

# IST-Africa - ICT-39 Opportunities for Africa - EU Research Cooperation

## Overview of African Research Priorities and Research Capacity

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## Background on IST-Africa

- IST-Africa is Supported by the European Commission (EC) and African Union Commission (AUC)**  
 Strategic Partnership between IIMC (Ireland) & Ministries and National Councils responsible for Innovation, Science and Technology related Adoption, Implementation, Policy and Research in 18 African Member States
- Founded in 2002, IST-Africa facilitates and supports**  
 International Innovation, Policy and Research Cooperation  
 Knowledge Sharing and Skills Transfer between IST-Africa Partners  
 Collaborative Innovation, Entrepreneurship, Innovation Spaces and Living Labs methodologies  
 Africa - EU Strategic Partnership (particularly related to ICT, Information Society & Innovation)  
 African Research Capacity, cross-border research cooperation - including Horizon 2020  
 Establishment of National Contact Points (NCP) for H2020 in IST-Africa Partner Countries



## IST-Africa Partners

- IIMC International Information Management Corporation Limited (“IIMC”, Ireland)
- Ministerio da Ciencia e Tecnologia (“MINCT”, Angola)
- Ministry of Transport and Communications (“MTC”, Botswana)
- Ministère de l’Enseignement Supérieur et de la Recherche Scientifique (“MESRS”, Burundi)
- Agence Nationale des Technologies de l’Information et de la Communication (“ANTIC”, Cameroon)
- Information Technology Industry Development Agency (“ITIDA”, Egypt)
- Ministry of Communication and Information Technology (“MCIT”, Ethiopia)
- Ministry of Education, Science and Technology (“MOEST”, Kenya)
- Ministry of Communications, Science and Technology (“MCST-L”, Lesotho)
- National Commission for Science and Technology (“NCST”, Malawi)
- National Computer Board (“NCB”, Mauritius)
- Instituto Nacional de Tecnologias de Informacao e Comunicacao (“INTIC”, Mozambique)
- National Commission on Research, Science and Technology (“NCRST”, Namibia)
- Ministère de l’Enseignement Supérieur et de la Recherche (“MESR”, Senegal)
- Department of Science and Technology (“DST”, South Africa)
- Ministry of Information Communication Technology (“MICT-S”, Swaziland)
- Tanzania Commission for Science and Technology (“COSTECH”, Tanzania)
- Ministère de l’Enseignement Supérieur, de la Recherche Scientifique et ICT, (“MHESRICT”, Tunisia)
- Uganda National Council for Science and Technology (“UNCST”, Uganda)



### Snap Shot of Common Research Priorities

- Health including eHealth, Health Informatics, Telemedicine, Improved diagnosis, mathematical modelling for epidemiology, Medical image processing, Big data analytics for Healthcare, Tools to support self-management of health, Tools to support primary health care workers, Bio-Informatics, Research related to Malaria, HIV, Cancer, Diabetes and Tropical diseases
- Cloud Computing including Parallel and High Performance Computing, Simulation Software
- Technology-enhanced Learning including eSkills, Blended Learning, frameworks to support development of content objects, personalised learning
- Food Security and Sustainable Agriculture including Agri-food, Sustainable Food production systems, Water management and sensors, bio-based industries, Information systems to support sustainable natural resources management, Crop production, Forestry, Medical plants
- Environment & Energy including Renewable Energy, Smart Electricity Grids, Low-cost devices for energy provision, Smart Metering, Smart Cities, Reducing energy consumption and carbon footprints through smart and sustainable use, Energy efficient design, Solar energy, Energy harvesting, Green ICT, Wind energy solutions



