

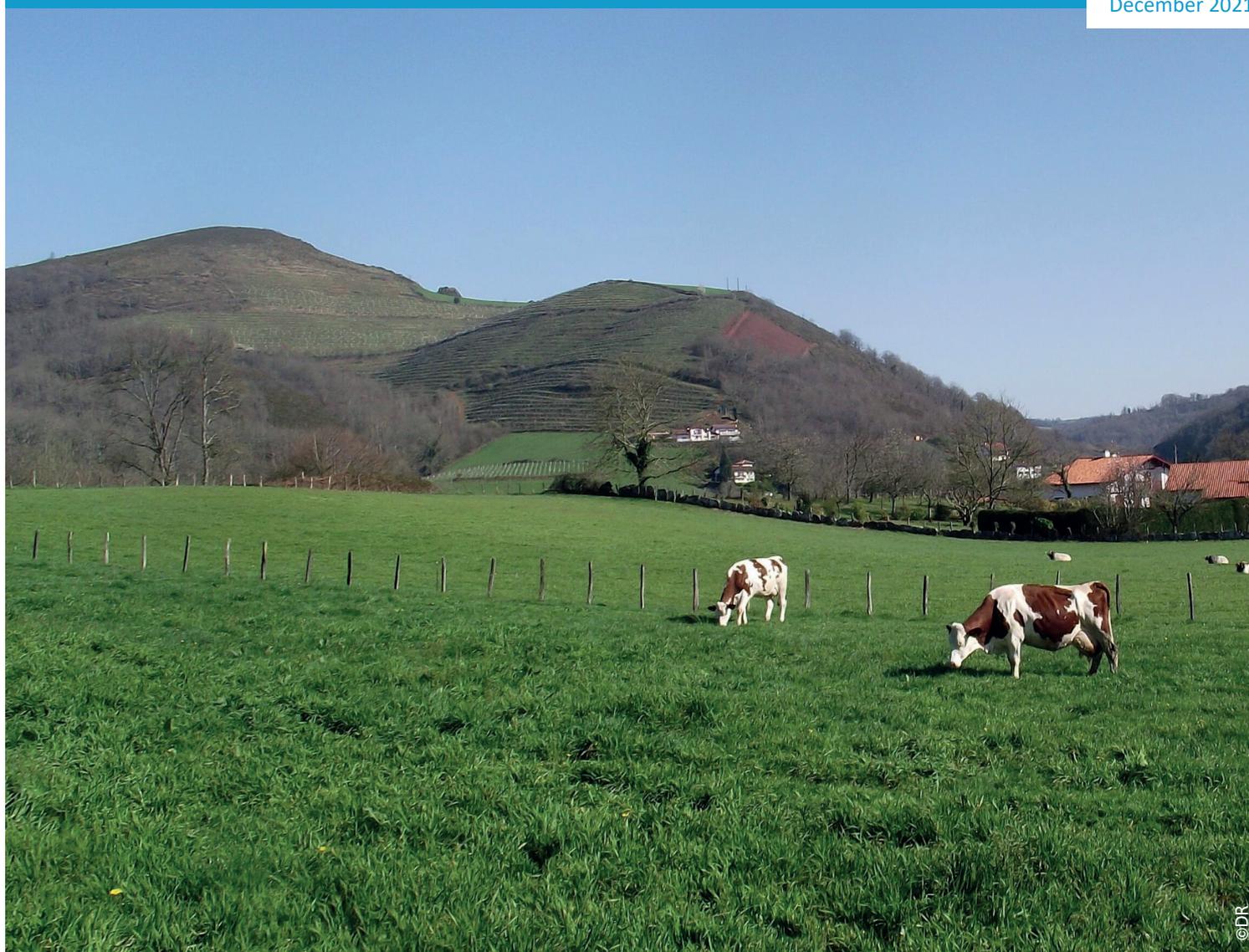


WORK PACKAGE 4
DAIRY SECTOR ANALYSIS

Analysis of the “Basque Country” region dairy sector: skills and dynamism



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PART 1

MILK PRODUCTION AND DAIRY SECTOR

The Basque Country is a small region (7,300 km²) located in the North of Spain, which has a population of 2.2 million people. The climate is defined as Atlantic, with warm temperatures (monthly average, 3-22°C) and wet conditions (800-1,500 mm/year) throughout the year. Farms (cattle, sheep, goat, horses, pigs, poultry) are overall small-sized and agricultural land (mostly range from 5 to 30 ha) is usually spread in several small plots. Pluriactivity is another main feature of the agricultural sector, as it is usual to combine livestock (different species and aptitudes) and agricultural production (small scale), and even working in the industry or services. Nonetheless, dairy cattle production is particularly different as it is the main sector in which animals are raised in highly specialized farms. Dairy activity is currently concentrated in three main areas from The Basque Country: Karrantza Harana in the west (Bizkaia province), Asteasu-Aia in the east (Gipuzkoa province) and Aramaio and Aiara in Araba province (Figure 1).

The generational renewal and the milk consumption as challenges of the dairy sector

It is estimated that 1,500 people are directly employed in the sector. The economic impact of dairy cattle sector reached 60 million € in 2015, which accounted for 12% of the regional Gross Agricultural Product (GAP). Dairy farmers are, on average, 53 years old, and the generational renewal is one of the main threats to solve