

*Herd management and génétic improvement
with Medria Monitoring Solutions*

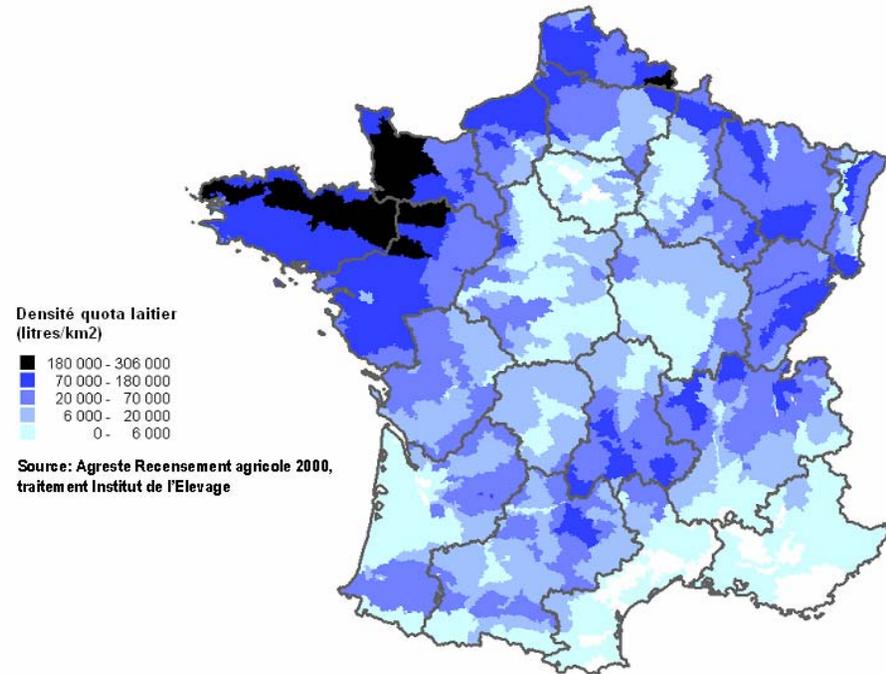
ICAR , 27th Congress , Porec, Croatia

Jean-Luc Guerin , AMELIS CEO



*AMELIS is a French leading
Coopérative operating in the
génétic industry and
reproduction services
for bovine ,swine and horse
breeders mostly located in
the ouest of France*

