

WHITE PAPER

H2NO

Making water-wise beauty mainstream



Evidence, barriers and a practical roadmap for brands, retailers and the wider beauty sector

Solid and low-water personal-care formats can offer environmental and customer benefits. This paper examines the evidence and the barriers and opportunities for adoption.

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Developed through collaboration with WRAP and creative and strategic input from M&C Saatchi.

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ABOUT THIS PAPER

A shared case for water-wise beauty

H2NO brings together environmental evidence, behavioural science and industry insight to identify how solid and low-water formats can become more widely adopted.

The central proposition Solid and low-water beauty formats can reduce packaging, transport and formulation impacts, depending on the product. Mainstream adoption also requires products that perform, feel desirable and are easy to find, try, use and store.

About H2NO

H2NO is a collaborative initiative led by the Nature & Climate Impact Team (NCIT) at the University of Exeter and WRAP, with creative and strategic support from M&C Saatchi. It explores how the beauty and personal-care sector can accelerate adoption of solid and low-water products in ways that create environmental benefit and commercial value.

This paper combines an environmental evidence review, two industry workshops, COM-B behavioural analysis, creative strategy development and participant feedback. The workshops took place on 15 October and 3 December 2025. Insights are reported in aggregate and without attribution, in line with the Chatham House principle used during the sessions.

Recommendations and retail options in this report are proposals for testing. They do not imply that participating organisations have committed to a campaign, or that consumer behaviour change, sales uplift or environmental savings have already been demonstrated.

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The industry workshops were supported by the University of Exeter ESRC Impact Accelerator Account. Core evidence includes the December 2025 workshop materials, COM-B analysis, participant feedback, the H2NO environmental evidence review and WRAP survey analysis from March 2025.

1 EXECUTIVE SUMMARY

The opportunity for water-wise beauty

The next stage is to make suitable products easier to understand, try and repurchase, while testing their environmental and commercial value.

Environmental benefits are product-specific. Solid and low-water formats often reduce packaging, transported mass and storage volume. Lower water activity may also reduce the need for some preservatives. Yet use-phase energy, ingredients and manufacturing can change the result. Claims need whole-life evidence and comparisons based on equivalent use.

Performance and experience come first. Workshop participants identified concerns about efficacy, hygiene, mess, storage, hair or skin suitability and unfamiliar use. Sustainability should complement a product that performs and offers a rewarding experience.

Communications can extend beyond environmental messaging. Among the workshop options, indulgent self-care received the most votes, followed by smart premium and win-win. Sensory experience, cost per use, concentration and convenience are promising messages to test. Workshop preferences are not evidence of consumer demand.

Category-level action can support individual brands. Businesses face uncertain demand, weak category definitions, fragmented evidence and margin concerns. Shared communications, retailer support, sampling and credible evidence could reduce the coordination burden for individual brands.

Start with a bounded pilot. A retailer-backed campaign across a manageable product set can test engagement and sales, with follow-up to assess repeat purchase. Findings should guide whether and how activity is scaled.

Workshop feedback

Workshop 2 received an average usefulness score of 7.8 out of 10 for helping respondents take action. Suggested next steps included retail conversations, messaging trials, R&D and marketing briefs, product testing, launches, sales activity, teaching and market research. These were reported intentions, not verified completed actions.

Five recommendations

1. Use water-wise as an umbrella idea while defining the specific format and benefit being claimed.
2. Lead with performance, sensory experience, value or convenience, supported by substantiated environmental information.
3. Prioritise category communications, trial and retailer activation, then assess their effect on customer behaviour.
4. Create a shared evidence and claims toolkit that compares products per use rather than per gram or pack.
5. Run a proportionately evaluated retailer-backed pilot and publish the findings, including limitations.

Sources: H2NO environmental evidence review; Workshop 2 deck, official outputs and participant feedback. Workshop feedback is directional and is not representative population research.

2 DEFINITIONS

Defining water-wise beauty

A useful category needs enough breadth to support innovation and enough precision to avoid vague or misleading claims.

The language problem

Waterless may refer to an anhydrous formula, a concentrated product, a solid bar or stick, a powder activated at home, or a product designed to reduce water during use. These are different characteristics and should not be treated as interchangeable. Workshop participants also noted that waterless can sound negative or overly technical.

Recommended framing Use water-wise beauty as a public-facing umbrella, then state the format and the specific, evidenced benefit. Water-wise is not itself a certification or proof of lower environmental impact.

