

PLANT BASED MEAT



Recommendations on the Labelling of Alternative Proteins

Alternative Proteins Association
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Foreword

Soy milk. Veggie burger. Vegan cheese. Phrases like this have been part of our everyday language for years. They're used daily by millions of people in supermarkets, coffee shops and restaurants across the country. And everyone knows what they refer to – alternatives to traditional meat and dairy that are healthy, tasty and becoming ever more popular with consumers.

Yet as the range on offer grows and innovative British businesses position themselves at the forefront of the industry, the sector risks being strangled by unnecessary red tape.

Under the guise of consumer protection, lobbyists for the international meat and dairy industry are calling for ever-stricter regulation of the terms used to advertise alternatives. They patronisingly claim that shoppers are too ignorant to understand that cows don't produce oat milk or that vegan cheese is free from animal products.

Here in the UK, many of the existing restrictions were inherited from our time as members of the European Union. Brexit provided the freedom to do away with such regressive rules; yet far from reducing such pointless bureaucracy, British officials are currently considering adding to it.

As this report makes clear, such rules are a solution in search of a problem that simply doesn't exist. Surveys in the UK and Europe consistently demonstrate that people understand what products they are buying and do not support labelling restrictions provided the nature of the product is clear. After all, despite the presence of a 'dairy descriptor' in the name, nobody buys *I Can't Believe It's Not Butter* because they believe it is butter, just as nobody thinks coconut milk comes from a cow, or *This Is Not Chicken* is, in fact, chicken.

Nor are consumers risking their health by buying alternatives to meat and dairy. This report comprehensively rebuts claims that plant-based food and drinks should be banned from using meat and dairy descriptors on nutritional grounds. Indeed, it shows that maintaining current regulations as food technology develops could actively put consumers at risk by blurring the presence of potentially fatal allergens such as shellfish in products grown from animal cells.

Finally, this paper turns the spotlight on the business and environmental costs of restrictive labels. Governments cannot meet their net zero commitments without addressing the huge emissions associated with the animal industry, yet the kind of labelling restrictions that are either already in place or actively being considered create a hurdle for small and medium-sized businesses, while skewing the playing field in favour of the status quo.

In 2023, alternative proteins are an established part of our lives and our language. As this report shows, it's time for common sense to prevail.

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1. Background

Alternative proteins have become a growing area of interest in recent years due to increasing concerns about intensive animal agriculture and livestock production's impact on the climate, food security, public health, and animal welfare. As consumer demand is growing, and the market continues to expand, labelling guidelines for alternative proteins are being discussed at national and international governmental levels.

In particular, there are frequent challenges to the use of labels for these products associated with conventional meat products such as 'burgers' and 'sausages', as well as attempts to further restrict labels associated with dairy products, such as 'milk' and 'cheese'. This is despite such terms having been used to describe plant-based products for centuries [1]. To ensure a level playing field for producers and straightforward information for consumers, this paper outlines APA's best practice guidelines on labelling alternative protein products.

Alternative proteins, including plant-based, fermentation-derived, and cultivated meat and dairy alternatives, have the potential to bring significant benefits to the climate, public health, the economy, and animal welfare.

- First and foremost, they offer **a more sustainable source of protein than conventional animal products**. The production of animal products requires significantly more resources, such as land, water, and energy, than the production of plant-based proteins [2,3,4,5,6]. Alternative proteins, such as plant-based, fermentation-derived, and cultivated meat and dairy alternatives, have a much lower environmental impact [7,8].
- In addition to the environmental benefits, alternative proteins can also **have a positive impact on public health**. Plant-based proteins are generally lower in saturated fat and higher in fibre than animal-based proteins [9,10,11] which can reduce the risk of some of the leading causes of death, including heart disease, diabetes, and other chronic health conditions [12,13].
- Furthermore, there are growing concerns about the use of antibiotics in animal agriculture, which can lead to the development of antibiotic-resistant bacteria [14]. Globally, over two thirds of antibiotics are not used in humans, but in livestock [15]. Alternative proteins offer a way to **reduce our reliance on antibiotics** in food production.

Despite the potential benefits of alternative proteins, they have been subject to frequent challenges. One of the main challenges is to the use of meat and dairy denominations to refer to these products, such as "veggie burger" or "oat milk"[16,17]. Some have argued that these labels are misleading to consumers and could lead to confusion about the nature of the product [18].

