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D3.2 Joint IST-Africa CAAST-Net Plus Horizon 2020 Workshop, Kampala, Uganda, 22 January 2014

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European
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1.   Workshop Context

Horizon 2020 commenced in January 2014 as the new Framework Programme to implement research and innovation with funds of €80 billion from 2014 - 2020.

Horizon 2020 addresses 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.

Three main priorities:

➢ **Excellence Science** – Research Infrastructures, Marie Curie (Mobility Grants)

➢ **Leadership in Enabling and Industrial Technologies** (LEIT) – Components & Systems, Advanced Computing, Future Internet, Content Technologies and Information Management, Robotics, Micro and Nano-electronics and photonics

➢ **Societal Challenges** – Health, Food Security & Agriculture, Energy, Transport, Climate action and Environment, Innovation and reflective Societies and Secure Societies

Uganda National Council for Science and Technology as the partner in Uganda for the IST-Africa Initiative and CAAST-Net Plus organised the Joint IST-Africa CAAST-Net Plus Horizon 2020 Workshop in Kampala on 22 January 2014. All relevant stakeholders were invited to participate to raise awareness of the opportunity for research cooperation at international level.

The workshop was well attended with 54 participants including representatives from Bugema University; Butabika Hospital; Gulu University; IFL; i-Network; Islamic University in Uganda; Kabale University; Kyambogo University; Log'el Project; Makerere University; iLabs@mak project, Makerere University; Makerere University Business School; Mbarara University of Science and Technology; National Forestry Authority (NFA); Outbox Uganda; Parliament of Uganda; Rural Development Centre; SYNOVATE; Uganda Bureau of Statistics (UBOS); Uganda Christian University; Uganda National Council for Science and Technology (UNCST); Uganda Technology and Management University UTAMU; Uganda Virus Research Institute (UVRI); USSA. Media representatives included: Monitor Publications and The New Vision Printing and Publishing Limited.

IST-Africa and CAAST-Net Plus collaborated with Dr Stéphane Hogan, Counsellor for Research & Innovation, Delegation of the European Union to the African Union in relation to this Horizon 2020 workshop in a context of four joint H2020 Workshops organised in East Africa during the week of 20 January 2014.

2. Workshop Report

2.1 Introduction

Dr Maxwell Otim, Deputy Executive Secretary, Uganda National Council for Science and Technology (UNCST) welcomed the participants and invited Dr Peter Ndemere, Executive Secretary of Uganda National Council for Science and Technology to officially open the Horizon 2020 Workshop.

Welcome Address

Dr Ndemere highlighted that UNCST is the focal point in Uganda for both the IST-Africa Initiative and CAAST-Net Plus. He thanked the IST-Africa Initiative (Paul Cunningham, Miriam Cunningham) and CAAST-Net Plus (Melissa Plath, UniPID, University of Jyväskylä, Finland; George Essegbey, CSIR, Science and Technology Policy Research Institute, Ghana and Constantine Vaitsas, FORTH, Greece) teams for working with UNCST to assist awareness of Horizon 2020 in Uganda.

Research is an expensive undertaking and one area of human endeavour that is difficult to do as individuals with specialised skills. Many problems facing society need an integrated and multidisciplinary approach as a team effort to have synergistic productivity.

Dr Ndemere summaries achievements of IST-Africa in Uganda as including hosting IST-Africa 2009 which had a large impact at national level, undertaken studies on ICT Initiatives and Research Capacity in Uganda, promotes Ugandan research potential at international meetings to raise awareness. A number of ICT researchers have been sponsored to present their research results during IST-Africa conferences in other neighbouring countries to extend their network and support has been provided in relation to FP7 participation. CAAST-Net Plus is focused on Advancing Sub-Saharan Africa-European Union research and Innovation Cooperation and supporting cooperation in Research and Innovation between Africa and Europe in particular on Health, Food Security and Climate change, CAAST-Net Plus has also supported African countries in FP7 and is constantly monitoring performance of Science and Technology EU-Africa cooperation.

UNCST is very pleased to host this important meeting. Horizon 2020 is a new Framework Programme for Research and Innovation, which offers public, private, education sector and industry to opportunity to compete for funding as part of an international consortia. To carry out impact research it is necessary to work as multidisciplinary teams. Uganda has experience of competitive grants processes (MSI World Bank) - an integrated approach to research. Dr

Ndemere highlighted the three main objectives of Horizon 2020 - Excellence Science, Leadership in Enabling and Industrial Technologies (LEIT) and Societal Challenges, which will be discussed in greater detail during the workshop.

Ugandan researchers are interested in participating in Horizon 2020 - there is a research track record and relevant capacity. The workshop is timely and extremely relevant for Uganda. Dr Ndemere thanked the European Commission for the support provided and thanked the IST-Africa Initiative and CAAST-Net Plus teams for coming to Kampala too.

Dr Otim thanked Dr Ndemere for the opening remarks and invited Paul to present the IST-Africa Initiative.

Paul Cunningham, IIMC / IST-Africa Initiative, Ireland thanked Dr Ndemere for opening the Horizon 2020 workshop and UNCST for hosting the workshop and mobilising the national research community.

Overview of IST-Africa Initiative

Paul then provided an overview of the **IST-Africa Initiative,** which was founded in 2002 by IIMC, Ireland and has now grown to a partnership with Ministries and National Councils responsible for Information Society, ICT and/or Innovation in18 African Member States[1]. The IST-Africa is supported by the European Commission and African Union Commission with co-funding under FP7.

The IST-Africa Initiative facilitates and supports:

➢ International Innovation, Policy and Research Cooperation;

➢ Knowledge sharing and Skills Transfer between IST-Africa partners;

➢ Collaborative Innovation, Entrepreneurship and Adoption of Living Labs Methodologies;

➢ Information Society, ICT and Innovation Aspects of the Africa-EU Strategic Partnership;

➢ Awareness of African Research Capacity, cross-border cooperation and participation in Horizon 2020

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[1] IST-Africa partners: IIMC International Information Management Corporation Limited ("IIMC", Ireland); Ministry of Transport and Communications ("MTC", Botswana); Ministere de l'Enseignement Superieur et de la Recherche Scientifique ("MESRS", Burundi); Agence Nationale des Technologies de l'Information et de la Communication ("ANTIC", Cameroon); Ministry of Communications and Information Technology ("MCIT", Egypt); Ministry of Communication and Information Technology ("MCIT", Ethiopia); Ministry of Environment Science and Technology ("MEST" Ghana), 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); Ministere de l'Enseignement Superieur et de la Recherche Scientifique ("MHESR", Tunisia) and Uganda National Council for Science and Technology ("UNCST", Uganda).

➢ Establishment of National Contact Points in IST-Africa partner countries

UNCST leverages the IST-Africa Initiative to actively promote the national research community through

➢ Presentations at International events

➢ Compiling a chapter on Uganda as part of the overall IST-Africa Study on ICT Initiatives and Research capacity

➢ Publishing articles on ongoing and emerging ICT and Innovation activities in Uganda on the IST-Africa portal and in the Newsletter

➢ Raising awareness of upcoming Calls for Proposals and international funding opportunities

➢ Assists institutions in preparing for new opportunities such as Horizon 2020

➢ Raises awareness of activities being undertaken in other African countries

➢ Supporting the publishing of Organisational profiles on IST-Africa portal to raise awareness of activities in wider community

➢ Having access to IST-Africa Network including Ministries and National Councils in 17 African Countries to share knowledge, experiences and success stories

➢ Has established a National Contact Point Coordinator and National Contact Point for ICT for FP7 & Horizon 2020

➢ Having a first-hand experience of what is involved in being part of International funded activities under the European Framework Programme.

