

This project has received funding from  
the European Union's Horizon 2020  
research and innovation programme  
(ISIB-2015-1 programme) under grant  
agreement Nº 696367

# Data Driven Dairy Decisions for Farmers



Instituto  
de Investigación y Tecnología  
Agroalimentarias

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Programa de Bienestar Animal



## ¿Qué es el proyecto 4D4F?



Es una **RED TEMÁTICA** para intercambiar conocimientos y mejorar la toma de decisiones basándose en la información generada por los sensores que se usan en las granjas



## ¿Qué es el proyecto 4D4F?



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## Proyecto 4D4F



<http://4d4f.eu/>

2016 – 2019 fase activa  
Actualmente fase pasiva

*¿Cualquier tecnología?*  
No, sólo aquellas que nos dan  
**INFORMACIÓN**



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## ¿Porqué usar nuevas tecnologías?

“Si no medimos, no controlamos.

Si no controlamos, no conocemos.

Si no conocemos, no podemos tomar decisiones:  
es decir, no podemos gestionar.”



## ¿Porqué usar nuevas tecnologías?



Hacer una gestión de los animales basada en el control continuo, automático y en tiempo real de la producción, la salud y el bienestar de los animales.

**Limitaciones:** inversión + adaptación al cambio



## Cómo se organiza 4D4F:





## Información disponible:

### DATA DRIVEN DAIRY DECISIONS FOR FARMERS



The screenshot shows the homepage of the 'Data Driven Dairy Decisions for Farmers' website. The top navigation bar includes links for HOME, PROJECT, TECHNOLOGY WAR..., INTEREST GROUPS, PUBLICATIONS, CALENDAR, MEDIA, FORUM, and LOG IN. A red arrow points to the 'INTEREST GROUPS' section, which lists various dairy management topics: UDDER HEALTH, LAMENESS, NUTRITION, REPRODUCTION, DATA MGMT, MILKING, ACTIVITY, METABOLIC DISEASES, YOUNGSTOCK, GOATS, GRASS, and HOUSING. To the left, there's a 'FEATURED VIDEO' section with a thumbnail of two men and a 'WHY JOIN 4D4F?' section with a large 4D4F logo. On the right, there are sections for 'SELECT YOUR LANGUAGE', 'FOLLOW US' (with social media icons), 'RECENT TWEETS' (mentioning @4d4fproject), and 'Horizon 2020 European Union Funding for Research & Innovation' information. At the bottom, there's a funding acknowledgment from the European Commission.

**FEATURED VIDEO**

4D4F Final Video

**WHY JOIN 4D4F?**

**4D4F**  
Data Driven Dairy Decisions for Farmers

- Get up-to-date & independent information
- Free access to learning tools
- Receive the monthly newsletter
- Participate in workshops & (virtual) events
- Participate in online polls
- Connect with like-minded people

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**INTEREST GROUPS**

UDDER HEALTH  
LAMENESS  
NUTRITION  
REPRODUCTION  
DATA MGMT  
MILKING  
ACTIVITY  
METABOLIC DISEASES  
YOUNGSTOCK  
GOATS  
GRASS  
HOUSING

**PUBLICATIONS**

Data companies, dairy advisors, veterinarians and sensors.

**SELECT YOUR LANGUAGE**

Select Language

**FOLLOW US**

f t in y

**RECENT TWEETS**

4D4F - Data Driven Dairy Decisions For Farmers Retweeted

Tomas Klingström @KlingstromT I've put up this chart from @4d4fproject as a wall decoration in my office to remind myself of differences in priorities between different stakeholders.

(source: 4d4f.eu/sites/default/...).

Horizon 2020 European Union Funding for Research & Innovation H2020-696367 / 696367 / 4D4F Data Driven Dairy Decisions for Farmers

**1a. Farmers**

**1b. Researchers**

**1c. Veterinarians**

**1d. Advisor Rankings**



## Para cada área de interés:

- Introducción
- Vídeos
- Infografías 
- Guía de buenas prácticas 
- Protocolos Normalizados de Trabajo (PNT)





## Ejemplo infografía:



### ¿DÓNDE ESTÁN MIS VACAS? ¿QUÉ ESTÁN HACIENDO?

¡NO ES FÁCIL MONITORIZAR A TODOS LOS ANIMALES!