for the next years. On average, 2.3 working units (WU) are involved in the farms. Indeed, 60% of farms were owned for less than three farmers in 2014. Women were actively present in 27% of the farms. The reduction of milk consumption at regional level is another challenge for the future. The drop of milk consumption was 34% over the last decade (milk consumption in 2015 was 70.7 milk kg per capita). Efforts are being done by the regional authorities to encourage citizens to consume regional milk and their derivatives.

According to data reported by FEGA (Spanish Agrarian Guarantee Fund), the volume of milk production in The Basque Country has historically represented 2 to 4% of the national production (Figure 2).

FIG.1: DISTRIBUTION OF DAIRY CATTLE (>2 YEARS) IN THE BASQUE COUNTRY

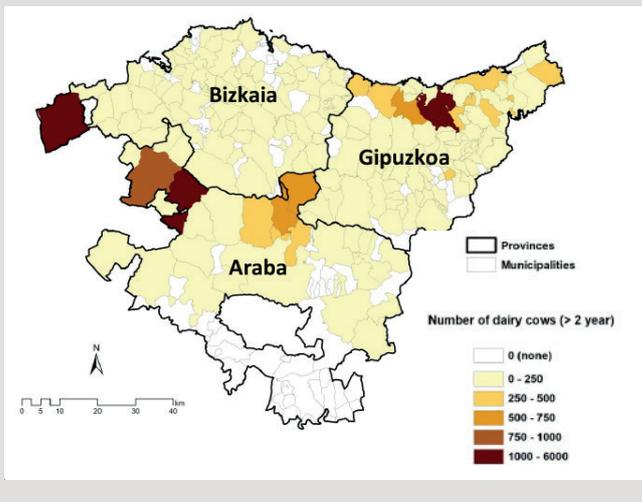
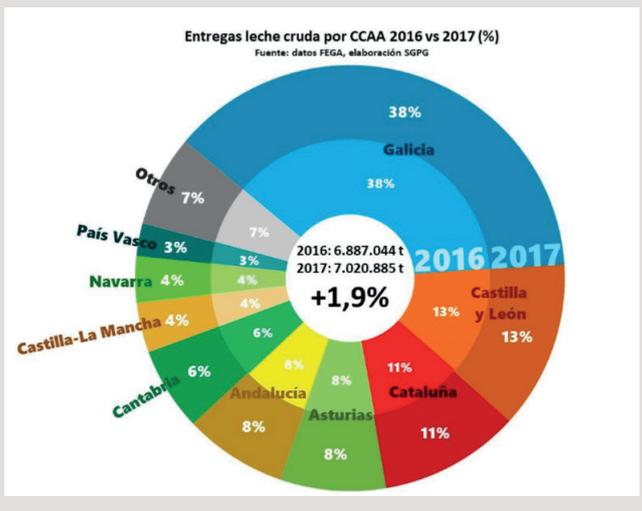


FIG.2: MILK DELIVERIES BY REGION IN SPAIN, 2016 VS 2017

Source: Fega Data, <http://publicacionesoficiales.boe.es>



The intensification of the production systems

It is remarkable that since the implementation of European milk quota system in 1986, dairy farmers tended to intensify their activity. Intensification (fewer and larger farms) is still ongoing in the region. The number of dairy farms decreased from 647 units in 2007 to 330 units in 2017, which led to reduce the regional dairy cow population from 28,000 to 25,500. On the contrary, other factors like herd size (from 66 to

85 cows) or milk yield per cow (from 7,973 to 8,500 milk l/cow/y) increased in the same period (Figure 3). As a result of this intensifying trend, the regional total milk production dropped from 215,000 tons in 2007 to 175,000 tons in 2017.

