



ABU DHABI
SUSTAINABILITY WEEK

CLOSING THE LOOP: PETROCHEMICALS AND CIRCULAR INVESTMENT



Roundtable - COP28

Hosted by

MASDAR 

Executive Summary

During the Abu Dhabi Sustainability Week Special Edition at COP28, ADSW hosted a roundtable discussion focused on the importance of driving greater circularity and sustainability within the petrochemical sector. The panel comprised an international mix of entrepreneurs, corporate executives, environmental advocates and global consultants.



Key takeaways

- The petrochemical sector must become more circular and more sustainable; new and old technologies can help it get there.
- Changes in regulation and cooperation between the public and private sector are also needed to accelerate progress.
- Petrochemical stakeholders must encourage responsible consumption while developing more sustainable revenue streams.

Driving greater circularity

The circular economy and the application of its principles to the petrochemical sector were key subjects of discussion. Experts highlighted the transformational impacts that circular approaches have had in other industries by turning waste streams into resources. One participant noted the use of coffee waste in various applications, from mushroom farming to animal feed and odor neutralization, showing how the circular economy not only reduces waste but opens new revenue streams, too.

How can circular principles be applied to petrochemicals? Panelists highlighted the potential for circularity to increase efficiencies through the reuse of resources and explored how, as the world moves away from fossil fuels, stranded assets like petrochemical infrastructure could be repurposed. The conversation addressed the difficulties and costs involved in retrofitting old assets for new purposes, but also highlighted the wealth of opportunity in this approach.

Among these were the need to prioritize cash flow and the importance of identifying how new ideas and more sustainable materials could be incorporated into existing petrochemical value chains.

Technology was cited as a key enabler of increased circularity within the sector. Greater adoption of – and investment in – frontier technologies were identified as key near-term actions, to bring costs down and accelerate progress. New tools and approaches can help companies to pursue greater circularity and sustainability, but so can existing technologies.

The group highlighted the need to work with proven technologies that can already operate at scale, calling for greater investment in carbon capture technologies and nuclear energy, both to mitigate emissions and to plug the hole in the global energy mix as fossil fuels are phased out.



Working together to deliver change

A commitment to circularity and the deployment of technology alone won't be able to drive petrochemicals into the net-zero future. The panel called for the removal of regulatory barriers and urged support from governments and other stakeholders to both de-risk emerging technologies and reduce their cost. Participants also advocated for more public-private partnerships to coordinate financial frameworks that encourage greater investment in circularity and sustainability.

The vital role of petrochemical stakeholders in educating governments and the public also emerged during the exchange. Suggestions included the idea that companies should encourage the responsible consumption of petrochemicals at the same time as they look

for ways to shift demand towards more sustainable alternatives. The panel also called for major companies to work with policymakers to create regulatory environments that incentivize others to transition away from petrochemicals.

As the roundtable concluded, panelists called for a global shift in production and consumption patterns. The group discussed how a move towards greater circularity and sustainability within the petrochemicals sector could have a knock-on effect across global industries. They called for fragmented systems to be joined up and for cooperation between companies, governments and policymakers to make a circular, sustainable petrochemical sector a reality.

Roundtable Participants

Ammar Alali

President & Co-founder,
Eden

Tarek Helmi

Global Hydrogen Leader,
Deloitte

H.E. Adegboyega Oyetola

Federal Minister of the
Marine and Blue Economy,
government of Nigeria

Jose Alberich

Partner & Middle East and
Africa Lead, Chemicals,
Kearney

Zihan Iqbal

Head of Export Promotion
and Development, Abu
Dhabi Investment Office

Valerie Peyre

Director, Abu Dhabi
Sustainability Week (ADSW)

Wolfgang Blau

Managing Partner, Climate
Hub, Brunswick Group

Jamie Levy

Senior Advisor, Abu Dhabi
Investment Office

Randall Purcell

Co-founder and Director of
Seafields

Maxime Bureau

Senior Director, Government
Affairs & Sustainability,
Europe & MEA, 3M

Benjamin Longstreth

Global Director of Carbon
Capture, Clean Air Task Force

Elena Scaltritti

Chief Commercial Officer,
Topsoe

Mohamed Cheikh

Investment attraction - Lead
Professional Expert, Abu
Dhabi Investment Office

Edoardo Monaco

Professor, BNU-HKBU –
United International College

Mohammad Shaban

Advisor to the Director
General, Abu Dhabi
Investment Office

Fiona Duggan

Global Sustainability
Senior Manager – Climate
Advocacy, Unilever

H.E. Maria Susana Muhamad

Minister of Environment and
Sustainable Development,
government of the Republic of
Colombia

Dr. Hasan Shafi

Partner, EY-Parthenon

Massimo Falcioni

Chief Competitive Officer,
Abu Dhabi Investment
Office

H.E. Badr Al Olama

Director General of Abu
Dhabi Investment Office

William Tobin

Assistant Director of the
Global Energy Center,
Atlantic Council

Partners

Principal Partner

دائرة الطاقة
DEPARTMENT OF ENERGY



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.

Hosted by



About Masdar

Masdar (Abu Dhabi Future Energy Company) is one of the world's fastest-growing renewable energy companies. As a global clean energy pioneer, Masdar is advancing the development and deployment of solar, wind, geothermal, battery storage and green hydrogen technologies to accelerate the energy transition and help the world meet its net-zero ambitions. Established in 2006, Masdar has developed and invested in projects in over 40 countries with a combined capacity of over 20 gigawatts (GW), providing affordable clean energy access to those who need it most and helping to power a more sustainable future.

Masdar is jointly owned by TAQA, ADNOC, and Mubadala, and is targeting a renewable energy portfolio capacity of 100GW by 2030 while aiming to be a leading producer of green hydrogen by the same year.



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