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## Chairs Welcome

Welcome to Innovation through Knowledge Transfer 2015 (InnovationKT-15), an international conference organised by KES International and the Institute of Knowledge Transfer, and hosted by Staffordshire University, taking place on the 15th-17th April 2015.

InnovationKT is an annual conference series aimed at *knowledge professionals* - those academics, business people, managers and researchers working with innovation, enterprise, knowledge transfer, exchange and sharing.

InnovationKT-15 provides an excellent opportunity to disseminate, share and discuss the impact of all aspects of university-business and business-business interactions and collaborative working.

The conference features world-class speakers, oral presentation sessions and interactive workshops. It provides an opportunity for the presentation of full papers and short papers, both of which were subjected to an appropriate level of review, and where accepted, published in the conference proceedings.

We thank Staffordshire University for hosting the event, also the keynote speakers, reviewers, international programme committee members, authors and delegates for their participation.

Robert J. Howlett  
Matthew Hocking  
Conference Chairs

## Organisation

InnovationKT2015 is organised by KES International in partnership with the Institute of Knowledge Transfer and the Staffordshire University. It follows successful events in the series held in since 2009.

## Sponsors



## International Programme Committee

<b>Name</b>	<b>Affiliation</b>
Dr. Danilo Avola	Sapienza University of Rome, Italy
Dr. Christopher Brown	Hertfordshire Business School, UK
Dr. Eng. Raffaele De Amicis	Fondazione Graphitech, Italy
Dr. Paula Di Maio	Institute for Socio Technical Complex Systems
Prof. Richard Ennals	Workplace Innovation Ltd, UK
Sir. Brian Fender	Institute of Knowledge Transfer, UK
Mr. Marc Fleetham	University of Wolverhampton, UK
Dr. Ileana Hamburg	IAT, Westfälische Hochschule Gelsenkirchen, Germany
Mr. Russ Hepworth	Institute of Knowledge Transfer, UK
Dr. Matthew Hocking	Staffordshire University, UK
Asso. Prof. Dr. Daocheng Hong	Fudan University, China
Prof. Robert J. Howlett	Bournemouth University & KES International
Mr. Thorsten Kliewe	University Industry Innovation Network, The Netherlands
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Dr. Alyx Macfadyen	La Trobe University, Australia
Dr. Maik Maurer	TU Munich, Germany
Dr. Cristian Mihaescu	University of Craiova, Romania
Prof. Maurice Mulvenna	University of Ulster, UK
Prof. Jean Renaud	Institut National des Sciences Appliquees (INSA), France
Prof. Dr. Vladimir Stantchev	SRH Hochschule Berlin, Germany
Dr. Arvind Upadhyay	University of Brighton, UK
Ph.D. Mihaela Vranić	University of Zagreb, Croatia
Dr. Andrew Wray	University of Bristol, UK
Dr. Gregory Zacharewicz	University of Bordeaux, France
Dr. Shang-Ming Zhou	Swansea University, UK

## Speakers and Session Profiles

### Professor Ian Oakes

President of the Institute of Knowledge Transfer  
Deputy Vice Chancellor (Research and External Engagement)  
University of Wolverhampton, UK

### *Knowledge Transfer and the Role of the IKT*



**Abstract:** The dynamism of regional economies depends on the ability of organisations to adopt new market and technological knowledge and apply it effectively. By doing so, a region can emerge as a centre of new knowledge creation attracting investment from elsewhere and stimulating the formation of new businesses. The presentation will investigate the mechanisms through which knowledge and technological advance are translated into improved competitiveness and economic performance at national, regional and sub-regional levels. Furthermore it will review how universities generate new knowledge, absorb knowledge created elsewhere and diffuse knowledge into a region's economy in a variety of

new ways. This will include an overview of the emerging role of universities in energising regional innovation by integrating firms, networks, business service providers and focussing on the importance of the inter relationship between them as well as informing the design of future government policies to promote competitiveness.

**Biography:** Over the last 20 years, Professor Oakes has held a number of senior management posts in higher education before joining the University of Wolverhampton in 2008 as Pro Vice-Chancellor with responsibility for the University's research and enterprise agenda and developing the growing knowledge transfer arena at regional, national and international levels. More recently he was promoted to the role of Deputy Vice-Chancellor as well as Chief Executive of University of Wolverhampton Science Park.