Dairy terms such as 'milk' and 'cheese' are currently not permitted in Europe, even when accompanied by 'plant based' or 'vegan' qualifiers [19,20], due to the definition of milk in Regulation No. 1308/2013. Efforts are being pursued in the UK to enforce a much more restrictive interpretation of the current legislation, banning companies from using terms such as 'not milk' and 'milk alternative' [21].

In this report, we review the evidence for this claim, and argue that not only is there no evidence that consumers find such terms confusing [22], but further restricting the use of such labels actually increases consumer confusion [23]. More recently, opponents of alternative proteins have instead relied on the argument that substituting these products could lead to nutritional deficiencies [24]. We investigate the evidence behind this idea, and argue that in most cases, alternative proteins actually have favourable nutritional profiles compared to animal products [25].

In the UK, there has been a renewed effort to challenge the use of dairy denominations for plant-based milk products [26]. This report argues that these challenges are unwarranted and that meat and dairy denominations are essential for consumers to make sustainable and informed choices about their food. Furthermore, the use of meat and dairy denominations has been widespread in the UK for many years, and consumers are familiar with these terms [27]. Restricting the use of these familiar and well-understood terms will be counterproductive when it comes to consumer understanding.

While these attempts to ban or further restrict the use of meat and dairy denominations for alternative protein products have mainly concerned plant-based products, and in the UK have most recently affected dairy alternatives, similar efforts are likely to target all types of alternative proteins (plant-based, fermentation-derived, and cultivated) and are likely to affect all product types (meat, fish, dairy, and egg alternatives) [28].

Ultimately, this report is a call to resist imposing needless and confusing restrictions on innovative food companies, and to reconsider the validity of some existing regulation such as Regulation No. 1308/2013. These restrictions do not help consumers, they harm food companies, and they hinder our progress towards our climate and food security goals.



2. Cases Around The World

In recent years, various countries have grappled with the regulation of labelling plant-based food products, often resulting in differing decisions and mixed messages. Here are some notable examples:

- In October 2020, the European Parliament rejected a proposal (Amendment 165) to ban terms like 'sausage' and 'burger' for vegan and vegetarian products, and initially accepted (but ultimately rejected) a ban on indirect references to dairy products for plant-based foods, including descriptors like 'yoghurt-style' and 'cream imitation' (Amendment 171) [29]. Direct use of terms like 'milk' and 'cheese' is still prohibited in Europe, even when accompanied by clear qualifiers like 'plant-based' or 'vegan' [30].
- In March 2022, Australia's plant-based sector expressed dissatisfaction with recommendations from senators to restrict the use of traditional animal product terms on packaging, and the possible ban of terms like 'meat,' 'sausage,' or 'steak.' [31] Australia has not yet accepted the proposal, but the discussion is ongoing.
- In June 2022, South Africa banned the use of "meaty" terms to describe plant-based foods, resulting in polarization between the meat and plant-based sectors [32]. There was a temporary victory later, in August 2022, when ProVeg South Africa successfully prevented the Food Safety Agency from seizing products which carried these terms [33]. The discussion is ongoing.
- In August 2022, France, after initially banning the use of words relating to meat and fish on vegan food products, had the restriction temporarily overturned by the high court [34,35]. However, this measure is still on the table, and the discussion is ongoing.
- In December 2022, a Swiss court ruled that the use of meat and dairy denominations on plant-based products was not deceptive [36]. However, in February 2023 it was reported that Switzerland's highest court will rule on whether meat alternatives can continue to be labelled as vegan 'chicken' or 'pork', with a decision expected by the end of the year [37,38].
- In February 2023, the United States' FDA issued draft guidance to ensure appropriate labelling of plant-based milk alternatives, allowing plant-based milks to continue to use the word 'milk' and recommending voluntary nutrient statements to inform consumers about nutritional differences compared to traditional milk [39,40].

