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D3.1.1 IST-Africa Living Lab Workshop, Addis Ababa, Ethiopia, 06 December 2013

Workshop Report prepared by IIMC and Ministry of Communications and Information
Technology Ethiopia

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1. Workshop Focus

The IST-Africa Initiative has taken a leadership position in promoting the adoption of Collaborative Open Innovation and Living Labs Methodologies to support socio-economic development in Africa

This workshop focused on providing an introduction to the Living Labs concept, examples of operational and emerging Living Labs and how these have evolved in other African States as well as in Europe. It was participatory in nature with group work and presenting of outputs to the entire group. The participants discussed the potential roles of stakeholders in Living Labs in the context of Ethiopia in terms of motivations, contributions and expectations. Different perspectives and emerging issues were also identified.

This training workshop was facilitated by Paul Cunningham and Miriam Cunningham, IIMC Ltd, Ireland, Coordinator of the IST-Africa Initiative.

By the end of the workshop, the participants had identified thematic areas that are national priorities where Living Lab methodologies could be used to support Collaborative Open Innovation.

2. Workshop Report

2.1 Introduction

The workshop was officially opened by Dr Leulseged Alemie, Director, Communication and IT Capacity Building Directorate, Ministry of Communications and Information Technology. Dr Alemie welcomed the participants and the facilitators - Paul Cunningham and Miriam Cunningham. He provided a context for the workshop and the potential role of Living Labs to support Collaborative Open Innovation.

Paul Cunningham, IIMC Ireland provided an overview of the IST-Africa Initiative which is supporting this workshop. The IST-Africa Initiative was founded in 2002 by IIMC, Ireland and has now grown to a partnership with Ministries and National Council responsible for Information Society, ICT and/or Innovation in 18 African Member States¹. The IST-Africa is supported by the European Commission and African Union Commission with co-funding under FP7.

¹ 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); Ministry of Communications and Information Technology ("MCIT", 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",

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

MCIT leverages the IST-Africa Initiative to actively promote the national research community by

- Facilitating national workshop on Living Labs and Horizon 2020
- Presentations at International events
- Chapter on Ethiopia 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 Ethiopia 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
- Has access to IST-Africa Network including Ministries and National Councils in 17 African Countries to share knowledge, experiences and success stories
- Has 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 portal² and download relevant papers and reports

The participants introduced themselves by organisation and by activity. The workshop was well attended with participants from OSH/ICT-ET; AA Teg. Poly Technic College; Addis Ababa University; Arba Minch University; ATA; B/Dar Incubation Center; Center for Education ICT; EIABC-AAU; Ethio Telecom; Haramaya University; HilCoE; ICT CoE; ICT-BIA Ethiopia; Jimma University; JIT-JU; Mekelle University; Ministry of Communication and Information Technology (MCIT); St. Mary's University and University of Gondor.

Swaziland); Tanzania Commission for Science and Technology ("COSTECH", Tanzania); Ministère de l'Enseignement Supérieur et de la Recherche Scientifique ("MHESR", Tunisia) and Uganda National Council for Science and Technology ("UNCST", Uganda).

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

2.2 Introduction to Living Labs

Paul Cunningham and Miriam Cunningham provided an introduction to the basic concepts behind Living Labs, the different forms and focus that Living Labs can take, how Living Labs support Innovation and examples of sustainable Living Labs in other African Member States.

The session was interactive with discussion around the types of Innovation supported, types of support that a Living Lab can provide during Pre-Incubation, how a Living Lab can start focused around training and skills transfer in a specific sector or thematic area and gradually ramp up to provide pre-incubation and incubation support and mechanisms that have been successful in other African countries to secure engagement from industry as an innovation stakeholder.

2.3 Participatory Session 1: Stakeholders Roles in Living Labs – Motivations, Contributions and Expectations



The participants split into working groups to discuss stakeholders roles in Living Labs from an Ethiopian perspective. They discussed motivations (Why would they get involved in a Living Lab?), expectations (what would they hope to achieve?) and contributions (how they could make a difference?) for four initial stakeholders groups - public sector, private sector, research and education sector and

communities (end users). Each group then reporting back their findings to the entire group.