Since the early 1980s he has been involved in an extensive programme of technology transfer activities, both national and transnational, operating across a range of sectors and has led the development of a number of initiatives focussing specifically on the transfer of technology from academia to both large and small firms. These have included DTI/TSB funded Knowledge Transfer Partnerships (KTPs) and Carrier

Technology Programmes, European Commission funded Framework V, VI & VI RTD and CRAFT projects and EU structural funded business support initiatives. These multi-million pound projects involving companies both nationally and internationally have focused on a range of sectors including; jewellery, giftware, automotive, creative industries, environmental, engineering and manufacturing. He has also developed and led a substantial number of ESF funded training programmes and ACCELERATE funded company development and training programmes for the automotive, manufacturing and creative industries. Professor Oakes also led the development and delivery of projects for multi-company and multi-university schemes to promote collaboration amongst the West Midlands region's universities. He has travelled extensively throughout mainland Europe, the Middle East, India, China and South East Asia to coordinate technology transfer projects as well as develop and maintain relationships with university partners.

**Chris Warkup**

CEO of the Knowledge Transfer Network

***The Role of the KTN in the UKs Innovation Landscape***

**Abstract:** From the discovery of DNA to making blockbuster movies, from inventing the world wide web to creating the best in user experience design, the UK has earned its reputation for world-leading creativity and inventiveness. We're helping secure the UK's future by playing to those strengths. Our primary role at KTN is to nurture, develop and scale up innovation within business, connecting you with the wider knowledge economy. Working with large and small companies, government agencies and research organisations, with tech hubs and startups, public funding bodies, VCs and private investors, KTN has built a unique network that helps enterprising people and companies reach the full potential of their innovative capabilities.

Established by Innovate UK to build better links between science, creativity and business, the KTN has specialist teams covering all significant sectors of the economy, from defence and transport to the creative industries, the built environment to biotechnology and robotics. Our expertise in connecting sectors, disciplines and skills with the right collaborations and business approach is what helps unlock the tremendous hidden value in people and companies.

We have the knowledge and networks of 60,000+ members to help UK business profit from innovation. Our toolkit to support this includes articulating challenges to find appropriate solutions and showcasing new technologies to potential markets. We focus most of our activity working at the interfaces to bring together those who would not normally meet - coordinating hundreds of events per year, facilitating collaborations to help get better access to project funding and assisting organisations in developing more sustainable business models while also championing the early use of design approaches in innovation. We help companies navigate the complex innovation landscape in order to capture greater value for the UK from outstanding science and creativity. Become a valued member of our network today by registering your interest via [enquiries@ktn-uk.org](mailto:enquiries@ktn-uk.org).



**Biography:** Chris Warkup is the CEO of the Knowledge Transfer Network that came into existence on 1 April 2014 and took over the activities of 14 previous KTNs. The new KTN is funded by Innovate UK to provide the UKs innovation network: connecting people and enabling collaboration to help grow the UK economy through innovation.

Chris is an Animal Scientist by background and most recently was the CEO of the Biosciences Knowledge Transfer Network. Chris' early



career was in the livestock genetics industry (in which UK based companies are among the global leaders). This was followed by 15 years with the Meat and Livestock Commission in science management and knowledge transfer roles.

He holds various other appointments on Boards and Committees including being a Trustee of The Roslin Foundation and a member of the Steering Group for the Innovate UK Sustainable Agri-Food Innovation Platform. For ten years he was Chairman of the Genomia seed fund and has a long standing relationship with BBSRC, having been on three different Strategy Panels, and is a Past President of the British Society of Animal Science.

**Dr Rosa Fernandez**

Director of Research at the National Centre for University and Business

***Strategies for Sustaining Growth of Income from Knowledge Exchange across Higher Education Institutions in the UK***

**Abstract:** Public incentives for knowledge exchange (KE) seek to develop academic engagement, remove obstacles to collaboration, and embed a culture of enterprise across the HE sector. KE activities are also a source of income for HEIs and reached £3.57bn in 2012-13.

This report offers new evidence on the patterns of and reasons for sustained growth of KE income across HEIs in the UK. More and better evidence of the benefits of academic activity outside academia is continuously needed by policy makers to justify the presence of dedicated incentives for KE activities, but evidence of progress may also be of use for the purpose of allocating these funds.

