Dairy: European market, consumer trends, and innovation

May 2021

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1. Introduction

The present consumer and market report, titled "**Dairy: European market, consumer trends, and innovation**", provides an analysis of the dairy and alternative-dairy sector, with a special focus on health. The geographical scope of the report is Europe, spotlighting the Atlantic Area countries (France, Ireland, Portugal, Spain, and United Kingdom).

In the report, the production, value and volume of sales of the sector, as well as product launching, main positionings, consumer trends and market health claims were evaluated. Milk, as the raw material for the manufacturing of derivate dairy products, received a special attention in this report in terms of production, sales, as well as market value and volume. The main information sources have been Innova Database, Innova Markets Insights, GlobalData, and European Commission databases, among others.

The present report is the first of a series of "consumer, market and innovation reports" that represent one of the several innovation support services for SMEs implemented in the scope of the project "**AHFES - A quadruple helix Atlantic Area healthy food ecosystem for growth of SMEs**" (which are all presented in the figure below). The aim of this service, delivered by the Galician Food Cluster (Clusaga), is to provide to Atlantic Area SMEs working in the healthy food segment with information and knowledge helpful to guide their strategies within a specific market sector or country, as well as for the preparation of their product or commercial strategies.

AHFES: A quadruple helix Atlantic Area healthy food ecosystem for growth of SMEs

AHFES (*Atlantic Healthy Food EcoSystem*) is a European project funded by the Interreg Atlantic Area programme. The purpose of AHFES is to improve the overall competitiveness and growth of SMEs in the value chain of healthy food & lifestyles by contributing to enhancing a transnational innovation ecosystem that helps SMEs access knowledge, partners and markets and align their products and services to consumer needs and expectations.

Throughout the project duration (form March 2019 to August 2022), AHFES will deliver the following outputs:

- Intelligence gathering on current consumer trends regarding healthy food and lifestyles
- Mapping of the Atlantic Area healthy food and lifestyles innovation ecosystem
- Facilitation of networking and support in building transnational innovation partnerships
- Innovation training actions for SMEs
- Services tailored to SME needs

AHFES is implemented by the following organisations:

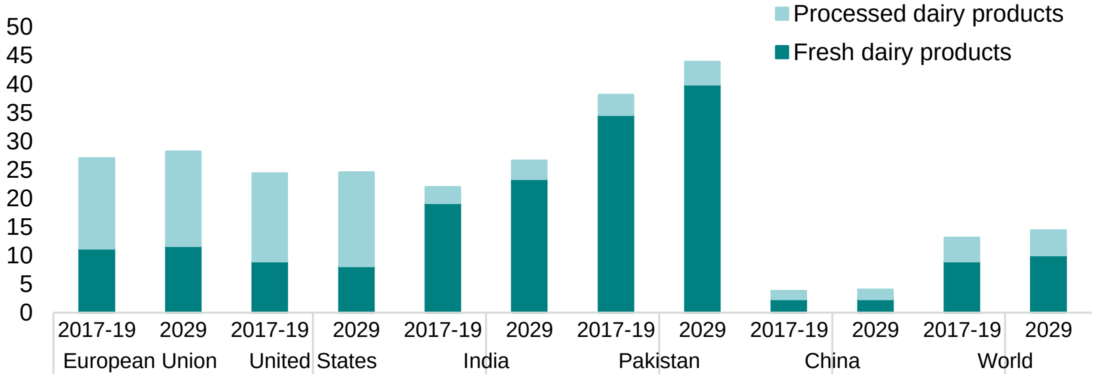
2. The market: global and European perspective

2.1 Overview of the global dairy market

In the latest report on the global dairy market launched in April 2021, the Food and Agriculture Organization of the United Nations (FAO) highlighted the following:

- The share of fresh dairy products in world global consumption is expected to increase over the coming decade due to a stronger demand growth in India and Pakistan in particular. However, in Europe and North America, overall per capita demand for fresh dairy products is stable to declining.

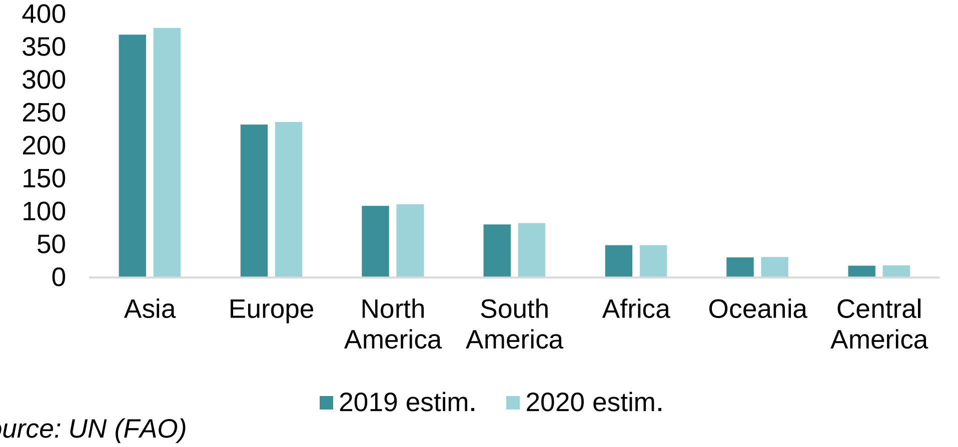
Per capita consumption of processed and fresh dairy products (Kg/capita/year)



Source: OECD-FAO

- Global milk production reached nearly 906 million tonnes in 2020, 2.0% up from 2019, driven by output increases in all geographical regions, except in Africa, where production remained stable. Milk volume increases were highest in Asia, followed by Europe.

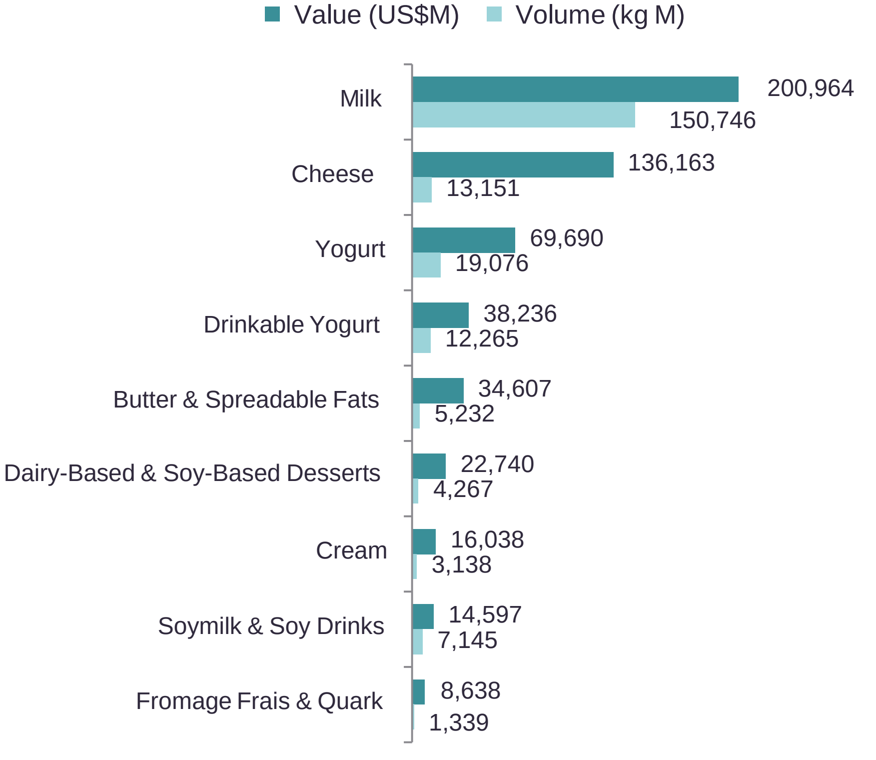
World milk production by region (million tonnes)



Source: UN (FAO)

Milk is the main dairy product in terms of market value and volume, followed by cheese and yogurt. For the period 2019-2024 it is predicted to see a growth of 4.9% in volume and of 5.2% in value. On the other hand, yogurt is the fastest growing category in terms of both value and volume after milk, and drinkable yogurt is forecast to undergo the strongest growth in value and volume, indicating the potential of convenience-focused product formats.

Dairy market value and volume



The global milk category continues to grow, albeit at a slower rate than other dairy categories. As convenience and portability become more influential purchase drivers in line with busier lifestyles, opportunities for the cheese category are broadening. Innovation highlights include on-the-go meals and snacking occasions. Drinkable yogurt is the fastest-growing dairy globally in both value and volume terms, what illustrate the potential of convenience consumption formats. Butter continues to be hampered by consumer concerns about saturated fats, but this is somewhat counterbalanced by butter's image as natural, authentic, and artisan.

Volume growth (US$M), 2019–24

Top three		CAGR 2019–24
Drinkable yogurt	+7,668	+10.2%
Yogurt	+3,994	+3.9%
Soy milk/drinks	+1,062	+2.8%

Value growth (US$M), 2019–24

Top three		CAGR 2019–24
Drinkable yogurt	+31,142	+12.7%
Yogurt	+34,281	+8.3%
Butter/spreadable fats	+8,352	+4.4%

Source: Global Data

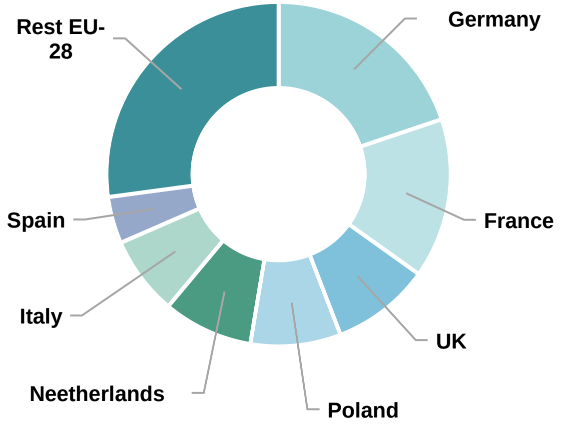
2.2 Dairy production in Europe

According to the Food and Agriculture Organization of the United Nations (FAO) milk output in Europe rose to 236 million tonnes in 2020, 1.6% higher than 2019, mainly due to production increases in the European Union.

