African-led science, technology and innovation for contributing to the SDGs and stimulating global development
HON. DR. VALENTINE UWAMARIYA

Minister of Education, Rwanda and PASET Governing Council Chair

Dr. Valentine Uwamariya is the Minister of Education in the Government of Rwanda. Before her appointment, she was serving as the Deputy Vice Chancellor in Charge of training, Institutional Development and Research at Rwanda Polytechnic (RP) where she was responsible for providing science and technology based technical and vocational training which enable the beneficiaries to create jobs for personal development. She also served as a Dean of the School of Science at the College of Science and Technology (University of Rwanda) before joining Rwanda Polytechnic.

Dr Valentine holds a B.Sc. in Chemistry from the former National University of Rwanda (NUR). She got her Msc degree in Chemistry from Witwatersrand University (Johannesburg-South Africa) in 2005. In 2013, she obtained her PhD from UNESCO-IHE and Delft University of Technology (The Netherlands) in Water Science and Environmental Technology. Dr Valentine has been involved in teaching/research for 19 years at University; her area of research was mainly focusing on water quality related issues. She has published several papers in peer reviewed journals and attended national and international conferences. She has held other important responsibilities in the Rwandan Society, sat on Boards of local companies; and she is a member of Local and International Organizations.
Dr. Mahama Ouedraogo is currently the Director of the Department of Education, Science, Technology and Innovation (ESTI), of the African Union Commission. In these capacities he oversees the implementation of various African Union decisions on Education, science and technology, including the Science Technology and Innovation strategy for Africa (STISA-2024), the continental education strategy for Africa (CESA 16-25), the African Space Policy and Strategy, and continental flagship projects such as the Pan African University and the Pan African Virtual University among other responsibilities. He also served as Head of Science and Technology Division and Executive Secretary of the African Union Scientific Technical and Research Commission. Prior to joining the African Union Commission in Addis, he served as the acting Director of the Semi-Arid Food Grain Research & Development, he has been actively involved in science, technology and innovation programmes of the African Union. Dr. Ouedraogo holds a Doctorate in plant breeding from Texas A&M University.

Prof. Aminata Sall Diallo is the Executive Director of the PASET Executive Board and a Professor of Physiology at the University Cheikh Anta Diop, Dakar. An eminent scientist and a leading voice for promoting science education in Sub-Saharan Africa, she is also a member of the Senegal National Academy of Sciences. Prof. Diallo was an important advocate and leader in the fight against hepatitis and played a key role in establishing the National Program against hepatitis in Senegal making Senegal the first African country to introduce vaccines against the disease. She has revolutionized the prevention of hepatitis B in Africa through her research that has shown for the first time in the world that mother-to-child transmission of hepatitis B virus is high (19.8) thus changing the vaccination schedule which is decisive for the control of this disease. She animates a pan-African network of the battle against hepatitis (Initiative Panafricaine de Lutte contre les Hépatites, IPLH). Prof. Diallo was elected in 2015 as a member of the French Academy (biosciences section). She is a Knight of the National Order of Merit of France and Knight of the National Order of the Lion of Senegal. She is also an alumna of the United States International Leadership Program. She is project manager for the alignment of higher education on economic needs in Senegal’s emerging plan at the President’s office. She is the general administrator of the Senegalese program for youth entrepreneurship and national coordinator of the program of struggle against hepatitis. She is a member of the International network of government science advisers (INGSA) where she represents Africa and is the godmother.
Safaa El Tayeb El-Kogali is the Manager for East and Southern Africa in the Education Global Practice at the World Bank based in Washington DC. She is a leading international development expert with 25 years of experience in government policies, strategic leadership, program management, and research. Her work focuses mainly on economics, education, labor markets, poverty, youth, and gender. Ms. El-Kogali published widely in these areas including the recently launched Expectations and Aspirations: A new Framework for Education in the Middle East and North Africa (2020). She has a Master of Philosophy with honors in Development Studies from the Institute of Development Studies at the University of Sussex, UK and a Bachelor of Arts degree in Economics from the University of Pennsylvania, USA.

Hicham El Habti is the President of Mohammed VI Polytechnic University. With a combination of both corporate as well as education management, administration skills and leadership capabilities, he continues fostering organizational Development, leading formulation and implementation of the university's strategic vision and transformation aspirations, promoting the implementation of effective procedures and institutional reforms and building impactful collaborations and linkages at the local and international levels.

Hicham El Habti has extensive education, experience and background in Applied Mathematics and Economics, he also holds an engineering degree from l’Ecole Normale des Pont et Chaussées, Paris, in Economics, Management and Finance.

He joined OCP Group in January 2013 where he has served in various positions before being appointed deputy general secretary. Prior to joining OCP he has undertaken several strategic and managerial positions including piloting strategic and operational projects, Financial Risk Management, managing investments and providing consultancy services and guidance to leading companies in Morocco and France.
Dr. Dr. Moses Osiru is the manager for the Regional Coordination Unit (RCU) of the Regional Scholarship and Innovation Fund (RSIF). He holds a PhD in Agriculture (Plant Pathology) and a MSc (Plant Breeding/Pathology) from Makerere University. He has published widely and has over 50 scientific publications. Dr. Moses Osiru brings has over 20 years' professional experience in the agricultural science, technology and higher educational sectors, eleven of which were in management positions. He has worked with the Consultative Group on International Agricultural Research (CGIAR), the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), the World Bank, Governments, international agencies, non-governmental organisations and the African Union Commission. He also taught Plant Pathology courses at Makerere University. During this period, he has contributed to the mobilisation of over US$200 million for Africa's higher education and research sector and built important linkages and partnerships with development partners within and outside Africa.

