



Oulu Capital
of Northern
Scandinavia



In cooperation with

POHJOIS-POHJANMAA
Council of Oulu Region

EVOLVING PROGRAM



DIGITALIZATION From Disruption to Sustainability

Monday 28th & Tuesday 29th September 2015
Oulu, Finland
Oulu City Theater



THE INTERNATIONAL THINK-TANK ON THE DIGITAL FUTURE

Global Forum 2015 Organizers, Sponsors & Support Partners



Oulu Capital
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Scandinavia



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UNIVERSITY of OULU
OULUN YLIOPISTO



OULU UNIVERSITY OF APPLIED SCIENCES



Sunday September 27th 2015

Welcome Event 6:00 pm at OULU City Hall



The Global Forum 2015 will provide much needed strategic direction and tactical guidance for those involved in dealing with the challenges of the Digital Age.

11:15 am –
1:00 pm

Monday September 28th AM 8:40 am-12:45 pm

Registration from 7:40 am to 8:40 am

Welcome Addresses [8:45 am – 9:15 am]

Opening Session [9:15 am – 11:00 am]

Digital Strategy Visions

from EU, Americas, Asia, BRICS & Africa

Despite the significant progress in establishing a global knowledge economy, there are still some non-trivial challenges that need to be tackled in order to bring closer the developed and the developing world in the new era of digitization. There is also a lot that needs to be done within certain local contexts to deliver a well-rounded ICT ecosystem and to make the digitization work for inclusive and balanced economic development. This year's Global Forum will address the lessons learned from the implementation of different digitization strategies throughout the world, as well as lead the discussions that highlight investment, collaboration, capacity building and innovation in the digital era.

S1: The Digital Transformation: IoT & Data

The Internet of Things (IoT) has become a reality. It generates a deluge of data. IoT and Data are transforming the products into a conduit to services with value shifting from the product to the service(s). It is a shift towards an "Everything-as-a-Service" world.

This session will discuss how the IoT and Big Data drive the next evolution of Business:

- Issues of Access, Control and Protection of Data
- Generating New Business & Service
- The Role of the Consumer-citizen in a Marketplace of Connected Things
- Consumer Empowerment or "the Internet of Someone Else's Things »
- Internet between Laissez-faire and Regulation,
- Platforms and the challenges of Dynamic Competition: What Next?
- The importance of Spectrum, Interoperability and Security
- Reconciling Interests in the Ecosystems
- Chain of Trust
- Ownership and Control
- Applications in Different Sectors
 - ✓ Transportation
 - ✓ Media/Consumer Electronics
 - ✓ Health
 - ✓ Agriculture, Environment & Energy
 - ✓ Retail/eCommerce
 - ✓ Insurance
 - ✓ ...
- Impact on Society and Organizations

Monday September 28th PM 2:00 PM - 4:15 PM

2:00 pm –
3:00 pm

Keynote Session

This keynote sets the stage for the afternoon parallel sessions. We are in an unprecedented time of transformation, full of opportunities and disruptions

- Technology, Knowledge and Innovation: Keys for Human and Economic Developments
- Internet, a Common Good
- Social Media Impacts
- Social & Societal Challenges



PARALLEL SESSION

3:00 pm –
4:30 pm

S2: Cyber & Security

New Challenges in a Global Context

Cybersecurity is one of the key priorities today and for the future. Major cyber attacks hit the headlines regularly and public awareness has greatly progressed. Public sector has for a long time been on the frontline as well as now the private sector. Cybersecurity is a challenge to tackle, How can Privacy & Data protection be balanced while maintaining the highest quality standards and security levels.

- Major Issues for the Internet's Personal and Business Users in Managing Privacy and Cybersecurity Risks
- National, International, Political, Consumer & Business Cybersecurity Interest
- “Paradox” Between Opening up Everything (Open Data) and Need to Have the Right Cybersecurity and Personal Privacy Balance
- Cybersecurity & Mobility: Mobile, Sensors, Connected Objects, IoT....:
- Homeland Security & Cybersecurity
- Looking for Innovative Ideas & Solutions
- Crucial Investment



PARALLEL SESSION


3:00 pm –
4:30 pm

S3: New Innovation Strategies in a Challenging Global Environment

How we understand and undertake innovation is changing dramatically. Global challenges which we all share require new approaches to innovation as open, inclusive and focused on delivering value to both the economy and society as a whole. Old models, mindsets and ways of doing things are less efficacious & often destructive. International organisations, governments, enterprises and non-profits are all rethinking the innovation paradigm from the grass-roots to the global system.

