



ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
COMISSÃO DA CEDEAO



MAGAZINE
#2022 EDITION



GENERAL REPORT

SCIENCE, TECHNOLOGY AND INNOVATION
FOR A COMPETITIVE ECOWAS



fari 2022

ABUJA

17th - 21st october



TABLE OF CONTENTS



Family photo at the opening ceremony of FARI 2022

From left. to right. : Prof. Pierre GOMEZ, Senator Uche Ekwunife, Dr ADELEKE O. Mamora, Prof. Ibrahim GAMBARI, Dr. Omar A. TOURAY, Prof. Fatou S. SARR



05	FARI OFFICIALS
11	EDITORIAL
13	FARI SPEECH
22	FARI REVIEW
24	SCIENTIFIC COMMITTEE
25	PANEL SUMMARIES
33	RECOMMENDATIONS
34	FARI IN NUMBERS
35	FARI, IT'S LAUNCHED
38	FARI IN PICTURES
44	START-UPS
48	FARI PERSPECTIVES
50	THANKS

FARI is an event conceived and organized by the Department of Human Development and Social Affairs of the ECOWAS Commission

Project manager : **Dr Roland KOUAKOU** - Supervision : **Prof. Abdoulaye I. MAGA** - Assistants : Patricia EDET , Aïcha KOUASSI, Mykérina KPODOHOUN - Consultant : **Dr Pascald DJADOU** - Artistic Direction : **LALOFFOUÈ GNAMIEN** - Edition : **CEDEAO** - Printing : **DECEMBER 2023**

THIS DOCUMENT IS THE EXCLUSIVE PROPERTY OF ECOWAS.



ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
COMISSÃO DA CEDEAO

THE ECOWAS ANTHEM

West African States, united by history,
Behold, freed from the chains of captivity,
Glorious were the kingdoms of the past!
Of mystery, period,
Your trajectory will go far.
From the ocean to the watered forests and through the savannah,
working hand in hand,
Large space or small plot
With light steps will go ECOWAS!
Peace, union and justice in society
For integrated cultures and freedom!
To women and children the torch of the future,
Human and natural wealth, support for our future,
Oh West Africa, our {region-state}
On your base rests a union of brilliance!
Of mystery, period
Your steps have already carried you far.
From the shores of the ocean to the desert and through the savannah
Large space or small plot
All together, hand in hand
Eternal and cheerful will be your steps, you ECOWAS!



UMARO SISSOCO EMBALÓ

BISSAU-GUINEAN PRESIDENT
PRESIDENT IN OFFICE OF ECOWAS



**FEDERAL REPUBLIC
OF NIGERIA**

MINISTRY OF STATE SECURITY



MUHAMMADU BUHARI

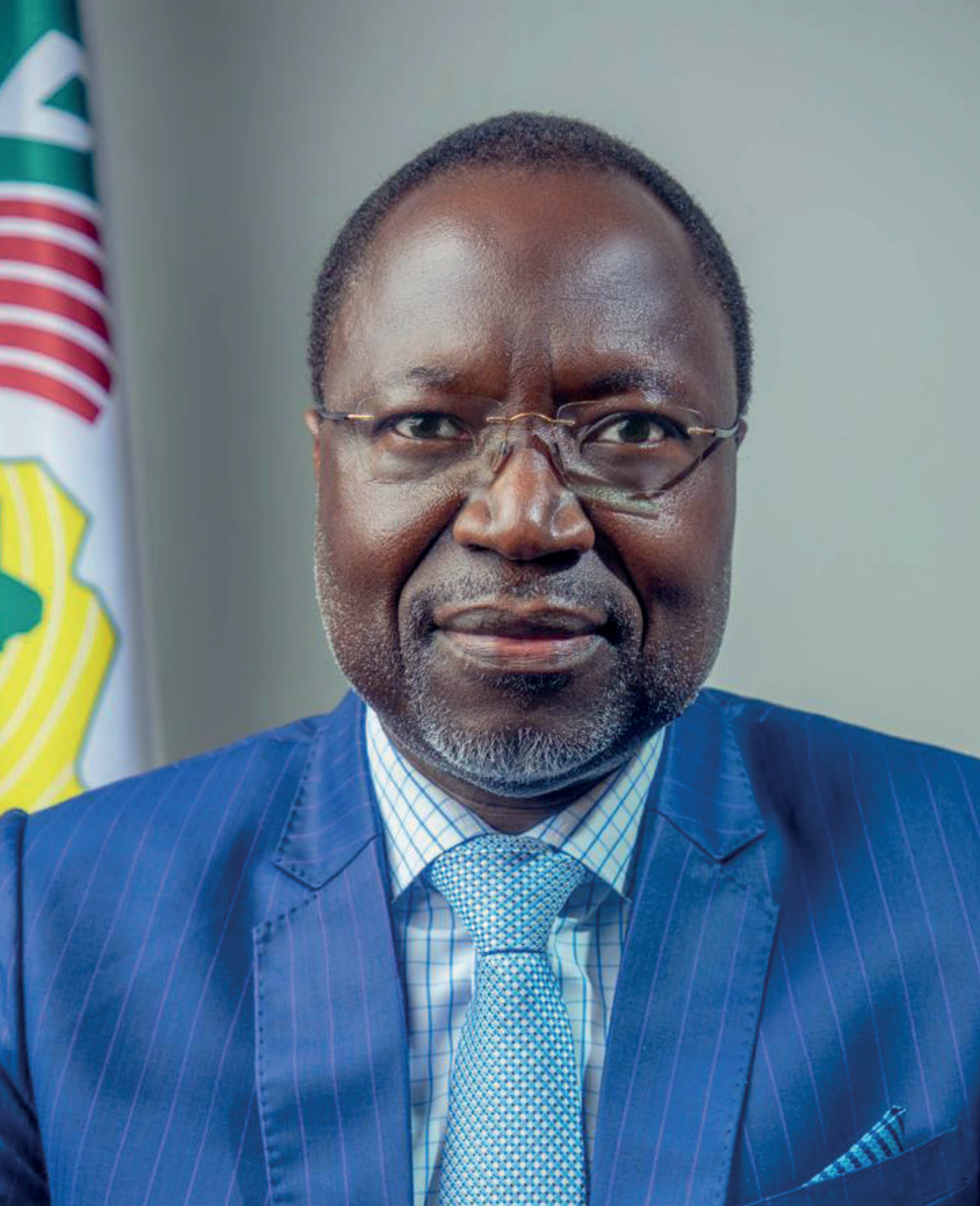
PRESIDENT, COMMANDER-IN-CHIEF OF THE ARMED FORCES
FEDERAL REPUBLIC OF NIGERIA



HIS EXCELLENCE

PROF. YEMI OSINBAJO

VICE-PRESIDENT
FEDERAL REPUBLIC OF NIGERIA



DR OMAR ALIEU TOURAY
PRESIDENT OF THE ECOWAS COMMISSION



DR. (SEN.) ADELEKE OLORUNNIMBE MAMORA

FEDERAL MINISTER OF SCIENCE AND TECHNOLOGY
AND INNOVATION OF THE FEDERAL REPUBLIC OF NIGERIA



CHIEF HENRY IKECHUKWU IKOH

MINISTER OF STATE OF SCIENCE AND TECHNOLOGY
AND INNOVATION OF THE FEDERAL REPUBLIC OF NIGERIA



PROF. PIERRE GOMEZ

MINISTER OF HIGHER EDUCATION AND RESEARCH,
OF SCIENCE AND TECHNOLOGY OF THE REPUBLIC OF GAMBIA



PROF. ELÉONORE YAYI LADEKAN

MINISTER OF HIGHER EDUCATION
AND SCIENTIFIC RESEARCH OF THE REPUBLIC OF BENIN



PROF. DOUTOR TIMOTÉO M'BUNDE

MINISTER OF HIGHER EDUCATION AND
SCIENTIFIC RESEARCH OF THE REPUBLIC OF GUINEA BISSAU

EDITORIAL



Dr Roland KOUAKOU
Head of Scientific Research and Innovation Division
ECOWAS Commission

« Innovation is an alliance between research, marketing, instinct, imagination, product and industrial courage. »
Antoine Riboud, Founder and Chief Executive Officer of Danone

Since 2014, the ECOWAS has launched four (04) major programmes as part of its efforts to implement the Action Plan for the ECOWAS Policy on Science, Technology and Innovation (ECOPOST) adopted in June 2012 by the Heads of State and Government. These programs are : **(i) the Research and Innovation Support Programme PARI), which began in 2018 with the establishment of four (04) regional Consortia of Researchers subsidized by the ECOWAS; (ii) The creation of the West African Academy of Sciences, for which the feasibility study has been completed since 2022 and the holding of the General Assembly in 2024 ; The launch of the 1st ECOWAS Earth Observation Satellite (ECOSAT 1), for which the studies on user needs and architecture are underway; and the creation of the African Forum for Research and Innovation (FARI),** which is the subject of this editorial and whose first edition was held from 17 to 21 October 2022 at the ECOWAS Commission in Abuja, Nigeria. .