Dr. Osiru serves on various Boards, including the African Crop Science Society, the International Network for Higher Education in Africa (INHEA), the Michigan State University Alliance for African Partnerships, the Steering Committee of Global Confederation of Higher Education Associations (GCHERA), and the recently launched Swedish Agriculture for Food Security 2030 Initiative Project (AgriFose). He also sits on editorial boards of various journals and was a member of the Founding Steering Group of the African Forum on Agricultural Advisory Services (AFAAS).
Julius Ecuru, Ph.D., is the Program Manager, BioInnovate Africa, a regional science and innovation-driven program at icipe, which enables scientists in Eastern Africa to translate research ideas, inventions, and technologies into new business prospects. Dr. Ecuru is part of the PASET RSIF senior management team and is involved in implementation of the research and innovation components of the RSIF. He is an interdisciplinary scientist and researcher, working on issues related to technological innovation and sustainable industrialization in Africa. Dr. Ecuru focuses on the theory and practice of sectoral and regional innovation systems, innovative business clusters and innovation policies that foster sustainable development. Dr. Ecuru also contributes to scholarly works in the chemical and bioengineering sciences and supports regulatory science and research ethics capacity development. His current research interests include interactive learning models, which make universities, firms and related organizations more productive and catalytic centres for innovation, growth and social development.

Dr. Ecuru received his B.Sc. (Chemistry) Honors and M.Sc. in Environmental Science from Makerere University, Kampala, and a Ph.D. in Technology/Technoscience Studies (Innovation Systems and Development) from the Blekinge Institute of Technology, Sweden. Dr. Ecuru is also a Fogarty Bioethics Fellow having received a postgraduate diploma in International Research Ethics from the University of Cape Town, South Africa.
Bonface Nyagah is the Capacity Building Officer for RSIF. He implements the RSIF Capacity Building Strategy which constitutes of a program to provide RSIF scholars with training that prepares and orients them for an academic career and enables excellent PhD research, successful completion of the doctoral degree and enhances post-PhD employability. The training is also available to PhD scholar supervisors and other faculty, to provide them with key skills in student supervision, and research and research-related skills. Additionally he oversees the Grievance Mechanisms for the project and International accreditation of the host universities. Prior to joining ICIPE, Bonface was working with German Academic Exchange Service, DAAD Regional Office for Africa as a Programme Officer for the Post- Graduate Scholarship Programme in Eastern Africa.

Bonface has experience in tendering, selection and contracting of trainers and training service providers. He is a seasoned training and programme coordinator. He has rich experiences in preparing and monitoring of training budgets. He is a change agent who is able to critically evaluate and improve working processes eliminating loss of time and minimizing risks. He has experience in database management and programme monitoring. He also worked at International Livestock Research Institute, ILRI as a Consultant for the Capacity Development Unit where he designed and implemented an online application system and helped establish an alumni online platform.

Presently he is pursuing a Master’s in Development Studies. He also holds a Bachelor of Science degree in Leadership and Management-Double Major in Public Administration and Management of Non-Profit Organizations. Additionally, he studied for a Diploma in Mechanical Engineering-Production Option from Kenya Polytechnic (present day Technical University of Kenya).

Cumulatively, he has seventeen years of work experience ten of which are in Programme Management in the higher Education Sector in Africa.
SESSION I.
THEME: COVID IN AFRICA
Keynote: Covid in Africa – implications for higher education and research

DR. PATRICK AMOTH
Ag. Director General for Health, Kenya; Chair of the Executive Board- World Health Organization

Dr. Patrick Amoth, EBS, is the acting Director General for Health in the Ministry of Health of Kenya. A renowned obstetrician and gynecologist, Dr. Amoth previously headed the Directorate of Public Health at the Ministry, where he spearheaded the development of strategies for the effective delivery of health services across Kenya, and was centrally involved in the inception and alignment of Universal Health Coverage in the country.

In 2020, His Excellency President Uhuru Kenyatta of Kenya conferred on Dr. Patrick Amoth the Presidential Order of Service Award, also known as the Uzalendo Award, for his contribution to efforts to contain the spread of coronavirus disease (COVID-19) in the country, and later, The 2nd Order of the Burning Spear– Elder of the Order of the Burning Spear (E.B.S.). Dr Amoth currently leads the national health team in the COVID-19 response, and his face and name have become synonymous with government health efforts against the pandemic. Dr. Amoth has worked and continues to work daily and around the clock in the fight against COVID-19.

Dr Amoth is currently serving on the Board of the Kenyatta University Teaching, Referral & Research Hospital, Kenya Medical Practitioners and Dentists Council, National Council for Population and Development, National Hospital Insurance Fund, Nursing Council of Kenya, Kenya Nutritionists & Dieticians Institute and the Moi Teaching and Referral Hospital.

Prior to his appointment as Director General for Health in January 2020, Dr Amoth headed the Directorate of Public Health, and the Department of Health Sector Coordination and Intergovernmental Affairs in the Ministry of Health. Before joining the Ministry of Health headquarters, Dr Amoth served as Chief Medical Specialist and Senior Deputy Director of Medical Services at the Mama Lucy Kibaki Hospital in Nairobi. Previously, Dr Amoth worked as a clinician in various facilities across Kenya, such as the Kisumu Provincial Hospital and Kiambu County Referral Hospital, where he has been credited with using his excellent managerial skills to fundraise in support of various primary health care programmes as well as revolutionizing infrastructure development.

Dr Patrick Amoth is a graduate of the University of Nairobi School of Medicine and has a Masters in Obstetrics and Gynecology from the same university. He also holds a diploma in Health Systems Management from Galilee International Management Institute in Israel. Dr Amoth was awarded the title of Elder of the Order of the Burning Spear of Kenya.
Dr. Mercy Korir
Medical Journalist

Dr. Korir is driven by a strong conviction that social justice, for equity, access and equal rights in health for all, especially for the poor and most vulnerable in society is the cornerstone for any meaningful development and growth.

As a results-driven, goal orientated individual, Dr. Korir holds a Bachelor's degree in Medicine and Surgery (MBChB) and a Master of Arts degree in Communication Studies (Development Communication) both from the University of Nairobi. Her 4-years of clinical practice had been intense and extensive in both public and private health sectors in the country, caring for patients from a range of backgrounds.

