

Thought paper:

Beyond the boundaries in energy drinks





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Every year, 6 billion liters of energy drinks are consumed in APAC¹ – enough to fill 240,000 Olympic-sized swimming pools.

The market continues to grow. But it's also maturing as consumer lifestyles and preferences change – and they look beyond the benefits of traditional energy drinks in their pursuit of optimal physical, mental and emotional energy.

To grow in an increasingly diverse and fractured market, you need a partner with the proven global expertise to combine bold new taste and functional ingredient solutions into winning formulas that meet these evolving needs.

So, allow us to explain how dsm-firmenich can partner with you to unlock possibilities so that your brand can deliver uniquely delicious and healthier energy drinks that will win in the market.

¹ Euromonitor 2023

Putting the energy into your formulation

We believe that a world of opportunity awaits for brands able to deliver great tasting, healthier, energy drinks with additional, science-backed health benefits. For example, 52% of APAC consumers look for natural ingredients²; while 1 in 4 of APAC energy drink launches in 2023 had a sugar-free claim³. Identifying and combining the ingredients needed to create these winning formulas³ requires deep scientific knowledge and expert formulation capabilities – which is exactly what dsm-firmenich provides, including:

Deep and inspiring consumer insights
derived from our proprietary tools – including extensive testing and focus groups.

An extensive portfolio
of ingredients & solutions, pre-mix support and science based claims.

Flavor expertise, masking tools and industry leading sugar reduction solutions.

Beverage application experts and Flavorists that support all this with boundless energy and decades of experience.

Bringing it all together

Drawing on our extensive family of ingredient and taste solutions, our beverage application experts can bring it all together for you; from deep and inspiring consumer trends and insights, impactful tonalities and effective taste modulation solutions; to formulation; to regulatory advice, so your brand can deliver uniquely delicious and healthier energy beverages that win in the market.

Furthermore, our established global footprint enables us to seamlessly support brands and formulators looking to break into new geographic markets; ensuring that products feature compliant and compelling claims and flavor and sweetness profiles in tune with regional preferences.

² dsm-firmenich research 2023
³ Mintel 2023

An extensive portfolio



Bringing the flavor

Flavors and extracts that bring a whole new world of deliciousness to tickle consumers' tastebuds.



Bringing the sweetness

Taste modulation technologies and ingredients, including solutions for less sugar and natural sweeteners for zero-added sugar claims.



Bringing the nutrition

Functional ingredients combined in nutritional premixes that meet targeted consumer needs – from boosting concentration to relieving stress.



Bringing the color

Natural source, vibrant and highly stable coloration solutions.



Flavor first

Our flavors can be nature-identical, organic-compliant (or non-natural depending on your specific needs). But in all cases, they bring a whole world of deliciousness to energy drinks.

A unique development approach

Where do new flavors come from? And how are they tailored to your needs? These are the critical questions being addressed by the dedicated scientists in our taste biology research unit.

- The team uses taste & aroma receptor-based technology to discover novel compounds in nature.
- It then investigates the chemical make-up of these compounds to build an in-depth understanding of how they interact with our sensory receptors.
- Through this in-depth understanding, the team develops new flavors using the identified molecules to either block or enhance specific sensory receptors, and ensures both their efficacy and manufacturing efficiency – at scale, in order to meet the relevant regulatory requirements.
- Our creationists then explore using these new high-impact flavors in your next food or beverage to meet your needs—from enhanced taste to reduced complexity.

Behind the mask

In addition to providing flavors, we can also help you combat off-notes inherent in many functional ingredients – including caffeine, B-vitamins, amino acids and botanical ingredients – with our comprehensive masking and modulation solutions.



Sweetness without the sugar

When deciding on an energy drink for a quick boost, consumers will often check the label over health concerns – especially sugar content⁴ – but they also want the same great taste that attracted them to the product in the first place.

Here, we use an extensive toolbox of natural sweeteners, sugar-reduction solutions and sweetness modulation flavors that can be creatively combined to replace artificial sweeteners without missing a beat.

⁴ Source: FMCG Gurus: Non-Alcoholic beverages study, Jan 2024

TastePRINT®

is designed to overcome the challenges of deep sugar reduction, from single sweeteners and blends to optimized all-in-one solutions that are designed to closely mimic the taste of sugar while simultaneously addressing the associated off notes.

TasteGEM®

is our range of high-performance flavor solutions, designed to restore tastiness to low-sugar products. It combines an optimized blend of flavor, masking and mouthfeel ingredients.

