

## **Summary Report**

# **UK-India Workshop on Affordable Medical Technologies: From ideation to commercialisation**

**Venue:** Hotel Raintree, Chennai

**Date:** 11 February 2015

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### **Organised by:**

The UK Science and Innovation Network India

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<https://www.gov.uk/government/priority/collaborating-with-india-on-science-and-innovation>

### **Supported by:**

Knowledge Economy Team, British Deputy High Commission Chennai

### **Workshop objectives and background:**

Affordable healthcare is a large global need- in both the developing and developed world. In the developing world, affordability is a key factor determining whether healthcare solutions are able to reach the masses. In the developed world, the continuously ballooning healthcare costs are a large threat to the sustainability of the healthcare system.

UK has been a leader in developing and innovating healthcare solutions as well as deploying them for public use. India has demonstrated some outstanding examples in delivering affordable health care to the masses.

One of the main aims of the one-day workshop in Chennai was to bring together a select group of UK and Indian counterparts with shared or complementary interests to discuss emerging needs, opportunities and challenges that would in turn help develop a roadmap for future activities.

The workshop emphasized devices and diagnostics where experts from UK and India demonstrated excellent case study examples related to technology development and innovation; and challenges encountered in the deployment of affordable healthcare solutions for the people at large.

## WORKSHOP PROGRAMME

Time	Topic	Presenters
0900 - 0930	Registration	
0930 - 0940	<b>Inaugural session</b> <ul style="list-style-type: none"> <li>Welcome and Introduction to the workshop</li> <li>Brief on the wider work of the HMG family</li> </ul>	<p>Ms Sheryl Anchan, British Deputy High Commission Mumbai</p> <p>Mr Sam Kumar, British Deputy High Commission Chennai</p>
0940-1040	<b>Session 1 - Innovative Medical Technologies in the UK that might be relevant for the Indian context</b> <ul style="list-style-type: none"> <li>Presentation by UK delegates: Topics : Landscape of health technologies in the UK</li> <li>Showcase of the research being done in the UK on devices and diagnostics and commercializing research case studies</li> </ul>	<p><b>Chairperson: Dr Mike Stewart</b></p> <p>1. Dr Themis Prodromakis, University of Southampton</p> <p>2. Dr Till Bachman, University of Edinburgh</p> <p>3. Dr Richard Black, University of Strathclyde</p> <p>4. Dr Mario Giardini, University of Strathclyde</p>
1040-1055	Coffee break	
1055-1200	<b>Session 2 – Innovative Medical Technologies in India</b> <ul style="list-style-type: none"> <li>Presentation by 4 Indian delegates Topics: Landscape of health technologies in India</li> <li>Challenges faced in commercializing a research in</li> </ul>	<p><b>Chairperson: Dr Sanjay Gupta</b></p> <p>1. Dr G S Bhuvaneshwar, Triviron Healthcare Pvt Ltd</p> <p>2. Dr Balram Sankaran, Sree Chitra Tirunal Institute for Medical Sciences &amp; Technology</p> <p>3. Dr Mohanasankar Sivaprakasam, Healthcare Technology Innovation Centre Chennai</p> <p>4. Professor Suman Chakraborty, IIT Kharagpur</p>



	India and showcase of the research being done in India on devices and diagnostics	
1200 - 1300	<p><b>Session 3 - Panel discussion</b></p> <p><b>Topic:</b> Affordable devices and diagnostics- Need and Opportunities for UK-India collaborations</p>	<p><b>Chairperson :</b> Ms Sue Dunkerton, Health-Knowledge Transfer Network (KTN)</p> <p>Panel members:</p> <ol style="list-style-type: none"> <li>1.) Mr Vimal Kumar, GITA</li> <li>2.) Dr Richard Black, University of Strathclyde</li> <li>3.) Mr Sivanand, Aurolab, Aravind Eye Care System</li> <li>4.) Dr Abdul Ghafur, Consultant in Infection, Apollo Hospital Chennai</li> <li>5.) Dr Sarma, BIRAC</li> </ol>
1300 -1400	Lunch	
1400 - 1515	<p><b>Session 4 – Tackling the needs through technological interventions:</b> Different perspectives from industry, government, academia, funding agency, and medical professionals</p> <p><b>(Ten-mins presentation followed by five-mins Q&amp;A)</b></p>	<p><b>Chairperson :</b> Dr Themis Prodromakis</p> <ul style="list-style-type: none"> <li>• Ms Sue Dunkerton, Health-Knowledge Transfer Network</li> <li>• Mr Vimal Kumar , GITA</li> <li>• Dr Sarma and Ms Gandhi, BIRAC-Gov of India</li> <li>• Dr Abdul Ghafur, Consultant in infection- Apollo hospital, Chennai</li> <li>• Dr Devasahayam, CMC Vellore</li> </ul>
1515 - 1545	Wrap-up session	Dr Till Bachmann and Dr Balram Sankaran
1545-1555	Vote of thanks	Ms Mathi R, BDHC Chennai
1600-1700	Event ends with networking tea and coffee reception	

