Executive Programme for Scientific and Technological Cooperation between Italy and Singapore for the years 2023-2025

Within the framework of the Agreement between the Government of Italy and the Government of Singapore on Scientific and Technological Cooperation, signed in Rome on 23 May 2016 (the "Agreement"), the first meeting of the Joint Committee for scientific and technological cooperation established under Article IV of the Agreement was held virtually on 4 May 2023 to examine the present status and further developments of the cooperation between the two countries and to define the details of the Executive Programme on Scientific and Technological Cooperation between Italy and Singapore for the years 2023-2025 (the "EP").

The Italian delegation was headed by Couns. Alessandra Tognonato from the Ministry of Foreign Affairs and International Cooperation, Directorate General for Country Promotion. The Singapore delegation was headed by Prof Andy Hor, Deputy Chief Executive (Research) of the Agency for Science, Technology and Research (A*STAR).

The members of the two delegations are listed in Annex I.

The institutions in charge of the coordination of the present EP, hereinafter referred to as the "Participants", are:

Italian Participant: Ministry of Foreign Affairs and International Cooperation, Directorate General for Country Promotion – Office IX ("MAECI").

Singapore Participant: Agency for Science, Technology and Research ("A*STAR")

The meeting was opened by welcome addresses delivered by the two Heads of Delegation.

Following the opening remarks, the components of the two delegations were introduced by their respective Head of delegations.

The following Agenda of the Joint Committee was adopted by the Participants:

- 1. Status and perspectives of the Scientific and Technological Cooperation between the two countries
- 2. EP for the years 2023-2025
- 3. Final Provisions

1. Status and perspectives of Scientific and Technological Cooperation between the two countries

The Participants recognised the growing importance of science and technology for the economic, social and cultural relations between the two countries. Both sides expressed their satisfaction with the current state of the bilateral cooperation in the field of science, technology and innovation, and look forward to a very successful collaboration between scientists of the two countries fostered by this EP.

2. EP: Joint Research Projects

In the period of 7 October to 30 November 2022, a joint call for proposals was launched in both countries in the following priority research areas:

- Food-Tech
- Artificial Intelligence
- Health/Medical
- Photonics
- Quantum Technology
- Robotics

Hydrogen-related Research.

Both Participants expressed their satisfaction for the significant total number of 71 joint proposals validly received in both countries within the above-mentioned research areas.

The criteria adopted to select the joint research projects to be funded in the years 2023-2025 were:

- Scientific relevance of the proposed research
- Methodology and documentation
- Qualification and expertise of the research teams
- Involvement of early career scientists
- Added value of the bilateral cooperation
- Exploitation and dissemination of the results
- Budget adequacy

Based on of the above criteria, the Participants jointly selected 10 research projects, which were considered eligible for financial support and are listed in Annex II.

The selected research projects will each be led by two principal investigators, one from Italy and one from Singapore. The Italian principal investigators will submit requests for funding of the research projects to the MAECI, while the Singaporean principal investigators will submit such funding requests to A*STAR.

Each Participant will apply its own guidelines in determining whether a particular funding request should be granted.

A mid-term review of the selected research projects will be held towards the end of 2024 under the direction of the Joint Committee, with the date and agenda to be subject to mutual agreement.

3. Final provisions

This EP does not constitute or create, and is not intended to constitute or create obligations under domestic or international law and will not be deemed to constitute or create any legally enforceable rights or binding obligations, whether express or implied, on either Participant.

The Participants will hold the next session of the Joint Committee in Singapore in the year 2025. Further details such as the date and agenda of the meeting will be agreed upon through diplomatic channels.

The present EP for the period 2023 - 2025 will remain valid until the coming into effect of the next EP, but no longer than one year after the expiration of this EP.

Any amendment to the text of this EP will be discussed through diplomatic channels and authorised by the Participants.

All initiatives foreseen in this EP will be carried out within the respective Participants' budget limits and according to the prevailing laws and regulations in each country.

Annex II, containing the list of selected bilateral projects, is attached hereto and represents an integral part of the present document.

Signed in duplicate in the English language.

