

## Beauty Tech Unboxed: personal care innovation for the digital age



With the beauty tech movement rapidly gathering momentum, it's easy to be swept along by the crowd. But to achieve lasting success and competitive differentiation, brands need to ensure their innovation efforts are focused and effective. Rather than allowing technology to lead product development, it should be strategically applied to well-defined consumer requirements. In this paper, we draw on our recent research findings indicating what digital age consumers really want from personal care and beauty brands. And we consider the role beauty tech could play in achieving some of these ambitious goals.

When a 100-year old company announces its vision to become the world's leading beauty tech business, it's clear that times have changed. L'Oreal CEO Jean-Paul Agon says, *"The market is accelerating, thanks to digitalisation as beauty and digital are really a perfect match...It has never been easier to discover beauty, share it and shop it."* This sentiment is indicative of a seismic shift in the personal care and beauty sector.

Ingredients, formulation and product chemistry will always be fundamental to personal care and beauty products and are likely to retain their share of R&D budgets. But advanced consumer services driven by digital capabilities could outrank them in the future. Technology is becoming an increasingly significant factor in the ongoing race to achieve competitive differentiation and meet the needs of an increasingly demanding consumer.

As the sector realigns to meet the evolving needs and expectations of the digital economy, how can brands innovate and adapt to maintain or extend market share? Much of the time it comes down to understanding – or better still anticipating – what consumers want. But there are so many potential directions, and blind alleys, you could take. In the digital age, you need to learn fast, then ensure innovation efforts are focused and effective. Striking the balance between consumer demands and bottom line benefits is no mean feat.

To help brands get a handle on this dynamic landscape, we recently conducted quantitative and qualitative research with more than 2,000 UK adults. Our aim was to drill down into the basics of what digital age consumers want, without assuming that 'beauty tech and devices' would be the answer. The results are enlightening, and point towards a single overarching desire:

*'Help me find the products that work best for me'.*

However, 'work best' means different things to different people, it's fluid, changeable and hard to define. It can relate to practical factors like product functionality, reducing the time it takes to shave or recyclable packaging. But it also covers more nebulous feelings related to wellbeing or body image.



## Defining Beauty Tech

Beauty tech is a wide-ranging and dynamic concept. It encompasses devices, from smart mirrors offering daily skin analysis to facial cleansing gadgets. It covers virtual reality and social media platforms enabling consumers to try out or share new looks. And it also extends to factors such as data analysis and artificial intelligence, which could revolutionise the way brands develop products and engage with consumers.

It's clear that in the digital age, consumers expect more tailored and personalised experiences and

brand interactions. But in such a vast and rapidly evolving space, what's the best way forward? Is it possible to shape the change agenda rather than chasing it? And can you exploit short-lived trends without losing sight of the bigger picture?

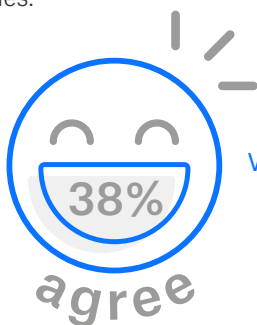
These are difficult questions. But blending of-the-moment consumer insight and technical expertise with the scientific skills traditionally associated with personal care and beauty can get you closer to the answers.



## A spotlight on UK attitudes to personal care and beauty

Our research initially involved qualitative research with around 45 men and women self-defined as medium or heavy users of cosmetics and beauty products. This was followed up with a nationally representative online survey eliciting the views of 2,029 UK respondents in relation to personal care and beauty.

Interestingly, we found that many people express an ambivalence to new products. Overall, 81% said they were 'happy' with the products they currently use, with 43% saying they tend to stick to those products and 38% saying they nevertheless enjoy trying new ones.

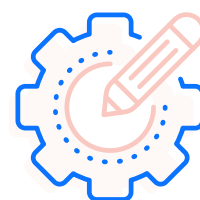


"I'm happy with the products I use and also enjoy trying new ones."

