Introduction

The eChallenges e-2015 Conference takes place in Vilnius, Lithuania. This is the twenty-fifth in a series of annual technology research conferences supported by the European Commission and technically sponsored by IEEE. eChallenges brings together senior representatives from leading public, private, education and research organisations around the world to share knowledge, experience, lessons learnt and good practice.

Thematic areas addressed during the Conference include Cloud Computing; Smart Cities & Smart Grid; eGovernment; eHealth; eInclusion; Living Labs; ICT4D, Intelligent Content; Networked, Smart & Virtual Organisations; Digital Preservation & Digital Libraries; International Cooperation and Technology Enhanced Learning.

The reputation of the eChallenges Conference Series is based on its international perspective and its focus on high quality papers, discussion and networking. The opening plenary session will focus on Horizon 2020 and closing plenary on Innovation. Thematically focused parallel sessions provide coherence to a programme featuring an invigorating mix of business and government case studies, technical and policy papers and participatory workshops.

The goals of eChallenges e-2015 are to promote ICT Entrepreneurship and Innovation, facilitate Information Society and Applied ICT related knowledge sharing between government, industry and research stakeholders, raise awareness of the current state of eAdoption in developing countries, stimulate rapid take-up of RTD results by the public and private sectors, and identify opportunities for ICT related research and innovation collaboration under Horizon 2020.

Who will you meet at e-2015?

The eChallenges Conference Series attracts policy makers, practitioners and researchers from leading commercial, government and research organisations around the world. Participants include Ministers, Director-Generals, policy makers, senior & middle managers, professors & graduate students, project managers, software engineers and researchers.

eChallenges e-2015 provides a prestigious international forum to increase awareness of exploitable ICT research results and applications, whether funded privately or publicly.

The eChallenges Community is open, inclusive and welcoming, providing an excellent networking environment to discuss problems and new ideas, share knowledge and experience, and obtain feedback from potential users.

The eChallenges Conference Series also provides a unique opportunity to identify partners and opportunities to cooperate in international research projects co-funded by the European Commission under Horizon 2020.

The Venue

eChallenges e-2015 Conference takes place in the Crowne Plaza, M. K. Ciurlionio 84, LT03100 Vilnius, Lithuania.

Crowne Plaza Vilnius is 15 - 20 minutes by taxi from Vilnius International Airport.

The Programme

The Conference Programme combines strategic keynote presentations related to Horizon 2020, technical papers, business and government case studies and interactive workshop sessions.

The Opening Plenary on Wednesday morning is dedicated to sharing insights into Horizon 2020. Take this opportunity to learn about Horizon 2020 and meet new partners for collaboration.

The Closing Plenary on Friday focuses on Innovation and insight into progress with the initiatives funded by FI-PPP Phase 3 Accelerators.

As well as opening and closing Plenary Sessions, delegates may participate in over 18 thematically focused parallel sessions featuring different aspects of Cloud Computing; eGovernment; eHealth; Intelligent Content and Semantics; International Cooperation; Societal Implications of Technology and Technology Enhanced Learning. Session Chairs will ensure active discussion and facilitate delegate participation and networking with other participants.

The Conference Programme is subject to change, and the eChallenges e-2015 Organising Committee reserves the right to alter the contents, venue and/or speakers. Please check the Conference Portal regularly for the most up to date Online Programme.

Networking Support

Networking is a key feature of the eChallenges Conference Series, and is facilitated in a number of practical ways. Paper and workshop sessions are designed to maximise knowledge sharing by providing time for interactive discussions during the Conference Programme itself.

A number of dedicated networking areas are provided at the venue to facilitate spontaneous meetings by small groups. Finally, the Delegate Showcase on the eChallenges portal (www.eChallenges.org) allows registered delegates and presenters to...
publish personalised profiles to facilitate networking before, during and after the Conference.

**Security, Health and Safety**

Please wear your name badge for all eChallenges e-2015 activities, as it is your identification and allows you access to the facilities on offer. Unfortunately, conferences provide a tempting target for thieves, so please take care of bags, personal computers and other personal belongings.

The organisers cannot accept any responsibility for losses incurred or for personal health and safety. Delegates should ensure they have personal health insurance and take the usual care when exploring the city of Vilnius. It is also necessary to have adequate insurance for laptops, mobile phones and other electronic equipment. Any special needs or requirements should be dealt with by contacting the conference secretariat prior to the event.

