

THE EU-GCC COOPERATION ON
GREEN TRANSITION PROJECT



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European Union Delegation
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Ministry of Environment and Climate Change
دولة قطر • State of Qatar



EU - QATAR BUSINESS BREAKFAST EVENT ON **CIRCULAR ECONOMY**

*Advancing Resource Efficiency, Waste Management
and Practical Cooperation*

SUMMARY REPORT



EU-QATAR BUSINESS BREAKFAST ON CIRCULAR ECONOMY

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This event summary report was prepared by the EU–GCC Cooperation on Green Transition Project to support continued EU–Qatar dialogue on circular economy cooperation.

Event at a Glance



EU-QATAR BUSINESS BREAKFAST ON CIRCULAR ECONOMY

DATE & TIME	Monday, 7 September 2026 · 09:00–14:00 (Doha)
VENUE	W Doha Hotel & Residences, Doha, State of Qatar
FORMAT	In-person business breakfast, followed by a networking lunch reception
ORGANISER	EU–GCC Cooperation on Green Transition Project, funded by the European Union
IN COLLABORATION WITH	Delegation of the European Union to the State of Qatar · Ministry of Environment and Climate Change, State of Qatar
OPENING REMARKS (09:00–09:15)	H.E. Antonino Maggiore, Ambassador, European Union Delegation to the State of Qatar · Eng. Ahmed Mohammed Al Sada, Assistant Undersecretary for Climate Change Affairs, Ministry of Environment and Climate Change
SCENE-SETTING (09:15–09:35)	William Neale, DG Environment, European Commission (online) · Eng. Abdullah Jumah Almuraikhi, Ministry of Environment and Climate Change
SESSION 1 (09:35–10:15)	From Circular Economy Ambition to Implementation — moderated by Spyros Kouvelis
SESSION 2 (10:15–10:55)	Closing the Loop – Recycling and Sustainable Waste Management — moderated by Dr Abdulla Al-Tamimi
SESSION 3 (11:10–11:50)	Resource Efficiency and Circular Materials – Scalable Solutions — moderated by Mohammed Omar Al-Badr
OPEN FORUM & CLOSING (11:50–12:00)	Moderated and closed by Spyros Kouvelis, Team Leader, EU–GCC Cooperation on Green Transition Project

Executive Summary

The EU–Qatar Business Breakfast on Circular Economy: *Advancing Resource Efficiency, Waste Management and Practical Cooperation* was held on 7 September 2026 at W Doha Hotel & Residences. The event was organised by the EU–GCC Cooperation on Green Transition Project, funded by the European Union, in collaboration with the Delegation of the European Union to the State of Qatar and the Ministry of Environment and Climate Change of the State of Qatar.

Bringing together over 180 senior representatives from government, the diplomatic community, industry, research institutions, technology providers and the wider sustainability community, the event created a practical platform for exchanging European and Qatari experience on circular economy policy and implementation. Discussions examined the full circularity chain: reducing material demand, improving product and process design, separating waste at source, strengthening collection and recovery systems, building markets for secondary materials, mobilising investment, and using evidence to measure results.

Opening remarks by H.E. Antonino Maggiore, Ambassador of the European Union to the State of Qatar, and Eng. Ahmed Mohammed Al Sada, Assistant Undersecretary for Climate Change Affairs at the Ministry of Environment and Climate Change, placed circular economy cooperation within the broader EU–Qatar partnership. Both emphasised the importance of moving from shared ambition to concrete cooperation, with the private sector, research community and technology providers playing a central role.

The scene-setting presentations illustrated both the differences and the complementarities between the European and Qatari approaches. William Neale of the European Commission described circular economy as a pragmatic economic strategy that can strengthen competitiveness, resource security and supply-chain resilience while reducing environmental and climate impacts. He outlined the EU's progression from end-of-life waste management towards product design, durability, repairability, digital product information and stronger markets for secondary raw materials. Eng. Abdullah Jumah Almuraikhi presented Qatar's emerging circular economy architecture, linking Qatar National Vision 2030, the Third National Development Strategy 2024–2030 and the Qatar National Environment and Climate Change Strategy with practical measures on waste prevention, source segregation, material recovery, procurement, industrial circularity and national measurement.

Session 1, *From Circular Economy Ambition to Implementation*, focused on the conditions required to make circularity investable and scalable. Speakers stressed that circular economy cannot be treated as a series of isolated projects with uncertain inputs and outcomes. It requires dependable material flows, anchor buyers, clear standards, trusted product specifications and viable economics across the value chain. The discussion highlighted opportunities in construction, industrial symbiosis, waste conversion, digital traceability and joint research. A recurring message was the need to start with focused value chains and real operating environments, learn from implementation, and scale what works.

Session 2, *Closing the Loop – Recycling and Sustainable Waste Management*, examined how source segregation, collection, processing, quality assurance and market demand must function as one connected system. Speakers identified predictability as the key requirement: processors need reliable feedstock, investors need confidence in future supply and demand, and customers need assurance that recycled products meet technical standards in sufficient quantities. The panel also demonstrated the potential of advanced plastics recycling to complement mechanical recycling, particularly by connecting difficult plastic waste streams with Qatar's petrochemical capabilities.

Session 3, *Resource Efficiency and Circular Materials – Scalable Solutions*, presented practical approaches in construction and demolition waste, lower-material building systems, PET plastics, paper and cardboard recovery, environmental measurement and circular procurement. The panel showed that resource efficiency begins before waste is generated: through material reduction, better design, substitution of virgin inputs and systematic assessment of material flows. It also highlighted the importance of standards, public procurement, incentives, data platforms, logistics and awareness in moving sustainable solutions from exceptional pilots into routine practice.

The Open Forum reinforced the strategic relevance of circular economy in times of geopolitical and supply-chain disruption. Participants raised opportunities for cooperation on environmental requirements affecting major energy projects, circularity as a source of resilience, and the possible development of fully bio-based PET. In his closing reflections, Spyros Kouvelis underlined the strong momentum already visible in Qatar and identified opportunities for follow-up through policy exchange, business partnerships, research cooperation, investment platforms and practical projects.