GRANDES GRUPOS  
VACAS PASTANDO  
FALTA DE TIEMPO

**SENSORES**  
Los sensores proporcionan una información útil sobre la actividad y el comportamiento, para mejorar la salud y el bienestar.

LOCALIZACIÓN RÁPIDA  
MUCHA INFORMACIÓN  
INSIGHTS Y ANALÍTICAS

Actividad diaria óptima

INTERACCIONES HUMANO-ANIMAL

INGESTA DE ALIMENTO

TOMA DE AGUA

INTERACCIONES SOCIALES

ACTIVIDAD DIARIA ÓPTIMA DE LA VACA

RUMIA

DESCANSO

Este proyecto está financiado por el Programa Europeo Horizonte 2020 para investigación e innovación, en virtud del acuerdo N° 696367.

La información contenida refleja únicamente la opinión del autor y la Comisión no se hace responsable del uso que se pueda hacer de ella.

European Commission

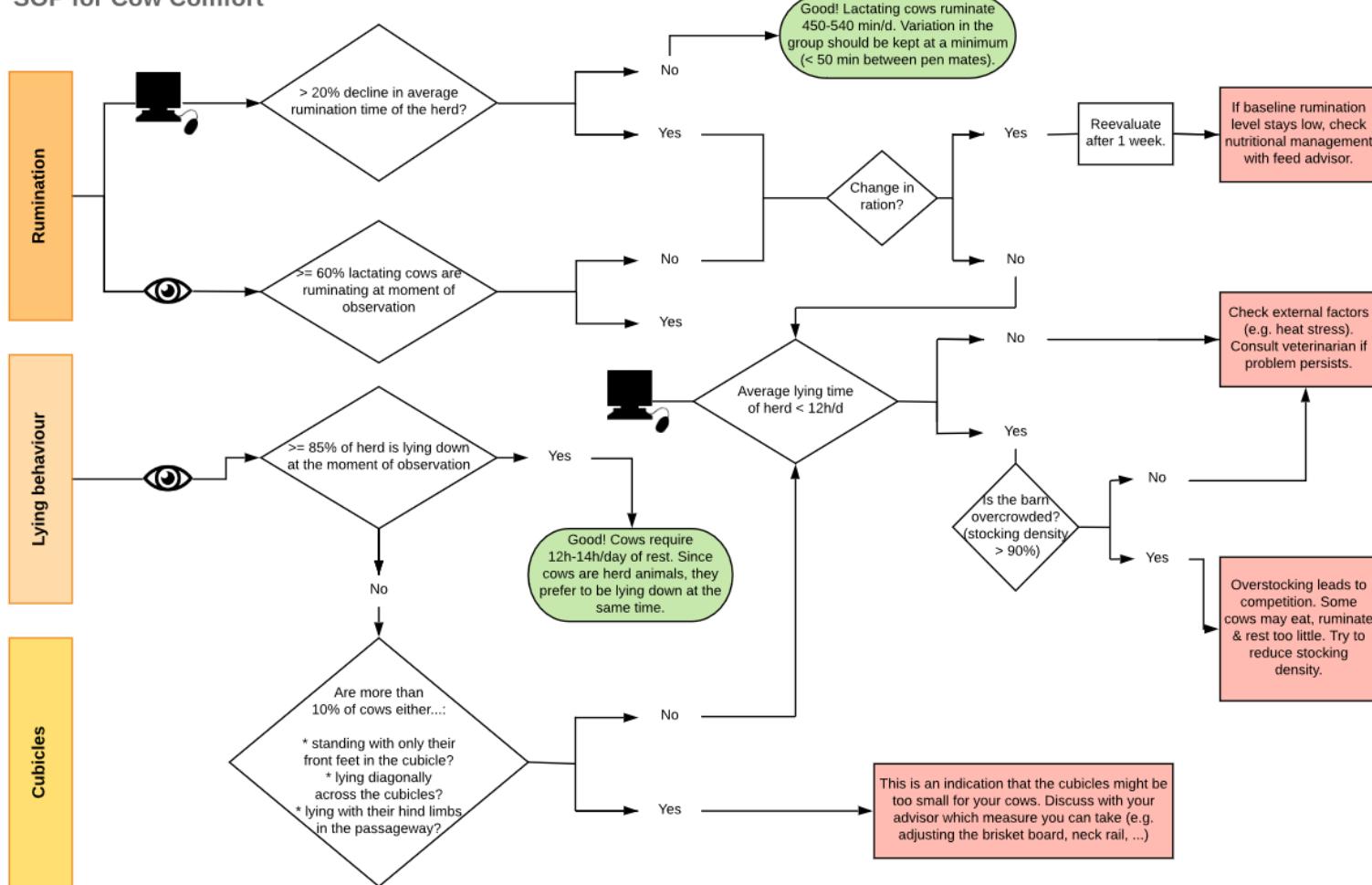
! ¡Son señales de advertencia que usted puede usar para reaccionar rápidamente!



