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Rice University's Baker Institute for Public Policy

EMEA WEBINAR

AFRICA'S KEY ROLE IN THE BRAIN ECONOMY

Co-organised by the Euro-Mediterranean Economists Association, the Center of Health and Bioscience of the Rice University's Baker Institute for Public Policy, and the Brain Capital Alliance

Date: 13th March 2024

Moderated by: Prof. Rym Ayadi, President and Founder, EMEA
Rapporteur: Paula Pazos Puig, Research Assistant, EMEA

[LINK TO VIDEO](#)

Background

We must transition to a brain-positive economy aka brain economy - a global goal to stop and reverse the loss of brain capital, which puts a premium on brain health and brain skills in accomplishing socio-economic objectives. Such a transition is good for people, the economy, and nature. Public, private, not-for-profit, and philanthropic actors are all essential.

Focusing on building African brain capital in the next 50 years is crucial for several reasons:

1. Sustainable Development Goals (SDGs): Brain capital, which includes brain health and skills, plays a pivotal role in achieving all the United Nations' 17 Sustainable Development Goals. By investing in brain capital technologies and research that promotes brain health, we can cultivate productive, healthy brains capable of advancing our society.
2. Economic Growth: Brain capital can drive economic growth by dealing with economic strain, productivity slowdown, and the need for more industrial innovation. It provides a lens for dealing with these challenges and can introduce a paradigm shift to our understanding and agency in brain health.
3. Health and Well-being: Given the critical need to nurture healthier, more resilient, and increasingly flexible brains worldwide, building brain capital is essential. It prioritizes brain skills and brain health, which are fundamental to individual and societal well-being.
4. Gender equity: Women and girls are especially vulnerable to trauma and neurological disease, education disruptions, and disproportionately serve as caregivers (both for children and elders) and share in the breadwinning. Yet, public policy has not addressed this gender disparity and women's particular needs, even though the effects of poor brain health affect the entire family.
5. Climate Dynamics: Brain capital can also help in understanding and addressing the interplay between our brains and climate dynamics, including extreme weather, air pollution, and green skills.
6. Societal Challenges: Optimizing brain health and investing in building cognitive and brain capital is fundamental to meet modern societal challenges.

Building African brain capital is not just about improving individual health outcomes; it's about fostering sustainable development, driving economic growth, and meeting societal challenges head-on. It's an investment in the future of Africa and the world.



On March 13th, 2024, the Euro-Mediterranean Economists Association (EMEA) co-organised with the Center of Health and Bioscience of the Rice University's Baker Institute for Public Policy and the Brain Capital Alliance a webinar entitled "Africa's Key Role in the Brain Economy". The event brought together an international group of experts across many sectors for an in-depth and insightful discussion. The speakers and discussants explored the potential of neuroscience in shaping economic and policy decisions for Africa's development, with topics ranging from the transition to a brain-positive economy and its implications for different income groups, to the interplay between brain capital, sustainability, gender equity, public-private, and climate dynamics.

The moderator of the session, Professor Rym Ayadi, President and Founder of EMEA, opened the event by emphasising the connection between neuroscience and development; "neuroscience can offer us a new understanding on, for instance, aggression and cooperation enhancement, which are key for offering strategies to conflict resolution and overall peacebuilding. Our idea is to foster healthier populations as they become much more productive, and they can contribute to the overall well-being and flourishing of their societies." She highlighted the need for an integrated and systemic approach to embed the research in neuroscience into our economic policies, to better understand how we could solve societal challenges. Also, education systems can be very much improved to enhance the learning outcomes of the population over the life cycle, for example, by enhancing critical thinking skills or literacy. Together with EMEA Advisory Board member, Dr. Harris A. Eyre and other colleagues, EMEA has been working on the concept of Brain Capital, understood to be the interaction between brain health and brain skills. Brain capital can be built as an asset for economies and societies with the overall aim that it becomes accompanied by health policy, as well as social protection and education.

