

**ADSW ADVISORY COMMITTEE INSIGHTS REPORT**

# **SECURING THE CIRCULAR ECONOMY**



Hosted by

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## Foreword

Achieving economic circularity is, by definition, a complex process. Given the nature of global production, consumption and finance, an activity as straightforward as drinking a popular soft drink still cuts across multiple industrial processes and different parts of the value chain that supports the product. To effectively combine all stakeholders involved in transitioning from a wasteful consumer society to a truly circular one, unprecedented levels of cooperation are needed between governments, regulators, producers, recyclers, waste management solution providers and, of course, the consumers who make up the demand side of the equation.

As a pioneer in advancing the clean energy sector and a key enabler of the UAE's vision as a global leader in sustainability and climate action, Masdar, host of Abu Dhabi Sustainability Week, is dedicated to making this transition a reality, despite the difficulties involved. In preparation for the 2025 edition of Abu Dhabi Sustainability Week, ADSW held a series of 6 advisory committee meetings in March of 2024 to help inform and shape its program and tailor its agenda to the most pressing global challenges. Members of the Advisory Committees are business leaders, solution providers, academic and government officials, all of them widely respected across the Middle East region and further afield.

This report is dedicated to exploring the insights from the fourth advisory committee – regarding the circular economy. Together, the attendees shared their hopes, concerns, predictions and preferences for the future development of circular economy efforts in the Middle East as well as globally. They discussed many of the practical solutions required to address specific issues, alongside broader reflections on the mentality that we must all collectively adopt if we are going to secure greater speed and surety in forging an economy where waste is routinely minimized or even eliminated completely.

As you will see from their shared experience, there is both cause for concern and for celebration. Concern, because many of the fundamental roadblocks to circular economic thinking remain solidly in place. Celebration, because innovation combined with persistent efforts are slowly giving rise to crucial projects that demonstrate how, in certain areas at least, circularity is both achievable and economically viable.



## Systemic thinking – circularity is not a developed mindset, yet

Across all the discussions held by this advisory committee, one salient point was made again and again – we are busily trying to construct a circular economy one piece at a time, when we should be aiming for a transformational collaboration. Individual committee contributors would outline what they, in their company or public-facing organization, are doing to become more circular, while consistently highlighting how those efforts could be scaled up much more quickly and effectively with the right partnerships in place.

A participant summed up this pressing need through a brief overview of the “systemic thinking” the organization holds. This approach, also known as an integrated design approach, relies on the idea that trying to make one specific activity more circular is not enough; you must attempt to tie multiple activities or objectives together at once, improving not just their individual circularity, but that of the whole value chain.

The specific example given by this spokesperson was utility corridors. Like any urban area, Masdar City allocates sizeable areas to underground utility transmission assets – water pipes, power lines, fibre optic internet cables, they all need to run wherever they’re needed. However, instead of dedicating these utility corridors solely to this purpose, Masdar City designs many of them to incorporate running tracks or other forms of exercise areas over the top. These areas also, where appropriate, feature shading provided by solar panelling. In one vertical space, three requirements are being met concurrently – the utility itself, plus a recreational facility and a clean energy provider.

This philosophy of systemic thinking looks at maximising the circularity of as many different processes or activities within a single “space.” According to this advisory committee, this mentality or mindset is not sufficiently embedded into the strategic planning of either the public or private sectors. Circular economy projects continue to progress purely within their own sphere of influence, without enough cross-sector or public-private collaboration involved.

To change this, multiple advisors stressed the need for broader, more ambitious efforts to get different stakeholders involved with circularity projects from the outset. They conceded that in the case of carbon emissions, it is tempting to focus on the more easily measurable Scope 1 (direct emissions) and Scope 2 (indirect emissions from purchased energy), but true systemic thinking means aiming to tackle Scope 3 (indirect emissions across the value chain) as well. By pulling in those wider stakeholders who can add their resources and perspectives to the process, it becomes possible to integrate multiple activities and improve the circularity of the whole value chain.

This melding of minds and efforts takes time and initiative, however. A further complication raised by the advisory committee is that many regulatory considerations in place across the ME region (addressed in the next section) don’t encourage this mindset and can in some cases actively disincentivize it.



