



**WE
SHARE
OUR SCIENCE
TO FEED
THE
FUTURE**

IRTA
RECERCA | TECNOLOGIA
AGROALIMENTÀRIES

 Generalitat
de Catalunya



IRTA

Agri-food and Technology
Research Institute of the
Catalan Government

Created in 1985

**Operates under
private law**

Public company

**Attached to the
Ministry of Agriculture**

IRTA

 Generalitat
de Catalunya



IRTA

Agri-food and Technology
Research Institute of the
Catalan Government

Scientific and
technological
reference

Driver of innovation
and technological
transfer

Strategic partner
of the agri-food
industry

IRTA

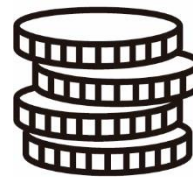


Generalitat
de Catalunya

Innovation pipeline

Science

Investing to create
knowledge

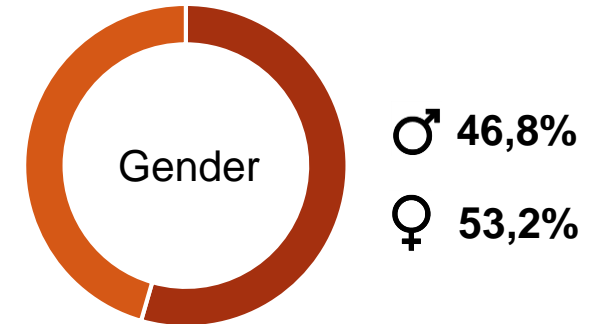
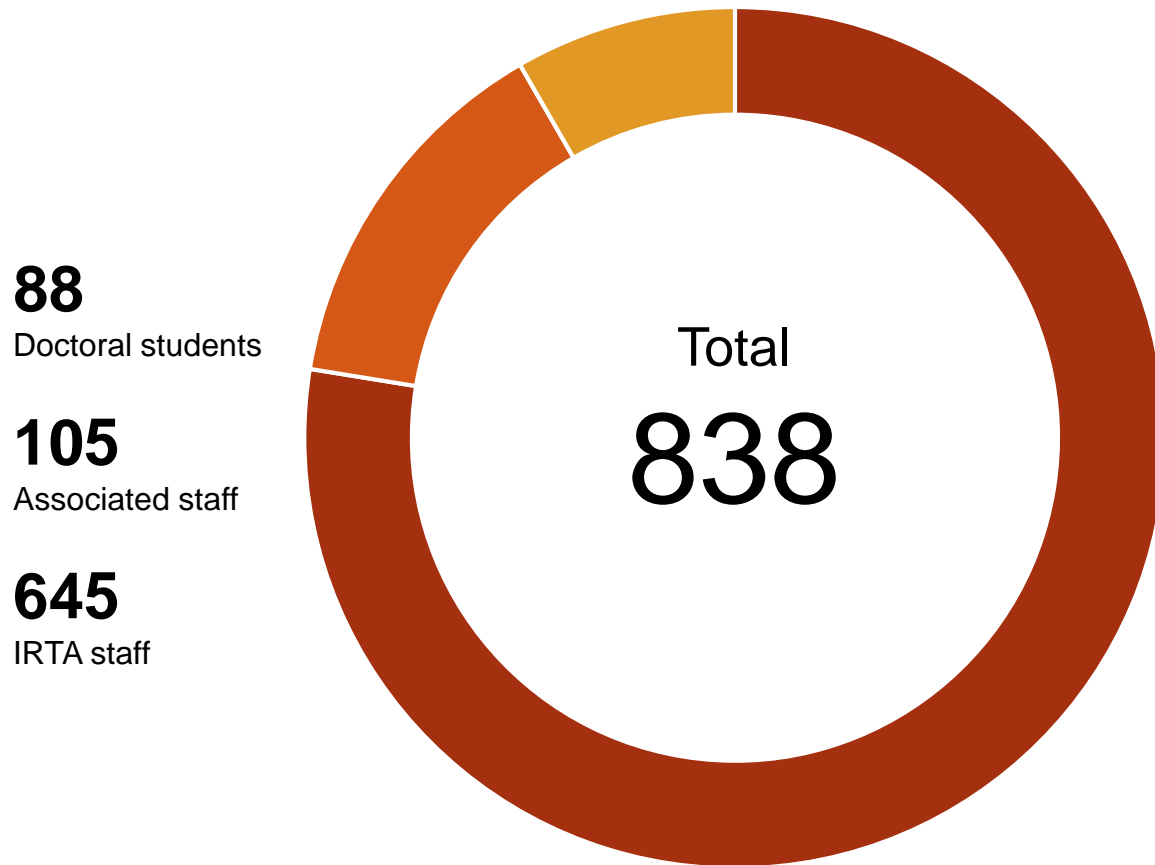


