



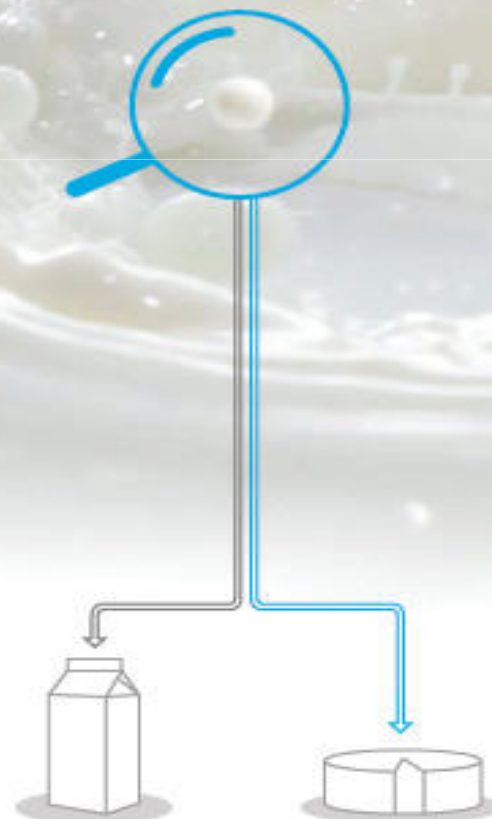
**More cheese from less milk:
eco-innovative real-time milk classification
technology for optimized milk use and for
reduction of the environmental impact of
dairy production.**



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EXECUTIVE AGENCY FOR SMALL & MEDIUM-SIZED ENTERPRISES

AGREEMENT number - EC0/13/630450

SI2.681276

MilkyWay

**More cheese from less milk: eco-innovative real-time milk classification technology
for optimized milk use**

relating to the implementation of an action in the framework of CIP Eco-Innovation
First Application and market replication projects

Decision No 1639/2006/EC of the European Parliament and of the Council of 24 October 2006 establishing a Competitiveness and Innovation Framework Programme (2007-2013). (OJ L 310 of 9 November 2006, p. 15)



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- **Strategic collaboration** between 7 partners (the entire milk supply chain).
- **Improving milk quality** for dairy production and yields.
- New solution for **obtaining the same amount of quality cheese with a reduced quantity of milk processed.**
- **Environmental benefits** such as:
 - water savings (-11,2%)
 - less GHG emissions (-9,33%)
 - less methane emissions (-8,4%),
 - less manure to be disposed/recycled (-12,7%)
 - decreased use of energy (- 11,8%)



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HOW THE PROJECT WAS DEVELOPED



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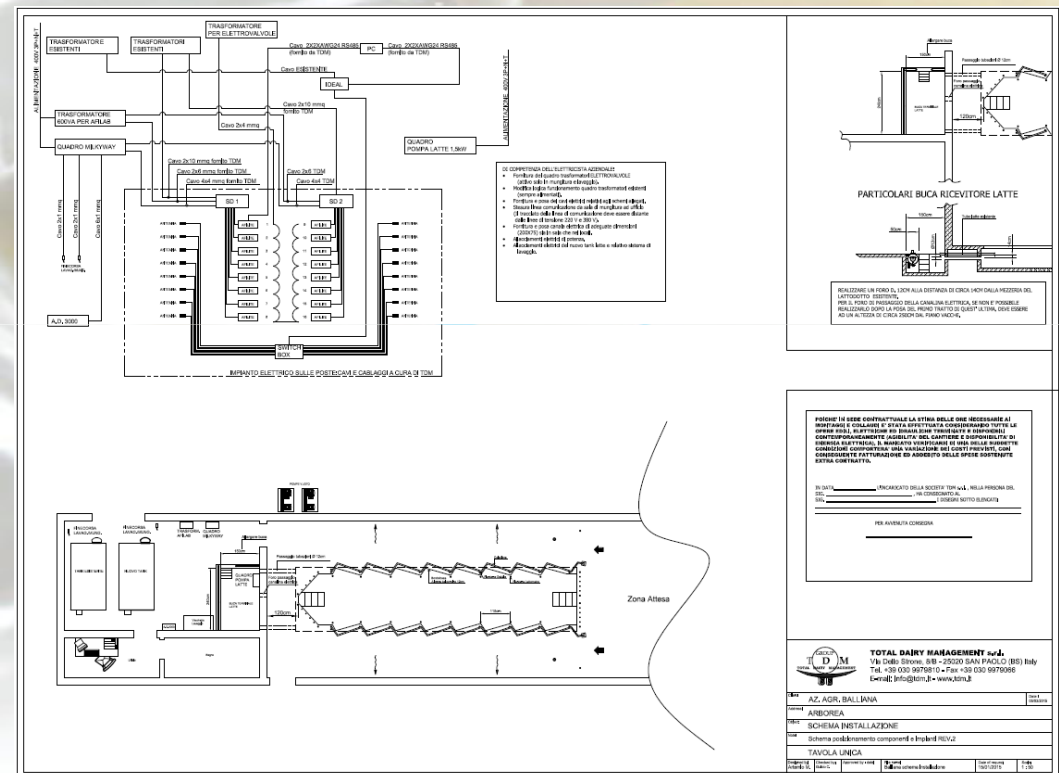


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ENGINEERING OF THE SYSTEM

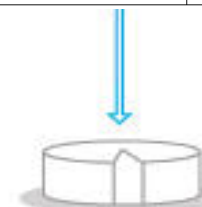
- **Costumized project for installation**
- **Installation of the MCS components**
- **New milk line, receiver and tank**
- **New components for washing cycle**



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CONSTRUCTION, INSTALLATION & VALIDATION