Participants were encouraged to visit the IST-Africa portal[2] and download relevant papers and reports. Paul also encouraged the participants to complete and return their organisational profile to UNCST for publication on the IST-Africa portal.

Overview of CAAST-Net Plus

Melissa Plath, UniPID, University of Jyväskylä, Finland provided an introduction to **CAAST-Net Plus**, a Coordination Action supported by the European Commission under FP7 with 25 partners. CN+ has a focus on Advancing Sub-Saharan Africa-European Union research and Innovation Cooperation. It is focused on supporting cooperation in Research and Innovation between Africa and Europe in particular on Health, Food Security and Climate change, which are multidisciplinary areas with good potential. CN+ objectives including:

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[2] http://www.ist-africa.org/home/default.asp?page=reports

- To encourage new and diverse multi-stakeholder partnerships that through research and innovation tackle global challenges in health, food security and climate change that affect African and Europe

- To enable better understanding between the public and private sector in Africa and Europe of the link between research and innovation and to identify and share opportunities for cooperation through networking and communication

- To facilitate exchanges that result in learning that support formal policy dialogues

George Essegbey, CSIR, Science and Technology Policy Research Institute, Ghana provided an overview of activities under WP5 focused on Strengthening Africa-EU Research Cooperation Partnerships - three of the CN+ partners are actively involved in this - CSIR-STREP, Ghana, UniPID, University of Jyväskylä, Finland and HELP-FORWARD Greece. The objectives include awareness raising of Horizon 2020 among African and European STI research community and supporting the enlargement of National Contact Points in African Member States, conduct analysis and monitoring of activities in Health, Food Security and Climate Change.

2.2   Ugandan Success Stories in FP7

Constantine Vaitsas, FORTH, Greece provided an overview of Ugandan participation in FP7. 44 participations in 41 EU-funded projects (excluding Marie Curie actions) with €7.7 million in research funding, making Uganda the 9th most successful African country in FP7 in terms of participation. Uganda has a 21% success rate in terms of the number of project funded compared to those submitted, which is an excellent outcome, given that the average success rate for European countries is 15%.

Ugandan participation has evolved during the life of FP7 - 2007 (1 project funded), 2008 (8 projects funded), 2009 (9 projects funded), 2010 (7 projects funded), 2011 (10 projects funded), 2012 (5 projects funded) and 2013 (2 projects funded). The most prominent themes with Ugandan participation are in the areas of Health (17 projects), Food Security and Agriculture (6 projects), ICT (6 projects) and Environment including Climate Change (5 projects), People (5 projects) and International Cooperation (3 projects).

The most prominent participants from Uganda include: Makerere University (19 projects), Uganda National Council for Science and Technology (7 projects), Vector Control Division, Ministry of Health (2 projects), Med Biotech Laboratories (2 projects) and Mbarara University of Science and Technology (2 projects).

European Coordinators with most projects including Ugandan organisations include IIMC (Ireland), Association of Commonwealth Universities (UK), University of Glasgow (UK), Prins Leopold Instituut voor Tropische (Belgium), King's College London (UK) and Karolinska Institutet (Sweden). There are 11 projects with Ugandan participation coordinated by UK partners, 5 projects with Irish coordinators, 5 projects with French coordinators, 4 projects with

Dutch coordinators (Netherlands), 4 projects with Belgian coordinators, 3 projects with Norwegian coordinators, 2 projects with Swedish coordinators, 2 projects with Italian coordinators, 1 project with Hungarian coordinator, 1 project with Finnish coordinator, 1 project with Danish coordinator and 1 project coordinated by German coordinator.

Constantine briefly presented two FP7 projects with Ugandan participation: SURE and INFRAVEC.

Dr Fred Kogozsi of Butabika National Mental Hospital presented the EMERALD (Emerging mental health systems in low and middle income project) FP7 Health project, which started in 2012 and will run until 2017. There are twelve partners from UK, Spain, Geneva, Ethiopia, India, Nepal, Nigeria, South Africa, Uganda, Germany and Netherlands lead by Kings College London. EMERALD is focused on improving mental health outcomes in low and middle income countries through strengthened mental

Dr Kogoszi outlined the need to start small with an enthusiasm for carrying out research and then build up expertise. There is a problem to get research funding at national level and there is a need to look outside the country for funding mechanisms. Submitting a grant proposal at EU level is competitive and proposals need to be very focused on addressing the Call requirements. The next step is to identify opportunities for EU funding for Emerald through existing collaboration with a number of colleagues (North - South collaborations). In this case Butabika National Mental Hospital was alerted by one of their senior colleagues at WHO with who they had worked on a previous proposal. To get involved in a consortium it is necessary to have a track record, have involvement with partners from other consortia.

Dr Kogozsi highlighted that proposal writing is a joint effort. It is necessary to divide the labour with different partners agreeing to work on different sections of the proposal.

2.3   African Participation in FP7

Stéphane Hogan, Counsellor for Research & Innovation, Delegation of the European Union to the African Union presented African participation in FP7, which has grown steadily over the past seven years. The European dimension is additional to the types of projects that can be funded at national level. Topics addressed are based on global research challenges. Europe has continued to invest in Higher Education and Research and Innovation.

European Programmes are open to International Cooperation and this remains a feature in Horizon 2020. Africa as a region has been very successful in FP7. As at September 2013 there were 1315 participations from 45 African countries in 565 projects with a total grant funding of 178 million euro from the European Commission going into African institutions.

Stéphane presented the countries with the highest level of funding under FP7 as at September 2013. This demonstrated that Uganda has been very successful participating in FP7. It is important to leverage this track record during Horizon 2020.
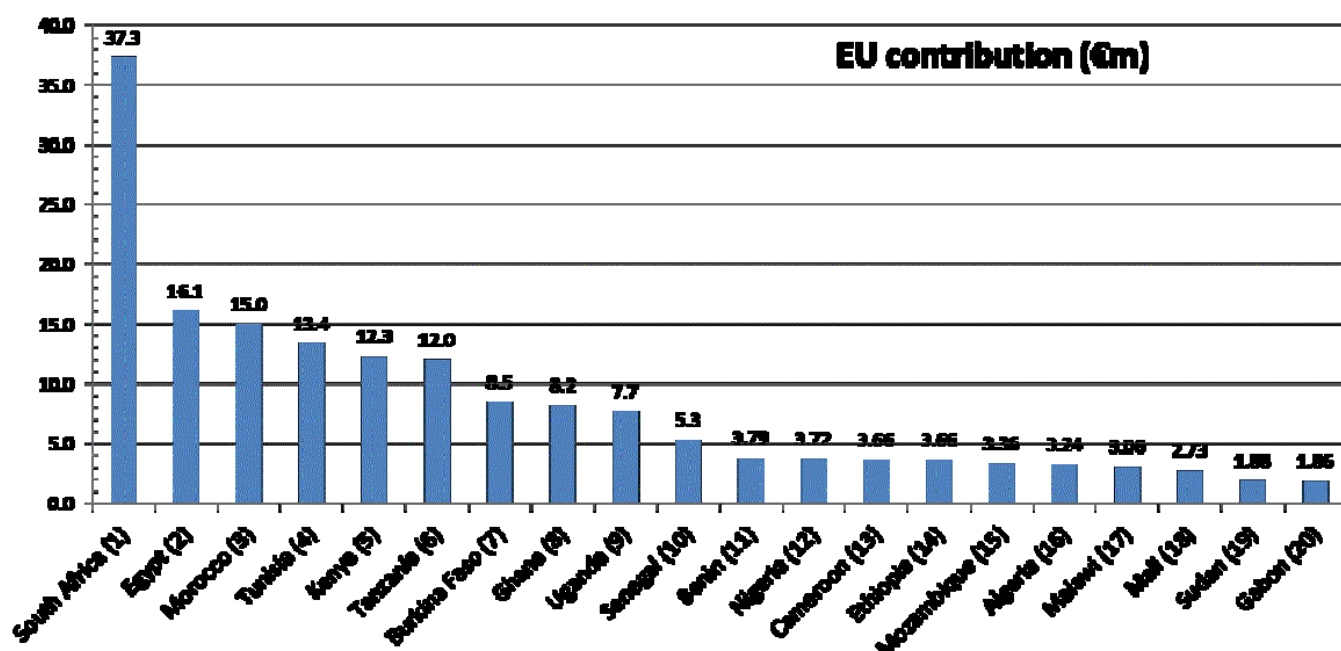
Stéphane highlighted a number of funded projects with Ugandan participation including SURE, HEALTHY FUTURES, ICONZ and the IST-Africa Initiative.

