b>Workshop session 2</b></p> <ul style="list-style-type: none"> <li>• Which key drivers will make the dairy region successful in the future.</li> </ul> <p><b>Dairy farm and Kalbach cheese cave visit</b></p> <p><b>Networking evening</b></p>	<p><b>Global perspectives of milk production</b></p> <ul style="list-style-type: none"> <li>• Reflections on a voyage of discovery in the strategic analysis jungle – (<i>E. Elgersma</i>)</li> <li>• How Swiss dairy sector would look like in 10 years? – (<i>Hochdorf</i>)</li> <li>• IFCN Long-term Dairy Outlook 2027 – How will the dairy world look like in 10 years?</li> <li>• IFCN Short-term Dairy Outlook 2017/2018 – How will the dairy world look like in 15 months?</li> </ul> <p><b>Reporting sessions</b></p> <p><b>Summing up and closing</b></p>





### What makes a dairy region successful? Results from the IFCN Supporter Conference 2017

The success in dairy regions requires leadership and processors are seen that they can take a stronger role in the future. Beside the drivers for milk production, it is a common approach to strengthen the image of dairy and training of dairy farmers.

Torsten Hemme underlines that the milk price cycle will end in 2017 and starts over in 2018. Reason for the volatility in prices is still that milk supply acts with a delay on world price changes. This delay is a key driver for the continuous price volatility. It just takes time from a change of world prices to national prices, to farm economics and then for the dairy farmer to adjust & hence paving the way for dairy development discussions.



### Results on past drivers

Milk production was – according to the voting of the participants – mostly driven by natural (33%), market (24%) and political (19%) factors. The natural factors such as water and climate put a lot of pressure on the regions and will have also in the future major impact, as weather conditions getting more extreme. Population growth in the world and income growth in emerging countries led by itself to a higher demand in the world and this trend will continue.

### Results on future drivers

The new drivers that might arise in the future to influence the milk production were clearly seen in the progress of technology (28%) and social factors (27%). The participants were commenting that especially technology is improving the economy on the farm, but also the technology in new products made contributed to dairy development. Improvement of the dairy image in the developed world – having a growing vegan movement and increasing concerns on animal welfare – is a working box that commonly should be taken by the dairy chain members. The training of the farmers also can contribute to strengthen the basis of the entire dairy development.

However, even with the new drivers of technology and social factors, the limitation of natural resources is and will be the most restrictive factor, even in the future. And also, policies and other governmental impact will carry high weight, when it comes to where the milk will be produced in the future.

### KEY LEARNING RESULTS

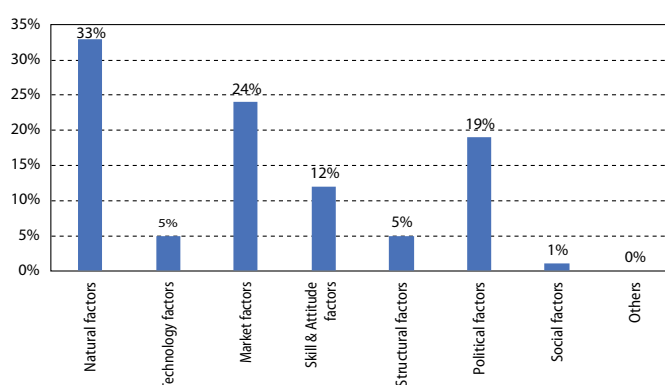
**Lessons learnt by the companies** from their dairy development programmes:

- Need to find the best policies.
- Promote technology.
- Improve standards and image of dairy.
- Communicate with the customer.
- Have access to high quality statistical data.
- Bring dairy talents into the decision-making bodies
- Cooperation in R&D