Innovation

Creating value from
knowledge

Human Resources

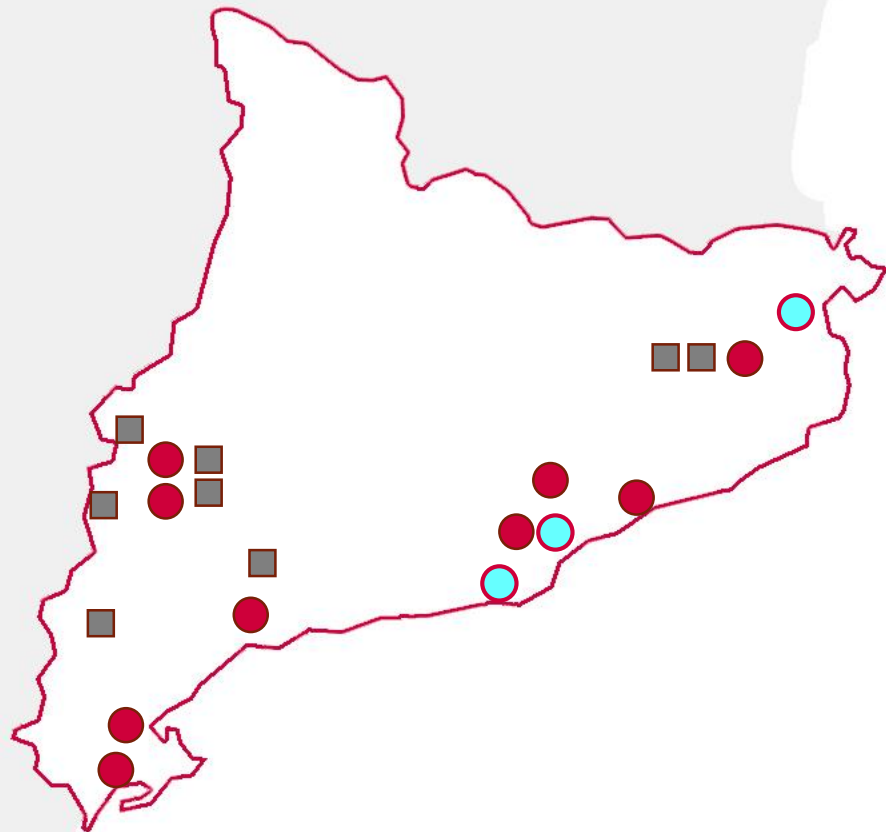
2018 figures



186
IRTA RTD staff

459
IRTA Support staff

Centres



- Own centres
- Associated centres

■ Experimental field stations and farms

20

Locations

9

Own centres

3

Associated centres

8

Experimental field stations
and farms

Facilities



Fields

380 ha of experimental fields
92% owned by IRTA

Laboratories

4.954 m²
24% of lab benches

Pilot plants

7.843 m²
17 pilot plants

Greenhouses

19.197 m²

Farms

15.500 m²
Terrestrial animals
3.800 m² / 675 m³
Fish and mollusc

Accommodation capacity:

23.700 terrestrial animals
220.000 fish

Research Areas



Plant
Production



Animal
Production



Food
Industries



Agrostystems &
Environment

Agri-Food
Economy



Programs

Plant Production

- Postharvest
- Fruit Production
- Sustainable Plant Protection
- Genomics & Biotechnology
- Efficient use of water in agriculture
- Sustainable field crops



Programs

Animal Production

- Animal Breeding & Genetics
- Animal Nutrition
- Aquaculture
- Animal Health
- Ruminant Production
- Animal Welfare



Programs Food Industries

- Food Technology
- Product Quality
- Food Safety



Programs and Emerging Groups (EG) **Agrosystems & Environment**

- Integral Management of Organic Waste
- Marine and Continental Waters
- Agri-Food Economics