The motivation, expectations and contributions attributed to each stakeholder group is summarised below based on the outputs presented by each group:

Public Sector	
Motivation	Collect more accurate needs from end users; Literacy improvement in the community; Solve societal problems; Social Development; Create employment; To create job opportunities; To minimise unemployment; Technology adoption; Increasing innovation
Expectations	Better identification and prioritisation of needs for services and products to be developed; Better ways to deliver; Better sustainability and actual use of services and/or products; Create sense of ownership and develop local leadership and build capacity; Provide successful products/services; Value added service; Loyalty of customer; Minimising the digital divide; Moving to a knowledge base economy; Improved use of technology; Sustainable development; Collaboration between stakeholders; Identify talented community leaders; Efficient solutions; Improved lifestyle; Adopted knowledge and technology; Reduction / Minimising unemployment; Better & sustainable production; New innovative ideas; Better livelihood
Contribution	Resources - funds, people, rooms, location; Create awareness about Living labs; Invite and encourage participation; Encourage risk-taking and

	acceptance possibility of failure; Providing a conducive physical infrastructure; Promoting the outcome of the living labs; Technical support; Working environment
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Private Sector	
Motivation	More effective identification of customers for their service; Advertisement & promote their own company; Building strong business; Solve problems of working methods; Solve problems of efficiency and productivity; Better profit; Become the best producer; Profit maximisation; Creating job opportunities; Community services; Improving literacy; Industrialisation
Expectations	Provide successful products/services; Value added service; Loyalty of customer; Win-win market structure; Satisfactory Earning; Job creation for unemployed; New market; Quality product; Create brand or trusted product; Competitiveness; Better quality product with reasonable price; Satisfied customer; Better use of technologies; Better livelihood; Industrial leadership
Contribution	Resource - Human resources, infrastructure; Advertisement; Encourages risk takers; Active participation - resource allocation; Acting as test bed for innovators; Encourage R&D; Investment; Treat new products; Training support; Investing in research and development; Funding; Collaboration with government; Infrastructure; Logistics; Training;

Education and Research	
Motivation	Improved living standard through research outcomes; Problem solving research; Community service; Quality service; Creating high qualified graduates; Production of research outputs that solve problems; Providing innovative consultancy services; New Innovations and findings; Service community; Produce better students
Expectations	Better living standard; Utilisation of technology; New knowledge creation; New partnerships; Excellence; Economic growth; Better living standard; Innovation; Increasing productivity; Ethical citizens; Increased research outputs that are relevant to real world; Support communities; Increase literacy
Contribution	Fund raising and allocation; Creating a collaboration with other research institutes; Creating ease of access for research outcomes; Training; Awareness creation; Research centres; Labs; Investing educational infrastructure (building, technologies, access to labs etc); Funding research projects; Collaborate with other universities; Engagement with industry; Research funding

Community (End-users)	
Motivation	Identification of the needs and priorities; Chance to identify services / products that will address their need; Better access to reliable and timely information; Empowerment; Solve community problems; Creating responsive and responsible community; Technology demand; More job opportunities
Expectations	Quality service / product; Better Living Standard; Knowledge & Skill transfer; Effective service delivery; Informed decision making; Creating proactive community; Better living standard; Better position in the community; Equal opportunity; Growth and development; Better lifestyle; Safe product and environment; Lower price; Improved income potential; Leveraging technology to address societal challenges

Contribution	Resources (Time, idea, active participation); Feedback / Suggestion on the product and services; Use of the services; Active participation; Involvement; Money and ideas; Ownership and Commitment; Soliciting funding; Ideas for challenges to be addressed
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2.4 Six Thinking Hats Methodology

Session 2 Harvesting Different Perspectives and Emerging Issues on African Living Labs was based on the Six Thinking Hats Methodology published in a book by Dr Edward de Bono in 1985. It is designed to provide a framework based on creativity and collaboration rather than argumentation (the more traditional “I am right, you are wrong”). The methodology is based on focusing group members on thinking about issues from the same perspective at the same time, before moving on to considering the problem domain from another perspective.

It uses an easy to understand metaphor of six hats, each with a different colour and each focused on a different way of thinking. The participants are asked to put on and take off the same coloured hat at the same time, thus ensuring robust output from working group meetings, by tapping into collective wisdom.

White Hat Thinking - Facts

White Hat Thinking focuses on data, information and facts, and is neutral and objective in style. Relevant questions include “What do I know?”, “What do I need to find out?” and “How will I get the information I need?”

Red Hat Thinking - Feelings

Red Hat Thinking focuses on feelings, hunches, gut instinct and intuition. Feelings can change over time and no reasons are required for having a feeling at a specific point in time.

Black Hat Thinking - Caution

Black Hat Thinking focuses on difficulties, potential problems, the devil's advocate, or why something may not work. It identifies potential risks, and logical reasons must be provided.

Yellow Hat Thinking - Benefits

Yellow Hat Thinking focuses on values and benefits, and why something may work. It identifies potential benefits and useful ideas, and logical reasons must be provided.