THE HEADLINE TAKEAWAY

Across the event, one conclusion was clear: circular economy succeeds when environmental policy and industrial policy meet.

Regulation can set direction, but implementation depends on the operational details that connect materials, infrastructure, businesses, customers, technology and data. The event established a strong basis for continued EU–Qatar cooperation aimed at turning knowledge exchange into practical partnerships and scalable circular solutions.



Opening Remarks



H.E. Antonino Maggiore

Ambassador, European Union Delegation to the State of Qatar

In his opening remarks, H.E. Antonino Maggiore welcomed participants and noted that the event marked his first public engagement as the incoming European Union Ambassador to the State of Qatar. He thanked the Qatari authorities, represented by Eng. Ahmed Mohammed Al Sada, as well as the attending EU Member State Ambassadors, other diplomatic representatives, private-sector participants, speakers, moderators and organisers.

Ambassador Maggiore placed the event within the broader context of the EU's commitment to strengthening its political and economic partnership with Qatar. He referred to recent high-level engagement between the two sides and the ongoing negotiations towards a Strategic Partnership Agreement, highlighting the shared intention to translate political dialogue into practical cooperation that delivers benefits for economies, businesses and societies.

He highlighted in particular:

- The importance of the EU and its Member States working collectively in their engagement with Qatar, including through the expertise, technologies and commercial capabilities of the European private sector.
- The central role of the private sector in strengthening EU–Qatar relations and translating shared policy objectives into investment, innovation and business partnerships.
- The opportunity presented by the forthcoming EU–GCC Summit in Riyadh to deepen cooperation with the Gulf region in areas including trade, energy, climate and connectivity.
- The potential for Qatar and the EU to explore wider forms of cooperation with other regions, including possible trilateral cooperation connecting Europe, Qatar and Africa.
- The need for stronger EU–Qatar relations to be reflected not only in political dialogue, but also in practical initiatives that benefit businesses, economies and societies.
- Circular economy as a particularly promising area for cooperation, bringing together the EU's policy experience, technical expertise and innovative solutions with Qatar's sustainability objectives and capacity to invest in and deploy new technologies.
- The importance of using the event to identify practical areas where European expertise and Qatari priorities can complement one another and where knowledge exchange can lead to concrete cooperation.

Ambassador Maggiore concluded by thanking the Ministry of Environment and Climate Change for its close cooperation in preparing the event and acknowledging the contribution of the EU–GCC Cooperation on Green Transition Project. He encouraged participants to use the discussions to turn shared ambitions into tangible opportunities for cooperation, investment and business partnerships.

Eng. Ahmed Mohammed Al Sada

Assistant Undersecretary for Climate Change Affairs, Ministry of Environment and Climate Change, State of Qatar



In his opening remarks, Eng. Ahmed Mohammed Al Sada welcomed participants and emphasised the growing importance of circular economy approaches in strengthening resource efficiency, reducing waste and supporting Qatar's sustainable development priorities, where environmental sustainability is a key priority within Qatar's development pathway, like in Qatar National Vision 2030 and the Third National Development Strategy 2024–2030.

He underlined that the transition towards a circular economy should be understood not only as an environmental necessity, but also as an economic and development opportunity. More efficient use of resources, improved recovery of materials and stronger recycling systems can contribute to environmental protection while stimulating innovation, investment and new economic opportunities.

He highlighted in particular:

- The importance of moving towards more efficient and sustainable patterns of resource use and reducing the environmental impacts associated with waste generation.
- The need to develop integrated systems that maximise the value retained from materials, reduce waste and strengthen coordination among the different actors involved.
- The potential of circular economy approaches to stimulate innovation and investment, create economic opportunities and support practical, locally appropriate solutions.
- The value of cooperation between government institutions, the private sector, researchers, experts and technology providers in translating circular economy ambitions into implementation.
- The importance of learning from international experience, particularly European expertise, while adapting solutions to Qatar's national circumstances, development priorities and economic context.
- The need to move beyond individual or isolated initiatives towards stronger partnerships and practical projects capable of delivering measurable and lasting results.
- The opportunity for closer EU–Qatar cooperation in sharing knowledge and expertise, developing partnerships and identifying technological and operational solutions that can be implemented and scaled.

Eng. Al Sada concluded by thanking the European Union, the EU–GCC Cooperation on Green Transition Project, participating institutions, speakers and attendees for contributing to the dialogue. He expressed the hope that the event would support practical initiatives and partnerships advancing circular economy implementation in Qatar.

Scene-Setting Presentations

◆ EU Perspective: Circular Economy Policy and Implementation Experience

William Neale

Adviser – Circular Economy and Green Growth, Directorate-General for Environment, European Commission (online)

William Neale opened by acknowledging that the EU and Qatar approach circular economy from different economic structures, resource endowments and development pathways. The EU's agenda has evolved in response to resource constraints, high material consumption, climate objectives and the need to reduce strategic dependencies. Qatar's economic model, by contrast, has been shaped by abundant energy resources, rapid infrastructure development, large-scale investment and long-term national planning.

Despite these differences, he argued that both economies operate within the same global reality of finite resources. Circular economy should therefore not be understood as a moral campaign or a uniform model to be transferred from one region to another. It is a pragmatic economic strategy and a means of achieving several objectives: improving competitiveness, reducing climate and environmental impacts, strengthening resource security and making supply chains more resilient.

Mr Neale explained that approximately eight billion tonnes of materials enter the EU economy annually and identified three complementary ways of improving their use. First, economies can increase resource productivity by generating more economic value from each unit of material consumed. Second, they can return materials to productive use through reuse and recycling. Third, they can slow material flows by keeping products, buildings, infrastructure and other assets functional for longer.