The main European milk-producing countries are Germany, France, the United Kingdom, Poland, the Netherlands, Italy and Spain. Together they account for almost three quarters of total EU-28 production.

An equivalent of about 1/3 of European milk production is being traded within the European Union (EU) internal market in the form of various dairy products. Also, the EU exports a significant part of its production to third countries and with Europe accounting 38% share of global dairy category sales value, it is clear that the EU is a major player on the global dairy market.

EU-28 main milk-producing countries



Source: Eurostat

In the EU, cow's milk production is the most important within the dairy sector, which in turn is the sector that contributes the most to total livestock production. The EU produces around 25% of the world's total cow's milk.

Although the bulk of EU milk production comes from cows, there are minority productions of goat, sheep and buffalo milk.

EU-28 milk production by animal origin (thousands tonnes)

	2017	2018	2019
Cow's Milk Production	156,000	157,412	158,240
Sheep's Milk Production	2,800	2,800	2,700
Goat's Milk Production	1,928	2,300	2,350
Buffalo's Milk Production	270	274	280

Source: Mercasa, Eurostat

Almost all the milk produced and collected goes to the dairy industry to be processed into various dairy products, such as cream, butter, cheese, milk powder, whey products and casein. Below are some production data for dairy products.

EU-28 dairy production (thousands tonnes)

	2017	2018	2019	2020
Drinking milk	30,274	29,526	28,613	29,384
Cream for direct consumption	2,777	2,702	2,764	2,780
Raw cream delivered to dairies	99	120	128	-*
Acidified milk (yoghurts and other)	8,128	8,190	8,120	8,197
Butter	2,153	2,183	2,273	2,323
Rendered butter and butteroil	101	97	104	-
Other Yellow Fat Dairy Products	217	209	204	-
Total Cheese	10,169	10,253	10,454	-
Cheese from cows' milk	9,460	9,536	9,631	9,793
Processed Cheese	584	624	628	-
Concentrated milk	939	881	913	993
Milk and cream powders, excl. SMP (WMP)	810	792	806	795
Skimmed milk powder (SMP)	1,513	1,520	1,505	1,556
Drinks with a milk base	1,244	1,758	1,792	-
Whey (in powder or in block)	1,867	1,943	2,019	-
Caseins and caseinates	121	126	128	-
Other fresh products (milk-based desserts, ice cream)	2,270	2,101	2,214	-

Source: CLAL, Eurostat

**Cells with a dash indicate no data available*

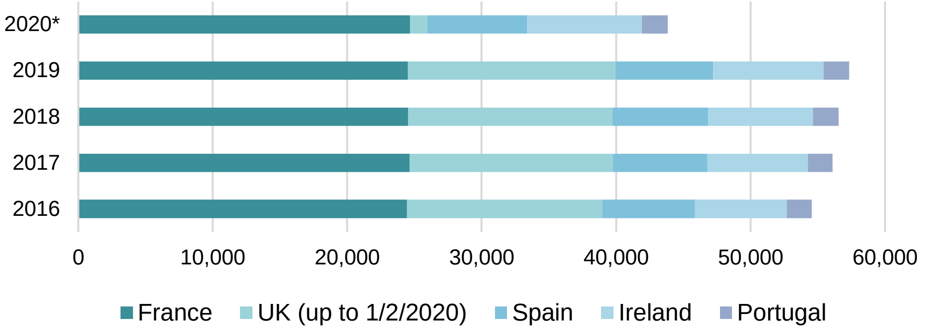
Dairy production in the EU accounted for 14% of Final Agricultural Production and 33.7% of Final Livestock Production in 2019, slightly lower percentages than in the previous year. However, the dairy sector remains the second biggest agricultural sector in terms of output value after the vegetable and horticultural plant sector and before cereals.

2.3 Dairy production in AHFES countries

This section focuses on the Atlantic Area countries, namely: France, Ireland, Portugal, Spain, and United Kingdom.

Bearing in mind that the bulk of dairy production comes from cow's milk, the following chart analyses the evolution of cow's milk production delivered to dairies in these countries. France stands out as the largest producer.

Production of total raw cow's milk delivered to dairies (Thousand tonnes)



Source: Agri-Food Data Portal (European Commission)
**UK production data are taken into account only up to 01/02/2020.*

The latest data analysed by the European Commission on the production of different categories of dairy products before the UK's exit from the EU are included below.

Dairy production by category, 2019 (Thousand tonnes)

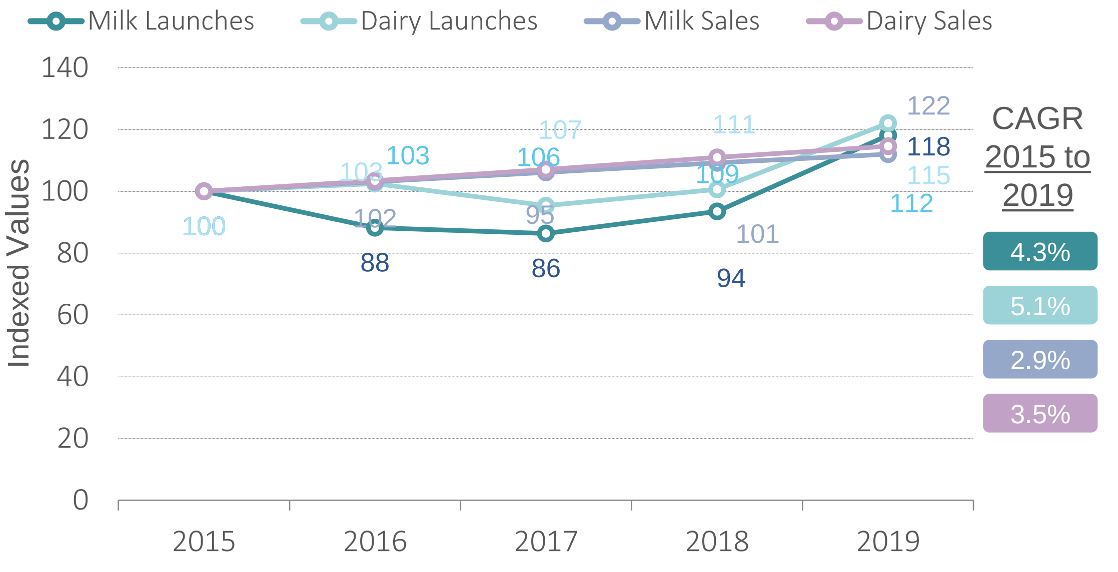
	France	UK	Ireland	Portugal	Spain	Europe
Acidified milk (yoghurts and other)	1,370.43	436.60	-*	115.97	980.95	8,121.79
Butter, incl. dehydrated butter and ghee, and other fats and oils derived from milk; dairy spreads	414.23	187.90	251.07	30.49	44.44	2,271.89
Cheese from cows'milk (pure)	1,695.65	470.90	-	65.15	196.09	9,347.98
Concentrated milk	64.70	132.40	-	-	35.31	1,045.65
Cream for direct consumption	514.14	306.10	20.95	22.83	133.53	2,761.93
Drinking milk	3,007.99	6,332.80	549.42	695.98	3,134.97	28,584.17
Milk and cream powders, excluding skimmed milk powders	108.93	20.00	-	9.12	11.68	672.79
Skimmed milk powder	415.52	85.90	134.36	23.63	12.96	1,596.78
Total raw cow's milk delivered to dairies	24,526.31	15,428.20	8,226.62	1,892.00	7,265.21	157,861.5

Source: Agri-Food Data Portal (European Commission)
**Cells with a dash indicate no data available*

2.4 Dairy sales in Europe evolution

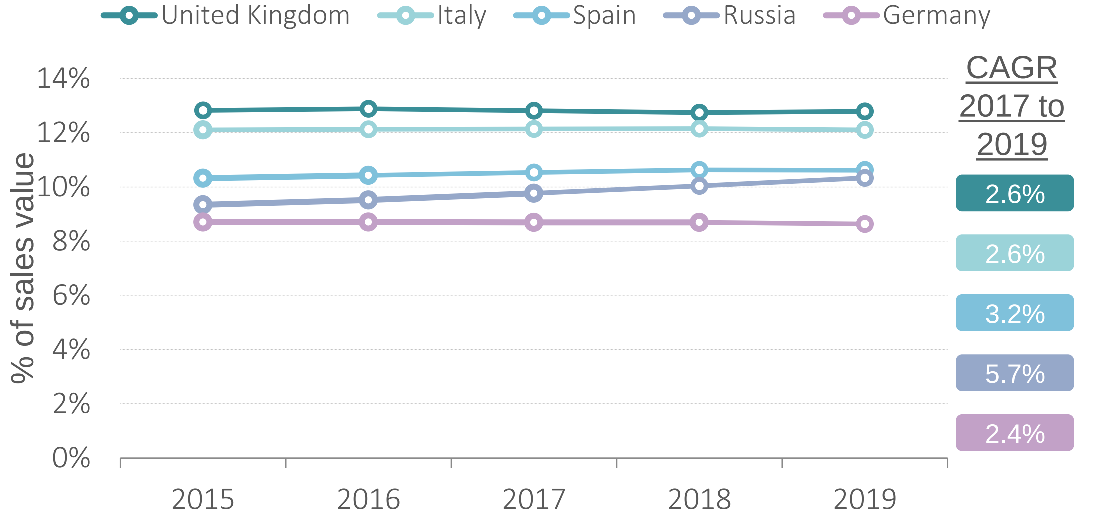
Europe ranks second for milk launches and sales value in 2019. Milk sales and launches show a positive growth with a CAGR of +2.9% and +4.3% respectively. Milk sales follow the dairy category average growth, but milk launches are below it.