Professor Ayadi then introduced the speakers:

- Dr. Harris A. Eyre, MD PhD, Fellow at Rice University's Baker Institute for Public Policy, advisor to the Euro-Mediterranean Economists Association, and Lead of the Brain Capital Alliance.
- Prof. Zul Merali, Professor of Neuroscience, Aga Khan University, Kenya and Pakistan
- Massamba Thioye, Project Executive, UNFCCC Global Innovation Hub
- Prof. Alfred K. Njamnshi, Professor of Neurology & Neuroscience, Founder-CEO of Brain Research Africa Initiative (BRAIN)

And the discussants:

- George Vradenburg, Co-Founder and Founding Chairman of the Board of the Davos Alzheimer's Collaborative
- Funsho Allu, Partner, TIA Capital Management
- Kwame Sarpong Barnieh, Partner, Head of Governance, Risk and Compliance Services, KPMG Ghana
- Ekkehard Ernst, Chief of the Macroeconomic Policy Unit, International Labour Organization, President of Geneva Macro Labs

Summary of the Discussion

Dr. Harris A. Eyre introduced the idea of transitioning to a brain-positive economy, emphasizing the urgent need to reverse the depletion of brain capital. He highlighted the unsustainable costs of mental health and neurological disorders, which currently amount to approximately \$1.5 trillion annually and are growing at a rate of 5.4% yearly. It is paramount to implement radical economic policy changes, including increased investment in brain science, clinical innovation, and national brain plans. Transitioning to a brain-positive economy not only benefits individuals but also boosts productivity, social cohesion, and environmental sustainability. Dr. Eyre's team has outlined this transition in the paper *Brain Capital: Vital to The Post-SDG Agenda*,¹ demonstrating how the Sustainable Development Goals (SDGs) can facilitate the process.

Additionally, they stress the need for a nature-positive economy that promotes biodiversity and forestry.

Our brains influence the economy and vice versa, which is why Dr. Eyre proposed a roadmap for the transition, which is soon to be published by the Brookings Institute. This roadmap includes developing a shared vision, engaging stakeholders, leveraging existing initiatives, and monitoring progress. He also emphasized the importance of personalized education systems that include historically marginalized individuals, supported by advancements in educational neuroscience.

¹ Brain capital: vital to the post-SDG agenda, Eyre HA, Hynes W, Ayadi R, Manes F, Swieboda P (2024) Lancet Neurology. [https://www.thelancet.com/journals/lanneur/article/PIIS1474-4422\(24\)00031-0/fulltext](https://www.thelancet.com/journals/lanneur/article/PIIS1474-4422(24)00031-0/fulltext)

The following speaker, Professor Zul Merali, presented a compelling economic case for investing in brain health in Kenya and Africa, emphasizing the significant demographic dynamics shaping the continent. He stressed the importance of addressing mental health among the young population to ensure a productive workforce, noting the impact of disorders like stress, anxiety, and depression on performance and productivity. Investing in programs promoting mental well-being and resilience among the youth can create a healthier workforce that will ultimately boost economic growth. This is especially true for Kenya, where the median age is 20 years, and half the population is under 20.

Prof. Merali also discussed the challenges posed by dementia and Alzheimer's disease in Africa, projected to affect the continent disproportionately by 2050. These conditions not only present individual and familial challenges, but also strain healthcare systems and society. By investing in brain health initiatives that focus on early detection, prevention, and management of neurodegenerative diseases, there's potential to reduce healthcare costs, enhance quality of life, and alleviate economic burdens. Added to that, Prof. Merali emphasised the need to redefine brain health to include the concept of brain capital, which encompasses societal well-being and prosperity. He also discussed the Brain & Mind Institute he leads in Africa, which aims to advance brain health through fostering local expertise, promoting equitable healthcare policies, and conducting socially accountable research.

Regarding the potential for cooperation and collaboration between nations, Prof. Merali emphasised Africa's role as a source of innovation rather than solely a recipient of information and development. Despite resource limitations, African countries can leverage locally available solutions, such as the 'grandma benches' approach for peer counselling, which originated in Africa and is now utilised globally.