He highlighted in particular:

- The EU's long history of waste legislation, including the Waste Framework Directive and specific rules for packaging, electrical and electronic equipment, batteries, vehicles and other waste streams.
- The importance of the waste hierarchy, which gives priority to waste prevention and reuse before recycling, incineration and landfill.
- The wide variation in waste-management performance among EU Member States and the risk that excessive dependence on incineration can discourage progress towards higher-value recycling.
- The fact that recycled materials currently account for only around 12 per cent of material use in the EU demonstrates that the great majority of inputs remain virgin materials.
- The EU's shift from an end-of-life focus towards product policy through the Ecodesign for Sustainable Products Regulation.
- Emerging requirements covering durability, reliability, reuse, repairability, upgradability, recycled content, resource efficiency, substances of concern and the recovery of materials.
- The introduction of Digital Product Passports to make information on product composition, repairability and recycling available throughout the product life cycle.
- The need for product-specific approaches, recognising that circularity requirements for textiles, furniture, tyres or electronics cannot be identical.

Mr Neale also offered a candid assessment of Europe's progress. Despite significant legislation, the EU's overall material footprint and waste generation have not fallen sufficiently, while recycling and circular material use are improving only gradually. This has shifted attention to the market and investment barriers preventing circular solutions from reaching scale.

Different material streams face different constraints. Plastics recycling is affected by fluctuating oil prices, low-cost virgin materials and competition from imports. Construction and demolition materials face questions of price, quality and market acceptance. Electronic waste contains valuable critical raw materials, yet less than 40 per cent is collected for appropriate treatment. Steel could meet a significant share of demand through recycling, but this depends on clean scrap flows, suitable production technology and functioning markets.

Against this background, the European Commission's Circular Economy Act, linked to the Clean Industrial Deal, is intended to:

- Increase the availability and quality of recycled materials.
- Stimulate demand for secondary raw materials and circular products.
- Reduce barriers to the movement of circular products, secondary raw materials and waste within the EU Single Market.
- Simplify and harmonise areas such as Extended Producer Responsibility and end-of-waste criteria.
- Improve recovery of critical raw materials and reduce strategic dependence on imports.
- Support investment and scale-up, including through trans-regional circularity hubs.

He noted that Europe faces an estimated annual environmental investment gap of approximately EUR 82 billion. Public policy must create a credible framework, but much of the investment required will need to come from the private sector.

To conclude, Mr Neale observed that international trade in circular materials and products is growing rapidly. The EU and Qatar therefore share an interest in fair, reliable markets for secondary materials, particularly in a period of heightened supply risk. His central message was that waste is a resource located in the wrong place; the practical task is to build the rules, information, infrastructure and markets needed to return that resource to productive use.

Mr. Neale's presentation can be accessed [here](#).

◆ Qatar Perspective: Circular Economy in Qatar – Recent Progress, National Priorities and Practical Implementation Pathways

Eng. Abdullah Jumah Almuraikhi

Director, Green Development and Environmental Sustainability Department, Ministry of Environment and Climate Change, State of Qatar



Eng. Abdullah Jumah Almuraikhi presented the policy and institutional architecture supporting Qatar's transition towards a circular economy. He explained that circularity is increasingly embedded within the country's national development agenda and is being translated into defined environmental priorities, regulatory instruments and measurable outcomes.

The national framework begins with Qatar National Vision 2030 and is reinforced through the Third National Development Strategy 2024–2030, which integrates circular economy principles into industrial development and supports markets for recycled and repurposed materials. The Qatar National Environment and Climate Change Strategy identifies Waste Management and Circular Economy as one of five national environmental priorities, while the Ministry’s Strategy 2024–2030 strengthens its role in advancing environmental sustainability.

The presentation highlighted a series of national ambitions for 2030, including increased recycling of municipal materials, greater use of recycled materials in construction, the integration of circular procurement into public infrastructure, and the closure and rehabilitation of unsanitary landfills. These targets are supported by an evolving regulatory foundation, including legislation enabling the treatment and recycling of waste for beneficial use, requirements for sorting solid waste at source, and controls on single-use plastic bags.

Eng. Almuraikhi described Qatar’s evolving implementation model as a shift from “collect and dispose” towards “prevent, recover, reuse and create markets for secondary resources”. The model comprises four connected stages:

1. **Prevent and reduce:** designing out avoidable waste, improving sustainable consumption and reducing unnecessary use of single-use materials.
2. **Segregate at source:** establishing reliable material streams and reducing contamination before collection.
3. **Recover and treat:** recycling, treating and converting waste for beneficial use.
4. **Reintroduce value:** creating demand for recovered materials through construction, public procurement and industrial applications.

He highlighted three enabling conditions required across this pathway:

- Regulation: clear obligations, controls and compliance pathways.
- Infrastructure: sufficient sorting, treatment, recovery and resource-flow capacity.
- Markets: sustained demand for secondary materials and circular products.

The presentation identified several implementation priorities. These include sustainable consumption and production plans, consumer resource-efficiency measures, investment instruments supporting eco-innovation, stronger demand for recyclable and quality-assured construction materials, progress on Extended Producer Responsibility, more sustainable packaging and products, circular government-procurement guidance, and circular approaches to industrial wastewater and by-products.

Eng. Almuraikhi also emphasised that effective circular economy policy depends on a strong national measurement ecosystem. Policy institutions require reliable information on material, waste and water flows to design effective interventions, while national indicators are needed to evaluate resource productivity, recycling performance and socioeconomic outcomes. The Ministry’s implementation role is therefore complementary to the measurement work led by the National Planning Council. A national workshop held in January 2026 brought together more than 80 experts and specialists from over 18 national entities to advance this work.

The presentation concluded by identifying four practical interfaces for EU–Qatar cooperation:

- Circular policy, Extended Producer Responsibility, procurement and secondary-material markets.
- Industrial circularity, including resource loops, water, and the use of industrial by-products.
- Data, traceability, material-flow measurement and benchmarking.
- Innovation and investment through pilots, technology partnerships and circular business models.