- In February 2023, Finland's Supreme Administrative Court decided that the term 'plant-based meat' would not be allowed, although terms like 'burger patty' and 'sausage' could still be used [41,42].
- In March 2023, Italy's parliament saw a new bill submitted calling for a ban on plant-based items using "meaty" terminology, potentially imposing stringent labelling rules on vegan meat products [43,44].
- There is currently an ongoing discussion in the United Kingdom to enforce a more restrictive interpretation of existing legislation for the labelling of dairy alternatives [45]. The proposed changes would extend existing bans on terms like 'oat milk', and prevent the use of any dairy denominations for plant-based products, even when they are accompanied by clear qualifiers [46,47].

These developments demonstrate the ongoing debate and uncertainty surrounding food labelling across the globe, with each country taking unique approaches to address concerns of consumer confusion and protection of the animal product industries.

The initiatives to restrict such labelling are often never subject to an impact assessment or included in a public consultation, which would offer regulators insights into consumer behaviour and understanding.

Moreover, the companies which are likely to be affected by these legislations are often not invited to provide feedback on them, which would offer regulators insights into the likely impact on jobs and productivity of these mostly small and medium-sized businesses.



3. Consumer Understanding

Alternative protein producers have, for years, used meat and dairy denominations on their products to effectively communicate to consumers their taste, texture, and use. This practice has been commonplace around the world, and there is no evidence to suggest that this has led to confusion among consumers.

For example, a survey from UTS Sydney found that 96% of the Australian population stated they never had accidentally bought a plant based product thinking that it was an animal product [48]. This suggests that the vast majority of consumers are able to distinguish between animal and plant-based products, even when they are labelled with meat and dairy denominations.

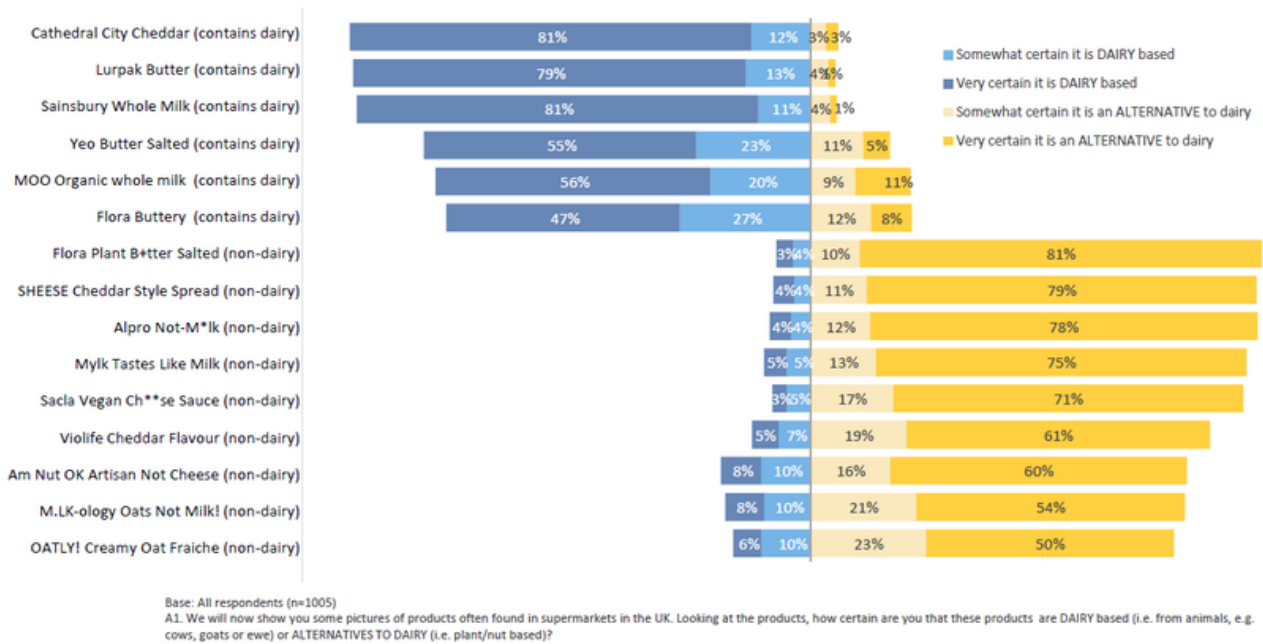
Additionally, a 2021 experiment from the US found no evidence of increased confusion about alternative proteins with meat and dairy denominations [49]. The study found that consumers were able to accurately identify the plant-based nature of products regardless of whether they were labelled with meat and dairy denominations or not. This suggests that meat and dairy denominations do not lead to increased confusion among consumers.