Following the discussion, Massamba Thioye, Project Executive, UNFCCC Global Innovation Hub, emphasized that we have yet to harness the full potential of the brain for sustainable development. He stressed Africa's need to build a future that addresses various essential needs, such as nutrition, health, shelter, education, and energy, in alignment with climate goals while preserving biodiversity. Profound political, economic, social, and ecological changes within Africa are needed, alongside a shift in mindset among leaders from the Global North, who have significantly contributed to Africa's current economic and social challenges. Mr. Thioye highlighted that economic and policy decisions for Africa's sustainable development require reframing how Africans engage with each other and the rest of the world. This endeavour involves the mobilisation of brain capital and the cultivation of green skills within Africa.

He outlined three key principles—caring, sharing, and daring—as essential for global and African sustainability and climate transition. Caring involves prioritizing people’s well-being; sharing entails sharing knowledge and experiences through radical collaboration; and daring refers to setting ambitious goals based on what is needed rather than what is perceived as possible. In relation to the role of brain capital in post-2030 SDGs, Mr. Thioye stressed the need to place brain capital at the forefront of discussions to ensure the successful attainment of these goals.

Professor Alfred K. Njamnshi then discussed the mission of the Brain Research Africa Initiative (BRAIN), of which he is Founder-CEO. BRAIN aims to empower young people across Cameroon and 15 other African countries to generate new evidence in neuroscience and adapt it for the overall development of the continent. Initiatives such as Brain Week, originally started in Cameroon and now expanded to Brain Week Africa, provide free neurological care while fostering interest in neuroscience careers among youth. Additionally, BRAIN emphasises the essential link between health, particularly brain health, and development, advocating for public-private partnerships with various stakeholders, including governments, academia, and the African Union.

BRAIN’s efforts are particularly focused on French-speaking African countries, where neuroscience research and grant acquisition lag behind Northern Africa. Prof. Njamnshi highlighted the need to integrate concepts of brain health, brain capital, and the brain economy into educational curricula at all levels to drive progress. He also underscored the necessity of addressing the financial support of the African Union by its member nations, stressing that African leader’s financial backing is crucial to ensure sustainability and independence. The role of academic and research institutions is key to advancing the brain economy concept, which needs to be integrated into educational curricula.

Following the round of presentations, Prof. Ayadi began the moderated discussion with Mr. George Vradenburg, asking him about Africa’s role in his work with the Davos Alzheimer’s Collaborative, of which he is Co-Founder and Founding Chairman. Mr. Vradenburg explained that the Davos Alzheimer’s Collaborative, established in 2021, is a public-private civic organization addressing global brain health issues. He emphasized the need to diversify research beyond white Caucasians in North America and Europe, highlighting collaboration with the Brain and Mind Institute in Kenya and governments like Chile and Colombia to assess climate change’s impact on brain health. It is crucial to leverage data and insights from various cohorts worldwide to enhance understanding. Mr. Vrandebourg also shed some light on the challenge of accessibility to disease-modifying therapies in low and middle-income countries and the need for innovative, cost-effective solutions. He announced plans for the first-ever Dementia Conference in Africa, indicative of Africa’s potential to drive innovations globally.

Moving to Mr. Funsho Allu, Prof. Ayadi asked him to bring the pivotal role of finance and investment in fostering a brain-positive economy to the discussion. He stressed the need to integrate brain capital considerations into Environmental, Social, and Governance (ESG) frameworks to guide investments positively. There is an increasing focus on impact-driven investment decisions in the private sector, which can be harnessed to incorporate brain capital-related metrics into ESG frameworks and steer capital towards initiatives supporting brain economy growth.

Mr. Kwame Sarpong Barnieh discussed the importance of incorporating brain capital into ESG frameworks to promote responsible business practices. He stressed the need to connect initiatives in Africa and raise awareness about brain capital among key decision-makers. Mr. Barnieh also highlighted the potential of brain capital considerations to drive positive societal impacts within ESG frameworks, thereby fostering a more sustainable and inclusive economy.

Mr. Ekkehard Ernst shared his concern regarding the healthy brain development of young people. There is a cognitive divide experienced by youth lacking proper resources such as nutrition, schooling, and healthy environments, which hinders their ability to benefit from the ongoing digital transition. Mr. Ernst emphasised the importance of not only a physically healthy workforce but also a cognitively healthy one, as well as a healthcare workforce capable of addressing the needs of all age groups. It is also paramount to increase global investment in healthcare infrastructure to ensure the retention of skilled medical personnel and to provide essential health services. Additionally, Mr. Ernst stressed the critical role of connectivity in Africa, noting the continent's lack of access to information and technological transfer. This gap could be bridged through digitalization, which can only be possible with the development of digital infrastructure. Africa is also rich in natural resources, and Mr. Ernst suggested the establishment of a new framework valuing natural capital as a resource for the continent's well-being.