Value for money was the factor mentioned most often when we asked people what influences their choice of products: 67% of all respondents conveyed this view, and it was more important for women (72%) than men (62%).



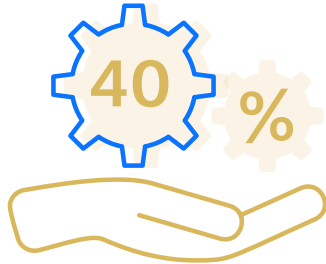
67%  
Value for money



54%  
Functional benefit

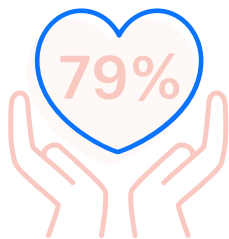
Functional benefits were the second most important criterion, mentioned by 54% of respondents. Again, the figure was higher for women than men, at 62% versus 45%; but it was the younger 18-24 age group that felt most strongly about this factor, with 65% selecting it.

When we asked how brands could improve the way personal care products work at an individual level, the most popular answer was 'give me an opportunity to try before I buy'. This was mentioned by 40% of all respondents, but the figure was significantly higher for women at 53% than for men at 27%.



want an opportunity to  
**"try before I buy"**

On the face of it, the 'free sample' route might seem an effective way to tap into the 38% of people who are happy with existing products but enjoy trying new ones. However, it's not quite that straightforward. The traditional sample model is heavily reliant on small single use plastic containers, which are becoming less acceptable to consumers as the conversation about environmental and sustainability issues gets louder. In fact, 79% of our respondents (85% of women) said they thought personal care and beauty brands should put more effort into manufacturing products in an ethical and sustainable way.



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So, faced with conflicting messages like these, what are brands to do? We believe this is where the rise of beauty tech comes into its own. Technology gives us the freedom to reimagine interactions between brands and consumers, addressing complex issues while making it easier for people to get exactly what they want.

## Which product is right for me?

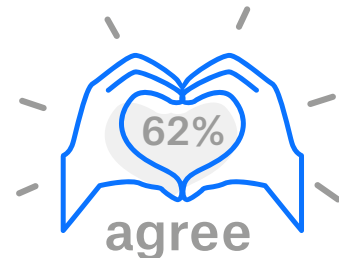
Our focus group discussions revealed that many people want to find a product that 'just works'. This can represent a real challenge and is predominantly achieved through trial and error. Participants voiced frustration at this, and the fact that it resulted in a lot of waste – if a product wasn't liked, it wasn't used.

Several of the women in our focus groups clearly aligned the effectiveness of personal care and beauty products with a broader sense of wellbeing. They talked about wanting products that made them 'feel fabulous'.

"It did make me feel good.  
So, it was never about what it  
actually did."

"...that's the whole wellbeing  
thing. Like, if you feel good,  
you're putting this cream on, if  
it smells nice, you feel good as  
a person."

This was mirrored by the quantitative study, where 62% of women agreed that 'brands should focus more on how products make you feel, not only how they make you look.'



"Brands should focus  
more on how products  
**make you feel,**  
not only how they  
**make you look."**

The male focus group also put a lot of emphasis on product effectiveness. However, they generally viewed it in a more practical, functional way:

“I do enjoy the tea tree stuff, also the facial scrubs. It’s something you can actually feel on your body when you’re doing it, so your senses are going off.”

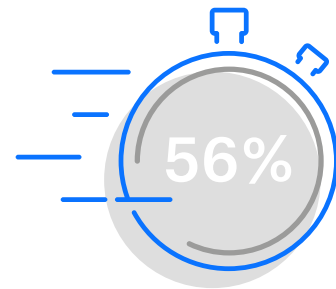
“I spend more money on moisturiser rather than anything else, just because it actually does work.”

Combined with the quantitative stats pertaining to value, functional benefits and pre-purchase trials, this points towards a central consumer desire to find what is ‘right for me’. It’s a continuation of the personalisation movement which has gained traction in many categories. Digital age consumers increasingly expect ready access to products tailored to their specific needs and desires, without necessarily expecting to pay more for them.

