



MmmooOgle []



Spark Summit

26th October 2016



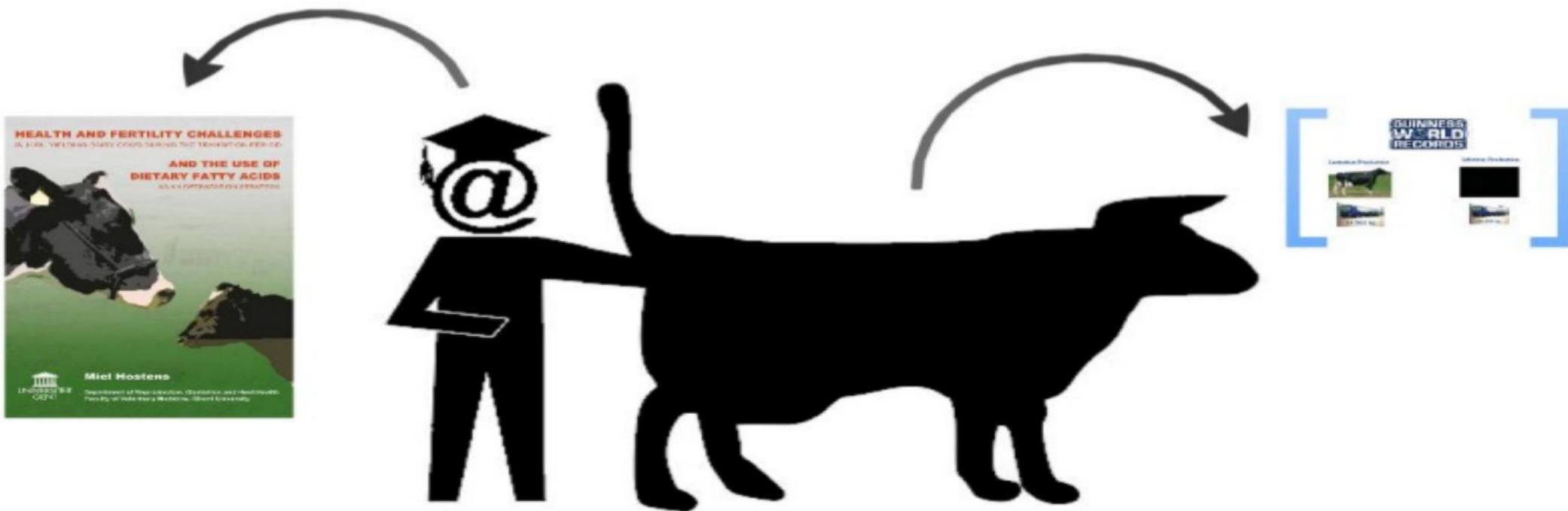
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Who am I



Lactation Production





34 502 kg

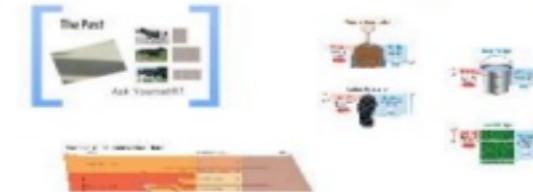
challenges

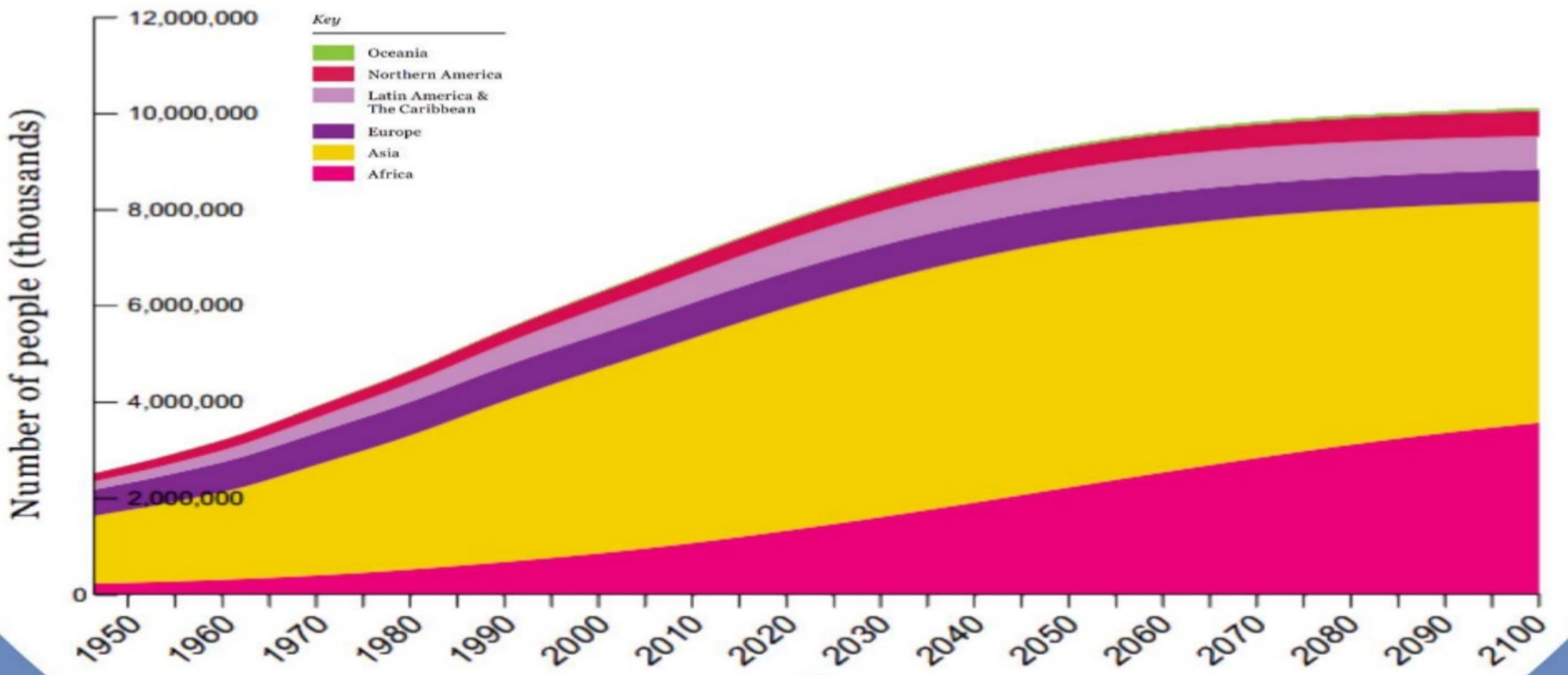
...for the dairy
sector...