On the global level, the United Nations organizes the annual Forum on Science, Technology and Innovation to review the contribution of STI to the achievement of the Sustainable Development Goals (SDGs). The 2021 edition of the Forum was held 4 to 5 May 2021 in New York and focused on science, technology and innovation for a sustainable and resilient recovery from COVID-19. The 2023 edition was held from 3 to 4 May 2023 under the theme «Science, technology and innovation to accelerate the recovery from COVID-19 and the full implementation of the 2030 Agenda for Sustainable Development at all levels». Every two (02) years, Qatar organizes the World Innovation Summit for Education (WISE Summit), an international, multi-sector platform for creative thinking, debate and action focused on building the future of education through collaboration.

On the continental level, initiatives include: (i) the Africa Innovation Summit (AIS), the Forum organized by the

Governments of Cabo Verde and Rwanda for the promotion of Innovation in Africa, and the Next Einstein Forum (NEF) organized by the African Development Bank (AfDB). These two (02) events bring together science, society and decision-makers in Africa and the rest of the world, with the aim of leveraging science for human development on a global scale.

The FARI has been designed to create a genuine osmosis between all the actors involved in science and innovation on the regional, continental and international levels. It aims to improve the visibility of scientific and technological research in the region, and to enhance the public's understanding of the role of Science, Technology and Innovation in socio-economic development.

In order to keep up with initiatives on the international and continental levels, the ECOWAS created the **African Forum for Research and Innovation (FARI) through Decision A/DEC/.1/6/21 of the sixtieth Ordinary Session of the ECOWAS Conference of Heads of State and Government** , and the organization of its first edition in Abuja (Republic of Nigeria), adopted by the 86th Ordinary Session of the ECOWAS Council of Ministers, held from 16 to 17 June 2021 in Accra (Republic of Ghana).

The FARI is therefore an ECOWAS Forum which, in the long term, aims to build its reputation in the scientific community and offer tourism and cultural opportunities on the regional level. It is a regional platform for exchange and discussion between scientists, technologists, innovators, decision-makers, the private sector, technical and financial partners, students and the general public, with the aim of improving the public's understanding of the role of Science, Technology and Innovation in socio-economic development, and continually reviewing the contribution of STI to the achievement of the objectives of the ECOWAS Vision 2050.

FARI-2022 was a joint initiative by the ECOWAS Commission and all its member states to promote science and technology. It lived up to its promise, with the participation of political decision-makers, leading scientists from around the world and start-ups from the region. The first segment of the forum, that of experts, was attended by over 500 participants, who discussed three themes in twelve (12) panels. The second segment saw the participation of ten (10) Ministers or their representatives, who presented their country's vision of STI. The third segment, that of the two (02) Heads of State, could not be held due to the busy agenda of the President of the Federal Republic of Nigeria **H.E Muhammadu Buhari** and the President of the Republic of Guinea Bissau, President of the ECOWAS Conference of Heads of State and Government **H.E Umaro Sissoco Embaló**. The Forum's cross-cutting segment, the exhibition of start-ups from the region, saw the participation of 45 start-ups selected by ECOWAS Member States.

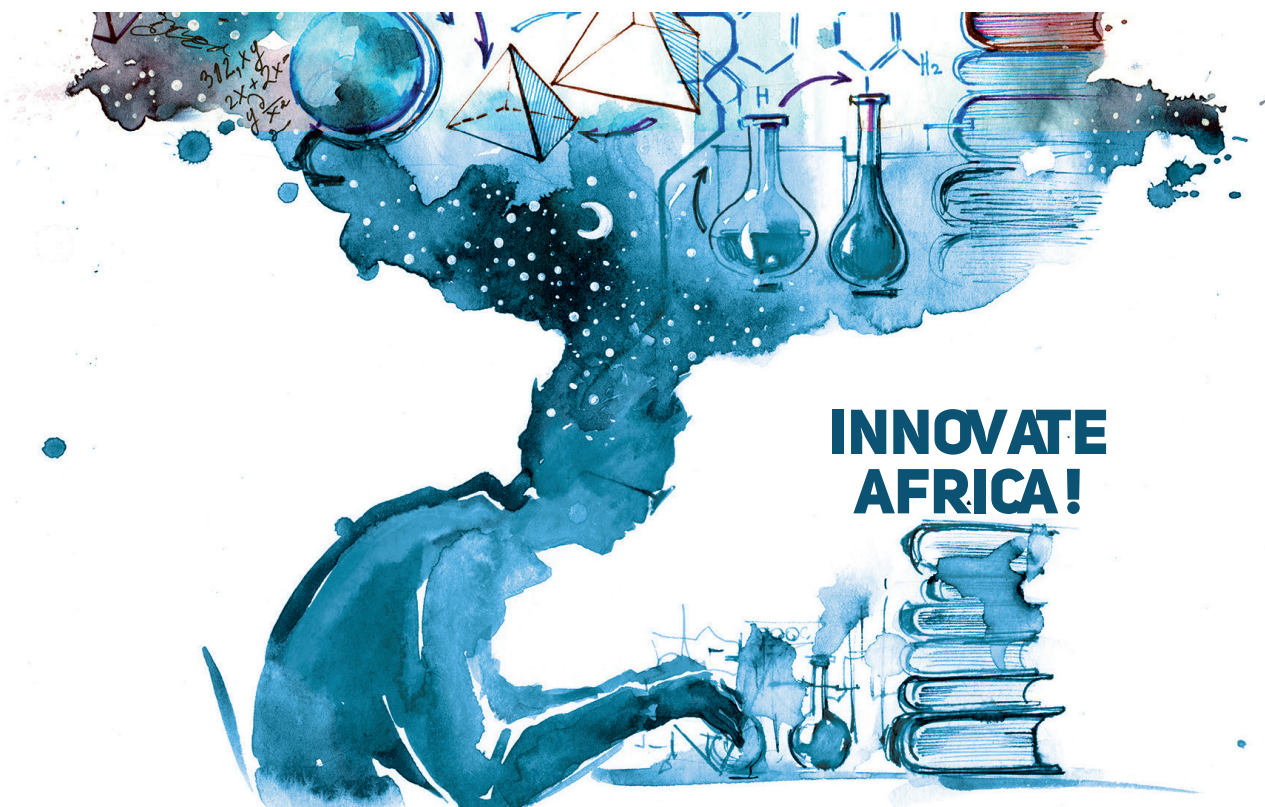
Over the course of five (5) days, the regional scientific community were engaged both in person and virtually in the exchanges. FARI-2022 ended with the award ceremony recognizing the 3 best Start-ups among those who participated in the exhibition. These start-ups included SetTIC, from Senegal start-up working in the management and ecological recycling of electronic waste, which was awarded the first prize of 25,000 USD, EDINDIA INDUSTRY SA from Côte d'Ivoire

start-up working in the field of renewable energies, which received the second prize of 15,000 USD and HAJNABY, a Nigerian cosmetics startup from Nigeria, which received the third prize of 10,000 USD. FARI also awarded a special prize of 10,000 USD to Miss Odunsi Faith, a Nigerian student at Massachusetts Institute of Technology (MIT), for her achievements in the field of Mathematics at the national, regional and international level. At the end of the Forum, the Government of Nigeria hosted a Gala for all the participants at the Chelsea Hotel.

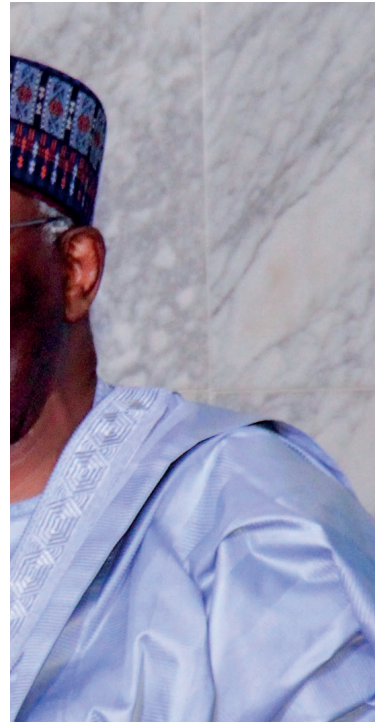
FARI is now a reality and intends to be one of the platforms to proudly represent the ECOWAS member states on scientific issues that will contribute to the achievement of ECOWAS Vision 2050.

The Magazine presented here retraces the key moments of FARI-2022 and outlines the prospects for FARI-2025.

See you in 2025 at the next edition of the FARI.



**INNOVATE
AFRICA!**



PROF. GAMBARI



FARI-SPEECHS

SPEECH BY HIS EXCELLENCY, PRESIDENT MUHAMMADU BUHARI



HIS EXCELLENCY PRESIDENT MUHAMMADU BUHARI

Protocols,

I am highly delighted to be here today at the opening ceremony of the African Research and Innovation Forum (FARI-2022) taking place here in Abuja, Nigeria with the theme “Science, Technology and Innovation for a more Competitive ECOWAS”. I was reliably informed that the theme was adopted to address the numerous challenges in the world’s economy, map out diverse opportunities available and look inwards for a better and brighter Economic Community of West African States (ECOWAS) region.