**Hotel Accommodation**

**eChallenges e-2015** Conference takes place in the Crowne Plaza, M. K. Ciurlionio 84, LT03100 Vilnius, Lithuania.

Crowne Plaza Vilnius is 15 - 20 minutes by taxi from Vilnius International Airport.

**eChallenges e-2015** delegates are strongly recommended to book their accommodation online early, as Vilnius is busy the week the Conference takes place. While the Conference Organisers will try to accommodate delegates, rooms in the Hilton will be allocated on a first-come, first-served basis.

The most up to date information in relation to hotel room availability is available on the eChallenges Portal (www.eChallenges.org).

**Networking Dinner**

The Organising Committee are pleased to announce that a Networking Dinner will be held in the Crowne Plaza on Wednesday 25 November.

As there is a fixed capacity it is necessary to pre-register by 23 November.

**Vilnius**

Vilnius is the capital of Lithuania, with the Old Town listed on the UNESCO World Heritage List.

Things to see in Vilnius include a walk through Old Town, Vilnius Cathedral, Gediminas Tower, Gates of Dawn, St Annes Church, Vilnius Town Hall and Vilnius University.

Shopping areas include Pilies and Didzioji streets in the Old Town, Gedimion Street and Akropolis Shopping Centre.

Things to see outside Vilnius include the Castle at Trakai and Neris Regional Park.

Please note that the currency in Lithuania is euro.

**Transport**

From Vilnius International Airport, a taxi to the Crown Plaza will cost around 10 euro.

It is approximately 40 minutes walking from Crown Plaza to the Old Town.

**Horizon 2020**

Horizon 2020 is the Framework Programme to implement the Innovation Union with research and innovation funds of €80 billion from 2014 - 2020.

Horizon 2020 will address all research and innovation funding that was previously provided through the Framework Programmes for Research and Technical Development (e.g. FP7), Competitiveness and Innovation Programme (CIP) and European Institute of Innovation and Technology.

Key pillars include:

**Excellent Science**

**Industrial Leadership**

**Societal Challenges**

The ICT (LEIT) Calls in 2015 close on 12 April 2016. Learn more about specific calls during the Opening Plenary.

For more information, please visit http://ec.europa.eu/research/horizon2020/index_en.cfm
Plenary Speakers

Morten Moller
DG CONNECT, European Commission, Belgium

Edgaras Leichteris
Knowledge Economy Forum, Lithuania

Plenary Speakers and Panelists confirmed as at 20 November 2015 include:

• Morten Moller, DG CONNECT, European Commission, Belgium
• Anzelma Uselienė, MITA, Lithuania
• Edgaras Leichteris, Knowledge Economy Forum, Lithuania
• Paul Cunningham, IIMC Limited, Ireland

International Programme Committee

A distinguished Programme Committee has been formed to review and provide actionable feedback on extended abstracts, draft final papers and presentations, and chair sessions.

The e-2015 Programme Committee includes:

• Paul Cunningham, IIMC, Ireland (Chair)
• Dr. Andreas Abecker, disy Informationssysteme GmbH, Germany
• Miriam Cunningham, IIMC, Ireland
• Kim Davis, Research Council of Norway
• Prof. Asman Dogac, Middle East Technical University, Turkey
• Prof. Gintautas Dzemyda, Vilnius University, Lithuania
• Bastian Koller, HLRS, Germany
• Ken McHugh, Cognitive Edge, Singapore
• Jesse B.T. Marsh, Atelier Studio Associato, Italy
• Andrius Pleckaitis, INFOBALT, Lithuanian ICT Association, Lithuania
• Vytautas Ramonaitis, Cellular Expert, Lithuania
• Peter Stanbridge, Korora Limited, UK
• Richard Stevens, Stevens Consultants, Italy
• Dr. Mindaugas Varanauskas, UAB Omnitel, Lithuania
• Prof. Peter Weiss, Weiss4, Germany
• Dr. Robert Woitsch, BOC Asset Management GmbH, Austria
• Prof. Jim Yip, UK

Organising Committee

• Miriam Cunningham, IIMC Ltd, Ireland
• Paul Cunningham, IIMC Ltd, Ireland

Conference Secretariat

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Conference Portal/Delegate Showcase

www.eChallenges.org
Wednesday, November 25, 2016

09:00 Opening Plenary 1a: Horizon 2020
Welcome
Paul Cunningham, IIMC Limited, Ireland
ICT Priorities in H2020 2016-17 Work Programme
Morten Moller, DG CONNECT, European Commission, Belgium
Lithuanian Participation in FP7 and H2020
Anzelma Useliené, MITA, Lithuania
Questions & Answers