Relative development of Milk launches and sales vs. Dairy category in Europe



Source: Innova Market Insights

Top 5 countries for Milk sales in Europe



Source: Innova Market Insights

2.5 International trade of dairy products globally

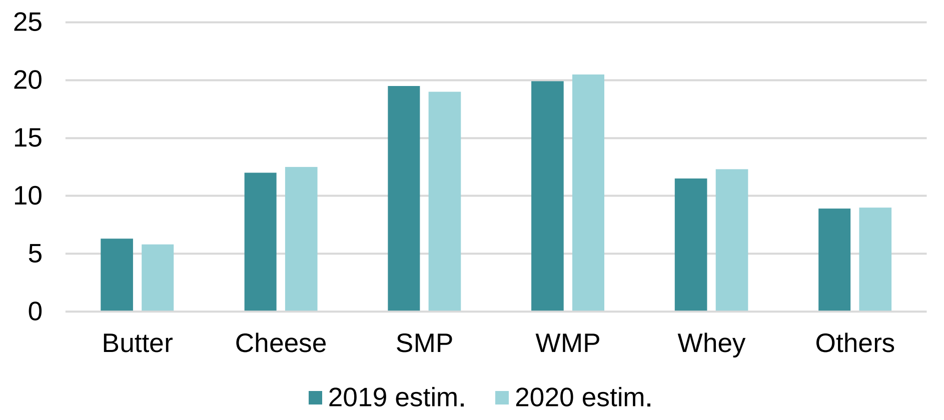
International dairy trade increased by 1.2% to nearly 79 million tonnes in 2020, principally due to increased imports by a few countries, namely China, Algeria, Saudi Arabia and Brazil.

China remains the world's largest importer of dairy products. In 2020 purchased 17 million tonnes of milk products, a 7.4%increase over 2019, partly induced by the early end of COVID-19 lockdowns but driven mainly by rising per capita consumption among affluent and urban consumers and expanding consumer base.

Concerning exports, New Zealand, the United States of America, Belarus and the EU supplied much of the expanded international import demand. Overall, increased national milk production and lower food services sales led to increased export availabilities.

The marginal increase in international dairy trade reflected increased sales of whole milk powder – WMP (+1.9%), whey powder (+8.0%), cheese (+4.1%) and all other dairy products (+0.5%) more than compensating reductions in exports of skimmed milk powder – SMP (-2.3%) and butter (-6.0%).

Composition of global dairy exports (million tonnes, milk equivalent)



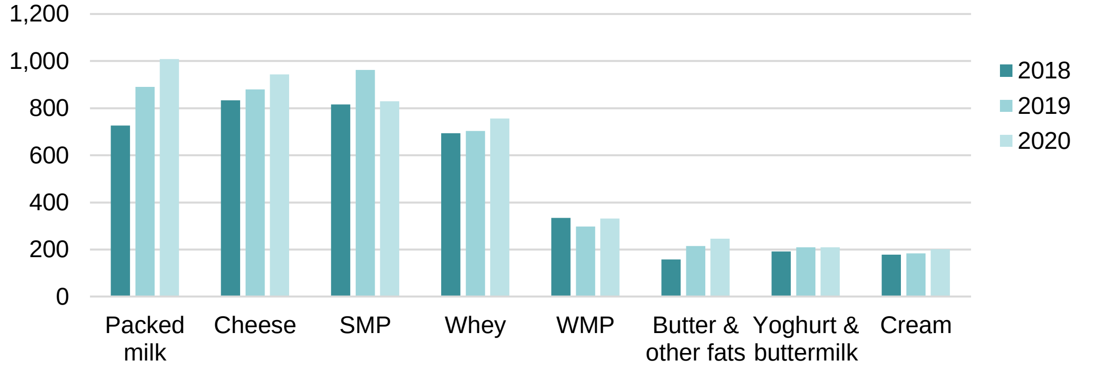
Source: UN (FAO)

2.6 International trade of dairy products in the EU

The EU is the world's biggest exporter of cheese and, more generally, one of the world's top three players for dairy exports, along with New Zealand and the United States. The EU's main dairy products for exportation are cheese, skimmed milk powder (SMP) and packed milk. In 2020, Japan was the top importer of EU cheese, followed closely by United States. China was the top importer of packed milk and SMP.

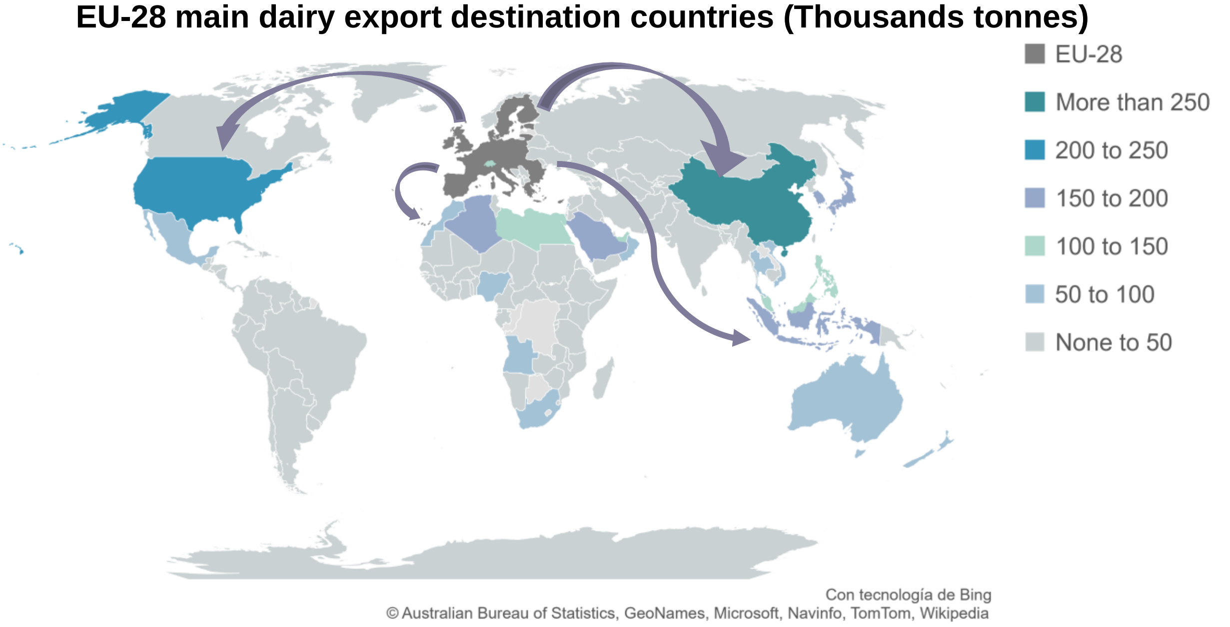
Both EU production and exports of dairy products are expected to continue their increase in line with the growing global demand.

EU-28 main dairy products export data (thousands tonnes)



Source: CLAL, Eurostat

EU-28 main dairy export destination countries (Thousands tonnes)



Source: Agri-Food Data Portal (European Commission)

2.7 Top companies globally

Rabobank has published its 2020 Report on the global top 20 dairy comanies by sales. Half of the companies in the ranking are European. Four of them are based in France (Lactalis, Danone, Sodiaal and Savencia), two in Germany (DMK and Müller), two in the Netherlands (Friesland Campina and Unilever), one in Denmark (Arla Foods) and one last in Switzerland (Nestlé).

Global dairy companies Top 20, 2020

2020	Company name	Country of Origin	Dairy turnover (USD billion)*
1	**Nestlé**	Switzerland	22.1
2	**Lactalis**	France	21.0
3	**Dairy Farmers of America**	US	20.1
4	**Danone**	France	18.2
5	**Yili**	China	13.4
6	**Fonterra**	New Zealand	13.2
7	**FrieslandCampina**	Netherlands	12.6
8	**Mengniu**	China	11.9
9	**Arla Foods**	Denmark/Sweden	11.8
10	**Saputo**	Canada	11.3
11	**DMX**	Germany	6.5
12	**Unilever**	Netherlands/UK	6.4
13	**Meiji**	Japan	5.9
14	**Sodiaal**	France	5.7
15	**Savencia**	France	5.6
16	**Gujarat Co-operative Milk Marketing Federation**	India	5.5
17	**Agropur**	Canada	5.5
18	**Kraft Heinz**	US	5.4
19	**Schreiber Foods**	US	5.1
20	**Müller**	Germany	4.9

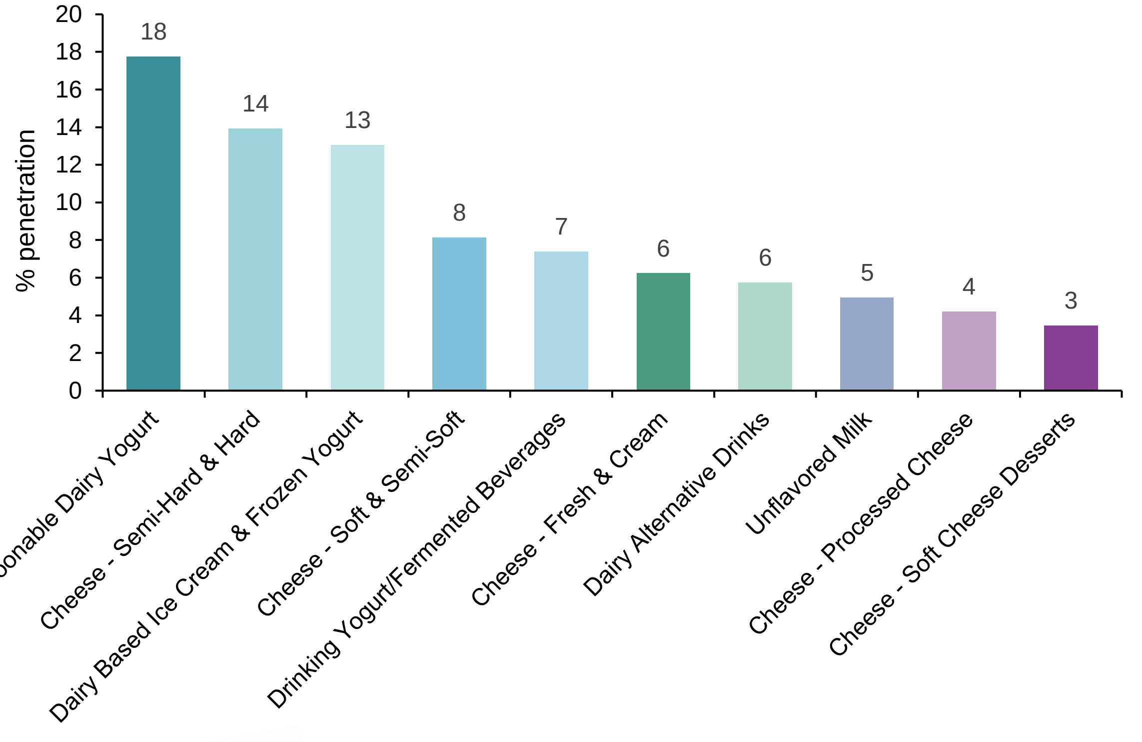
Source: Rabobank, 2020
**Rabobank bases its data on dairy turnover in 2019, which defines as dairy sales only, based on 2019 financials and M&A transactions completed between January 1 and June 30, 2020.*

3. Launching of healthy dairy products and positioning

3.1 New launches of dairy products in Europe

Spoonable yogurts lead the list of new innovations, followed by semi-hard and hard cheese, dairy based ice cream and frozen yogurt, and soft and semi-soft cheese. The subcategories presenting the highest growth in the last five years are dairy based ice cream and frozen yogurt (5.53%), semi-hard and hard cheese (5%), and dairy alternative drinks (4.39%).