For the last 4 years, Dr Korir has been a medical journalist with The Standard Group based in Nairobi, uniquely blending in her medical background to report on health, highlighting health topics that are of interest to the public and society at large. She is currently the Lead Group Editor of Health and Science, working as a multimedia journalist, leading a team of young health reporters in both written and broadcast health stories in the various platforms from TV, Radio, Digital and Print platforms at The Standard Group, one of the leading media houses in Kenya.

Her work as a journalist has opened doors and accolades across board, from earning the Presidential Order of Service Award - Uzalendo Award (2020) for Reporting on the coronavirus Pandemic in Kenya, a Bill & Melinda Gates Foundation - Goalkeeper 2018, the International Centre for Journalists 2018 Fellow on Early Childhood Development reporting.

She has reported from the most remote to urban areas of Kenya, from Ghana, Thailand, Turkey, Israel to the 2018 World Health Assembly in Geneva, and the United Nations General Assembly High Level Meeting on TB - UNGA 2018. Currently, as the Lead Group Editor for The Standard Group's Health and Science Desk, a newly curved out desk, Dr. Korir is tasked with the mandate of meeting the audiences’ demands for information on these pertinent topics of health. The Health and Science Desk at The Standard Group is the flagship converged news desk in the organisation’s strategic business transformation plan, and Dr. Korir is tasked with modelling a winning formula for the Group's other news desks.

When not being a journalist, Dr. Korir is the Vice Chair person of KMA Sacco Ltd, and Chair of its Education, Marketing and Communication Committee, a role she’s had for the last four years. She also serves as a member of the Board of F500 Health Group.
Mark Rweyemamu is the Director, SACIDS Foundation for One Health (SACIDS) at the Sokoine University of Agriculture (SUA), Morogoro, Tanzania. SACIDS is a virtual institute of SUA on behalf of academic and research institutions that deal with infectious diseases of humans and animals within the ecosystems of southern, central and eastern Africa. It operates an Africa led South-South-North “Smart Partnership”. The SACIDS Foundation for one Health coordinates the research programme of the African Centres of Excellence for Infectious Diseases in Eastern and Southern Africa. Additionally, Mark is the PI for the SACIDS-ACE at SUA, whose leadership includes Muhimbili University of Health and Allied Sciences (MUHAS) and the Tanzania National Institute for Medical Research (NIMR).

Mark is a veterinarian and specialist in infectious diseases. He is a Visiting Professor at the College of Veterinary Medicine and Biomedical Sciences at SUA, and at the RVC, University of London, UK. Formerly, he was Head of the Infectious Diseases Programme at FAO Headquarters in Rome and the inaugural Head of the FAO special programme: the Emergency Prevention System for Animal and Plant Pests and Diseases (EMPRES), which included the coordination of the Global Rinderpest Eradication Programme (GREP). He had set up the Pan African Veterinary Vaccine Centre (PANVAC). He has worked in national research institutions and also in industry, leading vaccine R&D groups for Wellcome in the UK and Pfizer in Latin America. Mark’s current area of research interest is infectious diseases through a One Health approach. He published over 150 peer reviewed papers on infectious diseases of animals and humans and on One Health.

Mark is leading the transformation of SACIDS towards impact driven research and a resultant target interaction with policy at national and regional levels. Already SACIDS is collaborating with the AfricaCDC to operationalise the African Union Frameworks for Event-Based-Surveillance and for Antimicrobial Resistance. SACIDS Member institutions in Tanzania, Mozambique, Zambia and the Democratic Republic of Congo have been providing expertise to national authorities in their response to the COVID-19 pandemic in respect of surveillance, diagnostics, genomic sequencing and participation in scientific advisory groups.

Professor Mark Rweyemamu is the Chair of the FAO-OIE Advisory Committee for the Peste des Petits Ruminants (PPR) Global Eradication Programme; A member of the FAO-OIE Steering Committee for the Global Framework for Transboundary infectious diseases; and has been a member of the Scientific Organising Committee of the World One Health Congresses since 2015.
Dr. Amadou A Sall is the CEO of Institut Pasteur de Dakar in Senegal and director of the WHO Collaborating Center for Arboviruses and viral hemorrhagic fever. He has been chairman of the Global Outbreak Alert and Response Network and a member of the Coalition for Epidemic Preparedness and Innovation (CEPI) Scientific Advisory Board.

Dr. Sall is a virologist with a PhD in Public health. He is an expert in epidemics response and control more specifically for arboviruses and viral hemorrhagic fevers (Ebola, Zika, Yellow fever) and high consequence pathogens.

Dr. Sall is member of several expert committees for WHO (GOARN, TDR, SAGE, STAG-IH) and OIE. Dr Sall is the co-chair of the COVID-19 laboratory technical working group of Africa Center for Disease Control and member of the Africa Union AFTCOR steering Committee as well as the Senegalese Committee for COVID-19. He is the chairman of the Pasteur Network.
DR. SHIKOH GITAU  
CEO, Qhala

Shikoh is the CEO of Qhala, a Digital Innovation company that catalyzes digital transformation capabilities for organizations across Africa. She has over 10 years of experience in the Research, Design, Implementation, and Management of Digital Technologies. She has established expertise in both African and Emerging Markets specialized in solving problems in Agriculture, Education, Health, Payments, Retail and Renewable energies.

She is responsible for the set-up of Safaricom Alpha, a first of the kind corporate innovation hub in Africa. Where she worked as the Head of Products – Innovation and acted as the Chief Innovation Officer. Shikoh also led Safaricom’s foray into becoming a digital company, by putting together a strategy, and cross-functional teams to execute the strategy.

Previously worked with Africa Development Bank (AfDB), where she was leading and advising governments across Africa to adopt ICT for service delivery, she developed the Digital Government Blueprint (put links), a strategic document to guide governments in digital transformation, now adopted by Smart Africa. She has also worked with Google and Microsoft in their emerging markets teams. She has received numerous awards in recognition of her efforts in influencing Business and Government as well as Technology.