Prof. Zul Merali concluded by highlighting the collaborative effort involving academia, private organizations, and healthcare sectors in addressing brain capital as a pivotal investment for countries. He stressed the significance of nurturing and safeguarding the brain through strategic investment to foster a healthier world.



Finally, Massamba Thioye underscored the significance of innovation in technology, policy, and financial instruments to alleviate brain-negative externalities and foster brain-positive outcomes, which can be achieved through incentivization and supportive policy frameworks that promote such initiatives.

The webinar emphasized the critical importance of prioritizing brain health and development in Africa's journey towards sustainable prosperity. Insights from various speakers underscored the need for strategic investments in healthcare, education, and digital infrastructure to unlock the continent's potential. Collaborative efforts and innovative solutions were highlighted as key drivers for building a brain-positive economy. Overall, the discussions echoed a clear call to action for concerted efforts aimed at nurturing brain capital to foster a healthier, more resilient, and prosperous Africa.

Speaker Biographies

Moderator



Prof. Rym Ayadi

President and Founder of the Euro-Mediterranean Economists Association

She is Founder and Director of the Euro-Mediterranean and African Network for Economic Studies (EMANES). She is Senior Advisor at the Centre for European Policy Studies (CEPS); Professor at the Bayes Business School, City University of London; and Member of the Centre for Banking Research (CBR); Academic member and Chair (2018-present) of the European Banking Authority – Banking Stakeholders Group (EBA- BSG). She is also Associated Scholar at the Centre for Relationship Banking and Economics (CERBE) at LUMSA University in Rome.

Speakers



Dr. Harris Eyre

PhD, Fellow in Brain Health at Rice University's Baker Institute for Public Policy and Senior Fellow for Brain Capital with the Meadows Mental Health Policy Institute

Originally from rural Australia, Harris Eyre MD PhD is a global physician-executive and neuroscientist focused on advancing the field of brain capital. He is lead of the Brain Capital Alliance and co-lead of the OECD Neuroscience-inspired Policy Initiative. He is Fellow with the Baker Institute for Public Policy and Senior Fellow with the Meadows Mental Health Policy Initiative. He has provided senior executive services to dozens of brain technology start-ups. He has published papers journals such as Neuron and Chief Finance International. He is an advisor the Euro-Mediterranean Economists Association and the Texas Medical Center Innovation Institute. Harris maintains adjunct roles with the Global Brain Health Institute, Baylor College of Medicine, Deakin University, the Latin American Brain Health Institute and the University of Texas Health Sciences Center at Houston. parallel, Yeganeh is currently working on several research projects and development of data observatories.



Dr Zul Merali

Professor of Neuroscience, Aga Khan University, Kenya and Pakistan

Dr Zul Merali is the Founding Director of the Brain and Mind Institute at the Aga Khan University. He is a neuroscientist and pharmacologist by training (McGill University, University of Ottawa and Wharton), with over 40 years of academic engagement.

Has published over 250 peer-reviewed scientific publications. He has used his proven academic and entrepreneurial ability to add value to forward thinking organizations to help address the mental health problem, locally, nationally, and globally. His objectives have been to build and/or re-engineer organizations to deliver outstanding results and motivating and encouraging others towards positive change.



Massamba Thioye

Project Executive, UNFCCC Global Innovation Hub

Massamba Thioye is leading at the UNFCCC secretariat, the UN Climate Change Global Innovation Hub. He is also Advisory Committee member of the European Green Digital Coalition and member of the Strategic Advisory Board of the "Net-Zero" initiative under ISO.

Massamba Thioye has published several breakthrough technical papers in technical peer-reviewed journals. The most recent include an article on a reformed integrated green bond and carbon market as well as a New advanced consumption-based GHG accounting system for cities enabled by Distributed Ledger Technologies.