Format	Working definition	Examples
Anhydrous	Contains no intentionally added water	Oils, balms, powders and some sticks
Solid	A bar or stick format; water content varies	Soap and shampoo bars, solid deodorant and fragrance
Concentrated or low-water	Reduced formulation water and/or a smaller effective dose, relative to a defined comparator	Concentrated cleansers and treatments
Add-water-at-home	Water is added by the user before or during use	Powder or tablet refill systems
No-rinse or reduced-rinse	Designed to require less rinsing; total impacts still need assessment	Dry cleansing and leave-on formats

Three guardrails

- Not every solid or low-water product has lower impact. Ingredients, manufacturing energy, dose, packaging and use all matter.
- Distinguish formulation water from manufacturing water and the water or energy used by the consumer.
- Compare equivalent functions, such as one wash or a defined number of uses, rather than pack size alone.

Sources: H2NO Workshop 2 deck and official outputs; Lukić and Krajišnik (2024).

3 ENVIRONMENTAL CASE

Where formats can reduce environmental impact

Packaging, product mass and volume, logistics and formulation offer opportunities for improvement. Consumer use remains critical for rinse-off products.

Packaging and transported mass

Less water in a product can reduce the mass and volume moved through manufacturing, warehousing and distribution, provided the product delivers an equivalent number of uses. Solid formats may also avoid leak-proof bottles, pumps and mixed-material packs, using paper, cardboard, refillable containers or minimal packaging instead.

These are plausible routes to lower impacts rather than guarantees. The amount and type of packaging, accessories, transport distances, manufacturing location and product dose all affect the comparison. A durable case or holder should be assessed over its realistic lifetime.

Formulation opportunities

Lower water activity may limit microbial growth and reduce the need for some preservatives. This depends on formulation and use conditions, including whether water enters the product during use. Microbiological safety and stability still require appropriate assessment. Fewer preservatives should not be presented as inherently safer or as proof of lower whole-life impact.

The importance of consumer use

For shampoo and other rinse-off products, water heating and rinsing can account for a substantial share of life-cycle impacts. Any format benefit should be considered alongside actual shower duration, water temperature and rinsing requirements. A product that increases rinsing time could offset some upstream gains.

Comparative evidence

The H2NO evidence review identifies examples in which solid formats perform favourably relative to liquids. However, results depend on the products, functional unit, dosing assumptions and impact categories assessed. No single percentage reduction should be applied across the category. Direct product comparisons are needed before making quantified claims.

Sources: H2NO environmental evidence review; Lukić and Krajišnik (2024); Golsteijn et al. (2018); L'Haridon et al. (2023).

4 EVIDENCE

Evidence strength and limitations

This paper treats format as an opportunity for improvement, not a universal environmental claim. Compare the whole life cycle per use and disclose trade-offs.

Topic	Evidence position	Implication
Packaging reduction	Strong directional rationale	Solids may avoid bottles and pumps. Exact benefit depends on materials, weight, accessories and end of life.
Transport and storage	Strong directional rationale	Reduced mass and volume per use can lower logistics burdens. Distances and manufacturing locations matter.
Overall impact per use	Promising but uneven	Direct comparative LCAs remain limited across several beauty categories. Findings cannot be generalised to all solids.
Preservative requirements	Formulation-specific	Lower water activity can reduce preservative need. Safety, stability and ingredient impacts still require assessment.
Consumer water and energy	Important for rinse-off products	Water heating and rinsing may be major hotspots. A format change does not automatically reduce them.
Ingredient sourcing	Can change the comparison	Oils, surfactants and other ingredients can create land-use, biodiversity, water or toxicity trade-offs.

An evidence standard for H2NO

- Compare like with like using equivalent function and actual dose.
- Assess ingredients, manufacturing, packaging, distribution, use and end of life.
- Consider impacts beyond carbon, including water scarcity, land use, ecotoxicity and resource use where methods and data allow.
- Keep claims specific and conditional when the evidence is incomplete.
- Build the evidence base through shared data and direct comparative studies. Retail pilots alone cannot establish a full life-cycle comparison.

Sources: Golsteijn et al. (2018); L’Haridon et al. (2023); H2NO environmental evidence review and Quantis contribution to Workshop 2. Confidence descriptions are qualitative judgements in this synthesis, not a formal evidence grading exercise.

