

Driving the **big shift** to sustainability

How Forum for the Future took
system innovation to the beauty
and personal care product industry

22 October 2015

About Forum for the Future

Forum for the Future (Forum) is an independent non-profit that works globally with business, government and other organizations to solve complex sustainability challenges.

We aim to transform the critical systems that we all depend on, such as food and energy, to make them fit for the challenges of the 21st century. We have nearly 20 years' experience inspiring new thinking, building creative partnerships and developing practical innovations to change our world. We share what we learn from our work so that others can become more sustainable.

System innovation is at the heart of our strategy. One of our key approaches is creating innovation coalitions, bringing together groups to solve bigger sustainability challenges – including those that work across whole value chains. Another of our approaches is helping pioneering businesses go further, faster.

Discover our stories and what we've learned about building a sustainable world at www.forumforthefuture.org, or follow us on Twitter and LinkedIn.

About this report

Over the past year, Forum and members of the beauty and personal care industry have been tackling the hugely complex challenge of trying to make the beauty and personal care product sector more sustainable, by applying a system innovation approach. This report outlines Forum's framework for changing systems and the processes we have gone through so far to implement system innovation in the industry. It also describes some of the many challenges and lessons learned along the way.

This report acts as a recap for members of the beauty and personal care industry involved in this process and offers valuable insights to anyone trying to apply a system innovation approach to creating change. It also serves as a practical demonstration of how we and our partners are working to create a sustainable future. Changing systems is an important, but often messy, job – and we hope readers can draw on our experiences and insights to drive their own change.

The project has been managed and facilitated by Forum, but is a truly collaborative effort and the progress we have made would not have been possible without the support of our committed partners. We would like to thank:

Target and Walmart, for providing funding for this work;

The steering group, made up of members from Seventh Generation, BASF, CVS, The Dow Chemical Company, Eastman Chemical Company, Environmental Defense Fund, Henkel, Johnson & Johnson, Method, P&G, and Unilever, for its ongoing support;

The following organizations for their participation at the Beauty and Personal Care (BPC) Sustainability Summit:

Akzo Nobel
Amcor Rigid Plastics
Apollo Health and Beauty Care
Avery Dennison

Aveda
BASF
BBMG
Berlin Packaging
Berry Plastics
Biz NGO
BSR
Clorox / Burt's Bees
Colgate-Palmolive Company
CVS
The Dow Chemical Company
DuPont Industrial Biosciences
Eastman Chemical Company
Environmental Defense Fund
EPA's Design for the Environment
Estee Lauder
Firmenich
Fruit of the Earth
Givaudan Fragrances Corp.
Good Guide
Green Chemistry & Commerce Council
GreenBlue
Henkel
Johnson & Johnson
L'Oreal
Method
P&G
Revlon
Sam's Club
Sears
Seventh Generation
Sustainable Apparel Coalition
Sustainable Packaging Coalition
The Sustainability Consortium
Target
UL
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Unilever
Vi-Jon, Inc.
Walgreens
Walmart
Warner Babcock
Waste Management
Wercs
Winston Eco-Strategies /
'The Big Pivot'
Yes To

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Overview

At Forum for the Future we know that to meet our mission to create a sustainable future – one in which our planet and the people on it can survive and thrive – big and complex changes are needed at a systems level. We also know that the only way to achieve these changes is for people and organizations to come together and collaborate in new ways, and to find and work toward common goals.

We recently applied our experience and understanding of system change to the beauty and personal care sector after Target and Walmart – two of the US's leading retailers and fiercest competitors – came together in an unprecedented collaboration to support Forum's work to help bring better and more sustainable products to the shelves, and meet growing demand from consumers.

The beauty and personal care industry is well known for being extremely complex and is made up of many different stakeholders with varying perspectives. Both Target and Walmart were able to see that there were a number of interconnected barriers that stood in the way of creating more sustainable products – from differing definitions of sustainability, to the challenge of sharing product information across the supply chain, and the lengthy and costly process of new ingredient development. The retailers also recognized that these barriers needed to be tackled with a new approach – taking a systems perspective, rather than working on them in isolation. They asked Forum to bring our system innovation knowledge to the industry's

sustainability efforts, and work with stakeholders from across the value chain to recommend a new path forward.

Nearly 20 years' experience in the field has taught us that one of the most important early steps in changing a system is a thorough diagnosis: understanding how the system works, who is part of it and how they contribute to it, how decisions are made, and where the key barriers – and potential leverage points to make change – can be found. It is important to make this diagnosis with all the players in the system together, since it will be up to them to ultimately implement lasting change. While this may slow the process down compared with coming up with recommendations on our own, we know that collaborating at this crucial stage will ultimately deliver further-reaching impact.

Over the past year, we have carried out extensive and varied research and engagement, working closely with industry leaders and other stakeholders to identify the sector's key barriers to sustainability. We first brought this group together at the Beauty & Personal Care Sustainability

Summit (BPC Summit) in Chicago in September 2014, and have continued to work with them since – using discussion, analysis tools and system change frameworks to identify where work is already being done to tackle these barriers, where more work is needed and what the best opportunities are for delivering effective and efficient change.

The journey has been as fascinating and productive as it has been challenging and frustrating. We have seen industry leaders – many of them ardent rivals – willingly setting aside their differences, offering up ideas and engaging in open, honest conversation to collaboratively lay the groundwork for the exciting path forward. Soon the next phase of this work will move forward, building on the momentum we've gathered and bringing industry leaders together to accelerate the route to market of sustainable ingredients, ultimately bringing better beauty and personal care products to consumers – products that are both safe and sustainable. As this next phase begins, it will be time for the industry to roll up its sleeves – and tackle these challenges head on.

The most valuable aspect of this whole dialogue was the over-riding theme of collaboration. I applaud...Forum because what you guys were trying to do was move us beyond surveys and questionnaires and on to meaningful thinking about how to drive real impact.

Major consumer goods company

Introduction

This is the story of how one of the world's leading sustainability not-for-profits – that's us, Forum for the Future – has been working to shift the beauty and personal care product sector into a more sustainable, thriving and resilient industry that serves the needs of people and planet both now and in the future.

Over the past year, industry leaders and other senior stakeholders from across the sector have been casting aside their differences and engaging collaboratively around the common aim of making their industry more sustainable. Why? Because each of them believes, as we do, that the only way to create significant and lasting change is to reimagine and transform the key systems that we all use and rely on, and to innovate now for success in the long term – and the only way to do that, is by working together. At Forum, we call this system innovation.

Although until now much of the work in business sustainability has been focused on making change within an individual company or organization, increasingly companies are recognizing that the challenges they face originate in the broader systems within which they operate, and from the cumulative effects of the actions and decisions of many. Today's forward-thinking businesses and other organizations know that we need to change these systems to make them more resilient and better able to continue into the future.

Forum defines system innovation as a set of actions that shifts a system – whether that's a city, a sector and its supply chain or an entire economy – onto a more sustainable path. This approach to big innovation is both doable and necessary. We have set out our thinking on how to catalyze system innovation in previous reports, such as *Creating the big shift: system innovation for sustainability*, and we have created real change in important areas ranging from the UK's energy system to the global shipping industry. In this report, we will be sharing the exciting work that we have been doing in the beauty and personal care sector in the US, where we have been putting our system innovation theory into practice.

It's obvious that changing systems is a big job. It's also a process, beginning with simply recognizing that change is needed, and ending, finally, with a system operating under a new set of rules. Forum's approach focuses on three key steps of this change process: diagnosing the system and identifying the change that is needed, creating pioneering practice to help bring about that change and scaling these practices up to ensure wide adoption.

During the last 12 months we have focused on the first of these three steps, working with a group of cross-industry stakeholders to diagnose the system, so that we can understand and make recommendations for how the industry can best work together to meet growing consumer demand for sustainable beauty and personal care products in a complex sector.