Finances

2017 figures

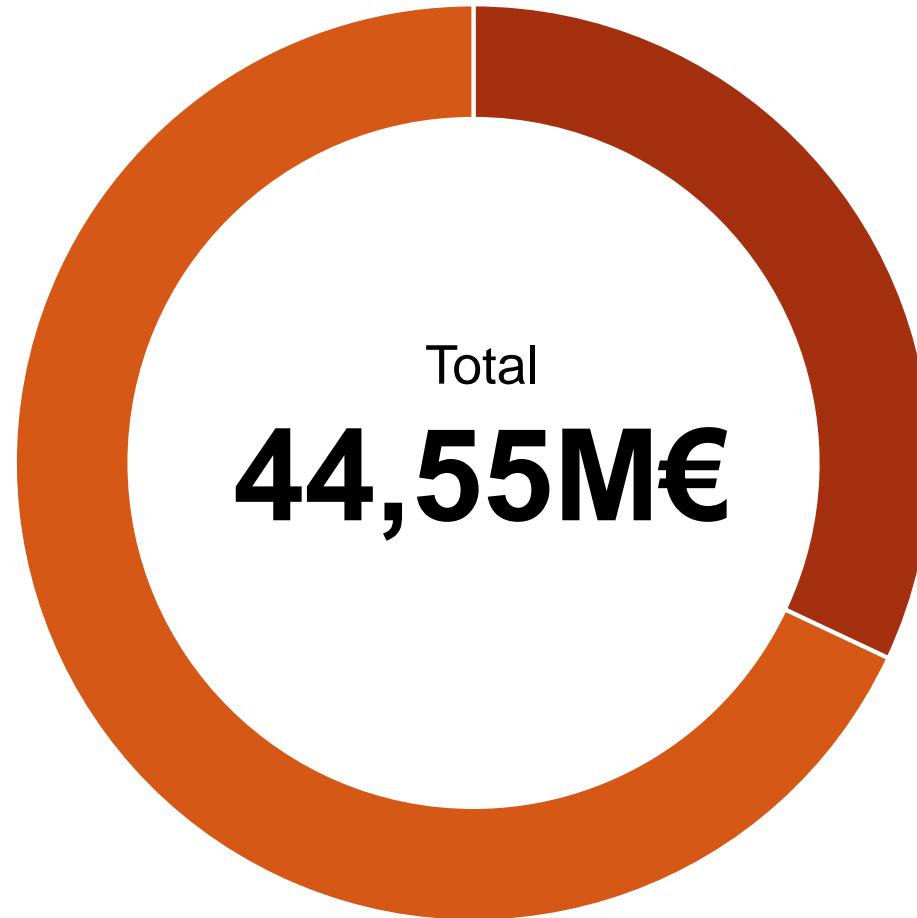
66,4%

Own Funds

Competitive projects

R&D contracting

Services



Total

44,55M€

33,6%

Contributions from the
Government of Catalonia

Ministry of Agriculture



We are able to reach from private
and competitive funds
2.05€ of each **1€** that we receive from
structural funds



Scientific Excellence

IRTA is amongst

31%

Of the Best Agricultural Research Institutes in the World (SCImago 2017)

377

Published papers in SCI journals in 2018

15.835

Citations in SCI journals in 2018

76%

Papers in scientific journals of first quartile (Q1) in 2018

69%

Coauthorship international papers in 2018

IRTA's H Index

101



Technical and scientific production

2018 figures

Scientific Production

Technical publication	377
Full Books and chapters	11
PhD Thesis	9
Communications in symposia and congresses	263

Technical production

Papers in technical or scientific dissemination journals	159
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Projects and contracts