Densité de quota laitier (litres/ km²) par petite région agricole



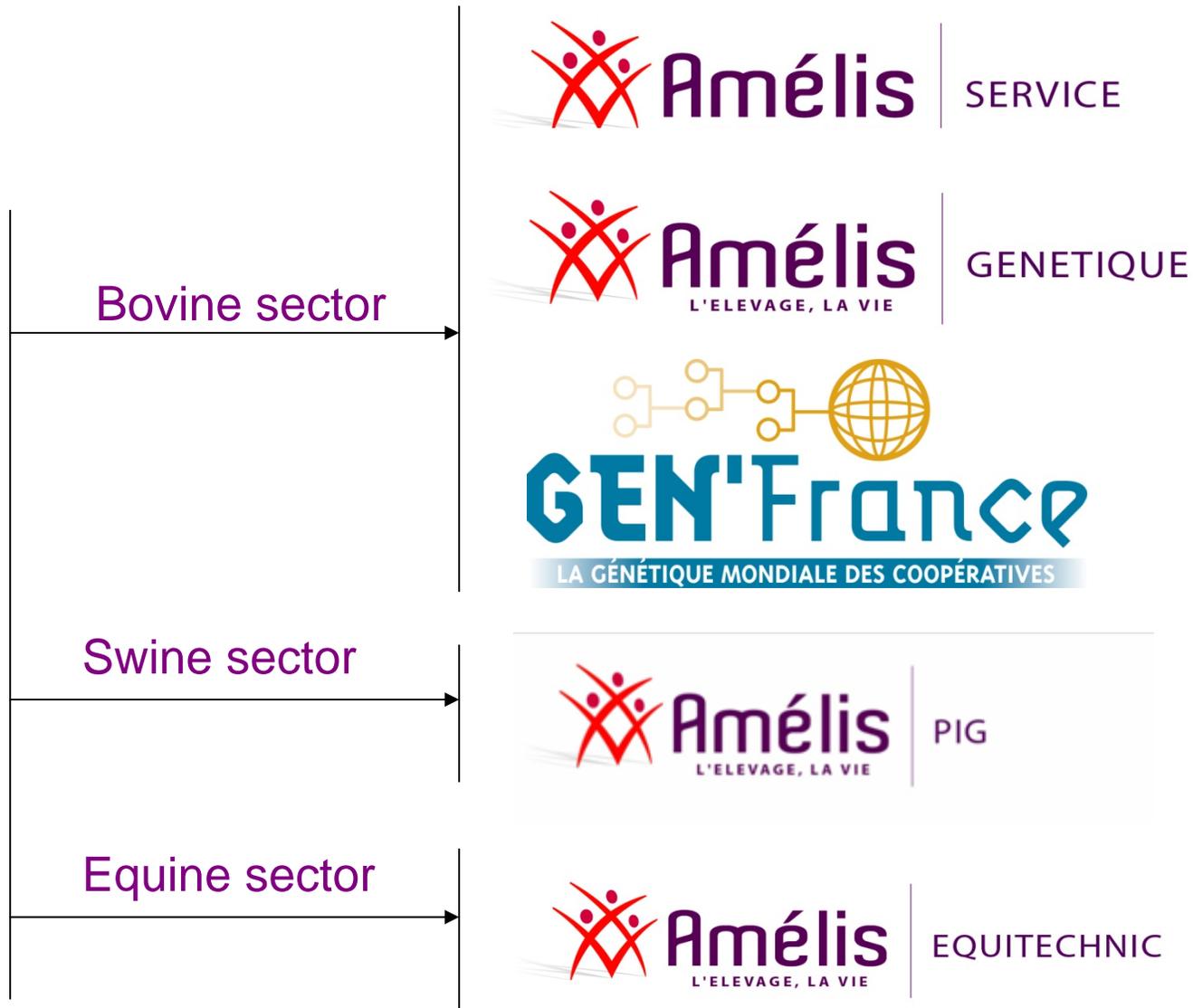
density for dairy production

AMELIS statement MISSION



To supply to all its members and customers, innovative solutions that are reliable, long-lasting and good value for money, in reproduction management and genetics, adapted to each herd and the lifestyle of the farmer.

AMELIS *local and global business*



VEL'PHONE : *your cow gives you a phone call !*



AMELIS is a share holder of



since sept 07

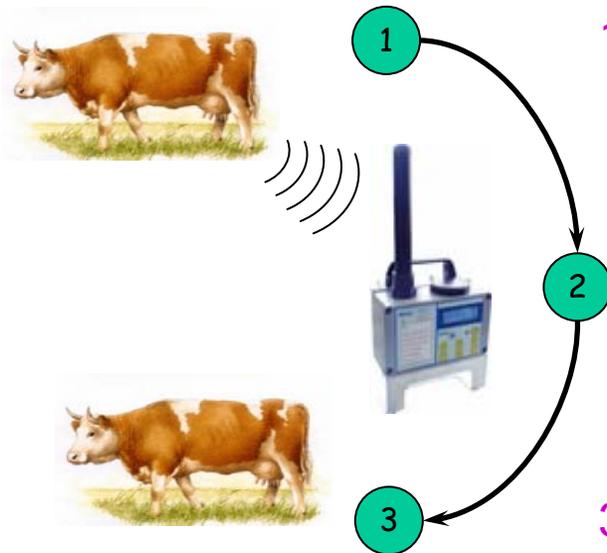
Zootechnic and Health

Platform for the follow up of livestock



The concept: monitoring and early detection

- Medria develops towards farming professionals, products originating from its zootechnical and health monitoring platform. This platform is known for performing early detection of health problems in farming animals.



1) A sensor in each animal to measure regularly its temperature and transmit it by radio waves.

2) The radio base receives the zootechnical data and detects the animals who need attention.

3) The farmer is alerted in time. He can pay attention to the animals who need it.

Medria's Innovation

- 1) Medria is at the junction of advanced electronic, software and telecom technologies with an in-depth knowledge of farmers needs and constrains :
 - ✓ Ultra low consumption electronic solutions for sensors and radio links ;
 - ✓ Real time software for analysis and transmission ;
 - ✓ Consultation software and technical data base ;

- 2) Medria introduces innovation through simple, practical and efficient solutions :
 - ✓ **The Vel'Phone kit[©]** detects the beginning of calving to inform the farmer by SMS ;
 - ✓ **The Thermo-bolus[©]** measures the ruminal temperature of the animal for its lifetime ;
 - ✓ **The Cardio-bolus[©]** measures the temperature and heart rate of the animal ;
 - ✓ **The Heat'Phone[©]** measures the activity and locomotion of the animal (Q4 2009).