Your Excellencies, Distinguished Ladies and Gentlemen, when the idea of organizing the event was initiated, I was elated because it would serve as a forum to showcase available Research and Development (R&D) efforts in the region in the area of Science, Technology and Innovation as a way of finding solutions to the myriad of challenges affecting the region; and for Researchers to network among themselves for a better future, noting that the application of Science, Technology and Innovation (STI) in all facets of life equally brings to the fore, the much needed solutions.

Your Excellencies, Distinguished Ladies and Gentlemen, in the area of capacity building and multitasking skills, it is a known fact that a new generation of active and productive talents are being discovered to proffer solutions to the numerous challenges confronting the region, hence, the need to come up with innovative ideas for the wellbeing of the region. The time to move forward and act accordingly is now. This, can only be achieved through the pulling together of human, infrastructures, technical skills amongst others that should be available to the youth thereby curbing unemployment situation drastically.

May I at this juncture state that the region stands to gain a lot through the utilization of STI to address the various diseases and catastrophes ravaging this clime. One of such diseases is Malaria, which if not effectively managed would continue to deplete the productive

workforce in the region. We should not forget in a hurry, that the advent of Coronavirus disease 2019 (COVID-19) which caught us napping due to the absence of vaccine. I am pleased to inform you that consentious R&D efforts have been put in place to get appropriate vaccines for our populations with less dependence on the West, not just for COVID-19, but for other diseases.

In line with the mandates of the scheduled Plan of Action on STI for the ECOWAS region, there is need for researchers to acquire modern and state of the art equipment and materials thereby strengthening the capacity of the region to serve as a catalyst for regional cooperation and integration through policy harmonization, advocacy, trade facilitation in all sectors of the STI Ecosystem.

There is no doubt that STI has been ranked as the driver of Nigeria’s National Development Plan 2021 – 2025. The utilization and promotion of innovative applications with other socio-economic development indicators would lead to rapid industrialization of the region, provision of definitive functions for highly qualified professionals thereby addressing, as much as possible the major challenges such as poverty eradication, food security, climate change, access to energy, eradication of endemic diseases, management and preservation of the environment among others.

Nigeria commits to further strengthening the collaboration with STI experts, alongside the provision of technical advice, methodologies and guidance to ECOWAS Member States as integral parts of their national development policies and plans.

Your Excellencies, Distinguished Ladies and Gentlemen, I welcome once again to this forum hoping that you will find time to enjoy the ambience of the Federal Capital, hospitality and culture of our people during your stay. It is therefore on this note that I wish you a fruitful deliberation as I formally declare African Research and Innovation Forum (FARI-2022) open.

SPEECH BY PRESIDENT OF THE ECOWAS COMMISSION



DR OMAR ALIEU TOURAY

Protocols,

It's a pleasure for me to welcome you to the opening session of the first edition of the African Forum for Research and Innovation (FARI).

First of all, I would like to express my deep gratitude to His Excellency, Muhammadu Buhari, President of the Republic of Nigeria, and to his entire government for their exemplary commitment and tireless efforts to implement the actions related to the region's priorities, notably that of promoting regional integration. The hosting of the first edition of the African Forum for Research and Innovation (FARI) is a perfect example.

This commitment is further demonstrated, Your Excellency, through your presence here this morning for the opening ceremony of the FARI, this forum organized by the ECOWAS and dedicated to science and technology, despite your very busy schedule.

I am all the more delighted to see that important subjects such as Science and Technology, which are crucial to Africa's growth in the 21st century, are generating so much enthusiasm at the highest level, with the notable presence of ambassadors and diplomatic missions accredited to the ECOWAS, as well as luminaries of the scientific community. I would like to pay you a well-deserved tribute for your tireless support to our march towards progress and express our most sincere gratitude.

Your Excellency, President of the Republic,
Honourable Ministers,
Your Excellencies, Ambassadors,
Distinguished Guests,

The theme chosen for the 1st edition of the African Forum for Research and Innovation is: «Science, Technology and Innovation for a more competitive ECOWAS». As you can see, it's all about the contribution of Science, Technology and Innovation to the development of our region in order to make it more competitive.

Indeed, over the past centuries and even in the present day, science has contributed enormously to the evolution of humankind. Now, more than ever, it continues to shape the world in which we live, with constantly evolving technological innovations and derived applications impacting every sector of activity. From health to education, communications to transport, agriculture to the environment, finance to energy, the military, defence and domestic security, space and undersea exploration. In short, all areas of the modern world have benefited from science and other technological innovations.

The combination of Science, Technology and Innovation represents both a driving force for the structural transformation of economies and a driver for integration into the global economy. They play an essential role in the achievement of many development goals. And among these, we can say that innovation lies at the heart of knowledge-based economies. It is the foundation for competitiveness and one of the main drivers of economic growth, social well-being and adaptation to the environment. It is a factor in the modernization of education systems, agricultural production, seasonal forecasting, etc., and a potential source of job creation and efforts to fight poverty. It inspires the young people, allowing them to dream of a better tomorrow, by increasing their desire and love for inventing and being creative.

Your Excellency, President of the Republic ;
Honourable Ministers ;
Your Excellencies, Ambassadors ;
Distinguished Guests,

ECOWAS has always considered science and technological innovation as key areas for the socio-economic and cultural development and competitiveness of its Member States. ECOWAS made this commitment clear through Article 27 of the Charter on Scientific and Technological Cooperation, the Directive (A./DIR. 1/06/12) on Science, Technology and Innovation and the Supplementary Act (A/SA.2/06/12) adopting the ECOWAS Policy on Science, Technology and Innovation (ECOPOST) and its Action Plan (2013-2017). This policy was drawn up to include several programmes, including that of the FARI.

The 2020 and 2021 Community Reports show a region that remained resilient through the Covid-19 crisis, with a decline of 1.7% in the regional economy and inflation at 10.5% in 2020, and a budget deficit of 5.6% in 2021. The crucial role of research and innovation both in transforming national economies and in addressing global challenges is ever so more apparent, making Research and Innovation key elements of the new ECOWAS Vision 2050, whose 2023-2027 Community Strategic Framework is currently being finalized, along with the 2030 Agenda of the United Nations and the 2063 Agenda of the African Union. The FARI is in line with the Vision through its Pillar 4, which focuses on Transformation, Inclusive and Sustainable Development, through the use of science and technology, as well as structuring investments in promising sectors. The role of science and technology is proving to be an important cornerstone in the development of innovation and the region's resilience in the face of climate change and exogenous shocks such as COVID-19 and other pandemics that spare no region of the world.

When it comes to Research and Innovation in our region, the situation could be described as less than stellar. The 2017 and 2019 reports on Science, Technology and Innovation in the ECOWAS region revealed that our region has more than 40,000 researchers and teachers, 88% of whom are men and 12% women. Depending on the country, this personnel includes «permanent», «contractual» and «part-time» staff. Institutional and legal frameworks exist but need to be better structured. In addition, other studies carried out by the World Bank show that over 60% of the disparities between countries - in terms of growth rates and incomes - are due to differences in total productivity, which in turn stem from disparities in technology. When compared to low-income countries, for example, OECD countries are estimated to have 12x more scientists and engineers working in R&D per capita and their researchers publish 25x more articles in scientific journals than their counter-parts in low-income countries.

The link between technological expertise and economic growth is therefore obvious. Making use of new technologies increases productivity and employment opportunities and increases the possibility of carrying out activities from higher up in the production value chain. This is why, to be more competitive, to develop trade and remove trade barriers, Africa, and in particular our region, needs to broaden its knowledge

and skills in science and technology. Strengthening human capital in science and technology is essential if our region is to capitalize on its strengths.

Now is the ideal time to focus on developing human capital, particularly in higher education as concerns the fields of science, technology and mathematics. Africa's booming young population (over 60% of the population) is the driving force behind the continent's growth and prosperity. It would be important to take a look at these young people and give them the means to achieve their dreams, and to avoid the sad and dark path of the Sahara Desert, putting their lives at risk.

The university systems of many African countries need to be revisited, as their curricula are outdated and tend to focus on non-scientific subjects, accessible only to a minority of students. Furthermore, women are under-represented in sciences and are still in the minority when it comes to science and technology-related professions on the African continent. I'm delighted that the forum has brought together highly qualified female scientists from our region that can offer advice to our young people. Today, we need to reverse this trend, to enable Africa to take on its rightful place in a fully integrated global economy.

Your Excellency, President of the Republic,
Honourable Ministers,
Your Excellencies, Ambassadors,
Distinguished Guests,

Investing in research and innovation can help overcome this obstacle by providing teachers with better training and encouraging national and regional research on science and technology at all levels of the education system. I welcome the creation by ECOWAS Research and Innovation Support Programme (PARI), which provides grants of \$400,000 USD each year for regional research. This programme strengthens regional research cooperation through the creation of a consortium of multidisciplinary and multilingual researchers, and training of the next generation of researchers.

The public and private sectors, research and production, all stand to gain from a closer collaboration. For companies in general, research is a tremendous source of innovation and therefore growth; for laboratories in the region, exposure to real-life cases and practices is an often-valuable source of inspiration. Not all researchers are destined to become

entrepreneurs, and that's fine, but there is a common thread in research and entrepreneurship. An appetite for risk, a will to succeed and desire to obtain results. It's our duty to encourage them.