Together, these areas offer a pathway from knowledge exchange to practical partnerships and scalable solutions capable of strengthening resource efficiency, industrial competitiveness, resilient material flows and sustainable growth.

Eng. Almuraikhi’s presentation can be accessed [here](#).

Session 1: From Circular Economy Ambition to Implementation

MODERATOR Spyros Kouvelis, Team Leader, EU–GCC Cooperation on Green Transition Project

PANELLISTS Dr Pascal Engelmann, Senior Project Manager – Middle East, Roland Berger; Dr Denisa Gibovic, CEO and Founder, Blue Room Innovation; Dr Deema Almasri, Senior Research Program Specialist, Qatar Research, Development and Innovation Council; Dr Tareq Al-Ansari, Executive Director, Qatar Environment and Energy Research Institute

The first panel examined how circular economy ambitions can be converted into practical initiatives, investable business models and scalable technologies. The discussion brought together business strategy, digital innovation, research programming and applied science, highlighting that implementation depends on connecting policy direction with the operational realities of markets, infrastructure and technology.



◆ Making Circular Economy Investable

Dr Pascal Engelmann argued that circular economy should not be treated as a stand-alone project characterised by uncertain inputs and uncertain outcomes. Private investment will increase when circularity becomes a more reliable, less risky and more cost-efficient way of producing goods and delivering services.

He proposed starting with a clearly defined business problem: reducing costs, addressing the scarcity of a particular input, securing supply or improving performance. The value chain can then be designed backwards from that problem. A viable circular model needs predictable feedstock, dependable demand from anchor buyers, trusted specifications and an equitable allocation of costs and risks.

Construction and infrastructure offer particularly strong opportunities in Qatar because public and large institutional buyers can generate demand for recycled aggregates, recovered materials and resource-efficient products. Industrial symbiosis presents another opportunity: geographically concentrated companies can exchange residual heat, water, by-products and materials so that one company's output becomes another company's input.

Dr Engelmann also emphasised the importance of trust. Buyers need to know precisely what they are purchasing, how the material will perform, and whether it can be incorporated into their existing processes. Standards, certification, product warranties and quality assurance are therefore economic enablers, not merely compliance requirements.

◆ Digital Traceability and Shared Technological Challenges

Dr Denisa Gibovic highlighted the role of digital systems in making material flows visible and traceable. Technologies such as Digital Product Passports can provide reliable information across a product's life cycle, supporting reuse, repair, recovery and secondary-material markets.

She noted that Europe's regulatory development does not mean that every technological or market challenge has been solved. Both Europe and Qatar are still learning how to build awareness, improve data quality, establish interoperable systems and encourage adoption. This creates space for joint work among governments, businesses, research institutions and technology providers.

Her key message was that no single technology would deliver circularity. What is needed is a common framework within which different solutions can operate, exchange trusted information and evolve. EU–Qatar cooperation can help connect regulatory experience with technical experimentation and applied research.

◆ Research Programming and the Valorisation Chain

Dr Deema Almasri described the importance of involving end users and relevant authorities throughout the research cycle. Stakeholders should help identify research priorities, participate in assessment and remain engaged during implementation.

Particular attention is needed at the final “valorisation” stage, where researchers present the potential applications of their work to organisations capable of adopting, commercialising or scaling it. This helps prevent promising research from ending when a grant or pilot concludes and creates pathways towards partnerships, investment and market uptake.

She proposed exploring structured EU–Qatar research partnerships inspired by collaborative international programs. Such cooperation should go beyond knowledge exchange to include joint programs, technology transfer, applied demonstrations and the implementation of innovations in Qatar.

◆ Connecting Top-Down Direction with Bottom-Up Innovation

Dr Tareq Al-Ansari called for a combined top-down and bottom-up approach. Government can identify priority outcomes and create incentives for solutions of national value, while researchers develop new technologies and work with industry to test and deploy them.

One of the principal challenges for research institutions is persuading companies to trial unfamiliar technologies or alternative inputs. Uptake is more likely when a circular solution can be integrated into an existing industrial process and create an additional revenue stream without requiring a complete redesign of operations.

He highlighted sustainable aviation fuel as an example of how global market developments can stimulate locally relevant research. Qatar has access to several potential input streams—including wastewater sludge, biomass, green waste, food waste and captured carbon dioxide—that could be examined as feedstocks for new pathways.

Mobilising government direction, research capacity and private-sector implementation around such opportunities could create competitive solutions with both national and international relevance.

Dr Al-Ansari also emphasised the value of expanding collaboration between Qatari and European research institutions on industrial symbiosis, waste conversion, technology development and researcher exchange. Qatar's laboratories and research infrastructure can support international partners, while Qatari researchers can similarly benefit from European facilities and expertise.

◆ Opportunities for EU–Qatar Cooperation

The panel identified several practical avenues for cooperation:

- Exchanging experience on standards, specifications, end-of-waste criteria and the conditions needed to create trusted secondary material markets.
- Developing digital traceability tools and interoperable data frameworks.
- Establishing joint research programmes, technology demonstrations and researcher exchanges.
- Connecting European and Qatari industrial clusters to exchange experience on industrial symbiosis.
- Using EU programmes, including Horizon Europe, to support collaborative research and innovation.
- Organising institutional and business roadshows to identify partners and move from general dialogue to concrete projects.

In the panel's concluding "elevator pitches", speakers called for Qatar to aspire to global leadership in circularity; for policy institutions, businesses and researchers to accept managed risk and test solutions in real operating environments; and for cooperation to begin with a focused value chain, an anchor buyer and a committed group of suppliers rather than waiting for a perfect, economy-wide system.