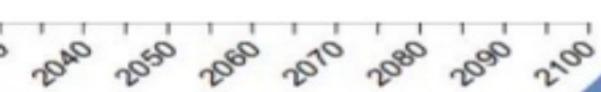
Growing World Population



Climate Change







Food Security & Health

New Chinese milk scandal - this time with a Western culprit

Rajeshni Naidoo-Ghelani
Monday, 5 Aug 2013 | 6:29 AM ET
CNBC



Health Benefits of Milk + Dairy

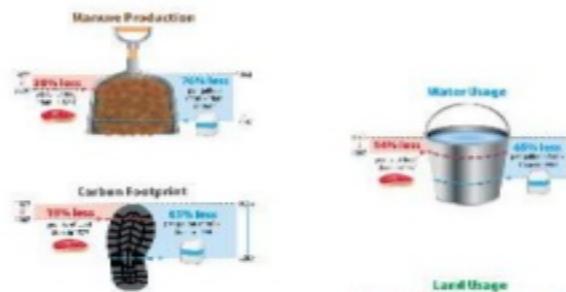
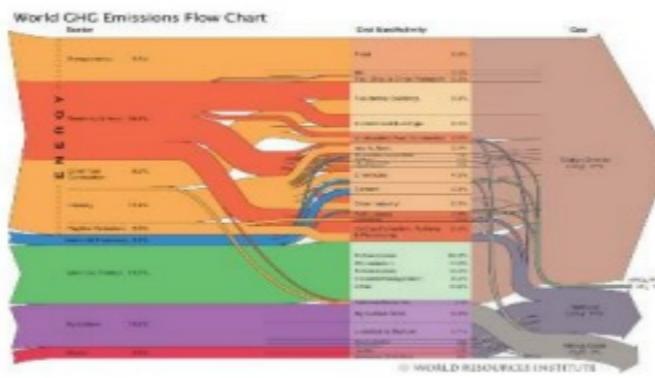
Milk and dairy foods are healthy foods and considered nutrient-rich because they serve as good sources of calcium and vitamin D as well as protein and other essential nutrients. They provide phosphorus, potassium, magnesium, and vitamins A, B12, and riboflavin¹.

The calcium in [milk](#), [yogurt](#), and [cheese](#) is significant yet most people don't get enough calcium or vitamin D each day². Getting the recommended three servings of dairy per day can help build bone mass, leading to improved bone health throughout the life cycle.

To meet daily calcium requirements, most people should have two to three cups of milk or servings of dairy foods each day. There are many ways to ensure you are eating healthy and getting enough milk and milk products each day. Start with a healthy breakfast of cereal, milk, and fruit or a yogurt parfait. Include cheese in your lunch or afternoon snack and consider adding it to hot chocolate made with milk as an evening dessert. To learn more about the amounts of food to eat each day, use the [Healthy Eating Plate](#).



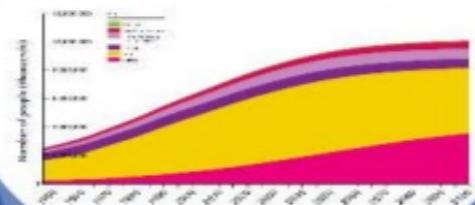
Climate Change



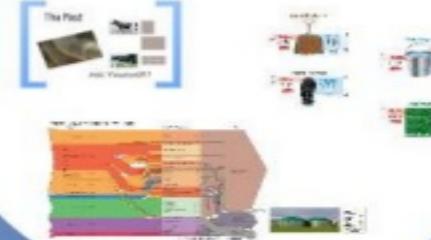
Challenges

...for the dairy
sector...