## PARTICIPANT LIST

1	Ms Sue Dunkerton	Knowledge Transfer Network
2	Dr Till Bachmann	University of Edinburgh
3	Dr Mike Stewart	Open University
4	Dr Themis Prodromakis	University of Southampton
5	Dr Richard Black	University of Strathclyde
6	Dr Mario Giardini	University of Strathclyde
7	Mr Vimal Kumar	GITA, Gov of India
8	Ms Sonia Gandhi	BIRAC-DBT, Gov of India
9	Dr Sarma	BIRAC-DBT, Gov of India
10	Dr G S Bhuvaneshwar	Trivitron Healthcare Pvt Ltd
11	Dr Balram Sankaran	Sree Chitra Tirunal Institute for Medical Sciences & Technology
12	Dr Mohanasankar Sivaprakasam	Healthcare Technology Innovation Centre, Chennai
13	Professor Suman Chakraborty	IIT Kharagpur
14	Dr Sanjay Gupta	IIT Kharagpur
15	Mr Sivanand	Aurolab, Aravind Eye Care System
16	Dr Abdul Ghafur	Consultant in Infection, Apollo Hospital Chennai
17	Dr Devasahayam	Christian Medical College, Vellore
18	Dr Balakrishnan	Dean Medical Research, SRM University
19	Dr S Krishnakumar	Deputy Director - Research, Vision Research Foundation
20	Dr Anita Ramesh	Prof Medical Oncology Sri Ramachandra University
21	Dr N Arunai Nambi Raj	Professor of Physics, School of Advanced Studies, VIT University
22	Dr C Ramalingam	Dean - School of Bio Sciences and Technology, VIT University
23	Dr M Anburajan, PhD, FIMSA	Head-Department of Biomedical Engineering SRM University
24	Prof N Sharmila	Assistant Professor, School of Bio Sciences and Technology
25	Dr B S Virudhagirinathan	Director, Care, IBS
26	Mr Sivanand	Marketing Manager, Aurolab
27	Mr Jay Srinivasan	Founder & CEO, RedMed Health systems



28	Dr Suvo Chatterjee	Associate Professor, Dept of Biotechnology, Anna University, Chennai
29	Ms Sarika Gopalakrishnan	Opthemetrist, Sankara Nethralaya
30	Ms Preethika Immaculate	Assitant Professor, Biomedical Engineering Division, School of Bio Sciences, VIT University
31	Dr Geetha Manivasagam	Asst Director, Centre for Biomaterials Science & Technology, VIT University
32	Dr J Narayanan	Senior Scientist, Department of Nanobiotechnology, Sankara Nethralaya
33	Dr Jerard Maria Selvam	Deputy Director (Equipment), TNHSP
34	Mr M B Subash	General Manager - Bio Medical Engineering, Sundaram Medical Foundation
35	Ms Sandhya Rao	Co-founder & Director, RedMed Health systems
36	Dr K Ganapathy	President, Apollo Telemedicine Networking Foundation
37	Dr K Sridhar	Pro-Vice Chancellor - Medical, SRM University
38	Dr D K Sriram	Medical Director, Hindu Mission Hospital
39	Dr M Nithyakalyani	Senior Scientist - Geneticist, XCODE Life Sciences
40	Dr. S. Hemalatha	Professor and Dean School of Life Sciences B.S. Abdur Rahman University
41	Dr George Jacob	Director, Frontier Mediville Medical Science Park
42	Dr Najumnissa Jamal	HOD/EIE, B.S.Abdur Rahman University
43	Dr C Tharini	Professor, BS Abdur Rahman University



## KEY LESSONS FROM THE WORKSHOP:

- Good ecosystem for innovations: There has been a greater push for innovations in the med-tech area in recent times in the UK. Research funding bodies in India have also shown an increased interest in encouraging innovations to result in affordable healthcare technologies- some of them being promoted by the [Department of Science and Technology](#) (DST), the [Department of Biotechnology](#) (DBT), [DBT-BIRAC](#) and [GITA](#).
- Some great examples of innovations in the healthcare space in India and the UK include the affordable cataract surgery for the rural poor in India, developed by [Aravind Eyecare \(Aurolab\)](#) and the [PEEK](#) eye diagnostic tool-kit, developed by University of Strathclyde for low-income resource settings.
- India has great potential in pharmaceuticals, both in drug discovery and development. Pharmacy could be one of the areas which could certainly benefit from collaborative ventures with the UK.
- With the global threat of increasing anti-microbial resistance (AMR), there is a greater thrust in recent times on the rational usage of anti-biotics and the need for developing more and efficient anti-biotic drugs. Collaborative efforts in this area, like for example screening of drugs that could cause side-effects or DNA sequencing of pathogens, etc. would be very beneficial to help address some of the serious issues caused by AMR.
- Besides diagnostics and devices, there could be a great scope for potential collaborations in the area of tele-medicine and mHealth.
- Many complimentary and commonality areas were observed. There exists an excellent research talent in India as in the UK. Funding agencies in both countries are increasing resources towards encouraging innovations in healthcare to bring down costs and increase accessibility to the masses.
- 80% of medical devices used in India are imported. Recently the government of India allowed for a 100% FDI in medical devices, in a bid to encourage local manufacturing for the global market.
- Currently, in India no separate regulations are available for the Clinical trial Registration of Medical devices; they are considered as “Drugs” under section 3(b). The proposed amendments to Drugs and Cosmetics Act present an opportunity to adopt learning from existing UK models.
- One area where UK and India can look for collaborations is developing world class Med-Tech Incubation centres with tinkering labs for Medical Devices and Diagnostics.



- Technology developers in both places go through the same 'valley of death' challenge while developing a product. There is much to be learned from knowledge exchange; and sharing of training and teaching modules.
  - Educational exchange programmes which allow for entrepreneurs and students from India and the UK to visit and work in each other's labs for a given time will prove very useful and will help develop an understanding of the opportunities and challenges in the diagnostics and devices area.
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