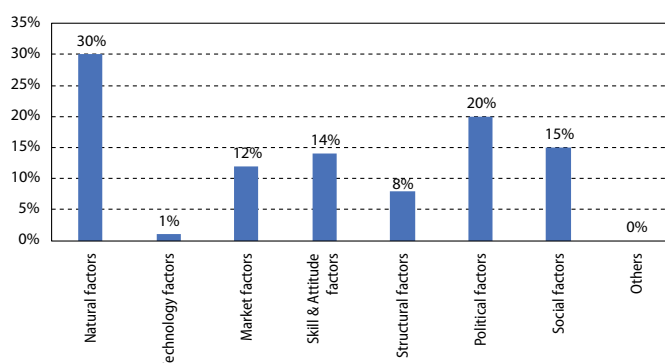
### Key take away messages

- The future of the dairy sector is uncertain, more than in the past; the factors of influencing the dairy market are unpredictable.
- Big farms will be the EU leader in the dairy sector: Farm structure changes in Europe (here e.g. Germany) will decrease by 4.6 % the farms in the coming 10 years, in the same time, farm size will increase by 4.8% animals/farm. Numbers of cows will remain stable.
- Leadership for dairy development in developed regions is probably best taken by milk processors. This is in accordance with what was also concluded from the IFCN Researchers in the IFCN Dairy Conference. Continuous and comparable dairy data are key information when looking on the current status of the country or region. Data, metrics and impact analysis are crucial to define the right strategy. Investing resources for project design and monitoring are essential for a successful programme.
- Lift the image of dairy is one of the common areas where the members of the entire dairy chain can work together and ensure a constant dairy development, ensuring income.

### What have been the most important drivers for milk production in the past?



### What is the most limiting factor to have a successful dairy region in the future?



# 6<sup>th</sup> IFCN Regional Workshop, November 28 – 29, 2017 in Chennai, India

## Sustainability of family dairy farms



This IFCN Regional Workshop took place in Chennai, Tamil Nadu; more than 74 participants representing various aspects of the dairy value chain became part of the discussions and group working session. The workshop focused on the topic: Sustainability of family dairy farms in India. These questions were intensively discussed among the participants – key people who represented various stakeholders in the dairy chain including farmers and government representatives. The workshop provided a suitable frame and platform for participants to exchange experiences and discuss various different approaches for dairy development in India. Presentations by IFCN researchers and agribusiness-related companies introduced the topic. A panel of representatives of different aspects of dairy value chains was also very well received. The workshop was proudly sponsored by Cavin Kare, Elanco and Lactalis.



**Tuesday, June 6**

### INDIAN DAIRY EXPERIENCE

#### Field trip

- Visit to local dairy farm
- Interaction with dairy farmer
- Visit to Lactalis dairy plant

#### Official start of the conference

- Welcome to the 6th IFCN Regional Workshop
- Working group challenges dairy farms face in India

#### Networking evening

**Tuesday, June 7**

### INTERACTIVE SESSION

#### Dairy sector trends and drivers

- Global dairy trends and drivers (T. Hemme, IFCN)
- Indian dairy trends and drivers (R. Kumar, Lactalis)
- India dairy perspective (S. Mudgil, Rabobank)

#### Status trends and drivers of family dairy farm

- Farms structure trends and patterns with case study - IFCN
- Processors panel: Corporate programmes strengthening
- Family farms

#### Workshop – Design the future of family farming in India

- Future: Suitable programmes and leadership
- Voting: Priorities for making family farms sustainable

#### Presentations of the result and sum up of the workshop





## Sustainability of family dairy farms in India.

The workshop discussed the sustainability of family dairy farms in India and explored the possible solutions for the new challenges and the most likely trends that will be faced by the Indian family dairy farmers in the future. More than 70 participants, representing various aspects of the dairy value chain, became part of the discussions and group working sessions.

## Kick started with an informative field visit with touristic aspects

The workshop guided the participants to worked on the key questions pertaining the sustainability of family farms. The aim was to develop ideas how to solve the issues and who should take leadership to successfully solve it.

## Upon successful discussion and workshop the following results were found

- 1) **Global dairy:** Global dairy perspective is essential for India to establish the current standing (competitive position) of the sector and to decide where it want to be (future competitive position).
- 2) **Processors:** Sustainability of processors can only be guaranteed by ensuring the sustainability of the farmers. To realize this, the processors must take a lead in providing need-based solutions to the farmers.
- 3) **Farm structure developments:**
  - Farms structural change: Sustainable family farms will gradually replace the household farms once salaries and off-farm employment opportunity arise.
  - Defining criteria: for sustainability shall be defined by farmers themselves.
  - Eco-social: The Eco-social factor for sustainability of family farms will be initially more decisive than environmental factor.
  - Farm dynamics: For the time being the optimal size of a family farm is deemed to be 10-15 animals.
  - Holistic knowledge: Will define priorities in adaptation of technologies on the farm.
- 4) **Farm management skills are the bottlenecks for family farm development:**
  - Training of farmers in skill and management remains a key challenge in India. Government and private actors should together create trainings which are giving farmers a holistic view on their farms.
  - Recording and accounting are important as you only can improve what you can measure. Start with the progressive and motivated farm families to create examples for the followers.

