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Address by
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(UNESCO)

at the Consultative Meeting on a
Middle East Synchrotron Light Facility

UNESCO, 15 June 1999

Professor Sergio Fubini, Founder of the Middle East Scientific Collaboration (MESC),
Professor Herwig Schopper, Chairman of the MESC Steering Committee,
Representatives of governments,
Distinguished scientists,
Dear colleagues,

It is a great pleasure for me to welcome you to UNESCO for consultations on a project of great significance for scientific and technical collaboration and development in the Middle East. Today and tomorrow, you will be discussing the feasibility of establishing a Middle East centre of excellence for research using synchrotron radiation, a centre open to all scientists in the region and beyond, focusing on the specific research and training needs of the Middle East.

At the heart of this exciting and unique project is the possibility that the BESSY I synchrotron light facility could be transferred from its current location in Berlin to a site in the Middle East. Let me express my appreciation for the presence here with us of representatives of the BESSY Council and of the German Federal Ministry of Education and Research. If we are here for this meeting today, it is thanks above all to Germany's readiness to make this extremely generous offer.

This meeting brings together scientists, experts and government representatives of many talents: physicists, chemists, biologists and other scientists who are interested in the use of synchrotron radiation for their research; scientists who are experts in the design, construction and development of the devices that produce synchrotron radiation; scientists who come from important research centres such as CERN, DESY, BESSY, the Stanford Synchrotron Radiation Laboratory and the LURE Laboratory in Orsay and representatives of governments, including Ambassadors and Permanent Delegates to UNESCO. Let me welcome in particular the scientists and government representatives from the Middle East and Mediterranean region. Their views will be of crucial importance for the future of the project and we shall listen to them with great interest.

I wish to pay tribute to a group of scientists from the Middle East and Europe who have worked together for five years now in order to promote scientific cooperation in the Middle East and Mediterranean region. UNESCO supported their efforts and encouraged the researchers involved to establish the Middle East Scientific Collaboration (MESC). We are fortunate to have with us today the person who initiated this movement of scientists and did more than anyone else to make it the success that it now is. He is Professor Sergio Fubini from the University of Turin and CERN. I wish to thank him warmly for having travelled to Paris to be with us.

Ladies and Gentlemen,

Since not everyone in the audience is familiar with the development of the project, I would like briefly to summarise the background. It was at the MESC Conference in Turin in November 1997, that the idea was first discussed that, after its shut-down, the BESSY I synchrotron light source might be donated by Germany as a gift to the Middle East. Upgraded and re-installed on a site in the Middle East, it would become the core of a world-class research centre attracting scientists from the Middle East, the Mediterranean as well as the European region. The scientists who made this proposal and subsequently spared no effort to move the project forward were Professor Gustav-Adolf Voss from DESY in Hamburg and Professor Herman Winick from Stanford.

Professor Tord Ekelof subsequently organized a MESC Workshop and Seminar on the project which attracted a great deal of interest and support. Experts from DESY in Hamburg, BESSY in Berlin and Stanford in the USA then examined the scientific and technical feasibility of the project. They developed proposals for an upgrading of the BESSY I machine before its transfer to the Middle East. A team of scientists from these same institutions made two working visits to the Middle East to discuss the project with scientists and government officials. The project preparations have now reached the stage where a decision is needed on whether to go ahead with this initiative and on the steps to be taken next.

When Professors Fubini and Schopper first briefed me on this project and requested UNESCO's help and support, I was struck by the similarities with developments that led to the creation of CERN - the European Organization for Nuclear Research. In the early fifties, as most of you know, UNESCO provided the framework for the creation of CERN as a project of regional collaboration in Europe. The American scientist Isidor Rabi in particular played a key role, proposing a resolution adopted by UNESCO's 1950 General Conference on the *"formation and organization of regional laboratories and centres in order to increase and make more fruitful the international collaboration of scientists in the search for new knowledge in fields where the effort of any one country in the region is insufficient for the task"*. This mandate enabled UNESCO to set up a number of scientific working groups and to organize meetings with European scientists and government officials. In 1954, CERN came formally into being when nine European states forwarded to UNESCO their ratifications of the Convention that established it.

I have cited CERN's history because it is a good example of collaboration in science bringing nations together and of UNESCO's role in that process. The Middle East project would in turn become a quite extraordinary example of science

overcoming divisions to bring nations together in a spirit of peace and cooperation. Like CERN, a regional synchrotron radiation centre in the Middle East would be feasible only if operated jointly by several countries in the region. Such a centre would encourage regional and international cooperation in science. This would make a resounding contribution to better understanding between people from different countries in the region offering an impressive practical illustration of "science for peace". Given these very important objectives, I readily agreed to join forces with the Middle East Scientific Collaboration. This consultative meeting at UNESCO will not only explore the feasibility of establishing a synchrotron light facility in the Middle East but also recommend ways and means by which UNESCO could help implement the project.

As you will hear from the speakers to follow, synchrotron light has had an immense impact on basic and applied research and technology. The possibility that Germany would provide the BESSY I source as a gift to serve as the centrepiece of a new regional facility in the Middle East opens the way for creating a world-class centre of excellence very quickly and at considerably reduced cost. You will also hear proposals for the upgrade of the present facility to extend its spectral range and to make it competitive with many higher energy and more expensive facilities around the world. Such a facility, enabling all scientists from Middle East countries to pursue their own and their countries interests, as well as to collaborate on common interests, is a very exciting prospect. It is totally in keeping with the renewed spirit of peace in the Middle East. UNESCO is ready and eager to help you in your efforts, should you decide in this meeting that you want to go forward with the project. For instance, UNESCO could provide the international framework for the organisation and development of this project and assist in the co-ordination of project activities.

Distinguished representatives,
Dear Colleagues,

I think most of you know of my long-standing attachment to the promotion of a culture of peace in the world. As a scientist myself, I have naturally always envisaged a central role for science in the process of transition from a culture of war and violence to a culture of peace and dialogue. I cannot tell you how much satisfaction it gives me to see this particular project move forward. The timing of your meeting, just days before the World Conference on Science in Budapest, is significant, for if we are to succeed in setting science on a new path to meet the challenges of the 21st century, it is through projects like this one which offer a model, a blue-print for change: change in the level of governments' commitment to basic research funding, change in the relationship between science and society.

This project is a model of its kind because it meets a very real need and it shows that the concept of science for peace is not just a matter of words or good intentions but of concrete action. Other projects where science plays a very

important role in peace-building are also underway. To give just one example: trans-boundary Biosphere Reserves allow scientists from neighbouring countries to cooperate in the management, protection and study of ecosystems of exceptional interest. Frontiers must not be a barrier to science. The only frontiers a scientist battles with and tries to push back are the frontiers of knowledge. By working together across national boundaries, scientists can show the way to governments and the general public within their region.

I wish you fruitful discussions and look forward to your conclusions and recommendations.