IAEA Cooperation with SESAME Members

SPECIAL INFORMATION SESSION ON SESAME
Organized by the Department of Technical Cooperation
In conjunction with the 22nd Meeting of the SESAME Council

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To strengthen international cooperation among Member States participating in SESAME through the use of accelerator physics and synchrotron radiation applications.


To support the human capacity development for the installation, commissioning, safe operation and utilization of the SESAME facility as an international center of excellence for research and applications in the Middle East.
Ongoing IAEA technical cooperation and SESAME


Euro 757,461

Expected Outcomes:

• Strengthened capacity for the installation, commissioning and safe operations of SESAME microtron, booster and the main ring and its beamlines.

• Strengthened capacity for the sustainable utilization of SESAME facilities for quality research and application programmes.
The IAEA’s support through the training of SESAME users and operators under interregional technical cooperation projects contributes to ensuring that all relevant capabilities will be in place once the Centre is commissioned.
IAEA technical cooperation and SESAME

Expertise for:
- Support to the installation of the Booster
- Site acceptance tests of the Booster power supplies
- Review of vacuum system of the SESAME storage ring

Fellowships:
- Personnel safety
- Performing measurements on synchrotron facilities
- IT infrastructure for the accelerator computer network
- Design and analysis of girder-magnets support system
- Theoretical and experimental training on accelerator physics
- RF electronics
- Extended X-ray absorption
Results to date:

- SESAME facility users were trained in accelerator physics and synchrotron radiation applications
- SESAME facility operators were trained in operation and maintenance of the synchrotron
- Support to the efforts for the safe commissioning and operation of the SESAME facilities
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Support to HR development to SESAME Members
-in Euro-

- 2007
- 2008
- 2009
- 2010
- 2011
- 2012

FE/SV
Meetings/Workshops
EM

INT1055
INT0086
IAEA coordinated research activities related to SESAME


SESAME participates in the CRP with an environmental project on heavy metals in the vicinity of the Jordan and Yarmouk rivers.

2013–2017 new Coordinated Research Project ‘Experiments with Synchrotron Radiation for Modern Environmental and Industrial Applications’
IAEA coordinated research activities related to SESAME

- IAEA XRF beamline at Elettra, Trieste, currently under construction, commissioning autumn 2013
- Beamline will offer access to a first-rate synchrotron research facility through a variety of mechanisms
- SESAME scientists to participate in the commissioning of the beamline
- IAEA workshops on synchrotron radiation topics at ICTP, in cooperation with ICTP and/or Elettra
Next Steps for Cooperation

• **Capacity building** - Continued support through the TC project

• **Support to ensuring safety** according to international standards-
  Focus on licensing and safety of the facility

• **Expanding Partnerships** – UNESCO, Elettra, ICTP, CERN,
  other organizations

• **Outreach** - Building interest to support human capacity building
  for regional and interregional cooperation in the peaceful uses
  of nuclear science.
Thank you for your attention!