For the Italian Participant (Ministry of Foreign Affairs and International Cooperation)

For the Singapore Participant (Agency for Science, Technology and Research)

Alessandra Tognonato
Directorate General for Country Promotion

Date: 4 May 2023

Place: Rome

Professor Andy Hor Deputy Chief Executive (Research), A*STAR

Date: 4 May 2023

Place: Singapore

ANNEX I

List of the delegations' members

Italian delegation

Alessandra Tognonato Head Office IX, Directorate General for the Country Promotion, Ministry of

Foreign Affairs and International Cooperation

Alessandro Garbellini Office IX, Directorate General for the Country Promotion, Ministry of Foreign

Affairs and International Cooperation;

Francesco De Ciantis, Office IX, Directorate General for the Country Promotion, Ministry of Foreign

Affairs and International Cooperation;

Nicola Bianchi Scientific Attaché, Embassy of Italy to Singapore

Riccardo de Sangro Scientific Expert, Office IX, Directorate General for the Country Promotion,

Ministry of Foreign Affairs and International Cooperation;

Giuseppe Ippolito Director General, Directorate General for Research and Innovation, Ministry

of Health

Roberto Cimino Directorate General for Internationalization and Communication, Ministry of

University and Research

Singapore delegation

Prof. Andy Hor Deputy Chief Executive (Research), A*STAR

Lee Kwee Geak Director Designate, International Operations & Relations Office, A*STAR

Oeij Ek Siang Deputy Director, International Operations & Relations Office, A*STAR

Mandy Khoo Assistant Director, Innovation, Research & Development Division, Ministry

of Trade & Industry

Ding Hui Jun Assistant Director, Office of Grants Administration, A*STAR

Eugene Cheah Senior Manager, International Operations & Relations Office, A*STAR

ANNEX II

Joint research projects under the Executive Programme of Scientific and Technological Cooperation between Italy and Singapore for the years 2023-2025.

Research Area	Project Title	Singapore Principal Investigator	Italian Principal Investigator
ARTIFICIAL INTELLIGENCE	Artificial Intelligence for Advanced Air Traffic Flow Management	Alam Sameer Nanyang Technological University ("NTU")	Lulli Guglielmo Università di Milano- Bicocca
FOODTECH	BIZE_UrFarm: Building Integrated Zero Emission Urban Farming towards sustainable farmscape in Milan and Singapore	Soh Chew Beng Singapore Institute of Technology ("SIT")	Dessi Valentina Maddalena Politecnico di Milano
HEALTH	Development of a rapid T cell analysis test to guide management of patients with chronic HBV and HBV/HDV disease	Bertoletti Antonio Duke-NUS Medical School ("DukeNUS")	Lampertico Pietro IRCCS Ca' Granda
HEALTH	Reducing animal testing by validating the potency of a three- dimensional in vitro pancreatic tumor model to develop effective Immunotherapies	Adriani Giulia A*STAR	Cappello Paola Università di Torino
HEALTH	Dissecting the involvement of molecules of the humoral innate immunity in regulating stromal ECM remodeling in pancreatic cancer using deep spatial phenotyping	Biswas Subhra Kumar A*STAR	Doni Andrea IRCCS Humanitas
HYDROGEN- RELATED RESEARCH	Thin-film solid oxide fuel cell with hierarchical mixed oxides nanostructured electrodes	Lee Pooi See <i>NTU</i>	Comini Elisabetta Università di Brescia
HYDROGEN- RELATED RESEARCH	EURIPIDES- innovative Electrocatalysts based on quantum materials for the sustainable Production of hydrogen by Electrolysis	Zhang Yong-Wei A*STAR	Politano Antonio Università di L'Aquila
PHOTONICS	Ultrahigh sensitive photoacoustic multi-gas sensor for volatile organic compounds (VOCs) detections	Wang Qijie NTU	Spagnolo Vincenzo Politecnico di Bari
QUANTUM TECHNOLOGY	Hybrid quantum systems with magneto- mechanical cantilever resonators for quantum information and quantum sensing	Wang Tao A*STAR	Vinante Andrea Consiglio Nazionale delle Ricerche ("CNR")
ROBOTICS	Dextrous, strong yet soft robots	Laschi Cecilia National University of Singapore ("NUS")	Beccai Lucia Istituto Italiano di Tecnologia ("HT")