Analysis of the Galician dairy sector: skills and dynamism

Dairy 4 future

Work Package 4
Dairy sector analysis

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PART 1

MILK PRODUCTION AND DAIRY FARMS

Recent changes in production and dairy farms

In the last ten years milk deliveries to the industry have increased in Galicia by 22% up to 2,90 million tonnes in 2020. This growth has been mainly driven by increases in quotas and their elimination in 2015 as well by milk and concentrate prices and to a lesser extent by annual variations in fodder production. Milk production has grown at an annual rate of 2.0% since the last years before the elimination of quotas with the only exceptions of 2012 by a sharp increase in concentrate prices and 2016 caused by low milk prices (figure 1).

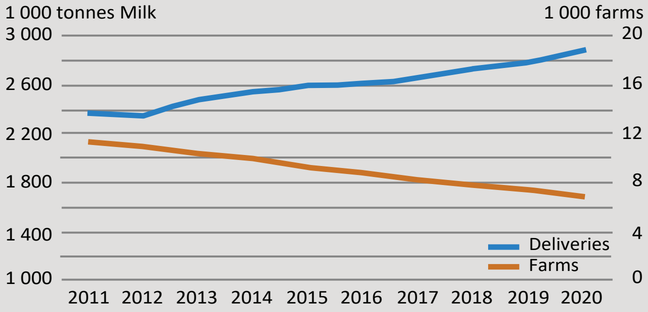
This production growth has been accompanied of a sustained structural adjustment. The number of producers has been reduced at an annual rate of 4.9% to 6940 in 2020 and the deliveries have increased at a rate of 7.2% reaching 415 tonnes in the last year.

However, changes have progressed at a slower rate on farmland (3.4% annual rate), which together with the rise in yield per cow has resulted in an increase in intensification (table 1).

Production is becoming increasingly concentrated both on a lower number of farms and in a smaller area of the territory. 20% of dairy farms with more than 500 tonnes of milk production account for 60% of production (table 2).

Milk production is concentrated in the central area of the northern half of Galicia, having almost disappeared in the south; 50% of production is located in an area equivalent to 15% of Galicia (Figure 2).

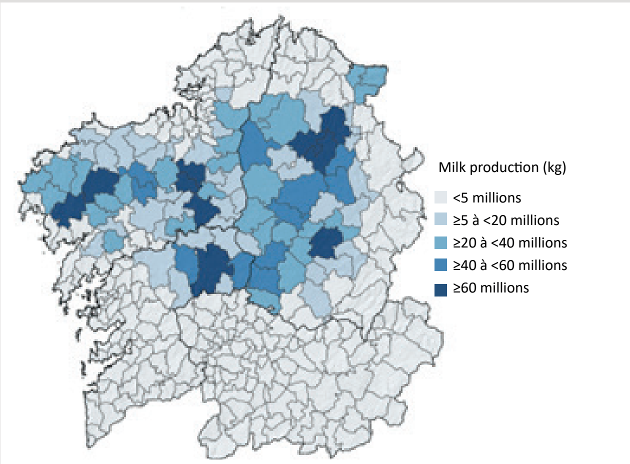
FIG.1: CHANGES IN MILK PRODUCTION AND NUMBER OF DAIRY FARMS IN GALICIA BETWEEN 2011 AND 2020
Source: Milk collected by dairies, FEGA



TAB.1: STRUCTURAL CHANGES ON DAIRY FARMS
Source: Farm structure survey 2013 (INE), Dairy Sector 2019 (CMR)

	2013	2019
Utilised Agricultural Area/farm (ha)	20.2	25.1
Cows/farm	30.1	41.5
Milk/cow (L/year)	7,790	8,380
Milk/ha (L)	1,160	1,390

FIG.2: TERRITORIAL DISTRIBUTION OF MILK PRODUCTION IN GALICIA
Source: Dairy Sector 2019 (CMR)



TAB.2: DISTRIBUTION OF DAIRY FARMS BY LEVEL OF PRODUCTION (2019)
Source: Dairy Sector 2019 (CMR)

Level of production (tons milk)	% Farms	% Production	% UAA*	Tons milk/ AWU**
<250	61.4	19.6	38.8	126
250-500	18.9	19.9	22.2	239
500-1000	12.8	25.9	20.3	332
>1000	6.9	34.7	18.7	491
Total	8,000 farms	2.7 Mt	200,900 ha	258,000 t

*UAA: Utilised Agricultural Area
**AWU: Agricultural Work Unit

Production systems: intensification in response to the limited UAA of farms

Milk production is the main agricultural activity of Galician agriculture, accounting for 24% of the value of production. However dairy farms have a weak territorial base, occupying only 8% of the regional surface. It is also a very specialised production, as just 18% of dairy farms share milk with other products.