16. Global competition for innovation, for research, for knowledge in a way, between developed and emerging countries is becoming increasingly intense. We are convinced that the strength of a country or region, its competitiveness, depends heavily and perhaps primarily on its ability to constantly develop its knowledge. The region must therefore increase its efforts and improve its procedures. As you can see, this forum provides an platform for young people to showcase their ideas and creativity. In order to motivate the youth of our region, an exhibition of startups from ECOWAS Member States is being organized with the aim of rewarding the three (03) best at the end of the Forum. This should encourage Member States to set up competitions at the national level and identify new talents in the sector of innovation.

Your Excellency, President of the Republic,
Honourable Ministers,
Your Excellencies, Ambassadors,
Distinguished Guests,

Over the course of these five (05) days, the discussions held will focus on the main themes essential to achieving the Forum's objectives. They will focus on defining a vision, the financing of science, technology and innovation, capacity building, issues related to artificial intelligence and open sciences, and linking research to job creation. Over 60 experts from fifteen (15) ECOWAS Member States, as well as African and global organizations and institutions, will take part in twelve (12) panel discussions. Discussions will also be extended to the political level with Ministers in charge of Science and Technology and representatives of African and global organizations and institutions. At the end of the Forum, the Ministers will issue a statement on the role of science and technology in boosting the competitiveness of our region.

Your Excellency, President of the Republic,
Honourable Ministers,
Your Excellencies, Ambassadors,
Distinguished Guests,

As I hope you've noticed by now, our ambition is to make our region one of the most attractive in the world,

thanks to excellent hospitality and the development of both its exploratory and applied research work. To this end, I would like to call on all those involved to work hard to catch up, so that we can reduce the gap and take the decisive steps towards a knowledge-based economy, a source of competitiveness, human capital development and social transformation.

I would like to conclude by expressing my gratitude to His Excellency Muhammadu Buhari, President of the Republic of Nigeria, for his notable presence and that of his government, a presence which once again contributes to the success of this major event marking the start of our mandate. I would particularly like to thank Dr. (Sen) Adeleke O. Mamora, Honourable Minister of Science, Technology and Innovation of Nigeria and Henry I. Ikoh, Minister of State for Science Technology and Innovation at Federal Republic of Nigeria for the efforts made for over a year now in organising this Forum, a great scientific meeting that should be inscribed on the agenda of the major events of our organisation.

Finally, I would like to thank all of the participants, scientists, journalists, young persons and women who came from all over the world to take part in the FARI. I also commend the staff of the Department of Human Development and Social Affairs that worked day and night for the promotion and success of this first edition of the African Forum for Research and Innovation (FARI).

Long live international, African and West African cooperation in science and technological innovation.

Thank you for your attention.



SPEECH BY PRESIDENT OF THE MINISTER OF SCIENCE, TECHNOLOGY AND INNOVATION



DR. (SEN.) ADELEKE OLORUNNIMBE MAMORA

Protocols,

I am highly delighted to be present here on this auspicious occasion of the Experts Forum of African Research and Innovation (FARI-2022) taking place in the capital city of Abuja. Just about a month ago, the flag-off of the FARI logo was launched to sensitize the entire ECOWAS region on the forum of Experts.

Your Excellences, Distinguished Ladies and Gentlemen,

The idea of having the Forum was initiated in 2016 when the Ministers in charge of Science, Technology and Innovation met in Accra, Ghana where they deliberated on the need to have a forum of researchers and innovators to exchange and share ideas on the scientific and technical organization aimed at improving public understanding of the role of Science, Technology and Innovation for the socio-economic development of the West Africa region.

The Experts Forum is equally targeted at improving the region's scientific and technological research including creating a regular framework for dialogue between all the scientific and innovation actors as well as provision of results of research and technological results by researchers. It would be an avenue for networking between and amongst actors of R&D and the private sector. The theme of the forum "Science, Technology and Innovation for a more Competitive ECOWAS", is apt and a process for the industrialisation of the member states.

Your Excellences,

Let me thank the President of the Federal Republic of Nigeria, Muhammadu Buhari, GCFR for giving us the go ahead to host this programme which was received during my assumption as the Honourable Minister of Science, Technology and Innovation. The member states of ECOWAS have keyed in into the Vision 2050 that focuses on the community of people, peaceful prosperous region and work for inclusive and sustainable development for STI. I am fully aware that FARI is a strong and exciting project capable of stimulating innovation in the Africa scientific ecosystem towards supporting researchers and young innovative companies within the region in the forum.

Your Excellences, Distinguished Ladies and Gentlemen,

Let me congratulate the ECOWAS Commission for organizing the forum and it is my believe that the forum will go a long way in providing the necessary platform that African Researchers to share ideas and deliberate on the way forward for STI in the region. The promotion of research and innovation can provide value addition and competitiveness needed for the products from the region.

Finally, let me congratulate the members of the Local Organising Committee for working tirelessly to make sure that this event is a successful one.

Thank you for your attention and wish you all a successful deliberation.



SPEECH BY UNESCO'S REGIONAL DIRECTOR



DR. DIMITRI SANGA

Protocols,

It is with great pleasure that I present this goodwill message, at the First ever Africa Research and Innovation Forum (FARI) organized by ECOWAS Commission in collaboration with the Nigerian Government, through the Federal Ministry of Science Technology and Innovation (FMST&I).

According to the UNESCO Science report (2021), the clock is ticking for all countries; including those in Africa, to reach their Sustainable Development Goals by 2030. On the other hand, countries are convinced that their future economic competitiveness will depend upon how quickly they transition to digital and green societies driven by Science Technology and Innovation (STI). I therefore congratulate the organizers for carefully selecting the theme of FARI – “Science Technology and Innovation for a more Complete ECOWAS” which will produce the needed actions for ECOWAS to have a vibrant STI to drive development and competitiveness.

Science Technology and Innovation (STI) are universally recognized as key drivers for poverty eradication and essential components for achieving the Sustainable Development Goals (SDGs). However, to make STI work for the society, appropriate STI policy frameworks and collaborative approaches need to be developed and reinforced. To this end, UNESCO and ECOWAS Commission, adopted a collaborative approach in tackling the COVID 19 pandemic and were able to produce “Data and Information for Science Advice and Advocacy in the Management of the COVID-19 Pandemic Crisis in West Africa”. I would like to at this point thank again the President of the ECOWAS Commission and the Commissioner, Science, Technology, Education and Culture of the ECOWAS Commission, for supporting this UNESCO-ECOWAS commission joint work.

Excellency, Delegates Ladies and Gentlemen

It is imperative now than ever to use STI for competitiveness, strengthening and building regional scientific cooperation amongst scientists, decision/policy makers, private practitioners, industries, health professional and civil society for a multi-dimensional approach. In this regard, UNESCO supports member states efforts to reform and upgrade national STI systems and governance. Ultimately, stronger STI systems will enable African societies to attain greater inclusivity and resilience through enhanced capacity to achieve the Sustainable Development Goals and the African Union 2063 Development Agenda. UNESCO is fully committed to supporting governments for distance learning, open science, and knowledge sharing, as a means to cooperation. UNESCO is using the concept of Open Science to advance open access to scientific research and data, as well as enhancing collaboration amongst researchers and scholars for quicker and better results. Open science is a true game changer in bridging the Science Technology and Innovation gaps and a critical accelerator for the achievement of competitiveness and Sustainable Development Goals (Agenda 2030). You will hear more of open science in Panel 5 of this event.

Excellency, Delegates Ladies and Gentlemen

As I begin to conclude my goodwill message I would like to thank the authorities of the Nigerian Government; especially those in the STI, Water and Environment sectors. These sectors have been working with UNESCO to ensure that Science works for all, for the future we want and leaving no one behind. I thank you, Excellencies and members states of ECOWAS who are also member's states of UNESCO, for your unflinching support. Many thanks to all delegates here present. Finally, I appreciate the organising team for your diligence. UNESCO stands ready to collaborate with ECOWAS commission and FMST&I, in taking forward the outcomes of FARI

I wish you best deliberations.
Thank you for your attention !

SPEECH BY COMMISSIONER FOR HUMAN DEVELOPMENT AND SOCIAL AFFAIRS



Prof FATOU SOW SARR

Protocols,

I am pleased to present this Magazine covering the African Forum for Research and Innovation (FARI-2022), which was held from 17 to 21 October 2022 in Abuja, Republic of Nigeria. While highlighting the key moments of the FARI, this publication also sets the course for its second edition, which will take place in 2025. I would like to express my particular satisfaction with this publication, which represents a milestone in the promotion of science and technology at the regional level.

The ECOWAS Department of Human Development and Social Affairs is proud of this first edition of the African Forum for Research and Innovation (FARI), which took place two (02) months after I took office. Organized in collaboration with the Government of the Federal Republic of Nigeria through its Ministry of Science and Technology, the FARI lived up to all its promises, with the participation of leading regional and international scientists. By choosing as its central theme: «Science, Technology and Innovation for a more competitive ECOWAS», the FARI International Committee, made up of experts from ECOWAS member states, as well as regional and international organizations, sought to develop a shared vision and promote the relevance of having a common agenda in the field of Science, Technology and Innovation at a time when ECOWAS is revising its Policy on Science, Technology and Innovation (ECOPOST) and its E-learning training programme to achieve the objectives of its ECOWAS Vision 2050 and other African and international agendas.