In this report, we will look at how our work in the beauty and personal care industry has moved through the early stages of system change, beginning with the creation of a system map and cross-value chain conversations at the September 2014 BPC Summit – and how this has led to the development of the project's next phase.

I think [this work] will generate trust from our consumers at a magnitude that couldn't be achieved before. Nobody could have done it alone without this collaboration.

Chemical manufacturer



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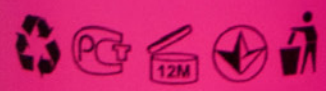
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The need for a big shift in the beauty and personal care product industry



Why is a systems-based approach to beauty and personal care the answer?

Demand is growing among consumers for beauty and personal care products that they believe to be safe and sustainable. With the power to investigate product ingredient lists at their fingertips, and growing public conversation about products' potential impacts on health and the environment, more and more consumers and monitoring groups are able to use their purchasing power – and social media voice – to be explicit about their concerns and what they want.

Also part of this emerging public discussion, government agencies, NGOs, retailers and other stakeholders have prioritized for reduction or elimination particular chemicals that they've deemed to be of concern, encouraging manufacturers to find substitutions. Beyond policies and regulations, activist and consumer groups have targeted major retailers and cosmetics

brands, leading the charge in demanding changes in ingredient lists.

What is a chemical of concern to one group, however, might be considered a tested and safe – and in fact necessary – beauty product ingredient to another. The many nuances and disagreements about dosage, exposure, risk acceptance, what type of product and ingredient testing is needed and how much product information is released by companies muddy the waters when it comes to evaluating the safety and sustainability of a product. Regulations, which in other industries might offer a final and unanimous verdict on such a disagreement, don't always provide clarity in the beauty and personal care product sector. They can vary widely from one jurisdiction to the next, and often leave the final call to consumers, advocacy groups and ingredient or product manufacturers themselves.

The systems approach generated the right results. You can tell that we've done something right.
Major consumer goods company

You have to change the system – you can't get a chemical company to make new chemicals unless people will buy them, you can't get people to buy them unless they're available, you can't make them available unless they think they need to change. That's a powerful force to disrupt unless you get everybody agreeing that they have a reason to want to make the changes happen.

Environmental NGO

As a result, meeting the growing demand for better, more sustainable products from consumers and retailers on one end of the value chain is not just a matter of asking the manufacturing end of the chain simply to produce more products. These complexities contribute to a lack of progress; for example, manufacturers may disagree with the very notion that their products aren't sustainable enough and resist making a costly change they don't believe is warranted. Or, requests from retailers and consumer groups for particular ingredient information may be rejected by manufacturers who consider this information to be confidential or are concerned about its misuse.

Furthermore, while consumers increasingly demand sustainable products, it isn't always clear whether they're willing to pay more for them. This can limit the market incentive to switch to new ingredients or products that take time and money to

develop, manufacture or switch over to. In some cases, alternative ingredients aren't available and the signals aren't always clear enough for innovators to invest in developing them.

Clearly, the beauty and personal care product industry is extremely complex. In spite of the disconnects and disagreements, though, our conversations with industry stakeholders have revealed a general agreement that change is necessary. The need and desire to shift the system is apparent, whether driven by consumer safety concerns, a response to growing demand from large retailers or the uncertainty around potential future regulation. Further, the demand for change is outpacing the industry's ability to deliver – and it's clear that no one company can deliver alone.

This wide array of perspectives on what the problems – and the solutions – are,

suggests that a unified, systems approach is needed. That said, it is important to recognize that discussions about the sustainability of the beauty and personal care industry are not new; a number of ongoing efforts by groups such as the Green Chemistry & Commerce Council (GC3) and The Sustainability Consortium (TSC) are seeking to address specific concerns, such as how a product's sustainability is measured, how information is shared with consumers, or how development of new ingredients can be accelerated. However, the unique ambition of Forum's work in this area was to approach the problem with a systems perspective: understanding the landscape, diagnosing which levers for change were being overlooked and proposing next steps to build on these ongoing efforts and tip the entire system towards sustainability.

You had the entire value chain represented. That was very helpful, very good. It was one of the few times when the entire value chain could actually sit down and openly discuss what they considered the problems and the issues to be, and then really try to seek understanding.

Chemical manufacturer



Our approach: driving a big shift to sustainability

Forum is all about solving complex sustainability challenges. Creating sustainable beauty and personal care products is extremely complex because it requires collaboration among a large number of players who come from very different perspectives.

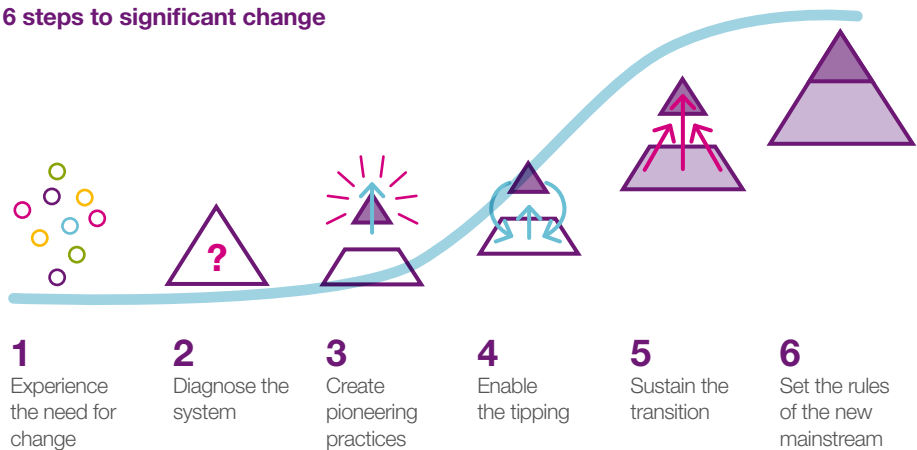
We were interested in helping move this forward because the industry appeared stuck between these various viewpoints, and we could see that Target and Walmart's combined support of our work would provide a strong impetus to overcome some of the intractable barriers that had built up.

When presented with a challenge like this we draw on the best of change thinking and combine that with our practical

knowledge and experience. We have condensed this approach into our 'Six Steps to Significant Change' model, which sets out the key steps we think are needed to make any sort of deliberate change in a system.

System change happens throughout the 'Six Steps' curve, but the key moments for the system innovation we work on at Forum are at stages two, three and four. It is during these stages that a number of new ideas and approaches are catalyzed, getting ready to be taken up by the mainstream. Our work so far in the beauty and personal care industry, and the process described in this report, has focused largely on the second step – diagnosing the system to create a strong foundation for next steps, providing a springboard to test and scale up innovative, pioneering practices.

6 steps to significant change



The power of retailers to convene the supply chain, to engage players and say business as usual is no longer acceptable, was the kind of powerful signal we were hoping to see to open up the conversation.
Environmental NGO

1. Experiencing and understanding the need for change

Deliberate system change can't happen unless there is a sense that it is needed, at least by a small group of people. At the beginning you might have only a few committed actors, like those we were working with at Target and Walmart. Ideally, this involved group will grow as you progress through the change process – making engagement with a range of stakeholders a key activity in moving change forward. In the beauty and personal care industry, we found that most people we talked with agreed that something had to happen to improve the sustainability of products, although there was less consensus on what that specific change should look like.

2. Diagnosis

Diagnosing the system allows you to come to grips with the system you are dealing with and how it works – who holds the power, how change happens, where innovation is needed and where the key leverage points are to create change. We used system mapping to start the diagnosis and kick-start the conversation. This mapping process, and the following

steps we took in the diagnosis process, is the focus of this report.

