

A woman with voluminous, curly dark hair is shown from the chest up, wearing a white tank top. She is looking slightly to her right with a neutral expression. Her right hand is raised, with her index finger touching a small amount of white cream on her left cheek. The background is softly blurred, showing a white wall and a hint of a plant.

# Specialists across the cosmetic lifecycle

Everything we do is underpinned by scientific rigor, from market analysis through concept and device development, to regulatory advice and claim substantiation.

**tsg**  
**sagentia**

part of **science group**



TSG, Sagentia and Leatherhead Food Research work with cosmetics and personal care companies from around the world and at every stage of their product development lifecycle.

Our multi-disciplinary teams work together to solve challenges, create ground-breaking products and deliver regulatory advice and guidance.

We are specialists at every touchpoint from market needs analysis, product ideation and development to regulatory advice and claim substantiation.



Market analysis



Product development



Regulatory advice



Claim substantiation

# Developing products for a personal and tailored experience

As consumers look for products and services that are personal to them and specific to their needs, a number of key trends continue to drive research, development and marketing for organizations in the cosmetics, beauty and personal care market.

Our experience in technical development has shown us that the best solutions are created when a multi-disciplinary team of scientists, engineers and designers come together from the start. For example, scientists considering a technical package to achieve optimal skin manipulation, and then working with focus groups to drive the technical, ergonomic and user-experience decisions. This ensures any project is underpinned by scientific knowledge as well as continuous and iterative testing.



## CASE STUDY

Nu Skin wanted to develop a smart device which would be a game-changer in the personal care landscape. They knew that, in order to achieve this, the product needed to be underpinned by compelling technology, quality engineering, robust science and engaging design.

Working with Sagentia has enabled Nu Skin to create products grounded in core scientific understanding, while delivering repeatable and consistent results. This has been key for them in their product design and development, as it meets the need for a user-centric, personalized experience that consumers love.

For the ageLOC LumiSpa, it was important to create a device that would fit seamlessly into the consumer's routine and offer an enhanced skin cleansing experience which would be unachievable with formulation alone. It was also important that the surface was tailored to complement new formulations and offer demonstrable benefit from first use.

The Sagentia cross-collaboration approach was fundamental in the development of the LumiSpa for Nu Skin.



## CASE STUDY

Unilever's hair care business wanted to develop a diagnostic device to support consumer engagement with the brand by communicating with them about their current level of hair damage. More personalized recommendations could be made and the efficacy of specific Dove hair care products demonstrated.

By understanding the client's R&D capability and their brand strategy, Sagentia defined a highly engaging solution that delivers value using Unilever's core scientific knowledge about hair health. The device uses hair-on-hair friction as a measure of hair surface damage. During an in-store promotion, a strand of the consumer's hair is run through the device, giving an instant reading of the level of dryness/damage. The damage scored is then used as a cue to recommend a specific product and care regime.



The device also connects to the internet and uploads the consumer's damage scores along with various metadata, such as hair color and user profile. These can then be matched to a product tailored specifically to their hair needs.

Not only does this create and maintain a personal customer relationship, it allows Unilever to collect user data for research and development to build the next range of products.

Sagentia worked with Unilever from concept to full production, taking responsibility for all aspects, from industrial design, product development and global testing, through transfer to, and management of, the contract manufacturer.

# Ensuring international compliance

When bringing a cosmetic or personal care product to market, it is crucial to understand the regulatory requirements of the countries in which the product will be sold.

From understanding the permissibility of ingredients in a new product formula, to gaining relevant approvals prior to delivering the product to market, regulatory compliance underpins all stages of the cosmetic lifecycle.

Our scientific expertise and regulatory knowledge enable us to identify the most direct route to achieving regulatory compliance.



## CASE STUDY



A US client was developing a cosmetic product intended for use by the whole family, and needed to know if there were any safety issues that might prevent it from being sold as a 'family product' in the EU market.

TSG's toxicologists assessed the product formula on the basis of the toxicological profile of the ingredients, and then undertook a thorough literature review of the composition of the vegetable extracts present in the product. The review revealed that one of the extracts naturally contained a high amount of a substance not recommended to be used on young children. Young children are classed as those below three years of age.



By undertaking the toxicological assessment of the formula while it was in development, we were able to highlight a possible safety issue of a product that was otherwise fully compliant. This enabled the client to evaluate its options, which were to reformulate the product to remove that particular ingredient, or to include the relevant warnings stating that the product was not suitable for children under three years of age.

By assessing the formula prior to launch, the client was able to amend the product during the development phase, which avoided unnecessary expenses post-launch, such as having to relabel the product or withdraw it from the market completely.

# Claim substantiation

Smooths fine lines, brightens complexion, glossiest lipstick, 48 hour frizz protection, removes stains and whitens teeth... On pack claims are a key tool in the marketing of cosmetic products. Understanding how to substantiate these claims from a sensory, consumer and regulatory compliance perspective is critical.

With significant experience in the cosmetics and personal care industry, we work with clients to identify those claims which can be made – and those which cannot – according to the provisions of the relevant legislation worldwide. We then substantiate the desired claims using the most appropriate methodology, ranging from published information and experimental studies, through to consumer perception tests undertaken by our sister company Leatherhead Food Research.



## CASE STUDY

Our client wanted to enhance their product's marketing profile by claiming as many properties as possible, and the number of claims was open to what we could identify. Although experimental testing would have been the most suitable approach for supporting the claims, this was not an option due to time and budget restrictions.

TSG identified which ingredients in the formula had the potential to provide special benefits to the product, for example did they provide hydration or were they soothing? Potential claims were identified as a result.