To achieve the objectives set for the FARI, the discussions revolved around three sub-themes. The first took stock of the achievements and progress of Science, Technology and Innovation (STI) in Africa, and their pooling. The second focused on regional cooperation and coherent frameworks for cooperation between governments, scientists, universities, decision-makers, the private sector, technical and financial partners and civil society. The third, through a High-Level Panel with Ministers, focused «New visions for STI for a more inclusive development of African countries».

The FARI allowed researchers in the region to connect with each other and with their counterparts from around the world. It's a framework that strengthens regional cooperation in science and technology.

I would like to take this opportunity to thank the Government of the Republic of Nigeria for its support in making the FARI a success, and to congratulate all the committees set up for the various roles they have played in making the Forum a success. I would also like to congratulate the executives of my department, who worked day and night to ensure the success of this event.

I remain convinced that, under the leadership of our highest authorities and with the support of all our technical and financial partners, future editions of this Forum will contribute to the development of scientific tourism in our region. I call on all our partners to support the financing of FARI-2025.

Long live FARI, for a strong ECOWAS built on the foundations of Science, Technology and Innovation.





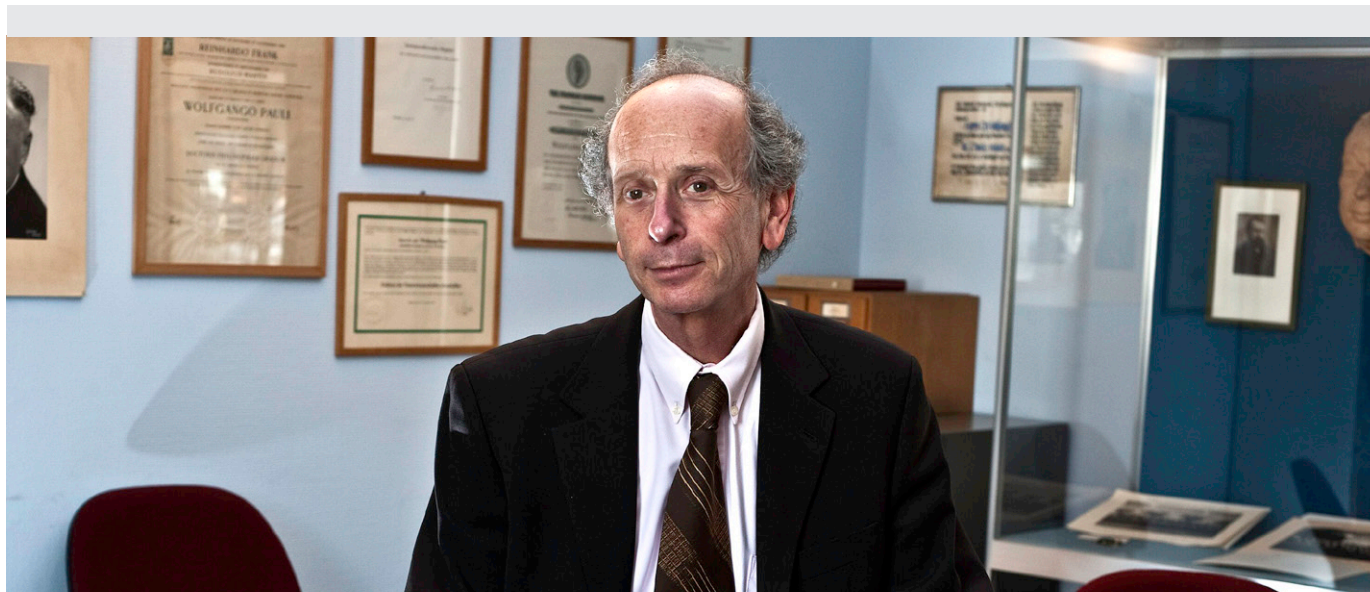
Science, Technology, Innovation

**INNOVATE
AFRICA**
ABUJA
17th - 21st october 2022



FARI REVIEW

INAUGURAL LECTURE



Michel SPIRO

President of the International Union of Pure and Applied Physics and Chair of the Steering Committee of the Steering Committee of the International Year of Basic Sciences for Sustainable Development in 2022

Professor SPIRO opened his lecture by emphasizing the importance of basic sciences and their contribution to sustainable development.

He went on to say that, over the next decade, it will be important to focus on basic sciences worldwide, including in Africa. The Professor also added that these sciences are a source of knowledge for future generations, and that they are at the core of science and education.

In his view, these sciences are a source of innovation that leads to progress, thanks to the discoveries they allow and the contributions they make to humanity (vaccine against COVID-19, Artificial Intelligence, the Web, etc.).

He also mentioned that basic sciences facilitate cross-cultural dialogue and contribute to peace,

human capital development, life and earth sciences and open sciences. They enable us to better manage global challenges linked to biodiversity, climate change, water, etc.

Professor SPIRO concluded by maintaining that Africa must put the emphasis on teaching basic sciences through a multidisciplinary and inclusive approach. He encouraged African countries to follow the recommendations of the «World Conference on Basic Sciences and Sustainable Development», held 20-22 September 2022 in Belgrade, Serbia.

These recommendations call for an approach that takes into account the views of all stakeholders, including political actors, scientists, young people and women, to better address current and future global challenges. This inclusive approach will contribute in the long term to strengthening the competitiveness of African countries in the concert of nations.



SCIENTIFIC COMMITTEE



**Prof. HOUNKONNOU
Mahouton Norbert**
President of the Scientific Committee

COMPOSITION	NAMES	COUNTRY	TITLE AND FONCTION
CHAIR	PROF. HOUNKONNOU MAHOUTON NORBERT	BENIN	Professor of Mathematics <ul style="list-style-type: none"> • President of Réseau Africain des Academies Nationales (NASAC) • Ex-President of the National Academy of Sciences, Arts and Literature of Benin • Member of TWAS
MEMBERS	DR. OUEDRAOGO MAHAMA	BURKINA- FASO	PhD in Plant Biology <ul style="list-style-type: none"> • Ex Director Education, Science, Technology et Innovation The African Union commission.
	PROF. TAHIRI ANNICK YAMOUSO	IVORY COST	Professeur of Animal Biology <ul style="list-style-type: none"> • EX-Director of research and innovation promotion -MESRS Côte d'Ivoire • Managing Director new start-up LAB TAYA Consultant AfDB Forum • FARI Consultant.
	DR. ANTONIO CORREIA SILVA	CAP VERT	Former Minister High education, Scientific Research and Innovation
	DR. DIABY NOUHOU	SENEGAL	PhD in Geoscience and environment <ul style="list-style-type: none"> • Member of the organising committee of the next Einstein Forum • Member of the jury of the Grand Prix of the President of the Republic of Senegal for Innovation.
	DR. OBI CHIDI VALENTINE	NIGERIA	• Founder and Director of KYIARA/ Founder and CEO of eTranzact. Private Sector Banking

PANEL SUMMARIES



PANEL 1 : HOW TO BUILD A COMMON VISION OF STI IN AFRICA?

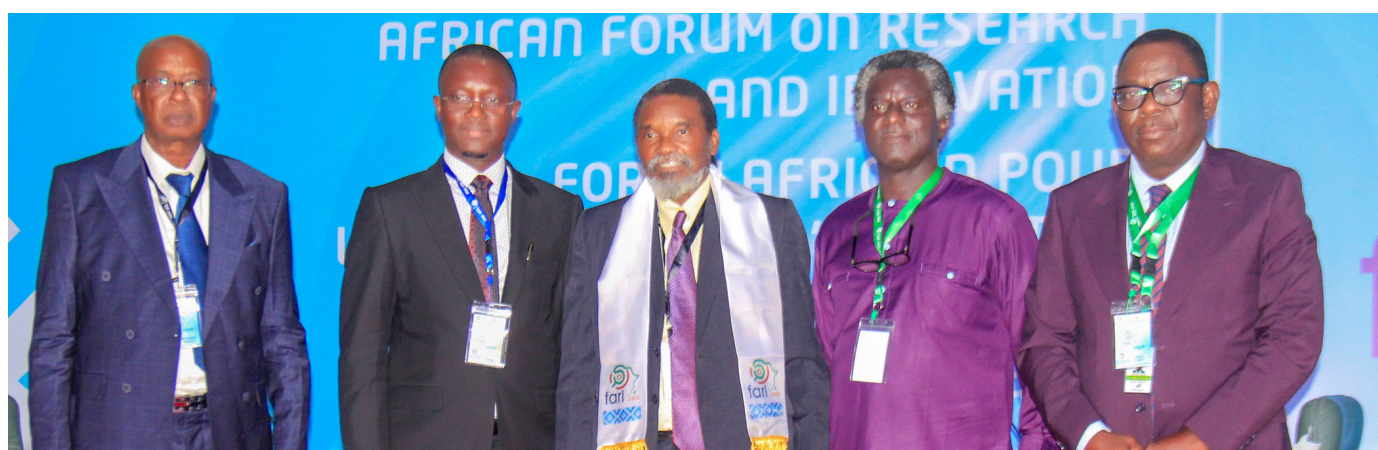
Chair : PROF. ABDOULAYE MAGA

Panelists : DR IDINOBA MONICA - PROF. AGBANGLA CLÉMENT - PROF. DECLAN KIRrane - DR AKINTAYO JOHN

Rapporteur : PROF. N'ZUE FÉLIX

Science, technology and innovation (STI) are recognized by African Heads of State as a major levers for economic transformation. It's for this reason that they are mentioned in the Lagos Plan of Action, in the African Union's Agenda 2063, in ECOWAS's Vision 2050 and in the National Development Plans of the Member States. This shared vision should help promote the relevance of having a shared agenda to promote STI and enhance the effective application of research and innovation results for the sustainable socio-economic development and competitiveness of our region.