The kit VEL'PHONE[®]

Calving detection

- 1) The vaginal thermometer (5 to 20 sensors per kit)
 - ✓ Placed in the animal 5 to 7 days before term, the vaginal thermometer measures and transmits permanently its temperature by radio waves within a radius of 100 meters.
Pushed out by the water sac, the drop in temperature is sent to the GSM radio base instantly.
- 2) The GSM Radio Base
 - ✓ Collects and analyses the animals temperature. It sends an SMS to the farmer as soon as the thermometer is expelled.



The Thermo-bolus[©] or le Cardio-bolus[©] produce zootechnical data

1) Thermo-bolus[©] or Cardio-bolus[©]

- ✓ Swallowed by the ruminant, it stays for life in the reticulum.
- ✓ Le Thermo-bolus[©] measures the temperature of the animal during its lifetime.
- ✓ Le Cardio-bolus[©] measures the temperature and heart rate.
- ✓ These two boluses can keep zootechnical data during 21 days and send it to the GSM radio base once it comes within the range of 150 meters around the base.

2) The GSM radio base

- ✓ It collects the data transmitted by the bolus .
It communicates immediately with the PC either by cable or GPRS radio.

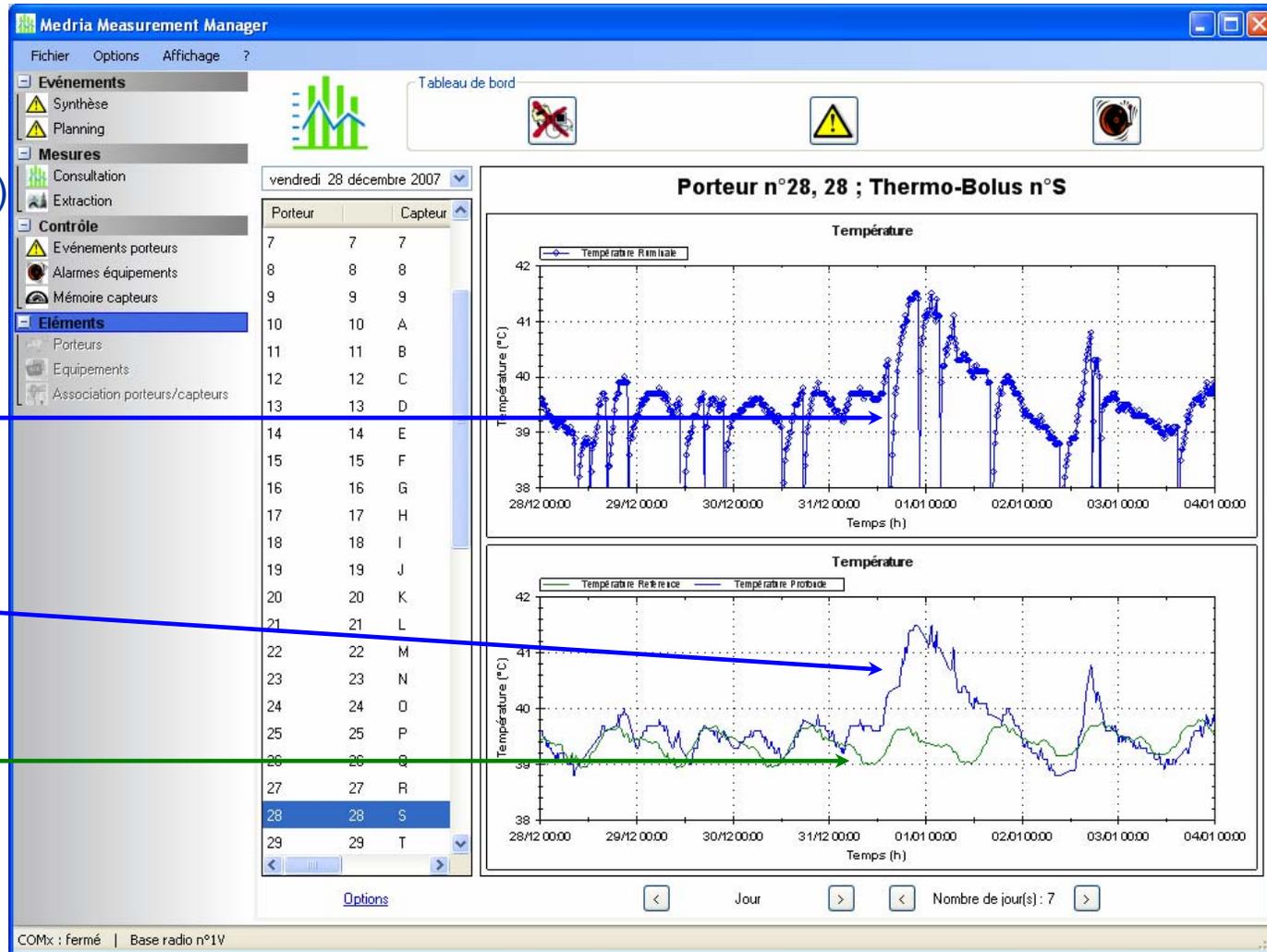


Medria's participation within the MOZAE Project

- 1) The **MOZAE** Project (**MO**nitoring **Z**ooteknique des **A**nimaux d'**É**levage) is engaged since March 2006 with l'INRA (UMR Production du Lait), l'Ecole National Vétérinaire de Nantes (Nantes National Veterinary School), Agrocampus Rennes, la Chambre Régionale d'Agriculture de Bretagne and INRIA-IRISA de Rennes
- 2) More than 600 boluses were placed in cows and young bovines with the aim of:
 - ✓ Implementing the first zootechnical and health data base ;
 - ✓ Identifying the profiles, signs and dynamics for health problems or events;
 - ✓ Evaluating the functions for early detection of health problems or events.

Monitoring and detection with Thermo-bolus[®]

1) Hyperthermy
on a dairy cow :
(7 days on screen)

