

## **NEWSLETTER**

Volume 1, Issue 1 January 2002

INSIDE THIS ISSUE:	
Smart Optics Gets Started!	1
Focus Group Meetings	. 1
MEMS: Another Faraday?	1
Future Smart Optics Technology Forums	1
Mission to the US of A	2
Support for Faradays from the Ministers	2
Smart Optics reaches out to healthcare	2
PIPSS	3
How Smart Optics can help you obtain project funding	3
Smart Optics Industrial Partners	4
Academic Partners	4
Technology Translator Team	4
Contact Details	4

## **Smart Optics Gets Started!**

Smart Optics' Announcement of Opportunity for Flagship Projects from £1M PPARC/EPSRC funds was issued on 20th November with a closing date of 31st January 2002. The Smart Optics Technology Translator Team will be pleased to help assemble industry/academic partnerships and draft proposals for the initial and final rounds of this AO and other collaborative project funding opportunities.

Technology Translator contacts:

#### Jon Holmes

(jon\_holmes@siraeo.co.uk)
for Industrial

#### Steve Welch

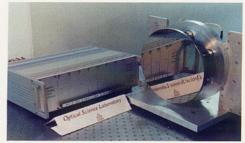
(sjw@mssl.ucl.ac.uk) for Space

#### Colin Cunningham

(crc@roe.ac.uk) for Astronomy

## **Focus Group Meetings**

We are organising 'Focus Group Meetings' to bring together people who are interested in a particular application area of Smart Optics, with the goal of fostering bids for the AO and other funding opportunities. Three have been held at the time of writing, in Free Space Optical Communications at Cablefree Solutions Ltd, in Lightweight Mirrors at QinetiQ Space Department, and in Medical Applications for the Eye at Keeler Ltd. These were very popular and we plan to repeat them and hold further meetings in other application areas in the future. We will keep you posted!



A 30 cm adaptive Aluminium mirror made by the Optical Science Laboratory, UCL

## **MEMS: Another Faraday?**

QinetiQ Microsystems and Microengineering Dept., Sira and Heriot-Watt University are assembling a bid for another Faraday Partnership in MEMS for Optical Systems. We hope that projects will arise with a Smart Optics connection - after all Optical MEMS devices are Smart Optics. If you would like to be a Faraday Partner in the new Faraday Partnership, let us know - at this stage we are keen to show as much support as possible. Contact Jon Holmes (jon\_holmes@siraeo.co.uk) or Roger Carline at QinetiQ (rcarline@taz.qinetiq.com).

## **Future Smart Optics Technology Forums**

Write these dates in your diary now! The next Forum will be on 1st March 2002 in London and we will review the successful bids to our Announcement of Opportunity. The following Forum will be held at the Electronics World Expo event at Earls Court (19/20 June 2002).







Page 2



### Mission to the US of A

The DTI International Technology Service supports fact-finding 'missions' to other countries by select teams of businesses and academics covering particular technology areas where the country has expertise. The DTI supports the visit by opening doors and paying for travel expenses (including all flights) and for the planning, organisation and post-mission seminar. Smart Optics is planning a mission on Deformable Mirrors to the United States. This is a great opportunity for business to find out what businesses and research organisations are doing in the USA with Smart Optics. If you want to find out more and express your interest, contact Jon Holmes. Details of the scheme are at www.dri.gov.uk/mbp/ its/missions/missions.html

## **Support for Faradays from the Ministers**



Lord Sainsbury, Minister for Science and Innovation 'launched' the Crystal Faraday Partnership in Green Technologies on 23rd October 2001. He said:

"The 18 FARADAY partnerships already established are

producing a high and effective level of collaboration between industry, RTOs and universities. These partnerships offer a unique way of enabling businesses and researchers to work together, to find new opportunities for exploitation of research, to find new opportunities to bring change to the quality of our lives."



Patricia Hewitt, Minister for Trade and Industry was reported in the Observer on 2 December as supporting Faradays in the Government's drive for wealth creation through innovation:

"The science budget has risen; Hewitt believes that programmes

such as Foresight, aimed at encouraging innovation, and the Faraday partnership between the universities and business can forge better links between science and industry to create innovation."

## **Smart Optics reaches out to healthcare**

Over 45 people participated in a PPARC "optics for the medical industry" workshop held in London on 25 September 2001, including a number of clinical ophthalmologists, manufacturers of optical equipment, staff from other Research Councils, and representatives of the NHS and the Department of Health. There is a great demand for optical technologies and their associated detectors, image processing and pattern recognition techniques in medicine. The astronomical optics research community, with its strengths in detector and instrument development, data processing and pattern recognition, seems to be able to provide some of the answers required for a new generation of medical equipment. Such interdisciplinary, needs-focused technology transfer is at the heart of the Faraday ideology.

Professor Alistair Fielder of Imperial College gave us an insight into the practical requirements for more advanced optical systems in the field of clinical opthalmology. In particular, access to the eye, wide field of view retinal imaging and fast image capture with low level illumination were familiar themes to the astronomers present. Astronomy groups from the Universities of Cambridge, Leicester, University College London and Imperial College presented advances in optical design and fabrication, adaptive optics, astronomical image processing and fast optical detectors for medical applications.