Growing World Population



Climate Change



Food Security & Health



Trends

Milkprices



World



Technology

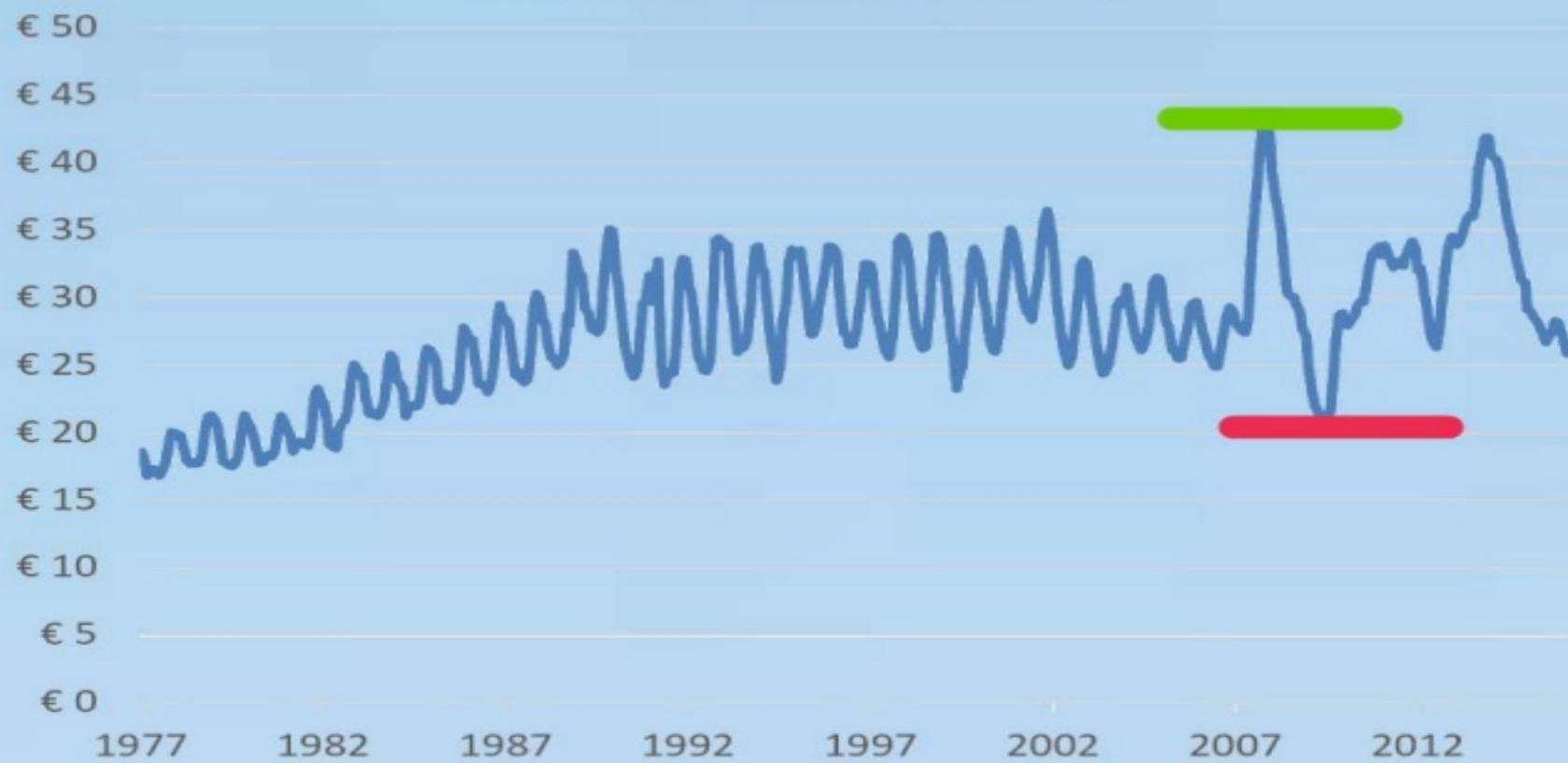