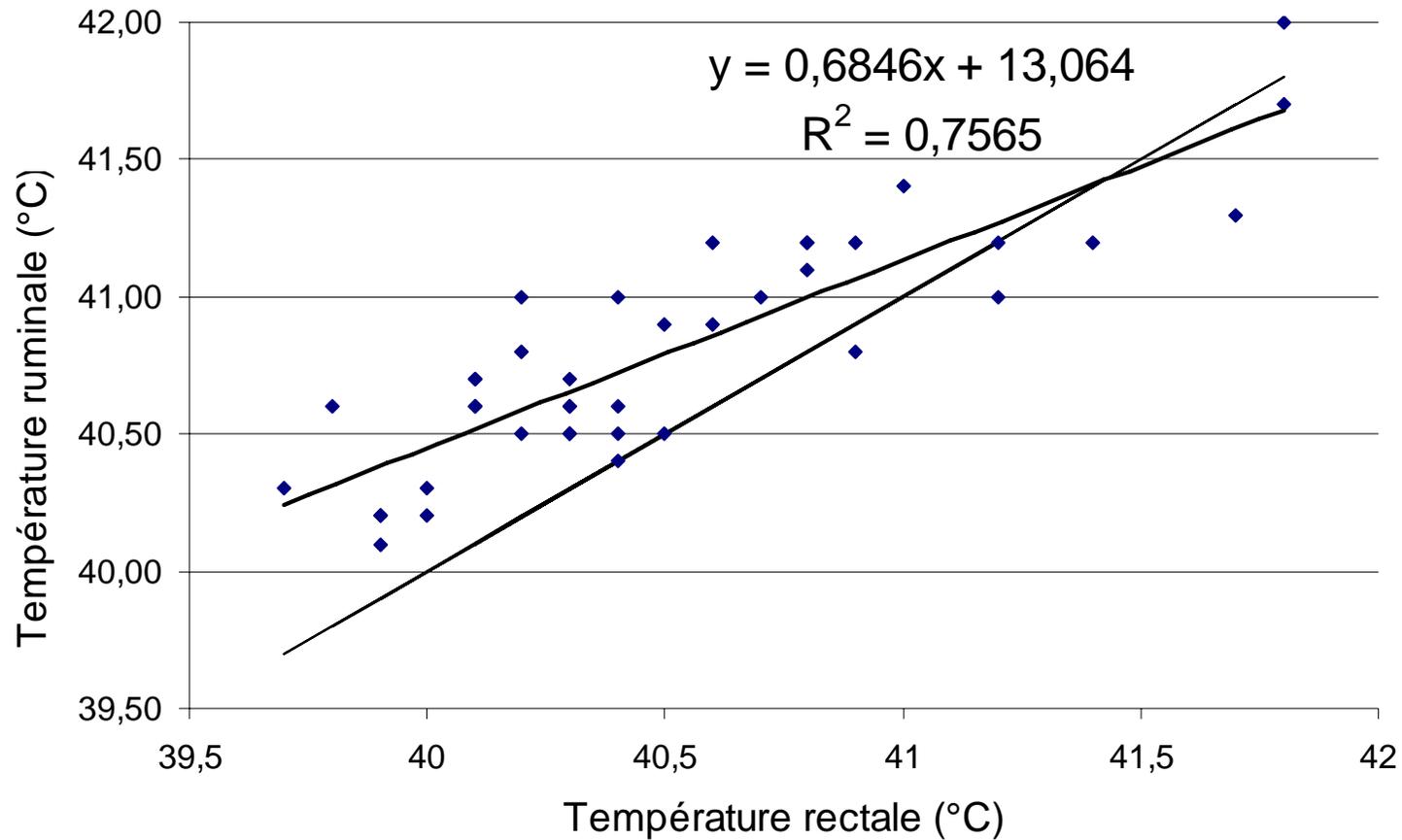


Ruminal
temperature with
drinks

Ruminal temperature
without drinks

Reference
