

Roadmap for the G20 Resource Efficiency Dialogue

(2024-2028)

On the occasion of the G20 summit held in Hamburg, Germany, on 7-8 July 2017, the G20 Members decided to establish a G20 Resource Efficiency Dialogue. The key aim of this Dialogue is to make the efficient and sustainable use of natural resources, with a focus on material resources, a core element of the G20 talks.

The G20 Resource Efficiency Dialogue (hereinafter “the G20 RE Dialogue”) developed an initial Roadmap in Tokyo, Japan, on 9-10 October 2019, to promote activities more effectively. This was carried out upon request of the G20 Environment Ministers, as described in the Communiqué of the Ministerial Meeting on Energy Transitions and Global Environment for Sustainable Growth adopted in June 2019.

In the G20 Environment Ministers Communiqué adopted in Naples, Italy, on 22 July 2021, the G20 Environment Ministers call for action on sustainable and circular resource use and entrust the G20 RE Dialogue to step up action to implement the G20 vision on resource efficiency and circular economy to achieve SDG 12 and other relevant SDGs: encourage innovation, design, and manufacture to ensure product longevity, enable repair, reuse, and recycling, and other value retention approaches, sustainable use of natural resources, minimize waste and emissions, regenerate ecosystems, sustainable supply chains, and create sustainable and socially inclusive business models.

G20 Members acknowledge that resource efficiency and circular economy are important tools available for the achievement of sustainable development and that they can contribute significantly to sustainable consumption and production as well as to addressing climate change, biodiversity loss, land degradation and pollution.

The G20 RE Dialogue will do so by sharing information on relevant national indicators, targets and best practices in all the areas referred to in Paragraphs 18 and 19 of the Environmental Ministers’ Communiqué adopted in Naples, Italy, to strengthen policy development and by further developing its portal.

In 2023, G20 members under India's G20 presidency discussed important topics like circular economy in steel sector, extended producer responsibility for circular economy, circular and sustainable bioeconomy, and industry collaboration to promote resource efficiency and circular economy. The G20 members under India's G20 presidency further updated the roadmap for G20 RE Dialogue to guide the activities during the timeframe 2024-2028.

To promote resource efficiency and circular economy, the G20 RE Dialogue will:

1. Continue to share actions and good practices

- The G20 Presidency may host one or more G20 RE Dialogue meetings to share knowledge, actions and good practices related to resource efficiency and circular economy in light of progress made in each Member.
- During the G20 RE Dialogue, the G20 Presidency or any of the G20 Members in collaboration with the G20 Presidency, and with their agreement, can organise workshops or sessions by addressing specific themes.
- Topics and activities advanced by G20 Members, voluntarily under the Roadmap, are listed in the Annex.
- A website for the G20 RE Dialogue has been established^[1] to ensure timely and regular sharing of information and has for the time being been managed and updated with the support of the Ministry of the Environment, Japan. The G20 Presidency will facilitate the submission of voluntary contribution of contents for the website from G20 Members.
- Each of the G20 Members should appoint a focal point for the G20 RE Dialogue, and the G20 Presidency will update and share a mailing list of the focal points.
- The G20 Members are invited to identify key stakeholders that may contribute to the work of the G20 RE Dialogue and whose mailing list information can also be maintained as a resource for the G20 Members.

2. Strengthen and mainstream resource efficiency policies

- Taking into account the discussions on the above topics in future G20 RE Dialogues, the G20 Members will actively engage in policy development and take actions for pursuing sustainable consumption and production, and for improving resource efficiency through circular economy, sustainable materials management, the 3Rs (reduce, reuse, recycle) as well as redesign, refurbish, remanufacture and waste-to-value approaches, including increasing the quality and availability of feedstock, addressing a wide range of environmental challenges, enhancing competitiveness and sustainable economic growth, creating and upgrading recycling infrastructure, managing resources sustainably, and creating jobs, in accordance with national circumstances, priorities, and needs.
- Noting co-benefits and trade-offs of resource efficiency improvement, the G20 Members will further facilitate inter-ministerial discussions and more effective policy alignment. In this regard, the G20 Presidency will consider extending invitations to various ministries to attend the G20 RE Dialogue when relevant topics are discussed.

3. Improve measurement of resource efficiency and circular economy

- The G20 Members are encouraged to share national actions for development and monitoring of resource efficiency and circular economy indicators, especially indicators that demonstrate how resource efficiency and circular economy approaches are helping to meet environmental goals set in relevant multilateral environmental agreements, nationally determined contributions to address climate change, and/or the Sustainable Development Goals. The G20 members are also encouraged to endeavour to monitor the progress of policies based on statistical data, and develop capacity to have indicators at the national level, referring to work performed by international organisations such as the United Nations, OECD and IRP on waste statistics and material flow indicators, in particular. G20 Members are invited to increase cooperation, partnerships and joint studies to improve knowledge and alignment on measurement of resource efficiency and circular economy, including cooperation to improve information on transboundary resource flows, to inform national policies in a globalized world.