Regarding productive systems, the dominant model is quite intensive with an average of 14100 litres per hectare of Utilised Agricultural Area (UAA). The main factor driving this intensification is land constraints on farms, which pushes production growth as the way to increase income, since improving the unit margin by adjusting costs would require more land to reduce dependence on purchased feed.

The way of renting to extend the size of farms is limited by competition from beef cows production and specially from eucalyptus plantations, which allows producers who cease their activity to retain direct control of their land and earn a substantial return.

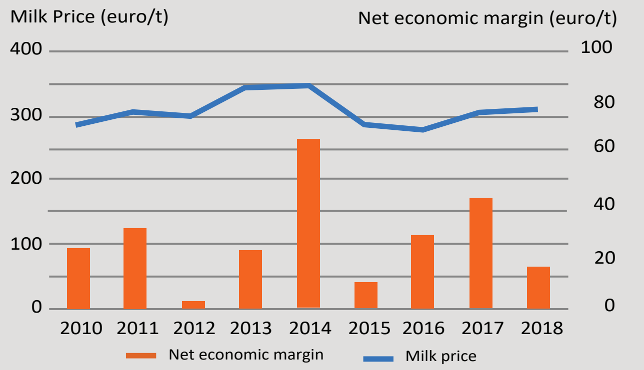
The level of intensification and the area of forage maize increase with the size of farms. Most of the herd remains housed and is fed under a Total Mixed Ration (TMR) system, while grazing is only practiced on part of the smaller farms.

According to a recent CIAM study, the average ration consists of grass silage (43% of DM), maize 16%, hay 11% and concentrate the remaining 31%. On larger farms, concentrate accounts for 40% and maize for 25%.

Over the last ten years, farmers have faced a new market situation: first due to the greater price volatility caused the price deregulation measures adopted in the CAP and since 2015 with the abolition of quotas, which previously provided a practical guarantee for milk collection. The greater variability in milk prices and the rise in energy and concentrated prices have resulted in a reduction and a high variability of the unit margin (figure 3).

This decline in unit margin pushes farmers to further increase production to maintain or improve income per Agricultural Work Unit (AWU).

FIG.3: ANNUAL EVOLUTION OF THE MILK PRICE AND THE NET ECONOMIC MARGIN OF GALICIAN DAIRY FARMS (2010-2018)
Source: Farm management group (USC)



KEY FIGURES – YEAR 2017 – GALICIA

DAIRY PRODUCTION

2,9 millions tons of milk delivered (+22% in 10 years)

corresponding to:

38% **Of national deliveries**

4 main collectors

24% of the turnover of regional agriculture (excluding grants)

334 100 dairy cows including:

- 19% in farms holding **more than 100 cows**
- 53% in farms holding **less than 50 cows**

Organic milk represents **2,2%** of regional deliveries

LIVESTOCK AND FARMING

6 500 dairy farms (-5% in 10 years)

with in average: **42 cows/farm** (+38% in 10 years)

producing: **8 380 kg/cow/year** (+8% in 10 years)

2,3 tons of concentrate per cow/year

Animal stocking rate: **1,8 LSU/ha**

(Source : INGACAL-USC)

PART 2

PROCESSING INDUSTRY

Inability of the regional dairy industry to keep pace with milk production development

In contrast to the dynamism of milk production, the development of the Galician dairy processing industry remains quite limited. As a result, a substantial part of milk production (42%) is sold to dairy industries outside Galicia.

The industrial structure has changed little since the late 1990s. In 2020 there were 150 dairy industrial establishments, of which only 12 with 50 or more employees (table 3).