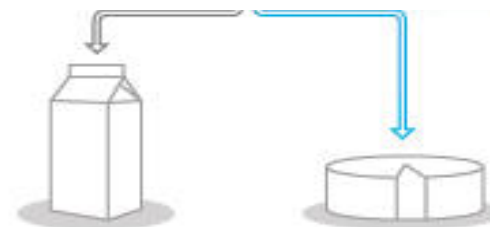
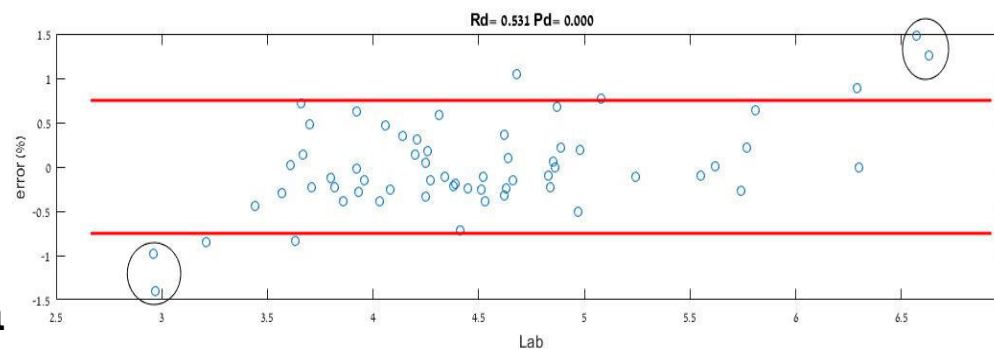
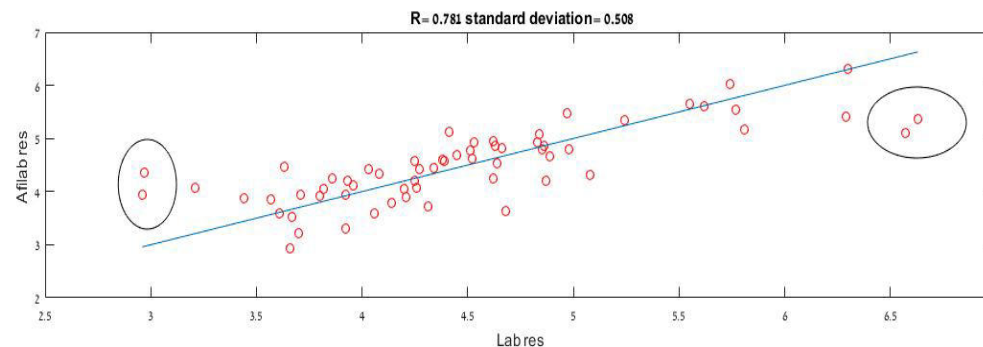


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ONLINE CLASSIFICATION SERVICES

- **Monitoring the plant**
- **Calibrating the system**
- **Compare and synchronize data**
- **Check the washing**
- **Enhance the accuracy**
- **Channeling optimization**
- **Quantity flexibility report**



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FEEDING OPTIMIZATION

- **Feeds evaluation**
- **Chemical analysis**
- **Protein fraction characterization**
- **Formulation/optimization of concentrate**
- **Guidelines for forage**
- **Guidelines for ration**

Table 4 - Effects of replacing the tabulated values with analytical values in feeds used in diet formulation for the considered feeding scenarios

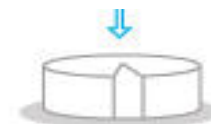
	Scenario 1		Scenario 2		Scenario 3	
	Table values	Lab analysis	Table values	Lab analysis	Table values	Lab analysis
Protein						
CP	17.2	16.2	16.1	14.7	16.1	14.6
RDP, % DM	10.4	10.0	9.9	9.3	10.0	9.1
MP, g	2666	2616	2568	2480	2492	2460
MP from bacteria, %	49.3	53.1	52.0	56.9	54.0	56.3
Amino acids						
Lys, g	168	195	164	186	159	181
Lys, % MP	6.3	7.4	6.4	7.5	6.4	7.4
Met, g	51	66	50	63	49	62
Met, % MP	1.9	2.5	2.0	2.5	2.0	2.5
Lys/Met	3.30:1	2.93:1	3.26:1	2.95:1	3.26:1	2.95:1
Carbohydrates						
Starch	29.8	28.8	30.3	30.6	27.9	31.5
pH, predicted in rumen	6.23	6.32	6.29	6.36	6.16	6.43
Allowed milk yield						
by ME, kg	37.5	37.6	36.0	36.7	37.2	35.5
by MP, kg	39.8	39	37.3	36.1	36.3	35.2
Bacterial yield						
Dry matter, g	3508	3701	3558	3763	3586	3690
MP, g	1316	1388	1334	1411	1345	1384
Bacterial efficiency						
g bacteria DM/kg fermented CHO	370.9	388.1	378.7	385.3	357.9	385.7
g bacteria N/kg fermented CHO	37.1	38.8	37.9	38.5	35.8	38.6
g bacteria N/kg DOM	29.6	31.3	30.4	31.6	28.6	31.7
Fermented CHO, kg	9.46	9.54	9.39	9.77	10.02	9.57



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TECHNICAL ASSISTANCE AND ANALYSIS

- Inspections in each farm
- Samplings
- Chemical analysis
- Animal welfare
- Optimization report
- Analysis report
- Wellness report

RISULTATI DELLE PROVE

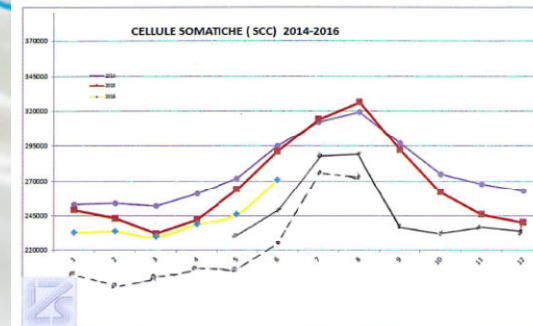
Prova	Metodo di prova	Campioni	1	2	3	4
1	Cellule somatiche prodotto caseario HP 02/063 rev. 3 - 2013		22.000 cellule/mL 1	20.800 cellule/mL 2	9.300 cellule/mL 3	14.000 cellule/mL 4
2	Cellule somatiche prodotto caseario HP 02/063 rev. 3 - 2013		7.000 cellule/mL 5	5.515.000 cellule/gg 6	16.000 cellule/mL 7	108.000 cellule/mL 8
3	Cellule somatiche prodotto caseario HP 02/063 rev. 3 - 2013		50.000 cellule/mL 9	5.000 cellule/mL 10	18.000 cellule/mL 11	72.000 cellule/mL 12
4	Cellule somatiche prodotto caseario HP 02/063 rev. 3 - 2013		134.000 cellule/mL 13	4.000 cellule/mL 14	119.000 cellule/mL 15	200.000 cellule/mL 16
5	Cellule somatiche prodotto caseario HP 02/063 rev. 3 - 2013		16	17	18	19