## National Research Priorities I

<b>Angola</b>	eInfrastructures, Technology-enhanced Learning, Solar Energy, Informatics & Electronics, Digital Inclusion
<b>Botswana</b>	eInfrastructures, Technology-enhanced Learning, Sustainable Agriculture, Entrepreneurship
<b>Burundi</b>	eInfrastructures, ICT in Education, eGovernment Services, Agro-Food Technology, Medical Science, Energy, Water, Environment, Biotechnology and Indigenous Knowledge
<b>Cameroon</b>	eInfrastructures, Cyber Security, Connected Enterprises, Cloud Computing, Technology-enhanced Learning and Sustainable Agriculture
<b>Egypt</b>	Technology Innovation and Entrepreneurship; Biomedical Informatics Research; Digital Identity; Basic Infrastructure (Broadband, Cloud Computing, Submarine Cables); Cyber Security & eSignature; Information Infrastructure & Digital Content; Electronics Design and Manufacturing
<b>Ethiopia</b>	eInfrastructures; eHealth; Natural Language Processing; Big Data; Indigenous Knowledge; eAgriculture
<b>Kenya</b>	Telecommunications, Electronics and Computers (TEC); Science, Technology, Engineering and Mathematics Education; Coordination of Technology, Innovation and Commercialisation; Space Science and Energy
<b>Lesotho</b>	eInfrastructures, eGovernment, eHealth, Technology-enhanced Learning, eAgriculture
<b>Malawi</b>	eHealth, eAgriculture, eInfrastructure and Entrepreneurship, eGovernment, Technology-enhanced Learning, Digital Libraries & Repositories