Almost 50% of the participants put the highest priority on improvement of skills, second priority was given to five issues with almost equal rating, that is next generation, land/feed and water, quality animals, unproductive animals, financing the family farms.

As the issue of farm management skills have been on highest priority this topic shall be explored further. For that IFCN dairy experts have been working on the topic after the workshop. The points below describe specific areas of farm management skills where family farmers have challenges and what potential solutions can be.

**System knowledge:** Importance of having holistic view of the dairy farming system to define the fitting dairy system.

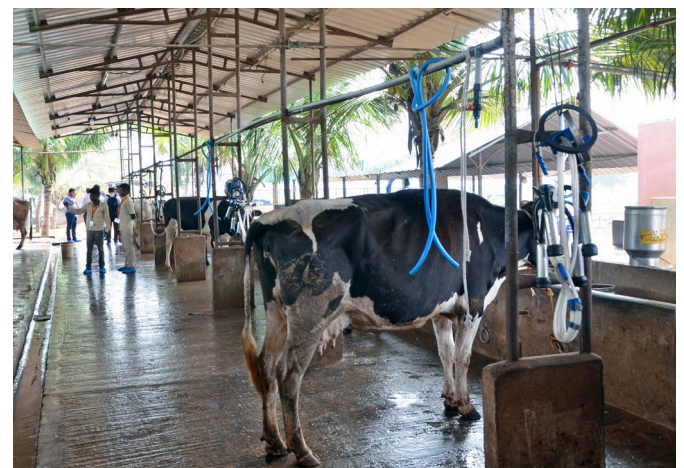
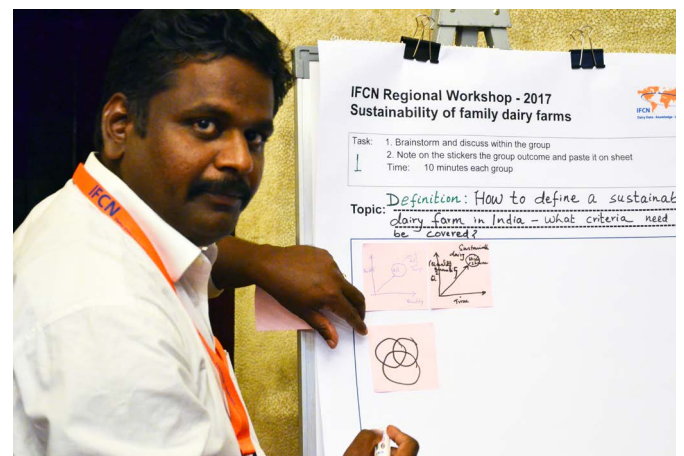
**Farmers perspective:** Be aware of his abilities, limitations and benefits of improvements.

**Trainer attitude:** Trainers should meet the farmers on an equal interpersonal and subject understanding level.

**Basic skills:** Concentrate on ABCs of dairy farming and better understanding the business and emphasis on entrepreneur skills, implement follow-ups and complimentary trainings.

**Long-term planning and management:** Simple farm/business development plan, with priorities upon investment,

**Short-term planning:** Simple annual operational plan, with budget and SOP's for major activities.





## 4<sup>th</sup> IFCN Dairy Economic Workshop, February 27 – 28, 2018 in Kiel, Germany

Dairy economics is more than just the price of milk



This fourth IFCN Dairy Economic Workshop took place in Kiel, Germany. It was attended by 12 participants from different dairy related companies, institutions and institutes.

### Tuesday, February 27

#### Introduction to dairy economics

- Dairy farm analysis – Farm economics across the globe
- Dairy sector analysis – How does the global dairy world look like?