3. Pioneering practice

Creating pioneering practice is about developing and showcasing new and better ways of doing things. Practically speaking, this involves multiple ideas – ranging across different areas and disciplines like technology, culture, behavior, policy and finance – on how to make change happen. We knew there were already some pioneering practices that were contributing to new ways of thinking about sustainability in the beauty and personal care sector: a number of entrepreneurial companies, such as Seventh Generation and Method, had shown that more sustainable products could be commercially viable, while innovative tools such as GoodGuide help consumers and others to understand and evaluate sustainability issues. Through our diagnosis process we identified the potential for additional pioneering practices in areas where innovation was needed to overcome barriers. These ideas for new practices have shaped our recommended next steps.

4. Enabling the tipping point

This is where things begin to scale up; the pioneering ideas that are proven to work are taken up more widely by mainstream players in the system, and an increasing number of people and organizations get involved. This step is often the hardest to make happen, as it is common for new ideas and initiatives to remain niche and isolated. In the beauty and personal care industry we learned that the challenge of sustainability is as much about scale and wide adoption as it is about innovation. A key part of our challenge was to find the best route to change that would not only help more sustainable products and approaches to be prioritized, but also tip these new practices into the mainstream.

5. & 6. Sustain the transition and set new rules for the mainstream

The final two stages are about embedding and spreading the change that has been created, as well as addressing the opposition that can build once new alternatives start to look viable. This commonly happens through widespread sign-up to voluntary commitments, new consumer standards and/or regulation.





There were some times when I was listening to the words but I didn't understand what was being said. But over time, you put things in context and you build on it, and you can start building that trust. There was a lot of guarded conversation initially but it's been worked through.
Chemical manufacturer

Diagnosing the system

'A diagnosis...defines or explains the nature of the challenge. A good diagnosis simplifies the often overwhelming complexity of reality by identifying certain aspects of the situation as critical.'

Excerpt from Richard Rummelt's *Good Strategy, Bad Strategy*

Diagnosing the system is about getting to grips with the sort of system you are dealing with and how it works. It is also about preparing people and organizations within the system to start the process of innovation and change, through building a more shared understanding of the nature of the challenges and the relationships necessary to create impact. When undertaking a diagnosis process, there are a few critical elements to have in place: being clear which system you are

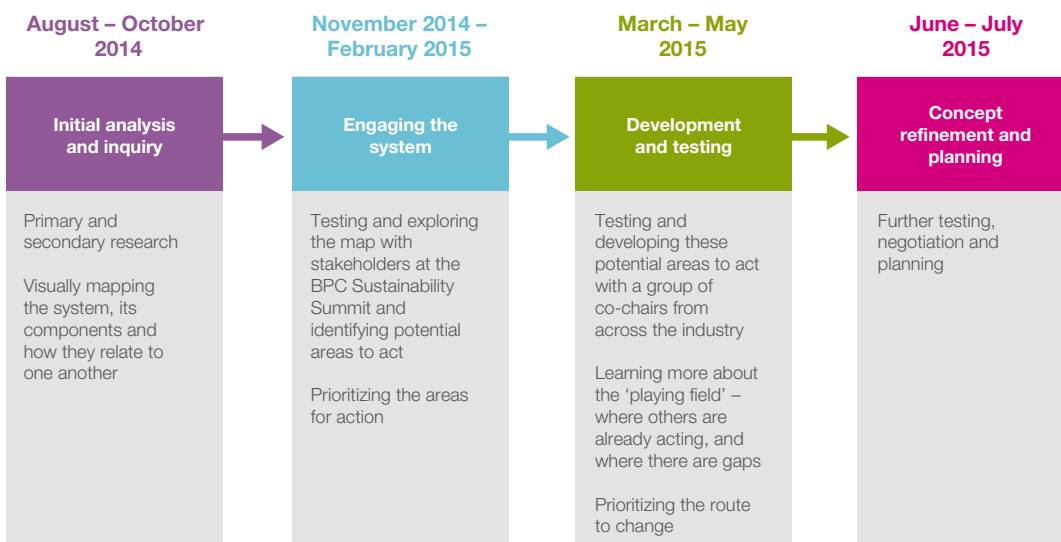
talking about and what its boundaries are, ensuring that those working in the system are involved throughout the diagnosis, and ensuring that the process is well-planned and comprehensive to provide a clear, sound rationale for whatever conclusions or next steps result.

To do this we took the beauty and personal care industry – the system as we defined it – through a series of steps to get to a place that allowed for recommended action

to create maximum impact. This section describes what we did, along with some of the key insights that emerged from this work, which could be applied to diagnosis processes in any other area, on any other issue.

Going through this process has helped us propose a path forward that we believe most effectively leverages existing work, fills gaps and presses key levers that will spark broad, lasting change.

Diagram 1: The four phases of our system diagnosis



We went through four main steps in our diagnosis phase – beginning with research, moving on to testing our ideas and developing new ones with stakeholders in the system, and then narrowing in on and refining our final recommendations. This process of refinement will continue even as next steps get underway.

Initial analysis and inquiry

Primary and secondary research

Our first step in diagnosing a system is learning as much as we can about it – not just the visible structures, but how people and organizations interact, where the challenges are, where change has happened in the past and so on. In this case, we began with background reading on topics ranging from green chemistry to product testing to packaging disposal. Our insights deepened through online surveys and in-depth interviews with stakeholders from across the industry including retailers, chemical and product manufacturers, fragrance companies, academics, NGOs and other sustainability thought leaders. Over the past year, we've continued to learn more and refine our understanding of the system as we've built relationships with industry leaders and engaged in ongoing discussions.

Through our research, we identified four key systemic barriers that stand in the way of increasing the supply of sustainable products:

A lack of agreement over what is sustainable: While there are many studies showing the social and environmental impacts of beauty and personal care products, there are no agreed-upon criteria or methods of evaluating sustainability, and therefore no consensus about what constitutes a sustainable product.

NGOs, consumers, retailers, manufacturers and suppliers have different perspectives and assess information differently, and different stakeholders are working to different ends when it comes to 'sustainability'. This contributes to an

information disconnect between retailers and consumers on one end of the value chain and suppliers and manufacturers on the other, with the former expressing increased demand for information and transparency and the latter experiencing a reporting burden and concerns about confidentiality and appropriate use of data. This in turn leads to reduced trust and the lack of a unified approach in the industry, stalling progress toward more sustainable products.

Unclear market signals: A clear market signal driving sustainability would provide a strong impetus to change along the value chain; however, market signals are mixed and don't offer a compelling driver.

Retailers and some product manufacturers are experiencing an increasing consumer demand for 'natural' and 'sustainable' products, and advocacy groups are putting strong pressure on retailers to change their product mix. However, suppliers further up the chain report not feeling as strong of a pull from beauty and personal care product consumers; while these companies have the research and development capabilities, they experience less demand for innovation. Furthermore, consumers do not always show a willingness to pay more for sustainability, despite increasing demand. Finally, some companies are finding a competitive advantage from sustainability – while this supports the demand for sustainability, it also shows that the production of sustainable products is still niche rather than the norm.

Non-existent / inconsistent regulatory drivers: There is no clear federal regulatory mandate driving more sustainable products. Varying regulations at

other levels create inconsistent drivers for change.

Products designated as cosmetics (including makeup, moisturizers, deodorants and shampoos) are regulated by the US Food and Drug Administration under the 1938 Federal Food, Drug & Cosmetic Act; other products fall under 1976 Toxic Substances Control Act (TSCA), monitored by the Environmental Protection Agency. These acts haven't been significantly amended since being enacted, although potential reforms are currently in discussion by Congress. State-level regulations (e.g. in California, Minnesota and Illinois), meanwhile, are inconsistent but can run ahead of federal rules.

High cost of change: In the absence of a strong market signal or regulation to push change, there would need to be other incentives to make most value chain players shift to more sustainable products or ingredients.