We follow sustained growth of income drawn from the four more stable demand driven streams of KE (consultancy, contract research, continuing professional development, facilities and equipment) over the six years from 2007 to 2013; uncovering diverse strategies for total KE income growth but also demonstrating that it is the breadth of the KE activity base and not the scale of the institution that favours sustained growth: smaller HEIs with broad KE activity strategies are as likely to grow sustainably than larger scale HEIs.



**Biography:** Dr. Rosa M. Fernández is Research Director at the National Centre for Universities and Business. She oversees the analytical function and is responsible for delivering the State of Relationship Report: a myth-busting and evidence-based account of the state of collaboration between universities and business in the UK. Research at NCUB provides empirical intelligence to inform collaboration decisions in the UK, with bespoke evidence reports on policies and practices that are relevant for collaboration operations and strategy across public funders and members.

Rosa joined NCUB after 4 years as a government economist responsible for evidence on the need for and impact of the UK science and research budget, following 10 years as an academic economist at Oxford. She is a Fellow of the Royal Statistical Society and has served as an international expert in science and innovation panels for the OECD, the EU and the Council of Canadian Academies. She holds a M.Sc. and a PhD in Economics.

**Nafeesa Dajda**

Knowledge Exchange Manager, Satellite Applications Catapult

***Innovation, Collaboration & Satellite Applications***

**Abstract:** The Satellite Applications Catapult is an independent innovation and technology company, created by Innovate UK to foster growth across the economy through the exploitation of space technologies. We help organisations make use of and benefit from satellite technologies, and bring together multi-disciplinary teams to generate ideas and solutions in an open innovation environment. Nafeesa's talk will highlight how the Catapult has built successful partnerships across industry and academia that have led to the creation of new businesses and services.



**Biography:** Nafeesa joined the Satellite Applications Catapult in January 2014, as Knowledge Exchange Manager. Her role involves creating partnerships between the research knowledge base and businesses across the UK. These collaborations ensure the pull through of great ideas related to space applications into innovative new products, services and businesses.

Prior to this she worked for five years at BlackBerry managing their global University Relations programmes, BlackBerry Academic Programme and outreach activities to encourage young people to study STEM subjects, as well as a running a women's scholarship programme.

Nafeesa graduated from Warwick University with a PhD in Electrochemistry and then spent a year as a postdoc researcher in Georgia State University, America. Her first "real world" position was at the Engineering and Physical Sciences Research Council where she spent five years in a variety of University and business facing roles.

## Andrew Trickett

Global Rail Knowledge & Information Manager, Arup

### ***High Hopes - Pink Floyd, Knowledge Management and how to drive innovation in an organization***

#### **Summary and Themes**

Andrew's talk will highlight some of the barriers in knowledge based organisations which affect effective knowledge sharing and innovation. The talk will highlight the practices and tools that Arup utilise to capture and re-utilise knowledge and how this is a driver of innovation within Arup but also the lessons learnt.

The talk will feature the following themes:-

- Andrew will set out what he see as the problems in today's knowledge based organisation that act as inhibitors not only to sharing knowledge but also to innovation.
- The importance of the Human dimension and why creativity is for everyone in an organisation.
- Some of the tools we use in Arup to capture and disseminate knowledge but also to connect people.
- The work of Arup's forums which are the jewel in the crown of its KM systems in his opinion and the delivery of arrow and cloud solutions by tapping in to the brain power of its employees.
- Use of Opal as a brain storm device.
- The work that Arup is doing in the global rail business with knowledge reviews during the life of the project. He will be highlighting the role of knowledge reviews in the flow as a means of capturing JIT knowledge and how it is used to add value in Rail
- A background to Arup as will come through in portions of the speech in terms of its culture



Andrew is Knowledge and Information Manager within Arup's global rail team and has over 15 years experience in the field.

Recognised globally across Arup as a subject matter expert on Knowledge Management and Communities of Practice (COP), Andrew has designed and delivered numerous innovative and engaging workshops with employees from numerous disciplines up to executive level. Andrew is particularly

interested in the use of COP's and project reviews as a means of capturing tacit knowledge from people and delivering operational efficiencies and driving innovation within an organisation. He has delivered KM talks in this area in London, Hong Kong, Brisbane, Johannesburg and San Francisco.

Andrew holds an MBA from Aston University.