Shikoh seats on various boards in ICT companies and contributes to a number of steering committees and think tanks on Africa and technology. Shikoh holds a PhD and MSc in Computer Science from the University of Cape Town, South Africa. Recently, she was appointed to the COVID-19 ICT Advisory Committee set up by Joe Mucheru, Cabinet Secretary for ICT, Innovation and Youth Affairs to facilitate containment of the spread of coronavirus in the country using information communication and technology. She also is part of the COVID-19 Modelling team, informing the Government of Kenya’s policy formulation using Data.
Mr. Rafiq El Alami
Director of Digital Learning Lab, University Mohammed VI Polytechnic (UM6P), Morocco

As the head of the Digital Learning (DLL) and the Digital For Research (D4R) labs and at UM6P in Morocco, I focus on exploring how digital technologies can resolve real life problems and speed up Research and education. My team has built and deployed National and international EdTech platforms that could be leveraged during the Covid pandemic crisis in Morocco and other African universities.

Prior to joining UM6P, Rafiq spent almost two decades in different managerial positions at Microsoft working on products like Exchange, Outlook, Office 365.

Dr. Danica Ramljak
Senior Science and Innovation Expert, World Bank

Danica Ramljak, is Senior Science and Innovation Expert at the World Bank, providing expertise in science, innovation and commercialization of knowledge in institutions for higher education and research. Since 2012 she has worked on the World Bank funded projects in Croatia, Western Balkan countries, Georgia, Uzbekistan, Slovakia, Peru and Sub-Saharan African countries. Over a career spanning more than three decades, she has served on faculty at the School of Veterinary Medicine, University of Zagreb, as a visiting scientist at the Russell Research Center in Athens, GA, and as Senior Researcher at the Croatian Veterinary Institute in Zagreb. From 1993-1999 she conducted research at the U.S. National Institutes of Health (NIH), National Cancer Institute, (USA) as a postdoctoral fellow, after which she served as a researcher and faculty member at Georgetown University Lombardi Cancer Center until 2004.

She held the posts of Director-General of the Croatian life science Institute Ruđer Bošković in Zagreb (2009-2012), as Senior Management Advisor to Croatian Minister of Science and Education on the World Bank funded Second Science and Technology Project (STPII) (2015-2017), and as a member of the Croatian Government’s coordinating team for the preparation of the Smart Specialization Strategy (2015). Since 2019 she has served as the External Advisory Board (EAB) member for EU-CONEXUS university network and, since January 2020, as the EAB member for the European University of the Seas (SEA-EU) network. During her career she has published scientific articles, book chapters and expert policy papers and more than 200 times was an invited speaker at the scientific conferences, seminars, workshops and roundtables. Danica received her D.V.M. (1982), M.S. (1984) and Ph.D. degree (1992) at the Faculty of Veterinary Medicine, University of Zagreb.
SESSION II.
THEME: BUILDING RESEARCH CAPACITIES IN AFRICA
Keynote from a global scientific leader from Africa

SPEAKER PROFILES

DR. GEOFFREY H. SIWO
Research Assistant Professor, University of Notre Dame, USA.

Geoffrey is currently an assistant research professor at the Center for Research Computing and the Eck Institute for Global Health, University of Notre Dame, USA. His research focuses on accelerated and equitable innovation using technologies such as artificial intelligence, gene editing and open innovation. Previously, he was a lead researcher at IBM Research Africa and a co-founder of Helix Nano.

DR. SYLVIA CHINDIME MKANDAWIRE
Program Manager, Africa Centers of Excellence for Development Impact

Dr Sylvia Chindime Mkandawire has over 15 years of work experience in Higher Education sector. Currently, she is a Program Manager for the World Bank funded regional program, Africa Higher Education Centers of Excellence for Development Impact coordinated by the Association of African Universities, Accra, Ghana. She holds a PhD in Agricultural Rural Innovations obtained from Makerere University, Uganda, Master’s and bachelor’s Degree in Animal Sciences, both awarded by University of Malawi, Bunda College of Agriculture.

Dr Sylvia Chindime Mkandawire also served as a Programme Manager for Training and Quality Assurance at the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) based in Uganda, Kampala. While at RUFORUM, she managed multi donor projects funded by Bill and Melinda Gates Foundation, USAID, World Bank, Carnegie Cooperation of New York, European Union, IDRC, DAAD – Germany Government. She also spearheaded the Regional Mobility of students and staff, coordinated the quality assurance mechanisms for member universities, managed scholarship programs for MSc and PhD Students, coordinated postgraduate curriculum reviews and documented best practices, significantly contributed to the capacity building strategy and implementation of the Graduate Teaching Assistantship Program. Dr Sylvia Mkandawire has also worked as a Lecturer at Lilongwe University of Agriculture and Natural Resources (LUANAR), Malawi, where she was involved in curriculum reviews, designs, supervising students’ research work, teaching and conducting outreach research. She has also been an independent consultant for development partners’ programme initiatives in Malawi.
Andries Coetzee is the Director of the African Studies Center at the University of Michigan (U-M), and in that capacity oversees the strategic partnerships between U-M and partner institutions in Africa. A professor of linguistics, Professor Coetzee’s research focuses on the complex linguistic landscape of post-apartheid South Africa.

Sylvia Maina is a doctoral student in Biological Chemistry at SUA/KIST. Her interest is in solving human health issues related to food insecurity, and her research focuses on determining the potential health benefits of underutilized African leafy vegetables. She previously worked as a teaching assistant in her graduate school, where she instructed tutorial classes and conducted experiments in biochemistry. Sylvia graduated from JKUAT with an MSc in Molecular Biology and a BSc in Biochemistry.