		GRATTO CLASSIFIED MILK	GRATTO STANDARD MILK
D	mg/kg	4034	4004
S	mg/kg	1253	1145
Cl	mg/kg	0001	0010
	%	0,996	0,482
K	mg/kg	1007	027
	%	0,110	0,084
Ca	mg/kg	0213	7242
	%	0,821	0,724
Fe	mg/kg	4,4	2,3
Ni	mg/kg	0,8	0,6
Cu	mg/kg	0,7	0,7
Zn	mg/kg	41,6	39,6
Sn	mg/kg	2,7	1,2
Pb	mg/kg	0,4	0,3
Si	mg/kg	2,4	2,0

GRAFICO CHEESE
CHEMICAL ANALYSIS

	GRATTO CLASSIFIED MILK	GRATTO STANDARD MILK
MONOUNSATURATED FAT	11,07	7,67
POLYUNSATURATED FAT	2,17	3,58
SATURATED FAT	21,00	17,53
CHOLES	3,11	3,20
CARBS	1,85	2,66
CHLORIDE	1,53	1,57
PROTEIN	23,11	30,42
FAT	36,14	27,19
HUMIDITY	36,78	36,33
ENERGY kcal	416	579
ENERGY kJ	1742	1586

Andamento delle cellule somatiche in regione Lombardia (media geometrica)



Media aritmetica mensile dei conteggi cellulari delle 5 aziende aderenti al progetto

Maggio 2015	213.841
giugno	248.720
luglio	291.364
agosto	292.242
settembre	235.842
ottobre	229.041
novembre	233.609
dicembre	231.784
Gennaio 2016	208.405
febbraio	153.923
marzo	167.782
aprile	192.967
maggio	226.080
giugno	225.844
luglio	277.683
Agosto	273.601

MW ——— 2015
MW - - - - - 2016



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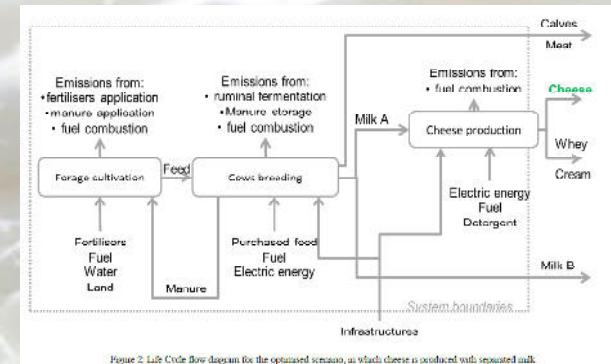


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LCA

- Description of the process
- Inspections in each farm
- Data collection
- Quantify the environmental performance
- LCIA methodology
- LCA flow diagram
- LCA inventory
- LCA report



Results

The results of the study referred to the functional unit are reported in table 1 and 2.

		Total	Milk	Milk transport	Cheese making
Climate change	kg CO ₂ eq	6,13	5,88	0,01	0,25
Photochemical ozone formation	kg NMVOC eq	7,8E-03	7,4E-03	8,7E-05	3,8E-04
Acidification	mole H ⁺ eq	0,08	0,08	0,00	0,00
Terrestrial eutrophication	mole N eq	0,34	0,34	0,00	0,00
Freshwater eutrophication	kg P eq	1,1E-03	1,1E-03	1,2E-07	3,2E-07
Marine Eutrophication	kg N eq	0,04	0,04	0,00	0,00
Land use	kg C deficit	50,29	50,29	0,00	0,00

Table 1: Results of the LCA referred to 1 kg SC produced with no-separated milk

		Total	Milk	Milk transport	Cheese making
Climate change	kg CO ₂ eq	5,59	5,40	0,01	0,18
Photochemical ozone formation	kg NMVOC eq	7,1E-03	6,8E-03	6,5E-05	2,9E-04
Acidification	mole H ⁺ eq	0,07	0,07	0,00	0,00
Terrestrial eutrophication	mole N eq	0,31	0,31	0,00	0,00
Freshwater eutrophication	kg P eq	1,0E-03	1,0E-03	9,0E-08	2,4E-07
Marine Eutrophication	kg N eq	0,04	0,04	0,00	0,00
Land use	kg C deficit	46,16	46,16	0,00	0,00

Table 2: Results of the LCA referred to 1 kg SC produced with separated milk (WithMCS)



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BUSINESS PLAN AND EXPLOITATION

- Marketing and business plan
- Questionnaire
- Business strategy
- Business model for dairy farmers
- Promotional mail
- New service network

AfiMilk MCS
Real Time Milk Classification Service
Economy Impact Calculator

Farm data

Name of farmstead / artisanal cheese maker	Farm1
No. of milking cows	400
No. of milking stalls	400
Average No. of cows per stall	1.0
Annual milk production per cow (average)	2,500 l/cow
Current net profit	10%

General & Market data

Region	Europe
Country	Italy
Milk wholesale price	0.08 €/kg
Cheddar wholesale price	0.000 €/kg

Current milk and cheese production in the farm

	Annual	Monthly
Total milk production	1,000,000 l	83,333 l
Average amount of milk required for cheese production	135,000 l	11,250 l
Total cheese production	1,350,000 kg	112,500 kg
Milk used for cheese production	1,350,000 l	112,500 l
Milk used for other dairy products or sale	1,000,000 l	83,333 l

Milk and cheese production using AfiMilk MCS

	Annual	Monthly
Separation rate (regulating milk percentage)	4.0%	
Coagulating milk	1,350,000 l	112,500 l
Regulate milk	1,650,000 l	137,500 l
Cheese yield improvement using AfiMilk MCS	0.00%	
Actual cheese production	1,350,000 kg	112,500 kg
Expected save in energy/labor/production cost/recycling	3.5%	

Investment and fees for AfiMilk MCS

	Annual	Monthly
Average upgrade cost / per milking stall	8,000 €	
Fees for milk classification services	1,000 €	83.33 €

Extra cheese using AfiMilk MCS

Extra cheese (revenues)	13,500 kg	1,125 kg
Extra milk using AfiMilk MCS	0 kg	0 kg
Extra milk (revenues)	0 kg	0 kg