Nonetheless, the regional milk production has slightly increased (\approx 2-3%) since the end of milk quota system in 2015 due to increasing herd sizes. The share of cows in farms of different sizes has also significantly changed during the last decade. The number of cows in the largest farms (> 100 cows) increased from 10.6% in 2007 to 18.0% in 2017. The same trend was observed in farms rearing 50 to 100 cows as the share rose from 21.6% to 35.0% in the same period. As a consequence, the ratio of cows in the smallest farms (< 20 cows) decreased from 30.7% to 16.0%. Milk production per annual dairy working unit (WU) also increased from 210,487 milk kg /WU in 2007 to 225,077 milk kg/WU in 2017.

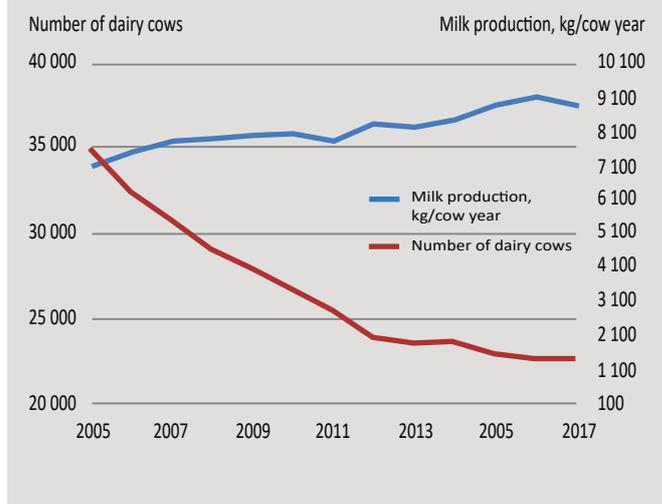
A large part of purchased feed in the dairy cow’s diet

Land use parameters also point out the same intensifying trend. Milk production per hectare of fodder area enhanced from 18.4 to 24.3 milk tons/ha, whereas the number of dairy livestock units (LU) per hectare also increased from 2.70 to 2.98 LU/ha. Intensification is also detected by nutritional factors such as the increasing demand of concentrates over the last decade. Mean annual concentrate intake at regional level increased from 2,726 kg/cow/y in 2007 to 2,836 kg/cow/y in 2017. Nonetheless, lactating herds from the largest farms may annually consume even up to 4,500–5,500 kg/cow/y. The share of purchased feed in the diets increased slightly during the same period (from 75 to 77% of the diets). Grazing, which is practiced from March to October, is mainly oriented to young cattle (calves and heifers, occasionally dry cows). Few farmers graze with lactating cows. Finally, the increasing number of automatic milking robots in the farms (data not available) also shows that intensification is still running in the Basque Country.

Nutritional costs account for 50% of the mean milk price received by the farmers (data from 2013 to 2018). Nonetheless, it is remarkable that these costs may even reach up to 58% of milk price in those farms in which forage autonomy is low (forage production < 25% of cattle requirement). Home-grown forages may

FIG.3: EVOLUTION OF MILK PRODUCTION PER COW AND NUMBER OF DAIRY CATTLE UNITS IN THE BASQUE COUNTRY.

Source: Data: Eustat, 2017. NEIKER



represent up to 35% of feed intake in lactating cows. Fodder area mainly comprises grasslands (permanent, ploughed as needed or in rotation with maize) as they account for more than 90% of the land. Grasslands are mostly destined to grass silage or hay production in order to feed confined cattle at the stalls (grass silage for lactating cows, grass hay for young cattle). The remaining agricultural plots are usually destined to maize production for silage. Alfalfa production is still very scarce in the region. Farmers own about 40-50% of their fodder area, which means that the remaining land surface must be taken in rent. Because of the high prices of grasslands in The Basque Country (12,950 €/ha), renting is currently the main way to increase the land availability. Fodder area is mainly fertilized with dairy cattle slurry, which is mostly applied in spring (April/May) and autumn (September/October). The use of mineral fertilization has decreased during the last years. The splash plate method and band spreaders are the commonest application methods although umbilical systems and injectors may be also found. There are currently different strategies running in the region to handle the exceeding slurry in a cooperative way (slurry distribution trucks, commonly managed covered storage tank). The next challenge for Basque dairy farmers will be the adaptation to national RD 980/2017, which will regulate in the next future the requirements for the correct slurry application.

