



## Preparation of the Ed Mitchell 1 pager

Summary, mostly from Recent Developments for the AfLS in partnership with the AAS  
Submitted to the IUCr journal

<https://www.overleaf.com/read/zzvbychibphi#5eed36>

The African Light Source Foundation (AfLS) partnered with the African Academy of Science (AAS) is leading the effort to establish Africa's first Advanced Light Source (AdLS), designed, built and operated in Africa, for Africa. Its ambition is to begin construction by 2035. The AAS-AfLS together with the AU, and AUDA-NEPAD envisage the Synchrotron as the premier large-scale infrastructure that can address all 17 UN SDGs and also Africa specific challenges, It can drive massive capacity building innovation and competitive industry. The AfLS will boost infrastructure and capacity over the entire continent in a coherent way. It will be a Pan African project of Science Diplomacy. To achieve this, the AfLS is coordinating the scientific, technical and organisational preparations required for such a facility. This includes developing the Scientific and Technical Design Reports, building the skills and expertise of researchers, engineers, technicians and administrators, and creating the institutional capacity needed to construct, operate and fully exploit an international-scale research infrastructure. In parallel, the AfLS is strengthening scientific, political and public support by demonstrating the transformative impact an AdLS would have on research, innovation, health, energy, environmental science and industrial development across the continent. Africa remains the only inhabited continent without its own AdLS, making this a critical strategic investment in the continent's scientific future.

1. **G-CDR:** the release of the AfLS Geopolitical-Conceptual Design Report ([G-CDR](#))
2. **Three STFs Report:** the release of the reports from the three Strategic Task Forces ([STFs](#)).
  - a. Develop an African beam-line(s) at international AdLS: a beam-line designed and operated by Africans to address regional research priorities, offering opportunities for training, knowledge and technology transfer, allowing for an advanced technical capacity building.
  - b. Collective African membership at international AdLS: a joint membership model for African nations to gain formal representation and decision-making authority at international AdLS, ensuring greater access for African researchers and industries.
  - c. Regional research infrastructure: establishing competitive research hubs across Africa to support training and serve as feeders to an eventual AfLS.
3. **AAS-AfLS MoU:** Memorandum of Understanding between the AfLS and the African Academy of Science (AAS) to form the AAS-AfLS [signed on 11 December 2024](#), at the 15th AAS General Assembly and Conference in Abuja, Nigeria
4. **STISA-2034:** Release of the [Implementation Plan](#) of the African Union's (AU) Science, Technology and Innovation Strategy for Africa (STISA-2034) which specifically identifies a synchrotron as a planned flagship large scale research infrastructure for the African Continent.
5. **SESAME – African beamline:** This [AfLS-STF-Beamline](#) project has been much advanced by UNESCO and Elettra.
6. **AUDA-NEPAD & AAS:** The African Union Development Agency – New Partnerships For Africa's Development (AUDA-NEPAD) has a key role in the implementation plan of STISA-2034 and it has a MoU with the AAS for the establishment of a synchrotron light source in Africa. This then includes the AAS due to the AAS-AfLS MoU.
7. **Funding Dashboard:** Already there is a ramp up of major funding for the training, visits Conferences and related activities
  - a. **BRIDGE Africa:** Boosting Research Infrastructure for Development, Growth and Empowerment in Africa" ([BRIDGE Africa](#)) € 250,000
  - b. **RESTART:** Africa-UK Physics Partnership (AUPP) Collaborative Projects funding opportunity entitled REsilience through Synchrotron Techniques for African Research & Technology ([RESTART](#)) GBP341,000
  - c. **FAST Teams** LAAAMP programme typical annual expenditure in Africa, to send about 5 pairs of researchers (student-staff combination) to an international synchrotron for three months €100,000
  - d. **BRICS-STARS** Summer School for [4 young Africans to visit HEPS](#) In China ~R120,000
  - e. **SUNSTONE** European Commission grant with SESAME with specific task to support African researcher capacity development €50,000
  - f. **NEPHEWS** European Commission grant for [supporting 5 Africans](#) to the Hercules Synchrotron School of the ESRF €15,000
8. **Regular Conferences and Schools**
  - a. AfLS Conference annually (In-Person / Remote), 1 week in the 3<sup>rd</sup> week of November each year, several donors \$15,000. Upcoming is [AfLS9-2026](#).
  - b. ICTP School on Synchrotron Light Sources and their Applications, co-organised by AfLS and others, 3 weeks in January each year. Most recent is the [ICTP Synchrotron School 2026](#).



## Investing in Africa's Scientific Future: The African Light Source (AfLS) Funding Landscape

Visualizing Diverse Financial Investments and Strategic Capacity Building for a Continental Synchrotron