Coagulating Milk

AfiMilk MCS
Real Time Milk Classification Service
Economy Impact Calculator

Data

Name of farmstead / artisanal cheese maker	Farm1
Country	Italy
Milk wholesale price	0.08 €/kg
Cheddar wholesale price	0.000 €/kg

Annual achievements using AfiMilk MCS - summary table

Extra cheese (revenues)	108,000 €	10,000% increase
Extra milk (revenues)	0 €	0.00% increase
Total increase in net profit	110,000 €	66.1% increase

Current revenues and net profits (before using AfiMilk MCS)

	Annual	Monthly
Revenues from cheese	1,000,000 €	83,333 €
Revenues from milk	904,000 €	75,333 €
Total revenues	1,904,000 €	158,666 €
Total net profits	167,200 €	13,933 €

Revenues and net profits using AfiMilk MCS

	Annual	Monthly	Increase
Revenues from cheese	1,000,000 €	83,333 €	0.00%
Revenues from milk	904,000 €	75,333 €	0.00%
Total revenues	1,904,000 €	158,666 €	0.00%
Additional revenues by AfiMilk MCS (goes directly to bottom line)	108,000 €	9,000 €	6.45%
Additional save in energy/labor/production cost/recycling	3,500 €	291 €	
Fees for Milk Classification Services	1,000 €	83.33 €	
Additional Net Profit	110,000 €	9,221 €	66.1%
Total net profits	277,200 €	23,154 €	

ROI calculation for farm upgrade

Average upgrade cost / per milking stall	8,000 €
MCS	1.2 Years

Revenues



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MAKING BUSINESS BETTER FOR ENVIRONMENT



DISSEMINATION ACTIVITIES

- Project website
- Flyer and brochure
- Four articles
- MilkyWay events



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MILKYWAY

More cheese from less milk



UNIVERSITÀ
CATTOLICA
del Sacro Cuore



OBJECTIVES AND RESULTS



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MILKYWAY: SPECIFIC OBJECTIVES

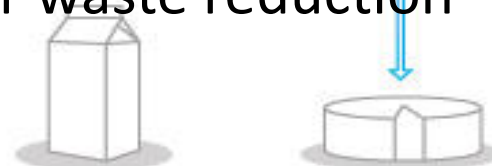
- **Improving dairy production and yields** through milk classification, directly in Farm without any manipulation
 - analyzing coagulation properties on real time (MCS)
 - separation between:
 - milk suitable for cheese making
 - milk suitable for fermentation and other fluid milk products
- **Milk supply chain optimization** providing higher value to milk processors and premium prices to farmers
- **Optimisation of the dairy cattle ration** (focused on the optimisation of the protein intake) for waste reduction



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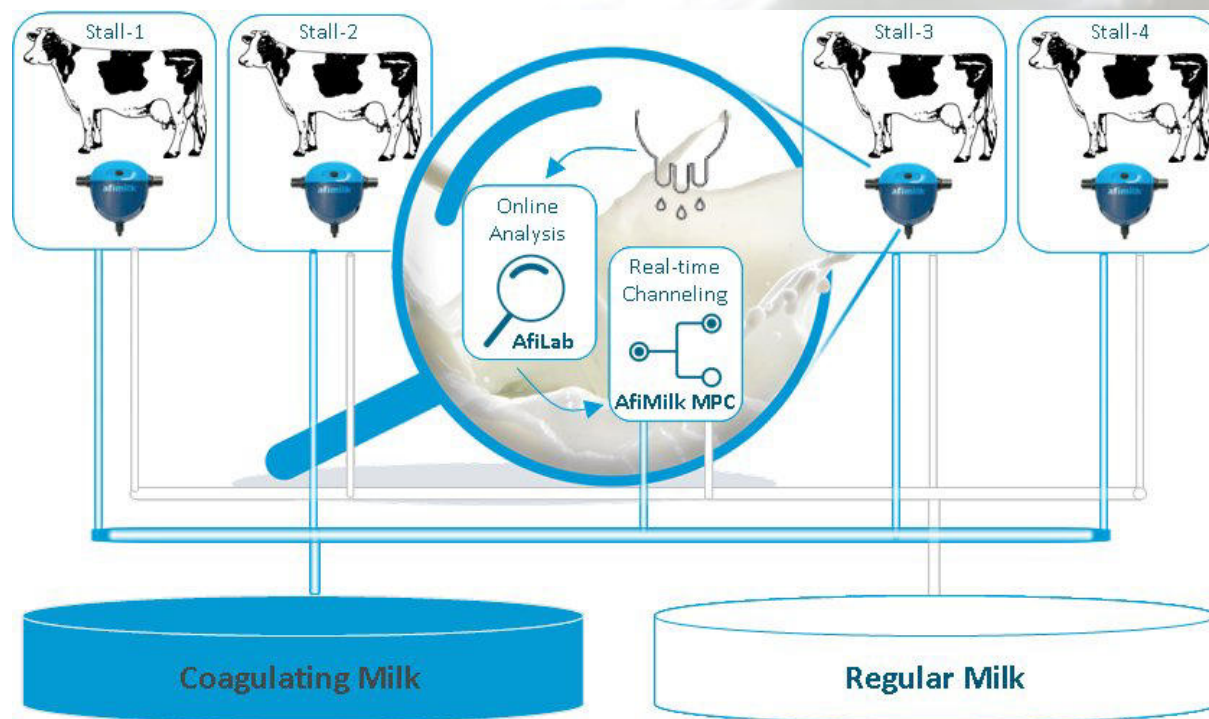


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Improving dairy production and yields: **MCS TECHNOLOGY**



Milk characteristics:

Curd firmness (Cy(60), Cy(90))
Rennet coagulation time (RCT)

*European patent reference
EP 2 291 649 A0
US patent publication number
US 2009/0255473 A1*