KEY TAKEAWAYS — SESSION 1

- Circular economy must become a dependable method of production, not a collection of isolated projects.
- Reliable feedstock, anchor demand, standards, warranties and trusted data reduce risk and attract private investment.
- Implementation should begin with clearly defined business problems and focused value chains.
- Governments can set direction and create incentives, while researchers and companies develop and test solutions.
- Digital traceability is an important enabler, but it requires common frameworks and cooperation across institutions.
- Research impact depends on a strong valorisation chain connecting scientific results with adopters, investors and markets.
- EU–Qatar cooperation can combine European standards and market experience with Qatar's industrial capacity, infrastructure and research ambitions.
- Progress requires practical experimentation: apply, learn, adapt and scale.

Session 2: Closing the Loop – Recycling and Sustainable Waste Management

MODERATOR Dr Abdulla Al-Tamimi, Head of Environmental Programs and Research, Ministry of Environment and Climate Change, State of Qatar

PANELLISTS Eng. Mohammed Ali Al-Assiri, Head of Waste Management Planning Section, Ministry of Municipality – Waste Recycling and Treatment Department; Dr Abdulrahman Radaideh, Technical Manager – Middle East, ACCIONA Facility Services; Mohammed Munif Al-Kaabi, Chief Operating Officer, Qatar Primary Materials Company; Jussi Seppälä, Senior Advisor, Lamor Recycling

The second panel considered recycling as both an environmental priority and an economic opportunity. It examined the entire chain from waste generation and source segregation to collection, treatment, quality assurance, customer demand and industrial reuse.



◆ Linking Planning, Feedstock and Markets

Eng. Mohammed Ali Al-Assiri identified three connected priorities for strengthening recycling in Qatar: securing the quality and availability of feedstock, maintaining an enabling policy and infrastructure environment, and developing sound business models with real markets for recovered outputs.

Source-segregation initiatives and supporting facilities are essential to providing processors with usable material. However, recycling cannot close the loop unless the private sector invests in processing capacity, meets quality standards and develops products for which customers are prepared to pay.

In the wider discussion, he described the two ends of the investment challenge. Contaminated and unpredictable waste limits what processing facilities can produce, while uncertain demand limits the capacity that businesses are willing to build. Public institutions can help secure and organise material flows, while private companies commit to processing, technology, quality and market development.

◆ Designing Waste Systems Around Real Operations

Dr Abdulrahman Radaideh emphasised that effective separation depends on the design of the whole operating system around the waste generator. Performance must be measured, and data should be used to trace material from generation through collection and recovery.

Technology can help validate the quality and destination of separate materials, providing confidence both to waste generators and operators. A generator is more likely to participate when there is assurance that carefully separated waste will reach a legitimate recovery route rather than being remixed or disposed of.

Predictability was therefore identified as a key operational principle. Facility operators need confidence that separated material has a viable destination; waste generators need clarity on what to separate and how it will be used; and processors require consistent volumes and quality. Public-private partnerships can help connect these interests by combining public coordination with private technical and operational expertise.

◆ Building Customer Confidence in Recycled Construction Materials

Mohammed Munif Al-Kaabi described the market from the perspective of a materials supplier working with policymakers, processors, contractors and major buyers. Customers repeatedly raise three questions when considering recycled alternatives:

1. Does the material meet the required technical and Qatar Construction Specifications?
2. Can the supplier produce it consistently and in sufficient quantity?
3. Who carries the risk and liability if the material does not perform as expected?

The technical challenge of recycling is to produce a consistent output from variable and potentially contaminated inputs. Source segregation is therefore not optional. If contamination must be removed only after the material reaches the processor, costs increase and the recycled alternative becomes less commercially attractive.

Customer confidence can be strengthened through recognised specifications, quality assurance, certification and clear requirements for recycled content in major projects. Mr Al-Kaabi noted that public institutions, the Ministry of Environment and Climate Change, the Ministry of Municipality, public-works authorities and large market actors are increasingly working together to create an ecosystem that distributes benefits and responsibilities across the value chain.

He also cautioned that implementation frequently depends on overlooked logistical details. Separate bins at the point of generation are insufficient if collection vehicles cannot keep materials separate or if receiving facilities lack systems for directing each stream to its appropriate destination. Operational staff, logistics providers and other actors working directly with waste flows must therefore be part of policy and system design.

◆ Advanced Plastics Recycling and the “Value Circle”

Jussi Seppälä explained how advanced chemical recycling can complement conventional mechanical recycling for plastic waste streams that are unsuitable for mechanical processes. Through pyrolysis, suitable plastic waste can be converted into circular oil and used as feedstock for new plastic products with properties comparable to virgin inputs.

He proposed moving from the concept of a “value chain” to a “value circle”, in which materials return repeatedly to industrial production rather than reaching a final end point. Making such a model commercially viable requires several elements to align appropriate technology, reliable feedstock, sorting and pre-treatment, industrial partners, committed offtake, certification, investment and predictable regulation.

Drawing on Finland’s experience, he referred to Lamor’s first industrial-scale advanced recycling plant as an example of a facility designed not only to process waste, but also to demonstrate an ecosystem that can be replicated and scaled.

Qatar’s advanced petrochemical industry provides a particularly relevant foundation for this model. Combining a scalable advanced-recycling concept with Qatar’s waste-management capacity, petrochemical infrastructure and investment capabilities could create a nationally relevant circular plastics ecosystem and a strong area for Finnish, European and Qatari cooperation.

KEY TAKEAWAYS — SESSION 2

- Recycling succeeds only when collection, processing, quality control and market demand are designed as one system.
- Source segregation determines the quality and economic viability of recovered material.
- Predictable feedstock and predictable offtake are the two foundations of investment.
- Recycled products must meet recognised technical standards and be available in reliable quantities.
- Certification, procurement requirements and clear rules can reduce perceptions of risk and liability.
- Practical logistics, including containers, collection vehicles, transfer systems and receiving facilities - can determine whether policy succeeds.
- Mechanical and advanced chemical recycling should be treated as complementary approaches for different plastic streams.
- The strongest breakthrough occurs when waste policy and industrial policy meet, turning discarded material into industrial feedstock.
- Qatar’s petrochemical ecosystem creates a significant opportunity to develop an integrated plastics “value circle”.