10:30 Coffee Break & Networking

11:00 Session 2a: eGovernment
Chair: Njei Check, National Agency for Information and Communication Technologies, Cameroon
Issues Arising from the Specification of an Information Acquisition and Analysis Toolkit for Policy Makers in Governmental and Legislative Institutions
Steve Taylor, University of Southampton, United Kingdom
e-CODEX: a few cases in shaping the European Payment Order Procedures across Member States
Natalie Nickel, Ministry of Justice of North Rhine-Westphalia, Germany
Fostering transparency and participation in the data-based society: a Sustainable Architecture for a Social Platform for Open Data
Vittorio Scarano, Università di Salerno, Italy

11:00 Session 2b: Digital Libraries and Intelligent Content
Chair: Ken McHugh, Tigerspike, Singapore
Current lack of interoperability among submission information packages and the bright future
Tarvo Kärberg, National Archives of Estonia, Estonia
An Open Source Implementation of Business Intelligence Systems: A Case of the Technical University of Kenya
Ishmael Obonyo, University of Nairobi, Kenya
An Upper Abstraction Layer for ‘Reasoning’ on CAAD Tools - Two Interfaces
Antonio Fioravanti, Sapienza - University of Rome, Italy

1100 Workshop 3c: IST-Africa - ICT 39 & Showcasing African Research Capacity
Chair: Paul Cunningham, IIMC Limited, Ireland
ICT39 - Cooperation with Africa
Morten Moller, DG CONNECT, European Commission, Belgium
ICT Research Capacity in Kenya
Jacob Ngaih, Ministry of Education, Science and Technology, Kenya
ICT Research Capacity in Ethiopia
Leulseged Alemie, Ministry of Communications and Information Technology, Ethiopia
ICT Research Capacity in Uganda
Maxwell Olum, Uganda National Council for Science and Technology, Uganda
ICT Research Capacity in Burundi
Augustin Nasibiyumva, Ministry of Higher Education and Scientific Research, Burundi
ICT Research Capacity in Tanzania
Maundi Abubakani, COSTECH, Tanzania

12:30 Lunch & Networking

14:00 Workshop 3a: eGovernment
Chair: Leulseged Alemie, Ministry of Communications and Information Technology, Ethiopia
A Novel Framework of an Expert System by integrating Capability Approach and BRB to Evaluate E-Government Services
Karl Andersson, Luleå University of Technology, Sweden
Lessons Learnt from the Use of Prosperity Indicators in Policy Making: Towards Community-Generated Indicators
Ouaria Markaki, National Technical University of Athens, Greece
Lithuanian National Platform of Electronic Documents: Towards Cross-Border Interoperability
Antanas Mitasiunas, Mit-SOFT Ltd, Lithuania

14:00 Workshop 3b: Enhancing Content for Enriched User Experience in Media Consumption
Chair: Barry Smith, Bibliographic Data Services, United Kingdom
Entity Linking in Media Content and User Comments: Connecting Data to Wikipedia and other Knowledge Bases
David Tomás, University of Alicante, Spain
Creating Dynamic TV Viewer Communities to Increase User Engagement
Marco Tiemann, University of Reading, United Kingdom
Benefits of Using Ranking Skip-Gram Techniques for Opinion Mining Approaches
Yoan Gutiérrez, University of Alicante, Spain

14:00 Workshop 3c: IST-Africa - ICT 39 & Showcasing African Research Capacity
Chair: Paul Cunningham, IIMC Limited, Ireland
ICT Research Capacity in Egypt
Haiham Hamza, Software Engineering Competence Centre, Egypt
ICT Research Capacity in Tunisia
Noureddine Hamdi, Ministère de l’Enseignement Supérieur et de la Recherche Scientifique, Tunisia
ICT Research Capacity in Senegal
Toumane Dombouya, Ministère de l’Enseignement Supérieur et de la Recherche, Senegal
ICT Research Capacity in Cameroon
Njei Check, National Agency for Information and Communication Technologies, Cameroon
ICT Research Capacity in Malawi
Gift Kadzamira, National Commission for Science & Technology, Malawi