## Ejemplo PNT:



SOP for Cow Comfort





# Data Driven Dairy Decisions for Farmers

## DATA DRIVEN DAIRY DECISIONS FOR FARMERS

[HOME](#)[PROJECT](#)[PUBLICATIONS](#)[CALENDAR](#)[TE](#)[REHOUSE](#)[MEDIA](#)[FORUM](#)[LOG IN](#)

### FEATURED VIDEO



### WHY JOIN 4D4F?



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[Data Driven Dairy D](#)

**CONSUMER FEEDBACK REPORT**  
**DAIRY SENSOR RESEARCH**  
**INDUSTRY INNOVATIONS REPORT**  
**REPORT FOR RESEARCHERS**  
**STANDARD OPERATING**  
**PROCEDURES**

[TER](#)[REHOUSE](#)[MEDIA](#)[FORUM](#)[LOG IN](#)

y technology suppliers, data companies, dairy advisors, based on data generated by sensors.

[View](#)[Log in](#)

### FOLLOW US



### RECENT TWEETS



4D4F  
@4d4fproject

Three questions on heat detection 🐄↗️📊 #4D4F #Article 4d4f.eu/content/three-...



Apr 21, 2018



4D4F  
@4d4fproject

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Apr 21, 2018

### EVAM experimental farm in Spain

Authors: Marta Temé, Aranzazu Varvaró, Aida Xercavins (IRTA)

- April 23, 2018

IRTA (Institute of Agrifood Research and Technology) has recently transformed a conventional dairy cow farm to an avant-garde experimental farm with innovative sensors and technologies. The project is called "EVAM" (by its initials in Catalan), and started in 2017.



### Selective dry cow treatment: which cow to treat?

Author: Kristine Piccart (ILVO) - April 16, 2018 - Original sources:

AHDB, Eurodairy

Blanket dry cow therapy, meaning all cows receive an infusion of antimicrobials in their 4 quarters at dry off, has been standard practice for years. However, with growing concerns for antimicrobial resistance, more farms are shifting towards selective dry cow therapy. This means you are only going to treat the animals that are suspected of having an infection. But how do you select the cows that should get antimicrobials? Having good records of clinical mastitis cases and somatic cell counts is the foundation, according to this AHDB video.

Euro Dairy DRY COW Ther...

### Grazing season has started in the Netherlands!

Author: Tamara Wind (VHL) - April 13, 2018



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Protocols: no exact science but a continuous improvement process ➡↗️📊 #4D4F #Article 4d4f.eu/content/protoc...