During this panel discussion, the common challenges and perspectives in relation to STI, in line with the aforementioned reference documents, were set out, with strong involvement from the various national actors and development partners. The need for the alignment of STI policies to the NDPs and sectoral policies was underlined.



PANEL 2 : HOW TO POOL ACHIEVEMENT FOR BETTER DEVELOPMENT IMPACT IN AFRICAN COUNTRIES

Chair : PROF HOUNKONNOU MAHOUTON NORBERT

Panelists : PROF. KAH MUHAMMADOU - SESAY VICTOR - PROF. CARDOSO CARLOS

Rapporteur : PROF. AKA MARCEL KOUASSI

The panel highlighted how to pool achievements for better development impact in African countries in Science Technology and Innovation for the socioeconomic development of Africa through ECOPOST and STISA 2024.

Furthermore, it listed the significant progress made in the areas of policy development, governance, training of human capital and expertise, technology transfer, infrastructural development, acquisition of state-of-the-art and quality equipment, resource mobilization among others. It was pointed out that, these advances are not evenly distributed across the individual countries/sub-region.

This situation offers great opportunities for pooling (and sharing of) achievements at the country and regional level, with examples of innovation city in Benin, Science and Technology parks in Nigeria and the supercomputer in Côte d'Ivoire and Senegal respectively.



PANEL 3 : SUCCESSFUL INNOVATION MODELS IN AFRICA

Chair : PROF. TAHIRI ANNICK

Panelists : PROF. PAUL CHIDOZIE ONYENEKWE - N'DRI GUILLAUME GNAMIEN

Rapporteur : DR. DIABY NOUHO

The panel of experts outlined the 4 categories of innovations: product, process, organisation and marketing. They went on to emphasize the multi-dimensional nature of innovation, which includes the entrepreneur and the consumer. Innovation, a vector for long-term growth and development, comes at a cost. The Global Innovation Index developed by WIPO revealed the low ranking of African countries in general, and those of West Africa in particular.

Common challenges that require innovation include agriculture, health, education, transportation and energy. They expressed the importance of developing technologies adapted to the needs of these sectors, and to mobilize financial resources, especially at national level, to ensure the protection and marketing of innovations made by Africans. Successful models already exist in Benin with the SEME City project, and in Senegal with the Cité du Savoir (City of Knowledge) which offers training and research frameworks in Robotics, Big Data, Cyber Security, Molecular Genetics, Bioinformatics, Artificial Intelligence, Scientific Computing, Digital Modeling and Simulation, Biotechnologies, Nuclear Physics, as well as in Space Sciences and Techniques.

In terms of innovative start-ups and programmes, the following were mentioned: M-PESA, the precursor of mobile banking; Cardiopad, a Cameroonian innovation in e-health; Secure ID for smart cards; Aeroview in agriculture for crop protection; M-KOPA with access to solar electricity for underprivileged populations living in rural areas.



PANEL 4 : WHAT ARE THE PRIORITY SECTORS OF ACTIVITY IN WHICH INNOVATION IS NEEDED INCLUSIVE GROWTH IN AFRICA?

Chair : PROF. KAKOU RITA

Panelists : PROF. N’ZUE FÉLIX - FREEMAN SANGAY - DR. TENKOUANO ABDOU

Rapporteur : PROF. GAMETI DZIFA

The panel looked at the current performance of the countries of the subregion in terms of innovation and the main factors hindering it. With reference to the Global Innovation Index, the performance of the countries of the ECOWAS region could be characterized as poor. Indeed, on a scale of 0 to 100 are below 26. The top innovative country in the region is Cabo Verde with an innovation score which stood at 25.7 and is ranked 89th in 2021. This country is followed by Senegal (23.3; 105th), Ghana (22.3; 112th), Cote d’Ivoire (21; 114th), Burkina Faso (20.50; 115th) and Nigeria (20.10; 118th). Some of the factors hindering innovation in the region include : *1- Poor technological capabilities. 2- Poor innovation culture. 3- Absence of innovation strategy. 4- Poor Management skills (not innovation oriented). 5- Lack of innovation policies in member states (regulatory framework favorable to innovation. 6- Weak collaboration with the private sector in the field of innovation. 7- Poor access to financial support. 8- Insufficient human capital.*

In addition, the sectors of activity to be strengthened and promoted for the socioeconomic development of Africa are : • Agriculture • Health • ICT • Business sector in general, etc..

The strategies to be put in place to promote and support innovation in these priority sectors for inclusive growth in a competitive world economy, is aimed at keeping in check three abilities i.e. *1) Ability to feed our people (Agriculture); 2) Ability to ensure good health both physical and mental (education and health □ Human capital); 3) Ability to do business (Businesses need to innovate to achieve and maintain a competitive advantage).*

Having identified these abilities, it is therefore required to develop strategies/policies and mechanisms to boost them such as innovation policy, financial mechanism, legislation and governance among others.



PANEL 5 : OPEN SCIENCE

Chair : MOMA ENANG

Panelists : OWANGO JOY - PROF. KONE TIEMOMAN - PROF. TRAORE DJENÉBA

Rapporteur : PROF. AGBANGLA CLÉMENT

Open Science gives scientists access to scientific information, data and results, and enables data to be used in a more reliable manner with the active involvement of all stakeholders. In particular, it enables scientists from the Global South to have equitable access to scientific data, and thus to foster development by reducing the gap between them and their counterparts in developed countries, which is due to insufficient funding. It should be noted that science plays a key role in today's knowledge-based economies, and the increased efficiency associated with Open Science should benefit not only advanced economies, but also developing countries.

According to the panel, Open Science ensures quality, integrity and, among other things, economic advantages through spillover effects not only on scientific systems, but also on innovation systems.

It also reduces the time it takes for scientific research results, including articles and scientific data sets, to be reused by all stakeholders.

Last but not least, Open Science promotes citizen engagement and even active participation in scientific experiments and data collection.



PANEL 6 : ARTIFICIAL INTELLIGENCE : ISSUES AND CHALLENGES FOR WEST AFRICA

Chair : PROF. SIYANBOLA WILLIE

Panelists : DR SHABA HALILU - ARMAH FREDERICK ATO - DR BARRETO DA ROSA ISAIS

Rapporteur : DARBOE MUCKTARR

The sixth panel briefed on the importance and relevance of Artificial Intelligence (AI) and its products in today's world. Artificial intelligence contributes about 15.7 million USD of GDP to global economy and the country with the greatest AI is China followed by North America.

It is projected that by 2025, 97 million people would be working with AI. However, Africa will be facing the following challenges in the area of AI and these include; connectivity issue, and ICT development, digital IDs and Biometrics, Geolocation and privacy, facial recognition system, limitation of human rights such as freedom of movement.

The panel postulated that the use of internet, telephone, google etc, can be compared to artificial intelligence and that there's a need to make young scientists use this technology. AI should be included in research framework, as well as in the ecosystem, quality of data and information, awareness on environmental issues and policies.



PANEL 7 : STRATEGY, ISSUES AND FUNDING FOR RESEARCH AND INNOVATION IN AFRICA

Chair : PROF. LEILA MATTHIEU

Panelists : DR ENG AHMED HAMDY - PROF. GAYE SALIF - DR SANGARÉ YAYA

Rapporteur : DR HABOU RABIOU

A country's policy for research and innovation requires a strategy for implementation and financing in order to allow it to overcome in-country challenges and achieve its development objectives. Among other things, research and innovation help to improve productivity and living standards.

This panel analyzed the factors that stop or slow down the implementation of STI strategies and financing, namely the inadequacy of STI policies, the lack of coherence in their design, the difficulties in their implementation, and the lack of financing for the actions to be carried out.

In order to contribute to socio-economic development in the region, the members of the panel suggested that a focus be put on capacity-building in governance, training and financing, as well as on the quality of innovations, including endogenous ones.



PANEL 8 : RESEARCH-BASED BUSINESS CREATION

Chair : DR. OBI VALENTINE

Panelists : DR IBRAHIM DANAZUMI - PROF. GAMETI AMA DZIFA - PROF. AJIBADE MAIKEL

Rapporteur : PROF. N'GUESSAN JEAN-DAVID

The panelists identified the advantages of creating a research-based company, as well as the challenges and obstacles faced by such companies. It was suggested that such companies should be primarily created in the fields of agriculture, health, renewable energies, and ICTs. In addition, it is important to maintain good relationships between university institutions and research centers and companies, in order to enhance the value of research products and the transfer of technologies.