## Invited Speaker

### *Prof Chris Birch*

**Abstract:** New Deal Innovation (NDI) is an EU Inter-Reg 4A funded project comprising 4 primary partners - the University of Greenwich, Medway Council, Business Skills Kent and the Chambres des Metiers / Pole Atens in Normandy. The primary aim was to look into innovation behaviours and attitudes in SMEs in our Regions. Detailed research was undertaken to investigate this, a support toolkit created that helped small companies to cope better with the impact of rapid change, and impact research on how useful this has been. This presentation will highlight key research findings and to demonstrate the toolkit, which is available and free to use. See <http://www.kit.ndi-innovation.com>



**Profile:** Chris Birch is Professor of Enterprise and Innovation at the University of Greenwich, leading the Centre for Innovation, Imagination and Inspiration. This is involved in many major EU funded projects which align SMEs, Universities and Regional Agencies in value-adding ways. Previously, he has held senior positions of Pro and Deputy Vice-Chancellor with responsibility for Research and Enterprise.

## Session

### *Staffordshire Innovation Forum*

**Profile:** The Staffordshire county includes the city of Stoke-on-Trent, county town of Stafford and the major conurbations of Lichfield, Tamworth and Buxton. From the Cheshire plains in the North to the moorlands in the East and meeting the Black Country in the South, Staffordshire has a wide variety of rural, urban and peri-urban spaces.

Working in this environment Staffordshire University has the opportunity to provide knowledge transfer and enterprise products and services to thousands of SME's and large companies. This Innovation Forum will cover some regional projects, the local providers and give an insight into knowledge transfer in the region.

Speakers will include knowledge transfer professionals and academics from Staffordshire University, business leaders from the area and strategic leaders from the Local Enterprise Partnership.

## Company Visit

### *Emma Bridgewater*

**Profile:** The Emma Bridgewater company is an innovative and creative business producing world-famous iconic pottery. The company is run by Emma and her husband Matthew Rice, who create their own signature designs. It is a family business, and the inspiration stems from family and everyday life. Emma Bridgewater is a thoroughly British company too. All of their products are made in Stoke-on-Trent, the traditional home of British pottery, and they are proud to be one of the largest employers of potters in the area. All their pottery is made from cream-coloured earthenware, a traditional Staffordshire product. Most of the production work is still done by hand, and all the pieces are individually hand-decorated, so every one is very slightly different and their spongeware is always signed by the person who painted it. Pottery is, and always will be, at the heart of the company, but in recent years they have expanded outside of the kitchen and used their iconic patterns on a growing range of other products including glass, tins, picnicware, wallpaper and fabrics from Sanderson, and their own collection of home fragrances, and bath and bodycare.

## Conference Timetable

	<b>Wednesday 15 April 2015</b>	<b>Plenary Room</b>	
<b>19.30</b> - <b>20.45</b>		Early Registration & Drinks Reception	
	<b>Thursday 16 April 2015</b>	<b>Plenary Room</b>	<b>Breakout Room</b>
<b>8:30</b>	Registration & Networking		
<b>9.30</b>	Conference Opening and Welcome	<p>Prof. Robert Howlett, Executive Chair KES International</p> <p>Prof. Allan Howells, Deputy Vice Chancellor, Research Enterprise and External Affairs, Staffordshire University</p> <p>Prof. Ian Oakes, President of the IKT</p> <p>Dr Matthew Hocking, InnovationKT-15 Chair, Staffordshire University</p>	
<b>9.45</b>	Keynote Talk	<p>Prof. Ian Oakes, Deputy Vice Chancellor, Research and External Engagement, Wolverhampton University and President of the IKT</p> <p>'The Role of Universities in Stimulating Innovation and Powering the Economy'</p>	
<b>10:30</b>	Coffee & Networking		



	<b>Thursday 16 April 2015</b>	<b>Plenary Room</b>	<b>Breakout Room</b>
<b>11:00</b>	Parallel Sessions	Session A : Knowledge Transfer Case Studies and Policy 4 x 30 min presentations	Session B : Innovation Policy and Practice 4 x 30 min presentations
<b>13:00</b>	Lunch		
<b>14:00</b>	Invited Talk	Prof Chris Birch Director of Enterprise and Innovation University of Greenwich Business School  'New Deal Innovation – Supporting SME Growth through Innovation'	
<b>14.30</b>	Invited Talk	Nafeesa Dajda Knowledge Exchange Manager, Satellite Applications Catapult  'Innovation, Collaboration & Satellite Applications'	
<b>15.00</b>	Company Visit	Visit to Emma Bridgewater pottery works, Stoke on Trent	
<b>17.00</b>			
<b>19:30</b>	<b>Conference Dinner</b>	The Potters Club, Stoke on Trent	