**The best example of circularity is Mother Earth herself. Our planet applies a systemic approach where every element of the ecosystem plays a role to sustain both its own life and that of the system itself. New individuals or species cannot be introduced and then succeed unless they play their specific role, whether it’s creating, cleaning or regenerating material, so that it feeds the circular loop. In this regard, we should be following nature’s example.**



## Regulations – subsidies, harmonization, incentivization

While the adoption of circular economy practices brings a whole host of ecological and public health benefits, it is the profit incentive that primarily drives companies toward thinking circular. Or, as another committee advisory succinctly put it: “Nobody is going to go for a 2% rise in Capex purely for environmental purposes – if you can’t monetize the project or quantify its financial benefits, it’s nearly impossible to justify.”

The financials of going circular must make sense to the implementing company from the outset. They must be able to see how their circularity efforts will materially benefit the company, either in the form of a directly monetized market for an end product, or some form of incentive or tangible competitive advantage. Crucial to “proving the case” for such projects, particularly in the Middle East, is the regulatory element. One advisor (see the pull quote) outlined how circular economy efforts are being actively curtailed in the case of green fuels (biofuel, sustainable aviation fuel, etc.) simply because recycled fuels are competing against a subsidized industry. The wider point applies – to make circular economy efforts more appealing to private companies, they either need to be actively encouraged through subsidization, or their traditional competitors need to have their subsidies removed to level the playing field.

Another area of regulatory frameworks in need of examination is that of “harmonization” of regulatory requirements across a given country and, ideally, the wider region. Waste transportation was a specific example given during the committee session; a spokesperson from one of the UAE’s largest waste management companies shared their difficulties in transporting waste across emirate lines to get it to the appropriate facilities. The message was that without greater harmonization imposed on regulation, companies will continue to miss opportunities to scale up their circularity efforts, while bringing in more stakeholders for the necessary systemic changes outlined in the previous section. Instead, companies will continue to limit

themselves to piecemeal, localized circularity solutions.

This point was supported by an executive from a global food and beverage multinational, who spoke about the risk of how fragmented regulatory frameworks can completely disincentivize such large-scale companies from participating in the relevant market. For global giants who need to be demonstrating their circularity efforts to their increasingly discerning consumer audience, the added complexities of adapting standardized processes (in production, distribution, recycling, etc.) to fit conflicting regulatory requirements can limit their enthusiasm to expand within that market, or to even stay there at all.

Ultimately, to incentivize the adoption of circular economy practices, regulators must employ more systemic thinking themselves. The goal must be to make it as financially beneficial and operationally simple as possible for companies to choose to “reduce, reuse, recycle” a given value stream, rather than choosing to wastefully let it fall outside of their loop.

“**With greener fuels, after the whole process of collecting the waste and then cleaning it, recycling it, collecting it, the end product is at a premium. That premium product now has to fight with a subsidised industry, where fuel subsidies apply to a material that is not recyclable. Governments claim that we have to ‘prove the economic case’ without their assistance, but they’re still assisting an activity that isn’t sustainable. So, they’re asking us to bring green products to the market, while at the same time actively disincentivising us from doing so.**”

## Maintaining Focus – Reduce, Reuse, then Recycle, then WTE

When addressing the more technical and technological developments that are currently impacting the circular economy space, our advisory committee members had plenty of positives to note regarding advances in automation, data management and sensor-based identification of waste streams. However, amid the progress milestones there was a stark warning – circular economy efforts must prioritise the “reduce” and “reuse” side of the three R’s equation, with “recycle” as the least preferable, and the burning of waste via waste-to-energy facilities as the very last resort.

Specifically, this warning was against falling into the trap of too readily skipping over the first two elements, instead reaching for recycling and waste-to-energy (WTE) as the “least worst” solutions where waste cannot be readily reduced or reused. An executive from one of the world’s largest consumer-facing conglomerates outlined how their company’s current circularity efforts start out from the viewpoint of reducing waste and limiting any chance of overproduction. Solutions in this area range from redesigning products and their packaging to minimise material usage, increased automation to eliminate errors, and collaboration with partners to find novel reduce/reuse-based solutions.