2017 figures

15,8 M€

Services and contracts
income

984

Ongoing contractual
activities

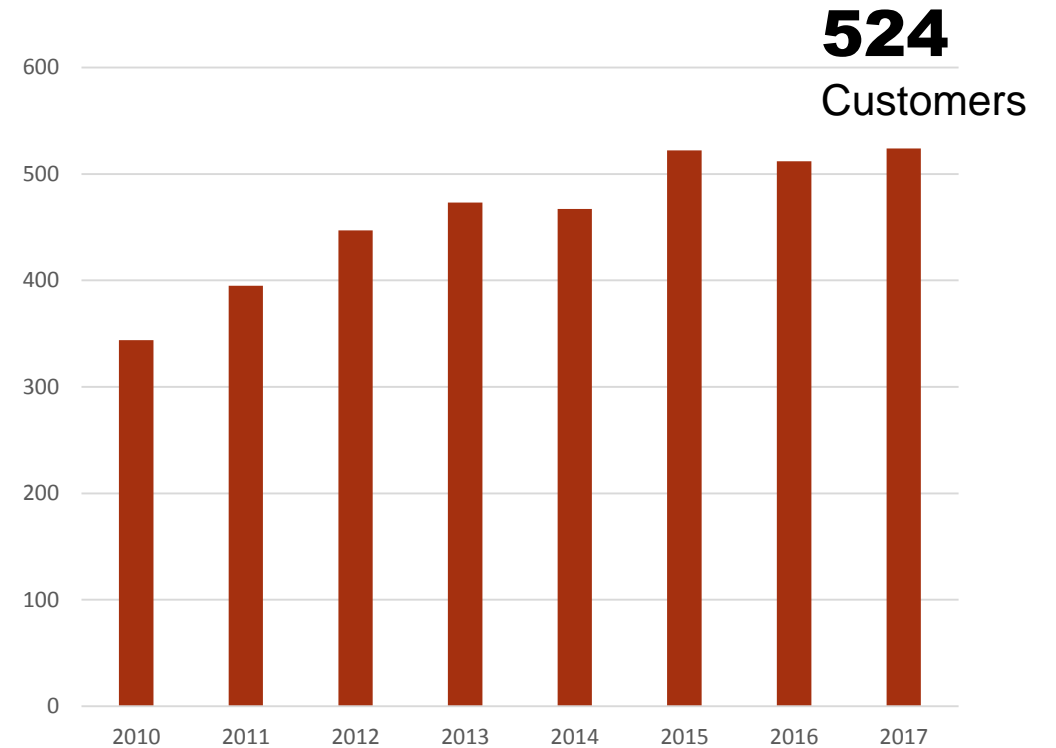
262

Activities with
competitive funding

182

Ongoing competitive
projects

Evolution on number of customers



International Activities

2018 figures

5,8M€

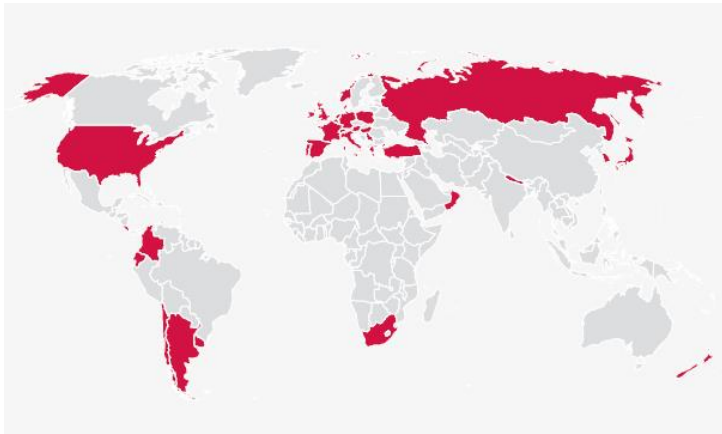
Volume of
international activity

286

Ongoing
activities

+50

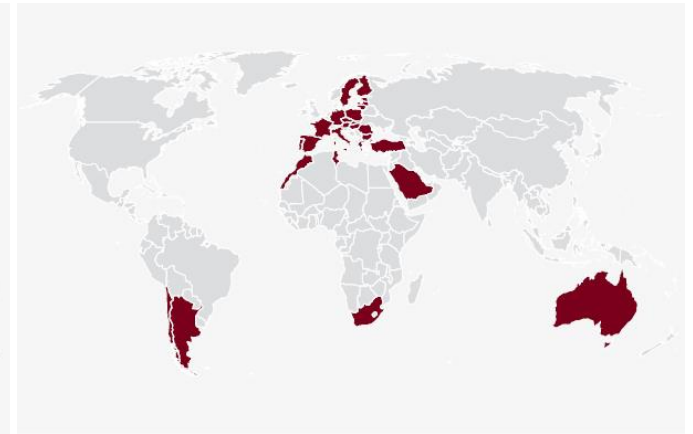
Countries



Contracts



Agreements



Licenced plant material

IRTA

Research & Technology
Food & Agriculture

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İlginiz için teşekkürler

Thanks for your attention

Merci beaucoup pour votre attention

Grazie mille per la vostra attenzione

Vielen dank für ihre aufmerksamkeit

CAMELMILK project

Coordinator: Marta Garrón Gómez

70th EAAP 2019

Ghent, August 29th 2019



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



Title

“Boost the **production**, **processing** and **consumption** of camel milk in the Mediterranean basin”

Production



Camels



Processing



Milk



Consumption



Humans



Why CAMELMILK project?

Objectives

“Strengthen the **competitiveness, growth** and interaction of the actors of the **camel milk value-chain** in Mediterranean basin, including producers, processors, distributors and consumers”

“Support **smallholders** and **small SMEs** in adopting **tecnological** and **organizational innovation** for **sustainable** and **efficient** camel milk production and processing complying with **EU food standards**”

“To **boost commercial interaction**, facilitate cooperation and **create bridges** between the **two shores of the Mediterranean**”

What should we do?