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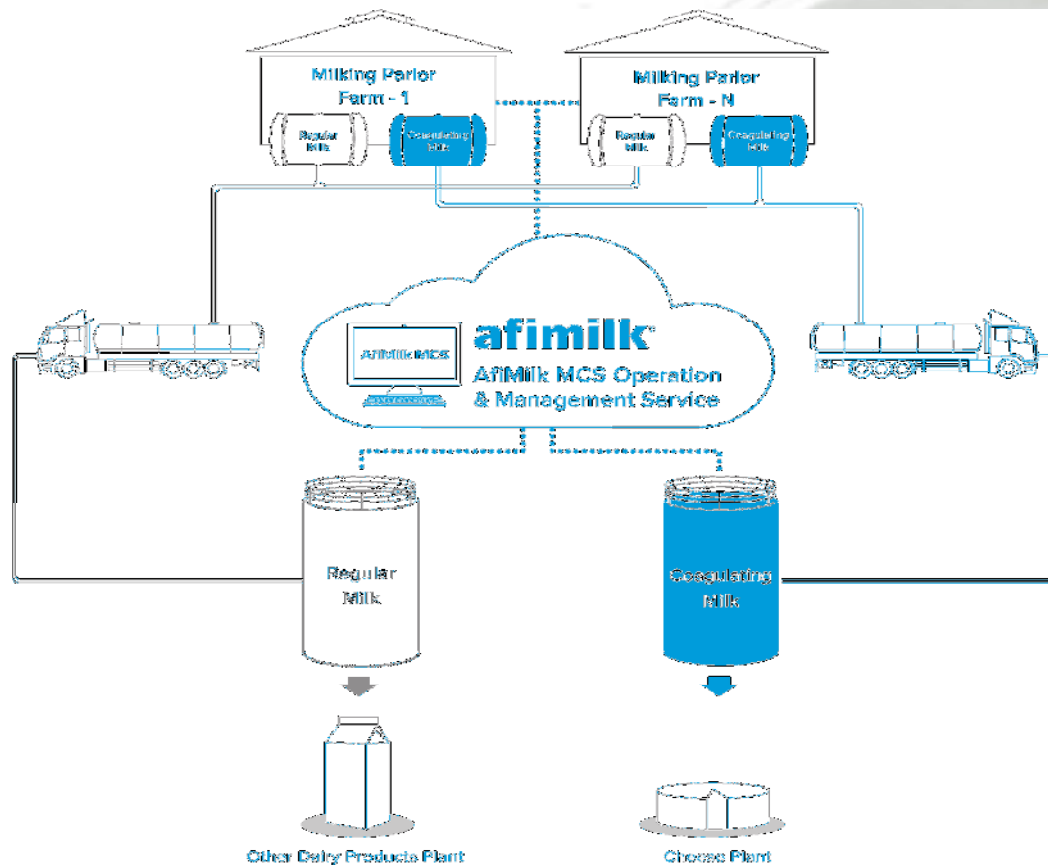


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Improving dairy production and yields: **MCS TECHNOLOGY**



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Online analysis on milk

Milk classification
directly in Farm

No manipulation of milk





Improving dairy production and yields: **CHEESEMAKING TEST PROTOCOL**

- Tests on milk from **same farm**
- Tests on **G milk and standard milk**
- **Same process** of cheese making

	
PROCEDURA OPERATIVA PER LA PRIMA PROVA DI CATEGORIZZAZIONE	
07/02/2015	A sample for analysis: quantity, fuel, pressure, latitude, Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
08/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Senti results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
09/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
10/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
11/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
12/02/2015	no sampling. Nessun campione
13/02/2015	no sampling. Nessun campione
14/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
15/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
16/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
17/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
18/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
19/02/2015	A sample for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. Compensate per analisi di grasso, pressione, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
20/02/2015	Evening working separation with "DIP" technique on a milk Pasta. Dip test procedure: 100 ml of sample are separated, need analysis, the composition. The sample for analysis: quantity, fuel, pressure, latitude, Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
23/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
24/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
25/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
26/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
28/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it
29/02/2015	Two samples for analysis: quantity, fuel, pressure, latitude. Sarno results to Atinfi. For the dip test: 100 ml of sample are separated, need analysis, the composition, latitudine e Celsius; quantità di latte nei tatti. Spedire i risultati per mail a italialab@milkyway.it

[illegible]

Milk way right at your door! In pochi minuti, nella tua casa, riceverai milk from morning session.
Riceverai il latte dei primi 7 secondi in latte non pastorizzato con quanto richiesto di vaccini per i neonati.

Production of milk from segment 1st milk (after 01:00 technology)
 Produzione di latte per i primi 7 secondi in latte non pastorizzato con quanto richiesto di vaccini per i neonati.

Stop segment after morning session (morning session) in segment 1st
 La separazione sarà fermata ma i contenuti dei secondi ultimi della mattina del latte.

Evening session collected (2nd milk) to start new night to segment 1st
 La raccolta della sera non separerà dalla prima, riceverai la mattina e la sera di latte di riferimento di 2.

2nd segment in morning session. A sample for analysis after morning session. Lat. (milk) - breast
 La mattina del latte mattina non separerà se necessario, fornirà un campione di latte. Disporre per inviare un altro campione di latte dalla mattina (se necessario) e quando sarà analizzato (grasso, proteine, lattosio, lattosio). Segnerà i risultati finali e gli avvisi preventivi (se necessario) per la tua.

info@milkway.it

Milk way right at your door! In pochi minuti, nella tua casa, riceverai milk from morning session.
Riceverai il latte dei primi 7 secondi in latte non pastorizzato con quanto richiesto di vaccini per i neonati.

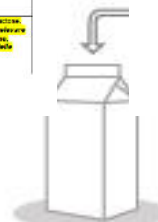
Production of milk from segment 1st milk (after 01:00 technology)
 Produzione di latte per i primi 7 secondi in latte non pastorizzato con quanto richiesto di vaccini per i neonati.



