

RECIRCULATE Update

September Newsletter

Welcome to the September update from RECIRCULATE.

We are sending this in the middle of our 2021 Annual Meeting which has brought together over 70 members of the RECIRCULATE & ACTUATE project teams, the Director General of CSIR, Vice-Chancellor of the University of Benin, representatives from our Advisory Board and a number of other esteemed visitors. Three simultaneous meetings are being held in Lancaster (UK), Abuja (Nigeria) and Akosombo (Ghana). We look forward to sharing the latest updates from across all parts of the projects with you next month.

As always, we're keen to hear from you with any ideas for building the RECIRCULATE network, so send your thoughts to recirculate@lancaster.ac.uk.

So, please, enjoy reading the newsletter and if you have any feedback, contact our Project Officer <u>Dian</u> Velkov.

Research Highlights

Framework for integrating place-based approaches in entrepreneurship education

An open access article written by <u>Dr Joanne Larty</u> (colead of the Entrepreneurship & Innovation work package), presents the ideas that underpin the development of <u>SETS</u> training and how they might be useful if you are looking to develop an

entrepreneurship education curriculum that is tailored to the needs of your local region.



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Turning the imaginary into reality

Bennett Akuffo, Project Manager at Green Advocacy, reflects on the impact the <u>ACTUATE project</u> is having on the school children that visit its demonstration lab.

UNIBEN moves to boost power-from-waste plant in Nigeria

Environmental and energy stakeholders from the Centre for Global Eco-Innovation University of Benin (UNIBEN) expressed the hope that the country's energy needs will improve if Nigerians can turn waste into energy to add value to their lives.



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RECIRCULATE researchers at Eurosoil Congress 2021

The RECIRCULATE "Water for Energy Production" research team contributed to the <u>Eurosoil Congress</u>

<u>2021 – Connecting People and Soil</u> with their study on nitrogen release from sundried anaerobic digestate in an acidic soil.

Director promotes GCRF projects

The RECIRCULATE & ACTUATE Director, Prof. Kirk Semple, was invited to deliver a talk about the impact of the projects on Africa.



Capacity Building



<u>Kwame Nkrumah Memorial Day</u> - as Ghana celebrates Kwame Nkrumah Memorial Day, we took the opportunity for a quick chat with RECIRCULATE network member - Dr Benedicta Yayra Fosu-Mensah from the University of Ghana.



<u>A Waste to Energy Webinar</u> - on 24th September our webinar showcased waste to energy solutions in Africa

and highlighted the progress of the RECIRCULATE & ACTUATE projects in Ghana and Nigeria.



<u>Facebook live with Dr Andrew Amenaghawon</u> - on 10th September, Dr Akan Odon, Africa Strategy Adviser,

& Dr Andrew Amenaghawon, ACTUATE project coleader, conducted a live session focusing on supporting Africa youth development in the bioenergy space.



Nigerians tasked on green technology to achieve

SDGs - the Centre for Global Eco-Innovation University of Benin (CGE-Nigeria) has stressed the need for Nigerians to embrace new strategies, especially anaerobic digestion (AD) technology for waste management to achieve the Sustainable Development Goals (SDGs).



ACTUATE team engages Abattoir operators in Edo State - the Centre for Global Eco-Innovation (CGE), University of Benin, reiterated the role of abattoir operators as critical, crucial and important to the wellbeing of the people.

Meet the researchers

Ifeyinwa Ofili is a graduate research within the "Water for Energy Production" workpackage team based at the University of Benin. Before RECIRCULATE, she worked as lecturer and researcher in Soil science and Land Management, Faculty of Agriculture at the University of Benin, Nigeria.

Her work contributes to the achievement of UN-SDG Zero hunger (2). Her research involves using the digestates (cattle rumen content derived digestates, food wastederived digestates, digestates derived from co-digestion of cattle rumen contents and food wastes) from our household canister design digesters at the University of Benin as a soll amendment/organic fertilizer to grow tomatoes on ultisols (soil type) which are low in nutrient elements and low pH. This has been successful so far, with results comparable to tomatoes grown on ultisols amended with poultry manure which is presently being used as a soil amendment/organic fertilizer in Nigeria.



"It has been an interesting and experience that has helped me to be an active member of broader research culture, develop new skills, enhance previous skills while working with researchers from different career stages, disciplines, institutions and backgrounds working on diverse objectives to achieve one same goal.