1. Improve camel milk production systems

2. Produce innovative, nutritional and high-quality camel dairy products

3. Determine regulatory issues and legislation to commercialise camel dairy products

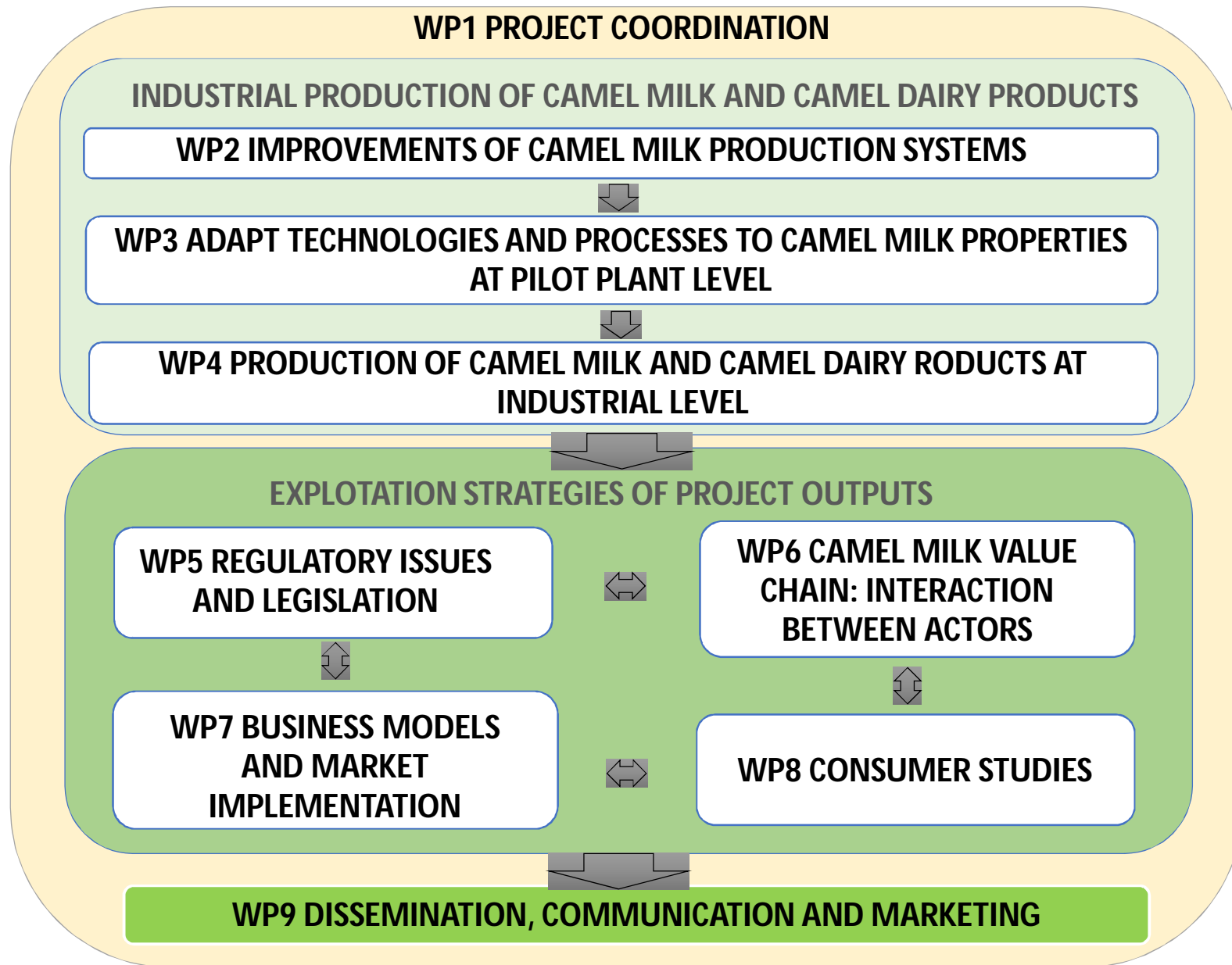
4. Analyse and improve the camel milk value-chain in EU member states, Turkey and Algeria

5. Prepare for a successful market implementation and exploitation

6. Define consumer acceptance of innovative camel milk and camel dairy products in EU, Turkey and Algeria

7. Devise a dissemination and communication plan for maximum outreach to all relevant stakeholders

**How
are
we
doing
?**



Workplan 1th June 2019 – 31th May 2022

Farms technical study and
handbook camel farm
management

Analyse food legislation

Value-chain analysis

Research on consumer
perceptions

Communication and
marketing plan

M 01-12

Pilot plan test: pasteurized
milk , fermented dairy
products and cheese

EU production standards

Recommendations
interactions between actors

Analyse existing marketing
implementation

Quantification consumer
acceptance

M 12 - 24

Scale up at industrial level:
pasteurized milk,
fermented dairy products
and cheese