Batch and Streaming

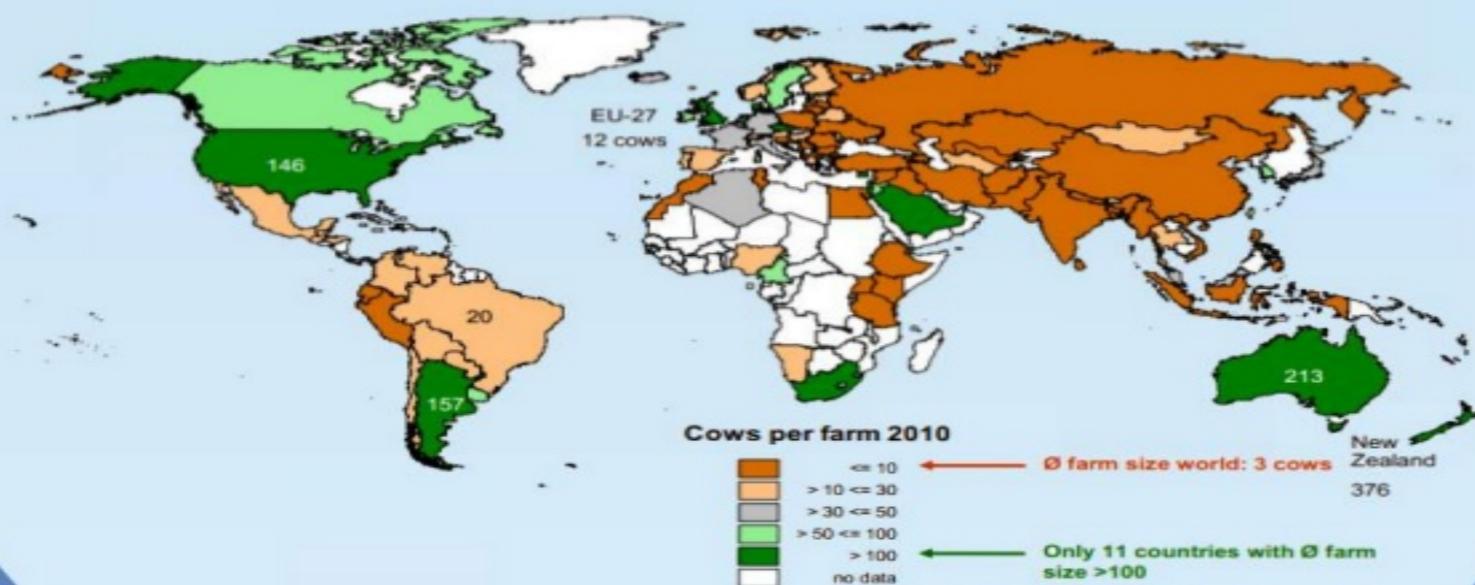


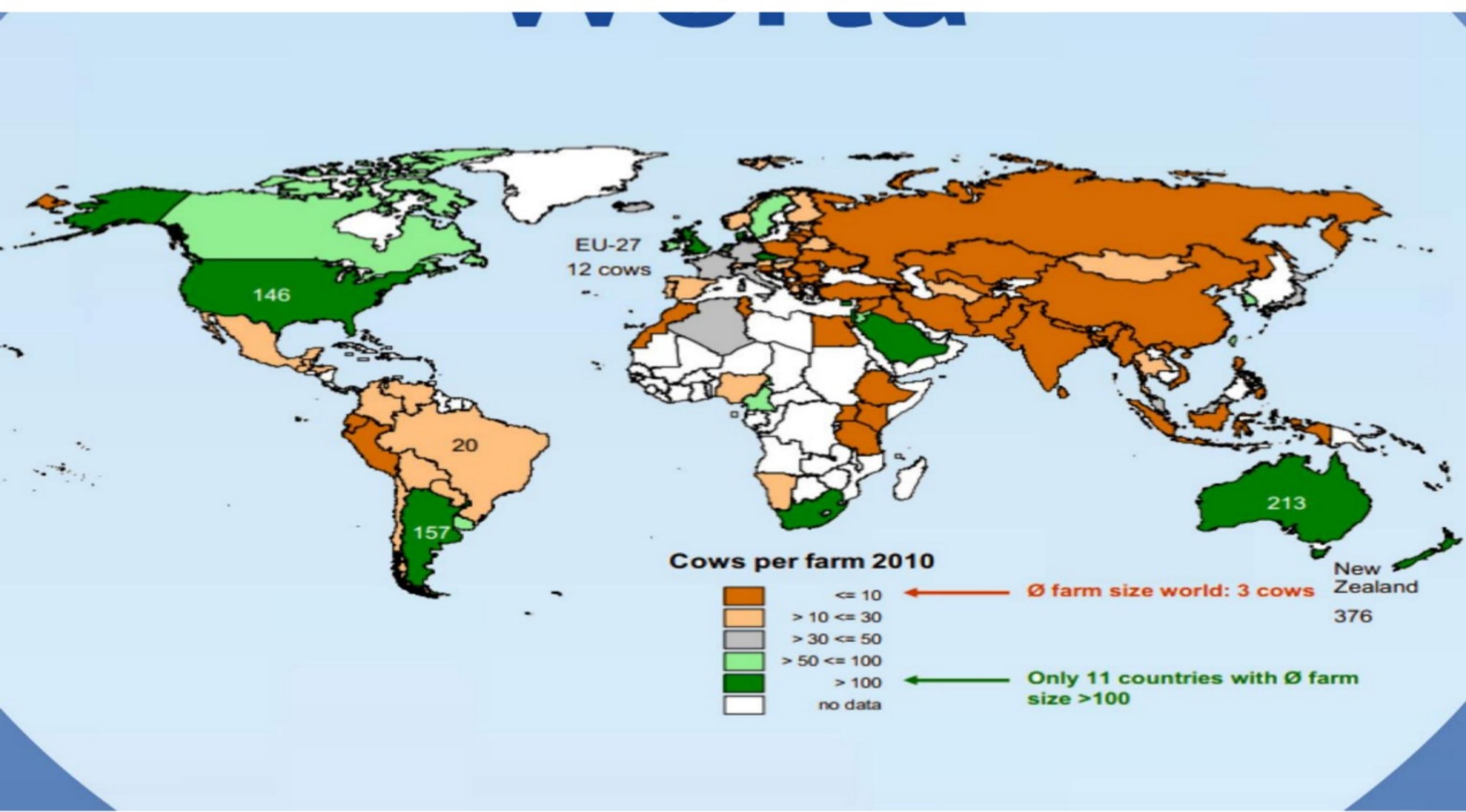
Milkprices

Belgium milk prices (€/100L)