5 BEHAVIOUR

Consumer barriers to adoption

COM-B considers capability, opportunity and motivation. Workshop analysis suggests that consumers need support across all three to adopt and keep using a different format.

Capability

- Low awareness of the available products.
- Uncertainty about lathering, application and storage.
- Confusion about lifespan, dose and value.
- Doubts about efficacy and suitability for particular hair or skin needs.

Opportunity

- Limited availability or weak shelf and digital visibility.
- Few trial sizes or samples.
- Missing storage accessories and practical guidance.
- Shelf prices that appear high when cost per use is unclear.
- Few visible mainstream users or trusted messengers.

Motivation

- Performance anxiety and concern about hygiene, sharing or irritation.
- Perceptions of messiness or weak sensory appeal.
- Associations with old-fashioned products or niche environmental choices.

Practical responses

Show how the product works, including dose and storage. Offer low-risk trial and credible reviews, make accessories part of the proposition where needed, and explain product lifespan and cost per use using substantiated data. Retail signposting and familiar messengers can make the format easier to recognise and consider.

Product experience first The workshops repeatedly returned to performance, convenience and usability. Environmental benefits should support a product that people want to use.

Sources: H2NO COM-B barriers; Workshop 2 deck and official outputs. COM-B framework: Michie, van Stralen and West (2011). Barriers are workshop insights rather than estimates of population prevalence.

5 BEHAVIOUR

Business barriers to scaling

Firms want evidence of demand before investing, while demand is difficult to build without visibility, product development and sustained support.

COM-B dimension	Barriers identified in workshop analysis
Capability	R&D and testing needs; costly process changes; variable performance; weak category definitions; limited capital or technical support.
Motivation	Uncertain margins; short-term priorities; limited executive incentives; concern about environmental claims, shelf space and brand visibility.
Opportunity	Unclear demand and volumes; limited internal alignment; manufacturing systems designed for liquids; fragmented evidence and standards.

A common platform

Participants asked for consistent terminology, a clear category aim and a customer story that explains why the format is worth considering. Shared language can help brands and retailers present a recognisable category without erasing differences between products.

Evidence and claims

Comparative data, usable facts and a practical toolkit can help organisations communicate benefits and identify where more evidence is needed. Product claims must remain the responsibility of the organisation making them.

Lower risk activation

Retailer access, coordinated campaigns, samples, trial formats and staff guidance were identified as possible ways to reduce the burden on individual organisations.

Internal capability

Training and common briefs can help sustainability, marketing, sales, R&D and new product development teams work towards the same objectives. Follow-up needs to accommodate organisations’ different decision processes and resources.

Sources: H2NO COM-B barriers; Workshop 2 feedback and next-steps responses.

6 COMMUNICATIONS

Principles for category communications

M&C Saatchi developed three strategic territories and three practical entry points. Workshop voting favoured ideas centred on product desirability and value.

Workshop preferences

Type of option	Option	Recorded votes
Strategic territory	Indulgent self-care	13
Strategic territory	Smart premium	7
Strategic territory	Win-win	6
Entry point	Men	6
Entry point	Kids and families	4
Entry point	Deodorant	1

Source: official M&C Saatchi Workshop 2 outputs. Raw votes reflect workshop preferences, not population research or sales potential. An eligible voting base is not available for this synthesis. Territories and entry points are different types of option.

Six communications principles

Lead with a wanted benefit. Performance, scent, texture, convenience, travel, value or self-care can provide a relevant reason to try.

Explain the unfamiliar. Show the product in use and explain dose, lather, lifespan and storage.

Substantiate environmental information. Use it to support the proposition, rather than as the only reason to buy.

Create a recognisable category. Shared language and retail signposting can help consumers understand the format.

Design for repeat use. Samples, starter kits, guidance and storage solutions can reduce initial risk and ongoing friction.

Consider use-phase impacts. Where relevant, connect product use with shorter or cooler washing routines without compromising suitability or hygiene.

7 STRATEGIC TERRITORIES

Indulgent self-care

This route presents the physical qualities of solids, including touch, scent, texture and ritual, as potential benefits to explore.

Why it may resonate

- Fits existing self-care and wellness routines.
- Offers a direct sensory relationship with the product.
- Creates space for fragrance, gifting, shape and texture.
- Can be explored across mass-market and premium brands.
- Provides opportunities for creator demonstrations and storytelling.