The table below provides an overview of the number of projects[3] secured in each IST-Africa partner country as at November 2013:

Country	Thematic areas
Botswana	9 FP7 projects - ICT (4), INCO (1), Environment (1), Health (2) and Food, Agriculture and Biotechnology KBBE (1)
Burundi	3 FP7-ICT projects
Cameroon	23 FP7 projects - ICT (4), INCO (1), Environment (4), Health (7), Infrastructures (1), Food Agriculture and Biotechnology KBBE (1), NMP (1), Science in Society (1), Space (1), SSH (2)
Egypt	96 FP7 projects - ICT (9), INCO (19), Environment (12), Health (6), Space (3), Social Sciences (7), Energy (4), INFRA (4), NMP (1), People (7), Science in Society (2), Food Agriculture and Biotechnology (KBBE) (17), Regpot (2), SEC (1), Transport (2)
Ethiopia	23 FP7 projects - ICT- (2), Environment (8), Health (5), Food Agriculture and Biotechnology KBBE (3), Space (2), Social Sciences (3)
Ghana	43 FP7 projects - ICT (3), Environment (6), Health (17), IDEAS (1), INCO (2), Food Agriculture and Biotechnology KBBE (6), NMP (1), People (1), Space (2), SSH (4).
Kenya	67 FP7 projects - ICT (4), INCO (4), Environment (18), IDEAS - ERC (2), Health (14), Food, Agriculture and Biotechnology KBBE (13), INFRA (3), People (3), Science in Society (2), Space (2), Social Sciences (1).
Lesotho	4 FP7-ICT projects
Malawi	20 FP7 projects - ICT (2); INCO (1), Infrastructure (5), Environment (2), Health (8), Food, Agriculture and Biotechnology KBBE (1),

	Science in Society (1).
Mauritius	6 FP7 projects - ICT (3), Infrastructure (2), Health (1).
Mozambique	20 FP7 projects - ICT (4), Environment (3), Health (6), Food, Agriculture and Biotechnology KBBE (2), Space (4).
Namibia	11 FP7 projects - ICT (4), INCO (1); Health (1), Infrastructure (1), Food, Agriculture and Biotechnology KBBE (2), Science in Society (1).
Senegal	40 FP7 projects - ICT (6), INCO (3) Environment (9), Health (5), Food, Agriculture and Biotechnology KBBE (9), IDEAS (1), People (1), Space (1), Social Sciences (4).
South Africa	189 FP7 projects - ICT (19), INCO (11), Energy (5), Environment (28), Health (30), Infrastructure (11), Food, Agriculture and Biotechnology KBBE (32), NMP (3), People (8), Security (2), Science in Society (5), SME (3), Space (9), Social Sciences (12), SSH (12), Transport (7).
Swaziland	3 FP7 projects – 2 ICT, 1 Space
Tanzania	39 FP7 projects - ICT (5), Environment (4), Health (19), Infrastructure (1), Food, Agriculture and Biotechnology KBBE (5), SME (1), Space (1), Social Sciences (2), Transport (1)
Tunisia	88 FP7 projects - ICT (5), INCO (17), Environment (13), Energy (2), Health (10), Infrastructure (1), Food, Agriculture and Biotechnology KBBE (19), NMP (3), People (2), REGPOT (6), Science in Society (2), SME (1), Space (1), Transport (2), Social Sciences (3), Security (1)
Uganda	41 FP7 projects - ICT (6), INCO (2), Environment (6), Health (16), Infrastructure (1), Food, Agriculture and Biotechnology KBBE (6), People (3), Social Sciences (1)

2.4 Introduction to Horizon 2020

Stéphane Hogan, Counsellor for Research & Innovation, Delegation of the European Union to the African Union presented Horizon 2020[4], which is the new European Framework Programme for Research and Innovation for 2014 – 2020, with funding of €79 billion. It is one of the largest research programmes and is open to participation from legal entities involved in research around the world.

Horizon 2020 will address all research and innovation funding previously provided by FP7 Framework Programme, Competitiveness and Innovation Programme (CIP) and European Institute of Innovation and Technology. There is a stronger focus on societal challenges and Innovation.

Horizon 2020 is not a development or a bilateral cooperation programme. It is a programme focused on global challenges open to International cooperation. African research institutions can participate as part of International Consortia with partners from Europe to apply for funding as part of an international project addressing the challenges published in the Work Programme. There are some targeted regional calls but there is also an opportunity to be involved in main

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[4] Visit http://www.ist-africa.org/home/default.asp?page=horizon2020 and
http://ec.europa.eu/research/horizon2020/

stream thematically focused projects. While the primary focus is on Research and Innovation, capacity building related to the research focus can be included as one of the project activities (training, networking).

Work Programmes for 2014 – 2015 was published on 11 December 2013 for a two-year period.

Horizon 2020 Structure

➢ **Excellent science (Total Budget of €24.4 billion, ICT Budget c €4 billion)**

Focus on World class Science as the foundation of tomorrow's technologies, jobs and wellbeing, need to develop, attract and retain research talent

1. The European Research Council (€13.1 billion)

2. Future and Emerging Technologies (€2.7 billion)

3. Marie Sklodowska-Curie actions on training and career development (€6.2 billion)

4. European research infrastructures (including eInfrastructures) (€2.5 billion)

➢ **II Industrial leadership (Total Budget of €17 billion, ICT Budget c €8 billion)**

Focus on strategic investments in key technologies underpin innovation across existing and emerging sectors and support innovative SMEs to create growth and jobs

1. Leadership in enabling and industrial technologies (€13.6 billion)

2. Access to risk finance (€2.8 billion)

3. Innovation in SMEs (€6.2 billion)

➢ **III Societal challenges (Total Budget of 29.7 billion, ICT Budget c €4 billion)**

Focused on Innovation addressing societal challenges, breakthrough solutions coming from multi-disciplinary collaborations including social sciences and humanities, promising solutions that can be tested, demonstrated and scaled up

1. Health, demographic change and wellbeing (€7.47 billion)

2. Food security, sustainable agriculture, marine research & the bio-economy (€3.85 billion)

3. Secure, clean and efficient energy (€5.93 billion)

4. Smart, green and integrated transport (€6.33 billion)

5. Climate action, resource efficiency and raw materials (€3.08 billion)

6. Inclusive and reflective societies (€1.3 billion)

7. Secure Societies (€1.69 billion)

Horizon 2020 aims to have a simpler reimbursement scheme and faster time to grant.