There is a lack of alternative ingredients and innovation needed to create more sustainable products. Preservatives pose a particular problem: due to regulation and pressure from NGOs and consumers, beauty and personal care product companies are seeing their palette of available preservatives dwindling more quickly than they can find alternatives. Research and development into new ingredients, and the government approval process, is costly and time-consuming, as is the approval of existing ingredients for a different purpose. It is difficult to predict whether a new ingredient will be 'accepted' in the market or recognized as a 'better' alternative. As a result, it is difficult to make the business case to invest in innovation.

I appreciated that folks were forthright with their comments and suggestions, and were really engaged.

Major consumer goods manufacturer

Getting everybody together – in a forum where you could have an open discussion – and still have people wanting to come and continue that process is a real plus. I didn't see a lot of people alienated and over time it's developed a level of trust that may not have been there in the first meeting.

Chemical manufacturer

Where it all began:

The Beauty and Personal Care (BPC) Sustainability Summit

Our work on the beauty and personal care sector began when Target and Walmart teamed up to fund the BPC Sustainability Summit in Chicago in September 2014, and asked Forum to facilitate and manage the project. The goal of the landmark gathering was to kick off an industry-wide effort to help put better and more sustainable products on the shelves.

The BPC Summit brought together 75 representatives from top consumer goods brands, leading retailers, NGOs, academic institutions, government agencies and other players in the value chain. It was an important first step in this long-term undertaking, bringing industry leaders together to:

- agree on a shared understanding of the system they operate in
- identify the barriers to action
- find collaborative, effective solutions to take forward

The Summit also laid the groundwork for our system diagnosis and, ultimately, our recommendations for the path forward.

The first meeting in Chicago [the BPC Summit] was quite interesting in that we from the chemical industry were actually asked, 'What does it take to create a new molecule?' I think there was a revelation on a lot of people's part that it takes so long! I saw some jaws dropping.
Chemical manufacturer

KEY INSIGHT

1 Invest in your moment

The way you start has a bearing on how you continue. We found the upfront investment of time in building system maps and understanding the main challenges meant that at the BPC Summit, participants were able to get into the core debates and solutions more quickly. Having well-designed materials that reflected some of the conversations that we had already had built confidence and allowed for more efficient use of participants' time. Creating a positive and visually attractive conference environment also helped to motivate people to invest their time and effort in the discussion.

Timing is also important. The Summit came at a time when people had already been involved in a number of conversations about the issues. The additional impetus from the retailers combined with the new system-based approach gave a fresh energy to those conversations and helped motivate people to find a new way forward.

It is also important not to lose momentum. Organizing an event is easy; keeping people on board as you delve deeper into the challenges is much more difficult. Being clear about the process and planning the milestones upfront helps this, as does working with smaller groups.



Visually mapping the system

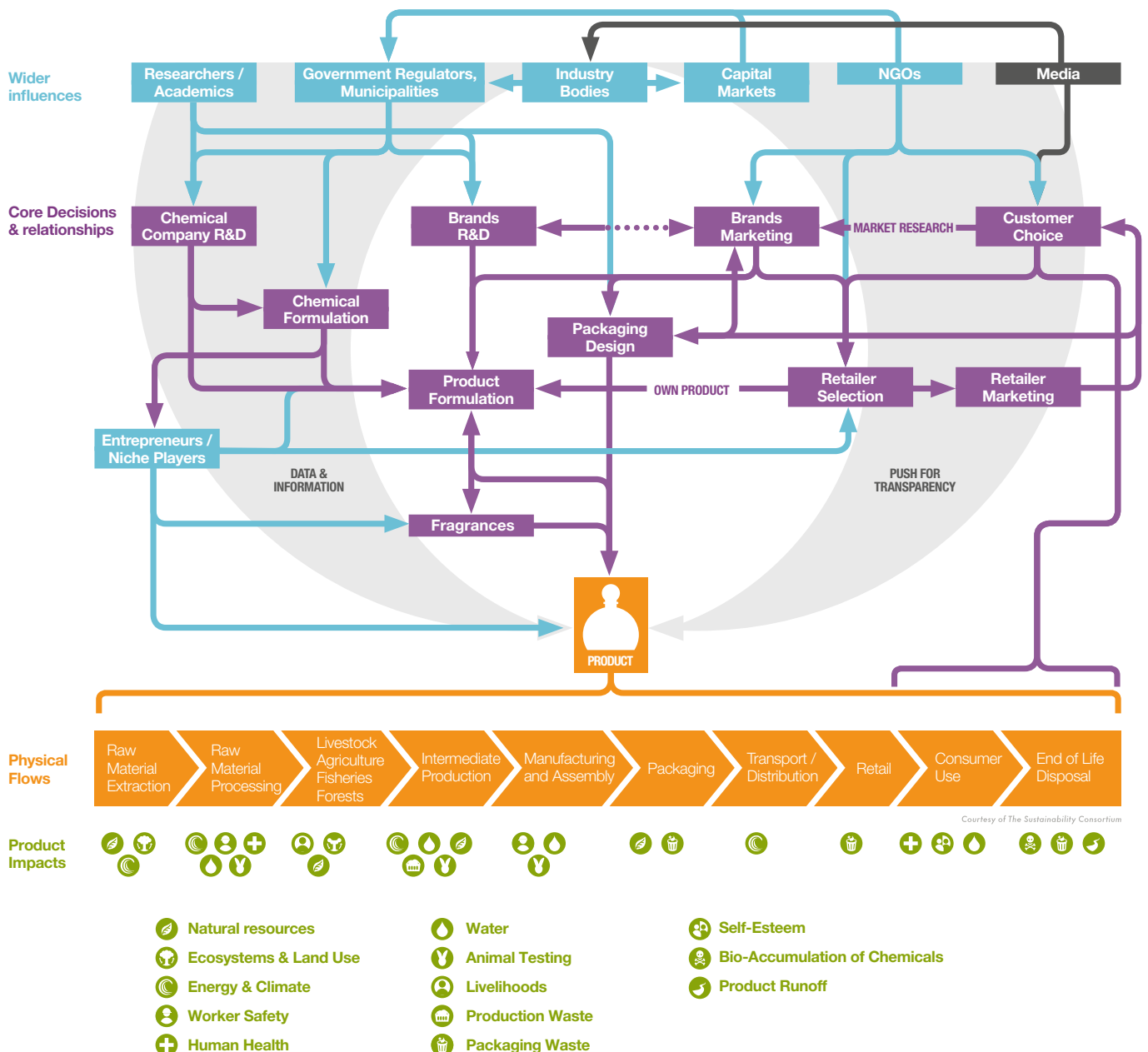
Our research allowed us to understand the barriers to sustainability in the industry, and it formed the basis of the system map below. This representation of the beauty and personal care product system enabled us to bring all of our insights together in a visual way. The decision to create a system map was based on comments made during interviews, which highlighted the fact that many stakeholders only saw part of the beauty and personal care system and were acting accordingly. The map helped us to look at the system in a new way

and spot potential areas of change, and allowed participating stakeholders to reflect on the larger system they are a part of.

Extending beyond the traditional linear supply chain, the map shows the system in terms of all of the decisions that are made in getting a product onto the shelves, and how these decisions influence one another. This created a much richer, interconnected picture of the value chain, highlighting how choices that seem to be made in isolation are, in fact, influencing – and influenced by – the actions of other players.

To support our diagnosis of the system, we created the map below. It represents the decisions that are made in getting a product from design to manufacturing and then onto the shelves, and how these decisions influence one another. The linear product life cycle, from raw material extraction to end of life disposal, is shown along the bottom of the map, along with the sustainability impacts that occur at each life cycle stage. The map helped us to demonstrate how interconnected each piece of the system is, and helped project partners think through the complexities of the industry and where action might be most effective.