ModulaSENSE®,

our family of flavor solutions, modulates overall taste, enabling precise adjustments that can specifically target gaps, including sweetness onset, masking, mouthfeel enhancement, and aftertaste – to ensure an enjoyable overall taste experience.



Functional ingredients that bring the energy

We can also bring a wide range of customizable and in-demand health benefits to your energy drinks with our science-backed, functional ingredients. These functional ingredients can be integrated seamlessly into your formulation via nutritional premix blends – which simplify your supply chain; ensure compliance with your label claims; and supplement nutrition facts panels.

Whatever consumer segment you're targeting, we can provide an ingredient solution tailored to that specific persona. Some examples:

- **For stress and anxiety reduction:** a premix of L-theanine from green tea and ashwagandha.
- **For reduced fatigue:** a premix of vitamins B1, B2, B3, B5, B6, B7, and B12.
- **For 'gamer vision' and filtering blue light:** a premix with lutein, vitamin A, and zinc.

Just B!

Vitamin B deficiencies can lead to symptoms of fatigue, apathy, and headaches. Which is why of all the nutrients with potential for use in energy drinks, B-vitamins stand out for their critical role in energy metabolism and red blood cell formation.

B-vitamins play a key role in generating energy, by turning the building blocks of food in our cells into Adenosine Triphosphate (ATP).

In turn, ATP provides the energy needed to drive many bodily processes – including muscle contraction, maintaining body temperature, and brain function.

Sound energizing?

If you'd like to know how to seamlessly blend B-vitamins and other nutrients into your formulations, contact us to learn more.

Beyond the boundaries – with botanicals

The demand for natural energy sources beyond anhydrous caffeine and sugar has inspired us to explore a diverse range of botanicals and other plant-based ingredients – including caffeine from green coffee beans, guarana extract, magnesium, ashwagandha, lutein and lemon balm.

However, not all botanicals are created equal. The efficacy and potency of these ingredients and their ability to support consumers' health and wellbeing can vary widely. Which is why at dsm-firmenich, we employ incredibly strict criteria for quality, traceability and reliability to ensure that all our botanicals are delivered in their purest form to our product.



'Adapting' to stress

Feeling stressed? According to the World Health Organization, "Stress can be defined as a state of worry or mental tension caused by a difficult situation." And one potential way to combat this challenge is via adaptogens.

Adaptogens are plant-derived substances that are used to support the body's stress response and maintain balance.

Adaptogens work by regulating the body's stress response, modulating hormone levels, and supporting the immune system.

Ever heard of ashwagandha, bacopa monnieri, and ginseng? These are just some of the adaptogens that could add a health-based fizz to your formula. To learn more, contact us to discuss with one of our experts.



Beyond the rainbow

As the energy drink segment moves beyond familiar visual themes of 'electricity' and neon to more pastoral and authentic-feeling alternatives, we can support you in creating this appetizing color with our highly stable non-artificial colors range from vibrant red, to appetizing orange and yellow shades.

Thinking outside the can

Appetizing colors are not just driving appeal; they also have the potential to drive innovation. For example, why not explore hybrid energy beverages and cocktails that consumers can watch sparkling away in an elegant glass – rather than always drinking straight from the can?

Here's one we made earlier...

Imagine a refreshing fruit punch-flavored positive energy drink with zero sugar, 100% taste, and packed with energy-and-hydration boosting nutrients. We did – and then our experts created it. For an idea of the product development possibilities that await, look no further than our FlavorFuel concept.

*Concept only: this is not a commercial product



Looking good, tasting great

Every year Pantone announces its Color of the Year – and dsm-firmenich takes inspiration from this with its own Flavor of the Year.

Day-to-day we work alongside customers pairing colors with ingredients used in flavor creation by using our unique "Taste the Color" Library and "Bloom Appetite" tools which help us ideate with our customers and create conceptual designs. It's just one example of how we help you create energy drinks that are more than the sum of their parts.

Ready to go beyond the boundaries?



dsm-firmenich

Ultimately, there is no single solution for pushing the boundaries in energy drinks. But no matter what you're looking to achieve, you need a single partner that brings it all together in going beyond the boundaries.

At dsm-firmenich, we'll unlock possibilities so that your brand can deliver uniquely delicious and healthier energy drinks that win in the market. We'll bring it all together for you. But most importantly, **we'll bring the energy.**

Contact us today to discover how.

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