I enjoyed getting to meet and interact with senior researchers from different parts of Africa and the UK who are 'scientific dons' in their various fields. It is rewarding to know that I am part of research where the findings/results will translate into real actions to build capacity and solve issues concerning Africa. I feel fulfilled knowing that I have improved my critical thinking and analytical skills, expanded my knowledge and enjoyed shared scientific experiences with researchers outside my core research area".



Victoria Obatusin is a graduate researcher within the "Water for Energy Production" workpackage team based at Lancaster University. She deploys her training and experience in Microbiology to contribute to the achievement of the project's overall aim of ensuring a safe and circular water economy. Her team works to optimise anaerobic digestion to produce sustainable clean energy and safe germfree fertiliser from organic waste. Prior to joining RECIRCULATE, she worked as a lecturer at the Department of Microbiology, University of Benin, Nigeria.

Her work contributes to the achievement of UN-SDGs Good Health & Well-being (3), Clean Water & Sanitation (6), Affordable & Clean Energy (7) Responsible Consumption and Production (12). Her collaborative research on anaerobic digestion aims to achieve three main goals; waste management to achieve improved sanitation (SDG 6), production of clean energy in the form of blogas (SDG 7), as well as production of safe germ-free fertiliser for agriculture, to achieve food security (SDG 2).

"Working in a cross-disciplinary team has been very interesting. My team members and I support each other on the job. This means that if a member of the team is indisposed, others can keep the work going. We also learn from one another, share happy moments together, go out on exciting and adventurous trips. Working with partners from other countries has also helped with the integration of cultural diversity. I have had a taste of meals from different ethnicity, and also picked up a few words from other languages.

I enjoy my laboratory experiment, especially when I obtain results in line with our research question, this motivates me to work further. I am also delighted about the multidisciplinary nature of my research team. We all bring our expertise on board, make better research design and achieve more reliable results, towards achieving our overall aim. This has been very rewarding. I also enjoy the 'PARTICIPATE with RECIRCULATE' online webinars that started during the COVID 19 lockdown."

 Thursday 21th October 10:00 - 12:00 - "Circular Solutions: How can eco-innovation deliver sustainable development in Africa?", register free <u>HERE</u>.

To interact with us:

Twitter: **RECIRCULATERS**,

ACTUATE Facebook: RECIRCULATE

GCRF

Instagram; <u>RECIRCULATERS</u>

LinkedIn: Group RECIRCULATERS

Useful resources



GCSE 2022 Virtual Conference - GCSE seeks proposals for panel sessions, five-minute flash talks, and poster presentations related to this year's conference theme, The Road to 2030: Tipping Points Toward a Climate Positive Future - deadline September 30th, 2021.



African Youth Adaptation Solutions Challenge -

The YouthADAPT Challenge will gather adaptation solutions from young entrepreneurs in Africa selecting the best, providing the businesses with a grant of up to \$100,000 and an opportunity to scale and fully

commercialise their businesses via a 12-month accelerator program - deadline October 6th, 2021.



Research Starter Projects - briefing event for farmers and growers who have a bold, ambitious, early stage idea to increase productivity and environmental sustainability in agriculture or horticulture - date October 14th, 2021.



<u>Feasibility Projects & Small R&D Partnership Projects</u> - briefing event for applicants from businesses or research organisations who want to know more about the Feasibility Projects and Small R&D Partnerships Projects competitions - date October 13th, 2021.

The last drop...

A warm welcome to <u>Dr Vasileios Giannakopoulos</u> (Billy) who has joined us and will be working on improving irrigation techniques for rice crops grown in Western Africa as part of the RECIRCULATE project. Vasileios has recently completed his PhD at Lancaster Environment Centre, Lancaster University, in which he studied the effects of soil-surfactants on cereal growth and physiology. His research primarily focuses on how plants respond to environmental conditions (drought and atmospheric stresses).



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We send information about funding opportunities, news, and events to our contacts to foster collaboration. We hope this has been of interest to you, if so please add us to your contact list.

However, if you do not want to receive our monthly RECIRCULATE Newsletter, just click "unsubscribe" below and we will remove you from our newsletter subscription list, or if there is someone else within your organisation you can recommend that we liaise with, just let us know and we will update our database, thank you.

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