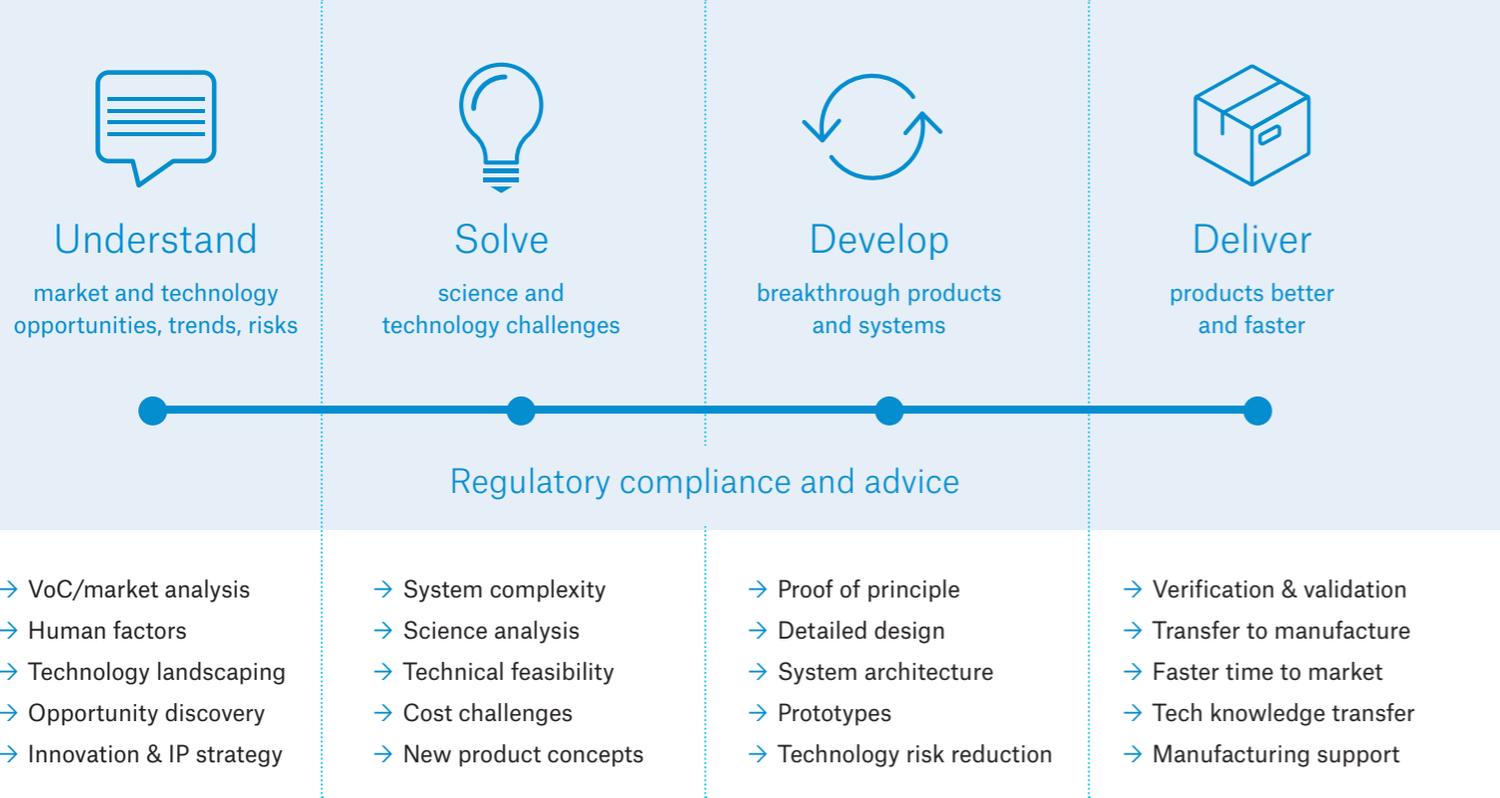
A literature search was then carried out on those ingredients to identify their effective concentrations. That is, the concentrations at which their activity would be noticeable. Based on this information, the selection of claims was refined to those that could be substantiated by the available scientific literature.

A list of claims was identified that could be then used to enhance the product's marketing profile, and that could also be substantiated by the existing scientific literature.



# Our services →

We work in partnership with our clients to add value at every stage of their development journey, creating products that drive innovation, meet regulatory requirements, and deliver increased brand engagement.



## About TSG

TSG provides companies with high-quality regulatory and scientific consulting services. We help clients worldwide to address the technical and regulatory issues of taking their products to market in multiple jurisdictions. Our scientific expertise, regulatory knowledge and understanding of local nuances, enable our clients to navigate the complex and ever-changing regulatory landscape across the globe.

We serve a number of key markets and industry sectors including agricultural, industrial, consumer, food and beverage, animal health, and medical. Our teams are made up of scientists and regulatory experts, many of whom have previously held positions in regulatory agencies and departments, and in industry. This combination of science, regulatory expertise and knowledge of how institutions and industry operate, provides our clients with superior and well-rounded guidance.

## About Sagentia

Sagentia is a global science, product and technology development company. Our mission is to help companies maximize the value of their investments in R&D. We partner with clients in the consumer, industrial, medical and oil & gas sectors to help them to understand the technology and market landscape. We can work with them to decide their future strategy, solve the complex science and technology challenges and deliver commercially successful products.

## About Science Group plc

Science Group plc (AIM:SAG) provides independent advisory and advanced product development services focused on science and technology initiatives. Our specialist companies – Sagentia, Oakland Innovation, OTM Consulting, Leatherhead Food Research and TSG Consulting – collaborate closely with their clients in key vertical markets to deliver clear returns on technology and R&D investments. With more than 400 staff worldwide, consisting primarily of scientists and engineers, the Group has R&D centres in Cambridge and Epsom, 12 offices in Europe and North America.

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