World





Technology



Precision

Dairy

Farming

Technology



Precision

Dairy

Farming



Batch and Streaming





YouTube





Aligned reads

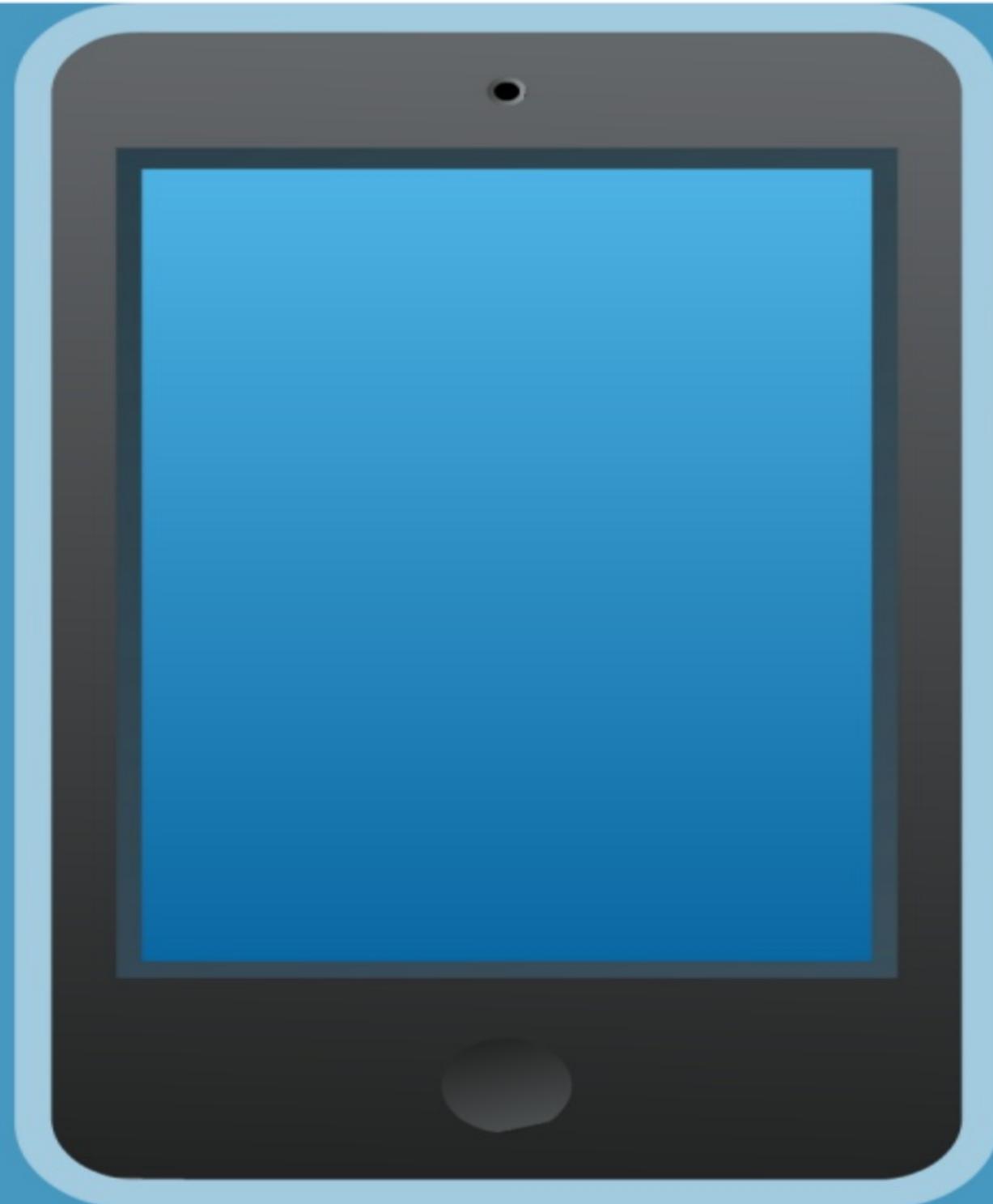
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GATTCAAGTTACCACACCGTA
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TTACCAACCGGTAGCGCATTAA
ACCACCGCTAGCGCATTACACAGA
CACCGGTAGCGCATTACACAGA
CGCGTAGCGCATTACACAGA
CGTAGCGCATTACACAGATTAG
TAGCGCATTACACAGATTAG