#### Workshop session

- Principles of the dairy market

#### Networking events

### Wednesday, February 28

#### Current situation and analysis

- Farm structure – What's behind the segments?
- Dairy farm economics – Current situation and how to predict the dairy future?
- Company case studies – Learn how to address strategic development questions

#### Presentation for the results and sum up of the workshop

#### Optional IFCN Product Training





# 1<sup>st</sup> IFCN Dairy Hub Argentina, July 4, 2018 in Buenos Aires, Argentina

## A window to the dairy world



The first IFCN Dairy Hub Workshop took place in Buenos Aires, Argentina. It was attended by 18 participants from different dairy related companies, institutions and institutes. Organized jointly by IFCN and Argentinian Research Partner Hugo Quattrochi, this workshop generated a space for the local exchange on drivers, trends, scenarios and perspectives of the global dairy economy. This initiative promoted by IFCN in Argentina seeks to establish a local window from which to understand the economy of the dairy world.

**Tuesday, June 6**

### INDIAN DAIRY EXPERIENCE

- Introduction
- What is happening in the dairy economic world?
- Global milk production and structural changes
- IFCN Long-term and short-term outlook
- What is happening in the dairy economic world?
- Conclusions

### Networking lunch

**Feedback:** „It is a great opportunity for Argentina to maintain this space of exchange“.

**Feedback:** „The distortion between the global and local price was most interesting, as well as the possibility to understand where we stand“.

**Feedback:** „It was great to understand models of the past that help predict the future“.

**Feedback:** „The panorama of Argentina for the next six months is very interesting“.





## List of events with IFCN participation



### IFCN Presentations at international conferences (2017)

BÖLLING D (2017): IFCN: Typical Farm Approach and TIPICAL. Presentation at Inception Workshop: Cost of production 3R (Resilient, Robust, Reliable), Nairobi, Kenya, 20-21 March 2017.

BÖLLING D (2017): Global dairy trends, drivers & outlook. Presentation at CDDIF, Beijing, China, 11-12 January 2017.

HEMMET (2017): Dairy economics – The dairy world now and in 2025. Presentation at Dairy Summit, Rome, Italy, 4-6 April 2017.

HEMME T (2017): Globale Trends und Perspektiven in der Milchwirtschaft. Presentation at VDMA-Milchforum, Kassel, Germany, 8-9 February 2017.

HEMME T (2017): Latest global trends in the evolution of dairy farms. Presentation at IDF World Dairy Summit, International Dairy Federation, Belfast, Northern Ireland, 29 October - 3 November.

HEMME T (2017): Los sistemas de producción láctea actuales a nivel mundial y su evolución a corto-medio plazo. Presentation at Inlac conference, Madrid, Spain, 17 March 2017.

HEMME T (2017): Markets post Brexit. Presentation at Progressive Dairy Operator's Conference 2017, Kite Consulting, Warrington, England, 9-10 October 2017.

HEMME T (2017): Recent dynamics in dairy farms around the world. Presentation at 2nd International meeting on Milk, vector of development, Rabat, Morocco, 10-11 May 2017.

HEMME T (2017): The Status of Global Dairy Economy and the Prospects in 2018. Presentation at International Dairy Innovation Integration Seminar, Zhuangzuzhiqu, China, 10 November 2017.

HEYER A (2017): Global trends and perspectives for Middle East and Africa. Presentation at 2nd Global Dairy Congress MEA, INRA and CIRAD, Cairo, Egypt, 4-5 July 2017.

HEYER A (2017): World milk production outlook. Presentation at Eurolat Meetings 2017, European Association of Dairy Trade, Brussels, Belgium, 30-31 January 2017.

JARRENS A (2017): Poster at Dairy Asia Multi-Stakeholder Meeting, FAO, Nay Pyi Taw, Myanmar, 6-11 November 2017. <http://dairyasia.org/Events/6-10-Nov-17/Proceedings.pdf>

REINCKE K (2017): Poster at EU commodity market development: Medium-term agricultural outlook, European Commission, Brussels, Belgium, 19-20 October 2017.

RUSETSKA U (2017): Dairy farm economics: current situation and how to predict the future. Presentation at East European Dairy Congress & International Caucasian Dairy Forum, Tbilisi, Georgia, 14 March 2017.

SCHIER A (2017): Preisrisiko in der Milchproduktion. Presentation at 67. Öffentliche Hochschultagung, Christian-Albrechts-Universität, Kiel, Germany, 2 February 2017.

TRIPATHI P (2017): Panelist at Dairy Forum 2017, International Dairy Foods Association, Orlando, Florida, 29 January - 2 February 2017.