Dairy launches in Europe (2016-2020)



Strawberry flavoured thick and fruity Irish yogurt **(Ireland)**.

Strawberry flavoured shake made with coconut milk **(United Kingdom)**.

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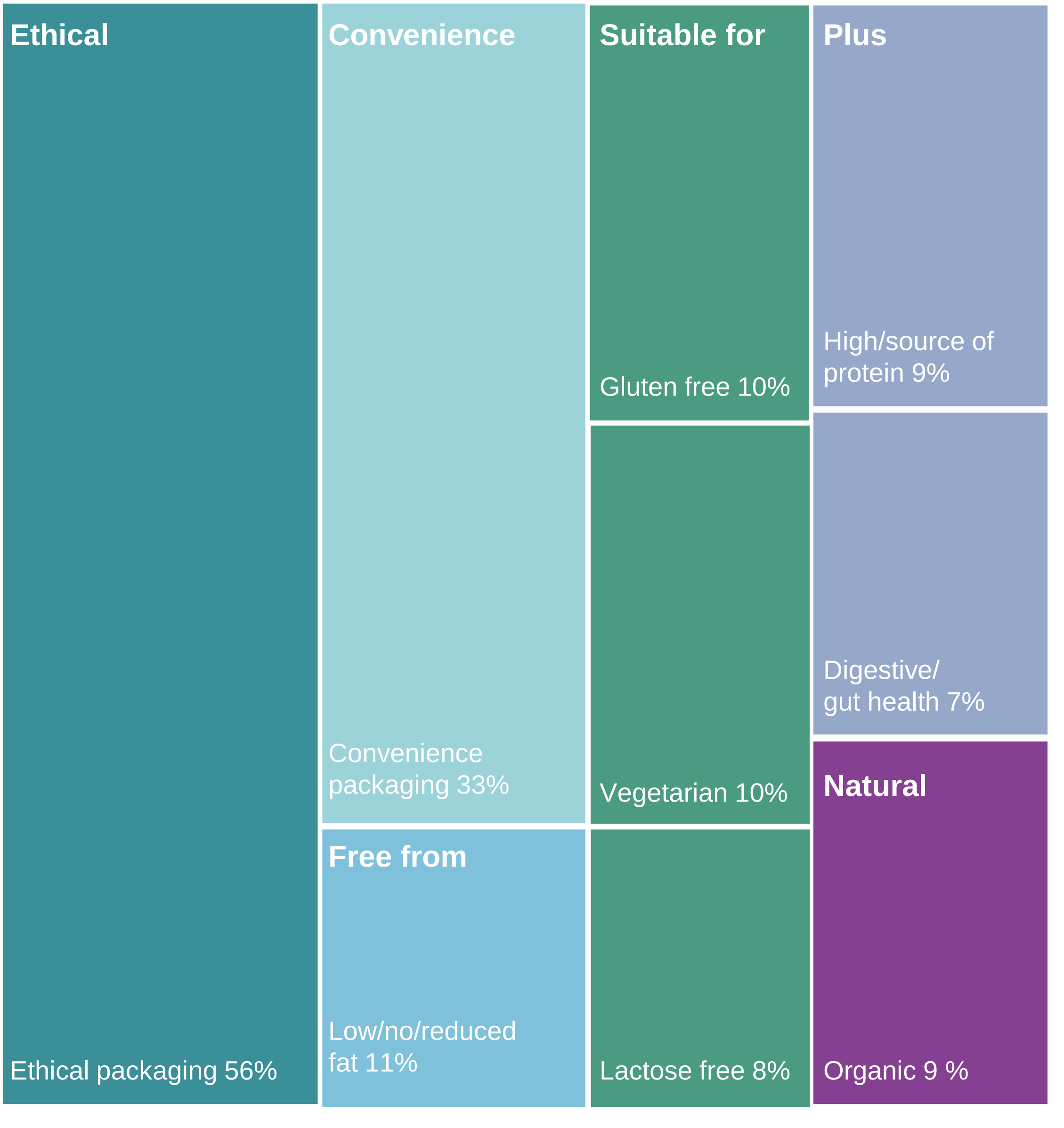
3.2 Product positioning in the European dairy market

The dairy sector is positioned as the second food category with the highest number of new launches between 2016 and 2020. Convenience packaging is the main positioning claim, which is in line with the market trend of on-the-go products. Likewise, the claim "ethical" is also recurrent also responding to a growing trend related to sustainable production and respect for the environment.

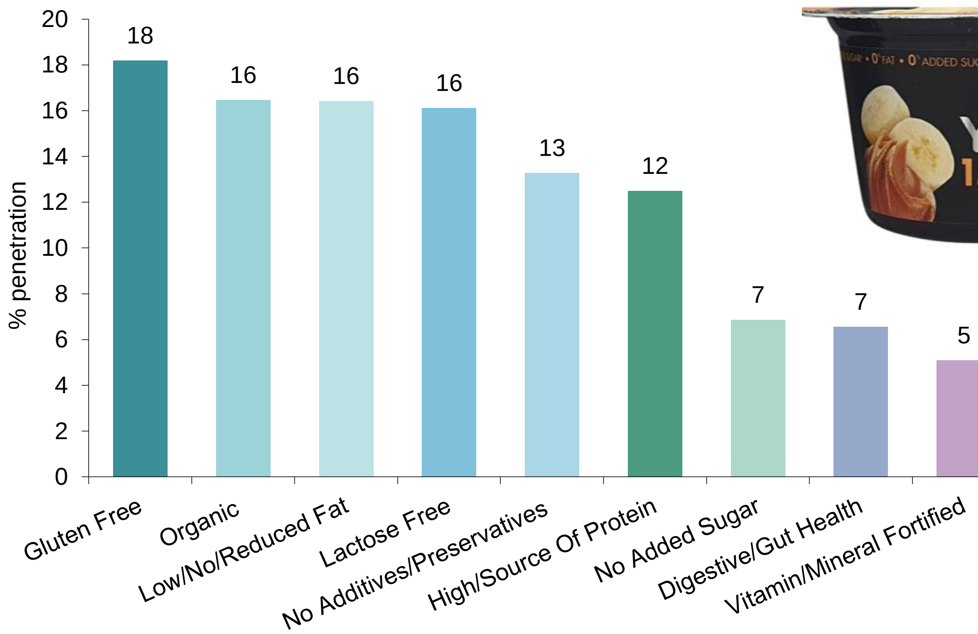
Passive and active health claims are widely present in the new launches and show market stability. Passive health claims such as such as low/no/reduced fat, lactose free or no additives/preservatives are present in almost half (44%) of the dairy launches, respectively.



3.3 Health claims in the European dairy market

With a focus in health claims, the predominant are gluten-free, organic, low/no/reduced fat, lactose free and no additives/preservatives. The main growing trends are no added sugar (11.29%), natural (6.68%) and high/source of protein (12%). Consumers have more responsibility for what they consume and increasingly opt for healthy products and balanced diets. Therefore, the consumption of “free” or “no added” products, such as low/no/reduced fat, no additives/preservatives or lactose free continues to increase. Similarly, the consumption of organic food has experienced a significant growth in recent years in the global market, and the dairy sector is not an exception.

Top 10 health claims in Europe (2016-2020)



Banana and peanut butter flavoured skimmed **fermented milk product with protein** **(Spain)**.

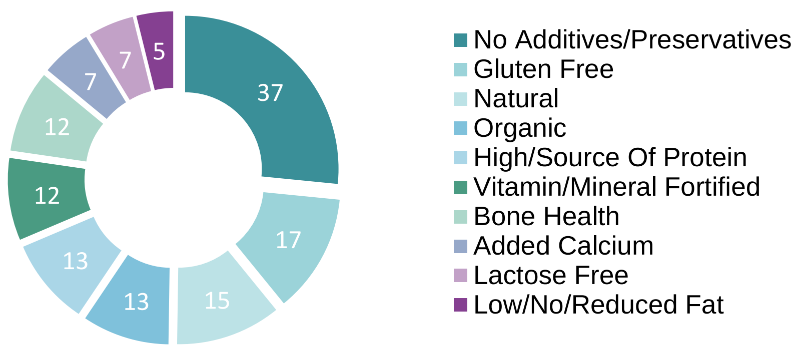
Raspberry flavoured Greek style yogurt that **with 0% added sugar** **(United Kingdom)**.

3.4 Targeting to specific age groups

As nutritional needs change with different life stages, companies target specific age groups stressing food components that cover their particular demands to promote health.

Nutritionally complete milk formulas for babies and growing-up milk launches present an increasing demand, as well as products focused on children between 5-12 years old, with health claims such as no additives/preservatives, gluten free, and source of calcium or vitamins.

Health claims in launches of dairy products for children 5-12 years

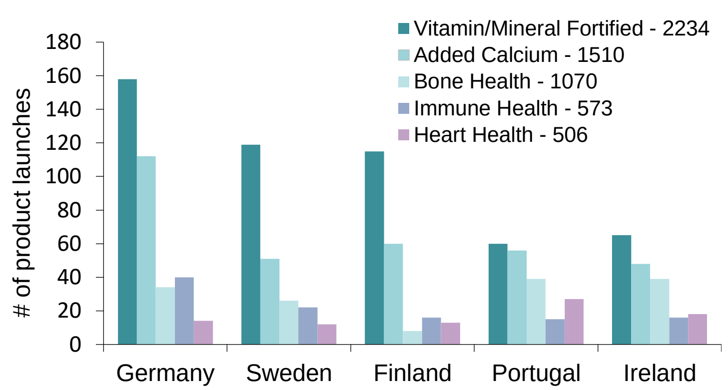


Stage 2 HA follow-on milk formula powder for babies (**France**).