Prof Alfred K. Njamnshi

Professor of Neurology & Neuroscience, Founder-CEO of Brain Research Africa Initiative (BRAIN)

Prof Alfred K. Njamnshi is a Swiss-Board certified senior consultant neurologist and clinical neurophysiologist, professor of neurology & neuroscience in The University of Yaounde I, and he heads the Neurology Department of the Central Hospital Yaoundé (Teaching Hospital), Cameroon. He is the founder and Executive Director of the Brain Research Africa Initiative (BRAIN). BRAIN is a development partner of the African Union Commission and member organisation of the International Brain Initiative (IBI).

Discussants



George Vradenburg

Co-Founder and Founding Chairman of the Board of the Davos Alzheimer's Collaborative

George Vradenburg is a leading advocate in the fight against Alzheimer's disease. He serves as Chairman and Co-Founder of the Davos Alzheimer's Collaborative (DAC), a global partnership dedicated to accelerating innovation in Alzheimer's and delivering solutions worldwide.

Additionally, George is the Chairman of UsAgainstAlzheimer's. George has led notable roles in organizations such as the Advisory Council on Research, Care, and Services established by the National Alzheimer's Project Act. He has testified before Congress on the urgency of addressing the global Alzheimer's pandemic and has led initiatives to prevent Alzheimer's. George's esteemed affiliations include membership in the Council on Foreign Relations and the Economic Club of Washington and a career that includes senior executive and legal positions at CBS, FOX, and AOL/Time.



Funsho Allu

Partner, TIA Capital Management

Folorunso (Funsho) Allu is a Founding Partner of TIA Capital. He is based in Nairobi and oversees the East-African and Francophone business. Most recently Mr Allu was a founding partner of 46 Parallels 1 LLP a joint venture between TIA Capital and the JMH Group. Over a three-year period, Mr Allu along with his fellow TIA Capital partners built 46 Parallels, specialists in Private Debt in SSA-ex SA. Before co-founding TIA Capital, Mr Allu headed the EMEA Hedge Fund business for AIG and PineBridge's MultiStrategy Hedge Fund allocation business. His earlier career was at Goldman Sachs and Petercam Capital. Mr Allu has a First Class Honours Masters in Mechanical Engineering from the University of Bristol.



Kwame Sarpong Barnieh

Partner, Head of Governance, Risk and Compliance Services, KPMG Ghana

Kwame Sarpong Barnieh (CPA, CGMA) is a Partner, in charge of Governance, Risk and Compliance Services (GRCS) in KPMG's Risk Consulting practice in Ghana with more than 21 years of audit and advisory experience. He has facilitated leadership trainings for the Institute of Chartered Accountants, Ghana, and newly promoted managers in KPMG Ghana.

Kwame's ESG and sustainability experience involves serving as an Engagement Partner for Environmental and Social Risks Assessments, as well as Sustainability Assurance engagements. He has facilitated sessions on ESG and related topics to the Euro-Mediterranean Economists Association(EMEA), Ghana Chamber of Mines, UN Global Compact, and the Africa Real Estate Conference and Expo. He is a Certified Public Accountant and Certified Global Management Accountant. He holds an Executive MBA from the Penn State University, Smeal School of Business, and an undergraduate degree in Administration from Fox School of Business & Management.



Ekkehard Ernst

Chief of the Macroeconomic Policy Unit, International Labour Organization, President of Geneva Macro Labs

Ekkehard Ernst is Chief of the Macroeconomic Policies and Jobs unit at the International Labour Organization. His current focus lies on understanding trends in the Future of Work, where he develops scenarios on how technological innovations, demographic shifts and political vagaries might unfold in the world of work. His work is widely published in both policy reports and academic studies.

His most recent work discusses different policy options to address the socio-economic crisis resulting from the Covid 19 pandemic. In 2017, he co-founded Geneva Macro Labs to offer a platform to identify, develop and implement solutions to address global challenges and existential risks. Previously, he worked at the Organization for Economic Cooperation and Development (OECD) and the European Central Bank. Ekkehard Ernst has studied in Mannheim, Saarbrücken and Paris and holds a PhD from the École des Hautes Études en Sciences Sociales. He became an IZA Policy Fellow in July 2011.



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