PANEL 9 : OPPORTUNITIES TO STRENGTHEN STI INITIATIVES IN AFRICA

Chair : DR OUEDRAOGO MAHAMA

Panelists : DR ADZOGENU EDEM - DARBOE MUCKTARR - DR. DOSSO MAFINI - PROF. N'GUESSAN DAVID

Rapporteur : CHUKWUDI OKONKWO PETER OLUONYE

This panel reviewed the gaps and challenges in STI, particularly in the fields of health, food security, nutrition, technology and innovation. It also identified the gaps that exists in the current STI ecosystems in West Africa, and success factors that can be promoted, replicated and scaled up. During their exchanges, the links between STI and the various industrial sectors in Africa were discussed, as well as strategies for industry actors to contribute to the funding needed for research, and for existing research institutions to increase their budget allocations in order to improve their performance.



PANEL 10 : HOW TO BUILD TRUST BETWEEN RESEARCHERS AND COMPANIES?

Chair : PROF. BRAIDE IKOI EKANEM

Panelists : PROF. YAYE DRAMÉ - AMBANA FERNANDO - PROF. STEINER MATHILDA

Rapporteur : DR HABOU RABIOU

A lack of trust between researchers and companies can be detrimental to the success of their collaboration. Companies need tangible results from the research and innovations produced by researchers to solve the problems they face, and to help them make a return on their investments.

The panelists discussed the ways and means of building trust between the various actors, in particular through the identification of needs and opportunities by the private sector; the involvement of the private sector in the development of research projects and programs; the setting up of exchange platforms between the various actors to support research priorities; and the capacity building of research and training teams in financing.



PANEL 11: THE ECOWAS RESEARCH AND INNOVATION SUPPORT PROGRAM : AN OPPORTUNITY TO PROMOTE SCIENCE AND INNOVATION IN AFRICA.

Chair : DR. KOUAKOU ROLAND

Panelists : PROF. KOKUTSE ADZO DZIFA - PROF. N'GUESSAN JEAN DAVID - DR. VICTORIEN DOUGNON

PROF. PROF MAHAMA DUWIEJUA

Rapporteur : PROF. PAUL CHIDOZIE ONYENEKWE

Building on the conclusions of Panel 7 on Strategies, challenges and financing of research and innovation in Africa, the Panel put showcased the ECOWAS Research and Innovation Support Program (PARI) as a source of motivation for scientific excellence among researchers. Aligned to the core values of the ECOWAS Vision 2050, this Support Program contributes to the development of scientific and technological research at regional level. It fosters innovation

as a source of stimulation for economic growth. The PARI is a regional fund that enables university laboratories and research institutes to acquire modern scientific equipment that meets international standards. It is a regional instrument for attracting researchers from the region and internationally renowned researchers to build an integrated policy on high-level research, development and training.

During this panel, the winning Consortiums (ROSEWOOD, PHYMEPALU and COVID-RAM from the 2018 and 2020 sessions of the PARI presented the results of their research. It was clear that this program fosters competitiveness among the region's researchers, encouraging new regional research while bridging the divide between those speaking different languages. The ECOWAS Research and Innovation Support Program (PARI) also contributes to the increase of scientific productivity and to the development of innovative products resulting from collaborative research in a increasingly competitive world. PARI is also a program that can contribute in the long term to the establishment of regional hubs for research and innovation.



PANEL 12 : CAPACITY BUILDING IN SCIENCE, TECHNOLOGY AND INNOVATION (STI) FOR SUSTAINABLE DEVELOPMENT IN THE ECOWAS REGION

Chair : PROF. HOUNKONNOU NORBERT

Panelists : DR HABOU RABIOU - PROF PROMISE MEBINE

Rapporteur : PROF. GAYE SALIF

This panel highlighted the need for STI capacity building in the ECOWAS region. It underlined the lack of collaboration between institutions at national and regional levels.

This capacity-building should include improved relations between academic institutions and industry actors, in order to reduce the gap between education and employment for the many graduates who find themselves faced with unemployment in the ECOWAS region.

Strengthening the institutions involved in education, including science academies, should bridge the gap between existing policies and their effective implementation.

These proposals should make it possible to develop momentum on the social, economic, environmental, political and technical levels.

RECOMMENDATIONS

At the end of the deliberations, the following recommendations were made.

POUR LA CEDEAO

1. Increase the amount of the start-up grant in order to ensure the sustainable employability of youth in the region.
2. Increase the resources of the Research and Innovation Support Programme (PARI) in an effort to ensure that laboratories are well equipped as well as to strengthen regional research.
3. Strengthen political endorsement in support of the FARI event.
4. Establish a regional bank or trust fund to provide funding for research and innovation.
5. Institutionalize the collation, maintenance and secure accessibility of STI data.
6. Ensure the dissemination and exchange of positive feedbacks and successful innovation practices in the ECOWAS region.

MEMBER STATES TO

1. Put in place and popularize inclusive policies to promote STIs with the support of the Academies of Sciences.
2. Put in place a network or partnership framework for researchers, innovators, the private sector and civil society.
3. Set up a platform where research and innovation project funding opportunities can be shared.
4. Strengthen Governance in the area of STI
5. Develop national structures on issues of intellectual property
6. Ensure the promotion of partnership among different stakeholders including scientists, policy makers, the private sector and local communities at national and regional levels
7. Put in place a monitoring and evaluation mechanism for the activities of STI at the national and regional levels
8. Take into account endogenous research in research projects to respond to the needs of the population
9. Pool heavy equipment in ECOWAS member states
10. Set up technopoles at the ECOWAS and college level to attract high-level researchers in STI
11. Socialize STI at all levels of the education system



IN NUMBERS

60

High-level panelists

30

Ambassadors

25

CEOs

22

Startups

10

Ministers in charge of
science & technology
or their representatives





FARI, IT'S LAUNCHED

The Forum for Research and Innovation (FARI) aims to improve public understanding of the role of Science, Technology and Innovation in socio-economic development. Among other things, it will : (i) improve the visibility of regional scientific and technological research; (ii) create a regular framework for dialogue between all the scientific and innovation actors from the region, Africa and the rest of the world; (iii) create opportunities for partnerships between research and innovation actors and the private sector; and (iv) create new conditions to motivate researchers in the region to increase the number and quality of their research projects.

The central theme of the first edition, which took place from 17 to 21 October 2022, was

« Science, Technology and Innovation for a competitive ECOWAS »

This theme was identified in view of developing a shared vision that would promote the relevance of a common agenda in the fields of Science, Technology and Innovation (STI) and improve the effective application of research and innovation results for the benefit of sustainable socio-economic development and the competitiveness of the ECOWAS region. To achieve

the objectives set by FARI-2022, three (03) sub-themes have been identified :

a. STI achievements and progress in Africa and how they can be pooled - b. Regional cooperation and coherent frameworks for cooperation between governments, scientists, universities, decision-makers, the private sector, technical and financial partners and civil society. c. High-level panel on the theme: « New visions for STI for a more inclusive development of African countries ».

These three (03) sub-themes were discussed through twelve (12) panels. The first day included the opening ceremony, the inaugural lecture and the experts' session.

Placed under the leadership of His Excellency Muhammadu Buhari, President of the Federal Republic of Nigeria, represented by His Excellency Prof. Ibrahim Gambari, Chief of Staff to the President of the Federal Republic of Nigeria, the opening ceremony was marked by 4 speeches, namely:

(i) the remarks of the Federal Minister of Science and Technology of the Federal Republic of Nigeria, Dr. (Sen) Adeleke Olorunnimbe Mamora; (ii) the remarks of the President of the ECOWAS Commission, His Excellency Dr. Omar Alieu Touray; (iii) the remarks of the Director of the UNESCO Regional Office in Dakar (Senegal)

and (iv) the opening address by His Excellency Prof. Ibrahim Gambari, Chief of Staff to the President of the Federal Republic of Nigeria.

The inaugural lecture by Prof. Michel SPIRO, President of the International Union of Pure and Applied Physics and Chairperson of the Steering Committee of the International Year of Basic Sciences for Sustainable Development in 2022. In his lecture, Prof. SPIRO highlighted the importance and contribution of the basic sciences to sustainable development. Prof. SPIRO pointed out that Africa must focus on teaching basic sciences through a multidisciplinary and integrative approach. He emphasised that African countries must take on board the recommendations from the Conference held from 20 to 22 September 2022 in Belgrade (Serbia) on advocating the sustainability of basic and applied sciences, and recommended that all stakeholders - politicians, scientists, young people, women, etc. - be taken into account in order to face current and future global challenges and ultimately contribute to their competitiveness in the concert of nations.

A Scientific Committee, chaired by Prof. Mahouton Norbert HOUNKONNOU, President of the Network of African Science Academies (NASAC), was set up to conduct the works. The working method adopted by this committee was that of plenary sessions, to give all Forum participants, including those online; the opportunity to contribute to, enrich and/or amend the results of the work of each panel. Over the 3 days of work by the experts, some sixty papers were presented. The panels were made up of 3 experts and a moderator. The presentations by the 3 panellists lasted a maximum of 50 minutes, followed by a 40-minute discussion with the audience. Each panellist was given a maximum of 10 minutes to present one aspect of the subject for which he or she had been invited.