Risks to manage

- Premium framing may alienate price-sensitive audiences.
- Indulgence must not encourage longer or hotter water use.
- Packaging and accessories need to be practical and proportionate.
- Shared bars can trigger hygiene concerns.
- Products still need to feel effective and relevant to customers' needs.

Ways to test the territory

- Work with relevant creators in wellness, gym, relaxation, fragrance or design, as well as sustainability.
- Use samples, beauty boxes, pop-ups and retail demonstrations to test sensory appeal.
- Include practical drying, storage and travel solutions where needed.
- Consider a coordinated campaign moment rather than isolated product messages.

Strategic role Indulgent self-care is intended to test whether tactile and sensory benefits can improve category perceptions. Consumer response still needs to be evaluated.

Source: official M&C Saatchi Workshop 2 outputs on Indulgent Self-Care and creative reflections.

7 STRATEGIC TERRITORIES

Smart premium

This route focuses on performance, longevity and value per use. Smaller packs need a clear explanation of the benefit they offer.

The core idea

Communicate concentration, effective dose, product lifespan and cost per use using substantiated product data. Concentration alone is not evidence of better efficacy. Comparisons should show how the product meets the same customer need and what makes its format useful.

Suitable use cases

Potential applications include products with defensible dose, longevity or multi-use advantages, travel-friendly formats, make-up sticks and premium cleansing. The territory may also appeal to consumers who prefer a smaller or simpler personal-care routine.

Ways to test the territory

- Show cost per use and expected number of uses, with clear dosing assumptions.
- Use demonstrations to explain how a smaller product delivers the intended function.
- Provide simple guidance and retail comparison tools.
- Balance factual information with appealing design and a clear customer benefit.

A credible value comparison

Consumers often compare shelf price and pack size rather than dose or lifespan. Value claims should therefore make the comparator and assumptions visible. Actual usage may vary by hair length, application technique, storage and other factors.

Strategic role Smart premium can test whether transparent product information reduces uncertainty about value and performance. It should not promise lower costs or superior performance without product-level evidence.

Sources: H2NO Workshop 2 deck and official M&C Saatchi outputs.

7 STRATEGIC TERRITORIES

Win-win and practical entry points

This route aims to make a suitable lower-impact option easier to identify and choose, without asking customers to accept a poorly explained trade-off.

Win-win

Where products meet the same need, clear information and choice design can help shoppers identify an option with a substantiated packaging or other environmental benefit. The approach may be useful when customers' preferences do not translate into purchases because choices are confusing or inconvenient.

Message structure Explain how the product meets the customer's need, how to choose and use it, and the specific environmental benefit supported by evidence.

- Search and shelf signposting.
- Suitable recommendations and bundles.
- Clear comparison labels and retailer category pages.
- Trusted proof points, demonstrations and reviews.

Men

Workshop participants identified men as an audience to explore through functional, gym, travel and simpler-routine messages. This is a hypothesis for audience testing, not evidence of greater demand. Avoid gender stereotypes or suggesting that formats are exclusively for men.

Kids and families

Family routines may provide an entry point, but product suitability, age-appropriate messaging, safety and parent confidence are essential. Focus on relevant hygiene needs and independence, rather than encouraging unnecessary beauty consumption.

Deodorant

A familiar daily routine may offer a manageable starting point for trial. However, a deodorant-only campaign may have limited effect on wider category perceptions. Deodorants and antiperspirants also serve different functions and should not be treated as equivalent.

Sources: official M&C Saatchi Workshop 2 outputs and H2NO participant feedback. Entry points are proposed options for testing.

8 ACTION

Turning insight into action

Participants prioritised category-level communications, supported by sampling, retail activation, evidence and product development.

Evidence and definitions

Develop a shared category map, claims principles and comparative testing guidance. Agree the functions and benefits being assessed, and identify where product-level data is missing.

Category communications

Create a common story and adaptable creative assets that brands and retailers can use. Test the messages with intended customers rather than assuming workshop preferences predict performance.

Trial, retail and choice design

Use appropriate samples, search filters, digital or shelf prompts, staff guidance and clear product pages to support discovery and trial. Instructions should explain dose, application and storage.

Product and experience support

Address sensory performance, usability, storage and accessories. Where the experience is a barrier, communications alone are unlikely to solve it.

