



eChallenges e-2015

Final Programme

Vilnius, Lithuania

25 - 26 November 2015

Supported by

Technical Sponsor



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 Ūselienė**, 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. Asuman 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 Ūselienė, 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

11:00 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 Njagih, 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 Otim, Uganda National Council for Science and Technology, Uganda

ICT Research Capacity in Burundi

Augustin Nsabiymva, Ministry of Higher Education and Scientific Research, Burundi

ICT Research Capacity in Tanzania

Mauridi Abubakari, 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

Ourania 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

Haitham 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 Doumbouya, 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 Santzaridou, 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

Media Content Linking, Semantic Annotation and Syndication in Social Enabled, Multiscreen Environments

Alexandros Psychas, National Technical University of Athens, Greece

Multi-Genre Summarization: Approach, Potentials and Challenges

Isabel Moreno, University of Alicante, Spain

16:00 Workshop 4c: [IST-Africa - Showcasing African Research Capacity](#)

Chair: [Paul Cunningham, IIMC Limited, Ireland](#)

ICT Research Capacity in Mauritius

Ashwin Seegolam, National Computer Board/ Open University Mauritius, Mauritius

ICT Research Capacity in Lesotho

Lefa Thamae, Ministry of Communications, Science and Technology, Lesotho

ICT Research Capacity in Botswana

Phodiso Potesh Phole, Ministry of Transport and Communications, Botswana

ICT Research Capacity in Namibia

Ebenhezer Kauhonina, National Commission on Research, Science and Technology, Namibia

ICT Research Capacity in South Africa

Peacemaker Dlamini, Department of Science and Technology, South Africa

17:30 End of Sessions

19:00 - 21:00 Networking Dinner for pre-registered delegates



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, Poznań 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 Düsseldorf, 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 Sørsum, 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 Palaiologk, HLRS, Germany

Capacity-building Across Sectors: Making a Reference Platform for INSPIRE Implementation, Interoperability and Reusability

Robin S. Smith, EC- Joint Research Centre, Italy

ENERGIC-OD Virtual Hubs: a brokered architecture for facilitating Open Data sharing and use

Paolo Mazzetti, 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

15:30 Workshop 8a: **Conceptual Modelling and Semantics for Value-based Knowledge Transfer**Chair: **Robert Woitsch, 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 Efendioglu, BOC Asset Management GmbH, Austria

A Tool for Visual Specification and Verification for Secure Process Movements

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

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