

PROMOTING SUSTAINABLE CHEMISTRY INNOVATION ACROSS EGYPTIAN SMALL & MEDIUM ENTERPRISES


Stakeholders Dialogue and Roundtable - A Brief Report

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Cairo, Egypt

Organized by



ISC3 - International Sustainable Chemistry Collaborative Centre


 c/o Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Friedrich-Ebert-Allee 32 + 36
D-53113 Bonn
Germany

 +49 228 90241-121

 <https://www.isc3.org/>




Egypt National Cleaner Production Centre (ENCPC)


 27 Abd El-Khalik Tharwat, Al Fawalah,
Qasr El Nil, Cairo Governorate


 <https://encpc.org/>



youthinkgreen – Egypt

 28th of Ali Amin St. Mostafa EINahas Ext.
Nasr City, Cairo - Egypt

 info@ytg.eco

 +220800170

 www.ytg.eco

[Click here to access the full report](#)

[Click here to access the dialogue recording](#)

[Click here to access the LinkedIn group](#)

National Research center
Academy of Scientific Research and Technology
Technology transfer and commercialization

Supporting the Research and development activities across industries. The NRC, ASRT and TICOs are all integral bodies within the research and commercialization of innovations in the Egyptian Ecosystem. Based on the author experience, there is a huge gap and lack of confidence between the industries and research bodies in the development of new sustainable innovations across the value chain of such industries.

Egyptian mineral resources General Authority
Egyptian Petrochemicals Holding company

Strategic objectives of the Ministry of Petroleum and Mineral Resources
- Meeting the demands of the domestic market for petroleum and petrochemical products, mineral resources as well as achieving the target of the national economy growth rates.
- Achieving the optimum value-added of natural resources.
- Maintaining environmental standards and sustainable development.

Insurance companies
Micro, Small & Medium Enterprises Development Agency
Small & Micro loans firms
EFG Hermes

Offer non-banking financial solutions such as leasing, loans etc.) to Startups and SMEs operating in various fields. Many examples projected the sector interest in green and sustainable businesses.

Angel investors
Venture capitals
Asset managers (Finance in Motion)

Offer seed investment and higher series of investments to startups and scale up SMEs with reasonable investment tickets and other business related support and facilitation.

Industrial Modernization Center
Egyptian National Cleaner Production Center

Support in communication with industries and following international compliance and national industrial policies and trends. Additional to capacity building and affordable technological support.

Egyptian ministry of Higher education and scientific research

Minister of Petroleum and Mineral Resources

Waste Management Regulatory Authority
Egyptian Environmental Affairs Agency

Responsible for environmental compliance and monitoring over the performance of industries, managing hazardous waste and issuing environmental licenses to industries. The bodies also serve in formulating policies related to green industries.

Central Bank of Egypt
Commercial Banks (CIB, NBE, QNB, Development & Export Banks (EBRD, AfDB, World Bank, Afrexim Bank)

Offer financial services to Startups and SMEs as well as the promotion of low interest loans and facilitation of accessing finance to green projects and enterprises.

Non-banking financial sector

Investment funds

Hivos impact investment
Egypt Ventures
NI capital

Investments made into companies, organizations, and funds with the intention to generate a measurable social and environmental impact alongside a financial return.

Egyptian Ministry of Trade & Industry

Egyptian Ministry of Environment

POLICY

Banking financial sector

FINANCE

Impact investments

CHEMICAL RELATED ENTREPRENEURSHIP ECOSYSTEM

HUMAN CAPITAL

CULTURE

TECHNICAL & CONSULTING SUPPORT

Universities

Technical and Vocation Education

Cities

Export ports

Federation of Egyptian Industries

NGOs & Business support organization

Faculty of Engineering, Science and Biotechnology

Mentioned faculties graduates technically educated calibers with scientific and engineering backgrounds who are well fitting candidates to join the work force of corporations and SMEs working in the chemical industry sector.

Egyptian mineral resources General Authority

Major pillar in sustaining trained human capital to Startups and SMEs is the Technical and vocational education given the high reliability industries develop in this education system to graduate technicians for the chemical related industries.