temperature over the
10 last days

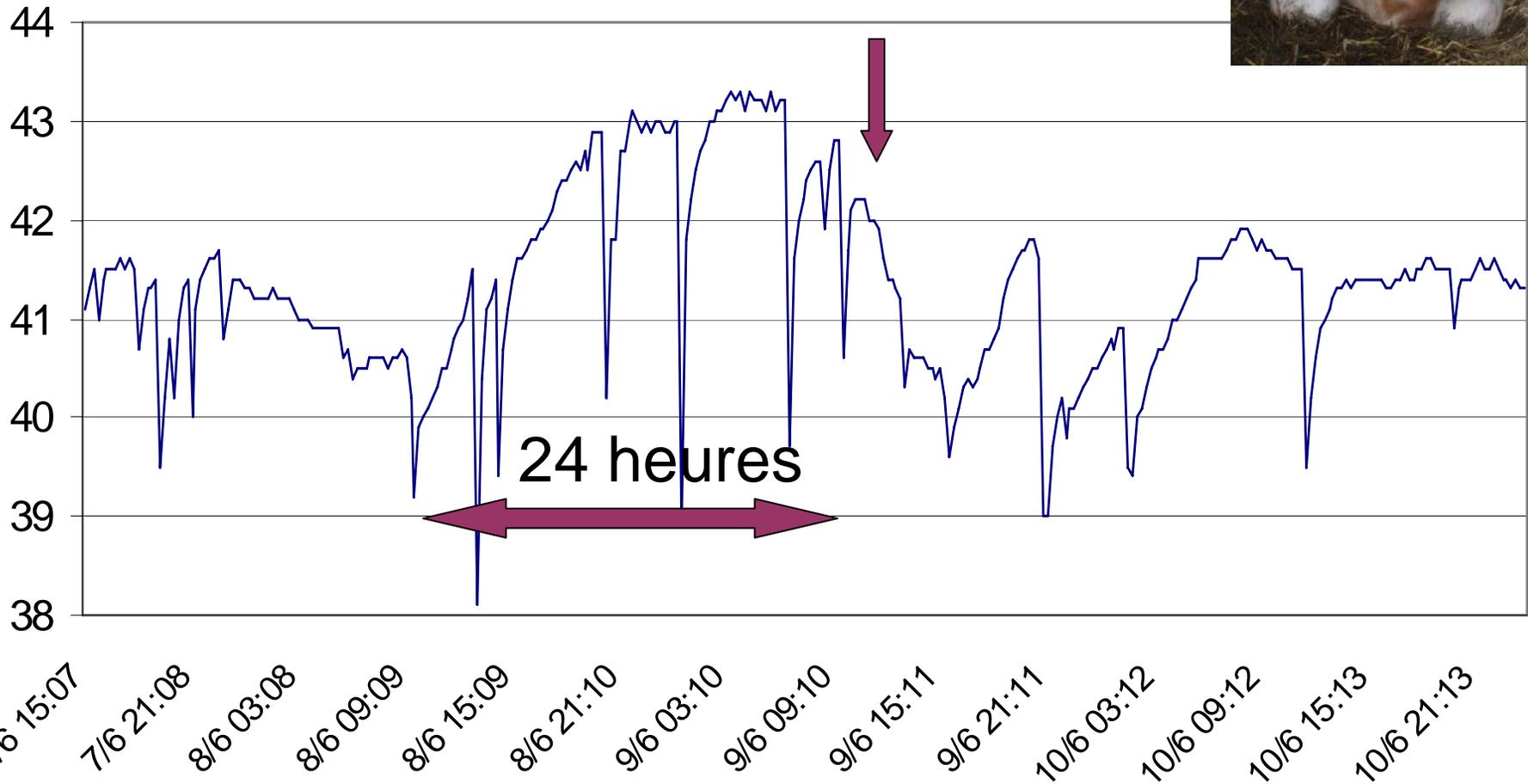
Relation between rectal and rumen temperature