	<b>Friday 17 April 2015</b>	<b>Plenary Room</b>	<b>Breakout Room</b>
<b>9.00</b>	Registration & Networking		
<b>9.30</b>	Invited Talk	Chris Warkup, CEO of the KTN  'The Role of the KTN in the UKs Innovation Landscape'	
<b>10.00</b>	Invited Talk	Andrew Trickett Global Rail Knowledge and Information Manager, Arup  'High Hopes – Pink Floyd, Knowledge Management and How to Drive Innovation in an Organisation'	
<b>10.30</b>		Institute of Knowledge Transfer Members Benefits, Products and Services	
<b>10.45</b>	Coffee & Networking		
<b>11:00</b>	Parallel Paper Presentation Session	Session C: National and Global Knowledge Transfer 4 x 30 min presentations	Session D: Staffordshire Innovation Forum Keynote talk + contributed presentations
<b>13:00</b>	Lunch		
<b>14:00</b>	Invited Talk	Rosa Fernandez Director of Research at the National Centre for Universities and Business  Strategies for Sustaining Growth of Income from Knowledge Exchange across Higher Education Institutions in the UK	

	<b>Friday 17 April 2015</b>	<b>Plenary Room</b>	<b>Breakout Room</b>
<b>14:45</b>	Participatory Workshop	Open Innovation 'Lift-Off' Workshop  Alan Drummond and Ron Donaldson, Argenta Nova Ltd	
<b>15.45</b>	Closing Ceremony	Close, Coffee, Depart	

## Parallel Sessions

### ***Session A: Knowledge Transfer Case Studies and Policy***

Knowledge Transfer Partnerships: Neuteq and Staffordshire University  
*Prof David Cheshire & KTP Associate*

A Three Way Win: Collaborative Design as a mechanism for successful Knowledge Transfer and Exchange, enhancing student employability and adding value to the student experience  
*Mr Peter Reid and Mr Martins Elerts*

ERP implementation in manufacturing SMEs: Lessons from the Knowledge Transfer Partnership scheme  
*Dr Martin Wynn and Ms Maryam Rezaeian*

Partnership common ground and difference: insights for KTP policy and research  
*Dr Nicolette Michels*

### ***Session B: Innovation Policy and Practice***

The Chicken or the Egg: Granger-Causality between Trade and Innovation  
*Mr. Daniel Johnson & Mr. Hunter Van Wagoner*

Cross Cluster Cooperation - Means and Tools for Enabling Inter-Organisational Innovation and Business Incubation  
*Jun.-Prof. Dr.-Ing Joerg Noenning, Dipl.-Ing. Anja JANNACK, M.A. Peter SCHMIEDGEN*

Agricultural Innovation: Lessons from Medicine  
*Mr Jonathan Menary*

International knowledge transfer as instrument of state innovation policy  
*Miss Liubov Evstigneeva*

**Session C: National and Global Knowledge Transfer**

Knowledge Centers as an innovative knowledge transfer mechanism. Lesson learned from the program implemented in Lesser Poland

*PhD Seweryn Krupnik*

Management of Knowledge Transfer: Developing promotional career pathways in Enterprise and Knowledge Transfer leadership

*Dr Robin Gutteridge, Mrs Karen Bill and Ms Marcia Blake*

Implementation of applied research and development in conditions of the Slovak universities

*Ing. Andrea Čorejová and Ing., PhD. Jana Jarošová*

The Application of a Knowledge Transfer Model for Global Impact

*Mr Marc Fleetham, Mr Nigel Birch and Miss Rebecca Macdonald*

**Session D: Staffordshire Innovation Forum**

How Investment Readiness supports Innovation and Growth in Staffordshire - The Impact of the Regional Growth Fund on Staffordshire University

*Claire Keegan & Sean Farrell*

Improved employee engagement through character education

*Stephen Mills, CEO Memeology*

From Research to Realisation: Development of a Forensic Specimen Capture Device for Sexual Assault Examinations

*Laura Walton-Williams, Forensic & Crime Science, Staffs Uni*

The Centre of Refurbishment Excellence (CoRE)

*David Pierpoint, CEO CoRE*

Incentivising academics through consultancy

*John Adlen, Director of Sustainability, Staffs Uni*

Question and Answer session with Prof Allan Howell, Pro Vice Chancellor, Staffordshire University and speaker panel.