Business models at farms
and industrial partners

Consumer acceptance test
of camel dairy products

Marketing and
dissemination activities

M 24-36



**Who are involved in the
CAMELMILK project?**

CAMELMILK



Partners involved

4 Farms

OASIS (Fuerteventura, Spain)
CHIFFE (France)
TEDJANE (Algeria)
KAYA (Turkey)

4 Dairy industry

OASIS (Fuerteventura Spain)
CHIFFE (France)
TEDJANE (Algeria)
OVACIK (Turkey)

3 Research institutions

ADU (Turkey)
DIL (Germany)
IRTA (Spain)

2 Camels experts

Bernard Faye (France)
Amira Narimane (Algeria)



3 Companies

CAMELIDEE (France)
FARE (Italy)
Genius Consulting (Croatia)

Kick off meeting, 23-24th July Monells (Girona, Spain)



Thank you for your attention

Marta Garrón Gómez
marta.garron@irta.cat



DAINME-SME project

Coordinator: Dr. Xavier Felipe

Ankara, December 11/12th 2019



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



Why DAINME-SME project?

Objective: The aim of the project is to improve **circular economy** of the dairy SMEs, in the Mediterranean countries. This objective will be achieved through the introduction of **innovative technologies**, and the development of new valuable dairy products.

1: Enable small dairies to dry their milk or whey, with the development of a new system to dry liquid foods, with much less investment and energy costs, than traditional systems need at this moment.

2: **Increase the sustainability of the spray-drying process** (the most intensive energy user on food processing), by reducing the 20-30 % the energy used (and it can be from renewable source). Afterwards, this emerging technology may then be applied at all kind of dairy powders, and other foods, all around the world.

3: **Development of new whey protein fractions**, for infant food and sports drinks, based on goat and ewe's cheese whey. Afterwards, the new technology may then be applied to cow's milk/whey, at any place.

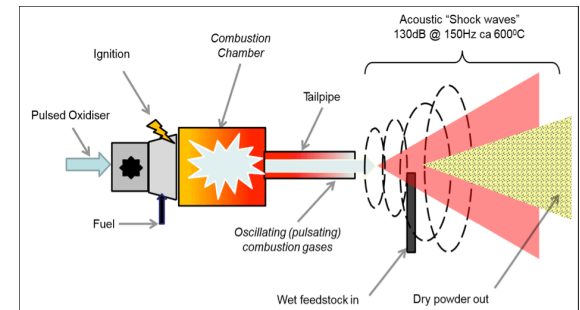
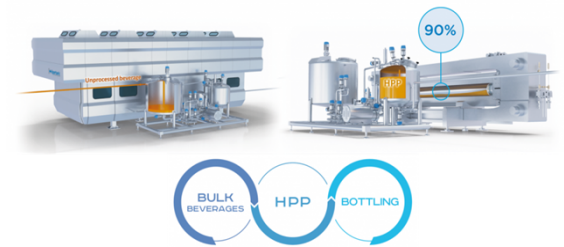
4: New strategy to valorise minor whey volumes, or for dairies without technological competences, based on the **elaboration of dairy products with the whey protein** produced with the cheese-making.

What should we do?