- New Innovation Paradigms: Open, Inclusive, Social, Frugal, Bottom-up and Crowd-sourced
- Policies, Regulation and Standards for Innovation: Europe's Horizon 2020, National Innovation Systems, Regional and City Policies
- Global Approaches to Innovation for Sustainable Development
- Public, Private and Civil Partnerships for Innovation
- Open Data to Drive Business Innovation & Economic Growth
- Disruptive Technologies in Organisations (Artificial Intelligence, Bionix, Augmented Reality, Robotics, Synthetic Biology, Nanotechnologies, Sensors, 3D Printers Technology, Energy...)
- Transformation Labs (Living Labs, Open Labs, FabLabs, TechLabs)
- Innovation and Lifecycle Management (ILM)
- Education and Innovation Supporting Creative People, Teams and Networks
- Cross-border and Sector Examples
- Innovation & Developing Countries

Monday September 28th PM 4:30 pm – 6:00 pm

 **PARALLEL SESSION**
4:30 pm – 6:00 pm

S4: Connected and Personalized Health in the Internet Age

The Internet is revolutionizing the science of medicine. In health, care and lifestyle sectors networked and wearable biosensors are being introduced; big health data hold up diagnostic decision making and provide intelligent choices for efficient therapeutics, concerning effectiveness of treatments; customised health interventions can be targeted both to personal needs and large populations. A new ecosystem flourishes and enhances innovative processes. A very proactive healthcare sector is actually overhauled by the creation of a new digital healthcare marketplace with new providers, institutions and health delivery mechanisms focused on the individual. The result might be a rising humanism in medicine, empowering people and societies to be responsible, lessening the health cost burden. Nonetheless, if driven by massive vested interests of big players, it might lead to the dramatic enforcement of health inequalities, with also the risk of misinformation, quackery and health narcissism, to mention a few.

Technologies for an integrated healthcare system


- Identity management underpins the development of EHRs, enabling data accessibility to sustain all the care processes.
- Integration platforms to ensure clinical data availability, regardless the involved systems.
- Robotics and augmented reality in surgery enable micro and remote interventions.
- Imaging diagnostics eases information sharing to perform accurate clinical evaluations.
- 3D bio-printing technologies to produce tailored prosthesis.
- Emerging frugal health innovation: High quality and cheap medical devices.
- Digitalization of biobanks and cohort studies.

Health services on the move

- Therapy administration across the care pathway: Involving citizens in the health and social care innovation.
- Technology transformations: personal, wearable, mobile, data-driven and cloud.
- Communicating health from macro level to micro level.
- Needs for reliable connections and data.
- Empowering individuals through accessible digital PHR and personalized analytics.
- Mobile and eHealth solutions in rural areas.

Governance, regulatory framework and industry

- Open and big data to share good practices, monitor trends and evaluate QoS.
- Personalized health and lifestyles: Who is responsible?
- Prevention and new perspectives on what “health” means.
- Universal health: anywhere, anytime and anyone.
- Cross-border Healthcare
- Health professionals and health employment.
- Industry transformation: Converging the Life Science and the ICT.

 **PARALLEL SESSION**
4:30 pm – 6:00 pm

S5: Digital Life/World: Empowering Society

Digital is revolutionizing most human interactions. How is digital impacting our lives and organizations? How it affects and can empower health, education, work, politics, economics, security challenges, sustainable development, entertainment,... How Digital is enabling a growing consumer power? Are we becoming more aware, creative, knowledgeable and sociable, or are we only seeking out the niche and specific, associating with like-minds, and losing the big picture and serendipity, leading to greater polarization, tension and mistrust?