Measurement and learning

Evaluate commercial response and customer experience, while using product-specific data to assess environmental implications. First purchases, reported use and repeat purchases answer different questions and should be reported separately.

Why collective action matters

A shared platform can reduce duplication, help retailers tell a coherent story and enable suppliers to contribute to a common test. Collaboration does not remove differences in product performance or the need for each organisation to substantiate its own claims.

Sources: H2NO Workshop 2 next-steps responses and official outputs. These five areas reinforce one another and are not a fixed implementation sequence.

8 CONSUMER MOMENTUM

A foundation of existing use

WRAP’s March 2025 survey indicates established use of soap bars and a smaller but meaningful base of shampoo and conditioner bar users. It is a dated usage snapshot, not evidence of growth or current 2026 market share.

Reported use at March 2025	Soap bars	Shampoo or conditioner bars
In the past three months or during 2023-24	56%	25%
In the past three months	43%	14%

The broader measure includes use during 2023-24 and should not be interpreted as current or frequent use. Neither measure establishes trial-to-repeat conversion, sales share or sustained habit change.

Different starting points by audience

WRAP audience segment	Reported use	Potential implication
Segment 7 High-consumption and socially influenced audience	27% used a shampoo or conditioner bar in the past three months; 47% reported use in that period or during 2023-24.	Test visibility, aspiration and creator demonstrations with this audience.
Segment 2 Audience already acting on sustainability	62% used a soap bar in the past three months; 68% reported use in that period or during 2023-24.	Soap may be a familiar gateway. The proposition still needs relevant product benefits.

Implications for the category

Different solid formats need different propositions. Soap can demonstrate familiarity and practical use, while shampoo and conditioner bars offer a category in which to test confidence-building and trial. Tailor the reason to try by product and audience, including performance, sensory experience, value or convenience.

Source: WRAP Tracker Survey analysis supplied to H2NO. Fieldwork 13-31 March 2025; n=5,438 UK adults responsible for household rubbish or recycling; matched base 4,508. Item or segment bases, weighting details and uncertainty intervals are not available for this synthesis. Segment descriptions follow the supplied analysis.

9 METHODOLOGY

Methodology and scope

This report synthesises environmental literature and H2NO project evidence to inform industry discussion and practical testing.

Project methodology

- An environmental evidence review covering academic literature, life-cycle methods, corporate sustainability reporting and industry sources.
- Two multi-stakeholder workshops on 15 October and 3 December 2025, involving brands, retailers, industry bodies, academics, consultancies and communications specialists.
- COM-B mapping of consumer and business barriers through capability, opportunity and motivation.
- M&C Saatchi development and workshop testing of three communications territories and three entry points.
- Participant feedback on usefulness, intended actions, priorities, potential contributions and conditions for action.
- NCIT synthesis, with workshop insights reported in aggregate under the Chatham House principle.
- WRAP survey analysis from March 2025 used to provide context on reported use of selected solid formats.

Interpretation and limitations

This is an applied evidence synthesis, not a systematic review, representative consumer study or product certification. Workshop voting and feedback reflect the participants involved. The feedback response base and eligible voting denominator are not available for this synthesis. Intended actions should not be read as verified outcomes.

The WRAP usage figures relate to fieldwork in March 2025. Their recall periods, sample scope and available bases are stated alongside the data. They do not establish current sales share, growth, purchase frequency or repeat use. Subgroup findings are descriptive and should guide testing rather than fixed audience assumptions.

Environmental findings are conditional on the products and life-cycle assumptions. Product-level environmental, performance and value claims require appropriate substantiation before campaign use. Proposed retail contributions are not confirmed commitments. Participation in the workshops does not imply endorsement of every finding or recommendation.

Acknowledgements

We thank WRAP, M&C Saatchi, the workshop participants and contributing evidence specialists. The industry workshops were supported by the University of Exeter ESRC Impact Accelerator Account. NCIT led the synthesis presented in this report.

11 REFERENCES

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Additional background reviewed

The H2NO environmental evidence review also drew on European Product Environmental Footprint technical work, the Ellen MacArthur Foundation Global Commitment 2024, the Union for Ethical BioTrade Biodiversity Barometer 2022, corporate reporting from Beiersdorf, Henkel, P&G, Kenvue, Unilever, Garnier/L'Oréal, Rituals and Faith in Nature, and resources from NATRUE and the British Beauty Council.

Further information about the initiative is available at h2no.uk