



THE ITALIAN-AMERICAN SCIENTIFIC COOPERATION POSSIBILITIES SUPPORTED BY MAECI

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UST Unit for Scientific and Technological Cooperation

MAECI
Ministry of Foreign Affairs
and International Cooperation



WHAT ARE THE UNIT'S ACTIVITIES

Goals

Tools

To develop bilateral cooperation

Executive Programmes for Scientific and Technological Cooperation

- Significant Relevance and/or Mobility of Researchers
- A specific bilateral science and technology collaboration agreements is in place
- A Joint Technical Committee selects the priority areas
- A joint call for joint research proposal is launched
- Several joint research projects are selected

To support the International Centers

The Trieste Pole and the other International S&T Research Centres

- The Trieste Pole: Area Science Park, ICGEB, TWAS, IAP
- European Southern Observatory – ESO
- International Center for Relativistic Astrophysics Network – ICRANET
- European Organization for Nuclear Research – CERN

To support our scientific and technological system abroad

The action of Farnesina and the role of our Scientific Attachés

- To promote and support the Italian Centres: CNR, ASI, INAF, INFN, ENEA, ISS
- To strengthen the link among research, production and growth (Innovitalia, RiSET)
- The Science Attaché Network



THE NETWORK OF SCIENTIFIC ATTACHES



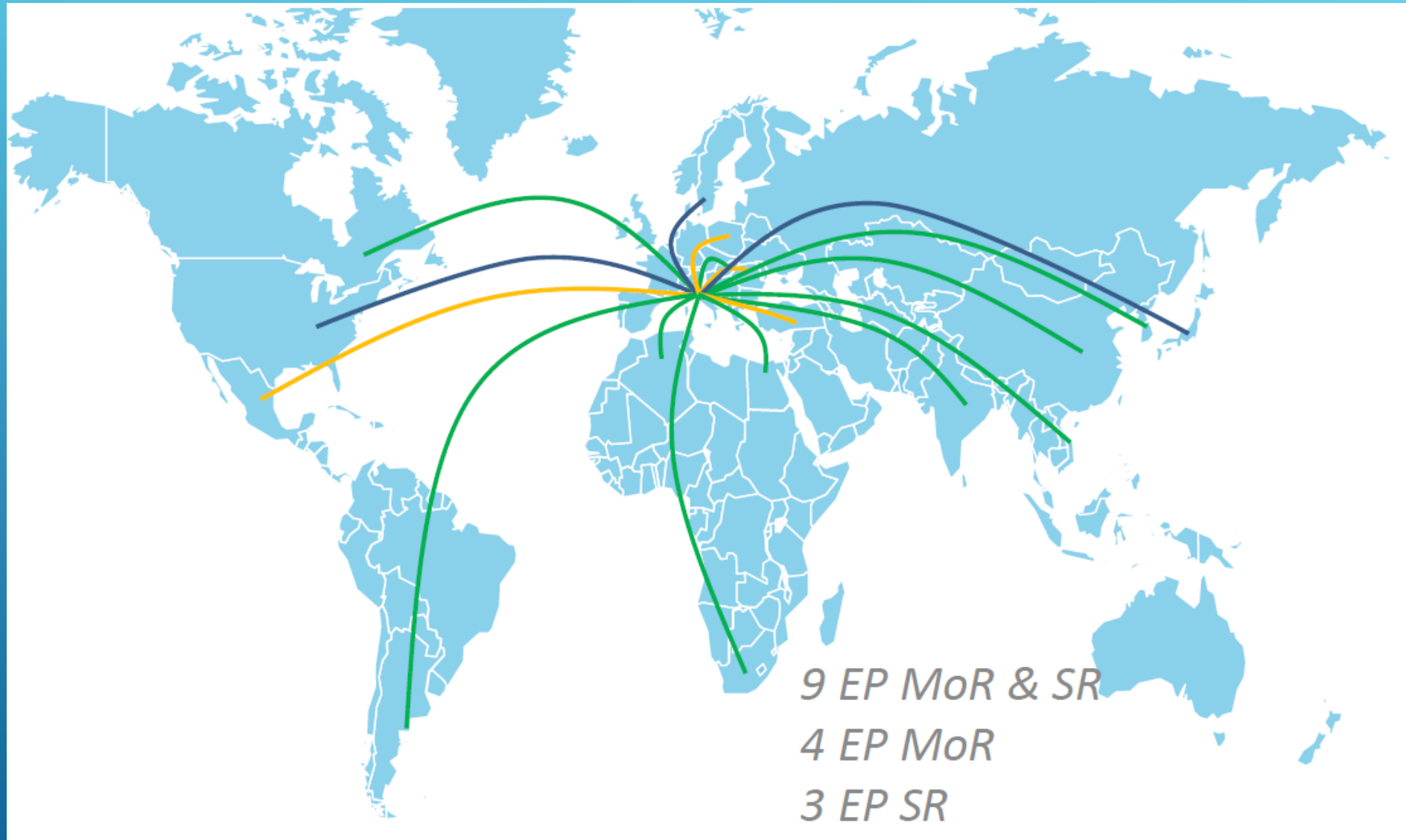


4 SCIENTIFIC ATTACHES in USA

Expertize in : Communication Science, Business Management, Neuroscience
HEP, Particle Detectors, Electronic Engineering, Computer Engineering ..