WYRZYKOWSKI Ł (2017): Dairy developments across the world. Presentation at Dairy Industry Newsletter Conference, London, England, 16-18 May 2017.

WYRZYKOWSKI Ł (2017): IFCN Long-term view of Milk Supply and Demand. Presentation at Dairy Vision 2017, Agripoint, Curitiba, Brazil, 30 November - 1 December 2017.





## IFCN Supporter Partnership

IFCN Supporter Partners are dairy-related companies which benefit from the network by receiving comparable data for strategic and operational decision-making, knowledge and inspiration.

### IFCN Supporter Partnership benefits:

- IFCN Dairy Report: 5 hard copies annually
- Access to the IFCN Supporter Conference
- E-mail hotline: remarks and first suggestions for urgent questions
- IFCN Newsletter
- IFCN Publication: Information about all actual IFCN Publications and their availability
- Logo positioning in the IFCN Dairy Report, the IFCN World Dairy Map and on the IFCN Website



## Monthly Real Time Data incl. farm economics

This real time product delivers data on milk production, milk & feed prices and describes the current situation and on-going development on dairy markets to optimise short-term operational business processes on a global and on a country level. A summary with the key message and IFCN Analysis are sent with this data product. Data provide real-time situation of the dairy market with price analysis, making anticipating short-term shifts and changes in the dairy markets easier. This year additional information on fat and protein production has also been added to the data. Sample Fig 1 highlights USA milk price and implication on milk production and farm economics

## Dairy Sector Data & Long-term Outlook

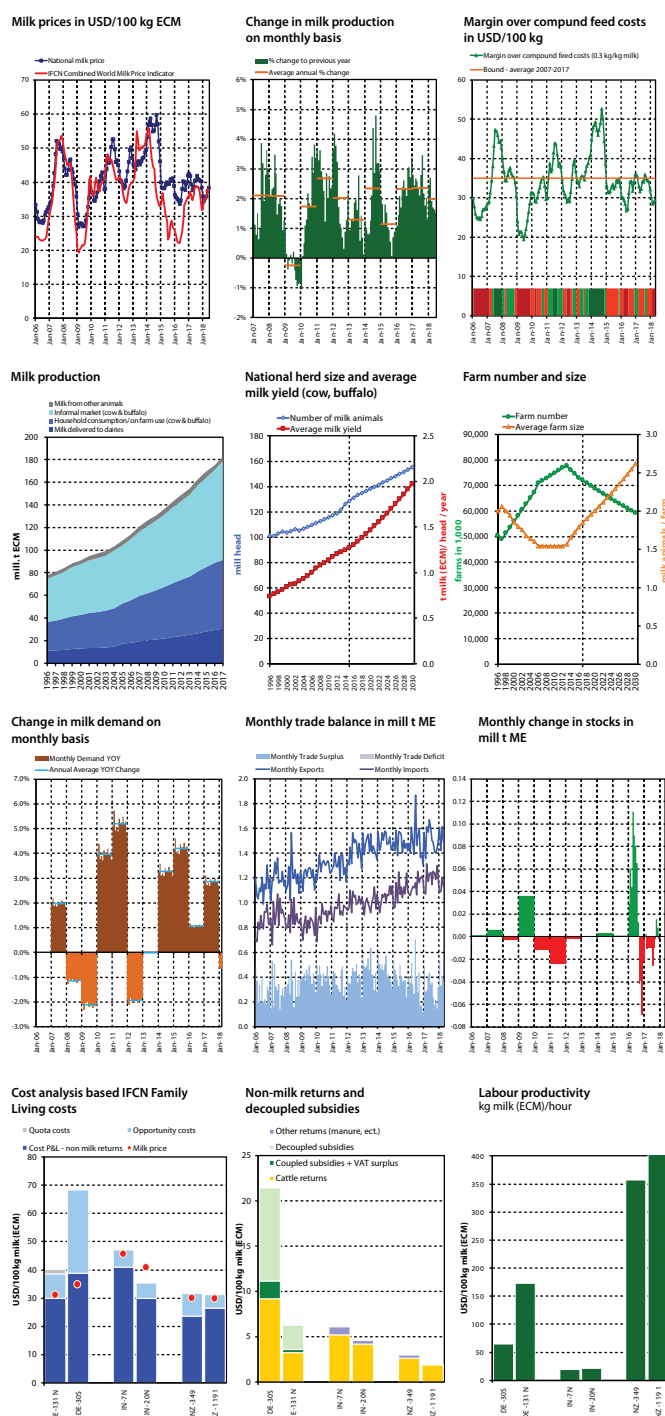
The comprehensive IFCN product supports long-term strategic business decisions providing comparable country level data. It contains the parts: time line data since 1996, regional data and IFCN Long-term Dairy Outlook 2030. Database reflects how the overall dairy situation looks like in the country of analysis, helping in assessing the real market potentials. Standardised and quality approved country data increase your efficiency in business analysis and business development by reducing the data mining time. Sample Fig 2 shows milk production until 2017 and Outlook 2030 for changing farm dynamics for India.