Stéphane highlighted the importance to build long term strategic partnerships and to be actively involved. There is a need to be aware of what is required both on the thematic work and the administrative requirements to ensure that work is done in a timely fashion.

Stéphane summarise the next steps are being to: Study the work programmes, get involved if you see an opportunity that fits your strategy, find partners quickly but choose them carefully, create/develop your profile (capacities, achievements). Participation in a Framework Programme including Horizon 2020 involves some reporting duties - these need to be properly planned and resourced, Use support structures including National Contact Points.

First calls for proposals were published on 11 December 2013 with total funding of €15 billion over two years (2014 - 2015). First deadlines for submission from March 2014 onwards.

Sources of information include:

Horizon 2020 website http://ec.europa.eu/research/horizon2020

Participants portal http://ec.europa.eu/research/participants/portal

Horizon 2020 section on IST-Africa

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

IST-Africa Guide to 2014 Calls for Proposals in Horizon 2020

http://www.ist-africa.org/home/files/IST-Africa_Guide_2014Calls_Horizon2020.pdf

2.5   *Snap Shot of Societal Challenges and LEIT in Horizon 2020*

Miriam Cunningham, IIMC / IST-Africa Initiative provided a brief snap shot of research areas for cooperation under Societal Challenges Work Programmes and Leadership in Enabling Technologies and Industrial Technologies (LEIT) Work Programme. Each area has a separate Work Programme that provides the details for each specific call, deadline, instruments open for submission.

Due to the high number of Work Programmes and the short timeframe for Calls in some thematic areas, IST-Africa has prepared a Guide to 2014 Calls for Proposals in Horizon 2020. This guide lists each thematic area, deadlines and links to the Participants portal[5] for more detailed information. It can be downloaded from

http://www.ist-africa.org/home/files/IST-Africa_Guide_2014Calls_Horizon2020.pdf

IST-Africa has a specific section focused on Horizon 2020, which provides links to all the Work Programme - Marie Curie, Infrastructures, Societal Challenges (Health, Food Security and Agriculture, Energy, Transport, Climate action and Environment, Inclusive and Reflective Societies; Secure Societies) and LEIT.

ICT is involved in all three pillars as outlined in the diagram below:

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[5] *http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html*
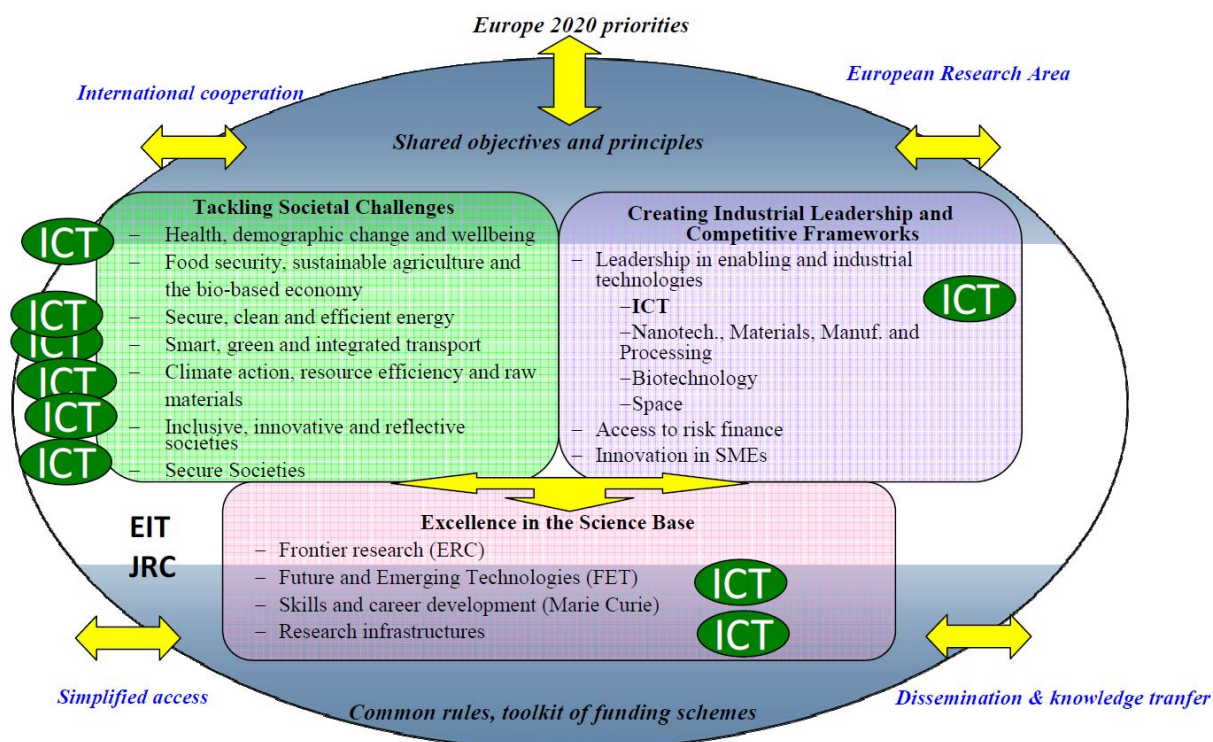
Image provided by DG CONNECT, European Commission

Leadership in Enabling Technologies and Industrial Technologies (LEIT) incorporates six main areas:

1. Components and systems (Smart embedded components and systems, micro-nano-bio systems, organic electronics, large area integration, technologies for IoT, smart integrated systems, systems of systems and complex system engineering)

2. Advanced Computing (Processor and system architecture, interconnect and data localization technologies, parallel computing and simulation software)

3. Future Internet (Networks, software and services, cloud computing, cyber security, privacy and trust, wireless communication and all optical networks, immersive interactive multimedia and connected enterprise)

4. Content technologies and information management (Technologies for language, learning, interaction, digital preservation, content access and analytics; advanced data mining, machine learning, statistical analysis and visual computing, big data technologies)

5. Robotics (Service robotics, cognitive systems, advanced interfaces, smart spaces and sentient machines)

6. Key Enabling Technologies: Micro-nano-electronics and photonics (Design, advanced processes, pilot lines for fabrication, production technologies and demonstration actions to validate technology developments and innovative business models)

Societal Challenges fits under seven areas:

1. Health, demographic change and wellbeing (e-health, self management of health, improved diagnostics, improved surveillance, health data collection, active ageing, assisted living;)

2. Food security, sustainable agriculture, marine research & the bio-economy

3. Secure, clean and efficient energy (Smart cities; Energy efficient buildings; smart electricity grids; smart metering)

4. Smart, green and integrated transport (Smart transport equipment, infrastructures and services; innovative transport management systems; safety aspects)

5. Climate action, Environment, resource efficiency and raw materials (ICT for increased resource efficiency; earth observation and monitoring)

6. Inclusive, innovative and reflective societies (Digital inclusion; social innovation platforms; e-government services; e-skills and e-learning; e-culture) and

7. Secure societies (Cyber security; ensuring privacy and protection of human rights on-line)

2.6 Societal Challenges

George Essegbey, CSIR, Science and Technology Policy Research Institute, Ghana presented *Societal Challenge 1: Health, demographic change and wellbeing*. There are 32 topics in personalising health and care focus area with a total budget of €1.06 billion.