Diagram 2: Map of the beauty and personal care product system



KEY INSIGHT

2 Take a system view

The beauty and personal care industry was stuck on sustainability; using system mapping and bringing players from the wider system together enabled a fresh conversation. We found that viewpoints changed as stakeholders considered what they were trying to achieve, broadening out their perspectives from a single chemical or a single issue, to focusing instead on the overall product or the end result for the consumer. The process enabled people to continue to work together toward shared goals, while continuing to disagree on some issues.

The systems approach is also important when prioritizing what to do next. There are different levels at which you can act in a system – some of them more impactful than others. By using a robust yet practical framework to review the level at which further action would be effective, we were able to focus on the activities that would deliver the biggest impact and maintain the ambition of the work. The systems approach for the beauty and personal care industry is going to remain important as we move beyond the diagnosis phase, and there is a need to ensure continued alignment across the multiple activities and challenges in the industry.

How better to model collaboration than to have two serious competitors come together to drive real change?

Major consumer goods brand

KEY INSIGHT

3 Focus on people within the system

Systems are made up of people and they work through interactions between those people – so our engagement with stakeholders throughout this process was key. We primarily refined the system map and developed recommendations with those who had been participants at the BPC Summit, who were industry leaders with the ability and resources to develop and implement new solutions.

But we also knew it was critical to involve other stakeholders, from broader industry associations to NGOs to consumer groups, both communicating our work to them and in turn, bringing their feedback and insights back to our discussions with the core project participants. We would ideally have done more of this as there are often activities happening on the outskirts of an industry that can be missed at first glance, but have transformative potential.

Also, when it comes to persuading people to change (or businesses to invest), evidence – and not just discussion – is important. The majority of industry stakeholders were more than happy to tell us that preservatives, which pose one of the biggest challenges in new ingredient innovation, should be a focus of any effort to drive sustainability forward. But, this needed to be validated with facts and figures – evidence that was not easy to obtain in a competitive environment. Backing up conversation with real evidence is an important part of testing assumptions and reconciling different viewpoints, but it can sometimes be overlooked when you are concentrating on a collaborative effort.

One of the keys to success is having people come to the table who are really going to roll up their sleeves and work together. That means creating an environment where folks feel ok and empowered to share their thoughts as individuals.

Major consumer goods company

Engaging the people who make up the system

A system map is nothing without the stakeholders who populate that system. But with their support, the map is a tool that can fast-track a discussion about what and how change needs to happen in an industry or wider system. We brought the map to the BPC Summit knowing full well that it wasn't perfect, but that it was a starting point for conversation. Summit participants willingly took on the challenge of exploring the map, pointing out where their companies fit in and where we had missed certain steps or connections. Looking at the system in this new way, and taking a broader perspective, helped unlock new insights and opportunities.

The diagnosis is also about understanding which areas are most suited for action. We know that trying to effect change on every part of the system is extremely challenging; so instead, we aim to act on a few windows of opportunity that we believe in turn will unlock greater change.

At the BPC Summit, we asked participants to consider which connections or flows on the map seemed blocked, where there were barriers that got in the way of sustainability, and which players had the power and resources to make change. Together, we identified some potential areas for action: areas where key barriers overlapped with power, resources and the potential for innovation, and where collaboration among different players in the system could unlock significant change.

We identified nine areas for action, and asked participants whether they were interested in being part of a continued conversation on any of the nine issues. These areas were prioritized based on their level of ambition, their pre-commercial nature, and the ability and interest of the group to act on them. This refinement led to three areas for action that we took forward:

1. Streamlining the flow of information (e.g. ingredient information, sustainability data) across the value chain
2. Developing common, scientific criteria for evaluating product sustainability
3. Facilitating collaborative research and development around new ingredients – with a specific focus on preservatives

KEY INSIGHT

4 Identify leaders and nurture relationships

The support of Target and Walmart for Forum's work was a key factor in compelling stakeholders from across the industry to come together in an unprecedented way. Real change needs this sort of impetus.

There were many individuals, too, who played a critical role. Our co-chairs, for example, brought knowledge, creativity and first-hand experience to the table, helping us to shape our work and ensure that our evolving recommendations remained both ambitious and relevant. Other visionaries from across the industry have helped steer our course and open our eyes to the scale of the challenge – and the opportunities within it.

It is also important to remember the nature of the relationships we have been forming. We have fostered strong working relationships with individuals who are personally committed to moving this work forward, which has contributed to the open, collaborative atmosphere that has been present throughout the process. At the same time, we know that those individuals are representing their organizational perspectives, and may sometimes be balancing their company's views with their own. Part of our role has been to help equip those individuals to strike that balance, so that they are able to bring the organizational perspective to the discussion and return to their company to represent our system-change-focused conversations.

Development and testing

Concept development and testing with co-chairs

The three potential action areas that came out of the BPC Summit were a good start and moved us much further along in the system diagnosis. However, we were not ready to act yet. There was still much work to be done to further explore these potential paths forward: What would the work look like? Who would need to be involved? Was there agreement across the industry that these would truly unlock the change we were seeking? What was already happening? Would these ideas work?

After the Summit, we invited participants to volunteer to serve as co-chairs, working closely with us to further explore these three potential areas for action. We formed a steering group of 11 leaders

from across the industry, including an NGO, small and large product manufacturers, chemical companies and retailers.

Over a period of several months, we worked with the steering group to make sure that the problems were well understood and to agree on solid objectives for each of the three concepts, what concrete steps would be needed and how feasible the work would be. We also looked at how they might unlock system change, at what scale and on what timeline.

During this time we continued to engage with a broader group of stakeholders – gathering perspectives from NGOs and activist groups, associations and industry groups and other companies in the value chain, and integrating their ideas and feedback into our scoping process.

KEY INSIGHT

5 Make time for participative diagnosis

'If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.'

Albert Einstein.

After the Summit we had a sense of what needed to happen with the three key areas for action that had been identified, but this was just the initial diagnosis. Next we had to delve deeper to understand the wider landscape, and the different perspectives that existed. To do this, we had to build trust to understand what people really thought, and ultimately identify what changes and innovation would be most effective. During this time, we explored a number of concepts and potential paths forward that didn't work. We were concerned about maintaining the momentum of this work and knew those involved were anxious to get to action, but at the same time we knew that going through a seemingly slower process of co-creation and thorough exploration would ultimately lead to faster and better progress. Having grappled with an urgency for action across all of our sustainability work, we have found that taking the time to work together does help to achieve better results – even if it seems frustrating.

Ultimately, though, there has to be an end to information gathering in favor of action, even when you don't have all the answers. Striking the right balance between exploration, analysis, and making decisions is a critical part of diagnosis.

There is a real sense of urgency to try to solve a problem – and lots of folks trying to solve it. Everybody brings their own perspective, but it's not until you bring all the perspectives together that you can figure out what the puzzle actually is.

Retailer

Exploring the playing field

From the beginning, we knew it was critical to pay close attention to other work going on in this space. While our systems approach was new, addressing sustainability concerns in the industry was not – and our goal was to ensure that the recommended path forward was complementing, accelerating and leveraging existing efforts, while filling gaps as needed. We knew that any new work that ultimately resulted from our system diagnosis should not further complicate the playing field or duplicate efforts, but act to complement and bolster what is already happening.

We connected with a number of organizations and initiatives to better understand their work, and to identify where good progress was being made and where more support was needed. UL, for example, is a company that engages with many of the players in the beauty and personal care product industry, facilitating the sharing of ingredient information up and down the value chain. The Sustainability Consortium (TSC) is exploring chemical criteria to help companies better evaluate ingredients in beauty and personal care

products, while Environmental Defense Fund (EDF) and the Green Chemistry and Commerce Council (GC3) are undertaking various efforts focused on evaluating existing preservatives and supporting innovation of safe and effective alternatives. Understanding what they and others were doing, where the gaps were and where we could potentially combine efforts deepened our diagnosis.