Strawberry and banana flavoured yogurt drink, a **source of calcium for bones, no added colours nor artificial sweeteners** (**United Kingdom)**.

Several health claims are used to attract the attention of a consumers looking for products for a healthy ageing. Vitamin/mineral fortification, added calcium, bone health, energy / alertness and immune health are common claims used targeting this range of age.

Launches with claims related to aging



Margarine, with a **source of calcium and vitamin D2, ideal for people over 50 years of age, maintaining a healthy bone structure** (**Netherlands**).

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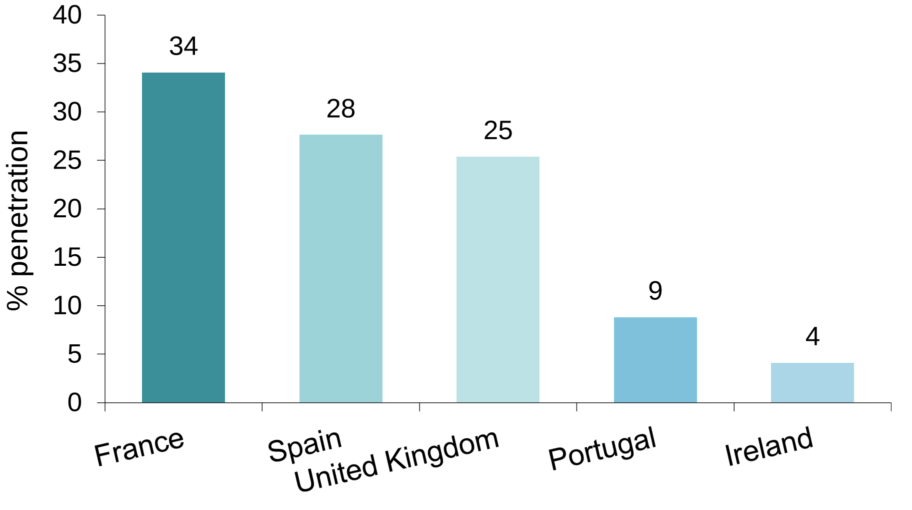
3.5 Launches in AHFES countries

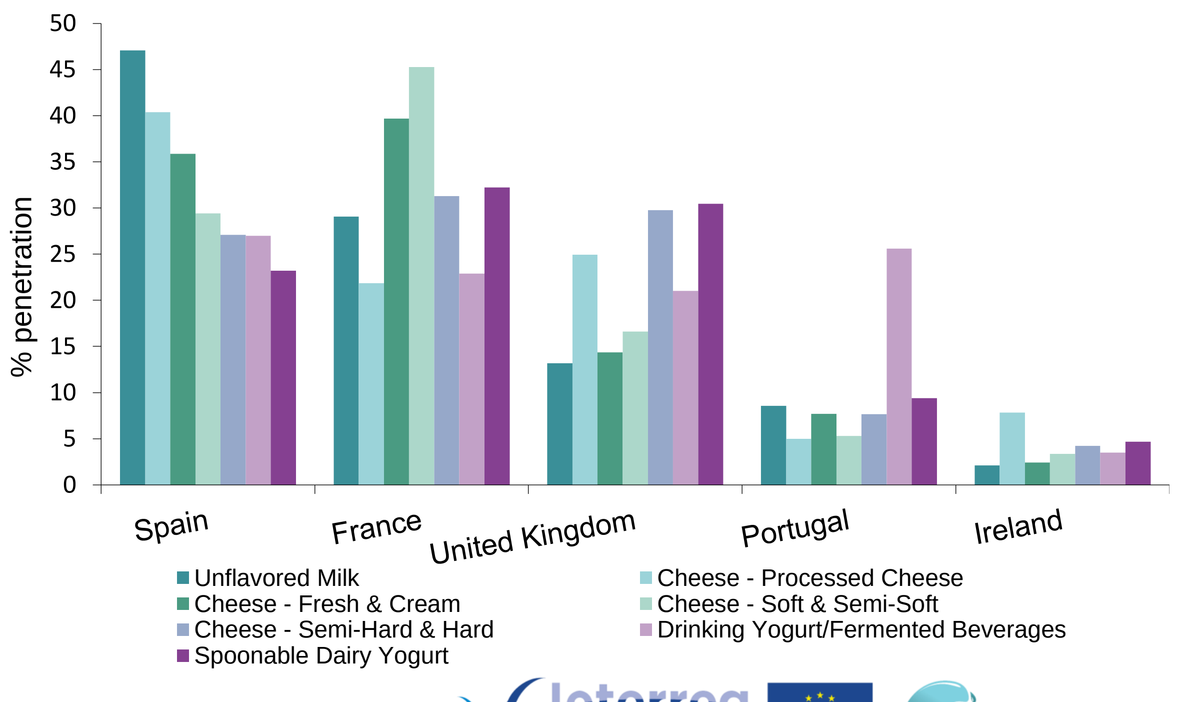
The largest number of new launches within the dairy sector is in France, and the highest growth takes place in Portugal. The growth rates of the various countries are not very marked, except for Ireland, which has a decrease of -8%.

Dairy launches in AHFES countries (2016-2020)



Launches by category vary among AHFES countries. In Spain, the largest number of new launches correspond to unflavoured milk, while in France It correspond to Fresh & Cream Cheese, Spoonable Dairy Yogurt in United Kingdom, Drinking Yogurt in Portugal, and Processed Cheese in Ireland.

Dairy launches in AHFES Countries (2016-2020)



3.6 Top brands in AHFES countries

Private labels represent about a third of the European dairy market in terms of new launches in healthy dairy products, with a growth of 7.59%. Additionally, a growth of 4,59% is also observed particularly for in the launch of healthy products.

France, Ireland, Portugal, Spain and United Kingdom also reflect the European trend. The top brands correspond to private labels such as Morrisons (United Kingdom), Tesco (Ireland), Auchan (France), Hacendado (Spain) and Milbona (Portugal).

Top 5 brands	Spain	France	United Kingdom	Portugal	Ireland
1	Hacendad	Auchan	Morrisons	Milbona	Tesco
2	Carrefour	Paturages	Asda	Continente	Alpro
3	Dia	President	Alpro	Pingo Doce	Dairylea
4	Alteza	Activia	Marks and Spencer	Mimosa	Deluxe
5	Activia	Casino	Tesco	Provamel	Glenisk
6	Milbona	Carrefour	Mueller Corner	Oikos	Philadelphia
7	Central Lechera Asturiana	Elle and Vire	Mueller Light	Activia	Tesco Finest
8	Auchan	Monoprix	Sainsbury	Paturages	Mueller Light
9	Consum	Les Croises	Yeo Valley	Corpos	Specially Selected
10	Eroski	Cora	The Collective Great Dairy	Alpro	Activia

3.7 Main health claims in AHFES countries

The most recurrent health claims in Europe are no additives/preservatives, low/no/reduced fat and gluten free. There is a clear growth of the claim high/source of protein, and no added sugar. The predominant "free from" products and the increase of products with higher amount of proteins is in line with the consumer awareness of the impact of nutrition in health and a better lifestyle. It is also remarkable the growth of natural products which together with no additives/preservatives, it is associated to the consumption of "clean" products also linked to healthy food. Likewise, the growth of lactose free products is also reflected in the increase of consumption of dairy alternative products. The latter will be addressed in a separate section.

Top 10 Health Claims by country (2016-2020)

Region	1. Low/No/ Reduced Fat	2. High/Source of protein	3. Organic	4. No Additives/ Preservatives	5. Gluten Free	6. No added sugar	7. Digestive/ gut health	8. Lactose Free	9. Natural	10. Bone Health
Spain	13%	8%*	7%*	8%*	30%	5%*	7%	7%*	7%*	2%
Portugal	20%	9%*	3%	8%	19%*	9%*	8%	9%*	3%*	
France	6%	4%*	18%*	11%*	3%*		4%	2%*	2%*	2%
United Kingdom	19%	17%*	7%	21%	11%	7%*	8%	3%*	5%*	
Ireland	21%	14%*	6%	22%	13%	8%	8%		6%	4%

*growing trend
Colour code highlighting Top 1-3 health claims #1 #2 #3
Percentages indicate the % of new products carrying the claim

Yogurt with mangoes, passion fruit and turmeric **with no additives** **(France)**.

Vanilla flavoured creamer **gluten free, fat free** **(United Kingdom)**.

Slices of matured cow, sheep and goat cheese **with 38% less fat.** **(Spain)**.

4. Top trends

4.1 Health and immune system

Consumers are more aware of how diet affects health, and are making food and drink choices based on their specific nutritional needs and health concerns

54% of consumers globally are interested in spending part of their time learning about ingredients that can improve their immune system

8.86% has grown the claim "Immune Health" in Europe in new launches

Drinking yogurt with **40% less sugar and added with vitamins B6 and D** to help the defenses **(Spain)**.

Fat free drinking yogurt **with no added sugar source of vitamins B6 and D** to support the immune system **(United Kingdom)**.

Consumers are moving towards options promoting functional ingredients aiding gut, immune and mental health.

Quark "The good gut". **Source of fiber. High vitamin D. High protein. 0% fat** **(Ireland)**.

Vitamins have been one of the claims that consumers selected by chosen to seek protection.

Drinking yogurt **0% fat content, 0% added sugar enriched with calcium, vitamins D and B6.** Vitamin B6 contributes to the reduction of tiredness and fatigue and to the normal functioning of the immune system **(Portugal)**.

The probiotics present in yogurts and fermented beverages are increasingly used as a healthy claim in conjunction with that of "immune health“.

Yogurt with no added sugar that **contains billions of natural probiotic ferments and calcium, that contributes to the normal function of digestive enzymes** **(France)**.

Ingredients such as pumpkin seed, hemp, collagen, moringa, spirulina, turmeric and veggies (spinach, kale, beet) are incorporated in dairy products to enhance their value and health profile.