In parallel with the panel session, a competition involving twenty-two (22) start-ups from ECOWAS Member States was held in the ECOWAS Commission parking lot. The evaluation criteria focused on: (i) Governance, management, risk management, financing, economic and societal impact and innovation. The start-ups were active in a wide range of sectors, including digital, agri-food, agriculture, forestry, cosmetics, pharmacopoeia, energy, textiles, technical tools, etc. After evaluating the Startups, the Scientific Committee decided to award the prizes to the following Startups:

A trophy to encourage the Startup : DT from Guinea Bissau, which has invented several types of machinery with an impact on the agricultural sector.

The first prize, worth USD 25,000, goes to the **SetTIC start-up from Senegal**, which works in the management and ecological recycling of electronic waste. SetTIC offers an integrated, environmentally friendly e-waste management service (from on-site sorting to recycling), while ensuring traceability of the various treatment channels at national and international level. It offers a unique solution in a context where managing tonnes of electronic waste is a headache. SetTIC is already offering its solutions to dozens of companies in Senegal and plans to expand into Mali and Mauritania. The prize was presented by the Commissioner for Human Development and Social Affairs.

The prize was awarded by the Minister of Higher Education and Scientific Research of Guinea Bissau, Prof Doutor Timoteo SABA M'BUNDE, representing His Excellency Umaro Sissoco EMBALO, President of the Republic of Guinea Bissau, Chairman of the Authority of Heads of State and Government.



Talla Boussoura, representative of the Start-up SetTIC, winner of the FARI AWARDS

The second prize, worth USD 15,000 , goes to the start-up **EDINDIA INDUSTRY SA from Côte d'Ivoire**. This start-up operates in the energy sector. EDINDIA INDUSTRY SA produces glucose syrup, alcohols, bioethanol and derivatives. Its products are mainly based on liquid manioc waste in a country where millions of litres of liquid waste from manioc processing are discarded, hence the great potential. Its bioethanol does not compete with food and is already being used by households in stoves for cooking.

The product has already been patented. The award was presented by Nigeria's Federal Minister for Science and Technology, Dr (Sen) Adeleke Olorunnimbe Mamora, representing His Excellency Muhammadu Buhari, President of the Federal Republic of Nigeria.

The third prize of USD 10,000 goes to the **Nigerian start-up HAJNABY**. Hajnaby is a Nigerian limited liability company whose mission is to provide high quality personal and household care products at competitive prices through continuous innovation, dedication and teamwork. It offers natural organic cosmetics based on baobab with a social impact, particularly in rural areas. The prize was awarded by the ECOWAS Commissioner for Human Development and Social Affairs, Prof Fatou Sow SARR, representing the President of the ECOWAS Commission, Dr Omar Alieu TOURAY.



Presentation of the ECOWAS vision by Prof Fatou Sow SARR during the Ministers' session

The Ministerial session was moderated by two (02) journalists: Ms Marie Gisèle Blassony N'GUESSAN, former journalist and news presenter at Radiodiffusion Télévision Ivoirienne (RTI), science journalist, and Mr Mitaire IKPEN, senior journalist at Nigerian Television Authority (NTA). During this session, each Minister was given a maximum of 10 minutes to present his or

her vision of Science, Technology and Innovation (STI) for a more inclusive development in African countries.

In alphabetical order by country, the Ministers presented their vision for STI at national level. At the end of the various presentations, the two (02) journalists asked questions to the Ministers for further clarification on the points raised.

The Ministers insisted on (i) strengthening governance in the field of STI at national level, (ii) pooling research facilities between Member States, (iii) increasing financing for STI by setting up a platform to share financing opportunities for research and innovation projects, (iv) socialising STI at all levels of the education system and setting up a monitoring and evaluation mechanism for STI activities at national and regional level.

The Ministerial session awarded a **special prize to Miss Odunsi Faith**, a Nigerian student at the Massachusetts Institute of Technology (MIT), for her achievements in the field of mathematics at the national, regional and international levels. She was awarded the FARI Special Prize. The special prize, worth USD 10,000 and a plaque, was presented by the ECOWAS Commissioner for Human Development and Social Affairs, Prof. Fatou Sow SARR, representing the President of the ECOWAS Commission, Dr Omar Alieu TOURAY, to Dr Afolabi Odunsi, father of the winner. The ministerial session ended with a ceremony at which certificates of participation and trophies were awarded to FARI participants, and a Gala offered by the Nigerian Government.



Presentation of the Special Prize to Miss ODUNSI Faith's the parents



FARI IN PICTURES











AFRICAN FORUM
ON RESEARCH
AND INNOVATION

INNOVATE AFRICA!

ABUJA
17th - 21st october 2022





FARI START-UP



OUR EXPERTISE
**INTEGRATED WASTE
 MANAGEMENT**

A recognized player in electronic waste management, SetTIC has diversified its activities by offering its customers integrated waste management. Our service includes :

- Waste audit
- Integrated waste management
- Electronic recycling of waste

SetTIC collects and recycles electronic waste such as computers, mobile phones, printers, computer and network equipment, batteries and printer cartridges.

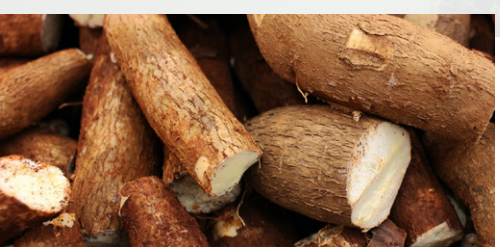
In addition to these equipment, SetTIC also supports the recycling of special waste such as batteries and print cartridges.

REPUBLIC OF SENEGAL
 3 Rue Berenger Feraud, Dakar, Sénégal
 Dakar, Sénégal 20231, SN
 +221 33 842 02 08



**For cleaner,
more sustainable
energy**

A leader in the production of biofuel, committed to the transition towards cleaner and more sustainable energy, Edindia Industry works on the valorization of liquid and solid cassava waste with a view to producing bioethanol, Biodiesel for vehicles and biofuel in stoves for clean cooking of food.

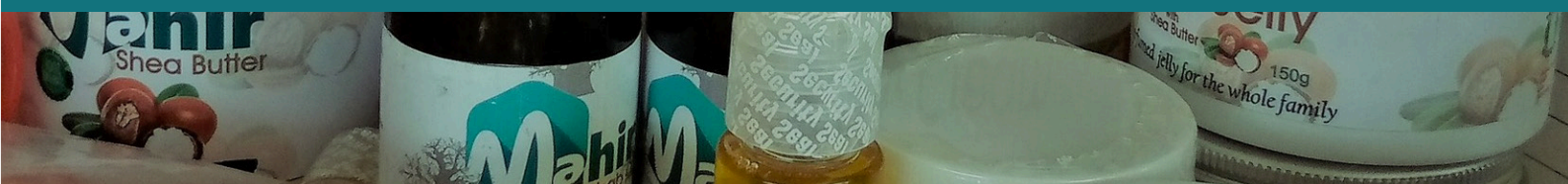


REPUBLIC OF CÔTE D'IVOIRE
 Abidjan plateau indenie 5 boulevard des AVODIRES
 06 BP 637 ABIDJAN 06
 +225 07 09 09 88 42



Hajnaby Ventures Limited

Our mission is to provide premium quality personal and home care products through our continued innovation, dedication and teamwork. We also aim to be an employer of choice by fostering an organizational culture that identifies and supports talent.



FEDERAL REPUBLIC OF NIGERIA

Office Address : No 2 Danmori Road Rigacikun Kaduna

Factory: Unit A2 Technology Incubation Centre. KM 7 Zaria Road Rigacikun, Kaduna

Customer Care : 08036787123



PROSPECTS

02

1 Conference of two (02)
Head of States expected

15

1 ministerial session
of 15 Ministers

75

Startups Exhibitors

8

Thematic panels

03

Training workshops
themes

20 000

expected visitors



MEET IN
BENIN



**AFRICAN FORUM
ON RESEARCH
AND INNOVATION**

FARI is an event conceived and organized by the Department of Human Development and Social Affairs of the ECOWAS Commission

Our solemn thanks go to His Excellency Muhammadu BUHARI who accepted and facilitated the organization of this first edition of FARI.

The contribution and personal involvement of the Federal Minister and all his collaborators were essential to the success of this event.

Congratulations to all the teams who eagerly participated in the success of FARI 2022 - ABUJA.

Long live the next edition !

DR OMAR ALIEU TOURAY



ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
COMISSÃO DA CEDEAO

ECOPOST

ECOWAS SCIENCE, TECHNOLOGY AND INNOVATION
POLICY



PARI

**SUPPORT PROGRAM
LOOKING FOR AND
TO INNOVATION**

WANNAS

**WEST AFRICAN NETWORK
OF ACADEMIES
NATIONAL SCIENCES**

**ECOSAT
1**

**THE FIRST OBSERVATION
SATELLITE
OF THE EARTH**



AFRICAN FORUM
ON RESEARCH
AND INNOVATION



ECOWAS COMMISSION
COMMISSION DE LA CEDEAO
COMISSÃO DA CEDEAO