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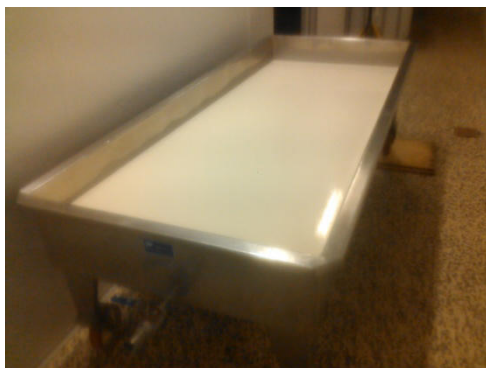


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MILKYWAY

More cheese from less milk



Improving dairy production and yields: **RESULTS OF CHEESEMAKING TEST**

Cheese date	Milk type	Skim milk L evening session	Whole milk, L morning session	V(milk) L production pool	Cream L	m(milk) kg production pool	n(cheese)	m(cheese) kg Before brine	m(cheese), kg after brine	yield before brine	yield after brine	Yield difference	Yield difference after brine
19/01/2016	G	234	132	366	36	377	9	43,5	43	11,54%	11,41%		
20/01/2016	R	353	604	957	49	986	24	101	100	10,25%	10,14%	12,62%	12,43%
21/01/2016	G	224	232	456	42	470	12	54	53,8	11,50%	11,45%		
22/01/2016	R	401	601	1002	49	1032	22	106	105	10,27%	10,17%	11,94%	12,59%



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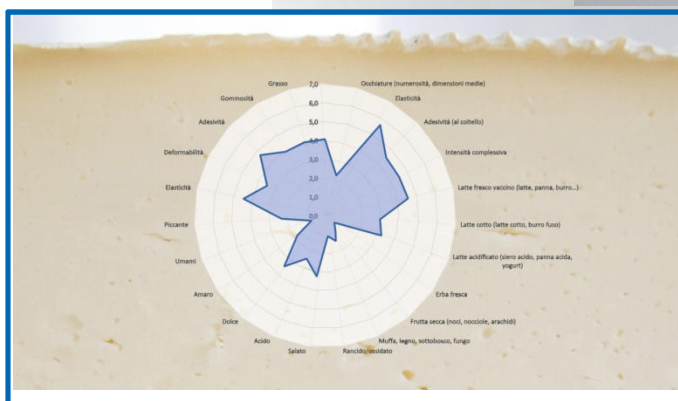


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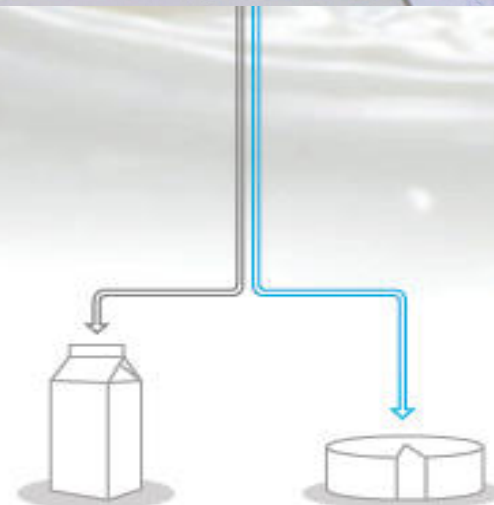
Improving dairy
production and yields:

GRAFFIO CHEESE



Controls on Graffio

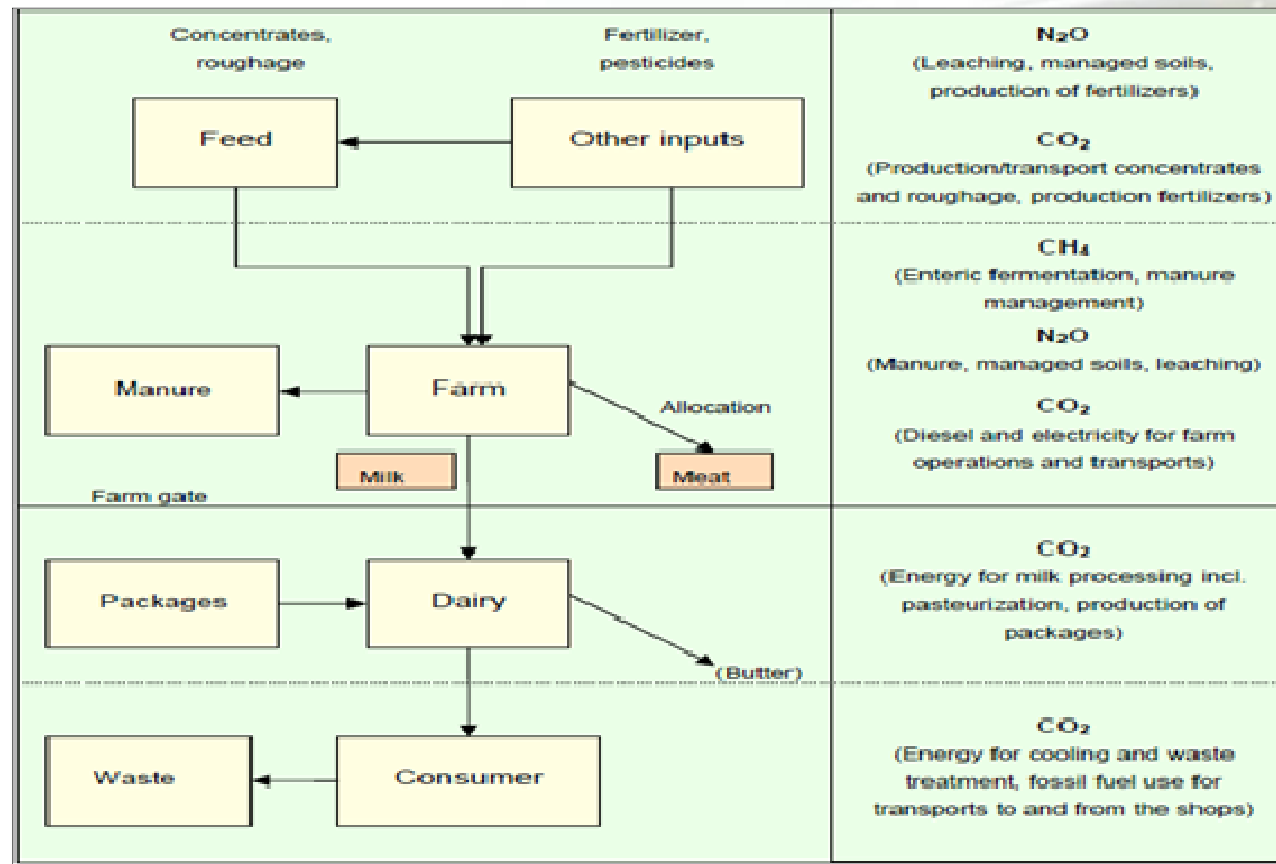
- Chemical analysis
- Sensory tests



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MILK SUPPLY CHAIN OPTIMIZATION