Kefir with no added sugar, **turmeric, and live cultures** **(United Kingdom)**.

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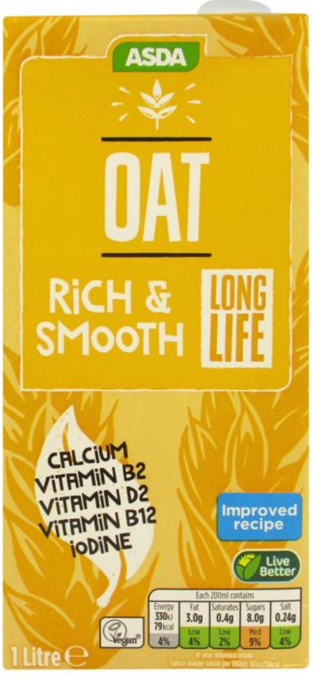
4.2 Plant based alternatives



Oat drink (United Kingdom).

There is an increasing number of consumers that choose plant-based products. Thus, the presence of food with a plant origin is increasing and is reflected in the growth of claims such as "plant-based" (44%), vegan (19%) and vegetarian (8%). According to the Innova Top Ten Trends Survey 2019 and 2020, these are some of the reasons for considering plant-based alternatives:

IT IS HEALTHIER	53% of consumers globally
IT BRINGS VARIETY TO MY DIET	35% of consumers globally
IT IS BETTER FOR THE PLANET	32% of consumers globally
IT TASTES BETTER	19% of consumers globally

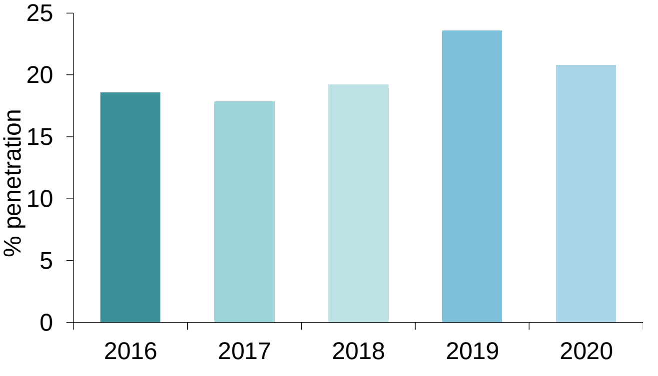
Plant-based: most popular choice in 6 out of 10 consumers

All non-dairy alternatives launches, including non dairy drinks, cheese, yogurt, as well as margarine and other brlends, are growing in AHFES countries with a CAGR (2016-2020) of 3%, which might be higher considering a slight decrease in 2020 most probably due to the pandemic

CAGR (2016-2020) 3 %

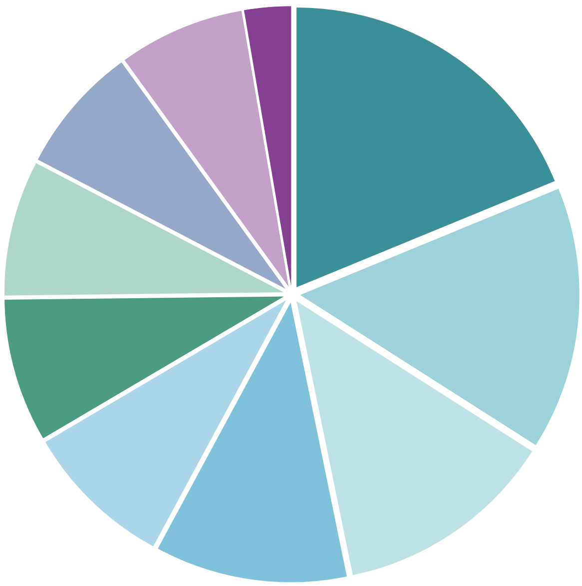
Greek style fermented coconut milk product (France).

Alternative dairy launches in Europe (2016-2020)



The top claims for alternative dairy products are gluten free, lactose free, low/no/reduced fat, no additives/preservatives and high/source of protein. The claims vitamin/mineral fortified and no added sugar are growing with a CAGR of 4% and 6% respectively.

Health claims in alternative dairy products in Europe



Lactose free-, non added sugar- almond drink (**United Kingdom**).

Lactose and gluten free grated white cheddar made with coconut (**France**).

Organic dairy free yogurt made from cashew milk (**United Kingdom**).

4.3 Healthy snackification

The accelerated daily rhythm and the growth in consumption out of home to which little time is dedicated is a challenge to carry out a healthy diet. This is leading to more consumers to increase the snacks consumption for in between meals, post exercise high protein snacks, or even to replace entire meals. This is the reason why innovation is also focusing on healthy on-the-go products.

Cheese cubes **rich in protein** with almonds and cranberries (**Portugal**).

Kefir **rich in protein and probiotics. Source of calcium, vitamins B2 and B12. Portable 220 ml bottle** (**France**).

Rice drink, **lactose free with no added sugar and gluten free. Portable 100 ml bottle** (**France**).

Cheese sticks, **reduced fat** (**United Kingdom**).

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4.4 Transparency and origin

Consumers are increasingly interested in knowing more about the products they buy; thus, transparency is growing in importance across the dairy supply chain. Transparency includes ingredients origin, sustainability and ethics in production, farm management practices, and nutritional information.

3 in 5

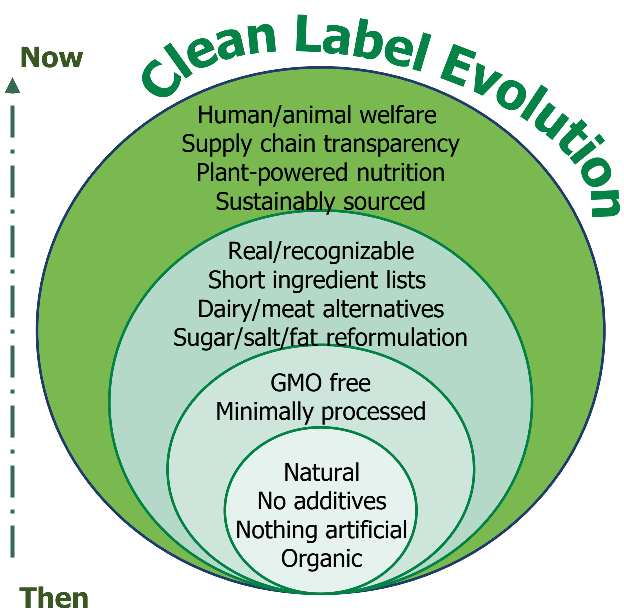
of global consumers say that they are interested in **"learning more about where their food comes from and how it is made"**

Source: Innova Consumer Survey 2020

Biogurte: Organic yogurt **made with ingredients of sustainable origin. Green Dot, FSC and Ecocert certified.** (**Portugal**).

La Fromagerie Milleret produces lactose free cheeses **made from milk that has been collected locally, with an average radius of 25km around the cheese factory in Franche-Comté** (**France**).

Clean labeling describing the characteristics of the product respond to the consumer's concern for the environment, ethical aspects and the own well-being.



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4.5 Personalised nutrition

Personalised nutrition is in the spotlight as consumers look for food and beverage that fit their particular lifestyles, moving beyond tailored diets. The expanding choice in food offer allows consumers to adopt a more individual approach to eating, personalising nutritional experiences on specific nutritional needs, ahead of lifestyle and body composition. Bone health, high protein and fortified foods, and the regulation of digestion, immunity and weight are gaining more attention.

2 in 3

of global consumers found **"more ways to tailor their life and the products they bought to their individual style, beliefs, and needs"**

Source: Innova Consumer Survey 2020

Fermented milk, a natural source of protein and calcium, "important for healthy bones and teeth" (**United Kingdom**).

Organic natural skyr **rich in protein** (**France**).

"This milk helps your immune system by giving it the vitamins and minerals it needs. Vitamins A, D, B12, B6, B9, zinc and selenium contribute to the normal function of the immune system." (**Spain**).

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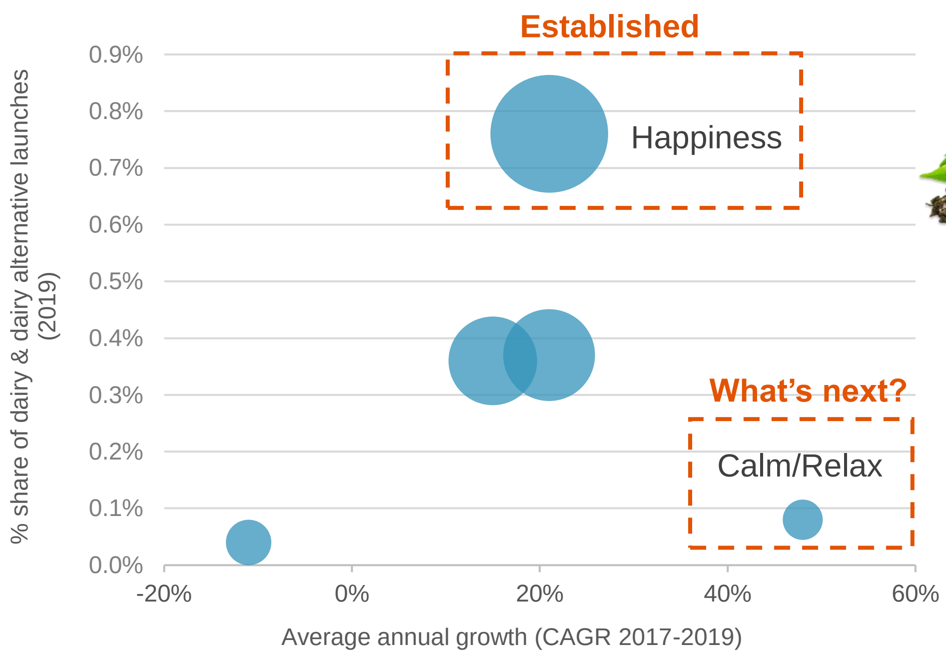
4.6 Improved mood health

Concerns over mental health are more significant than ever, especially during the pandemic which has magnified concerns over stress and anxiety. Many people are looking for cognitive and stress management support, thus brands are implementing functional ingredients into their products to address the growing consumer demand for food as medicine. New dairy product development around mood is seeing rapid growth, with rising use of on-pack claims relating to specific mood platforms.