As highlighted during Constantine's and Stéphane's presentations, Health was a very successful area for research cooperation between Uganda and European peers in FP7 and brought in the highest level of funding. As a result it is particularly important for Ugandan research organisations involved in Health research to look in detail at Calls open during 2014 and 2015. There was a good representation from organisations and individuals involved in Healthcare and Health research at the workshop. George encouraged them to take the time after the workshop to look at the specific action lines open under the Health Work Programme[6].

George focused on presenting action lines of particular African Interest including PHC 3 - 2015) Health promotion and disease prevention: improved inter-sector co-operation for environment and health based interventions; PHC 4 - 2014) Health promotion and disease prevention: translating 'omics' into stratified approaches; PHC 7 - 2014) Vaccine development for poverty-related and neglected infectious diseases: Tuberculosis; PHC 12 - 2014) New therapies for chronic non-communicable diseases; PHC 14 – 2014/15) Clinical research on regenerative medicine; PHC 20 – 2015) Promoting mental wellbeing: in the ageing population; PHC 20 –

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[6] Health, Demographic Change and Wellbeing Work Programme
http://www.ist-africa.org/home/files/1587763-08_health_wp2014-2015_en.pdf

2015) Promoting mental wellbeing: in the ageing population; PHC 15 – 2015) Tools and technologies for advanced therapies; PHC 17 – 2015) Establishing effectiveness of health care interventions in the paediatric population; PHC 18 – 2014) Advancing active and healthy ageing with ICT: Service robotics within assisted living; PHC 21 - 2014) Developing and comparing new models for safe and efficient, prevention oriented, health and care systems; PHC 29 - 2014) Foresight for health policy development and regulation; PHC 30 – 2014) Advancing bioinformatics to meet biomedical and clinical needs; HCO 4 – 2014) Support for international infectious disease preparedness research and HCO 5 -201x) Global Alliance for Chronic Diseases: prevention and treatment of type 2 diabetes.

Melissa Plath, UniPID, University of Jyväskylä, Finland presented *Societal Challenge 2: Food Security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy*. Calls in 2014 and 2015 focus on finding solutions leveraging the innovation aspect and integrating end-users. All activities are open to third countries, with specific topics stemming from ongoing international dialogues including the EU-Africa dialogue on Research and Innovation. There was a good representation from organisations involved in Agriculture and Food Security at the workshop. Melissa advised the participants to go through the Food Security, Sustainable Agriculture, Marine and Maritime Research, and the Bio-Economy Work Programme[7] in more detail as soon as possible to identify areas of most relevance for cooperation.

Sustainable Food Security focuses on Sustainable food productions system, safe food and healthy diets and global drivers of food security. Melissa focused on presenting action lines African interest that included: SFS-6-2014/2015: Sustainable intensification pathways of agro-food systems in Africa (deadline of 26 June 2014) and SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security (deadline 24 February 2015).

2014 - 2015 Calls under *Blue Growth (Unlocking the Potential of Seas and Oceans)* are focused on Sustainable exploitation of the diversity of marine life; New offshore challenges; Ocean observation systems/technologies and Horizontal activities.

Bioeconomy focuses on support for sustainable agriculture and forestry management processes providing public goods and innovative products for sustainable growth; foster innovation (including social innovation) in rural areas for inclusive growth; and enhance innovation in the bio-based industry for smart growth.

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[7] Food Security, Sustainable Agriculture, Marine and Maritime Research, and the Bio-Economy Work Programme   http://www.ist-africa.org/home/files/1587800-09_food_sc2_wp_2014-2015_en.pdf

Melissa Plath presented Societal Challenge 5: ***Climate action, environment, resource efficiency and raw materials[8]***. Specific Calls of African interest presented included WASTE-4-2014/2015, Towards near-zero waste at European and global level, WATER-1-2014/2015. Bridging the gap: from innovative water solutions to market replication, WATER-5-2014/2015. Strengthening international R&I cooperation in the field of water, SC5-5-2014/2015. Coordinating and supporting research and innovation for climate action and SC5-14-2014. Consolidating global knowledge on the green economy in support of sustainable development objectives in the EU and internationally. It is important to look carefully at the deadline for upcoming Calls to ensure that opportunities are not missed.

Melissa highlighted that since ICT is a horizontal enabler, there are Calls under Health, Agriculture, Climate Action and Environment within the relevant Work Programmes.

2.7 Participation Rules and Instruments under Horizon 2020

Paul Cunningham, IIMC / IST-Africa, Ireland presented the participation rules and instruments under Horizon 2020. Horizon 2020 has a single set of rules covering all funding programmes to simply the procedure for applicants. Grant Agreements and Reimbursement of actual costs will remain the main funding mechanism.

Participants in Horizon 2020 can be legal entities from EU-27 Member States, Associated Candidate Countries, Associated States and International Cooperation Partner Countries. Legal entities from all African States except South Africa are funded on the same basis as their European colleagues – reimbursement of costs.

The types of organisations that are normally involved in research include Research Organisations, Universities, SMEs, Industry and public administration.

It is necessary for grant applications to be made by consortia that have a minimum of three independent legal entities from three different EU Member States or Associated countries. African participants can then be added to this consortium. It is necessary to justify the participation of each legal entity regardless of what country they are established in as part of proving operational capacity.

Instruments in Horizon 2020 include:

➢ Grants for Research and Innovation – 100% funding of all activities and participants

➢ Grants for Innovation – 70% funding of all activities and participants –except non-profit (100%)

➢ Support and Coordination Actions - 100% funding of all activities and participants

➢ Programme Co-funding Actions

➢ SME-Instrument – Instrument to support specific SME activities in three phases

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[8] Climate Action, Resource Efficiency and Raw Materials Work Programme
http://www.ist-africa.org/home/files/1587803-12_climate_wp2014-2015_en.pdf

➢ Pre-Commercial Procurement (PCP) – Steer development to public sector needs

➢ Public Procurement of Innovative Solutions (PPI) – First buyer for innovative solutions

➢ Prizes – Support for two key categories of prizes (recognition and inducement) – still under discussion

Research and Innovation Actions are primarily consisting of activities aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. May include basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment. Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.

Innovation Actions primarily consist of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication. A 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an operational (or near to operational) environment, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator. A 'market replication' aims to support the first application/deployment in the market of an innovation that has already been demonstrated but not yet applied/deployed in the market due to market failures/barriers to uptake. 'Market replication' does not cover multiple applications in the market of an innovation that has already been applied successfully once in the market.

Support and Coordination Actions undertake studies, analysis, development of research and Innovation strategies, raising awareness of European Commission Programmes, setting up thematic working groups to address Challenges in specific thematic areas.

All instruments have an application template that must be used which can be downloaded from the Participants Portal.

The evaluation criteria for proposals include Excellence, Impact and Quality and Efficiency of the Implementation.

Eligible costs for reimbursement include:

➢ Personnel Costs (Salary and social security costs based on payroll costs, Reimbursement of costs based on timesheet outlining actual work undertaken)

➢ Subcontracting (e.g. printing of materials, non-core work)

➢ Other direct costs

   ➢ Travel and subsistence allowances

   ➢ Depreciation of equipment

> ➢ Other necessary goods and services

Paul presented mechanisms to identify European Partners, the different types of roles that partners can have within a research proposal, how to co-design a proposal as a team activity, intellectual property rights and consortium agreements, and how proposals are evaluated.