- Digital, Enabling Opportunities in the Disrupted Economy
- Digital & Global Sustainable Growth
- Dynamic Competition, Service Differentiation and Impact on Digital Life
- New Services, New Rights and New Constraints for Citizens and Consumers
- Digital: From Consumer to Prosumer; Digital Consumer Becoming the product (Commercialism, Branding, IoT, Data Base...)
- Threats: how to secure digital assets: confidentiality, integrity, privacy, accountability, non-repudiation etc.
- Practices for Sustainable Well-being and Employment
- Digital Literacy and Digital Exclusion
- Digital Behavior and Psychology — Are Our Minds and Brains Changing in the Digital Mesh?
- Generational Shift: From ‘Analogue Oldies’ to ‘Digital Natives’?

Welcome Cocktail 7:30 pm & GALA DINNER 8:00 pm to 11:00 pm

Radisson Blu Hotel Oulu

Tuesday September 29th AM 8:00 am - 11:15 am
Registration from 8:00 am to 8:45 am

9:00 am -
10:00 am

Keynote Opening Session Day 2

10:00 am -
11:30 am

S6: Towards Greater Intelligent Infrastructures

We're moving towards a world where we're connected everywhere, seamlessly across any device. Our homes and cars will anticipate our needs, wearables will continue to monitor and help improve our health, and our smartphones and tablets will continue to change how we live and work. There will have to be continuous secure authentication, authorization, and governance of massive data flows in real time, To manage privacy concerns, Intelligent infrastructure and significant investments in next-generation technologies will be needed to realize new opportunities and meet with new needs. Massive investments in infrastructures require public policies that are flexible and focused on managing the connectivity of the future.

- Drivers for Innovative Infrastructures, Mobility and the Promise of 5G
- Mobility (4G / 5G What is 5G? Defining the Promise of 5G)
 - ✓ New wireless technologies on free spectrum
 - ✓ Sensors for Life
 - ✓ New Devices and Applications
 - ✓ Satellites in the Ecosystem
- A Functional System with Diversity of Technologies and Players
- The New World of Internet of Things (Health, Homelife, Business, Transport ..)
 - ✓ Managing Continuous Authentication and Authorization of People and Devices
 - ✓ Secure Clouds, Privacy and Massive Data Processing in-real-time
 - ✓ Forecasted benefits of Artificial Intelligence will be realized through Artificial Smartness
- Communications Ecosystem
- Spectrum / Free Spectrum
- Prioritizing & Attracting Investment in Next-generation Networks



PARALLEL SESSION

11:30 am –
1:00 pm

S7: Smarter Regulation in the Internet Age: “A New Policy Toolbox“

Regulation, Self-regulation and Co-regulation as the available mix of instruments in the policy toolbox.

From different perspectives the panel will debate whether we have the regulatory models to effectively and efficiently deal with the challenges and harness the opportunities of the Digital Age. Do we have policymaking mechanisms that allow for flexibility, innovation and accountability? How the "business of regulation" should evolve? Which would be the most suitable tools to attract investments and allow new business model to evolve? How can responsible experimentation play a role in regulation? How can regulation and policy create conditions for investment?

- New Services, New Rights and New Constraints for Consumers
- Better Regulation
- Self- and co-regulation in the Digital Age; "Internet readiness"
- Geopolitical Extension, the Political Revolution
- Policy Regulation and Governance
- Internet Governance: The Next Level / ICANN/ rest of the world
- Competition and Societal Challenges
- Fostering Investments & Innovation
- Open Internet



PARALLEL SESSION

11:30 am –
1:00 pm

S8: Smart Cities & Communities

Cities and communities serve as the basis for our real, everyday lives, spanning work, play, family and friends. Cities are at the policy 'sweet-spot': big enough to have meaningful resources and genuine power, whilst also small enough to be near people's everyday lives. Cities increasingly influence spending, infrastructures and economic and social strategies. Communities supplement cities at eye-level, involving citizens, promoting grassroots activism and empowerment. This matrix is increasingly transformed by digital technologies. As a result, we witness the re-location of industries, the rise of new consumer-based services, "smarter" mobility, energy and logistics, and so on. The urban agenda is set to evolve further with the Internet of Things and Big Data. At the same time, as the world population keeps growing, new cities are being built while old ones keep expanding faster than ever before, notably in China, India and other emerging regions. Here, particular challenges blend with opportunities, with ICT attaining a key role in designing and experimenting around the evolution of new urban arenas.