Consensus contig

ACCGGATTCAAGTTACCACCGCTAGCGCATTACACAGATTAG



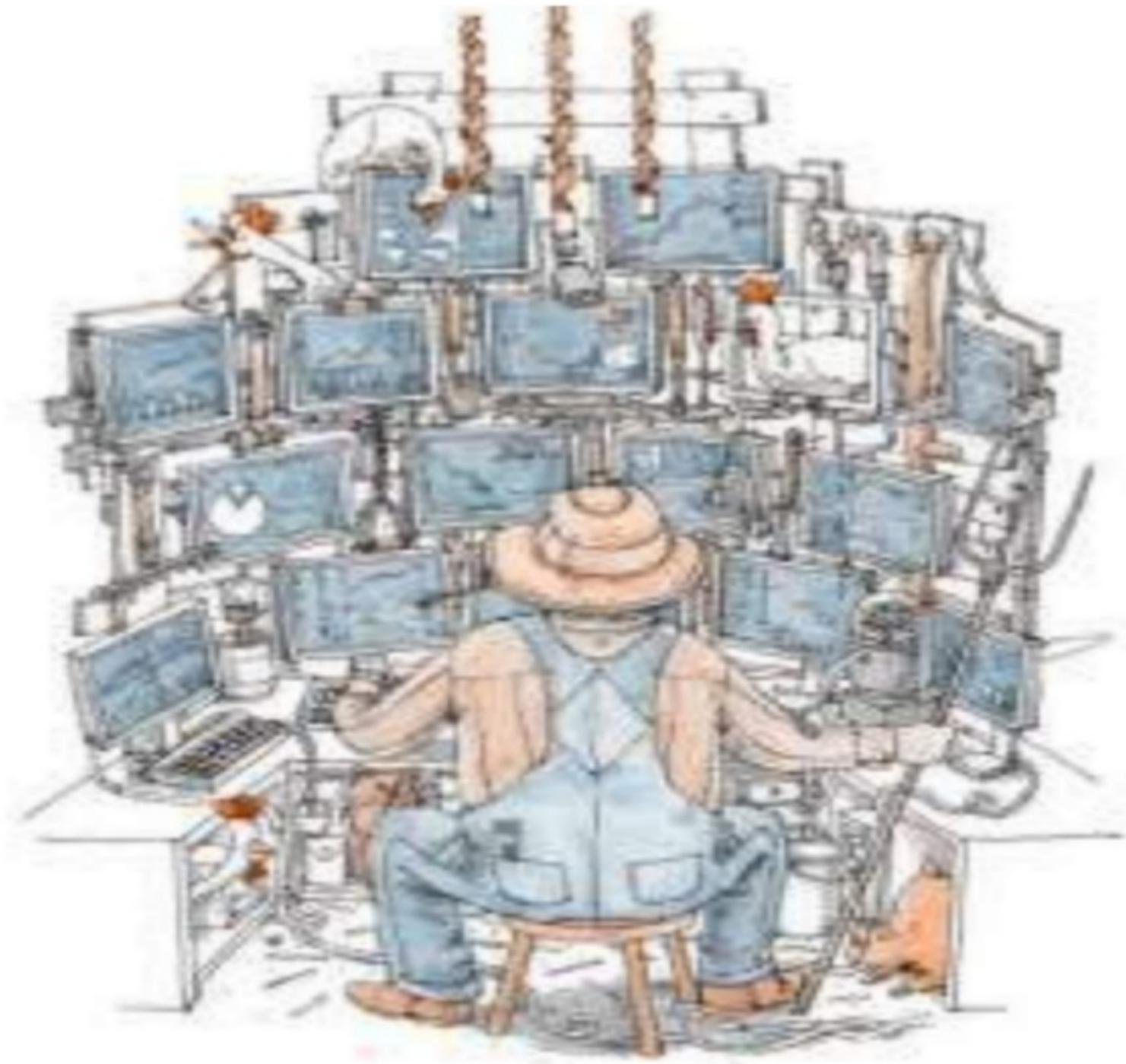




Miel,

We are still very interested in being able to have all of our data from our technologies in a single software program. Is this something that DDW or Moogle has the capability to do. Our herd management software is PCDart. The technologies we have are AfiMilk, AfiLab, DairyMaster, Bella Ag temperature boluses, Agis CowManager, SmartBow, Nedap leg tags, ENGS leg tags. We also have some data coming in from weather stations at the pen level. And, we have manual scores like BCS, locomotion, etc. We'd like to be able to get this in one spot. Is that possible with your program?

Thank you,
Jeffrey Bewley





Batch and Streaming



Problems

COMPLIANCE





Solution



Revolution 1



Dairy Farming 1.0: Hand milking

Revolution 2



Dairy Farming 2.0: Milking Machines

Revolution 3



Dairy Farming 3.0: Precision Dairy farming, Farm Management Software, robots,...

Revolution 4



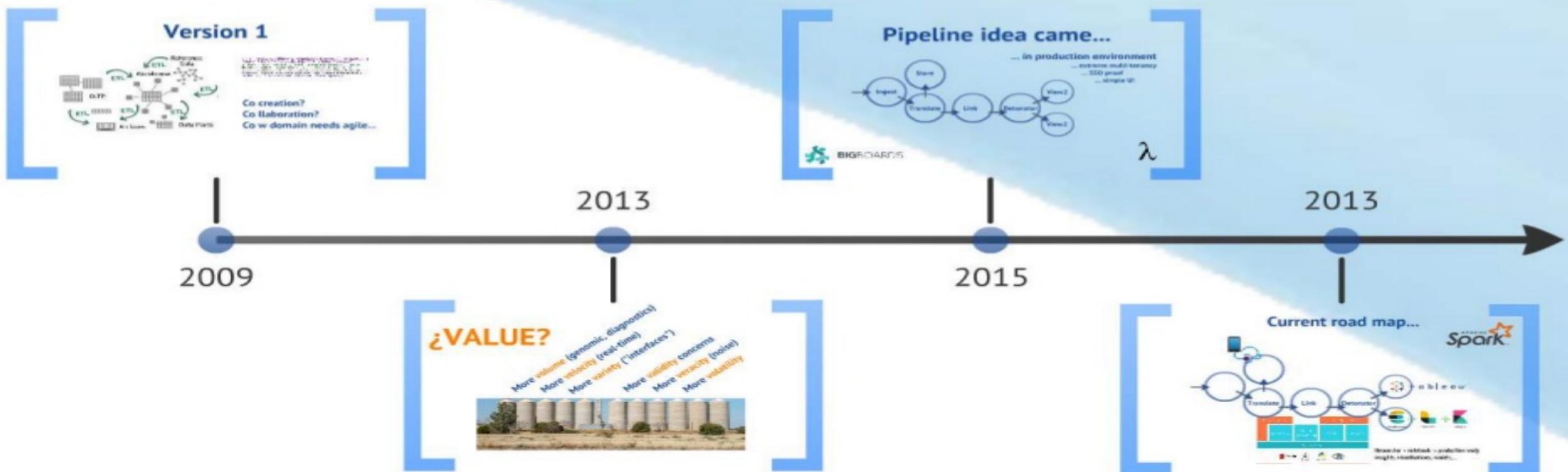
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Dairy Farming 4.0

"Connected farms"



"From data to
DECISION\$"





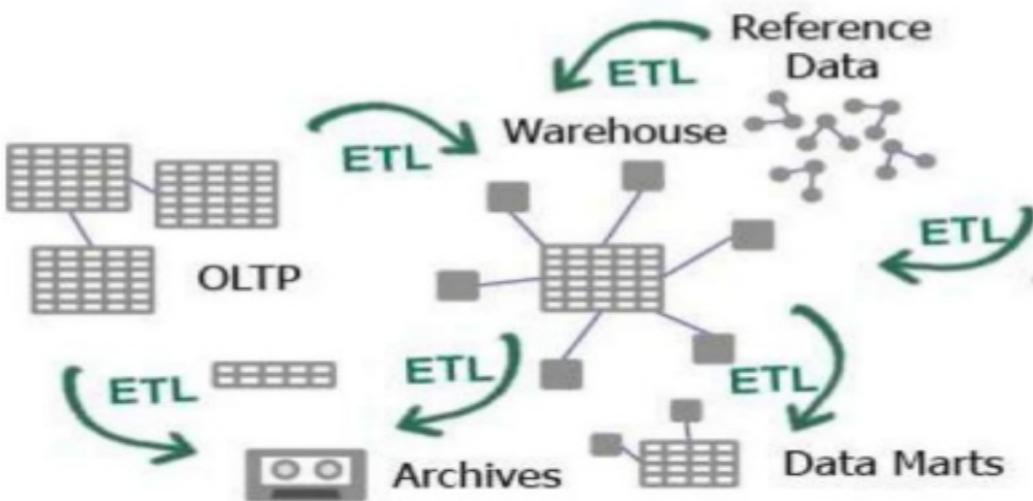
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Version 1