The chemical industry is widespread nationwide, from Alexandria (north) to Aswan (south) and from Marsa Matrouh (West) to Sinai (East). Full investment map could be accessed through this [link](#).

Several export ports are located in different regional areas in Egypt. Such ports represent a strategic exporting gate to Africa, Asia, and Europe. Full index could be found in this [link](#).

Chemical Industries Chamber
Environmental compliance office

Advisory, advocacy, consulting, and communication services to chemical industry.

Chemonics Egypt
EnviroNics Egypt
Youthinkgreen Egypt

Technical, business and policy consulting services to Startups, SMEs, and corporations.



IN SUPPORT OF



STARTUPS & SMES CONTRIBUTING TO SUSTAINABLE CHEMISTRY

IN THE SECTOR OF

AGRICULTURE WASTE PROCESSING

MUNICIPAL / ORGANIC WASTE PROCESSING

BIORESOURCES

RECYCLING

Biodiesel Misr
Biodiesel from cooking oil



Bioenergy Egypt
Composting and RDF
Established in 2015



Biomax
Biogas units
Established in 2015



Egypt wood pellets
Wooden pellets
Established in 2005



Proteinea
Processing waste to Insect protein
Established in 2019



TAGADOD
Biodiesel feedstock from cooking oil
Established in 2015



Agrona
Chipboard



Baramoda
Agri-tech and composting



NC Tech
Nano cellulose extract
Established in 2017



PYRO
Charcoal and Bio charcoal
Established in 2020



Chitosan Egypt
Chitosan solutions manufacturer
Established in 2019



Mycelium
Mycelium products and solutions
Established in 2020



Thebes pack
earth-friendly food packaging
Established in 2019



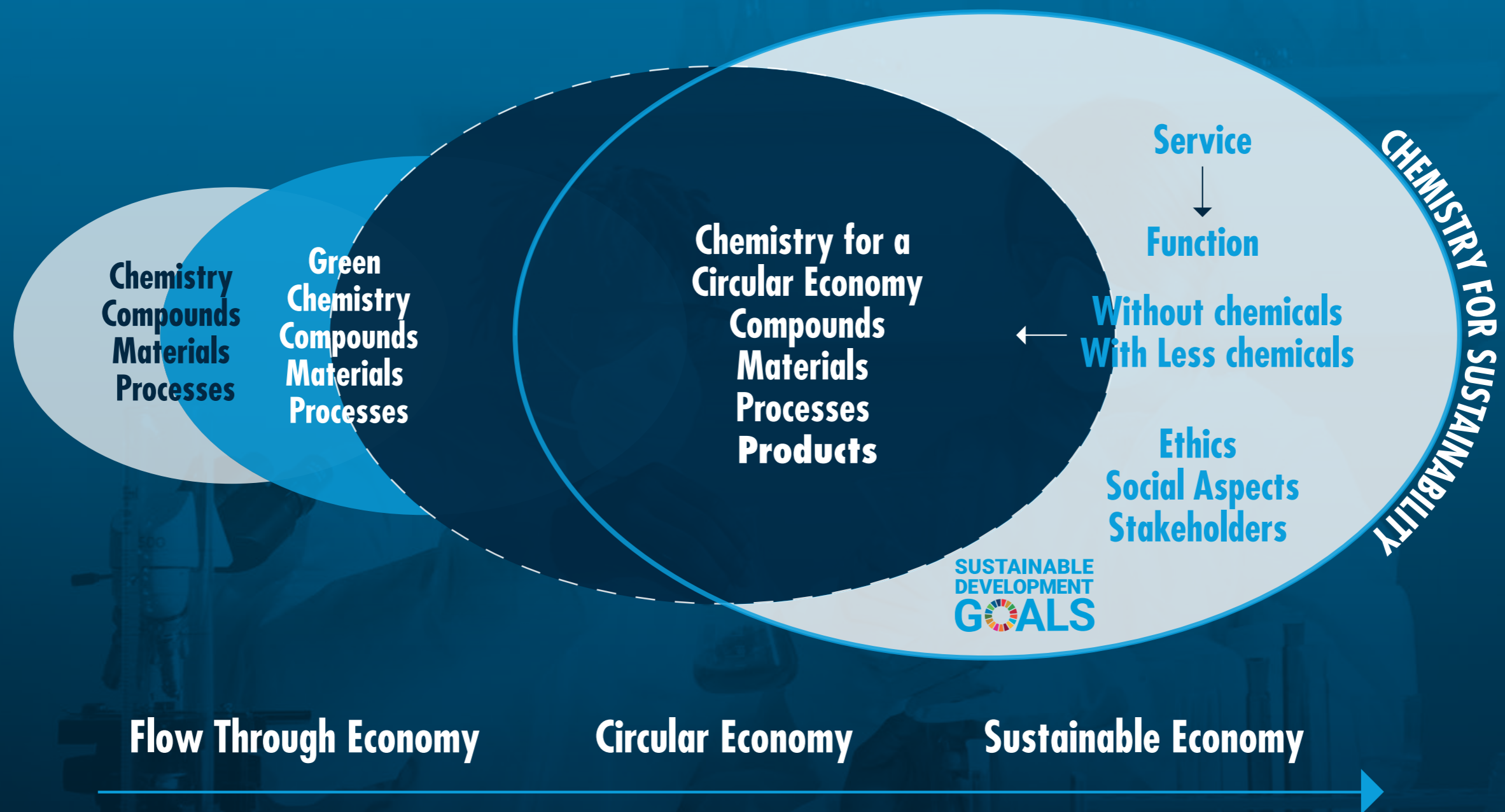
Bariq recycling
PET bottle to bottle recycling