Re-engagement of the stakeholders in the system

After we had developed with the steering group a number of concepts for how we might tackle the three areas for action, it was time to bring a broader industry group back together to test what we had come up with. We held a small, face-to-face meeting in Brooklyn with a number of stakeholders who had been at the Summit and were interested in staying involved. We brought them up to speed on our progress – and, crucially, got the group's feedback on our initial thinking. We asked them to co-create the way forward using a variety of innovation techniques including facilitated brainstorming, asking powerful questions and rapid prototyping and iterating.

This proved to be a pivotal moment in the process, as the group confirmed our growing suspicion that treating the areas for action separately was not going to provide the coherence and clarity that the industry required. What was needed instead was to refine the distinct ideas into one unified set of recommendations, focused on getting more sustainable ingredients to market, based on agreed-upon criteria that could move the process forward.

Testing and prioritizing the route to change

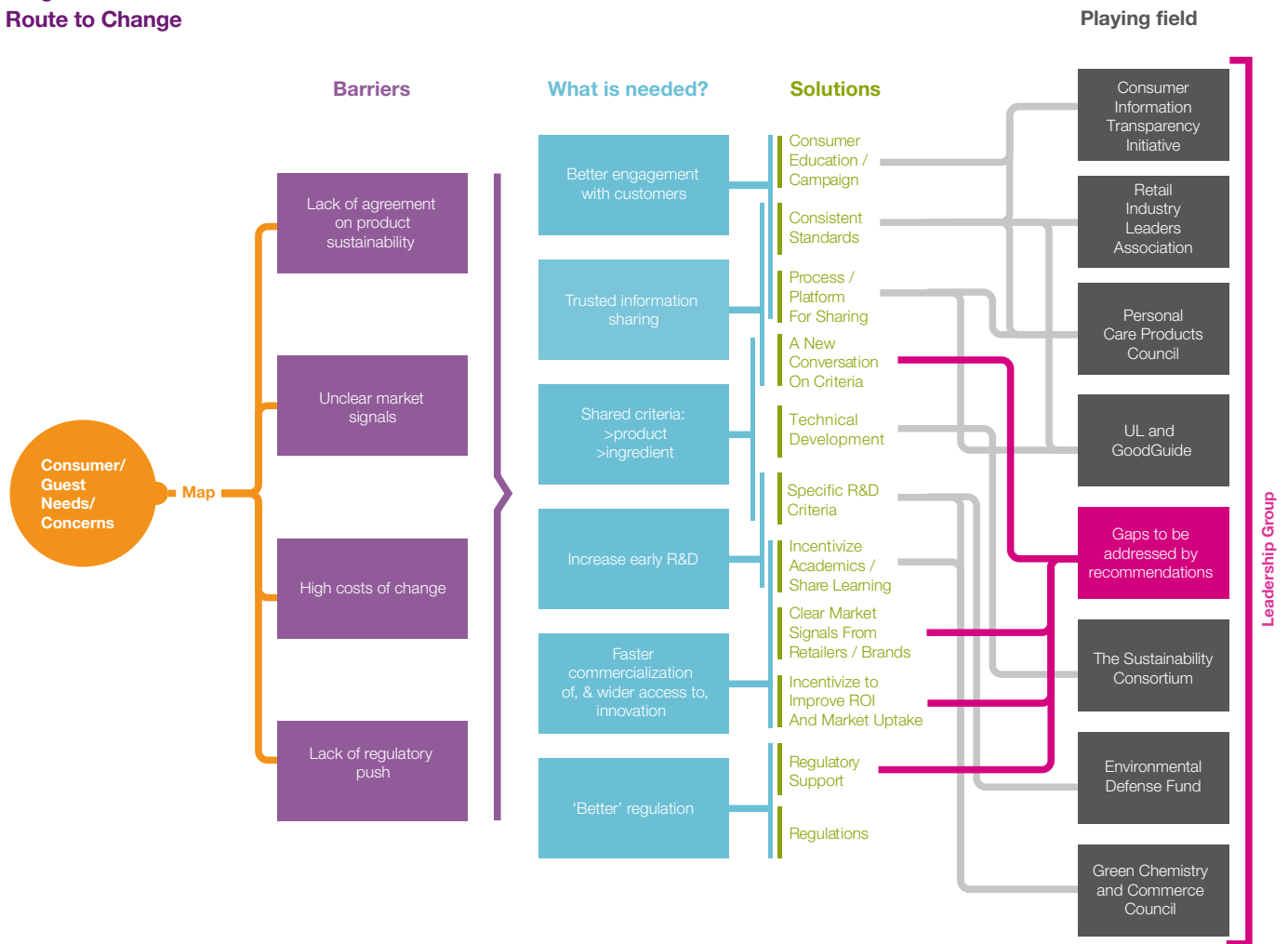
To ensure the rigor of our approach, we tested our evolving ideas against a set of design principles that we believed would make our proposed solution most effective.

a. Ensuring a clear, practical route to change

To ensure the value of our work, it was vital to make sure there was a clear space for what we were proposing, and that our proposed route to change wouldn't overlap with existing activities.

To do this, we brought all of the key findings from our research together in the 'Route to Change' diagram below, mapping the key system barriers we had identified, along with what we understood to be potential solutions to drive systemic change. We then matched these solutions to the work of some of the existing players. With this diagram, we could better see where there were gaps in the systemic puzzle that needed to be filled, and where our recommendations should be focused.

**Diagram 3:
Route to Change**



The 'Route to Change' diagram helped us see what needed to change and where there were needs in the system that weren't yet being addressed by others. We began with the four systemic barriers to sustainability we identified early on. We laid out what is needed to tackle those barriers. We then identified the various solutions that could meet those needs. Finally, we explored which of these solutions were already being worked on by existing initiatives and organizations. The groups listed in the 'playing field' column represent some of the primary work being done to address sustainability in the beauty and personal care industry at the time of our research.

KEY INSIGHT

6 Find better ways to be more than the sum of the parts

None of the complex sustainability challenges the world faces are going completely unaddressed – there are always committed people working hard to solve them. But at the same time, we are not making the sort of breakthroughs for sustainability that the world needs. In the beauty and personal care industry, considerable work had already been done on preferred chemicals, ratings and information-sharing, and green chemistry. Our deliberate ‘accelerator’ approach looked for ways to complement and fast-track what was already happening on behalf of the retailers and the wider industry.

It is not always easy to work together, however. While companies compete for customers and market share, non-profits and entrepreneurs compete for funding and profile. This leads to understandable caution and tensions in working with potential competitors. Helping the beauty and personal care industry to become more sustainable is going to be a group effort – our actions need to complement each other and add up to more than the sum of their parts.

b. A focus on acceleration and adding to existing initiatives

We also wanted to heed a clear call from the industry that to the extent possible, any action we took not be created as a new, stand-alone initiative, but instead should act where there are gaps in existing work and play a necessary role in bringing together and creating cohesion around these ongoing, parallel efforts.