On-farm evaluation of the effect of metabolic diseases on the shape of the lactation curve in dairy cows through the **MilkBot** lactation model
M. Hostens, J. Ehrlich, B. Van Ranst, G. Opsomer - Journal of dairy science, 2012 - Elsevier
The effects of metabolic diseases (MD) occurring during the transition period on milk production of dairy cows have been evaluated in many different ways, often with conflicting conclusions. The present study used a fitted lactation model to analyze specific aspects of ...
Geciteerd door 12 Verwante artikelen Alka 9 versies Citeren Opgeslagen

Co creation?
Co llaboration?
Co w domain needs agile...

¿VALUE?

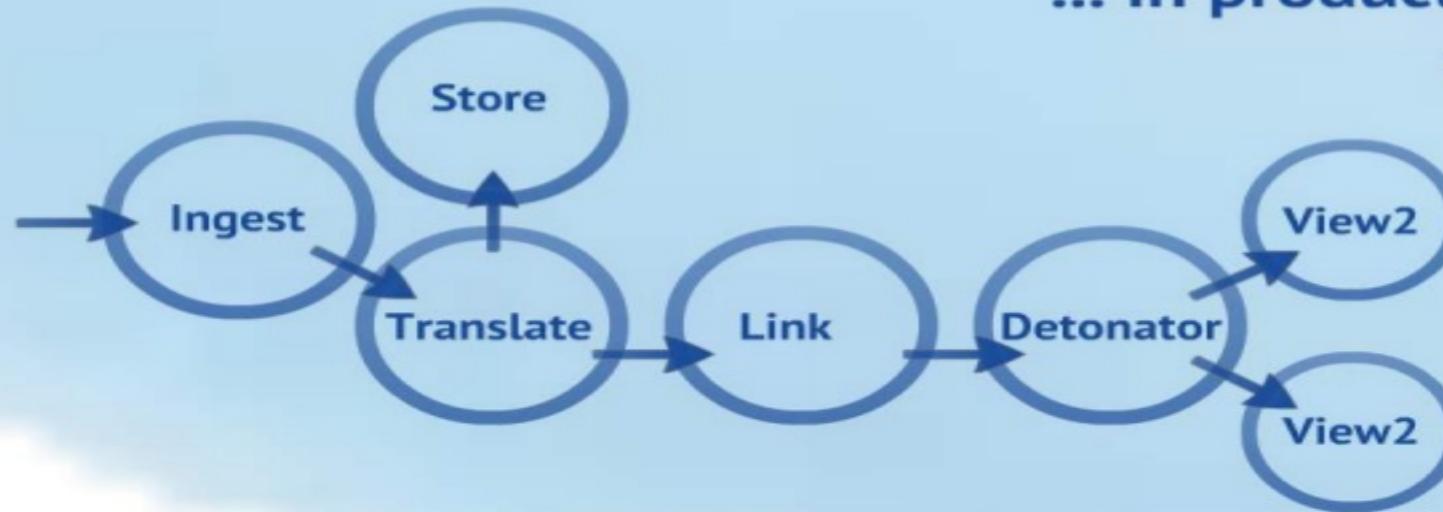
More **volume** (genomic, diagnostics)
More **velocity** (real-time)
More **variety** ("interfaces")
More **validity concerns**
More **veracity** (noise)
More **volatility**



Pipeline idea came...