Other advisors spoke of the worrying trend exhibited by their suppliers of thinking that diverting waste away from landfill is enough of a sustainability end goal by itself, and their tendency to be comfortable with WTE as long as it allows them to demonstrate progress towards 100% landfill diversion. Since such facilities are growing in size and number in the UAE and across the region, there is significant concern among the committee that this solution may

discourage organisations from engaging with the three Rs as much as possible, before genuinely viewing WTE as a last resort.

Despite these concerns, various committee advisors expressed optimism regarding recycling advances, pointing towards technical improvements that are allowing for 100% recycling rates, at scale, with less than 1% contamination. This is, however, contingent on source-segregation of waste; one contributor shared that in their facility, failing to segregate waste at source would routinely lead to the landfill diversion rate dropping from near 100% to around 50% or lower.

In terms of addressing this issue, the overall feeling was that a combination of education and incentivisation is needed. Everyone must play their part, from the ordinary public properly sorting their personal rubbish, to companies focusing on true circularity solutions and regulators directly encouraging it, while shaping guidelines to avoid overreliance on WTE.

“**The development of WTE is a top-of-mind consideration because it is already a growing solution here in the UAE. Sharjah are preparing their waste energy plan, Dubai have already delivered the first phase of theirs. For us, we’re already achieving 76% diversion rate of the waste we receive away from landfill, and we use WTE to get from 76% to about 91-92%. So, for us it really is a last resort. That’s the mentality we hope others will adopt; using it when landfill is the only other option.**”



## Shaping Consumer Behaviour – A Lighter Touch is Needed

Circularity is as much about mindsets as mechanics. It requires producers, consumers and regulators – who are all looking at the same problem from different angles – to agree to buy into the broader philosophy that waste can always be limited further, and that doing so brings benefits to everyone involved. Our advisory committee agrees that consumers (both industries and individuals) are increasingly receptive to this mindset, but that nudging them in the right direction will require a lighter, more creative approach than relying overly on the fear of climate impact.

“Don’t pile the pressure all on the consumer,” one contributor put it simply. Asking consumers to go through extra steps to recycle or reuse their goods should be avoided, particularly if it puts them out of pocket. Instead, the focus of many organisations represented by the committee is currently on finding ways to make circularity decisions benefit consumers financially alongside providing the broader quality of life benefits that are attached to greater sustainability. Representatives from FMCG and personal technology companies are putting more resources into the following approaches:

- All office furniture, display and promotional items, surplus stock and anything else of inherent value that would go to landfill is instead offered to the company’s staff at a minimal price. This drives landfill diversion rates while improving employee morale and buy-in to the company’s circularity efforts.
- Extending the lifecycle of higher value consumer goods (particularly personal tech) brings a financial benefit to the owner. Companies can help with promotional activities (free/minimal charge repairs, loyalty points for using official company repair services, etc) and by championing consumers’ “right to repair”.
- Germany’s pfand (deposit) system is being held up as a successful way to encourage the reuse of plastic bottles by having consumers pay a small fee up from that is returned seamlessly when they return the empty bottle to any store selling that drink. One FMCG representative expressed interest in bringing this system to the UAE, keeping its simplicity but extending the financial benefit for participating consumers (i.e.: offering loyalty points, adding a small bonus amount to the returned deposit, etc.)

Across the various suggestions and potential solutions, the central message from the advisory committee is that efforts to embed circularity into the mindset of consumers should be as unobtrusive as possible. It’s not about shaming consumers into recycling, or playing on their fears; it’s preferable and more effective to make circularity a part of their everyday lives without incident. The focus must be on ease and simplicity of use, where the consumer sees tangible financial benefits alongside the more holistic environmental ones.

A final warning from another contribution was to avoid “style over substance” when trying to engage with consumers, particularly young people, and instead take aim at the heart of a given waste problem. (See quote)

“**Too often, companies are focusing on getting ‘brownie points’ from their customers; on being visible rather than being effective. Home collections for unwanted goods might be visible, they might have a social impact of raising awareness and participation, but the volumes are tiny compared to tackling landfill. Consumer participation is important, but we have to be realistic when weighing up which solution will have the greatest impact.**”

## Key Takeaways

**Design to be circular from the outset:** Whether we're talking about smart city planning or the introduction of a new line of consumer goods, circularity should be embedded into every facet of the design from the very beginning, rather than being bolted on later. A systemic thinking approach can unlock significant sustainability gains by seizing opportunities early on, rather than belatedly realising them at a much greater cost.