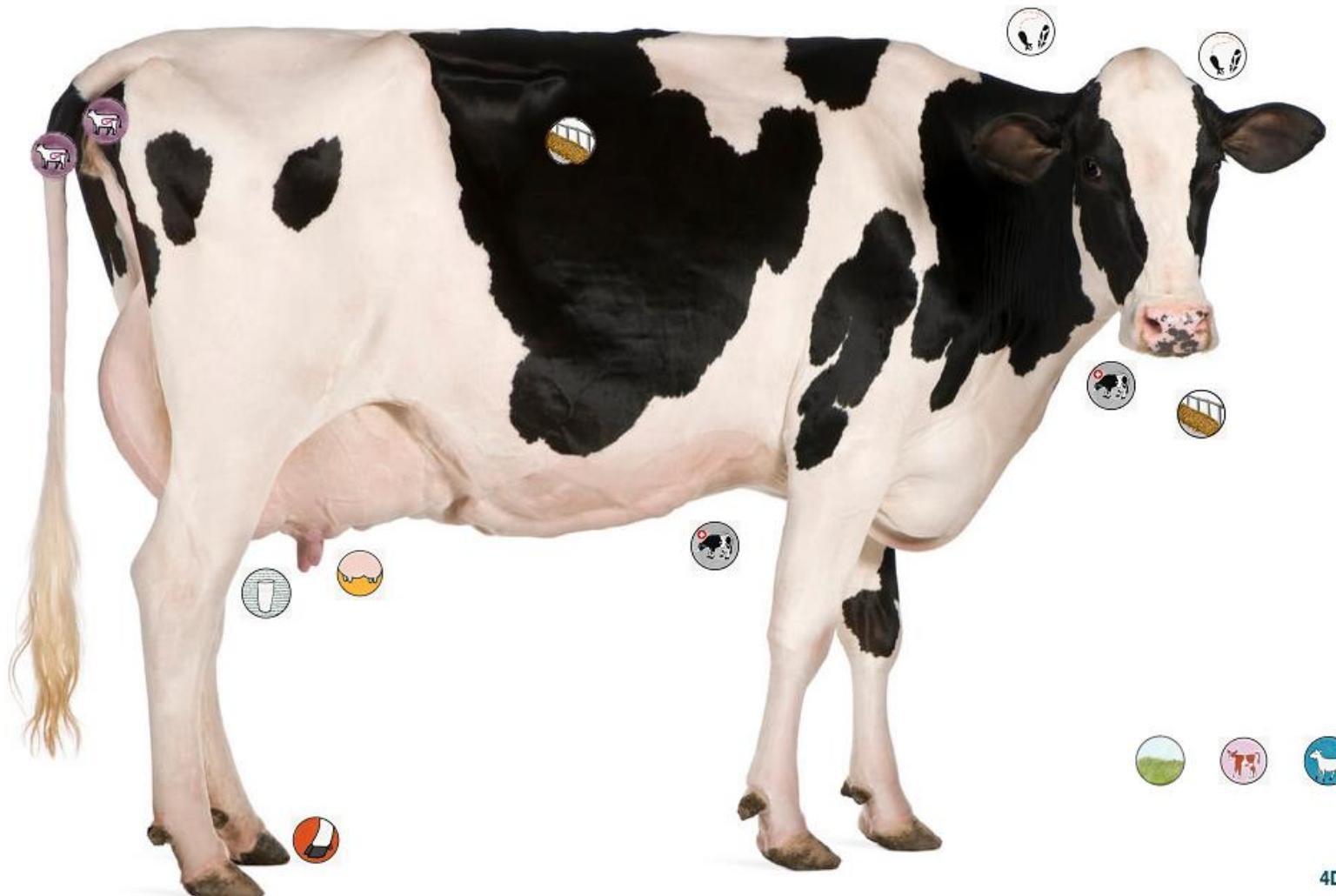


Apr 19, 2018



Data Driven Dairy Decisions for Farmers

# Warehouse of technologies





# Warehouse of technologies

## Rumination sensors

▶ Why measure rumination activity & feeding time?

▶ How to measure rumination & feeding time?

▶ Videos & case studies

▶ Additional information

▲ Dealer	◆ Manufacturer	◆ Placement	◆ Battery life	◆ Range antenna
Cow Scout	GEA	Nedap	neck	< 10 years
CowManager	Agis	Agis	Ear	< 10 years
				1000m

Link al almacén interactivo: [aquí](#)

Opción Excel: [aquí](#)



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## DATA DRIVEN DAIRY DECISIONS FOR FARMERS

HOME PROJECT ▾ PUBLICATIONS ▾ CALENDAR TECHNOLOGY WAREHOUSE MEDIA ▾ FORUM LOG IN

### FEATURED VIDEO



Data Driven Dairy Decision For Farmers (4D4F) aims at developing a network for dairy farmers, dairy technology suppliers, data companies, dairy advisors, veterinarians and researchers to improve the decision making on dairy farms based on data generated by sensors.

To access the 4D4F content, log in or register below.

Register

Log in



### WHY JOIN 4D4F?



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Protocols: no exact science but a continuous improvement process ➡↗️📊 #4D4F #Article 4d4f.eu/content/protoc...



Apr 19, 2018



## Sin olvidar que...

**“La calidad de una decisión depende directamente de la calidad de la información utilizada para tomarla”**

No todas las tecnologías encajan igual

Explotar el potencial de lo que ya tenemos

Contrastar la información y valorar la propia experiencia



## ¡Muchas gracias por vuestra atención!

# IRTA<sup>R</sup>

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