Green Hat Thinking - Creativity

Green Hat Thinking focuses on creativity; possibilities, alternatives and new ideas. It provides potential solutions or alternatives to address problems identified through Black Hat Thinking.

Blue Hat Thinking – Process (Big Picture)

Blue Hat Thinking focuses on managing and organising the thinking process, providing an overall focus, and identifying and developing next steps and action plans.

Harvesting Different Perspectives and Emerging Issues

Each of the tables below capture the key concepts and contributions made by the individual working groups for the first two of the Six Thinking Hats, as that specific way of thinking applies to Living Labs. All outputs for White Hat Thinking - Facts and Red Hat - Feelings discussed were presented to the entire Working Group.

<p>White Hat Thinking - Facts</p>	<p>What do I know about Living Labs? Process to facilitate end users and stakeholders to share needs; Involves users throughout the development process; Living Labs link several components like ICT and infrastructure, management, partners, research and approaches; Living Labs should create a win-win situation for all involved stakeholders; Originates from a user driven Open Innovation approach; Involves collaborative approach in dealing with problems; Can be used to address problems identified at grass root level; Methodologies to involve different stakeholders to come up with innovative solutions that address problem domain</p> <p>What do I need to find out? Learn more about how to start, organise and run a Living Lab; how to analyse and prioritise the needs identified; Identify the application areas to better harness the outcome; Think more about how to address challenges and limitations; Models of Living Labs; Success stories; Motivation factor behind collaboration</p> <p>Where to find out? IST-Africa website; Profiles of running Living Labs in other African countries; Handouts provided during the workshop, online research; IST-Africa team;</p>
<p>Red Hat Thinking - Feelings</p>	<p>Excellent idea - now need to identify specific scenario to take action; Would be beneficial way of working towards a successful implementation; Relevant methodology for developing countries as culture is pro collaboration; Co-creation is the current trend to support Innovation; As a result of co-creation the technology/product (output of the innovation) will be more acceptable to the stakeholders and end users; Need to have awareness creation at national level; Challenging but very important; Ambitious; Need to build trust relationships among the stakeholders</p>

It was agreed that the participants will consider Black Hat - Risks, caution; Yellow Hat - benefits and Blue Hat - Big picture after the workshop to allow sufficient time for Brainstorming as a group activity during the workshop.

2.5 Brainstorming & Conclusion

The Working Group members engaged in a brainstorming session around national priorities, policies, public and private sector initiatives that could be implemented by supporting the

development of Living Labs, potential stakeholders to be engaged, potential skills and resource gaps that need to be addressed and support that could be provided by different stakeholders,

The following outputs were collected during and after the workshop:

➤ **National priority areas that could leverage Living Labs**

- *Food Security and Sustainable Agriculture*
- *Health*
- *eLearning*
- *Infrastructures*

The additional benefits from addressing these areas would be poverty reduction, localisation and increase adoption and use of ICT.

➤ **National priorities that could provide a strategic focus for Living Labs**

- *Health Policy*
- *Education Policy*
- *Agriculture Policy*
- *Rural and Urban development policies*
- *eGovernment policies*

➤ **Existing and planned public and private sector initiatives that could be complemented by supporting the development of Living Labs**

- *Agricultural Development Partners Linkage Advisory Council (ADPLAC)*
- *eGovernance*
- *ICT Park*
- *Health and Agriculture Extension Programmes*
- *Micro and Small Enterprise Development*
- *Community Service in Higher Education Institutions*

➤ **Potential skills and Resource Gaps that need to be addressed**

- *Communication Skills*
- *Some initial funding to kick start the activity*
- *Infrastructure - Location and equipment*
- *Management skills to mobilise the different stakeholders to work together*

➤ **Potential stakeholders who should be engaged based on complementary skills, resources and thematic/geographic focus**

- *Ministries (depending on the focus of the Living Lab - Ministry of Education, Ministry of Communications and Information Technology, Ministry of Agriculture, Ministry of Science and Technology, Ministry of Health)*
- *Research Institutions*

- *Local Government*
- *Educational Institutions*
- *Funding Organisations / Donors*
- *NGOs active in specific thematic area*
- *In case of Agriculture - Agriculture Research Institutions, Food processing industry, Commodity Exchange, Agriculture Centres*

Dr Leulseged Alemie thanked the facilitators and participants for their active participation. The participants felt that they learnt a lot about Living Labs and how these methodologies could be used to support Collaborative Open Innovation in Ethiopia. In due course MCIT will follow up with the participants in terms of how they would like to move this forward.

3. Participants



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