Organization, Promotion & Support of Italian Research in USA:

- INFN, MIUR with DoE (neutrino physics at FNAL, ICARUS, TJNAF)
- Gravitational waves Virgo&Ligo with NSF
- ASI with NASA for Mars2020, MPLM for ISS
- INAF with NSF for CTA and LSST
- CNR,INGV,MIBACT with NSF, Smithsonian, Nat. Gallery for Cultural Heritage
- ASI, INFN, INGV with NASA, USGS for space and geodesy
- ENAL, Finmeccanica and others for Smart Cities
- Universities Collaboration (Tor Vergata-U Maryland, Pisa-Harvard)
- U. Milano, Padova, Pisa for promotion of courses in English
- GALILEO event, Brain Studies seminars, Cultural events (Carnegie Inst Sci.)
- Italian Research network ISSNAF
- PoliTo technological scouting in Bay Area, Start-up in Silicon Valley
- Quantum Information and Communication
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ITALY-USA JOINT RESEARCH PROPOSALS

The Scientific and Technological Cooperation Agreement between the Government of the Republic of Italy and the Government of the United States of America, signed in Rome on April 1st, 1988 and ratified on April 15th, 1994

A joint declaration is signed every second year (next January 2016)

A call for joint Research Proposal has been launched in July 2015 (closed on August 14th) for 2016-2017:

http://www.esteri.it/mae/resource/doc/2015/07/call_2016_2017_publicata.pdf



REQUIREMENTS for APPLICATION

- The Italian coordinator shall have the Italian or EU nationality.
- The USA coordinator shall provide clear evidence of available funds for carrying out the research activities proposed in the project.

Preferences will be given to:

- Proposals involving more than one national public/private research organization;
- Initiatives having a potential industrial impacts and/or involving industrial partners
- Proposals taking part in multilateral and/or European research programmes such as Horizon 2020.

MAECI funds may be assigned for :

- Travelling and living expenses from Italy and from USA
- Professional services
- Temporary Contracts for non-staff
- Workshop Organization
- Publications or other forms of dissemination
- Consumables
- Durable Equipments
- Others

Staff (30-45% of total) and Management (0-10% of total) Costs should be included.

MAECI provide a co-financing of the project together a co-financing of the Italian Institution (in-kind).

Other eventual funds from other or USA Institutions are welcome.



PROJECT BUDGET example

TABELLA 1: PREVENTIVO

DESCRIZIONE	NUMERO	COSTO UNITARIO	IMPORTO (Euro)
a. Viaggi e soggiorni ricercatori stranieri in Italia	2	€ 3.000,00	€ 6.000,00
b. Viaggi e soggiorni ricercatori italiani all'estero	2	€ 5.000,00	€ 10.000,00
c. Prestazioni professionali e/o di terzi	0	€ 0,00	€ 0,00
d. Contratti per personale non strutturato	1	€ 10.000,00	€ 10.000,00
e. Organizzazione di workshops			€ 14.000,00
f. Pubblicazioni o altre forme di disseminazione			€ 1.500,00
g. Materiale consumabile			€ 2.500,00
h. Materiale inventariabile (max 10% di TOTALE COSTI)			€ 3.000,00
i. Altro			€ 3.000,00
<i>SUBTOTALE COSTI</i>			€ 50.000,00
j. Costi di personale strutturato(min 30% - max 45% di TOTALE COSTI)			€ 33.000,00
k. Costi di gestione (max 10% di TOTALE COSTI)			€ 7.000,00
<i>TOTALE COSTI</i>			€ 90.000,00

TABELLA 1: FONTI DI FINANZIAMENTO

DESCRIZIONE	IMPORTO (Euro)	%
A. Cofinanziamento Ente Proponente	€ 40.000,00	44,44%
B. Cofinanziamento richiesto al MAECI	€ 30.000,00	33,33%
C. Eventuale Cofinanziamento Ente Estero	€ 10.000,00	11,11%
D. Eventuali altri fondi	€ 10.000,00	11,11%
<i>TOTALE FINANZIAMENTI</i>	€ 90.000,00	100,00%

PRIORITY SECTORS with USA for 2016-2017

Priority sectors are selected in advance by
Working Groups, Scientific attaches, UST, Research Institutes, Universities:

- Advanced Materials and Nanotechnologies;
- Agriculture technologies for crops, fruit trees and vineyards and Food Sciences;
- Earth Sciences, including Natural Hazards, Environment, Space Observations and Oceanography;
- ICT, including Robotics;
- Life Sciences, limited to: Brain Studies and Rare Diseases;
- Physics and Astrophysics;
- Technologies Applied to Cultural and Natural Heritage.



ITALY-USA PROJECTS for 2014-2015

15 projects approved, here just a couple of examples:

Nicola Cartiglia (INFN Torino) : **Ultra-Fast Silicon Detector**

- Collaboration INFN- U. Torino- FBK-U. Firenze and UCSC (USA)
- Excellent results in both position and time resolution (10 picoseconds) : 4D picture of particle transit
- Many kind of applications in HEP, Astrophysics, PET, Hadroterapy
- Project started in 2014 after the MAECI approval and in June 2015 the project won an ERC Advanced Grant of 1.8 Meuro for 5 years

Daniele Santini (University Campus Bio-Medico Roma) : **Understanding the interplay between cancer stem cells and immune system: an innovative cells on- chip approach**

- Collaboration UCBM and LBNL (USA)
- Very promising results for the understanding of the struggle (filmed) between the macrophages of the immune system and cancer cells
- Truly interdisciplinary topic involving expertize in medical, biological, chemical, physical, engineering, statistical
- Raman spectroscopy, SERS spectrometry with ion and TOF, multivariate analysis for data interpretation, microtechnology, nanotechnology, electron microscopy.
- Involvement of industries (production of nanoparticles of calcium carbonate as a vector of oncology drugs)



CONCLUSION

- MAECI is funding many scientific and technological bilateral projects with many countries (USA included)
- Next call for USA will be very likely in mid 2017
- Projects for USA are of Special Relevance
- Projects funded by MAECI can be used as a good starting point for a new collaboration or to strengthen an existing one
- Please take note and apply when a next call is available