The dairy industry located in Galicia processes some 1,500 million litres, 66% in the 5 largest establishments (table 4). Of that total, 67% is processed by private firms, largely owned by multinational groups or from the rest of Spain (Lactalis, Nestle, Entrepinares); 23% in industries of cooperative base but without participation of the Galician farmers (Capsa and Lactogal); and only 10% is processed by Galician producers' cooperatives (Feiraco, Acolact and some artisan cheesemakers) (Source: Own estimates from IGE, 2016).

A small number of recent projects stand out in this rather static panorama: in cheeses (Entrepinares, Innolact), in industrial products (Dairylac, Inleit Ingredients) and in ultra-fresh products (Acolact).

PART 3

DAIRY PRODUCTS AND CHARACTERIZATION OF DAIRY MARKETS

Drinking milk is the main productive orientation of the Galician dairy industry

Two thirds of milk processed in Galicia is used for drinking milk and milk-based beverages; cheese production with about 33,000 tonnes absorbs 14.7% of milk, while other fresh dairy products (yoghurts, desserts and cream) only account for 4.0%. Nearly 200 million litres of milk (12.3%) are devoted to industrial products, of which two thirds go to concentrated or condensed milk and the rest to powdered milk (figure 4). The low industrial drying capacity makes it difficult to manage surplus situations within a production increase horizon.

There are 4 Protected Designations of Origin (PDO) of cheeses in the region (Tetilla, Arzúa-Ulloa, San Simón da Costa and Cebreiro), with a production of some 5,400 tonnes of cheese made by 66 dairies, most of them artisan or farm cheesemakers. PDO activity involves around 48 thousand tonnes of milk, which represents only 1.7% of Galician milk production and 22% of that destined for cheese (CMR).

The production of organic milk is beginning to develop in recent years and has about 122 farmers with a production of 26,000 tons of milk (0.9% of the regional milk production) (MAPA).

TAB.3: STRUCTURE OF THE DAIRY INDUSTRY IN GALICIA: NUMBER OF ESTABLISHMENTS BY SIZE OF EMPLOYMENT- IN 2000, 2010 AND 2020
Source: INE, *Central Business Register* (CBR)

Number of employees	2000	2010	2020
<10	107	82	115
10-49	15	22	23
>=50	11	9	12
All	133	113	150

TAB.4: STRUCTURE OF THE DAIRY INDUSTRY IN GALICIA ACCORDING TO THE VOLUME OF PROCESSED MILK (2016)
Source: Own estimates from IGE

Processed milk (million litres)	Number of establishments	Processed milk (million litres)	%
> 150	4	860	57.3
100-150	3	320	21.3
25-100	4	200	13.3
<25	124	120	8.1
All	135	1,500	100.0

Spain is the reference market for the Galician dairy products

Galicia's 2.8 million tonnes represent 38% of Spain´s milk cow production. Intra-Galician consumption, expressed in terms of milk equivalent, is estimated at around 0.5 million tonnes, slightly less than 18% of production. The remaining 82% goes almost entirely to the rest of Spain, in tanks of raw milk, in the form of packaged milk or, to a lesser extent, as cheese.

Spain is therefore the reference market for Galicia's dairy sector. Spain's trade deficit in dairy products offers options for increasing Galician production, but also presents risks of relocation due to its peripheral situation with respect to the main consumption areas. The weaknesses of the dairy industry limit a potential absorption of the raw milk currently not processed within the region.

PART 4

ORGANIZATION AND RELATIONSHIPS WITHIN THE DAIRY CHAIN

of the regional dairy industry to keep pace with production development

There is a low level of integration and limited contractual relationships, due to the lack of real negotiation on pricing and contract provisions.