Main pollution factors for each actor in the chain

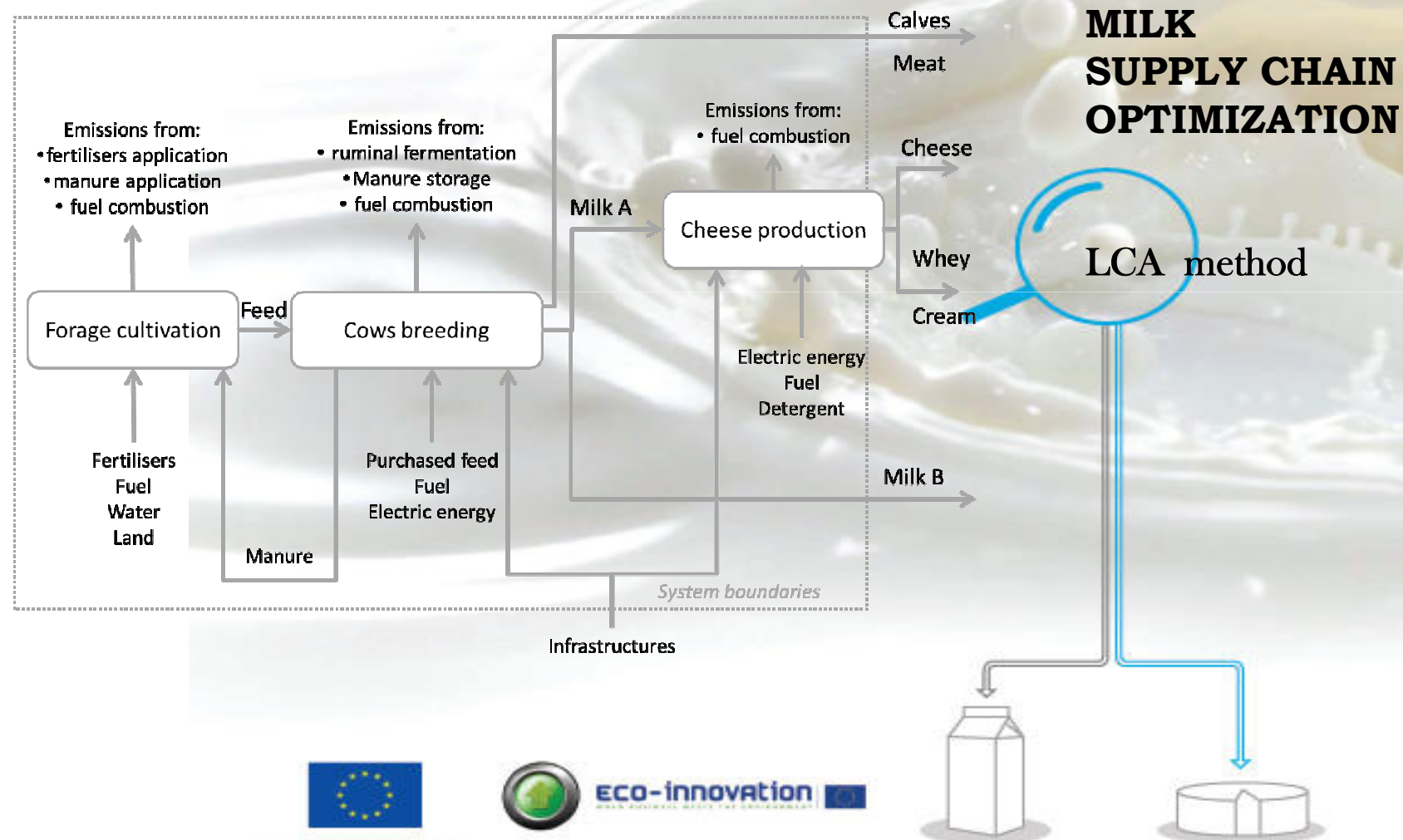


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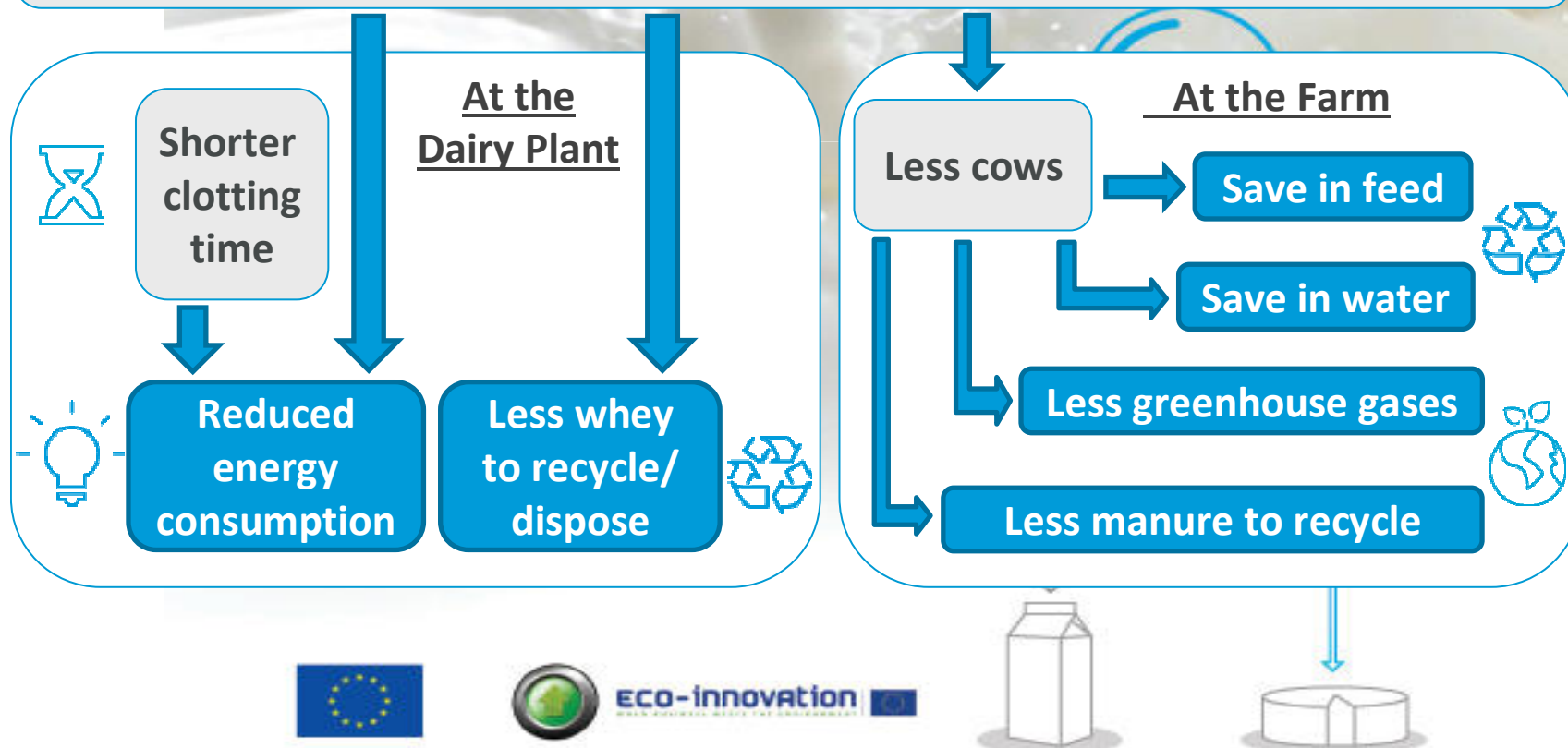