2.8 National Contact Points

Constantine Vaitsas provided an overview of the role of National Contact Points who provide national research organisations with information in relation to upcoming Calls, assist in identifying partners for proposals and provide support in relation to identifying relevant documentation. The National Contact Point are established, operated and financed under the responsibility of the national Government. In Uganda there is a well-established NCP Network - National Coordinator (Dr Maxwell Otim, Uganda National Council for Science and Technology) with National Contact Points (NCP) within UNCST sets up in the following areas under FP7:

Name	Theme
Ms. Leah Nawegulo	Health
Mrs. Ruth Mbabazi Tugume	Food, Agriculture and Fisheries, Biotechnology
Ms. Loi Namugenyi	Information & Communication Technologies (ICT)
Mr. Julius Ecuru	Nanosciences, Nanotechnologies, Materials & New Production Technologies
Vacant	Energy
Mrs. Deborah Kasule	Environment (including Climate Change)
Mr. Bashir Kagere	Transport (including aeronautics)
Mr. Edward Tujunirwe	Socio-Economic Sciences and the Humanities
Dr. Edward Jurua	Space
Mr. Edward Tujunirwe	Security

Each country is now reappointing NCPs for Horizon 2020.

Dr Otim provided an overview of the situation in Uganda and the rationale to putting National Contact Points in place during 2010. It is necessary for NCPs to be knowledgeable about the Framework Programme and to receive training. The most effective NCP have been the NCP for ICT, who has received support from IST-Africa in terms of training and profiling of institutions. The NCP for Health (Leah) is now sufficiently familiar to provide support to the research community. The NCP for Environment (Deborah) is now receiving training. The other NCPs were not sufficiently trained under FP7.

Stéphane outlined that when NCPs are nominated by Government, they are recognised by the European Commission and special training courses are provided in Brussels. It is necessary for the national governments to put resources in place to facilitate the NCPs to be trained.

Dr Ismail Barugahara outlined that CAAST-Net has run some activities in the past to assist in building capacity for NCPs and facilitate cooperation between NCPs in Africa and Europe. WP5

in CAAST-Net Plus is also focused on assisting capacity in NCPs and it plans to identify capacities that NCPs require to ensure that this can be facilitated.

Stéphane acknowledged that it is very beneficial that support can be provided by CAAST-Net Plus and the IST-Africa Initiative but highlighted that it is a requirement for national governments to also put resources in place to facilitate additional training for NCPs and to facilitate networking with NCPs in other countries.

2.9 Leadership in Enabling and Industrial Technology

Paul Cunningham, IIMC / IST-Africa, Ireland provided an overview of ICT within Horizon 2020.

As highlighted previously by Miriam, ICT as a horizontal enabler is involved in all three pillars: Excellence Science, LEIT and Societal Challenges. **LEIT Call 2014 – Opened 11 December 2013, Closes 23 April 2014**

➢ *Components and Systems*

- ➢ ICT1 – 2014 Smart Cyber Physical Systems (Research & Innovation Actions; Innovation Actions)

- ➢ ICT2 – 2014 Smart System Integration (Research & Innovation Actions; Innovation Actions, CSA)

- ➢ ICT3 – 2014 Advanced Thin, Organic and Large Area Electronics Technologies

➢ *Future Internet*

- ➢ ICT4 – 2014 Smart Networks and Novel Internet Architectures (Research & Innovation Actions)

- ➢ ICT6 – 2014 Smart Optical and Wireless Network Technologies (Research & Innovation Actions, SA)

- ➢ ICT7 – 2014 Advanced Cloud Infrastructures and Services (Research & Innovation Actions; Innovation Actions, CSA)

- ➢ ICT9 – 2014 Tools and Methods for Software Development (Research & Innovation Actions)

- ➢ ICT13 – 2014 Web Entrepreneurship (Innovation Actions, CSA)

- ➢ ICT14 – 2014 Advanced 5G Network Infrastructures for the Future Internet (Research & Innovation Actions; Innovation Actions, CSA)

➢ *Content Technologies and Information Management*

- ➢ ICT15 – 2014 Big data and Open Data Innovation and Take-up (Innovation Actions, CSA)

- ➢ ICT17 – 2014 Cracking the Language Barrier (Research & Innovation Actions; Innovation Actions, CSA)

➢ ICT18 – 2014 Support the Growth of ICT Innovative Creative Industries SMEs (Innovation Actions, CSA)

➢ ICT21 – 2014 Advanced Digital Gaming (Research & Innovation Actions; Innovation Actions)

➢ ICT22 – 2014 Multimodal and Natural Computer Interaction (Research & Innovation Actions; Innovation Actions)

➢ *Robotics*

➢ ICT23 – 2014 Robotics (Research & Innovation Actions; Innovation Actions)

➢ *Cross cutting areas*

➢ ICT31 – 2014 Human-centric Digital Age (Research & Innovation Actions, CSA)

➢ ICT32 – 2014 Cybersecurity, Trustworthy ICT

Each area was presented, followed by discussion with the participants. Where participants expressed specific interest in a topic (for example ICT7 Cloud Computing, ICT9 Tools and Methods for Software Development, ICT15 Big Data, ICT23 Robotics), more information was provided.

2.10 ICT in Societal Challenges

Paul Cunningham, IIMC / IST-Africa, Ireland provided an overview of ICT components in Societal Challenges within Horizon 2020 in the areas of Health, Energy, Transport, Climate Changes and Environment, Inclusive, Innovative and Reflective Societies and Secure Societies. Specific ICT calls highlighted include:

Health

➢ PHC 19 – 2014) Advancing active and healthy ageing with ICT: Service robotics within assisted living environments; and ICT solutions for independent living with cognitive impairment

➢ PHC 20 – 2014) Advancing active and healthy ageing with ICT: ICT solutions for independent living with cognitive impairment

➢ PHC 23 - 2014) Developing and comparing new models for safe and efficient, prevention oriented, health and care systems

➢ PHC 26 - 2014 Self-management of health and disease: citizen engagement and mHealth

Energy - Smart Cities

➢ SCC 1 – 2014/2015: Smart Cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse projects

➢ SCC 2 – 2014: Developing a framework for common, transparent data collection and performance measurement to allow comparability and replication between solutions and best-practice identification

➢ SCC 3 – 2015: Development of system standards for smart cities and communities solutions

Transport

Road transport:

➢ MG.3.5-2014 Cooperative ITS for safe, congestion-free and sustainable mobility

➢ MG.3.6-2015 Safe and connected automation in road transport

➢ *Urban mobility* - MG.5.3-2014 Tackling urban road congestion

➢ *Logistics* - MG.6.3-2015 Common communication and navigation platforms for pan-European logistics applications

➢ *Intelligent Transport Systems* - MG.7.1-2014 Connectivity and information sharing for intelligent mobility

Climate Action and Environment

ICT solutions for waste traceability, waste material flow management

➢ WASTE-1-2014: Moving towards a circular economy through industrial symbiosis

➢ WASTE-2-2014: A systems approach for the reduction, recycling and reuse of food waste

➢ WASTE-3-2014: Recycling of raw materials from products and buildings

➢ WASTE-4-2014/2015: Towards near-zero waste at European and global level

Water management - Development and deployment of advanced ICT solutions for water resources management in agriculture and urban areas