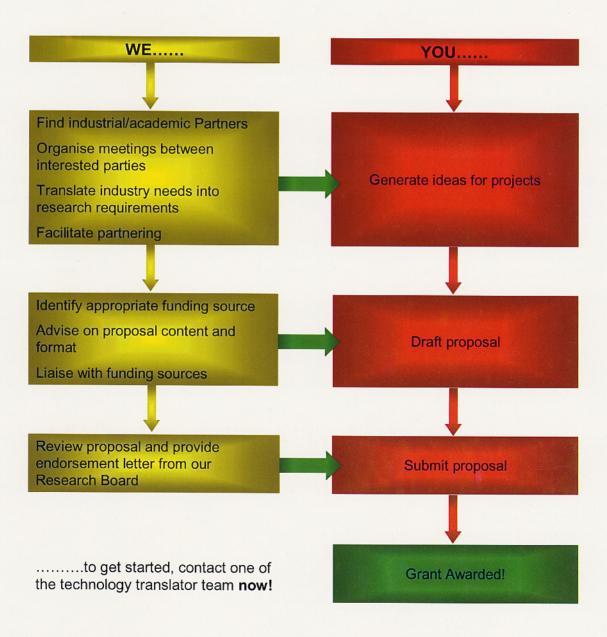
A number of the participants are now forming collaborative partnerships to bring lasting benefit for healthcare. This represents an opportunity for companies in the medical optics industry to participate in the Smart Optics Faraday Partnership in order to gain access to these novel technologies, and several ideas for projects are being prepared as applications to PPARC PIPSS industry partnerships funding scheme. For further information on PPARC's Industry Programme and PPARC Technologies for Healthcare, email Nathan at nathan.hill@qi3.co.uk or telephone 01223 304568.

#### **PIPSS**

The next call for PIPSS proposals (up to £50K collaborative projects) is opening Jan 1st 2002. PIPSS is a PPARC scheme aimed at small collaborative projects. Once again, Smart Optics can help by supporting your bid and assembling partners. Contact a technology translator for help. Details of the PIPSS grant scheme are at www.pparc.ac.uk/rs/fs/rg/pipssguidenotes.asp

# How Smart Optics can help you obtain project funding

Even after the £1M earmarked PPARC/EPSRC funds are allocated, Smart Optics will be actively working to get **more** projects funded, through other schemes such as LINK, TCS, Smart Awards, EU Framework 6 etc. The diagram below shows how we can help at the various stages of applying for funds, from generating the ideas and partnerships, through to endorsing a proposal application to a funding body.



## **Smart Optics Industrial Partners**

AEA Technology Plc Image Automation Ltd Qi3

Astrium UK Keeler Ltd QinetiQ

Barr Associates Ltd Loughborough Surface Analysis Ltd Quotec
BJR Systems Ltd MAST Carbon Ltd SEA

Cablefree Solutions Ltd Micropix Sharp Laboratories of Europe Ltd

CDL Systems MSSL Sira Electro-optics Ltd

CLRC Observatory Sciences Ltd Starpoint Adaptive Optics
CRL Opto Optisense Ltd Technology Partnership

Davin Optronics Oxford Instruments Telescope Technologies Ltd

Exitech Oxford Technology Consultants Ltd Thales Optics Ltd

Federation of Electronics Ind Pilkington TWI Ltd

Fujifilm Electronic Imaging Ltd Precision-Optical Engineering UK Astronomy Technology Centre

#### **Academic Partners**

Imperial College University of Oxford University College

University of Durham Liverpool John Moores University Heriot-Watt University

## **Technology Translator Team**

The Smart Optics Faraday Partnership has recruited 10 Technology Translators, of whom three are devoting most of their time to Faraday Partnership activities. A Technology Translators' Workshop was held in November to plan and co-ordinate activities and training. Eight of the team are shown below:



Jon Holmes



Mike Cutter



Chris McFee



Andy Barnes



Brett Patterson



Steve



Alan Smith



Colin Cunningham

## **Contact Details**

For industrial applications contact:

Jon Holmes

Faraday Partnership Manager Sira Electro-Optics Ltd, South Hill, Chislehurst, Kent BR7 5EH Tel: +44 (0)20 8467 2636 Fax: +44 (0)20 8467 6515

jon\_holmes@siraeo.co.uk Website: www.siraeo.co.uk For space related enquiries contact: Steve Welch

Mullard Space Science Laboratory Holmbury St Mary, Dorking, Surrey RH5 6NT Tel: +44 (0)1483 204147

Fax: +44 (0)1483 278312 sjw@mssl.ac.uk

Website: www.mssl.ucl.ac.uk

For ground-based astronomy apparatus enquiries contact:

Colin Cunningham
UK Astronomy Technology Centre,
Royal Observatory, Blackford Hill.

Royal Observatory, Blackford Hill, Edinburgh EH9 3HJ Tel: +44 (0)131 668 8223

Fax: +44 (0)131 668 8314 crc@roe.ac.uk

Website: www.roe.ac.uk/atc/