## Paper Titles and Abstracts

### *Session A: Knowledge Transfer Case Studies and Policy*

#### **Knowledge Transfer Partnerships: Neuteq and Staffordshire University**

*Prof David Cheshire and KTP Associate*

#### **A Three Way Win: Collaborative Design as a mechanism for successful Knowledge Transfer and Exchange, enhancing student employability and adding value to the student experience**

*Mr Peter Reid, Mr Martins Elerts*

*Teesside University*

This paper describes a case study of industry engagement between Teesside University and Tees Valley based SME, 'K2 Thermal Imaging' during the Spring and Summer of 2014. The paper reviews the work undertaken during the student placement phase of the collaboration, showcasing the results and describing the three way benefits for the company, university and student(s). It considers issues that such collaborations can uncover and highlights Knowledge Exchange Impact.

#### **ERP implementation in manufacturing SMEs: Lessons from the Knowledge Transfer Partnership scheme**

*Dr Martin Wynn, Ms Maryam Rezaeian*

*University of Gloucestershire*

This article examines how the experience gained from two Knowledge Transfer Partnership projects in the UK can usefully benefit companies faced with similar challenges in a developing world context. Specifically, it addresses the issues faced by manufacturing SMEs intent on replacement of their information systems with one integrated software suite - an Enterprise Resource Planning package. After exploring relevant literature, it focusses on how the key change elements of process, technology and people can feature in assessing the readiness of such companies for the major upheaval involved in such projects. Through further analysis of the KTP projects, it is suggested that these three components of change must be kept in balance when implementing these major software suites, both in developed and developing world contexts.

**Partnership common ground and difference: insights for KTP policy and research***Dr Nicolette Michels**Oxford Brookes University*

This research demonstrates the value of the partnership metaphor for university knowledge transfer. Set in the context of growing evidence of a frustrated UK policy aim for a fully-fledged third stream it addresses concerns over stakeholder engagement and management, measurement and resource allocation. Focusing specifically on the partnership concepts of common ground and difference, the study identifies shared and different conceptions of academic and associate partners engaged in Knowledge Transfer Partnerships (KTP). These shared and different conceptions offer valuable insights for policy issues of engagement, management, measurement and resource allocation. Underlining the value of the partnership metaphor for third stream policy, it further highlights the importance of the missing industry partner voice. We suggest to researchers, policy-makers and practitioners not just that common ground and difference inherent in the concept of partnership should be recognised and managed, but further that these dimensions should be regarded as valuable sources of knowledge in the KTP process itself.

***Session B: Innovation Policy and Practice*****The Chicken or the Egg: Granger-Causality between Trade and Innovation***Mr. Daniel Johnson, Mr. Hunter Van Wagoner**Colorado College*

While the literature is quite clear on the association between trade and innovation, there has been little explicit study of the direction of causality. This study uses all patents granted in the U.S. between 1987 and 1999, assigns them to probable industries of origin and sectors of use, then tests Granger-causality with trade flows in those same economic sectors. We run robustness checks on various measures of trade (imports versus exports, volume versus value of trade), and on various measures of innovation (patent counts, patent claims, citation-weighted patents, and patent counts weighted for originality or generality). Results at the aggregate level support the literature's assumption that imports cause innovation which then leads to exports, but at the industry level causality is more complicated, running in both directions from imports (or exports) to and from innovation.

## **Cross Cluster Cooperation - Means and Tools for Enabling Inter-Organisational Innovation and Business Incubation**

*Jun.-Prof. Dr.-Ing Joerg Noenning, Dipl.-Ing. Anja JANNACK, M.A. Peter SCHMIEDGEN, J. Noennig, A. Jannack, P. Schmiedgen<sup>1</sup>, J. Wylegalla<sup>2</sup>*

<sup>1</sup>*Technische Universität Dresden TUD*

<sup>2</sup>*Saxon State Ministry for Economic Affairs, Labour and Transport*

The paper reports about a German cross-cluster cooperation project that links a microelectronics cluster with a biotechnology cluster. The focus is on cross-cluster innovation: How can new products and start-ups be systematically generated and qualified at the intersection of the two fields? The article presents methods and tools that were custom-tailored and applied for cross-cluster innovation activities and events (Idea Lounge, Idea Day). Evidence was collected for the effectiveness of a custom-tailored cross-innovation processes, indicating the need for creative innovation management and customized workshop design. Generally, they indicate key components for the model of an open virtual incubator.