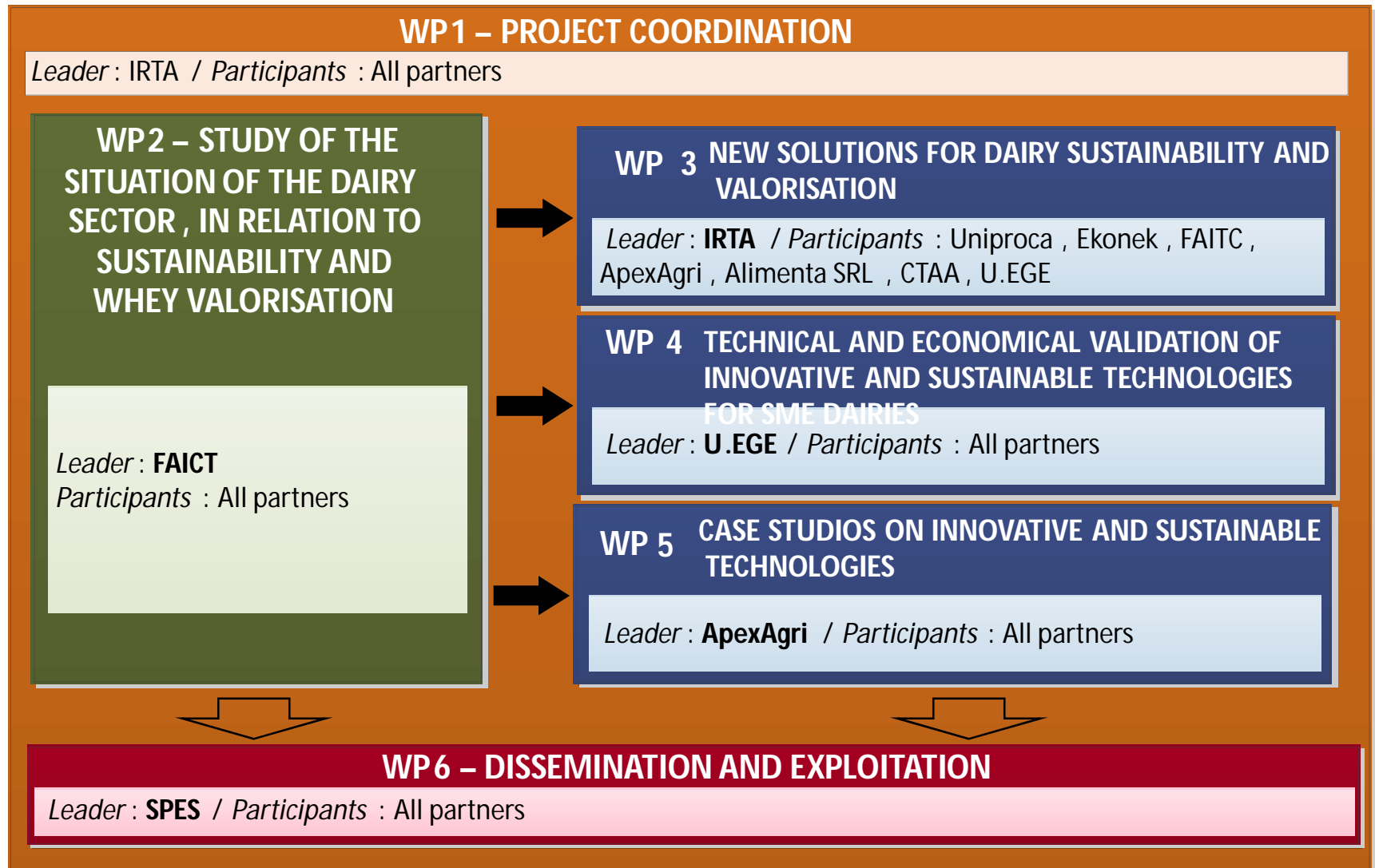
1. Goat and ewe whey proteins fractionation. Application of HPP to aggregate β LG, separation of α LA, concentration and spray drying. Rich α LA fraction on powder, ready for infant formula or for human nutrition. TRL 4 to TRL 6/7

2. Pulse Combustion Drying on to dairy products. Comparative study for the concentration and spray-drying between traditional system and by PCD . Validation of this new technology for better product quality and energy sustainability for a variety of dairy powders. TRL 6 to TRL 8

3. Fresh products based on goat, cow and ewe's whey protein. Development of new consumer friendly dairy products, using whey protein New dairy products ready based on whey proteins (cow, goat and ewe's milk). TRL 4 to TRL 8



How
are
we
doing
?



Workplan 1th December 2019 – 30th November 2022

Standardization of protocols
and research between the
partnership

Gathering information about
whey valorization

New prototype of PCD

Development of whey protein
demineralized fractions

Communication and
Dissemination

M 01-12

Development of new fresh
products from whey proteins

Evaluation of innovative dairy
products from whey
concentrate

Validation of the new process
for rich α -lactalbumin protein
powder

Use of Pulse Combustion
Drying for better quality
products

M 12 - 24

Use of ewe milk proteins in
infant formula (Europe)

Validation of the new process
for rich α -lactalbumin protein
powder

Case studios about the
application of the innovative
products and processes

IPR management &
Exploitation plan

M 24-36



**Who are involved in the
DAINME-SME project?**

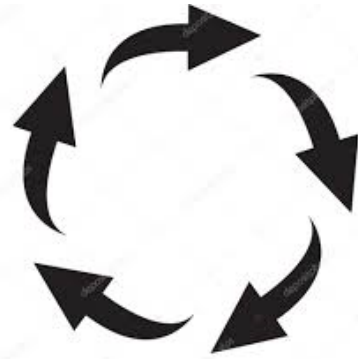
DAINME-SME



Partners involved

4 Research Institutions

IRTA (Spain)
FAITC (Egypt)
CTAA (Tunisia)
U.EGE (Turkey)



3 Dairy Industry

UNIPROCA (Goat's milk, Spanish SME)
ALIMENTA SRL (Ewe's milk, Italian SME)
PANAGRO (Cow's milk, Turkey)