➢ WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication

Inclusive, Innovation and Reflective Societies

Reflective Societies

➢ REFLECTIVE 6 – 2015: Innovation ecosystems of digital cultural assets

➢ REFLECTIVE 7 – 2014: Advanced 3D modelling for accessing and understanding European cultural assets

New forms of innovation - Innovation in the public sector by using emerging ICT technologies

➢ EURO-6-2015: Meeting new societal needs by using emerging technologies in the public sector

> ➤ YOUNG-5–2014: Societal and political engagement of young people and their perspectives on Europe

ICT-enabled open government - Personalised public services, M-government, Open participation, Transparency

> ➤ INSO-1–2014, 2015: ICT-enabled open government
> ➤ INSO-9–2014: Innovative mobile e-government applications by SMEs

ICT for learning and inclusion - INSO-6-2014: Platform for ICT for Learning and Inclusion

Secure Societies

> ➤ DS 1 – 2014: Privacy
> ➤ DS 2 – 2014: Access Control
> ➤ DS 3 – 2015: The role of ICT in Critical Infrastructure Protection
> ➤ DS 4 – 2015: Secure Information Sharing
> ➤ DS 5 – 2015: Trust eServices
> ➤ DS 6 – 2014: Risk management and assurance models

2.11 Excellence Science

Paul Cunningham, IIMC / IST-Africa briefly presented Marie Curie actions on skills, training and career development and eInfrastructures.

Marie Curie Programme facilities individuals to access mobility grants to facilitate career development and up-skilling for research staff. Individual Fellowships incorporates International Outgoing Fellowships and International Inward Fellowships. Fellowship must be applied for by the host European institution through a proposal submitted under an Open Call. Fellowships provide costs of time and a monthly allowance for living expenses for between 1 - 3 years depending on the project accepted.

The Research and Innovation Staff Exchange (RISE) is a new type of exchange of research staff to stimulate transfer of knowledge. This programme can support African researchers to work with the European host organisation for a period of time or for the European researcher to come to work with an African organisation to support setting up or extending research skills. All levels of research staff can undertake short term secondments. A monthly stipend of 2,500 euro is provided within the project funding to cover living expenses while abroad. The person receiving the mobility grant remains part of the staff of their own institution. The proposal is submitted by a European research institution based on a common research project.

2.12 Summary of areas of research of participants

Following the overview of LEIT and Societal Challenges, each department and institution presented their current research areas. The table below summarises the main findings shared during the workshop:

Institution	Specific areas of research
Makerere University	Forestry, Biodiversity, Spectrum management, ICT, Food Security, Waste Management
Kyambogo University	Energy, Gender, Environment, Climate change, Food, Health
Mbarara University of Science and Technology	Health, Climate change, ICT, Space science
Islamic University of Uganda	ICT
Logel project	IT, solar production, ICT and Agriculture
Butabika Hospital	Mental health
Kabale University	Math and Science Education
Outbox Uganda	Big Data and Analysis
iLabs@Mak Project	ICT4 Development
Uganda Virus Research Institute	Health research on Virus and tropical diseases
Gulu University	ICT in development, focus on Agriculture
Uganda Christian University Mukono	ICT
I-NetWork Uganda	ICT
I-CON frontiers	eHealth, Business Devt and process integration
Bugema University	Software Engineering and ICT
Makerere Business school	ICT

2.13 Discussions and Conclusion

The workshop was very interactive in style with participants asking questions and seeking clarification as required.

During the discussions the participants shared their past experiences. A researcher who was sponsored by UNCST to participate in one of the IST-Africa Conferences expressed his appreciation in relation to the rich learning and networking experience, and the continued global publicity for his research work that he has since enjoyed. This reinforces the necessity to publish results and attend high quality scientific conferences for networking.

As is common in many African countries, it is clear that there is not sufficient research funding currently available through national funds. As a result Ugandan researchers should seriously identify relevant areas in Horizon 2020 that are complementary and will leverage and expand existing track record and capacity. Uganda traditionally has bilateral cooperation agreements in place with Norway, Sweden and the Netherlands as well as other European countries. Based on the good track record during FP7 and bilateral contacts, institutions should now actively follow up with collaborators to identify synergies for upcoming calls during Horizon 2020. NCPs have been put in place within UNCST to provide additional support to that already provided by IST-Africa and CAAST-Net Plus.

There was a general discussion around the range of different roles that partners can have with a project including Administrative coordinator, scientific coordinator, Work Package leader, Task Leader, Development Partner, Dissemination Partner and Demonstration Partner. A specific organisation can have multiple roles depending on their skill base and experience. It is very important that the Administrative coordinator has a good track record of managing complex projects, in-depth knowledge of financial rules in relation to EU funding and adequate internal support to manage the project funding. The European Commission provides funds to the coordinator and the funding is then transferred as pre-financing to the individual partner organisations based on the agreement reached in the Consortium Agreement. Reimbursement of costs is based on actual costs incurred by the institution (personnel based on payroll costs, travel costs and depreciation of necessary equipment). A flat rate of 25% of direct costs is provided as a contribution towards overheads. Subcontracting of core project work is not allowed.

Questions related to the difference between single and two stage calls under some areas within Societal Challenges. In a single stage call a decision is made based on evaluation of the proposal that is submitted. A two-stage call entails submission of a brief concept with a summary budget that is subjected to evaluation and subject to approval at state one, then a full proposal outlining activities and detailed budget is required to be submitted for full evaluation.

There was a general discussion in relation to the minimum qualifications for involvement in a Call and number of proposals that should be submitted. Responses to calls should be institutional and not individual. Teams should be created with the individual institution and wider Consortium on the basis of the requisite expertise for the proposal. This may a professor or senior lecturer, and post graduate or post-doctorate students could also be team members, as long as they have a track record in the pertinent field of research. While there is no limit to the number of proposals submitted, this depends on the human resources available and it is not good practice to submit multiple proposals under the same action line with different consortia. It is better to put relevant effort into one proposal per action line to increase the chances of success.

Dr Ismail Barugahara, Assistant Executive Secretary, UNCST summarised some of the recommendations captured during the workshop including:

➤ Research should be aligned to national policy and locally available skills in order to have socio economic impact

➤ Researchers should actively utilize the information resources provided during the workshop and through UNCST in relation to Horizon 2020.

- Researchers should optimize the usage of services provided through the IST-Africa Initiative contact point at UNCST.

- Researchers should exploit the opportunity to publicize their individual and institutional capacities on the IST-Africa portal by sending their completed profiles to UNCST as soon as possible

- Researchers should help UNCST support them by among other things, providing and updating them with all necessary information pertaining to their profiles and activities. They should further make use of the IST-Africa, CAAST-Net Plus and UNCST websites to identify events, activities, opportunities for networking and subscribe to receive newsletters.

- Researchers should understand that the calls are highly competitive and endeavor to identify credible and experienced partners. They should also pay particular attention to deadlines and fully comply with the terms and conditions for eligibility.

- International cooperation is a crucial component of Horizon 2020's objectives. All research consortia should include three (3) independent European partners from 3 European countries. Once this minimum criteria is reached, it is possible to add partners from Africa with relevant experience and track record.

- Horizon 2020 should not be considered not only as a source of research funding but more importantly as a means of deeper and longer term cooperation.