**Involve every part of the value chain:** Collaboration and cooperation were two words used repeatedly by our advisory committee members across discussions of every topic. Suppliers, distributors, end-consumers – securing buy-in from all parts of the value chain is essential for the more ambitious end of circularity efforts around the reduce and reuse elements.

**Bring people along with you:** Circularity needs to be presented as an opportunity rather than a limitation. By understanding the needs and preferences of different stakeholders, it's possible to more easily appeal to their pockets as well as their conscience on the environment. Combining targeted financial incentives with the broader ecological/public health benefits will accelerate participation.

**Don't lose focus:** The pace of technological change is opening up all manner of options for circularity efforts. Efficiency gains and regulatory changes may encourage organisations to reconsider paths that were previously too expensive or ineffectual to adopt. Similarly, consumer expectations and mindsets are changing rapidly too, as awareness on environmental issues influences new consumption trends. However, in the middle of all this change, organisations must ensure that their circularity efforts target the heart of the problem, rather than the edges.

**Regulations will shape participation:** Removing needless complication in any system is a good way to eliminate waste. For the circular economy to really take hold in the Middle East and elsewhere, the regulatory element is essential. From levelling the playing field with fair subsidies, to harmonising regulatory requirements nationwide and even regionally, this sends a clear message to companies that their circularity efforts are being backed intelligently and responsibly with buy-in from the very top.

**Old ways mix with the new:** Circularity is not about reinventing the wheel. Simple, well-established ideas like bottle deposits and "repair rather than replace" can have a sizeable impact on the overall effectiveness of circularity efforts. Eliminating our world's collective waste problems will need new technologies to boost our capabilities, but it's important to remember that simplicity breeds efficiency too.

## ADSW Advisory Committee Attendees 2024

### Carlo Stella

Senior Partner  
Arthur D Little

### Firas Wahbeh

Chief Marketing Officer  
Bee'ah

### Julie Parekh

Chief Sustainability Officer  
Al Futtaim Group

### Lukas Sokol

Head, City Design, Sustainable  
Planning & Approvals  
Masdar City

### Raya Makawi

Regional Leader for  
Sustainability, EMA  
3M

### Sivapalan Kathiravale

Head of Research &  
Development  
Tadweer Group

### Youssef Chehade

Co-Founder  
ReLoop App

### Meeting Co-Chairs

### Valerie Peyre

Director, Abu Dhabi  
Sustainability Week  
Masdar

### Oisin Commene

Head, Thought Leadership  
and Programming ADSW  
Masdar



### About Abu Dhabi Sustainability Week

Abu Dhabi Sustainability Week (ADSW) is a global initiative championed by the UAE and its clean energy powerhouse, Masdar, to accelerate sustainable development and advance economic, social, and environmental progress. Established in 2008, ADSW provides a global platform for all who have a stake in the future of our planet.

ADSW brings together leaders from across governments, the private sector, and civil society to discuss and engage in bold climate action and innovations that will ensure a sustainable world for future generations.

[abudhabisustainabilityweek.com](http://abudhabisustainabilityweek.com)



### About World Future Energy Summit

The World Future Energy Summit is a global think tank, powered by innovation, pioneering minds and groundbreaking insights. Bringing together industry influencers, problem solvers and cutting-edge solutions, it focuses on bridging the gap between policy and action. Addressing some of the most critical issues of our time, the three day conference and exhibition explores the transition to clean energy, mitigating climate change, sustainable cities, Water, EcoWASTE and green finance. Working with organisations from the public, private and non-profit sectors as well as hosting over 30,000 attendees, a plethora of startups and remarkable technologies, it is regarded as the foremost event of its kind.

2025 will mark the 17th edition of the World Future Energy Summit, taking place from 14th-16th January at ADNEC, Abu Dhabi.

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