



COST Strategic Workshop

Benefits of Research Infrastructures beyond Science - The Example of the Square Kilometre Array (SKA)

Tuesday 30 and Wednesday 31 March 2010

Palazzo Rospigliosi, Rome, Italy

Draft Workshop Agenda

Day 1 - Tuesday 30 March 2010

08:30 - 09:25 *Registration and coffee*

09:25 - 10:15 **Welcome**

09:25 - 09:30	Tommaso Maccacaro	President of INAF Welcome address
09:30 - 09:45	Louis Brennan	Chair of the Workshop; Trinity College Dublin Workshop purpose and overview
09:45 - 10:00	Francesco Fedi	President of the COST CSO The role of COST
10:00 - 10:15	Patrizia Giarratana	Deputy General Director of the Ministry of the Economic Development, Italy TBD

10:15 - 11:00 **The socio-economic benefits of research infrastructures**

	Carlo Rizzuto	Chair, European Strategy Forum on Research Infrastructures (ESFRI) The return on investment in basic research and the benefit channels
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11:00 - 11:30 *Coffee break*

11:30 - 12:00 **Experiences so far**

11:30 - 12:00	David E. Schindel	Executive Secretary, Consortium for the Barcode of Life (CBOL) The evidence and lessons from Consortium for the Barcode of Life (CBOL)
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12:00 - 13:00 *Lunch*

13:00 - 14:00 **The SKA**

13:00 - 13:30	Ron Ekers	Federation Fellow, CSIRO; former President of the International Astronomical Union Big vision, born global
13:30 - 14:00	Tony Brown	University of Manchester SKA technological challenges and cutting-edge business opportunities

14:00 - 14:15 **Non-science benefits of the SKA**

	Louis Brennan	Chair of the Workshop; Trinity College Dublin
	Phil Diamond	PrepSKA Scientific Coordinator; University of Manchester

14:15 - 14:45 *Coffee break*

14:45 - 17:00 **Parallel Break-Out Groups: The expected technological and socio-economic impact of the SKA. Theme Leader key note presentation, issues, and planned approach**

Information, Communications and Remote Sensing Technologies

Remote, 'green' energy supply

Global science-industry-government linkages driven by the SKA

Human capacity building: the potential role of the SKA in science education and awareness and boosting the SET work force

19:30 - 21:30 *Workshop Dinner*

Day 2 - Wednesday 31 March 2010

09:30 - 12:00 Parallel Break-Out Groups ctd.

Discussion
Issues resolution
Outcomes
Preparation of initial report-back

12:00 - 13:00 *Lunch*

13:00 - 14:20 Report Back from Theme Leaders

Moderated by: **Richard Hudson**, CEO and Editor, Science|Business

13:00 - 13:20	Bruce Elmegreen	IBM T.J. Watson Research Center Information, Communications and Remote Sensing Technologies
13:20 - 13:40	Eicke R. Weber	Fraunhofer Institute for Solar Energy Systems ISE Remote, 'green' energy supply
13:40 - 14:00	Penny Woodman	STFC Global science-industry-government linkages driven by the SKA
14:00 - 14:20	Carolina Ödman	Leiden Observatory/UNAWE, Leiden University Human capacity building: the potential role of the SKA in science education and awareness and boosting the SET work force

14:20 - 15:15 Panel Discussion and Q&A

Moderated by: **Richard Hudson**, CEO and Editor, Science|Business

15:15 - 15:45 *Coffee break*

15:45 - 17:15 Concluding session

Moderated by: **Richard Hudson**, CEO and Editor, Science|Business

15:45 - 16:00	Adolfo Urso	Deputy Minister for Economic Development, Italy Deputy Minister's Concluding Remarks
16:00 - 16:30	John Wood	Imperial College London Looking back from 2070 – a vision of the socio-economic legacy of the SKA
16:30 - 16:45	Marco de Vos	ASTRON - Netherlands Institute for Radio Astronomy, The Netherlands Invitation to the 2010 SKA Forum
16:45 - 17:00	Martin Grabert	Director, COST Office Concluding Remarks from the COST Office
17:00 - 17:15	Louis Brennan	Chair of the Workshop; Trinity College Dublin Chair's Concluding Remarks

Workshop goals

Mega-science projects have the potential to seed or boost technological learning, capability development, economic and social benefits, as well as stimulate market gains.

The Square Kilometre Array (SKA) is a \$1 billion+ international project to create a radio telescope incorporating a receiving surface of a million square metres, fifty times larger than the biggest receiving surface now in existence. This huge surface will be composed of many small antennas, divided into a dense inner core array which becomes more diffuse with increasing radius. The SKA was conceived as a new international project to meet the future needs of radio astronomers. It will be used to address some of the more fundamental questions in contemporary physics and astronomy; including the nature of the first stars in the Universe, the cosmic history of the Universe, the nature of Dark Matter and Dark Energy, theories of gravity and black holes and the origin of cosmic magnetism.

Beyond the internationally agreed SKA key science projects, several benefits in terms of capacity and capability enhancement, as well as direct economic and indirect societal impacts are expected.

The purpose of this workshop is to present key data from the SKA project as an example of an international research infrastructure project to a selected group of European and global business, government and stakeholder officials. The goal of this strategic workshop is to improve the understanding of boundary conditions and exchanging best-practice experiences that will positively influence SKA policy and assist in the development of business cases to industry and governments, around the SKA project.

The two day workshop will be intensive and designed to be highly interactive, while having a very practical focus. It is envisioned that the workshop's outcome would be presented in plenary session at the SKA Forum in June 2010.

About COST

COST (European Cooperation in Science and Technology) is an intergovernmental European framework for international cooperation between nationally funded research activities. COST creates scientific networks ('COST Actions') and enables scientists and industry representatives to collaborate in a wide spectrum of activities in research and technology. The COST Office administers these activities. For more information: www.cost.esf.org.

COST and SKA

Based on its intergovernmental merits, COST took up the important task of exploring the S&T challenges and the corresponding societal and business opportunities offered by the SKA initiative. In doing so, COST can actively contribute in terms of current/future enabling technologies stemming from its large portfolio of research projects and make an attractive gateway to the European Research Area (ERA) for the global scientific community. The COST networks will certainly benefit from the exposure and involvement in the development of a major international infrastructure, such as the SKA.