Mr. Mbaye is Associate Professor at Gaston Berger University (UGB) in St-Louis and member of LANI (Laboratory of Numerical Analysis and Computer Science). He is currently, since April 2020, the coordinator of the African Center of Excellence in Mathematics, Computer Science and ICT (ACE-MITIC) in Senegal. Maïssa Mbaye graduated from a Masters in Computer and ICT Engineering (2ITIC) at Gaston Berger University in St-Louis, then a Master in Distributed Systems, Networks and Parallelism at Bordeaux 1 University (2005-2006). In 2009, he obtained his PhD from Bordeaux 1 University in the Bordeaux Computer Science Research Laboratory (LaBRI). Between 2009 and 2011, he then worked on the ANR Diaforus project (Distributed Applications and Functions Over Redundant Unattended Sensors) as Post-Doctoral Research Engineer. He teaches computer science and his main research topics include Autonomous Networking, Knowledge Plane, Edge Artificial Intelligence (IoT + Machine Learning) applied to agriculture, health and environment, ICT4D and cyber security. His work has been the subject of numerous scientific publications in international conferences and journals.
PROF. ABDELGHANI CHEHBOUNI

Lead of Center for Remote Sensing Application (CRSA), and International Water Research Institute (IWRI)

Prof. Abdelghani Chehbouni hold in BS and MS in Fluids Mechanics and environment science from the University of Toulouse and the Institute National Polytechnic in Toulouse in 1987 and 1989, respectively; and a PhD in hydrology and remote sensing from University of Toulouse jointly with the University of Arizona 1992. He also hold an "Habilitation à diriger la Recherche" from the University of Toulouse in 2006.

After his PhD, he spend two years at NASA-JPL and then he Joint IRD France where he worked and directed international projects dealing with remote sensing, hydrology and Climate at different Parts of the Word (Niger, Morocco, Tunisia, Egypt, Jordan, Mexico, Chili and the US). He published about 180 per review articles (H index of 46) and supervised more than 25 PhDs students from different countries. He was IRD representative in Morocco, Tunisia, Egypt, Mexico) and the CNRS director in America Latina in Chili. While still working for the “Centre D’Etudte Spatiale de la Biosphère” (CESBIO/IRD) in Toulouse France as Research Director, he joined The UM6P in 2018, to lead a consortium of 5 Moroccan universities (UM6P, IBT, IBZ, SMS, UM5, UCA) and IRD on the issue of water and climate. Within the UM6P he is leading the Center for remote Sensing Application (CRSA), and the International Water Research Institute (IWRI).

MR. DONAVIN HATTINGH

Manufacturing Excellence Expert, Nestlé

KAZUO SASAKI  
**CEO, Challenge Co. Ltd., Japan.**

Completed the master’s course at the Faculty of Engineering, Tohoku University in 1976. Engaged in telecommunications technology at NTT in 1976.

Established Challenge Co., Ltd. in 2009.

Challenge is a manufacturer that provides innovative products for security and disaster prevention. Challenge was established in 2009 and headquarter is located in Taito-ku, Tokyo.

Their technology is a sensor that detects earthquake's P-wave and triggers an alarm. The product involves a system that reports suspicious activities and emergencies by simply pressing a button on the remote control. The product and system have been tested and piloted before in Asia and Europe. You can bring this technology anywhere in the world and plug into the power and wifi and it will work.
ANDREA JOHNSON
Program Officer, Higher Education and Research in Africa (HERA), Carnegie Corporation of New York

Andrea Johnson, a program officer in the Corporation’s International Program, works with the Higher Education and Research in Africa (HERA) and Peacebuilding in Africa teams. For HERA, she oversees the strategy to develop and retain a new generation of African academics. For the Peacebuilding portfolio, she collaborates on a strategy to expand the pool of African peacebuilding scholars and to connect them to international scholarly and policy communities. She previously developed the strategy to enhance women’s opportunities and gender equity in African higher education, managed university-strengthening activities in Nigeria, and designed and implemented a capacity-building program for African universities on such themes as educational advancement and research management.

Through the Partnership for Higher Education in Africa (a joint effort of the Corporation with the Ford, MacArthur, Rockefeller, William and Flora Hewlett, and the Andrew W. Mellon foundations), Johnson worked closely with colleagues at other participating foundations to develop and implement strategies to improve access to Internet connectivity for higher education and research. Prior to that, she engaged in grantmaking on transitions to democracy in Africa, development assistance reform, and public and policymaker education about Africa. Johnson began her career as a Peace Corps volunteer, serving two years in Riobamba, Ecuador, and has research and professional experience in both the United States and the Global South. She joined the Corporation in 1991 from the New York City Department of Transportation, where she was a research assistant and operations analyst. She has also worked at the Mozambique Ministry of Justice and the U.S. Department of Agriculture.

Johnson earned a BA in economics from the College of William and Mary and a Master of International Affairs degree in economic and political development from Columbia University’s School of International and Public Affairs. She has undertaken doctoral studies at New York University’s Robert F. Wagner Graduate School of Public Service. Johnson is a trained community organizer and worked as a volunteer within the Industrial Areas Foundation network. She is a co-founder of the Africa Grantmakers’ Affinity Group and currently serves on its steering committee.
ARUN SHARMA
Independent consultant, Co-Founder 10 Academy

Arun works in the area of education and employment with a focus on young people from the African continent. Arun is the co-founder of 10 Academy, a program with the mission of enabling any highly-motivated young person to get into a high-impact career, currently focused on machine learning and artificial intelligence. Arun has been involved with PASET since 2016.
DAY TWO: WEDNESDAY 17th NOVEMBER 2021
SESSION III. THEME: SCIENCE FUNDING IN AFRICA
Keynote: The role of RSIF in Strengthening Africa’s development with a focus on SDGs

SPEAKER PROFILES

PROF. FRANS SWANEPOEL
Director International Strategic Partnerships, University of Pretoria, South Africa

As Senior Research Fellow, Centre for Advancement of Scholarship, Prof Swanepoel’s research focuses on food systems transformation. He is Director and PI of the ARUA-UKRI-GCRF Food Systems Research Network for Africa (FSNet-Africa), a Fellow/ Senior Scholar at UWA (Australia) and Cornell (USA), and Inaugural Fellow: Pan-African Scientific Research Council (PASRC).