Evolution of “Mood Health Platforms” in dairy & dairy alternative launches (Global)



“l-theanine (170mg)

Increased cognitive performance, **aids with relaxation** and sleep”

Consumers’ growing demand for comfort foods to stave off feelings of anxiety and boost mood is expected to impact next year’s dairy trends. The use of extracts from adaptogenic herbs to combat the mental and physical effects of stress is also on the rise as interest in more holistic wellness develops.

“We want to provide you with a healthier and more sustainable solution to keep you going. That's why we **use adaptogens in our products** - to help boost your immune system all the while fueling your body”

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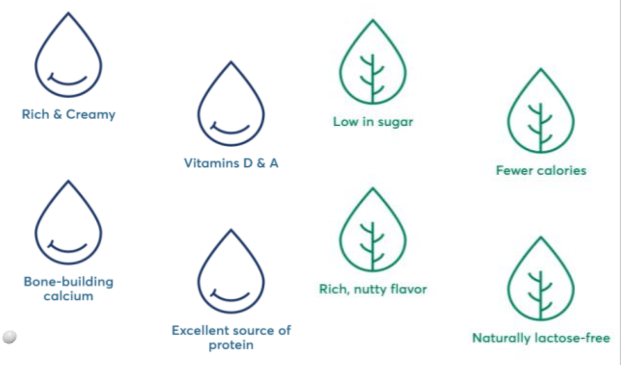
4.7 Hybrid dairy (upcoming in Europe)

Plant-based dairy alternatives are being embraced by a broader segment of consumers beyond vegans. Hybrid dairy is an option to satisfy consumers who are interested in products from of various origins combining the nutritional value of dairy products and plant-based alternatives.



75% of the UK population who use plant-based alternatives also use standard dairy milk (Mintel, 2020)

The US brand Live Real Farms has launched the first line of beverages that contain a blend of fresh milk and plant-based drinks. Similar initiatives in Europe might be a matter of time.

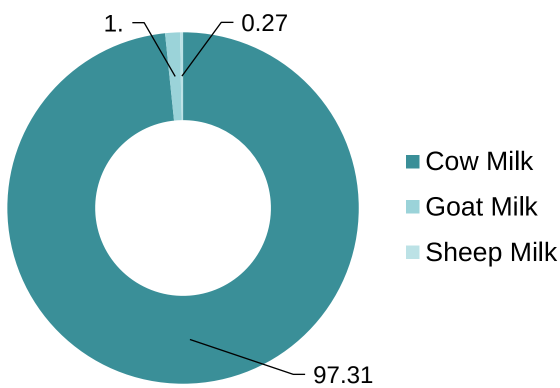
5. Categories

5.1 Milk

Cow's milk is the leading subcategory in terms of launches, and presents a CAGR of 3%. Sheep milk is also growing, with a CAGR of 56.52%. Growing demand for products targeting children, milk from hormone free cows, full fat milk geared towards weight management, health claims (bone health, vitamin/mineral fortified, energy/alertness), reduction claims (fat, sugar, sodium), and lactose-free milk in sustainable packaging are among key factors powering growth in the region.

Premiumization, high fibre, and protein content products, added functionality such as DHA and omega-3 are also factors boosting innovation in the region.

Launches of milk per subcategory in Europe (%)



Skimmed milk with **omega 3 and low in fat** (**Spain**).

High/source of protein, low/no/reduced fat and vitamin/mineral fortified are top 3 claims among AHFES countries, taking into consideration the most recurrent health claims. Lactose free, organic, and no additives/preservatives are some of the growing claims.

Top 10 health claims in AHFES countries

Region	1. Low/No/ Reduced Fat	2. High/Source of protein	3. Organic	4. No Additives/ Preservatives	5. Bone Health	6. Gluten Free	7. No added sugar	8. Vitamin/ Mineral fortified	9. Lactose Free	10. Natural
Spain	18%	13%*	9%*	8%*	8%	26%	6%*	12%*	20%*	13%*
Portugal	18%*	12%	9%*	4%	5%	12%*	7%*		20%*	
France	6%	10%	33%*	9%*	7%			10%	5%*	
United Kingdom	19%	41%	9%	32%	11%	10%	18%	19%		
Ireland	40%	58%	13%	33%	16%*	7%	11%	18%		11%*
EUROPE	18%	15%*	13%*	9%	5%	8%	5%*	7%	13%*	5%

*growing trend
Colour code highlighting Top 1-3 health claims #1 #2 #3
Percentages indicate the % of new products carrying the claim

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Organic/natural is the claim with the highest growth among AHFES countries

Organic oat drink, (**United Kingdom**).

Milk with passive health claims

Skimmed milk, 0% fat (**Spain**).

Lactose free semi-skimmed milk (**Portugal**).

Milk with active health claims

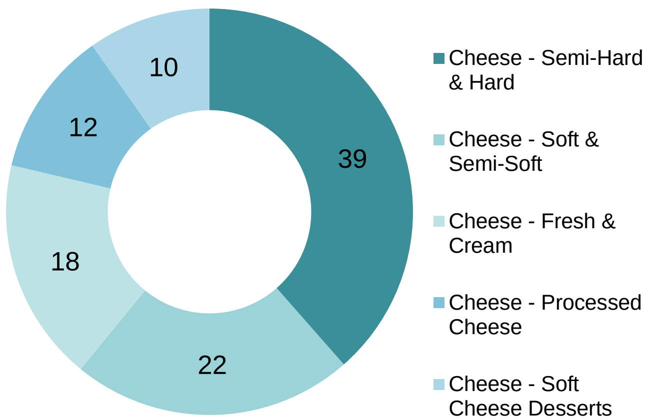
Milk drink, source of 10 vitamins and enriched with vitamin D (**France**).

Chocolate flavoured milk, containing 33 g protein per serving, with extra whey protein and 1% fat content (**Ireland**).

5.2 Cheese

Cheese launches show a stable trend in most of the AHFES countries. Per category, Semi-Hard and Hard Cheese is the most predominant in all AHFES countries except from France, where Soft and Semi-Soft Cheese present a similar number of launches. Spain presents a similar scenario, although the launches of Semi-Hard and Hard Cheese are slightly higher than Soft and Semi-Soft. Cheese Semi-hard and hard grow annually at a rate of 4.98%, and processed cheese at a rate of 2.21%.

Launches of cheese per subcategory in Europe (%)



Tomme de Savoie **semi-soft cheese** from cow's milk (**France**).

In AHFES countries, no additives/preservatives, low/no/reduced fat and high source of protein are top claims. Lactose free, organic, and vitamin/mineral fortified are some of the growing claims.

Top 10 health claims in AHFES countries

Region	1. Low/No/Reduced Fat	2. High/Source of protein	3. Organic	4. No Additives/ Preservatives	5. Bone Health	6. Gluten Free	7. No added sugar	8. Vitamin/ Mineral fortified	9. Lactose Free	10. Natural
Spain	13%	11%*	3%	14%	2%	4%		2%*	2%*	2%
Portugal	13%*	8%	2%*	3%*		9%	1%*		11%*	3%*
France	13%	15%*	56%*	16%*	3%*	5%*		4%	8%	
United Kingdom	13%	11%*	3%	14%	2%	4%		2%*	2%*	2%
Ireland	12%	7%*	2%	20%	4%	5%	2%		4%*	4%
EUROPE	7%	7%*	7%*	10%	1%	8%	1%	1%	10%*	4%

*growing trend
Colour code highlighting Top 1-3 health claims #1 #2 #3
Percentages indicate the % of new products carrying the claim

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No additives/preservatives is the most popular claim in AHFES countries, and organic continues growing

Raclette cheese slices **bio and without additives or preservatives** (**France**).

Organic Matured sheep cheese (**Spain**).

High/source of protein is the claim with a higher growth

Mild Irish grated coloured cheddar cheese **high in protein** (**Ireland**).

"Free from" claims are recurrent claims

Lactose free cheese slices (**Portugal**).

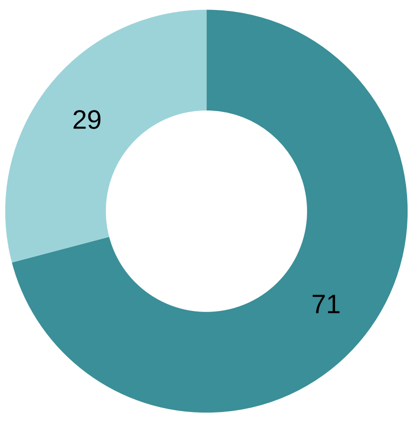
Mature white cheese **with 50% less fat** (**United Kingdom**).

5.3 Yogurt

Spoonable dairy yogurt accounts for a 70% share of total yogurt launches tracked in Europe during 2016 to 2020. Rising demand for healthier food options, free from launches (gluten, lactose, preservatives), probiotic and prebiotic benefits are spurring sales value in Europe.

Natural launches, goat and sheep milk-based yogurt, reduced fat versions, traditional varieties, whipped textures, fruity yogurts, low calorie and high protein launches, immune support claims, and skimmed/fat free options are major drivers.

Launches of yogurt per subcategory in Europe (%)



Spoonable strawberry flavoured **fat free** yogurt (**United Kingdom**).

In AHFES countries, low/no/reduced fat, gluten free and no additives/preservatives are top 3 claims among AHFES countries. high/source of protein, no added sugar, and organic are some of the growing claims.

Top 10 health claims in AHFES countries

Region	1. Low/No/ Reduced Fat	2. High/Source of protein	3. Organic	4. No Additives/ Preservatives	5. Gluten Free	6. No added sugar	7. Vitamin/ Mineral fortified	8. Lactose Free	9. Natural	10.Digestive/ gut health
Spain	28%	10%*	11%*	11%*	49%	14%*		5%	8%	22%
Portugal	45%	38%	44%	23%*	71%	35%	26%*	73%		
France	12%	7%*	21%*	18%*	4%	3%	7%		5%*	14%
United Kingdom	39%	25%*	13%	28%	17%	15%*			9%*	22%
Ireland	33%*	13%*	4%	13%*	39%*	20%		7%*	5%	18%
EUROPE	20%	14%*	13%	15%	12%	6%*		6%*	6%	21%

*growing trend
Colour code highlighting Top 1-3 health claims #1 #2 #3
Percentages indicate the % of new products carrying the claim

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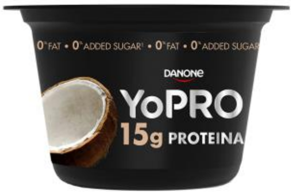
Low/no/reduced fat is the most popular claim, and high/source of protein the top growing



Coconut flavoured yogurt **containing 15 of protein** (**Portugal**).