## The personalisation question

Providing personalisation at a price point that works for consumers and on a scale that makes it commercially viable is a complex notion. However, at Sagentia we see two key innovation areas that could work towards this goal: diagnostic devices and sophisticated ‘pick and mix’ product formulations.

Our findings indicate that 38% of UK adults would be ‘comfortable’ using a device or smartphone app to determine which product is best suited to their needs (e.g. by assessing skin tone or hair texture). There was a greater appetite for this amongst younger consumers, and it decreased sequentially with age: 56% of 18-24 years olds would be comfortable, but only 23% of over 55s.



would use a device to make their personal care routine quicker

This demographic difference is important to note as it could inform the direction of device development and marketing. If propensity for uptake is likely to be higher among younger (typically cash-strapped, time-poor) age groups than older (potentially more affluent) segments, innovations need to reflect this. Initiating free smartphone apps or rapid profiling of skin or hair condition in salons or high street venues could be a better investment than a luxury at-home device or a time-consuming, private diagnostic process. However, as millennials and post-millennials hit their 30s, 40s and 50s, there will be a gradual shift and longer-term innovation should take that into account.



When we raised personalised product formulations with our focus group participants, there was an assumption that these would come with a price tag beyond most people's means:

"At the moment they're targeting, maybe not the extreme pop stars or whatever, but they're targeting the higher income revenue streams here."

However, they liked the idea of a middle ground, for instance allowing consumers to tailor a product to their personal needs via a blended solution using various ingredients in different quantities:

"Yes...that more tailored approach but at an affordable price. Finding that balance, because I do think we want it as personalised as we can, but also affordable, so it's where that really meets."

At Sagentia, we assisted NuSkin in its delivery of a breakthrough personalised anti-aging product, ageLOC Me. After an online skin assessment, the consumer is prescribed customised serums drawn from 2,000 possible combinations. They are dispensed via a touchless device providing the individual's optimum dosage.

Developments in this vein are likely to become more mainstream as people look for hair, body and skincare products that deliver the ultimate in value and effectiveness. According to our quantitative research, 24% of all UK people (31% of women and 66% of 18-34s) would be 'likely' to use a device enabling them to make products more personalised to their skin or hair needs in the next 12 months.

**66%**   
of 18-34 year olds would **use a device to make products more personalised** to their skin or hair



## Does it really work?

Let's return to the top two factors highlighted by our quantitative survey: value for money and functional benefits. How do people tell if a product has delivered on its promises?

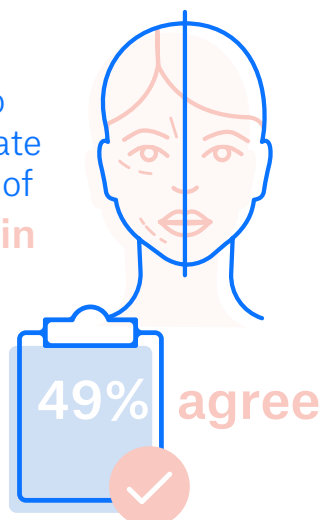
In our focus groups, the consensus was that they themselves are the best judge of effectiveness. They talked about how products feel when they're being used or visual improvements:

"It's about how we feel it's working, and so it's always going to be quite individual."

This was backed up by the quantitative study, which showed that the highest proportion of respondents (43%) assess product effectiveness in terms of the way their skin or hair looks and feels after the product has been used for a period of time.

Nevertheless, there is an appetite for more objective assessment of product efficacy. We found that 49% would like an accurate measure of how their skin or hair has changed after using a product. This figure rose to 56% for women and 65% for 18-24 year olds. The 25-34 and 35-44 age groups were also keen, with 58% and 57% respectively saying they'd like this capability.

"I would like to have an accurate measurement of how my skin or hair has changed after using a product."



However, the million-dollar question is how to achieve this in a scientifically valid manner that is acceptable to consumers.