PROF. FULUFHELO NELWAMONDO
CEO, National Research Foundation of South Africa

An Engineer by training, Prof Nelwamondo has worked in areas of advanced modelling, information security, data science, and artificial intelligence, and is a Visiting Professor at the University of Johannesburg’s Institute of Intelligent Systems. He has held executive positions at the Council for Scientific and Industrial Research, and has served in several Ministerial Task Teams and Advisory Committees. He is passionate about the Fourth Industrial Revolution, particularly in the potential impact its research and technologies can bring in the advancement of humankind, thereby addressing the social ills of poverty, unemployment and inequality.
Prof. Aminata Sall Diallo is the Executive Director of the PASET Executive Board and a Professor of Physiology at the University Cheikh Anta Diop, Dakar. An eminent scientist and a leading voice for promoting science education in Sub-Saharan Africa, she is also a member of the Senegal National Academy of Sciences. Prof. Diallo was an important advocate and leader in the fight against hepatitis and played a key role in establishing the National Program against hepatitis in Senegal making Senegal the first African country to introduce vaccines against the disease. She has revolutionized the prevention of hepatitis B in Africa through her research that has shown for the first time in the world that mother-to-child transmission of hepatitis B virus is high (19.8) thus changing the vaccination schedule which is decisive for the control of this disease. She animates a pan-African network of the battle against hepatitis (Initiative Panafricaine de Lutte contre les Hépatites, IPLH). Prof. Diallo was elected in 2015 as a member of the French Academy (biosciences section). She is a Knight of the National Order of Merit of France and Knight of the National Order of the Lion of Senegal. She is also an alumna of the United States International Leadership Program. She is project manager for the alignment of higher education on economic needs in Senegal's emerging plan at the President's office. She is the general administrator of the Senegalese program for youth entrepreneurship and national coordinator of the program of struggle against hepatitis. She is a member of the International network of government science advisers (INGSA) where she represents Africa and is the godmother.
Prof. Eugenia Flora Rosa Cossa holds a PhD in Science Education from the University of Western Cape, South Africa (2007); Master’s degree in Science Education-Biology Teaching from the University of The Witwatersrand, South Africa (1998); and graduated in Biology Teaching from the University of Rostock, Germany (1992). In 1983 she completed the training course for biology and chemistry teachers at the Faculty of Education of Eduardo Mondlane University (EMU). She began her career as a Biology teacher in 1982 in General Secondary School. Since 1993 he has been a professor at EMU, in the Faculties of Sciences, Education and Agronomy and Forestry Engineering teaching various disciplines for undergraduate and post-graduate courses: Basic Biology, General Botany, Cell Biology, Plant Physiology, Science, Technology and Society, Environment, Gender and Society, Teacher Training and Professional Development, Environmental Education Methodology, Education, Environment and Development. In parallel to teaching, she supervises undergraduate, Master’s and PhD students and she is involved in research with several published articles.

From 2008 to 2016 she was the Dean of the Faculty of Education of EMU. From February 2016 to April 2021 was the National Director of Higher Education at the Ministry of Science, Technology and Higher Education and currently, since April 2021, she is the National Director of Science, Technology and Innovation at the Ministry of Science, Technology and Higher Education. The scientific areas of interest are: educational sciences that include didactics, planning, curriculum development, evaluation and monitoring, policies and strategies for the development of higher education, gender and environmental issues.
Prof. Walter O. Oyawa, is currently the Director General of the National Commission for Science, Technology & Innovation (NACOSTI). He is a Professor of Civil Engineering, a holder of a PhD in Civil Engineering, and a holder of Executive MBA. He is a Registered Professional Engineer, a Lead Expert-NEMA and a reviewer of several international journals.

In addition to his current position as Director General of NACOSTI, Prof. Oyawa has served in various senior leadership/management positions including having been the Principal/CEO of Multimedia University College, Deputy Commission Secretary at the Commission for University Education (CUE), pioneering Ag. Principal of the College of Engineering & Technology at JKUAT, Director of a Research Centre-SMARTEC at JKUAT, Chairman of the Department of Civil Engineering at JKUAT, Board member of several boards, among others. He is endowed with vast experience in research/scholarly work, as evidenced by; extensive publications in peer reviewed journals, several awards and research grants, keynote lectures and conference papers, and supervision of numerous postgraduate students. His research interest is in the area of sustainable construction materials and technologies.

Professeur Titulaire de Mathématiques Appliquées à l’Université Félix Houphouet Boigny (UFHB), Spécialiste de la dynamique des populations; Directeur de l’enseignement supérieur; Secrétaire de la Commission Nationale de Reconnaissance des diplômes post baccalauréat et titres d’ingénieur; Secrétaire de la Commission Interministérielle chargée de la délivrance des agréments aux établissements privés d’enseignement supérieur; Secrétaire de la Commission chargée de la mise en œuvre de la réforme Licence Master et Doctorat.
Dr. Kwangchul Ji
Director, Ministry of Economy and Finance, Government of Korea

He is currently serving as director of Green Climate Policy Division, Ministry of Strategy and Finance, Republic of Korea. He manages climate finance and green climate policies of Korean government by planning strategies on climate policies and coordinating global climate change cooperation affairs with the GCF (Green Climate Fund), UNFCCC (UN Framework Convention on Climate Change) and other internal and global partners.

Before assuming the present position, he worked as a liaison officer in the World Bank Group to strengthen partnership between the World Bank Group and Korean government. He also engaged deeply in the international development policies of Korea by conducting formulation and implementation of Korea’s official development assistance programs such as KSP (Knowledge Sharing Program), and EDCF (Economic Development Cooperation Fund). He contributed to improvement of various development finance policies in Korean development architecture.

He was also one of the key members of the President Committee for G20 Summit, when Korea hosted the summit in 2010. Mr. Ji finished Ph.D. course work completion in law at Korea University (2011), and acquired LL.M. in law at the University of Pennsylvania Law School (2005). He is a bachelor of International Relations, Seoul National University (1995). He has two daughters and a son with his beloved wife in Seoul.
Dr. Valentine Uwamariya is the Minister of Education in the Government of Rwanda. Before her appointment, she was serving as the Deputy Vice Chancellor in Charge of training, Institutional Development and Research at Rwanda Polytechnic (RP) where she was responsible for providing science and technology based technical and vocational training which enable the beneficiaries to create jobs for personal development. She also served as a Dean of the School of Science at the College of Science and Technology (University of Rwanda) before joining Rwanda Polytechnic.