15:30 Coffee Break & Networking

16:00 Session 4a: Product Innovation
Chair: Robert Woitsch, BOC Asset Management GmbH, Austria
A Prototype-Based Case Study of Secure Mobile Payments
Till Halbach, Norwegian Computing Center, Norway
c-Space: 3D Visualization and Modelling of Digital Models on Mobile Devices
Davide Lotto, Fondazione Graphitech, Italy
Commercialization of Composite Software Resulting from Collaborative Research
Katarina Stanoevska-Slabeva, University St. Gallen, Switzerland
A Comparative Analysis of Online Crowdfunding Platforms in USA, Europe and Asia
Endrit Kromidha, Royal Holloway University of London, United Kingdom
Configurable Software Robots Concept in the IT Industry
Jelena Pujanauskiene, 1ClickFactory, Lithuania

16:00 Session 4b: Enhancing Content for Enriched User Experience in Media Consumption
Chair: David Tomás, University of Alicante, Spain
Context Management and Analysis for Social TV Platforms
Christina Szentariádó, National Technical University of Athens, Greece
Combining Three Thriving Business Areas to enable Monetisation for Content Providers and, Ultimately, Value to the End User
Juan Vicente Vidagany Espert, TIE Kinetix, Netherlands
Thursday, November 26, 2015

09:00 Session 5a: Cloud Computing
Chair: Ken McHugh, Tigerspike, Singapore
- Business Processes as a Service: A Model-Based Approach to align Business with Cloud offerings
  Robert Woitsch, BOC Asset Management GmbH, Austria
- Lessons Learnt from a joint EC Co-funded PCP - Cloud for Europe
  Eleonora Kuiper, Tax and Customs Administration, Netherlands
- Implementation of Hybrid Cloud Storage Based on CDMI Protocol
  Pavel Skvortsov, University of Stuttgart, Germany
- A Framework for a Cost Efficient Cloud Ecosystem
  Philipp Leitner, University of Zurich, Switzerland

09:00 Session 5b: eHealth
Chair: Gintautas Dzemyda, Vilnius University, Lithuania
- medVC - a Remote Collaboration Solution Enhanced with Cloud Services and Future Internet Capacities
  Sergiusz Zielinski, Poznan Supercomputing and Networking Center, Poland
- Enhancing Mobile Spontaneous Adverse Drug Event Reporting through Electronic Health Records
  Mehmet Kubilay Kahveci, SRDC Ltd., Turkey
- Legal Requirement Clusters as Means to Build Legally Interoperable Data Bridges between Research Infrastructures
  Wolfgang Kuchinke, Heinrich-Heine University Dusseldorf, Germany
- Portugal’s SICO: A new Dimension to Mortality Forecasts in Real Time
  Cristiano Marques, Shared Services of the Ministry of Health, Portugal
- Integration of Smart Wearable Mobile Devices and Cloud Computing in South African Healthcare
  Promise Mvelase, Council for Scientific and Industrial Research, South Africa

09:00 Session 5c: Social Implications of Technology
Chair: Vytautas Ramonaitis, Cellular Expert, Lithuania
- Elektr-O-Mat - A Participation Game to Match and Explore the Relationship between (Electro-)Mobility and Citizens’ Needs
  Rica Rieth, Fraunhofer IAO, Germany
- Data-Driven and Value Sensitive Urban Decision Making
  Susanne Dobner, Centre for Social Innovation, Austria
- Sustainability and Competitiveness through Digital Product-Service-Systems
  Bernhard Kölmel, HS Pforzheim, Germany
- User Involvement and Testing in Interaction Design: Do We Pay Enough Attention to the Users?
  Hanne Sørum, Westerdals Oslo ACT, Norway
- Intention based Enhancement of Reaching and Grasping
  Arjen Bergsma, University of Twente, Netherlands

10:30 Coffee Break & Networking

11:00 Session 6a: eInfrastructures
Chair: Haitham Hamza, Software Engineering Competence Centre, Egypt
- Centre of Excellence for HPC and Engineering: Concept Development
  Anna Palaiologh, HLRS, Germany
- Capacity-building Across Sectors: Making a Reference Platform for INSPIRE Implementation, Interoperability and Reusability
  Robin S. Smith, EC–Joint Research Centre, Italy
ENERIC-OD Virtual Hubs: a brokered architecture for facilitating Open Data sharing and use  
Paolo Mazzeoti, CNR, Italy