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QUANTIFIED ENVIRONMENTAL IMPACTS

Less milk required for same amount of cheese production



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QUANTIFIED ENVIRONMENTAL IMPACTS

Optimization of the **dairy cattle ration** :

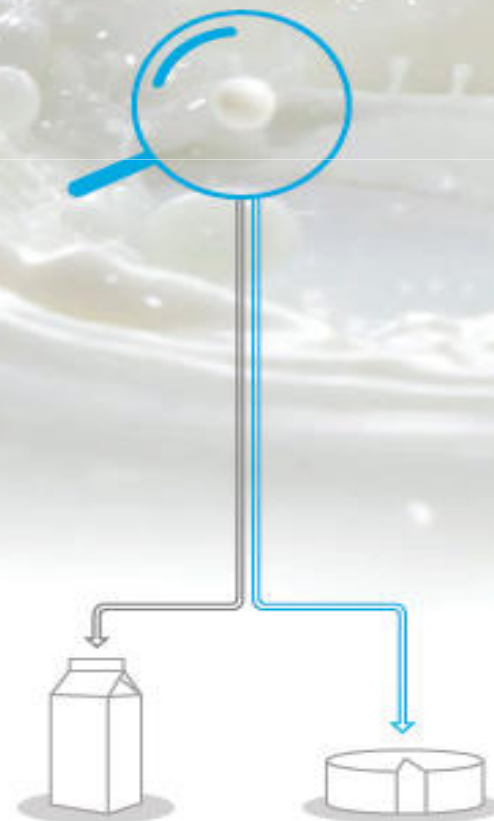
- Reduces the quantity of **urea** in the urine
Reduction of the impact on acidification (NH_3)
- Potentially decreases the volume of **sewage**
Reduction of the impact on eutrophication (NO_3)
- Reduces the amount of **soybean used**.
Reduction of the impact on global warming (CO_2)



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MONITORING OF PROJECT PROGRESS

Performance indicators

Executive Agency for Competitiveness and Innovation
CIP Eco-innovation first application and Market Replication Projects Call 2013
Call Identifier: CIP-EIP-Eco-innovation 2013

INDICATORS

MilkyWay

At the end of the project

Objective	Indicators	Absolute Impact	Relative Impact	Comment	
Improved Environmental Performance	Greenhouse gas emissions	CO2	-0,274 kgCO2/kgSC	-9,7%	SC= standard cheese (2,3 g carbohydrates/100 g, 26,8 g proteins/100g and 31,3 g fats/100g). From 2,8 kgCO2/kgSC to 2,5 kgCO2/kgSC. The relative impact has been calculated per kilogram of "standard cheese"
		Methane	-9,1 gCH4/kgSC	-8,4%	From 107,9 gCH4/kgSC to 98,0 gCH4/kgSC. The relative impact has been calculated per kilogram of "standard cheese"
		N2O	-0,24 gN2O/kgSC	7,7%	From 3,09 gN2O/kgSC to 2,85 gN2O/kg SC. The relative impact has been calculated per kilogram of "standard cheese"
		GHG altogether	-0,54 kgCO2eq/kgSC	-9,33%	From 6,13 kgCO2eq/kgSC to 5,59 kgCO2eq/kgSC. The relative impact has been calculated per kilogram of "standard cheese"
	Air quality	Particulate matters	In ppm	n/a	
		NH3	1,9 gNH3/kg SC	-8,1%	From 23,3 gNH3/kgSC to 21,4 gNH3/kgSC. The relative impact has been calculated per kilogram of "standard cheese"
	Reduction / substitution of dangerous substances	Irritant / Corrosive		n/a	
		Mutagenic / Carcinogenic		n/a	
		Toxic		n/a	
		Persistent / Bioaccumulative		n/a	
	Waste management	Prevention	tons / year	In % change to baseline	
		Waste minimization	liters / year	0%	No waste minimisation was registered
		Reuse of waste / Substance recovery	tons / year	In % change to baseline	
		Material recycling	tons / year	In % change to baseline	
		Waste diverted from landfills	tons / year	In % change to baseline	
		Hazardous waste	tons / year	In % change to baseline	
Manure reduction		tons/year	12,7%	Yield increased from 10,14% to 11,43%. The manure reduction is associated with the lower quantity of milk needed to produce 1 kg of cheese	
Reduced resource consumption (excluding energy)	Soil occupation	0,5 m2*yr/kgSC	-12,7%	From 5,3 m2*yr/kgSC to 4,8 m2*yr/kg SC. The relative impact has been calculated per kilogram of "standard cheese"	
	Milk	1,1 kg milk/kg cheese	-12,7%	Cheese yield from 10,14% to 11,43%. Thanks to an improvement of the cheese yield	
Better use of natural resources	Water	Reduced water consumption	4,3 lt/kg cheese	-11,2%	Yield increased from 10,14% to 11,43%. The water reduction is associated with the lower quantity of milk needed to produce 1 kg of cheese



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“MESSAGE” TO BE DELIVERED IS

Milk quality and dairy production and yields can be enhanced with a new eco-innovative and environmental-friendly system and without manipulation, modification, heating or adding new ingredients, the introduction of which is good for business, and will help obtaining several positive benefits on environment.



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