c. Ability to learn, evolve and broaden impact over time

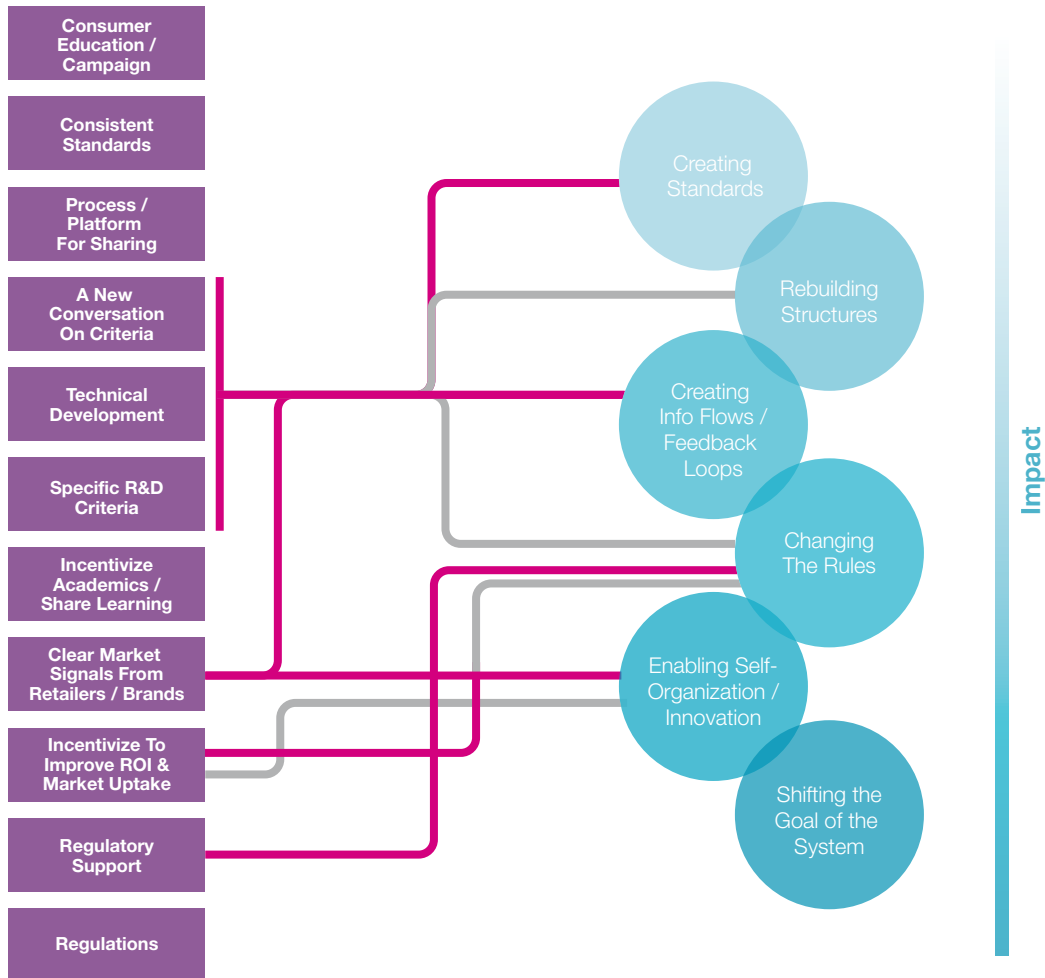
Although we recommend focusing primarily on sustainable preservatives, we also wanted our proposed next steps to be scalable and adaptable over time. Systemic change remains our focus, so our recommended next steps need to allow for learning by doing, building initial trust through shared work and laying the groundwork for bigger change.

d. Clear articulation of how to accelerate change by removing systemic barriers and using levers of change

Finally, it is important that this work actually delivers the lasting shifts in the system that are ultimately desired by consumers. To inform our thinking, we have drawn on the work of Donella Meadows, a chemist and biophysicist who pioneered applying systems thinking and organizational learning to economic, environmental and social challenges. In her work *Thinking in Systems*, Meadows proposed 12 leverage points that would result in system change and classified them in order of efficiency. This framework helps to focus effort where the most impact can be achieved, and balance that against how easy it is to change something (bigger change is generally harder to achieve). We have simplified her 12 points into six main leverage points that are likely to deliver effective system level impact.



Diagram 4: Six leverage points to drive system change



This diagram shows how the potential solutions to the systemic barriers to sustainability in the beauty and personal care industry – from Diagram 3 – deliver against the six leverage points that can unlock change in a system, taken from the work of Donella Meadows. It illustrates how the specific solutions that we are recommending deliver against these key levers.

These six leverage points are, in order of increasing impact (and difficulty):

Creating standards – changing the measures that are used and setting better standards. (This is easiest to achieve with some impact.)

Rebuilding structures – changing the physical infrastructure of a system; for example, information technology or supply chains.

Creating information flows and feedback loops – enabling people to make better decisions and create new flows and feedback loops that reinforce change; addressing delays in the system. For example, rewarding early investments in renewable energy.

Changing the rules – setting the criteria by which success of the system is evaluated and supporting that with new incentives or constraints. This can be social, market-based or regulatory.

Enabling self-organization – dynamic systems are driven by novelty and so increasing and scaling innovation is important, as is finding new ways to organize the people and organizations in the system to enable this to happen.

Shifting the goal and paradigm of the system – committing to a new goal for the system that then drives all the behavior within it. Most commercial systems are focused on economic growth, for example, and changing this goal would be at once extremely difficult,

and extremely impactful in changing the system. This leverage point requires a deep dive into the current goals of the system and the world views driving it, and tends to be informed by wider societal questions. (Most difficult to achieve, greatest impact.)

In developing the model for going forward, we knew we needed to strike a balance between what would truly drive systemic change, and what we believe to be doable. Our recommendations therefore focus on those leverage points in the middle that have significant impact and are difficult, but achievable through continued collaboration. We do not expect – at least at this point – to be involved in the profound change of completely shifting the goals of the system, which is unlikely to happen in the context of an existing market.

KEY INSIGHT

7 Anticipate legal and governance considerations

Collaborations involving the biggest players in a multi-billion dollar industry are always going to have their legal and logistical considerations. With projects of this nature it is always important to move carefully within legal guidrails, particularly when it comes to antitrust counseling. This has been a critical part of our work, and to address it properly we invested in outside counsel to ensure that we were laying the groundwork for a strong, viable path forward. Having our legal counsel available to review documents and communications was critical, and having him present at meetings was useful for participants.

KEY INSIGHT

8 Work hard to communicate complex issues

Communication is best when it is simple and concise; but when it comes to the complex and multi-layered nature of systemic problems, that's not always easy. Often in-depth explanation and detailed context setting is necessary. This presents a challenge at multiple levels: for us designing and explaining an approach, for participating stakeholders wanting to engage their companies in the effort and for a wider audience wanting to understand what we are trying to do.

We have worked hard to make the proposed next steps as simple as possible, but it is hard to explain a complex system in a nutshell. We have found that narrative and storytelling is a good way to talk about this sort of change, and have drawn heavily on our colleagues who are communications professionals. Being deep in the work ourselves, it has been valuable to draw on their fresh perspectives to help make our work accessible to all.

Concept development and refinement

Finally, we have brought all of these stages of diagnosis together into a proposed model that we are calling the BPC Innovation Accelerator. We have suggested a three-year plan, including goals, objectives, key milestones, participating stakeholders and how best to engage with other related efforts. Going through this process has helped us suggest a path forward that we believe most effectively leverages existing work, fills gaps and presses key levers that will spark broad, lasting change.

Even after arriving at this 'final' concept, though, we have continued to refine the details based on continued feedback from stakeholders, and what we think is both feasible and effective. We know that systems change work is inherently messy and even as the work of the BPC Innovation Accelerator officially gets underway, we anticipate further refinements and course corrections. Laying the groundwork for significant change means creating a model that can be flexible and incorporates continuous learning and adjustments as needed.



The challenge is turning opportunities into projects that will bring action and make a difference. We're now at the point where we've identified the right areas to work on, and we're facing a mountain-high hurdle to move opportunities into action items.

Chemical manufacturer

Conclusions and next steps

At the time of writing, we have completed a set of recommendations for a path forward that we believe will most effectively drive systemic change toward a more sustainable beauty and personal care industry. While this marks the completion of our diagnosis phase and the end of our journey so far, we know that changing a system is a long-term, multi-step process – and that this is only the beginning.