2 SME consulting associations/companies

ApexAgri (France)
SPES (Italy)

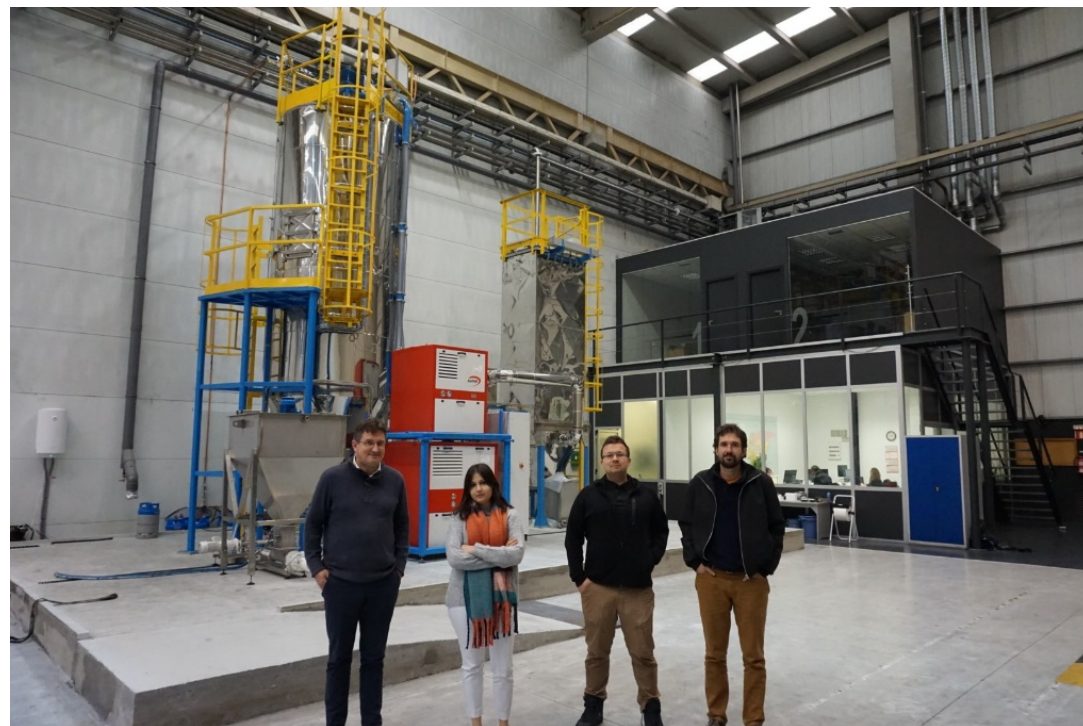
IRTA

RESEARCH & TECHNOLOGY
FOOD & AGRICULTURE

Thank you for your attention

Dr. Xavier Felipe

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The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



How to prepare a proposal for an integrated research/innovation proposal?



THE IDEA!!!

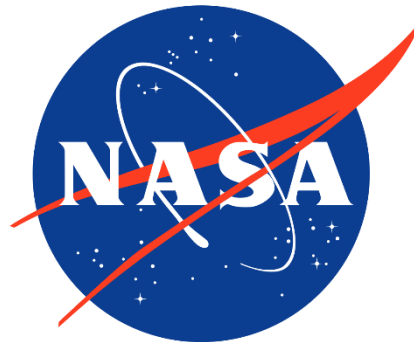
- What is the problem to be solved?
- Is there an new opportunity?
- Is there a challenge to overcome?

(Social, technological,...)



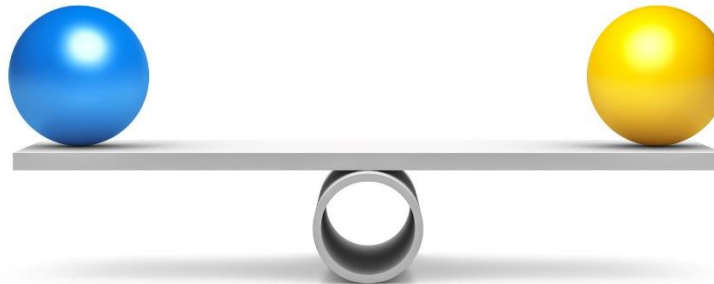
Who are the key partners in this field?

- Is there someone working in this field (public research or private companies)?
- Are they complementary to develop an integrated research/innovation project?
- Are experienced partners?



Looking for a balanced partnership

- Between countries (EU and non-EU)
- Academia versus private companies
- Experienced partners and beginners
- Balanced budget (between partners, and for the work to be performed).



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İlginiz için çok teşekkür ederim!

For any further question or needs:

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