- Highlighting the role of sustainable consumption and production, including through resource efficiency and circular economy, for achieving the Sustainable Development Goals and relevant indicators, the G20 RE Dialogue will explore possibilities to improve sustainable consumption and production measurement and encourage the G20 Members to monitor relevant indicators.
- The G20 RED, in cooperation with relevant international organisations, such as UNEP, UNIDO, IRP and OECD, will promote sharing of information on relevant national targets on resource efficiency, circular economy and sustainable consumption and production, and will exchange information on indicators and measures implemented by G20 Members to meet such targets.

4. **Encourage innovation and create opportunities**

- The G20 Members also recognize that technological and non-technological innovation is necessary for resource efficiency improvement and that resource efficiency and circular economy have great potential for enhancing competitiveness and sustainable economic growth, managing resources sustainably, and creating jobs, while reducing all types of emissions. To create opportunities and stimulate innovation, the G20 RE Dialogue will promote communication with business representatives such as the B20, and encourage the participation of the research community through the IRP and other bodies.
- The G20 RE Dialogue will share insights and experiences around public policy instruments, which effectively incentivise industries to innovate.
- The G20 RE Dialogue will facilitate inter-sectoral actions and discussions for effective and innovative opportunities, with the understanding that resource efficiency improvement is a cross-cutting agenda.

5. **Encourage multi-stakeholder engagement**

- The G20 RE Dialogue will actively collaborate with various public and private stakeholders related to the topics of the G20 RE Dialogue meetings, as well as set opportunities for facilitating further collaboration.

- G20 RE Dialogue may also invite private sector organisations, for example, B20 and Resource Efficiency and Circular Economy Industry Coalition (RECEIC) to leverage synergies and to strengthen actions on resource efficiency and circular economy.
- G20 Members recognizes that youth are at the forefront of moving towards fairer and more sustainable purchasing models and that they are influencing how the world produces, distributes and consumes. G20 RE Dialogue will therefore increase the involvement of youth to enhance cooperation and foster sharing knowledge on innovative resource efficiency practices and approaches, mindsets, skillsets and competences.
- The G20 RE Dialogue welcomes activities for development, accumulation and dissemination of scientific knowledge by related international organizations, partners and stakeholders, including Indigenous Peoples while fostering the protection and inclusion of their traditional knowledge, regarding resource efficiency.

6. **Cooperate and collaborate with other international initiatives**

- The G20 RE Dialogue will explore cooperation and collaboration with other global and regional existing initiatives, including the G7 Alliance on Resource Efficiency to share outcomes, facilitate actions and build the necessary capacity for sustainable, efficient, and effective use of resources, including environmentally-sound management of waste.
- The G20 RE Dialogue will explore opportunities to hold meetings/workshops with relevant initiatives on a back-to-back basis or jointly, as appropriate including on decarbonisation such as the Industrial Deep Decarbonisation Initiative under the Clean Energy Ministerial.
- The G20, Members, in alignment with relevant global processes, will strengthen bilateral and multilateral cooperation in years ahead, including through the development of public-private partnerships, cooperative projects active in more than one G20 Member's territory and the involvement of the civil society, with the aim to share knowledge, expertise and technologies for increased resource efficiency and circular economy.

7. **Work with the G20 Implementation Framework for Actions on Marine Plastic Litter**

- Given the close nexus between resource efficiency and marine litter issues, the G20 RE Dialogue may, as one of the relevant co-organising meetings, facilitate follow-up work on the G20 Implementation Framework on Marine Plastic Litter, utilising the opportunities and resources of the G20 RE Dialogue meetings to enhance synergies and minimise duplication, which will be ultimately decided by the G20 presidencies.

Annex

Topics and activities voluntarily advanced by G20 Members under the Roadmap^[2]