Session 3: Resource Efficiency and Circular Materials – Scalable Solutions

MODERATOR Mohammed Omar Al-Badr, Head of Climate Change Mitigation Section, Ministry of Environment and Climate Change, State of Qatar

PANELLISTS Giorgio Bressi, Engineer and Al Awalia Project Manager, Ducoli Achille Srl; Elias El Haddad, Commercial Manager, Saint-Gobain Qatar; Ruba Hinnawi, Technical Lead, Earthna Center for a Sustainable Future; Syed Saleemuddin, Operations Manager for Collection and EWRM, Elite Paper Recycling; Monica Luz Urena, International Consultant – Environmental Statistics and Accounting, National Planning Council (written contribution)

The third panel explored scalable approaches to resource efficiency and circular materials, with examples spanning construction and demolition waste, sustainable building systems, plastics, paper and cardboard recovery, circular procurement, logistics, data and environmental-economic measurement.

The session demonstrated that circular economy begins well before recycling. Reducing material demand, extending product life, substituting virgin resources, improving logistics and understanding material flows can deliver environmental and economic benefits before waste is generated.



FIGURE 5. Session 3 panel — Resource Efficiency and Circular Materials: Scalable Solutions — moderated by Mohammed Omar Al-Badr.

◆ Recovering Value from Construction and Demolition Waste

Giorgio Bressi explained that a wide range of construction and demolition materials can be recovered, particularly mineral waste such as stone, concrete and metals. Wood and plastics can also be recovered, although they tend to be more complex to separate and process.

Recycled mineral materials can replace virgin aggregates when they meet both technical and environmental requirements. Clear end-of-waste criteria recognised standards and quality-control systems are essential to ensuring

that recovered materials become trusted construction products rather than remaining classified and perceived as waste.

He described Qatar's accumulated construction and demolition waste as both an environmental challenge and a strategic resource opportunity. Landfill mining can help address historic waste stockpiles while reducing dependence on imported raw materials. An illustrative large-scale recovery project discussed during the session would need to manage fresh waste flows of roughly 10,000 tonnes per day alongside an estimated historic stockpile of around 100 million tonnes. Processing at this scale could require facilities capable of handling approximately 600 tonnes per hour.

The outputs could include fine sand and different aggregate sizes suitable for concrete and other construction applications. However, plant design must account for variations in the composition and quality of historic landfill material, as well as water and energy consumption. Flexible technology is therefore important so that operations can adjust without prolonged shutdowns.

Mr Bressi stressed that market confidence is as important as technical capability. Buyers must trust that recycled materials consistently comply with Qatar Construction Specifications. Public procurement requirements, recycled-content targets and restrictions or charges on landfilling can help create the market conditions needed for high-quality recovered materials.

◆ Reducing Material Use in Construction

Elias El Haddad emphasised that customers will adopt resource-efficient construction products only when they trust that performance will be maintained. Recycled content should not be associated with lower quality; the product must continue to deliver the required structural, thermal, acoustic and weather-related performance.

He described work on admixture solutions designed to enable concrete containing very high proportions of recycled aggregate. He also highlighted lightweight building systems as an example of resource efficiency through prevention. Replacing conventional block or concrete walls with lighter systems can reduce demand for concrete, steel reinforcement and other virgin materials while maintaining building performance.

Demonstration is important because consultants and contractors are understandably cautious about deviating from established specifications. Pilot projects, demonstration buildings and performance evidence can help customers experience the benefits directly. However, private-sector education alone is insufficient. Standards, building specifications and certification systems must recognise proven alternatives and give consultants confidence that adopting them will not create additional professional or contractual risk.

◆ Embedding Resource Efficiency Across Organisations

Ruba Hinnawi called for organisations to embed resource efficiency into their operational "DNA". This means reviewing the full material flow: how resources are sourced, used, maintained, recovered and ultimately disposed of. Policy, operations, finance, data and awareness must be addressed together rather than through isolated sustainability activities.

She illustrated this through Earthna's work on PET plastics in Qatar. Using life-cycle assessment, the work traced PET across sourcing, manufacturing, consumption, collection, treatment and disposal to identify the interventions capable of delivering the greatest impact.

The analysis suggested that the most effective intervention was not necessarily to add more public recycling infrastructure. Replacing imported virgin PET with recycled PET could provide a greater environmental benefit, with the model indicating an approximately 58 per cent reduction in carbon dioxide emissions. The example demonstrated why policy should be informed by local data and life-cycle analysis rather than assumptions about which intervention appears most visible.

Ms Hinnawi described circularity as an enabling ecosystem encompassing resource efficiency, reverse logistics, Extended Producer Responsibility, accreditation, water and energy efficiency, market incentives and organisational awareness. A central platform with standardised indicators could help institutions understand national material flows, identify opportunities for industrial symbiosis and design policies suited to Qatar's hot and arid context.

◆ Building a Local Paper and Cardboard Loop

Syed Saleemuddin described Elite Paper Recycling's experience of improving the quantity and quality of paper and cardboard recovery in Qatar. Education campaigns alone were unable to prevent contamination when different waste streams continued to be placed in common containers.

The company therefore developed a practical source-segregation system, distributing specially designed cages suitable for storing bulky cardboard. More than 3,000 cages have been placed across Doha and other parts of the country, supported by outreach to schools, ministries, government bodies, communities and commercial establishments.

The model combines education with physical infrastructure, collection services and incentives for waste generators. Logistics optimisation is critical because the cost and environmental impact of collecting bulky materials can undermine the economics of recycling. The company has therefore worked to improve routing, collection of equipment and the efficiency of its vehicle fleet.

Its processing facility has a reported capacity of approximately 200 tonnes per day. Water is reused within production, and recovered paper is converted into kraft paper, cartons and related products supplied back to the local market. This creates a domestic circular loop in which locally recovered material becomes feedstock for new locally used products.