From a position of weak participation of producers in processing, some recent initiatives could indicate some progress in integration along the chain:

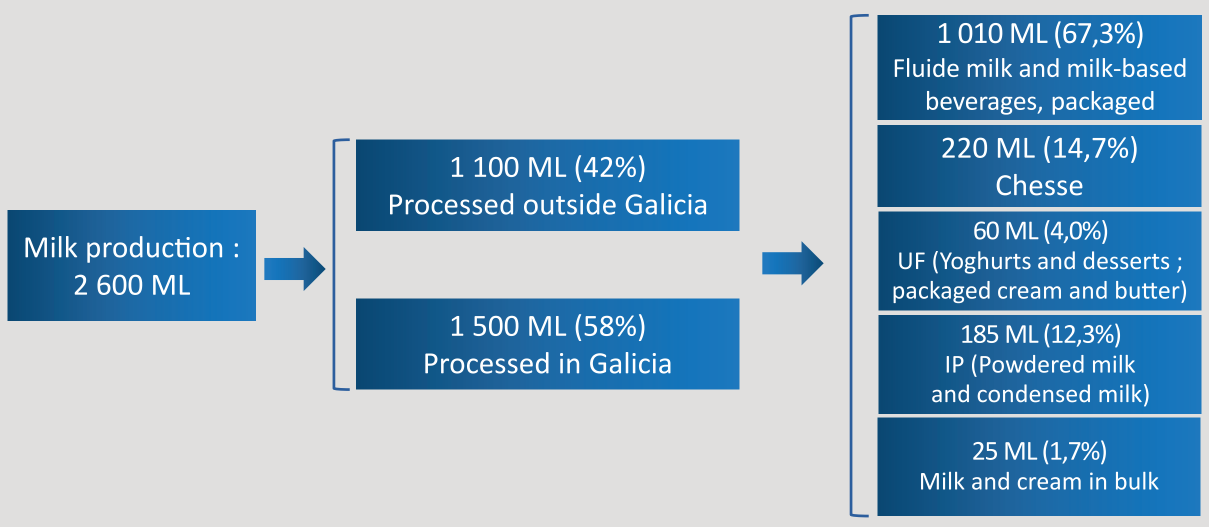
• Acolact (2012): association of 11 cooperatives to assume the ownership and management of the Clesa dairy products plant.

• Aira (2009): integration of various supply cooperatives, with participation in industrial projects Dairylac and Acolact.

• Clun (2017): integration of three cooperatives, with milk processing activities and supplies and services to farms.

The milk market at the producer level is subject to compulsory contracts, with a minimum duration of one year, in accordance with the regulation of the Milk Package in Spain.

FIG.4: DESTINATION OF MILK PRODUCED IN GALICIA (2016)
Source: *Sineiro and Santiso (2019)*



The Spanish Dairy Interbranch Organization (INLAC) elaborates and publishes indexes of market evolution, but most of the contracts are at a fixed price or self-referenced to the average price resulting in the sector (FEGA). The contract clauses, both in terms of price and volume, are proposed by customers to individual farmers, with little room for negotiation.

There are one Producer Organization (PO) in Galicia (Ulega), but their activity in negotiating contracts is nil. The minimum size required in Spain to form a PO (200 million litres) and the lack of management resources can be limiting factors in its operation as a negotiating tool.

Milk price to producers is in Galicia 10% lower than in the rest of Spain, because of the low articulation of the regional dairy sector, the weak development of the processing industry and its peripheral situation with respect to the main consumption areas. Spot milk has a quite high weight, being marketed partly by producer cooperatives and partially by private operators.

PART 5

SWOT ANALYSIS OF THE GALICIAN DAIRY SECTOR

S — STRENGTHS

- Favourable agro-climatic conditions for fodder production
- High density of farms in producing areas, that reduces collection costs and allows competitive services to farms
- Consolidated leadership in milk production in Spain
- Good image of product quality in the Spanish market

W — WEAKNESSES

- Limitations on the territorial base of farms
- Production too depending on concentrate feed
- Reduced processing capacity over the produced milk
- Absence of polyvalent industrial groups
- Low degree of industrial integration
- Weakness in the organization of the chain
- Low level of participation of farmers in the processing of their production

O — OPPORTUNITIES

- Potential to increase forage area of farms
- Deficit position of Spain as the relevant market
- Availability of milk as an incentive for the installation of new dairy processing facilities
- Expansion options on differentiated types of cheese

T — THREATS

- Competence of the Eucalyptus afforestation in the enlargement of the forage area of farms
- Risk of relocation of milk production in Spain towards the areas of concentration of the dairy industry and consumption
- Absence of instruments for managing short-term or structural milk surpluses due to weak organisation and low processing capacity
- Downward pressure on milk prices and risks of abandonment of milk collection by some companies
- Succession problems in a substantial part of dairy farms

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