Raspberry and Blackcurrant flavoured yogurt **low in fat and high in protein** (**United Kingdom**).

No additives/preservatives presents a strong growth

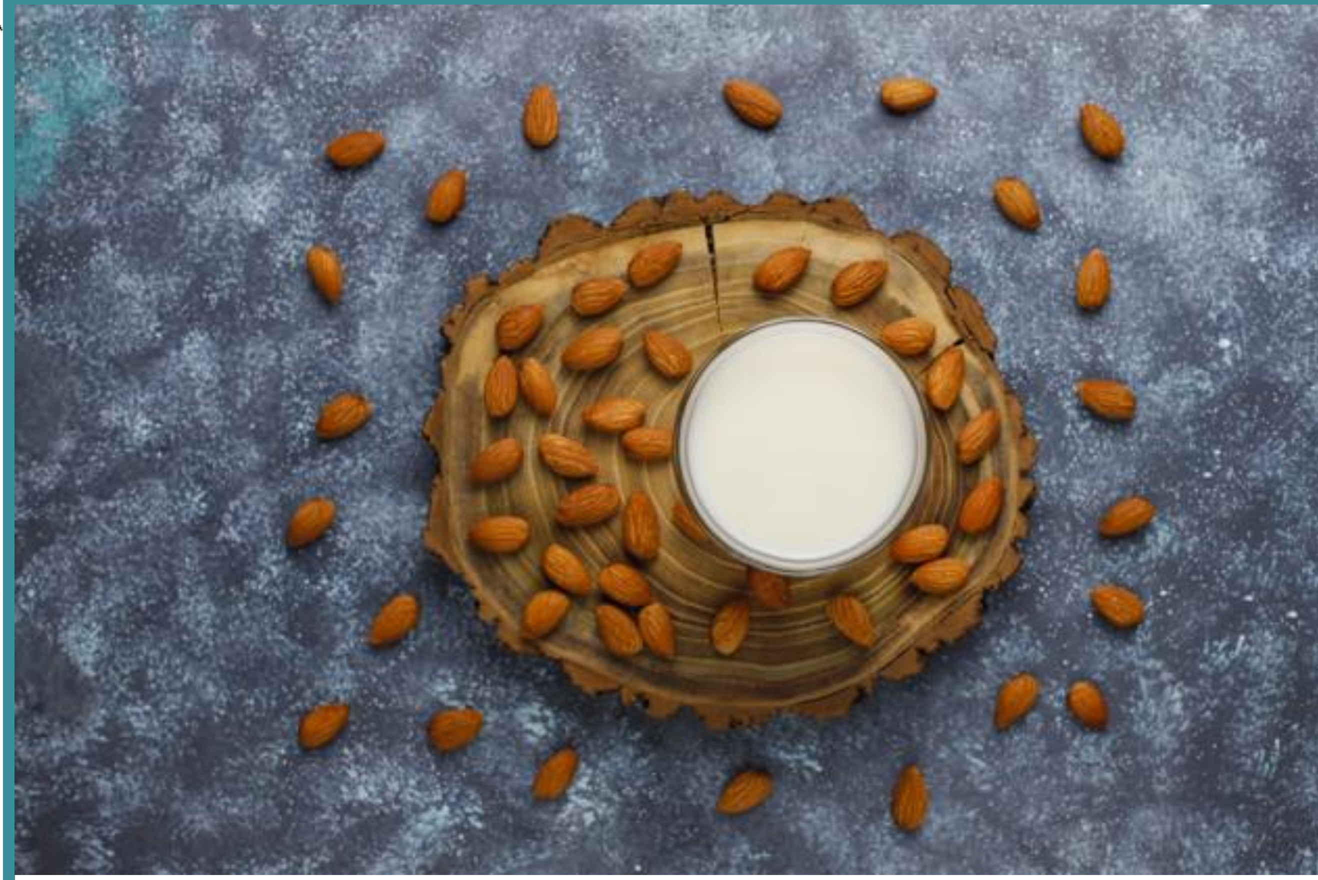
Vanilla flavoured creamy Greek style yogurt with **no colourings or artificial flavour** (**France**).

Other recurrent passive health claims

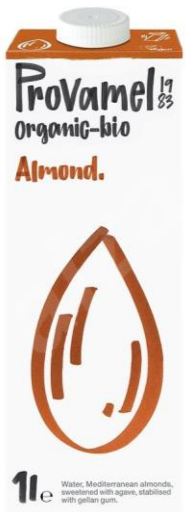
Natural yogurt with **no added sugar and 0% fat content** (**Ireland**).

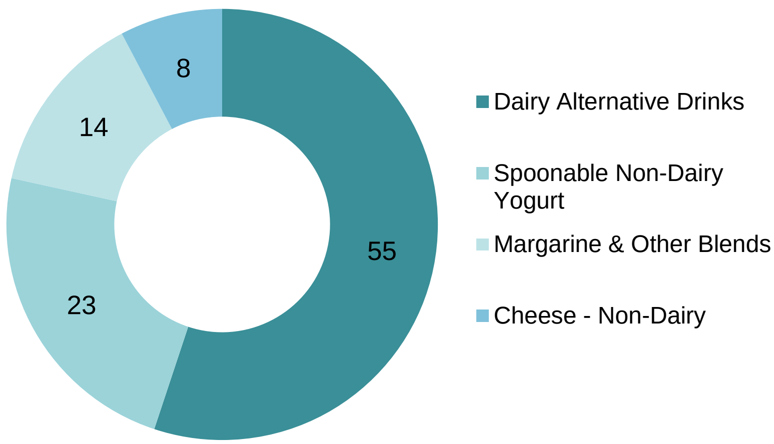
High protein, 0% added sugar, 0% fat and gluten free unflavoured yogurt (**Spain**).

5.4. Dairy alternatives



All subcategories of dairy alternative products are growing, responding to a rising demand of these products. The predominant subcategory is alternative drinks with an annual growth of 4.36%, followed by spoonable non-dairy yogurt which grows 2.26% yearly. Margarine and other blends and non-dairy cheese are the remaining categories presenting a higher growth of 8.52% and 21.72%, respectively.





Almond drink
(**Ireland**).

In AHFES countries, the most common health claims are gluten free, lactose free, and organic are top 3 claims among AHFES countries. No additives/preservatives, No added sugar, and Vitamin/mineral fortified are some of the growing claims.

Top 10 health claims in AHFES countries

Region	1. Low/No/ Reduced Fat	2. High/Source of protein	3. Organic	4. No Additives/ Preservatives	5. Gluten Free	6. No added sugar	7. Vitamin/ Mineral fortified	8. Lactose Free	9. Added calcium	10. Digestive/ gut health
Spain	32%	23%	42%*	23%	64%	31%*	18%	56%	18%	
Portugal	45%	38%	44%	23%*	70%	35%	26%*	73%	26%*	
France	31%	31%	59%	18%*	43%	20%	14%	38%	17%	
United Kingdom	29%*	22%*	21%	29%*	59%*	18%*	36%*	40%*	33%*	
Ireland	40%	20%	31%	37%	72%	25%	38%	57%	34%	13%
EUROPA	28%	21%	38%	20%*	51%	22%*	21%*	51%	19%*	

*growing trend
Colour code highlighting Top 1-3 health claims #1 #2 #3
Percentages indicate the % of new products carrying the claim

Lactose free and gluten are the most popular claims among plant based dairy alternatives

Gluten free and organic rice and coconut drink (**France**).

No lactose oat drink (**Portugal**).

Both active and passive health claims in plant-based alternatives are growing in all AHFES countries

No preservatives, lactose free, gluten free vegan slices (**Spain**).

Organic vegan spreadable with rapeseed, coconut, shea and almond (**United Kingdom**).

Mango flavoured soy yogurt with no added sugar (**Portugal**).

6. Conclusions

The dairy market is the second biggest agricultural sector in terms of output value, and Europe is a major player globally. Cow´s milk is the most important within this sector and both launches and sales are growing. France and UK are some of the top milk-producing countries after Germany, and a third of this production is traded as dairy products within the EU. Among those, EU is the world's biggest exporter, and it is one of the top players regarding dairy products export, which demand continues growing in countries such as the United States, Japan or China.

Yogurt is the fastest growing category, specially in the drinkable form responding to the convenience consumption tendency. The demand for dairy products is stable in Europe, with a strong presence of ethical and convenience positionings which respond to a growing concern about the environmental impact, how food is produced, as well as the consumption of locally produced food. The main health claims are related to passive "free" health claims responding to a higher number of consumers opting for healthy products and balanced diets tailored to their individual needs. It is notable the strong growth of organic and natural products with no additives or preservatives which most consumers associate to healthier and environmentally friendly food.

In AHFES countries, milk and cheese are generally the leader categories in terms of launches, with a growing rate of spoonable and drinking yogurt. The main health claims are similar in all countries, following the European trend of "free" claims such low/no/reduced fat and sugar, gluten free, lactose free, and claims such as no additives or preservatives, organic and natural, and products rich in protein. These market claims are in line with the current consumer trends related to transparency, improved health, and personalized nutrition. To satisfy large number of consumers, brands launch innovative products usually incorporating active and passive health claims within the same product, in combination with a sustainable packaging which can also be for convenience consumption.

It is remarkable the increasing presence of plant based dairy alternatives which satisfy not only vegan and vegetarian consumers, but also the growing flexitarianism trend betting for a higher consumption of plant-based foods. In this category, both active and passive health claims are growing what reflects a strong innovation. Non-dairy drinks is the lead category and plant-based alternatives of cheese present a prominent growth.

In summary, there is great scope for innovation of healthy products in the dairy sector considering the consumer health-related trends mentioned in this report, to what the market is adapting. Healthy snacks, novel ingredients nutrition and mood-focused, plant-based alternatives, sustainable production and more natural "free from" products pave the way.

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