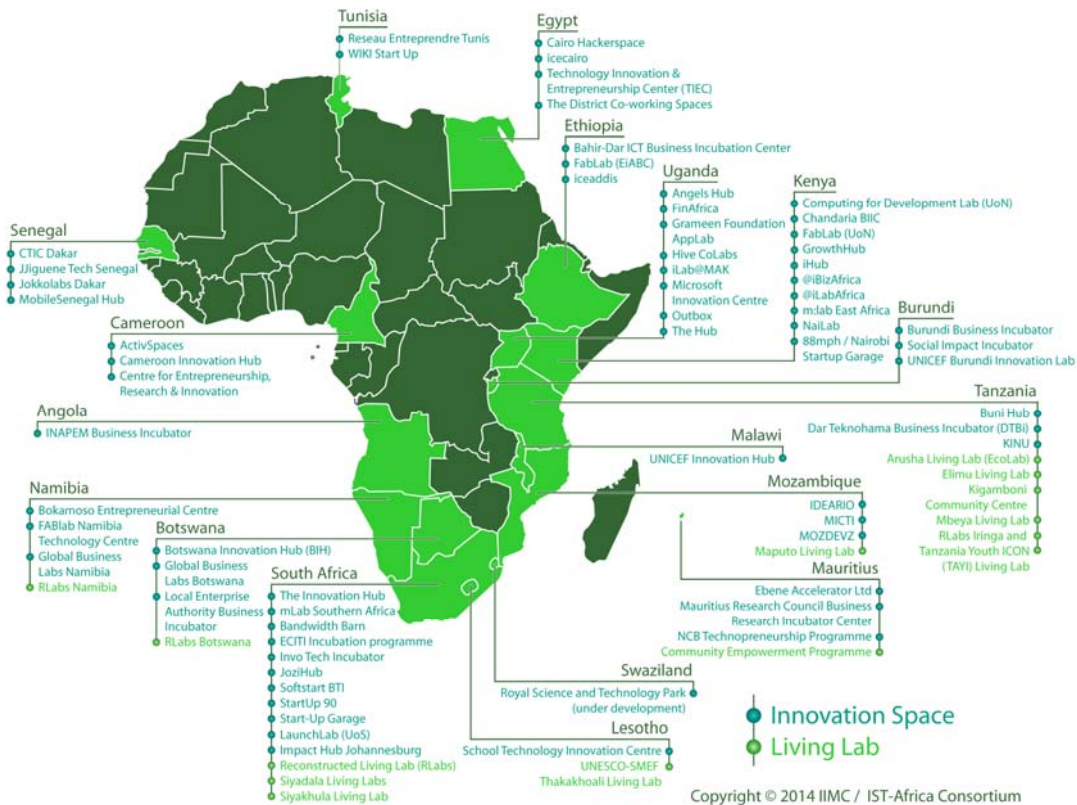
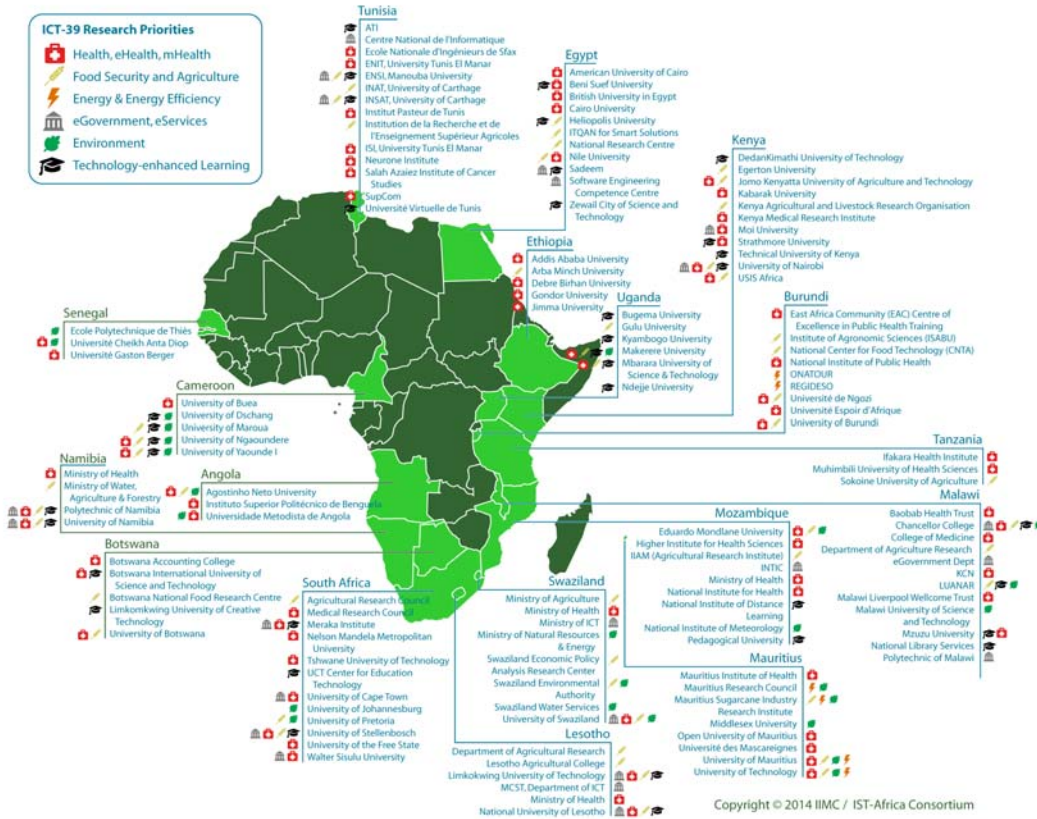


## National Research Priorities II

<b>Mauritius</b>	ICT Energy Efficiency, eWaste Management, eAgriculture, Bio-informatics, Biometric Security, Context Awareness, eHealth, Technology-enhanced Learning, Digital Enterprise
<b>Mozambique</b>	eHealth, Food Security and Agriculture, Future Internet, Technology-enhanced Learning, eGovernment, ICT for Rural Development and Entrepreneurship.
<b>Namibia</b>	Digital Content, Technology-enhanced Learning, eGovernment, eHealth, eAgriculture & Fisheries including Water; Entrepreneurship, Mining & Geosciences, Biotechnology, Logistics and Space Science.
<b>Senegal</b>	eGovernment, eInfrastructures, Entrepreneurship, Digital Divide, eHealth, Technology-enhanced Learning
<b>South Africa</b>	Future Wireless Technologies, eInclusion, eAgriculture, Green ICT, Geo-spatial Applications, Astronomy, Bio-Medical Services, eHealth, Technology-enhanced Learning, Content Localisation, Trust and Security
<b>Swaziland</b>	eHealth, eAgriculture & Food Security, eInfrastructures, Environment, Entrepreneurship
<b>Tanzania</b>	eInfrastructures, Cloud Computing/ High Performance Computing, Cyber Security, Mobile Computing, ICT for Creativity and Learning, eHealth, eAgriculture
<b>Tunisia</b>	eHealth, eInfrastructures, Services and Trusted Networks, eServices and Knowledge Economy and ICT for Energy Efficiency
<b>Uganda</b>	eHealth, Food Security and Sustainable Agriculture, Energy, Environment, Future Internet, eGovernment, Digital Content, Technology-enhanced Learning