... in production environment

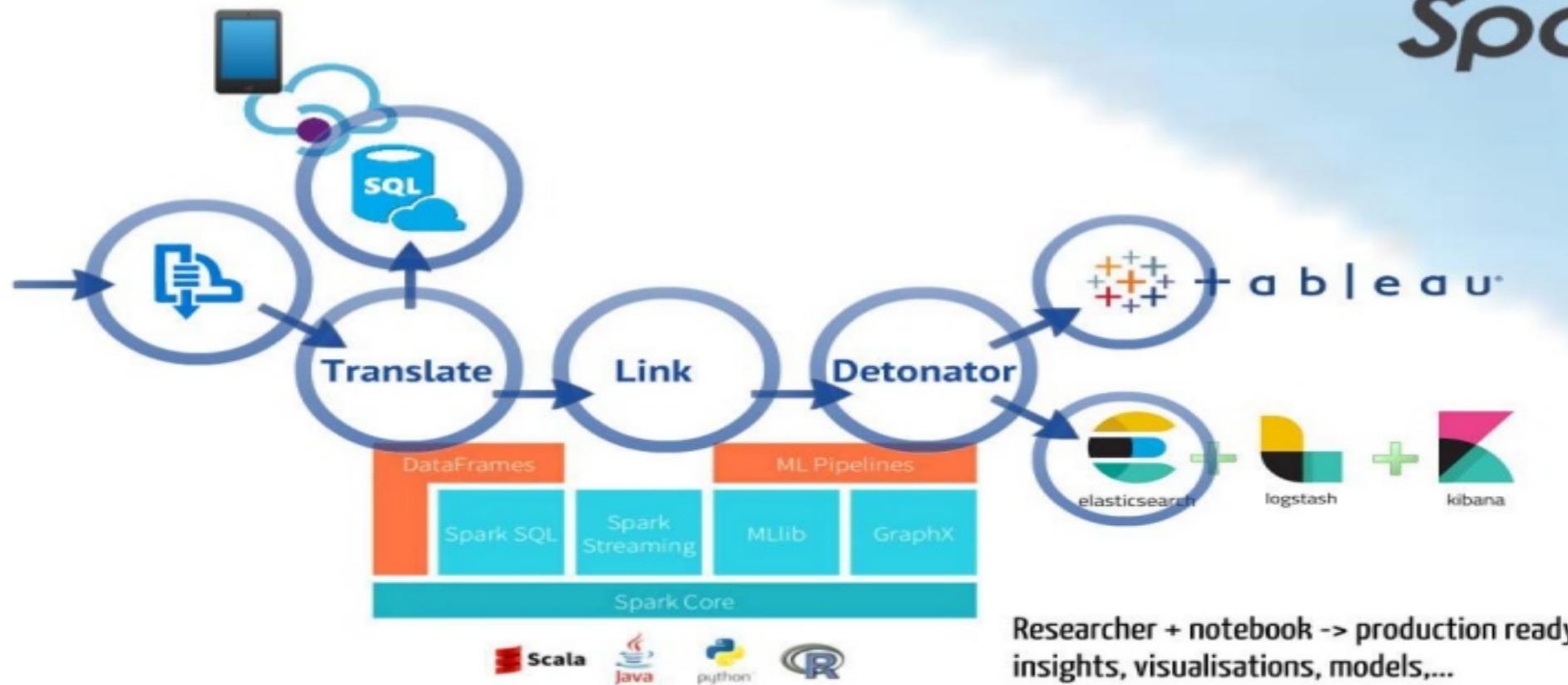
- ... extreme multi-tenancy
- ... SSO proof
- ... simple UI



BIGBOARDS

λ

Current road map...



Contact



FACULTEIT DIERGENEESKUNDE
Approved by EAIEVE

www.bovi-analytics.com

miel.hostens@ugent.be

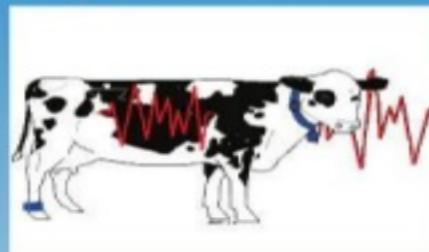


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*31st ADSA Discover Conference on Food
Animal Agriculture:*



Big Data Dairy Management

November 1-4, 2016 (tentative)

Location TBA near Chicago, IL

Hosted by the American Dairy Science Association

Conference Format

The Discover Conference Series is designed to provide a format and venue that encourages in-depth discussion of cutting-edge science.

ADSA Discover ConferencesSM focus on topics of importance to the science of food animal agriculture and are held in a relaxed, informal setting. Sessions for this conference will allow ample time for discussion, networking and relaxation.

Program Committee Organizers:

Jeffrey Bewley, University of Kentucky (Co-Chair)
Christina Petersson-Wolfe, Virginia Tech (Co-Chair)

Stephen Leblanc, University of Guelph

Alan Fahey, University College Dublin

Albert De Vries, University of Florida

Mike Overton, Elanco

Miel Hostens, Ghent University

Juan M. Tricarico, Innovation Center for U.S. Dairy

Big Data Dairy Management

Conference Objective

Across all industries, the availability of increasingly powerful computers and new technologies provides new business management opportunities. In the last few years, most large companies have embraced the concept of "big data" techniques as part of their management strategy. Definitions of big data vary. But, in general, the term refers to using large data sets for complex decisions where traditional data processing techniques may lack. The key components of big data are analysis, capture, data curation, search, sharing, storage, transfer, visualization, and information privacy. Big data often involves using predictive analytics to analyze existing data sets in new ways. Another key characteristic of big data is merging data from multiple sources into cloud computing. For example, in the dairy industry, big data may involve combining DHI production records, financial records, precision dairy technology data, health records, milk cooperative records, historical weather data, genomic evaluations, ration and feeding management data, and human resource data into one large database. Combining this information helps to improve decision-making, operational efficiency, cost and revenue optimization, and risk management.

The dairy industry remains a perfect application of decision science and big data because: (1) it is characterized by considerable price, weather and biological variation, and uncertainty, (2) technologies, such as those that monitor dairy cow yield, physiology, and behavior are easily available, (3) and the primary output, fluid milk, is difficult to differentiate, increasing the need for alternative means of business differentiation. Big data represents a potential management breakthrough for the dairy industry. Various industry and academic players have been working within this area without a venue to discuss overall strategies and opportunities.

Tentative Conference Themes

- Big data analysis techniques
- Big data: perspectives from other industries
- Data integration and cloud computing
- Data economic considerations
- Sensor data use and management

Who Should Attend?

This program will address issues important to university, government and industry researchers; university extension specialists; software developers, precision dairy technology manufacturers, pharmaceutical companies, genetics providers, consultants, nutritionists, and veterinarians. Graduate students are also invited to attend.

Travel

The conference will be held in the Chicago, IL area. For the latest travel information, go to the DC31 web page at <http://adsa.org/Meetings/DiscoverConferences/31stDiscoverConference.aspx>

Registration & Hotel Accommodations

Information regarding registration and hotel accommodations will be available soon on the DC31 web page.

American Dairy Science Association
Discover Conference Series
Phone: 217/356-5146 Fax: 217/398-4119
Email: adsa-discover@assochq.org



For complete conference information, including the latest program and registration information, go to:
<http://www.adsa.org/discover/>



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