In fact, consumer understanding is actually lower when products are not allowed to use these labels, especially with respect to understanding what the product is and how it is to be used [50]. Meat and dairy denominations can provide a useful shorthand for consumers to understand what a product is and how it can be used in recipes or meals.

By restricting these labels, consumers may be less able to make informed choices about their food. Restricting clear terms like "fish-less" or "dairy-free" would make it harder for people with allergies or intolerances to identify safe products.

In a recent UK study, consumers were shown pictures of dairy and dairy alternative products, and asked to indicate whether they thought it was dairy based or an alternative to dairy [51].

As shown in the graph, consumers were able to correctly identify the dairy products in 74%–93% of cases, and were able to correctly identify the dairy alternatives in 73%–91% of cases, usually with a high degree of certainty. This is clear evidence that consumers generally understand the difference between dairy products and alternatives.

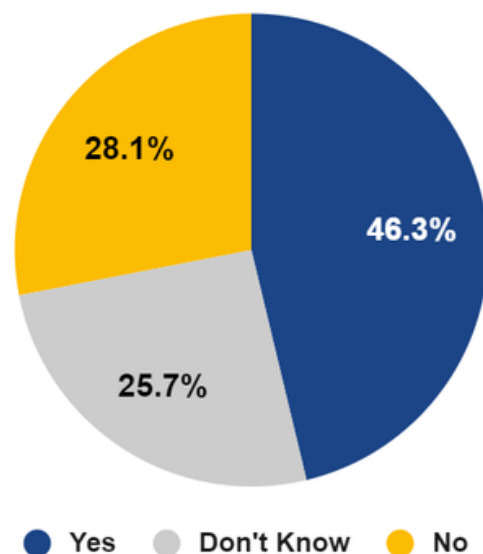


According to a survey of the UK public, the largest share of respondents (46%) agreed that companies should be able to use meat and dairy denominations [52], while just 28% said they should not be allowed (26% answered Don't Know).

In a European survey, the majority of respondents said that the terms should be allowed if it was clear to consumers that it was not an animal product [53].

This suggests that there is significant support among consumers for the use of meat and dairy denominations, and that these labels do not lead to confusion or misrepresentation of products.

"In your opinion, should food companies be permitted to use meat-related names like 'sausage', 'burger' and 'steak' to describe meat-free vegetarian products?"



All of the available evidence is pointing towards something which should already be clear: consumers can understand what food products are if they are clearly labelled as plant-based alternatives. Proposed restrictions on the use of terms like 'vegan chicken' or 'plant-based sausage' are entirely unnecessary. Here are some examples of products which have been accused of misleading consumers that they might contain animal products:



It should come as no surprise that consumers are not confused about labelling of this kind. We cannot be expected to believe that consumers are purchasing a product called 'THIS ISN'T CHICKEN' under the misapprehension that it is, in fact, chicken.

It is important for all food products to be clear about their ingredients, not least because of the issue of allergies. This means that plant-based products containing common allergens such as wheat or soy need to continue to ensure this is clear on their packaging. It also means that, when regulators consider the labelling of cultivated meat and seafood products, they will need to carefully consider the implications of restricting terms like 'meat' and 'fish'.

Cultivated products contain animal cells, and are therefore likely to cause allergic reactions in those with relevant allergies. Obfuscating the nature of these products, in this case, could actually harm consumers.

In conclusion, the evidence suggests that meat and dairy denominations on alternative protein products do not lead to confusion among consumers. Rather, these labels provide a useful shorthand for consumers to understand what a product is and how it can be used. By restricting these labels, consumers may be less able to make informed choices about their food, which could hamper the adoption of alternative proteins, and have negative consequences for both public health and the environment [54].



4. Nutritional Quality

More recently, it has been claimed that plant-based alternative protein products are nutritionally inferior to animal products [55] and therefore, should not be able to use terms associated with meat and dairy without providing nutritional comparisons to meat and dairy on the label. In some cases, there have been suggestions to make alternatives nutritionally equivalent to meat and dairy [56].