Triple RE
E-waste recycling
Established in 2020

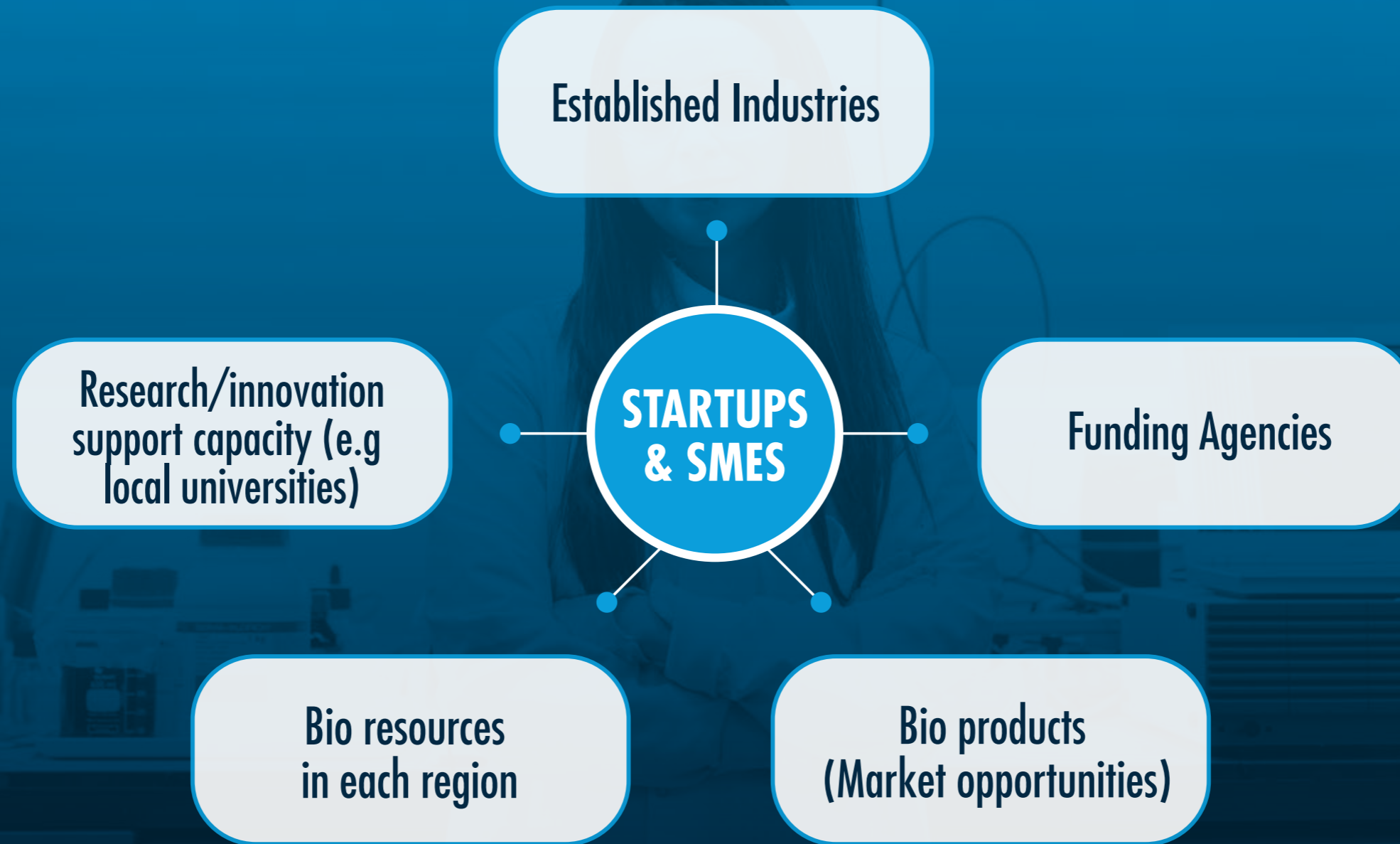


EVOLUTION OF SUSTAINABLE CHEMISTRY CONCEPT



BY PROF. KLAUS KÜMMERER, DIRECTOR OF THE RESEARCH AND EDUCATION HUB OF ISC3 AND DR. ALEXIS BAZZANELLA, CO-DIRECTOR OF ISC3 INNOVATION HUB

ROLE OF THE DEVELOPMENT AGENT



BY PROF. AHMED GABER, CHAIRMAN CHEMONICS EGYPT

RECOMMENDATIONS

ECOSYSTEMS FOLLOW-UP ACTIVITIES

The group of organizers ISC3, ENCPC and YTG will keep in close communication with Chemonics Egypt to support the development of the Bio-based economy strategy developed for the Egyptian Ministry of Environment on it interlink with Sustainable Chemistry. In fact, this document might be in a way supportive to include some recommended actions and activities within the mentioned

BIO-BASED ECONOMY STRATEGY – EGYPTIAN MINISTRY OF ENVIRONMENT

Bioeconomy innovation hub

Inspired by the concept of specialized industrial parks and specifically Sustainable Chemistry industrial park and the insights highlighted during the roundtable and dialogue, YTG developed the concept of bioeconomy innovation hub. The hub aspires to gather a consortium of biobased innovation startups and entrepreneurs to operate in an industrial hub to utilize the bioresources and continuously innovate products that serves the sustainable chemistry approaches. YTG will further develop and discuss this concept with partners and the group of organizers.

Ideation, incubation, and Startups support programs

Several business opportunities, market gaps and knowledge-sharing activities need to be communicated in an engaging and innovative way with nascent entrepreneurs who can invest in such sector with their experience, knowledge, time, or money. Ideation challenges, incubation programs and startup support programs can focus partially or fully on topics of sustainable chemistry and biobased economy to promote for new innovations and enterprises that can enter the Egyptian market.

Business Linkage with SMEs

Supporting business linkages between existing chemical industry and new startups working towards sustainable chemistry will play a vital role in promoting sustainable chemistry approach across the Egyptian economy. Business matchmaking activities as challenges, joint ventures, investment forums and meetups should be organized and executed on a periodic basis to build the momentum around the sustainable chemistry approach. ISC3, YTG and ENCPC agreed to work towards this end both jointly and individually.

POTENTIAL PROJECTS AND ACTIVITIES

The group decided to create a Linked-In group named “Promoting for Sustainable Chemistry Across Egyptian Small and Medium Enterprises” to build and capitalize on the initial network established during the dialogue and roundtable highlighted in this document.

Follow-up activities will be planned and executed jointly to build on the momentum created by this initial dialogue and roundtable. The expected activities could take place in the first quarter of 2021.