Dr Valentine holds a B.Sc. in Chemistry from the former National University of Rwanda (NUR). She got her Msc degree in Chemistry from Witwatersrand University (Johannesburg-South Africa) in 2005. In 2013, she obtained her PhD from UNESCO-IHE and Delft University of Technology (The Netherlands) in Water Science and Environmental Technology. Dr Valentine has been involved in teaching/research for 19 years at University; her area of research was mainly focusing on water quality related issues. She has published several papers in peer reviewed journals and attended national and international conferences. She has held other important responsibilities in the Rwandan Society, sat on Boards of local companies; and she is a member of Local and International Organizations.
PANEL 2:
ESTABLISHING AN ENDOWMENT FUND FOR BUILDING STI CAPACITY IN AFRICA

SPEAKER PROFILES

PROF. WOLE WINSTON SOBOYEJO
Provost Worcester Polytechnic Institute (WPI), Boston USA and member of the PASET Consultative Advisory Group

Wole Soboyejo received a BSc in mechanical engineering from King’s College London in 1985. He then went on to Cambridge University where he obtained his PhD in materials science in 1988. Between 1988 and 1992, he worked as a Research Scientist at the McDonnell Douglas Research Labs. In 1992, he worked briefly at the Edison Welding Institute before joining the Department of Materials Science and Engineering at The Ohio State University, where he worked from 1992 until 1999. Between 1997 and 1998, he spent a year as a Visiting Martin Luther King Associate Professor at MIT. He then moved to Princeton University as a Professor of Mechanical and Aerospace Engineering in 1999. At Princeton, he has served as the Director of the US/Africa Materials Institute (USAMI) and the interdisciplinary undergraduate program in materials science. Soboyejo is a member of the U.S. National Academy of Engineering. He is also a recipient of: National Young Investigator Awards from the National Science Foundation and the Office of Naval Research; ASM’s Bradley Stoughton Award for excellence in the teaching of materials science; the Lumley Research Award of The Ohio State University; and Princeton University’s Old School Award for Innovation. Soboyejo is a Fellow of the American Society of Mechanical Engineers (ASME), the Nigerian Academy of Science (NAS), the African Academy of Science, and the Materials Society of Nigeria. He is the author of four textbooks and almost 400 peer-reviewed journal papers. He has also edited 20 special issues of journals and conference proceedings. Between 2012 and 2014, Soboyejo served as the President and Provost of the African University of Science and Technology in Abuja, Nigeria. In September of 2016, Soboyejo moved to the Worcester Polytechnic Institute (WPI) as the Bernard M. Gordon Dean of Engineering and Professor of Engineering Leadership. He was appointed as Provost at WPI in September 2018. Soboyejo’s current research focuses on biomaterials and the mechanical properties of materials.
DR. MERCY KARANJA
Senior Program Officer, Gates Foundation

Mercy brings deep African agriculture knowledge to the work of the foundation. Since joining the foundation in 2008, she has made investments to support institutional and human capacity development at different levels: strengthening universities in over forty African countries to restructure their curricula to graduate innovators other than doers through and strengthening rural advisory services. Her deep engagement with the Tanzanian government, from the prime minister to the agricultural lead ministries, and building strong relationships with in-country donors has informed and contributed to the foundation’s country-led Inclusive Agriculture transformation strategy.

Mercy has over three decades international development experience from national to global platforms. Mercy started her agricultural journey as a young girl born to a smallholder farming family in Kenya and believes that agriculture is a pathway out of poverty for many households. This belief shaped her educational choices to pursue agricultural training with postgraduate in rural development. She started her career at the ministry of Agriculture/livestock in Kenya where she led teams to plan and implement national projects. Mercy later joined the Kenya National Farmers Union as CEO and positioned it to provide services to farmers in addition to the traditional advocacy role. Mercy contributed to redrafting of FAO and IFAD internal policies to include private sector and non-state actors in their governing bodies. She later joined the International Federation of Agricultural Producers in Paris which provided a platform to work with farmers globally advocating for friendly policies at the global level while planning and leading programs to strengthen their organizations and systems. Mercy’s work revolves around building systems that are supportive to the farming enterprises and ensure livelihoods for small-holder farmers.
Mrs. Ndidi Okonkwo Nwuneli is an expert on social innovation, African agriculture and nutrition, entrepreneurship, and youth development. She has over 25 years of international development experience and is a recognized serial entrepreneur, author, public speaker, and consultant. Through her work in the private, public, and nonprofit sectors, she has shaped policy and led the design and execution of high-impact initiatives focused on strategy, organizational design, ecosystem solutions, and growth. Mrs. Nwuneli serves on the boards of the Rockefeller Foundation, the Global Alliance for Improved Nutrition (GAIN), AGRA, Nigerian Breweries Plc. (Heineken), Godrej Consumer Products Ltd. India, Fairfax Africa Holdings Canada, Royal DSM Sustainability Board, Netherlands, and the African Philanthropy Forum. She previously served on the Boards of Nestle Nigeria Plc., the World Vegetable Center and Cornerstone Insurance Plc.