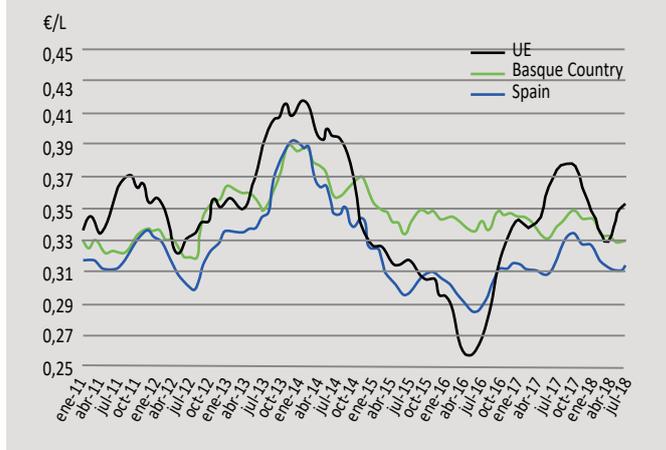
PART 2

PROCESSING INDUSTRY

According to data reported by FEAGA (2018), there are currently 10 dairy plants in the territory. More than 95% of Basque milk is delivered to regional industries, whereas the remaining milk is delivered to national companies. KAIKU S. Coop (www.cooperativakaiku.es/cast/) and IPARLAT S.A. (www.iparlat.com/) are the main dairy collector, which handle more than 75% of the milk produced. Due to the wide share of cooperatives, in which farmers are even partners, milk prices have historically remained steadier in this region than in the rest of Spain (Figure 4).

Prices have ranged from 0.33 €/milk (current price) to 0.38 €/milk over the last 7 years. In accordance with social consumption habits, raw milk is mainly (> 90%) processed as UHT milk. Fresh (pasteurized) milk production and consumption is still scarce. Butter and yoghurts are the main milk-derived products. Despite punctual farms are currently producing cow milk derived cheese, the volume of this product is still negligible in the market. It is remarkable

FIG.4: MILK PRICE PAID TO FARMERS (€/L)
Source: Behatoki number 180, 2018. HAZI Fundazioa. Eusko Jaurlaritza



that from recent years onwards, organic milk production is increasing in the region. There are currently five organic farms, which yearly produce 490 milk tons. Organic farms produce pasteurized milk, different types of cheese and natural yoghurts, which are sold by direct sales either at the farm or in local fairs (markets) or small shops. Milk and dairy products labelling will have to show their origin of production and processing based on the recent national regulation (RD1181/2018).

PART 3

SWOT ANALYSIS OF THE BASQUE COUNTRY DAIRY SECTOR

S	W	O	T
STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Farms with fodder area available • Climate: warm and rainy • Important dairy industry • Important network of stakeholders aiming to improve system resilience 	<ul style="list-style-type: none"> • Generational renewal • Land cost • Life quality • Difficult to start new business • Low margins • Dispersed farm location 	<ul style="list-style-type: none"> • Quota abolition • Increasing interest in organic products and grazing management • Consumer’s preference for local products • Young generations ready to change 	<ul style="list-style-type: none"> • Consumer’s perception • Difficulties to face changes

KEY FIGURES – YEAR 2017 – BASQUE COUNTRY

DAIRY PRODUCTION

179536 tons of milk delivered (-19% in 10 years) corresponding to:



2,5% Of national deliveries

2 main collectors



11,4% of the turnover of regional agriculture (2015-2018)



22 569 dairy cows including:

- > 10% in farms holding more than 100 cows
- > 73% in farms holding less than 50 cows

Organic milk represents **490 tonnes**



LIVESTOCK AND FARMING

588 dairy farms (-30% in 10 years)



with in average: **60 cows/farm** (+10 in 10 years) producing:



8 172 kg/cow/year (+7% in 10 years)

3.0 tons of concentrate per cow/year



Animal stocking rate: **3** LSU/ha

(Source: Neiker)



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