We found that 25% would be likely to use a device or smartphone app to assess skin or hair condition following use of a product in the next 12 months. This rose to 39% for 18-24 year olds. However, assessing product effectiveness raises more challenges than diagnostics and personalisation.



would use a device / product / app to analyse their skin or hair and recommend products which are right for the m

It's not easy to find the right balance between technical complexity, accuracy and convenience to provide tangible evidence of product efficacy at an individual level. For instance, a visual review of skin condition can be hindered by factors such as lighting or makeup residue. A more scientifically robust measurement could be obtained if detailed before and after tests were conducted, covering factors such as a surface evaluation of living skin cells, transepidermal water loss and electroconductivity. Yet while these procedures would provide a more accurate assessment, they'd need to be carried out by professionals in a laboratory context.

Another important consideration is how candid consumers really want brands to be when assessing the condition of their skin and hair. In our focus groups, women responded emphatically when introduced to the concept of a smart mirror offering at-home skin analysis:

“...how is that going to help a woman’s self-esteem? It’s going to be the reverse. As you age, you will, by default, get more wrinkles.”

“In terms of the mindset, and wellbeing, this is horrendous.”

“I think I prefer my ignorance.”

So, care needs to be taken to ensure any personal feedback is beneficial. In our quantitative survey, 55% of all women and 76% of women aged 18-24 agreed that they wanted ‘more products to be available that help me think about my hair and skin in a positive, non-judgemental way’.

## Put needs first, tech second

Brands are faced with a conundrum here, both in terms of diagnostics and post-treatment assessment. People want an accurate appraisal of hair and skin condition before and after using a product. But it needs to be handled with sensitivity. An effective solution is to rationalise what people want, then align this with what can realistically be delivered without undue invasiveness, effort or distress for the consumer.

Beauty tech product development often follows the line of ‘find some technology that measures x, y and z, then create a product around it’. At Sagentia, we invert this approach.

So, we might start by looking at the functional benefit a consumer is trying to achieve (e.g. healthier skin) then consider what it achieves at a physiological level (e.g. promotion of collagen growth). Once this has been established, we identify technologies that can help measure the desired physiological change.

Or we can approach it another way, starting off by defining which aspects of beauty consumers want to measure, such as hair condition. Then we identify which ingredients can enhance that and which technologies can measure it.

Either way, this clarity of purpose underpins the development of progressive products that genuinely add value to the consumer experience.

We believe that in the future, consumers will expect to be able to assess a product’s claims as a matter of course. It won’t be enough to refer to evidence from beauty trials. People will want proof that *‘this is actually working for me’*.



## Conclusion

Personal care and beauty innovation still relies on science as an enabler: chemistry formulations are at the heart of any product. But in the digital economy, this is just one aspect of a much longer equation.

Beauty tech demands an extension of the research and development agenda to encompass a broader range of scientific and technical expertise from multiple disciplines. So, dermatologists, chemists and biologists will need to collaborate with experts in ethnology and sociology as well as physics, optics, statistical analysis and digital architectures.

This is an exciting time to operate in personal care and beauty. But the pace and scale of change can be daunting. It's important to keep perspective, and this is where consumer insight becomes invaluable. At the end of the day, most people want to find products that work and make them feel good about themselves. Keeping these goals front of mind brings lucidity to the complex, multifaceted world of beauty tech.



## 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 medical, consumer, industrial and food & beverage sectors to help them understand the technology and market landscape, decide their future strategy, solve the complex science and technology challenges and deliver commercially successful products.

Sagentia employs over 150 scientists, engineers and market experts and is a Science Group company. Science Group provides independent advisory and leading-edge product development services focused on science and technology initiatives. It has ten offices globally, two UK-based dedicated R&D innovation centers and more than 350 employees. Other Science Group companies include OTM Consulting, Oakland Innovation, Leatherhead Food Research and TSG Consulting.

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The Sagentia logo consists of the word "sagentia" in a bold, lowercase, blue sans-serif font.

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