4.1. Existing nutritional information requirements already make the nutritional content clear

Most existing food regulatory systems (including the UK's) already require that all food products clearly disclose their nutritional profile on the back of packaging. Any further nutritional information or comparisons is voluntary. Existing UK Food Standards Agency rules require all food products to carry a table of full nutritional information (usually on the back of packaging), and states that some information may be *voluntarily* repeated on the front of the food packaging [57].

A similar standard was recently reiterated by the USA's Food and Drug Administration with respect to plant-based dairy in particular. The FDA recommended that plant-based dairy alternatives are permitted to use the term 'milk', and that they may *voluntarily* give a nutritional comparison to dairy milk on the front of packaging [58].

Both of these approaches reflect the fact that there is already robust legislation to ensure that consumers have relevant nutritional information. Plant-based foods, like all food sold in the UK, are already required to carry a full disclosure of the calories, fat, saturates, carbohydrates, sugars, protein, and salt they contain.

Given existing legislation, it is not possible for plant-based food companies to mislead consumers about their nutritional content. Consumers are always able to verify what ingredients are in food products and compare major nutritional factors.

It has been suggested that plant-based food companies should provide explicit nutritional comparisons to their animal product counterparts on the front of packaging. If such comparisons are required for plant-based products, they ought to also be required of animal products vis-à-vis plant-based products.

4.2. Plant-based foods are often healthier than their animal product counterparts

While a thorough assessment of the nutritional merits of various proteins is beyond the scope of this paper, it is worth noting that the nutritional claims that alternatives are inferior to meat and dairy are largely unfounded, and are partly being promoted in order to influence the labelling debate.

In fact, plant-based products are often nutritionally healthier than meat and dairy, and often have lower levels of saturated fat, less cholesterol, lower calorie density, and more fibre than animal products [59]. These factors can make plant-based products a healthier alternative for consumers concerned with their nutritional intake.

Moreover, it is important to note that making plant-based products nutritionally equivalent to their animal product counterparts would often make them substantially less healthy. For example, it has been said that increasing the protein content of plant-based meat products through the use of protein isolates can lead to a higher content of trans fats [60], which are linked to a range of negative health outcomes, including heart disease [61]. In fact, if plant-based products increased their trans fat content to the same level as butter or lamb, they would contain illegally high amounts under current EU law [62, 63, 64].

There is sometimes a perception that plant-based meat alternatives are 'ultra-processed' with the implication that they are unhealthy [65, 66]. Of course, many of the most pro-health foods available also fall into this category (e.g. canned beans, cereals, protein shakes, and multivitamin pills [67]). Moreover, many animal products require significant processing even to be minimally safe for human consumption (e.g. pasteurising milk [68]).

Notably, many of the criticisms of 'ultra-processed' foods do not apply to plant-based meat alternatives. Ultra-processed foods are criticised for their high energy density, being hyper-palatable, and leading to low hunger satiation, causing people to eat more [69, 70]. None of these criticisms apply to plant-based meat, which are healthier than meat from animals in these ways in particular [71].

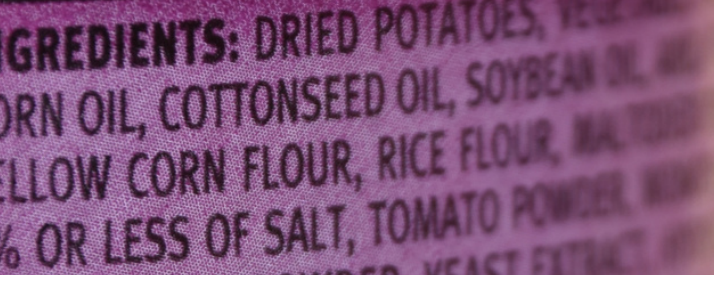
What matters for our health is not the degree of processing, but the methods of processing and the nutritional profile. There are different nutritional profiles for animal products compared to plant-based alternatives. Notably, the areas in which animal products could argue nutritional advantages (protein, iron, vitamin B12, and salt) can often be compensated for with fortification. Moreover, they are not the issues driving the country's most pressing health problems.

However, the advantages claimed by plant-based meat (saturated fat, cholesterol, calorie density, and fibre) are associated with a significantly reduced risk of some of the UK's leading causes of death [72]. Most recently, the European Food Safety Agency (EFSA) expressed concern about the high levels of carcinogenic nitrosamines found in meat and meat products [73].