Topics	Comments
Sustainable production and consumption, and waste management	
<u>Design for circularity</u> : Share relevant best practices, regulatory approaches, including those related to increased data access and product passports, and identify possible actions to promote and achieving design for circular economy including by designing out waste. This work should also build on relevant reports and initiatives by relevant actors, such as OECD, IRP and UNEP.	EU (lead)+ UK (co-lead) [+ other members TBD]
<u>Empowering consumers – recycling labels</u> : Facilitate the exchange of best practices on recycling labels to engage consumers on the transition to a circular economy.	AU (lead) [+ other members TBD]
<u>Waste</u> : Share information and best practice on actions to better collect data to inform circular economy and waste management policies, innovation, and opportunities for economic gain.	(lead – TBD) [+ USA + other members TBD]
<u>Zero Waste Initiative</u>	TUR (lead)
<u>Support to create and upgrade recycling infrastructure</u> : Projects that will create or upgrade existing infrastructure to sort, process and remanufacture materials such as mixed plastic, paper, tyres and glass.	(lead – TBD) [+ USA + other members TBD]
<u>Industrial symbiosis</u> : The application of the principle of "industrial symbiosis" at the level of cities and industrial regions is one of the instruments through which it is possible to improve resource efficiency of industrial processes, reduce waste production and the cost of managing it, achieve optimal use of resources, and enhance the environmental and economic performance of cities and industrial regions. The process needs a deep and extended exchange of best practices and information sharing in technical and governance aspects, including stakeholders' engagement, innovation and inclusivity.	KSA (lead) [+ IT (TBC)] [+ other members TBD]
<u>Lifecycle management of WEEE</u> : Share lessons learned with a focus on policies and legislations of the G20 to address the design and production of various electronic equipment, the sale and sustainable consumption of such material leading, the recycling and recovery of precious and hazardous components. The objective is to also collectively tackle the ever-growing challenges of managing WEEE. This is further compounded by the significant rise in production and technological advancements leading to a lower lifecycle of products that are being wasted in exchange for new products.	KSA (lead) [+ other members TBD]
<u>Sustainable Lifestyles</u> : Knowledge sharing on high level principles of Lifestyles for environment (LiFE) principles, highlights and achievements of Mission LiFE campaign, insights on individual and community action to promote sustainable lifestyles, role of sustainable lifestyles in transitioning to circular economy.	IND (lead) [+ other members TBD]

<u>Knowledge sharing on EPR:</u> Compilation of experiences on EPR design and implementation across the world including case studies, success stories and best practices	IND (lead) + ITA (co-lead) [+ other members TBD]
<u>Knowledge sharing on Circular and Sustainable Bioeconomy:</u> Developing a common understanding on the potential of circular and sustainable bioeconomy along with tradeoffs in collaboration with other organizations working in this area (like bioeconomy indicators by FAO); exchange of knowledge, case studies, best practices, policy options, innovative business models on circular and sustainable bioeconomy.	IND (lead) + ITA (co-lead) + EU (co-lead) [+ CAN + other members TBD]
<u>Knowledge sharing on Circular Economy in Steel Sector:</u> Key strategies and recommendations to transition towards a more resource efficient, low GHG emissions, environment friendly and circular steel industry.	IND (lead) [+ other members TBD]
<u>Circularity in Water:</u> Promoting activities to increase water efficiency and reuse, and wastewater management, particularly in the context of the Water-Energy-Food-Ecosystem (WEFE) nexus. Promoting sustainable consumption of water by improving agriculture water use efficiency and linking activities to the commitments in the water agenda.	EU (lead)
Plastics and marine litter	
<u>Sustainable transport and fishing activities:</u> Explore and promote solutions to prevent products and materials (such as plastic pellets, etc) from entering the environment during transportation on land and at sea (Eg: container loss, etc). Explore and promote solutions to prevent abandoned, lost or otherwise discarded fishing and aquaculture gears from entering the environment during fishing and aquaculture activities.	[EU + other members TBD]
<u>Sustainable urban and landscaping projects:</u> Raise awareness on the impacts of plastic materials used in urban and landscaping project on the environment. Such materials (such as geotextiles, etc) can degrade in the environment and be an important source of marine litter and microplastics. The retrieval of these materials before they become litter is necessary and alternatives should be developed.	[KSA + other members TBD]
...	
Sustainable and circular cities	
<u>Sustainable and Circular Cities:</u> Cities are transformative hubs to shift the way in which we produce, consume, and throw away as waste every day. They are places where people and products converge and offer unique opportunities to promote, facilitate and enable circular economy and resource efficient solutions at scale. Underlining the importance of coordination across levels of government, share information and best practices with G20 partners on resource efficient and circular cities.	IT (lead) [+ IDN (TBC)] [+ GER + USA + + other members TBD]
<u>Construction materials:</u> Identify possible actions by the G20 to reduce the environmental and social impact of production, use and disposal of construction materials through circular economy addressing inter alia product-design and consumption. This work	EU (lead) [+ UK + other members TBD]