Interoperability Profiles for Disaster Management and Maritime Surveillance  
Mert Gençtürk, SRDC LTD., Turkey

11:00 Session 6c: Societal Implications of Technologies  
Chair: Gift Kadzamira, National Commission for Science & Technology, Malawi

ICT as an Enabler to Achieve Sustainable Development Goals for Developing Countries: A Proposed Assessment Approach  
Ashwin Seegolam, National Computer Board/ Open University Mauritius, Mauritius

Hybrid Multiservice Demand Responsive Mobility Service for Developing Countries  
Jecinta Kamau, Kyushu University, Japan

eEducation and its societal implications  
Daria Catalui, ENISA, Greece

Legal and Regulatory Challenges for Physical Assistant Robots  
Eduard Fosch Villaronga, Università di Bologna, Spain

12:30 Lunch & Networking

13:30 Session 7a: Future Internet and Energy Efficiency  
Chair: Andrius Pleckaitis, INFOBALT, Lithuanian ICT Association, Lithuania

FIWARE Generic Enablers as Building Blocks of a Marketplace for Energy  
Dario Pellegrino, Engineering Ingegneria Informatica, Italy

Building Green City with Green Choices in Traffic  
Olli Ojala, Turku University of Applied Sciences, Finland

An Energy Monitoring based Approach to predict Energy Wastage in the Manufacturing Industry  
Sebastian Schmitz, FIR at RWTH Aachen, Germany

13:30 Workshop 7b: Addressing the Societal Challenge of Visual Impairment through European Procurers Platforms  
Chair: Giuliana Vitiello, University of Salerno, Italy

Visual impairment- A need assessment methodology based on a systemic approach with the innovation as the paradigm  
Vincenzo Vella, AQuAS, Spain

A cross-border multifaceted contextual inquiry for problem domain analysis through a dedicated web portal  
Genny Tortora, University of Salerno Italy, Italy

Study of the state of the art for visual impairment technologies – initial findings  
Stephen Taylor, AREA Science Park, Italy

15:00 Coffee Break & Networking

15:00 Workshop 8a: Conceptual Modelling and Semantics for Value-based Knowledge Transfer  
Chair: Robert Woltsch, BOC Asset Management GmbH, Austria

Modeling for Learning in Complex Organizations - the Learn PAd Approach  
Alfonso Pierantonio, University of L’Aquila, Italy

Knowledge Work Designer - Integrating Business Processes, Case Management and Decision Making  
Knut Hinkelmann, FHNW University of Applied Sciences Northwestern Switzerland, Switzerland

Designing Modelling Methods: The Learn PAd Scenario  
Nesat Efendioğlu, BOC Asset Management GmbH, Austria

Moonkun Lee, Chonbuk National University, Republic of Korea

Learn PAd: Model-Based Social Learning for Public Administrations  
Darius Šilingas, No Magic Europe, Lithuania

15:30 Session 8b: Technology-enhanced Learning  
Chair: Andrius Pleckaitis, INFOBALT, Lithuanian ICT Association, Lithuania

Digitizing Curricula: An Approach for Digital Usability  
Henning Eriksson, Umeå University, Sweden

How Video Lecture Capture Affects Student Engagement in a Higher Education Computer Programming Course: A Study of Attendance, Video Viewing Behaviours and Student Attitude  
Aidan McGowan, Queens University Belfast, United Kingdom

Exploring the Benefits of Augmented Reality in Higher Education Learning  
Alexander Okolo, Middlesex University Mauritius Branch Campus, Mauritius

I Know How That Feels – An Empathic Robot Tutor  
Arvid Kappas, Jacobs University Bremen gGmbH, Germany

An Approach to a Graph-Based Model for Encouraging Transfer of Knowledge in Learning Activities  
Alvaro Fernández Del Carpio, Universidad Católica de Santa María, Peru

R&E Networking and Medical Communities Join Forces to Combat Dengue Fever  
Bu-Sung Lee, Singapore Advanced Research and Education Networks, Singapore

17:00 Closing Plenary 9a

Putting e-2015 Results into Practice: Challenges for the National Innovation System  
Edgaras Leichteris, Knowledge Economy Forum, Lithuania

FI-IMPACT Analysis of FIWARE projects to date  
Paul Cunningham, IIMC, Ireland

The Programme is subject to change. This Programme is accurate as at 20 November 2015.