- What Makes Cities and Communities “Smart“
- How Smart Cities and Communities can use ICT to Create Prosperous Economies and Tackle Societal Problems
- The Role of Big Data, City Politics and Decision-making
- Co-production Across Sector Collaboration
- The Role of Multistakeholders Involvement in Realizing the Potential of Smart Cities
- Urban and Rural Planning
- Living in the Smart City
- Collaborating Territories and Networks of Smart Places
- Smart Cities, Communities and Networks Around the World (examples)

Lunch [1:00 pm – 2:00 pm]

Tuesday September 29th PM 2:00 pm – 3:30 pm



PARALLEL SESSION

2:00 pm –
3:30 pm

S9: ICT: The Arctic Region Perspective in a Global Context of Collaboration and Creativity

- **ICT, Innovations and Efficient Services called for:**
 - ✓ Rural Areas & Remote Regions in a Climatic and Geographic Extremes
 - ✓ Sustainable Use of Arctic Resources and Development of Arctic infrastructure
 - ✓ Advanced Arctic Weather Forecasting and Ice Management
 - ✓ Safe Maritime Traffic in Cold Climate Conditions
 - ✓ Cold climate environmental protection and solutions, in particular Oil and Chemical Spill Prevention and Combatting
 - ✓ Arctic Maritime Industry and Shipping (Vessel design and construction, in particular icebreakers)
 - ✓ The Telecommunications Issue in Arctic Regions (role of satellites...)
- **Economic Opportunities**
- **Cultural Exchanges**



PARALLEL SESSION

2:00 pm –
3:30 pm

S10: Digital Communities

The session will examine the way in which communities are impacting the development of the digital future of society and business in Europe and emerging economies with a specific focus on the contribution of women to the digital converging of our society through the following topics :

- Inclusion in ICT-led Innovation, in ICT venture
- Entrepreneurs in ICTs Data to Drive Economic Growth and Business Innovation
- Growing access to healthcare information and services
- ICT and innovation work for women empowerment in remote, under-served communities

This session is empowered by the Foundation Millennia2025 WeObservatory

INTERNATIONAL STEERING COMMITTEE

EUROPE & MIDDLE EAST

Ingrid Andersson, Senior Executive Advisor, Patient Certificate Ltd, Sweden; **Giampaolo Armellin**, Head of Research Unit, GPI, Italy; **Aharon Aviram**, Chair, Center for Futurism in Education Department of Education, Ben-Gurion University, Israel; **Jean-Pierre Chamoux**, Professor, University Paris Descartes, France; **Bruno Chazal**, Head of Core Market Telecommunications Programs, CNES - French Space Agency, France; **Isabella de Michelis di Slonghello**, CEO High Pulse, Switzerland; **Julia Glidden**, Managing Director, 21C United-Kingdom; **John Giusti**, Head of Spectrum, GSMA, the United-Kingdom; **Stéphane Grumbach**, Senior Scientist, INRIA; Deputy director IXXI, Complex Systems Institute, ENS Lyon, France; **Bruno Iafelice**, Executive Director, Italian Institute for Technology Entrepreneurship, Italy; **Michael Kendé**, Chief Economist, ISOC-Internet Society; **Hugo Kerschot**, Founder, IS- Practice, Belgium; **Latif Ladid**, President IPv6 Forum, Luxembourg; **Hesham A. Lotfy**, Business Development Expert, Public Establishment for Industrial Estates, Sultanate of Oman; **Eric Legale**, Managing Director Issy Media, City of Issy-les-Moulineaux, France; **Suvi Linden**, Special Envoy, UN's Broadband Commission, Finland; **Hanne Melin Olbe**, Policy Strategy Counsel and Head, eBay Inc.Public Policy Lab EMEA, Belgium; **Jeremy Millard**, Senior Consultant, Danish Technological Institute, Denmark; **Mario Po'**, Executive Director, Azienda Ulss Venezia, Italy; **Pascal Poitevin**, Head of Department, Secretary of the Strategic Committee of Information Systems, Institut de l'Élevage, France; **Gérard Pogorel**, Professor of Economics and Management-Emeritus, Telecom ParisTech, France; **Andrew Robinson**, Chairman ECCO – European Commercial and Consular Office, United-Kingdom; **Alfredo M. Ronchi**, Secretary EC Medici Framework, Politecnico di Milano, Italy; **Outi Rouru**, Senior Advisor, International Affairs, Development Department City of Oulu, Finland; **Claudia Selli**, EU Affairs Director, AT&T; **Jean-François Soupizet**, Independent Consultant; Principal Advisor, Close the Gap, France; **Véronique-Ines Thouvenot**, Co-founder & Scientific Director, Millennia 2025 Foundation, Geneva, Switzerland; **Colin Williams**, Director SBL, United-Kingdom