would build on relevant insights by e.g. the IRP and ongoing work by UNEP in supporting the implementation of the UNEA Resolution 4/19 on mineral resource governance, and contribute inter alia to low-carbon development actions in the G20.	
...	
Circular fashion and textiles	
<i>Circular Fashion</i> : In cooperation with relevant actors, identify possible actions to help fashion industry to enhance resource efficiency and circularity along value chains from design to recycling, with focus on traceability and transparency of textiles value chains to reduce pollution, GHG emissions, and biodiversity loss.	IT (lead) [FRA + EU + JP+ other members TBD]
...	
Food loss and waste	
<i>Food loss and waste</i> : Reducing food loss and waste is critical for the establishment of sustainable food systems. Underlining the scale of the challenge and pace at which progress must be made to achieve SDG Target 12.3 and Target 16 of Global Biodiversity Framework this activity would leverage the G20 Resource Efficiency Dialogue to facilitate the exchange of evidence-based best practices to measure and reduce food loss and waste. Such exchange would include both regulatory and non-regulatory initiatives implemented by G20 members as well as governance models utilised to ensure a systemic approach across the food value chain and involving all key players. The exchange will contribute to existing initiatives in the field, including by UNEP, FAO, WRI etc as well as ongoing activities related to the development of a global coalition on “Food is Never Waste”, announced at the United Nations Food Systems Summit.	(Lead TBC) [KSA + USA+ JP+ UK+ ITA + EU + other members]
...	
Climate change and other global environmental challenges	
<i>Global environmental challenges in face of the triple crisis of climate change, biodiversity loss, and pollution</i> : Share information and facilitate the exchange about how G20 members are integrating resource efficiency and circular economy into their approaches to address the triple crisis of climate change, biodiversity loss, and pollution, as well as environmental challenges, identified in multilateral environmental agreements and the Sustainable Development Goals.	US + DEU (lead) [+ EU + other members TBD]
...	
International activities	
<i>International cooperation on resource efficiency improvement in the Asia-Pacific and Africa regions</i> : Promote activities under the “Regional 3R and Circular Economy Forum in Asia and the Pacific” and the “African Clean Cities Platform (ACCP)”, in cooperation with related international organisations and countries, providing	JP (lead) [+ other members TBD]

good practices on sound waste management, 3R and circular economy.	
<i>International cooperation</i> : Analysis and presentation of data and information of resource efficiency potentials in G20 emerging economies with the aim of sharing and expanding knowledge on resource efficiency and its contribution to economic and ecologic resilience.	GER (lead) [+other members TBD]
<i>Supporting global circular markets</i> : In cooperation with relevant stakeholders, identify the cooperative steps to expand circular markets for globally traded products and materials, by improving the exchange of information on material content of products and the specific steps for higher-value re-use, remanufacturing or recycling of the product (for example, batteries for electronic vehicles).	EU (lead) [+ USA + other members TBD]
...	
Horizontal issues	
<i>Green Public Procurement (GPP)</i> : Public sector, with its large demand of goods and services, through processes of green public procurement, can play a pivotal role in promoting resource efficiency, innovation and circular economy also in collaboration with the private sector. Facilitate the exchange of best practices in the area of GPP.	[+ AU] [+ UK (co-lead) + CAN + other members TBD]
<i>Public private partnership</i> : Enhance public and private partnership to share best practices and initiatives, promote circular and resource efficient businesses, enhance cross-sectoral business collaboration and engagement throughout value chains, and build an enabling environment with an enhanced interaction between policy requirements and business needs.	JPN (lead) [+ other members TBD]
<i>Resource Efficiency and Circular Economy Industry Coalition</i> : Facilitate activities and contribution of the RECEIC to the G20 RE Dialogue.	IND (lead) [+ other members TBD]
<i>National targets and best practices</i> : Exploiting the results of the mapping exercise promoted by Japan, we will work with relevant international organizations, e.g. IRP and OECD, and interested G20 members to collect information on existing targets (mandatory or otherwise) and indicators in G20 jurisdictions in the field of resource efficiency and circular economy.	EU + JPN (co-lead) [+ ITA+ GER + USA + other members TBD].
<i>Sustainability reporting</i> : In cooperation with relevant actors, identify possible actions to help countries and financial and corporate decision-makers improve their understanding, measurement, accounting and reporting of the natural capital-related risks, impacts and dependencies related to resource use across the full lifecycle and value chain of their products and processes with the aim to integrate ecosystems and their services into decision making.	EU (lead) [+ IT] [+ other members TBD].
<i>Sustainable finance</i> : Facilitate the exchange of best practices in the area of sustainable finance (e.g. green taxonomies, green financial product standards, and labels) to support the role of private finance in the transition towards a climate neutral, resource	EU (lead) [+ other members TBD]

efficient and circular economy.

[1] <https://g20re.org/>.

[2] G20 Members are invited to update and expand on a voluntary basis. Upon request by G20 members, the G20 Presidency is invited to up-date the annex.