Mrs. Nwuneli started her career as a management consultant with McKinsey & Company, working in Chicago, New York, and Johannesburg. She returned to Nigeria in 2000 to serve as the pioneer executive director of FATE Foundation, supporting young entrepreneurs to start and scale their businesses. In 2002, she established LEAP Africa to inspire, empower, and equip a new cadre of principled, disciplined, and dynamic young leaders in Africa. In the same year, she established NIA to support female university students in Nigeria to achieve their highest potential. Over the past 12 years, she has focused exclusively on transforming the African agriculture and nutrition landscape. Through her work as the co-founder and the Managing Partner of Sahel Consulting Agriculture & Nutrition, she has partnered with the Bill & Melinda Gates Foundation, USAID, DFID, ECOWAS, Syngenta and a range of private and public sector organizations to implement ecosystem solutions in the African agriculture and food landscapes. As the co-founder of AACE Foods, which produces a range of packaged spices, seasonings, and cereals for local and international markets, Mrs. Nwuneli has propelled the growth of a catalytic business. As the founder of Nourishing Africa, a digital home for food and agriculture entrepreneurs operating on the African Continent, she is accelerating the growth of the ecosystem and supporting entrepreneurs in 34 African countries. Her latest start-up is Changing Narratives Africa committed to changing global mindsets about Africa by showcasing the Continent's contributions to the world through the pioneering work of her dynamic people, their innovations, and products. Mrs. Nwuneli was recognized as a Young Global Leader and a Schwab Social Innovator by the World Economic Forum and received a National Honor from the Nigerian Government. She was listed as one of the 20 Power African Women by Forbes, on the 2019 100 Most Influential Africans List by New African Magazine and recently received the 2021 HBS Alumni Achievement Awards. She is a TED Global speaker. Mrs. Nwuneli is the author of “Social Innovation in Africa: A Practical Guide for Scaling Impact,” and “Food Entrepreneurs in Africa: Scaling Resilient Agriculture Businesses,” both published by Routledge. She is also the author of “Working for God in the Marketplace.” She holds an M.B.A. from the Harvard Business School and an undergraduate degree with honors from the Wharton School of the University of Pennsylvania. She was a Senior Fellow at the Mossavar-Rahmani Center for Business & Government at the Harvard Kennedy School and an Aspen Institute New Voices Fellow.
PROF. PHILIP COTTON
Director, Human Capital Development at the Mastercard Foundation

Prof. Philip Cotton is Director, Human Capital Development at the Mastercard Foundation. He also heads the Foundation’s Scholars Program—an initiative dedicated to developing Africa’s next generation of transformation leaders and the largest of its kind. The Mastercard Foundation Scholars Program allows students whose talent and promise exceed their financial resources to complete their education, while investing in their leadership potential. With a vision that education is a catalyst for social and economic change, the program focuses on developing leaders who are transformative, encouraging them to be active contributors in their communities. Philip, who is a citizen of both the UK and of Rwanda, previously provided leadership at the University of Rwanda, first as Principal of the College of Medicine and Health Sciences and then as Vice Chancellor. Prior to this, he practiced in family medicine and was professor of teaching and learning with a responsibility for student welfare at Glasgow University. A graduate of St Andrews and Glasgow universities, he holds several honorary professorships and is appointed as chair of the Board of Rwanda Biomedical Centre. He is a Methodist preacher, founded a fair trade organisation in Scotland and is a trustee and advisor to several small charities working in development. In 2017 he was made OBE in the Queen’s birthday honours and in 2018 he received the Gold Medal from ASME for his outstanding contribution to medical education. He is convinced of the power of compassion in the transformation of young people throughout the education system.

MRS. DORA WARUIRU
Head of Foundation Cooperative Bank

Dora Waruiru is a Social Enterprise Development Expert with over 18 years of experience in senior management positions, the most recent being Managing Director of K-Rep Development Agency (the pioneer Microfinance Research Institution in Kenya) currently she is the Head of Cooperative Bank Foundation; A holder of Bsc International Business Administration, and an MBA with a major in Finance. She is also a certified ITC (Geneva) consultant in Enterprise Development in developing countries. Currently serves on the Board of Pamoja Trust, Economic Projects Trust Fund and Akili Holdings.
MR. JOEL MOLEL
Principal Resource Mobilization and Partnerships Officer, African Development Bank

Joel MOLEL is a Principal Resource Mobilization and Partnerships Officer at the African Development Bank (AfDB) based in Abidjan, Cote d’Ivoire. Joel task manages specific resource mobilization efforts through statutory replenishments, co-financing, fundraising for trust funds, special initiatives and other innovative partnership mechanisms with the Bank Group’s traditional, sovereign and non-sovereign partners. Prior to joining the AfDB in 2018, Joel was a Regional Business Development Manager (SAF) with Oxfam International and previously worked with UNWOMEN ESARO, Save the Children International among other organizations. Joel holds a B.A. Honors from Egerton University, Kenya and MSC in Development Studies from Moi University, Kenya.

MR. MARCEL MBALLA-EKOBENA
Sloan Fellow, London Business School, Investments, Markets and ESG Executive

Marcel Mballa-Ekobena is an Investment, Markets and ESG Executive and a Sloan Fellow with over 18 years of experience across 4 continents. He has a strong track record in strategic investment across Africa, with a specific focus on multi-sector investment innovation, funds strategy, private equity, sovereign and multilateral financing. Marcel has worked for a number of global organisations including the IFC (The World Bank), HSBC or JP Morgan. He holds a Master’s in Leadership and Strategy from London Business School and a Master’s in Investment Banking from Henley Business School and speaks 8 languages.
Dr. Dorothy Nyambi is the President and CEO of Mennonite Economic Development Associates (MEDA), a non-profit organization with a mission to create business solutions to poverty around the world. Dr. Nyambi holds a Doctor of Medicine Degree from the University of Yaoundé, Cameroon and has done extensive research on capacity building, advancing gender equality in developing countries, and innovation economies around the world. Prior to joining MEDA, she was Executive Vice President of the African Institute for Mathematical Sciences (AIMS) and worked for organizations like the U.S. Peace Corps, World Health Organization and USAID.
MS. RUTH CHARO
World Bank

Ruth Charo is a Senior Education Specialist in the Education Global Practice of the World Bank. She has worked on Education and Health operations for over 18 years mainly in the East Africa region. She currently leads and co-leads a number of national and regional operations in Basic Education and Skills development. Recently, she led analytical work to inform reforms in Higher Education in Kenya. She holds a Bachelor’s Degree in Education from Kenyatta University, a MSc in Public Health and Epidemiology from Kenyatta University, and a Master of Arts in Education (M.A. Ed) from University of London.
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