## Dairy Demand Data

IFCN provides a backbone for real time analysis of the global dairy market by covering the whole picture of the milk balance. IFCN Monthly Dairy Demand Data product creates benefits for users on comparability of total traded volumes and visualisation of results in one dashboard makes basis for further internal analysis. This product supports to monitor demand development and its seasonality via looking at the ex-post data as well as current the trends. Total dairy export-import, stock changes data in milk equivalence (ME – fat and protein based on) volumes lead IFCN Partners to understand short-term market trends and milk pool situation in 62 countries. Sample Fig 3 illustrates compares milk demand of Germany.

## Dairy Farm Comparison Data

The farm sector data facilitates strategic decision making by presenting a unique tool for benchmarking dairy farms world-wide. There are new key figures embedded in the product; cost components of the dairy enterprise and actual farm economics. These figures help to get an even better insight in actual farm economics in the analysed countries. With the data, gain a deeper understanding of cost competitiveness and KPIs of dairy production such as efficiency, labour and land costs, capital, yield and prices. Fig 4 compares farms in Indian, Germany, and New Zealand on cost of milk production, non-milk returns and Labour productivity.





## Status and key developments

### Status 2017

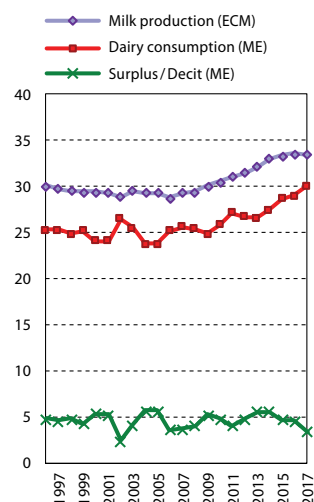
- No. 6 in the world milk production
- 96% of the 33.4 mill t milk (ECM) are delivered
- 3.46 million t ME net exports
- 44% of dairy exports are cheese

### Key developments 2012-2017

- Farmers' milk price on Ø 7.5% above the world market price
- Farmers' share on consumer price decreased from 48.8% to 45.3%
- 111% self-sufficiency in milk