Mr Saleemuddin argued that recycling performance could be encouraged through criteria similar to Qatar's existing In-Country Value approach. Incorporating recycling or circularity performance into procurement and tender evaluation would reward companies that segregate, recover or purchase recycled materials and encourage others to follow.

◆ Written Perspective: Measuring Whether Circularity Is Working

Monica Luz Urena

International Consultant – Environmental Statistics and Accounting, National Planning Council

WRITTEN CONTRIBUTION — SUBMITTED AFTER THE EVENT

Monica Luz Urena was scheduled to join the panel online but was unable to participate because of technical connectivity difficulties. Following the event, she submitted a written contribution setting out the perspectives she had prepared for the discussion.

Ms Urena cautioned that recycling is only one component of circularity. Recycling volumes may rise while total material consumption also increases; this would not necessarily mean that the economy has become more resource-efficient.

She identified two complementary statistical approaches based on internationally agreed methodologies: circular economy indicators and environmental-economic accounts. Qatar would benefit from a clear baseline and a focused set of indicators covering waste and recycling, material consumption, resource productivity, the use of secondary materials and, where possible, product and material reuse.

Environmental-economic accounts connect physical flows of materials, energy, water and waste with economic activity. They therefore allow policymakers to ask whether the economy is generating the same or greater value while using fewer virgin resources and producing less waste.

For decision makers, evidence must answer two practical questions: does the solution work, and is it worth scaling? Environmental indicators should therefore be combined with information on costs, savings and operational benefits. Ms Urena recommended avoiding a completely new reporting system for every circular initiative. Much of the necessary information already exists within companies, ministries, municipalities and statistical systems. Existing data should be reused first, with additional reporting limited to a small number of consistently defined indicators needed to fill genuine gaps.

She identified measurement as a promising area for EU–Qatar technical cooperation. Europe has accumulated significant experience in material-flow accounts, waste statistics, environmental-economic accounting and circular economy indicators. The objective should not be to transfer a European model unchanged, but to adapt relevant experience to Qatar’s economic structure, priorities and available data.

Her principal recommendation for the next 12 months was to build on work already underway to establish a clear circular economy baseline for Qatar. A credible baseline would enable institutions to measure progress, identify priority areas and produce the evidence needed to scale successful solutions.

KEY TAKEAWAYS — SESSION 3

- Resource efficiency begins with prevention, better design and reduced material demand, not only recycling.
- Construction and demolition waste can become a strategic source of local raw materials when quality, standards and market confidence are established.
- Landfill mining can address environmental liabilities while recovering valuable resources, but large-scale systems require flexible and efficient plant design.
- Demonstration projects help prove that recycled and lower-material solutions can meet established performance requirements.
- Public procurement, recycled-content requirements and circularity criteria can create demand and reduce market uncertainty.
- Local data and life-cycle assessment are essential for identifying interventions with the greatest actual impact.
- Source segregation must be supported by suitable containers, logistics, collection services and incentives.
- Circularity should be measured through material consumption, resource productivity and value retention — not through recycling volumes alone.
- A focused national baseline and measurement framework would strengthen policy design, investment decisions and EU–Qatar technical cooperation.

Open Forum and Audience Discussion

The Open Forum invited participants to connect the panel discussions with wider policy, technology and cooperation priorities.



One intervention highlighted the relationship between circular economy implementation and major energy projects involving Qatari companies in EU jurisdictions. The participant asked how Qatar and other partners could prepare for European requirements relating to environmental performance, methane emissions, material recovery, monitoring and eventual decommissioning. He suggested that the dialogue could help establish a practical EU–Qatar partnership providing relevant technology, expertise and implementation roadmaps.

A representative of the Ministry of Environment and Climate Change drew attention to current geopolitical instability and the vulnerabilities associated with linear economic models. Supply disruptions and energy shocks can expose dependence on continuous flows of virgin resources. He asked how this experience could be used to build momentum for more circular and resilient economic systems.

A further participant proposed exploring cooperation on fully bio-based PET manufactured from renewable feedstocks. The suggestion was to combine progress on bio-based materials with continuing work on recycling and end-of-life solutions, potentially creating an area of technological and commercial cooperation between Qatar and Europe.

Responding to the discussion, Spyros Kouvelis agreed that closer dialogue is needed to improve mutual understanding of policy and regulatory requirements affecting cross-border projects. Continued technical exchange can help identify areas where systems can be aligned, technologies deployed and businesses better prepared.

He also agreed that current geopolitical pressures demonstrate the limitations of linear models. More efficient use of energy and materials, diversified supply, circular resource flows and resilient infrastructure can reduce exposure to disruption. He encouraged participants to treat the present context as an opportunity to accelerate practical action rather than only as a source of risk.

Closing Reflections

Spyros Kouvelis

Team Leader, EU–GCC Cooperation on Green Transition Project



In his closing reflections, Spyros Kouvelis described the event as an important first step for the project’s engagement in Qatar. He noted the strong national drive towards sustainable waste management, improved resource use and circularity, reflected both in the rapid development of policy and in the number of initiatives already being implemented on the ground.

He identified the connection between these two dimensions—policy development and practical implementation—as a significant opportunity for EU–Qatar cooperation. European institutions, companies and research organisations can share experience, standards and technologies, while Qatar brings strong infrastructure, industrial capacity, investment potential and a rapidly developing national agenda.

Mr Kouvelis highlighted several areas for continued cooperation:

- **Policy and implementation exchange:** continued technical dialogue on standards, market frameworks, Extended Producer Responsibility, resource efficiency and other enabling measures.
-

- **Business-to-business cooperation:** connecting European and Qatari companies to identify technologies, services and practical projects capable of producing results on the ground.
- **Education and research:** developing partnerships between European and GCC universities and research institutions, including student exchange, joint curricula and collaborative research.
- **Horizon Europe opportunities:** exploring how Qatar-based institutions could participate in or connect with relevant collaborative research and innovation initiatives.
- **University and research roadshows:** bringing leading European institutions to the Gulf region to meet potential partners and establish joint projects.
- **Investment cooperation:** using platforms such as the Investment and Finance for Green Transition Forum held alongside Abu Dhabi Finance Week to connect investors and project developers.
- **Cooperation in third regions:** exploring how European and Gulf partners could combine expertise and capital to support sustainable development in regions including Africa and Southeast Asia.
- **Awareness and capacity development:** ensuring that circular economy is understood not only as waste management, but as a way of protecting finite resources, reducing environmental impacts and strengthening economic resilience.