- NCPs in Uganda, like in other African countries face challenges in funding for their training and other administrative activities. The NCPs for the various fields supported by the FP7 and now Horizon 2020 can be accessed from UNCST. New NCPs are scheduled for appointment. Researchers should establish and maintain contact with NCPs.

- It would be beneficial if the Government of Uganda mobilised national funds of NCPs in key areas such as financial management. The dedicated resources within CAAST-Net Plus to support NCP capacity building should also be leveraged.

- Marie Curie and particularly the RISE programme should be considered as a mechanism to support capacity building for researchers.

- IPR issues, the roles of partners and dispute management mechanisms should be considered carefully when preparing the Consortium Agreement.

- All partners in the consortium should play an active role in research design. Researchers should be professional when approaching potential partners in both African and Europe.

- Participants with appropriate research competence and track record should register as Expert Assessors for the EU programmes. NCPs and their coordinator at UNCST are at hand to guide on how to proceed with this.

In relation to next steps, the participants were encouraged to download the IST-Africa Guide to 2014 Calls under H2020[9], the individual Work Programmes[10] and identify relevant core areas for research collaboration under 2014 and 2015. Institutions were encouraged to prepare an organisational profile for publication and to identify key European partners based on existing relationships and bilateral projects.

The participants expressed their appreciation for the training received and the interactive nature of the workshop.

Dr Ismail and Dr Maxwell thanked their colleagues from IST-Africa, CAAST-Net Plus and European Commission for coming to Uganda to share this insight with Ugandan researchers and support their take up of opportunities under Horizon 2020.

Participants

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[9] http://www.ist-africa.org/home/files/IST-Africa_Guide_2014Calls_Horizon2020.pdf
[10] http://www.ist-africa.org/home/default.asp?page=horizon2020

No./Title	Family name	Given name	Designation	Affiliated organisation
1. Mr	Agaba	John	Journalist	The New Vision Printing and Publishing Limited
2. Mr	Ali	Adam	Dean Faculty of Science IUIU	Islamic University in Uganda
3. Mr	Aregu	Raphael	Gulu University	Gulu University
4. Mr	Atusinhoize	Jonathan		
5. Dr	Barugahara	Ismail Nabil	Assistant Executive Secretary/CAAST Net Plus Focal Point	Uganda National Council for Science and Technology (UNCST)
6. Prof	Babugura	Allen	Dean faculty of science	Kabale University
7. Mr	Bogere	Paul	Assistant lecturer	Makerere University
8. Mr	Bubye	Eron Vello		Uganda Virus Research Institute (UVRI)
9. Ms	Bukenya	Aminah	Science Officer (PR/Events)	UNCST
10. Mr.	Bukenya	Ibrahim		
11. Dr	Eilu	Gerald	Assistant lecturer	Makerere University
12. Dr	Essegbey	George	Director	CSIR, Science and Technology Policy (STEPRI), Ghana
13. Mr	Jurua	Edward	Lecturer	Mbarara University of Science and Technology
14. Mr	Kafaayi	Godfrey	Journalist	
15. Mr	Kasse	John Paul	Lecturer	Makerere University Business School
16. Ms.	Kasule	Deborah	NCP Environment & Climate Change	UNCST
17. Dr	Kigozi	Fred	Senior Consultant	Butabika Hospital
18. Dr	Kwetegyeka	Julius	Senior Lecturer	Kyambogo university
19. Mr	Ladu		Journalist	Monitor Publications
20. Mr	Lowu	Francis	HOD	Bugema University
21. Dr	Lubwama	Michael	Lecturer	Makerere University
22. Mr	Lwanga	Herbert	Coordinator	Log'el Project
23. Dr.	Masanza	Michael	Dean Faculty of Science	Uganda Christian University
24. Dr	Mmiiro	George	Medical Research Officer	Uganda Virus Research Institute
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26. Ms	Mugala	Sheila	Researcher	Makerere University
27. Mr	Mwesigwa	Collins	Director	IFL
28. Mr	Mwikiriee	Cosmos	Researcher	I labs@mak project Makerere University
29. Mr	Nabende	Mike		SYNOVATE

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33. Ms	Nawe gulo - Omongo	Leah	NCP - Health	UNCST
34. Dr	Ndemere	Peter	Executive Secretary	UNCST
35. Dr	Ngabiru	John	Dean	Uganda Technology and Management University UTAMU
36. Prof	Okaka	Wilson	Lecturer	Kyambogo University
37. Mr	Oketcho	Felix	USSA	USSA
38. Mr	Olupot	Charles	Director IT centre	Makerere University
39. Dr	Olupot	Giregon	Lecturer	Makerere University
40. Mr	Otieno	Emmauel	Lecturer	Makerere University
41. Dr	Otim - Onapa	Maxwell	Deputy Executive Secretary/NCP & IST African Coordinator Uganda	UNCST
42. Mr	Rugyendo	Amos		Uganda Bureau of Statistics (UBOS)
43. Mr	Rukundo	Tom		National Forestry Authority (NFA)
44. Mr	Tumwine	Rowland	Coordinator	Parliament of Uganda
45. Mr	Wakwakwa	Job	Mentor	Log'el project
46. Mr	Wandera	Stephen	Journalist	Monitor publications
47. Eng	Wasukira	Elisha	Coordinator	i-network
48. Ms.	Zansanze	Ester	Personal Assistant to the Executive Secretary	UNCST
49. Mr	Zulu	Richard	Lead	Outbox Uganda
50. Dr	Hogan	Stéphane	Counsellor for Research & Innovation	Delegation of the European Union to the African Union
51. Ms	Plath	Melissa		UniPID, University of Jyväskylä, Finland
52. Mr	Vaitsas	Constantine		FORTH, Greece
53.	Miriam	Cunningham		IIMC, Ireland
54.	Paul	Cunningham		IIMC, Ireland

business

Shs50 billion earmarked for SME research and innovation

Impression. The winners' work must have had a positive impact on peoples' lives.

BY ISMAIL MUSA LADU
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KAMPALA. Researchers and innovators attached to universities and organisations, whose work has a positive impact on small and medium enterprises (SMEs) or peoples' lives, stand a chance to win more than Shs50 billion non-refundable grant.

Total funds available for Horizon 2020, which commenced this month is about 400 million Euros (about Shs134 billion), meaning that the money available for Uganda could increase depending on the participation which could also determine the number of people to qualify for the research and innovation funds.

The funding will focus on priorities such as research infrastructures, Marie Curie (Mobility Grants—exchange programme-like), future and emerging technologies.

It will also look at advanced computing, future Internet, content technologies and information management, let alone societal challenges – health, food security & agriculture, energy, transport, climate action and environment, and SMEs innovation.

"This is a win-win situation for all the partners that will be involved," the Coordinator for Innovation Society Technology (IST) Africa, Paul Cunningham said yesterday (Thursday) in an interview in Kampala.

This is because entries will be according to partners—who must come from at least three different countries with European countries being among them.

And the benefits of the research and innovation will not just be enjoyed in those countries but they will also reap from the intellectual property rights jointly.

Critics, however, say this project will benefit European much more than African countries but the proponents of the idea say the benefits will be exploited or shared equally across the partners.

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

ABOUT HORIZON 2020

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over seven years (2014 to 2020), – in addition to the private investment that this money will attract.

Maxwell Otim of Uganda National Council of Science (L) talks to **Melissa Plath** of University of Jyvaskyla Finland at a workshop in Kampala on **Wednesday.** PHOTO BY STEPHEN WANDERA