## **Agricultural Innovation: Lessons from Medicine**

*Mr Jonathan Menary*

*University of Warwick*

Today, it is widely acknowledged that agriculture is at a crossroads. The need for greater productivity to cope with a growing population and changing consumer demands – coupled with the necessity that this be done sustainably by reducing pollution and greenhouse gas emissions – presents a number of challenges. Inspired by the successes of the Green Revolution in the 20th century, which saw global cereal production double over the course of 30 years or so, greater levels of research-driven innovation have been promoted as offering a solution to these twin crises; yet this method is not without its own problems. A number of publications in recent years have pointed to there being a failure to ‘translate’ the basic science conducted by agricultural and horticultural scientists into effective technologies ‘on the ground’. This paper considers what lessons the agricultural knowledge & innovation system (AKIS) can learn from medical research translation by reviewing recent literature on translational science and implementation. It is hoped that such a synthesis will contribute to agri-innovation policy formation in the UK.



**International knowledge transfer as instrument of state innovation policy***Miss Liubov Evstigneeva**National Research University Higher School of Economics*

This article analyses instruments of public policy by which international knowledge transfer takes place. Global scientific potential as a key prerequisite for it is examined in cross-country comparison perspective. Main findings of the study is emerged patterns of technology transfer policy. Hypothesis about positive correlation between the level of intellectual property protection and effective implementation of research and development results is also confirmed in this article.

***Session C: National and Global Knowledge Transfer*****Knowledge Centers as an innovative knowledge transfer mechanism. Lesson learned from the program implemented in Lesser Poland***Seweryn Krupnik*

It will be the aim of the presentation to depict the lessons learnt from regional public program "SPIN". The program was implemented in the region of Lesser Poland. The objective of the program was to increase the intensity of the knowledge transfer from universities to enterprises. The goal was achieved by the establishment of four Knowledge Centers at the universities. Each of them was dedicated to specific areas of knowledge - regional smart specializations (biotechnology, smart grids, green building, translational medicine). The presentation will discuss the implementation and effects of the program.

**Management of Knowledge Transfer: Developing promotional career pathways in Enterprise and Knowledge Transfer leadership***Robin Gutteridge, Karen Bill, Marcia Blake**University of Wolverhampton*

This short paper will present the findings from a recently completed research study undertaken for the Office of the Vice Chancellor of a medium sized university in England. The study investigated which of three pathways into academic leadership roles (Readerships and Professorships) are most commonly used. Traditionally, academics applying for promotion to Readership or Professorship will provide evidence of expertise and a profile of achievement against criteria for one of three pathways: Learning and Teaching, Research and Knowledge Transfer. A literature review suggested an imbalance in the use of Reader and Professor promotion pathways, particularly under-representation by those using a Knowledge Transfer route and by some demographic groups such as women. This research investigated i) the veracity of this subjective impression and ii) possible reasons for the imbalances and barriers identified

**Implementation of applied research and development in conditions of the Slovak universities***Andrea Čorejová, Jana Jarošová**University of Žilina*

The aim of this article is to point out on the level of research and development support within Slovak universities. In the article authors highlight the fact that the indicators evaluating the level of research and development potential of the particular country are greatly influenced by current situation in the area of Slovak research and development support. Recently Slovak academic and science- research institutions are focused on better application of university knowledge and results of research and development into practice, inter alia, by the implementation of institutional support within the universities. In the end of the article, authors therefore present an example of Center for Technology Transfer working at the University of Zilina and its role as the tool for institutional support for applied research.

**The Application of a Knowledge Transfer Model for Global Impact***Marc Fleetham, Rebecca Macdonald, Nigel Birch**University of Wolverhampton*

This paper aims to demonstrate the impact of knowledge transfer activities on global communities. It draws on an award winning example of tri-party knowledge transfer, with partners from the UK and Nigeria, encouraging entrepreneurship and developing regional economic regeneration. This was stimulated by bespoke collaborative knowledge transfer activity in a location with substantial barriers and lack of access to municipal services. It is hoped that the reader will conclude that the application of knowledge transfer is effective and delivers results in a global context.