ASIA & OCEANIA

Nitya Karmakar, Macquarie City Campus, Macquarie University, Sydney, Australia; **Thomas Hart**, Regulatory Expert, EU-China Information Society Project, China; **Rajkumar Prasad**, CEO Commonwealth Centre for e-Governance India; Founder President Institute for Electronic Governance & Development, India; **Yoshio Tanaka**, Professor Tokyo University of Science, Japan; **Makoto Yokozawa**, Professor of Joint Research Unit; Kyoto University, Japan; **Sarah Zhao**, Partner Perkins Coie LLP, China

NORTH AMERICA

Kathryn Brown, CEO, Internet Society; **Rosa Bruno-Jofré**, Professor and Former Dean of Education Queen's University, Canada; **Don Davidson**, Chief, Lifecycle Risk Mgt + CS/Acquisition Integration Division, In the Office of the Deputy DOD-CIO for Cybersecurity (CS), US Department of Defense; **Timothy C. Finton**, Senior Counsellor for International Communications and Information Policy, US Department of State, USA; **Robert Flaim**, Supervisory Special Agent, Special Technologies Section, FBI, USA; **Angela E. Giancarlo**, Partner Mayer Brown LLP, USA; **Jay E. Gillette**, Secretary Digital Policy Institute, Professor, Center for Information and Communication Sciences, Ball State University; **Anna Gomez**, Partner & Attorney at Law Wiley Rein LLP, USA; **Ali Koné**, Chief Operating Officer/ Co-Founder, Coders4Africa Inc, USA; **Andrew D. Lipman**, Partner and Head of Telecom Group, Morgan, Lewis & Bockius, USA; **Willie Lu**, Co-Founder, Technaut Intellectual Ventures, USA; Chief Inventor and "Father", Open Wireless & Mobile Cloud Platforms for Mobile Devices, USA; **Laura Mandala**, Mandala Research, USA; **Samia Melhem**, Lead ICT Policy Specialist, Chair eDevelopment Group, Information and Communication Technologies Sector Unit, World Bank Group; **Kevin O'Malley**, President TechTalk/Studio; Chairman, Business and Leadership Forum, Commonwealth Club of California, USA; **Brent Olson**, Vice President - Public Policy, AT&T, USA; **Milena Ristakova**, Active Media, USA; **Thomas J. Rosch**, Counsel Antitrust & Competition Practice, Latham & Watkins LLP, USA; **Alan Shark**, Executive Director, PTI – Public Technologies Institute; Associate Professor of Practice, Rutgers University School of Public Affairs & Administration, USA; **Michaël Stankosky**, Research Professor, George Washington University, USA; **Theresa Swinehart**, Senior Advisor to the President on Global Strategy, ICANN - Internet Corporation for Assigned Names and Numbers; **Paul Wormeli**, Executive Director Emeritus Integrated Justice Information Systems (IJIS) Institute, USA

AFRICA

Amadou Daffé, CEO & Co-Founder, Coders4Africa Inc, USA; **Koffi Fabrice Djossou**, Africa Broadcast Satellite - South Africa; **Effat El Shooky**, Technical Director, WBDC & Founder, CKI&SE Initiative, Egypt; **Dorothy K. Gordon**, Director-General, Ghana-India Kofi Annan Centre of Excellence in ICT; **Anne-Rachel Inné**, Chief Operations Officer, AFRINIC- African Network Information Center, Mauritius; **Lumko Mtimde**, CEO, Media Development and Diversity Agency (MDDA), South Africa; **Alice Munyua**, Chair Kenya Internet Governance Steering Committee; convenor of the East Africa Internet Governance Forum, Kenya; **Izzeldin Osman**, Professor Sudan University of Science and Technology of Khartoum, Sudan; **Madeleine Scherb**, Economist/President Health and Environment Program, Cameroon; **Faouzi Zaghbib**, Founder and Board Member AFICTA (the African IT alliance), Tunisia



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