This section shares our recommendations for the way forward and will be of particular interest to readers who are familiar with or involved in the US beauty and personal care industry, and its particular systemic sustainability challenges and players. Readers with a more general interest in system innovation should skip ahead to the final section, where we recap our key insights and point to further reading and resources.

Next steps: an overview

Through the diagnosis process, we have identified two key recommendations to accelerate sustainability in the industry. First, we've understood that to drive any movement toward sustainability in the beauty and personal care industry, it will be important to maintain a system-level approach to both the challenges and solutions. Critically, there is a need to ensure that the sustainability initiatives that are already taking place are communicating with one another and working together where possible. We also recommend that specific, targeted action be taken to address the challenge of hastening the route to market for

newly developed ingredients. Addressing both of these needs – to take a system-level approach by aligning existing efforts, and to bring new sustainable ingredients to market more quickly – will significantly accelerate progress towards more sustainable beauty and personal care products – hence we are calling it an 'innovation accelerator'.

Taking a systems view: a leadership group

Our diagnosis showed that different organizations are already actively trying to improve the sustainability of the industry, as illustrated by Diagram 3 above. There are a number of organizations working toward seemingly similar or related goals, but often in isolation from one another. Our exploration of the system suggested that these initiatives might deliver bigger change by directly working together, or at least ensuring that their efforts complement one another. The industry needs to take a 'helicopter view' of its sustainability challenges and solutions, considering them from a holistic, systemic perspective.

At the same time, we know that many industry stakeholders working on sustainability issues are involved in more than one initiative with similar aims, and are asking for more alignment – both to ensure efficient use of time, and to ensure everyone's efforts are creating the greatest impact. To ensure a systems approach and lay the groundwork for greater alignment, we recommend creating a short-term, overarching organizational structure that provides an umbrella for the various sustainability initiatives in the beauty and personal care industry and combines their influence. This body should support holistic thinking over the coming months, until alignment and collaboration among the various existing initiatives has built up enough momentum to continue independently.

To achieve this, we suggest forming a cross-sector leadership group. This group will aim to accelerate the impact of work in the system being done by various organizations, unlock barriers to larger system change and help parallel strands of work become more than the sum of their parts.

We propose the formation of a leadership group for a short period of time to:

- Bring industry leaders together to maintain a systemic view of sustainability challenges in the industry and maintain the ambition that has been established by this project to date;
- Pioneer a new approach to sector change through providing guidance on what is needed from various organizations in the space, how they might work together and, where appropriate, ask for more change;
- Provide a sounding board for those working in the system;
- Be a platform for a cohesive conversation that avoids unnecessary duplication and/or contradictory work.

The leadership group will provide a way for industry stakeholders to guide the development of their sector and the move toward sustainability in a more efficient, cohesive way. Instead of having multiple conversations in different places, there will be one overarching conversation that drives greater scale and impact of sustainable solutions. At the time of writing, Forum for the Future is anticipating convening this leadership group.

Addressing the gap: getting sustainable ingredients to market

In addition to the overarching need to continue to take a systemic approach to driving sustainability in the industry, we also identified a need that isn't currently being addressed: to accelerate the route to market for new ingredients to help create more sustainable products. Because the development of new preservatives is of

particular concern to the industry at this time, we propose that this effort focuses first on bringing sustainable preservatives more quickly to market, and then uses this same model and process to tackle other ingredients in the future.

We suggest that this faster route to market should be achieved by harnessing the efforts of leaders in the industry who will collaborate in a pre-commercialized space. The goal would be to develop a package of innovative, market-based measures that challenge business-as-usual, remove current barriers to commercialization, incentivize innovators, and make new ingredients that meet a specific sustainability threshold more widely available to formulators.

These measures might include

- enabling shared or open intellectual property (IP) of applications of new ingredients, which would allow for wide use of an ingredient across multiple companies;
- more robust safety information-sharing among companies about particular ingredients or applications, to allow them to more quickly and effectively put new ingredients to use;
- or the clear demonstration of demand for a new ingredient through forward purchase agreements, to help create a strong business case for scaling up a new ingredient.

Underlying this effort to bring new sustainable ingredients to market more quickly would be the development of a common criteria set for sustainable products. Ingredients that satisfy this criteria

set would be eligible to move through the pre-commercialized market measures. The criteria would be based on a shared vision for sustainable products, and would draw on and bring together existing criteria sets. The sustainability criteria would be used to evaluate particular ingredients, with acceleration efforts focused on validated ingredients that meet or exceed the criteria.

Our recommendations focus on taking action close to the market, improving or hastening the return on investment and incentivizing companies or innovators that are already working to bring innovations to scale – not on incentivizing the early research and development of new ingredients. The latter is already being addressed through the work of the Green Chemistry and Commerce Council (GC3), which is coordinating a challenge to incentivize the development of new alternative preservatives. GC3's work aligns well with our recommended efforts to accelerate the commercialization of new preservatives, and it will be important that these two efforts align with one another.

As our work on systems has shown us many times, the 'right' solution almost always continues to evolve over time. While we are confident our recommendations are the right ones to drive sustainability in the industry, there is still work to be done to determine what exactly implementation will look like. Continuing to have unresolved questions and uncertainties, while forging a path with industry partners toward new thinking and positive impact, is how we know we are working toward big, systemic change. As this work is live and continues to evolve, please make sure to visit our project webpage for the very latest update.



BPC is just the start. We need to be careful and position ourselves as innovators for the industry, using beauty personal care as a pilot.
Chemical manufacturer

Mainstreaming system innovation

As this story shows, system change isn't easy! There are plenty of challenges that come along with bringing together diverse – and often conflicting – perspectives, working to find the root of big problems, and figuring out just where action is most timely. But this story is just one example of how overcoming these challenges is both necessary and possible, driving new action that spurs lasting change, and propelling us toward the future we want to see. Whatever system you're trying to change, here's a recap on our key insights:

KEY INSIGHTS

- 1 **Invest in your moment:** choose the right time to act, channel resources appropriately, and make sure you are acting to drive toward the right next step
- 2 **Take a system view:** it helps stakeholders get out of their traditional perspectives, and identify what's really going on
- 3 **Focus on people within the system:** they have the knowledge, the power and resources, and the ability to make change
- 4 **Identify leaders and nurture relationships:** they help bring the right stakeholders to the table, and provide the foundation of open, honest and collaborative conversation and action
- 5 **Make time for participative diagnosis:** it can seem like things are moving too slowly – but that's often when the best and most meaningful breakthroughs arise
- 6 **Find better ways to be more than the sum of the parts:** sustainability challenges need urgent solutions, which means working hard to put aside tensions and competition and joining together complementary efforts to maximize impact
- 7 **Anticipate legal and governance considerations:** while not unsurmountable, these issues require time and professional expertise to navigate
- 8 **Work hard to communicate complex issues:** fresh perspectives and fresh approaches such as storytelling can sometimes bring more clarity than 'expert' technical language.

We hope that by sharing the journey of this project to date, along with our recommendations about the way forward, you've been inspired to take a systemic approach to your own work.

We'd love to hear what you're doing, offer you support and find ways to share your learning with our wider network.

Contact Stephanie Draper, our Deputy CEO, for more information on our system innovation work and the next steps on this project.

Contact Helen Clarkson, our US Director, to join our growing US network of pioneering companies driving sustainable system innovation.

Find us at www.forumforthefuture.org and [@forum4thefuture](https://twitter.com/forum4thefuture)

the 1990s, the number of people with diabetes has increased in all industrialized countries, and this increase is continuing at a rapid rate.

Diabetes is a chronic disease, and the long-term complications of diabetes are a major cause of morbidity and mortality. The most common complications are cardiovascular disease, nephropathy, retinopathy, and neuropathy. The prevalence of these complications is increasing, and this is due to the increasing prevalence of diabetes and the increasing duration of the disease. The long-term complications of diabetes are a major cause of disability and death, and this is a major public health problem.

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