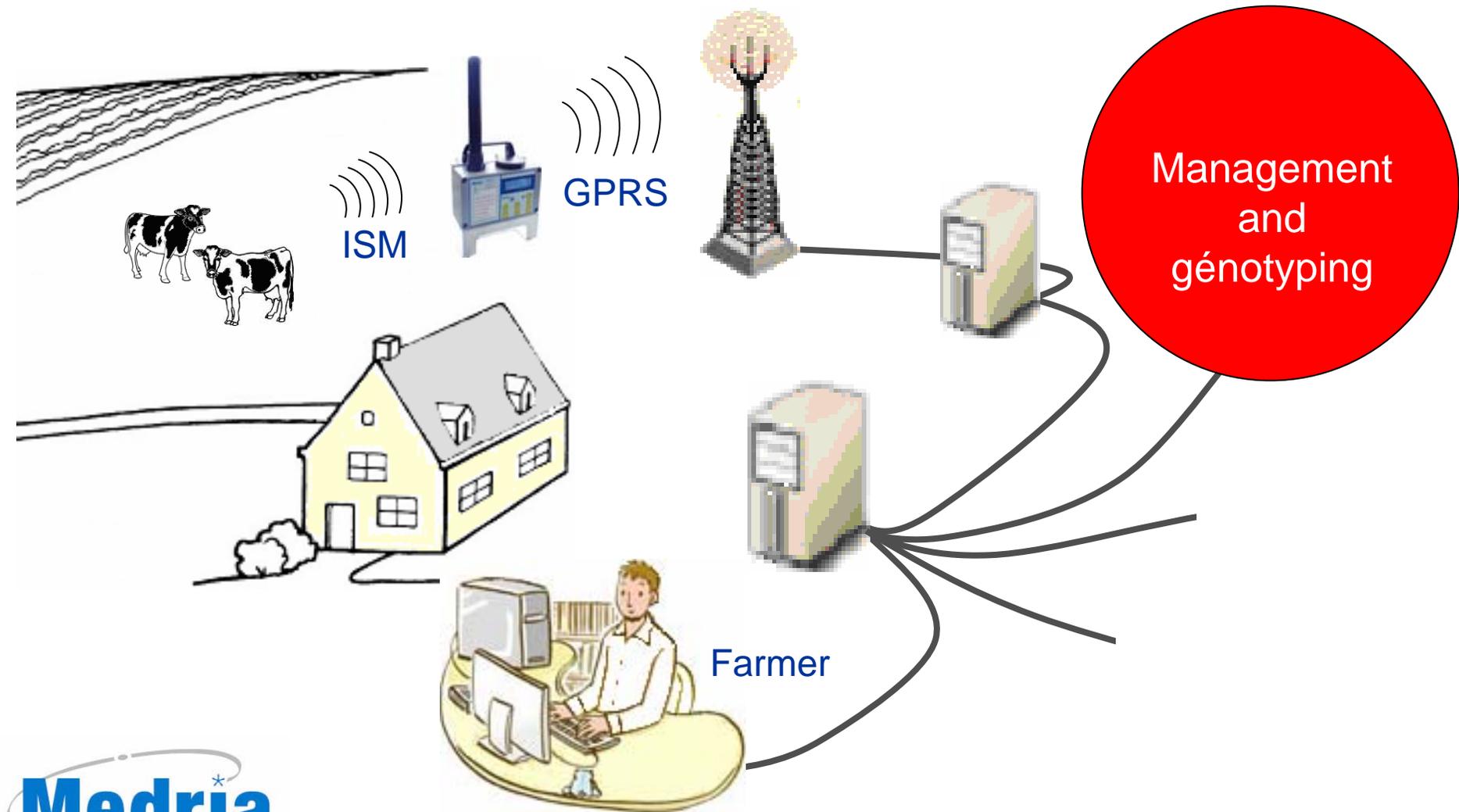
Young bovine hyperthermy detection



Traitement



Strengths of Medria's Platform



Thank You- Merci Beaucoup



Amélie

L'ELEVAGE, LA VIE