The FDA's latest guidance on plant-based milk labelling urges producers to disclose differences from dairy products in terms of nutrition, such as differences in magnesium or fat content [74]. This is a curious requirement, since there is no standardised nutritional guidance for dairy products, and indeed there are significant differences in nutritional content between existing dairy products (e.g. whole milk, skimmed milk, chocolate milk, etc.)

Compared to dairy milk, plant-based milk alternatives contain fewer calories, less saturated fat, and less sugar, while many types of plant-based milks have comparable or higher levels of protein and calcium [75, 76]. Furthermore, they provide options for people who are lactose intolerant or have dairy allergies, and may therefore be an essential dietary staple for many.

Overall, it is clear that plant-based products can offer a healthy and nutritious alternative to animal products. By incorporating plant-based products into their diets, consumers can benefit from lower levels of saturated fat and cholesterol, lower calorie density, and higher fibre, all of which are linked to better health outcomes.



5. Downsides of Restrictions

Restricting meat and dairy denominations for alternative protein products would have several disadvantages.

- Firstly, **it would actually increase consumer confusion**, according to a 2021 study [77]. The study found that consumers were more likely to understand the nature and use of plant-based meat products when they were labelled with meat and dairy denominations like "burger" or "sausage". Restricting the use of these terms could lead to consumer confusion and make it harder for people to make informed choices about their food.
- Secondly, **it would impose undue costs on alternative protein companies**, who may have to recall their products and rebrand them. This would be a significant financial burden for these companies and could slow the growth of the alternative protein industry. This would needlessly hamper a promising UK industry - the UK was the largest market for meat substitutes in Europe in 2020, with sales exceeding €500 million, and further growth projected [78].
- Thirdly, **it could jeopardise consumer safety by obfuscating allergens**, particularly in the case of cultivated meat and seafood. Consumers who are allergic to shellfish, for example, are likely to also be allergic to cultivated shellfish. If these products are not allowed to be labelled accurately, this could lead to people consuming foods to which they are allergic.
- Finally, **it would put up unnecessary hurdles to the growth of the alternative protein sector** [79], which directly contradicts many governments' stated goals on climate [80]. The alternative protein industry has significant environmental benefits, including reducing greenhouse gas emissions, water usage, and land use compared to traditional animal agriculture [81].

Allowing and encouraging more people to choose these products is crucial for achieving our environmental goals, and imposing bureaucracy restricting meat and dairy denominations could undermine these efforts.



6. Proposed Guidelines

More reasonable guidelines for the use of meat and dairy denominations by alternative protein companies have been discussed. The Alternative Proteins Association recognises the need to clearly label food to ensure consumer understanding and safety, but is against needless restrictions which do not serve their stated purpose and impose costs on businesses and the food system, while also confusing consumers.

The APA's recommendations to producers and regulators, which are in line with the recommendations of Australia's Alternative Proteins Council [82], include:

- **Alternative protein products should be able to use meat and dairy denominations** like "milk," "burgers," "fish" and "eggs", as well as derivatives such as "creamy" or "cheesy", provided they have an appropriate prefix, suffix, or qualifier, such as "not", "alternative", etc. Many dairy-associated terms are currently not allowed in the EU [83]. Examples of acceptable product names include "chicken-less nuggets", "beef-style burgers", and "not milk".
- **Alternative protein products should ensure that consumers are not misled by accurately reflecting the nature of the product and not implying that it contains animal-derived ingredients.** This can be done by using labels which clearly state the products' ingredients (e.g. "oat milk") and/or make clear its plant-based nature (e.g. "plant-based burger").
- **Alternative protein companies should ensure that there is a prominent modifier or label visible on packaging,** for example "plant-based" or "alternative protein". This will help consumers understand that the product is a meat, fish, dairy, or egg *alternative*, rather than a conventional animal product.
- **Alternative protein companies should highlight any common allergens,** such as soy or wheat, on their packaging to clarify allergen content. This information should be prominently displayed and easy to find.

These guidelines will help ensure that alternative protein products are labelled accurately and transparently, while still allowing companies to use meat and dairy denominations that consumers are familiar with.

By using these labels responsibly, alternative protein companies can help consumers make informed choices about their food and promote the growth of the alternative protein industry.

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