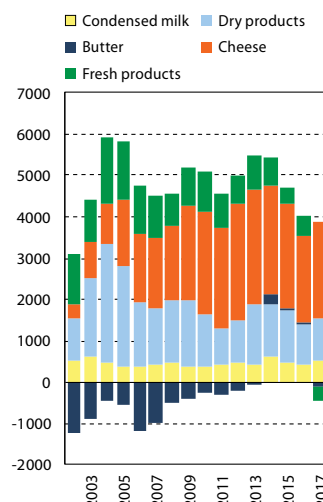
## Milk balance

in mill t, from all dairy species



## Net trade balance

in 1000 t ME, from all dairy species

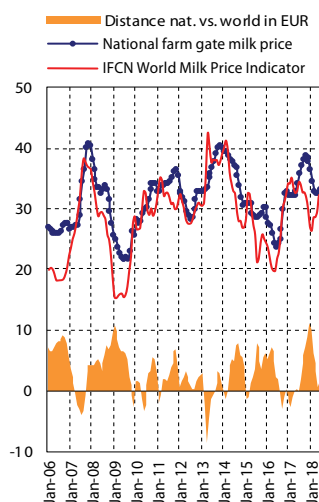


## Key variables

Key variables												Annual change	
	1996	2000	2003	2005	2007	2009	2011	2013	2015	2016	2017	'07-'12	'12-'17
<b>Milk production (cow's)</b>													
Production (mill t ECM)	30.00	29.36	29.49	29.30	29.25	29.99	31.07	32.07	33.35	33.48	33.38	1.5%	1.2%
Cows (in 1,000's)	5,195	4,564	4,338	4,164	4,087	4,169	4,190	4,268	4,285	4,218	4,199	0.5%	0.0%
Milk yield (t/cow/year)	5.77	6.43	6.80	7.04	7.16	7.19	7.42	7.51	7.78	7.94	7.95	1.0%	1.2%
<b>Dairy consumption (from all dairy species)</b>													
Country consumption (mill t ME)	25.26	24.06	25.44	23.72	25.65	24.82	27.14	26.62	28.68	29.02	30.08	0.8%	2.4%
Population (mill people)	81.5	81.5	81.5	81.3	81.0	80.5	80.3	80.6	81.7	82.5	82.7	-0.1%	0.5%
Consumption (kg ME/capita/year)	310	295	312	292	317	308	338	330	351	352	364	1.0%	1.8%
<b>The dairy chain</b>												Percent change p.a.	
Milk delivered (cow's) in %	94%	95%	96%	96%	96%	97%	97%	97%	96%	96%	96%	0.1%	-0.2%
Exports/nat. production	39.1%	45.7%	48.6%	51.2%	49.1%	48.9%	50.0%	54.5%	53.3%	53.5%	54.2%	1.0%	0.1%
Imports/nat. consumption	27.7%	33.6%	40.3%	39.5%	42.1%	39.2%	42.1%	45.1%	45.7%	46.9%	48.6%	0.7%	0.6%

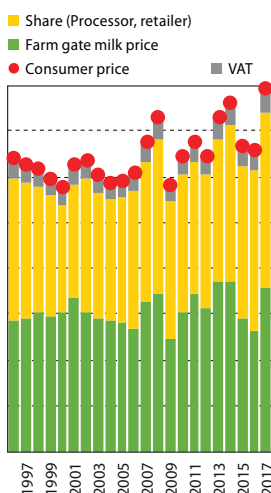
## Farm gate milk price

EUR/100 kg ECM



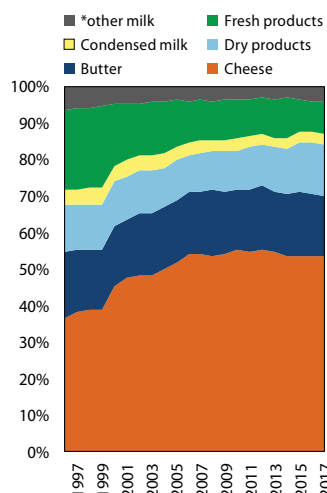
## Consumer & farmers' prices

EUR/100 kg ECM



## Processing profile

% of all milk produced

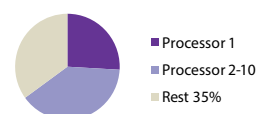


## Milk processors list 2017

Milk intake in 1,000 tons (natural content)

1. DMK Deutsches Milchkontor	8100
2. Hochwald Foods	2321
3. Unternehmensgruppe Theo Müller	2000
4. Arla Foods	1759
5. Molkerei Ammerland	1739
6. frischli Milchwerke	865
7. Goldsteig Käseereien Bayerwald	890
8. Meierei Barmstedt	957
9. Rücker	850
10. Bayerische Milchindustrie	838

Cooperatives: 49% of milk intake shown  
Share on national milk delivery:



## Explanations

**Method:** See Chapter 3.9 for details. **Sources:** National statistics supplemented by data from FAO, IMF, OANDA, GTT, Eurostat, AMI. **Data:** 2017 data preliminary and partly estimated. Cooperatives share on milk intake shown in the list is an IFCN estimate based on partner information. **Consumer price (raw data) for:** Fresh milk, 1 litre with 3.5% fat, 3.17% protein. **Remarks:** Milk processor list: Hochwald Foods (2016), frischli & Bayerische Milchindustrie (2015), Theo Mueller & Ruecker (2013).

**\*other milk:** Milk not delivered to dairies and milk from animals other than cow and buffalo. If applicable: Sheep, goat and camel.



# Partners of the IFCN



[www.ifcndairy.org](http://www.ifcndairy.org)



## Milk processing



## Milking and barn equipment



## Health and hygiene



## Feed



## Farm machinery



## Genetics for animal & plants



## Other branches of the dairy chain