He also referred to the project's forthcoming work on resilient infrastructure, noting that environmental and energy systems must be prepared for climate, political and supply-chain risks.

Mr Kouvelis expressed appreciation for the exceptionally strong collaboration with the Ministry of Environment and Climate Change and the Delegation of the European Union to the State of Qatar. Full attendance and high level of engagement demonstrated clear interest in continuing the dialogue.

He confirmed the project's intention to return to Qatar for follow-up discussions with the Ministry, the EU Delegation and relevant stakeholders. These meetings would seek to identify concrete actions—whether advancing policy, creating business partnerships, supporting research collaboration or developing projects capable of implementation.

He concluded by thanking the Ministry of Environment and Climate Change, the EU Delegation, colleagues in the European Commission, EU Member States, the project team, speakers, moderators, participants, interpreters and technical teams whose combined efforts made the event possible. Participants were invited to continue sharing recommendations and potential cooperation ideas so that the momentum created by the event could be translated into practical follow-up.

Overall Conclusions and Cooperation Priorities

The event identified a set of cross-cutting priorities for accelerating circular economy implementation and strengthening EU–Qatar cooperation.

1

Connect Policy with Industrial Reality

Circular economy policy is most effective when it reflects how materials move through supply chains. Policymakers should involve waste generators, collectors, logistics providers, processors, manufacturers, buyers, standards bodies and researchers in system design.

2

Build Reliable Markets for Secondary Materials

Technical recycling capacity alone does not create circularity. Markets require predictable feedstock, stable demand, recognised specifications, certification and clarity on liability. Public procurement and large anchor buyers can provide the demand needed to unlock private investment.

3

Prioritise Prevention and Value Retention

The objective is not simply to recycle more waste, but to reduce the use of virgin resources and retain materials at their highest value for longer. Product durability, repair, reuse, lightweight design and material substitution should complement collection and recycling.

4

Use Data to Target the Highest-Impact Interventions

Reliable baselines, material-flow information, life-cycle assessment and environmental-economic accounts can reveal where intervention will deliver the greatest environmental and economic return. A concise, nationally relevant measurement framework is more useful than burdensome reporting.

5

Move from Pilots to Scalable Business Models

Demonstration projects remain essential, but they should be designed with a route to market. Successful models require an identified problem, committed partners, anchor demand, viable economics and a plan for expansion.

6

Mobilise Research, Technology and Investment Together

Research should be conducted into industrial adopters and investors from the beginning. Joint EU–Qatar programmes, institutional roadshows, technology demonstrations and collaborative funding can strengthen the pathway from innovation to implementation.

7

Develop Focused Cooperation Around Priority Value Chains

Promising areas include construction and demolition materials, circular plastics and PET, paper and cardboard, industrial symbiosis, wastewater and by-products, digital traceability, sustainable aviation fuel and circular procurement.

8

Treating Circularity as an Instrument of Resilience

Recent geopolitical and supply-chain disruptions demonstrate the risks created by dependence on linear material flows. More efficient resource use, local recovery, diversified inputs and durable infrastructure can strengthen economic and strategic resilience.



ABOUT THE PROJECT

THE EU-GCC COOPERATION ON GREEN TRANSITION PROJECT



Launched in August 2023, this project funded by the European Union marks a significant milestone in the long partnership between the European Union (EU) and the Gulf Cooperation Council (GCC). By addressing critical global challenges such as climate change and sustainable development, the project builds upon the EU-GCC Cooperation Agreement Document signed in 1989. The Joint Action Programme for 2022-2027 endorsed in February 2022 outlines the strategic framework for cooperation, emphasizing the need to join forces in addressing climate change and make progress on green transition. This project reflects the shared commitment to leveraging EU expertise to deepen cooperation and engagement, promote green policies and technologies, and create a conducive business environment for collaboration among energy-related and green tech companies in the Gulf.

KEY OBJECTIVES

The project aims to strengthen political and technical relationships at regional and bilateral levels by:

- Deepening engagement towards green transition and climate change mitigation and adaptation.
- Promoting the uptake of green transition policies and technologies by the GCC countries.
- Facilitating a conducive business environment between EU and GCC green tech companies in the Gulf region.

IMPACT

- Enhanced knowledge exchange on climate action and green transition.
- Raised awareness on climate change, sustainable practices and circular economy.
- Strengthened network for collaboration in green solutions and energy transition.
- Proactive EU Climate Diplomacy in the region.

STAKEHOLDERS

- State and non-state institutions, business community, & environmental NGOs.
- Researchers, academia, youth groups, & media outlets.
- EU and GCC businesses, particularly SMEs.
- EU Member States present in the GCC.

FOCUS AREAS



GREEN TRANSITION

Promote transformative change for green transition policies & practices within the GCC.



NET ZERO CARBON

Implement solutions for reducing carbon emissions in industrial & public sectors.



HYDROGEN MARKET

Support the development of a renewable hydrogen market in the Gulf region.



CLEAN-TECH SOLUTIONS

Foster innovations in renewable energy technologies & clean-tech industries.



CLIMATE CHANGE ADAPTATION

Strengthen resilience & adaptive capacities to climate-related hazards.



ENVIRONMENTAL PROTECTION

Launch initiatives to preserve biodiversity & natural habitats, including marine protection.



CIRCULAR ECONOMY

Encourage the adoption of sustainable waste management & resource efficiency.



SUSTAINABLE FINANCE

Engage financial institutions in channelling investment & finance in support of green transition.



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