- Helped African institutions to secure over 60 million of international grants in recent years
- Provided evidence to justify and secure c.€25 million for African-focused research cooperation under LEIT Work Programme of Horizon 2020 (ICT39 2015, ICT39 2016 – 2017)
- Promoted the call, organised training workshops and assisted interested parties to identify partners
- Provided assistance fine tuning proposals submitted for consideration for funding
- Increased participation in FP7 projects across IST-Africa Partner Countries
- Increased awareness of the imperative to resource applied ICT Research and Innovation aligned with national priorities with the objective of strengthening socio-economic impact
- Project and Organisational Repositories to assist in identifying collaboration partners
- Increased research publications from IST-Africa partner countries strengthen credibility of international research capacity - IST-Africa conference proceedings & IEEE Xplore
- Knowledge sharing between key Innovation Stakeholders across Africa and Europe
- Actively supported policy dialogue between European Commission, African Union Commission and other key stakeholders
- Raised awareness of benefits of Open Innovation and leveraging Living Labs methodologies
- Published reference reports – ICT Initiatives and Research Capacity, Guide to Bilateral and Multilateral ICT and Innovation Activities



# ISTO Africa IST-Africa 2016 (11 – 13 May, South Africa)

## Call for Papers

[www.IST-Africa.org](http://www.IST-Africa.org)

- Technical, Visionary, Business and Government Case Studies
- Full Papers, Practitioner Presentations and Oral Presentations
- All papers and presentations selected through double blind peer review process
- Accepted papers published in Conference Proceedings and IEEE Xplore

## Thematic Priorities Include

- Content Technologies (Language, Learning, Digital Preservation)
- Cyber Security, Privacy and Trust
- eHealth, mHealth & Health Information Systems
- eGovernment – Services to Citizens & Business
- eInfrastructures, NRENs and IPv6
- Future Internet and Smart Cities
- ICT for Agriculture and Environmental Sustainability
- ICT Entrepreneurship
- ICT4D
- ICT for eInclusion and eAccessibiity
- ICT Regulatory Frameworks
- Living Lab, Collaborative Open Innovation
- Mobile Applications

**Submission Deadline – 07 December 2015**

Next Generation Computing (Big Data, Cloud Computing, Data Localisation, IoT)  
Technology-enhanced Learning and eSkills



## Reports to download

- Horizon 2020 2016 – 2017 Work Programmes
- Guide to 2016 Calls for Proposals in Horizon 2020 (under preparation)
- “Supporting the Evolution of Sustainable Living Labs and Living Lab Networks in Africa”
- IST-Africa Guide to National ICT Initiatives and Research Priorities
- IST-Africa Guide to ICT-related Bilateral Cooperation

Visit [www.IST-Africa.org](http://www.IST-Africa.org)

<http://www.ist-africa.org/home/default.asp?page=horizon2020>

<http://www.ist-africa.org/home/default.asp?page=project-search>

<http://www.ist-africa.org/home/default.asp?page=reports> and

<http://www.ist-africa.org/home/default.asp?page=paper-repository>

### Next Steps

- Register Individual Profile in the Community Showcase and Mailing List
- Provide organisational profile to be published on IST-Africa portal
- Download published papers from IST-Africa paper repository in your areas of interest
- Follow up with authors to share experiences, explore future collaboration opportunities
- Send news, events and reports to be published
- Submit paper for IST-Africa 2016
- Download Horizon 2020 Work Programmes

