INITIATIVE KNOWLEDGE FOR DEVELOPMENT


An international scientific and technological partnership between FCT and AKDN to support Quality of Life in Africa: overall synthesis with emphasis on the first call for projects involving institutions from Portugal and Portuguese Speaking African Countries

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1. Initial steps

In 2016, a scientific and technological partnership was established between the Foundation for Science and Technology (FCT), the Portuguese public institution responsible for coordinating and funding science at national and international levels, and the Aga Khan Development Network (AKDN), a group of private, international, non-denominational development agencies working to improve quality of life and opportunities for people in some of the poorest parts of the developing world.

The partnership was developed within the context of the already existent Initiative Knowledge for Development, aiming to support overall human development in Africa by funding projects in multiple areas related to the improvement of the quality of life of the African people. Both FCT and AKDN invested, in matching funding, circa 4,6M €, in the first call, which was launched in 2017. The decision of the stakeholders was to open the first call in all scientific areas but only eligible for already existent partnerships between Portuguese institutions and African institutions from the Portuguese Speaking African Countries; hoping to strengthen the already existent links which could improve and leverage human capacity building in countries with small scientific global impact and scarce use of technology to enhance the quality of life of the population.

2. Steps leading to the launching with success of the first call

The first call was open between May and July of 2017 and 78 proposals were submitted which were evaluated by a panel of external international experts, appointed by FCT and AKDN. From the 73 proposals considered eligible, sixteen were selected for funding.
To each one of the winning projects, planned to last between two or, mostly, three years, a **total sum of circa 300 000 € was allocated to be distributed, in equal fractions, on a yearly basis.** The projects involved, in some cases, more than one African institution with the following geographical distribution: ten from **Mozambique** (five in partnership with institutions from other African countries), six from **Angola** (three in partnership), two from **Cape Verde** and one each from **Guinea Bissau** and **São Tomé e Príncipe** (this one in partnership). In some cases, institutions from other African States were also involved in partnerships such as between Mozambique and Angola (three, of which one with Nigeria), and Mozambique with South Africa in one project and Mozambique with São Tomé e Príncipe and Tanzania, in another.

The **thematic areas** covered a broad number of scientific and technological disciplines ranging from **biological sciences and medicine and health to exact sciences, engineering and social sciences.** The **singularity of this program** was: (i) it covered a wide spectrum of scientific disciplines with a major concern on the application of knowledge for improving the quality of life: applied biological sciences - fishing, aquaculture, coastal and agrobiodiversity, ecological assessment of urban margins; exact and technological sciences – radio-astronomy, paleontology, alternative energy sources for agriculture, geosciences; health sciences - HIV, tuberculosis, malaria and sickle cell disease; social sciences – memories and identities, democracy and electoral integrity (ii) it was, as far as we know, the **first global program applied to Portuguese Speaking African States aiming at improving institutional strengthening and capacity building.**

Hopefully, it will be part of a seed program contributing to enhance scientific networking for African development.
3. Role of the External Scientific Review Panel

Two of the greatest challenges facing this type of projects are sustainability and impact. For that reason, the stakeholders agreed to establish a monitoring methodology of the projects during the three-year period and appointed an External Scientific Review Panel (ESRP) to assess the progress of the work performed by the research teams. **ESRP is composed of five members, including the coordinator, and was officially appointed by the President of FCT, in July of 2018, with the approval of AKDN.** Due to the diversity of the disciplines covered by the sixteen projects the experts are from the following areas: biological sciences, health sciences, exact sciences and social sciences. However, the overall analysis of projects in what concerns the impact on development and on the quality of life of the population, was shared between all the members of the ESRP.

The **initial working methodology** of the ESRP consisted in the screening of all the already funded projects, taking into account the following items: title and acronym, institutions involved, requested funding (yearly), starting date, duration in months, profile of the principal investigator/coordinator (including institutional position and time allocated to the project), milestone list (including chronogram), expected output indicators (yearly), and scientific spreading actions (yearly).

During that initial period, the **ESRP planned to interview, in person, each of the project coordinators.** The interviews occurred between September and October of 2018 and showed that it was possible to review the working plans and support their coherence with the initial proposal. However, an important review of the chronogram occurred and was planned together with the ESRP members. In these interviews, besides clarifying the details of the projects, a consensus was reached concerning the **format and the style of the progress reports which were to be presented every year.** ESRP also expressed the intention to support the coordinators in areas where they could be facing difficulties namely in managing human and
technical resources in different countries. This **sustained dialogue of the ESRP with the coordinators** was considered useful for the continuous support of the projects, which started from the second half of 2018, and preparation of standardized progress reports.

By the end of January of 2020, all the sixteen progress reports of the first year were received, at FCT, in appropriate conditions to be sent for analysis by the members of the ESRP. Overall, the **great majority achieved most of the targets** that were set, and the efforts developed to define a standard progress report model proved to be useful. Usually, the progress reports presented during the ongoing work of a project address mainly the financial performance and not the achievement of specific scientific objectives, which are only analyzed at the final stages. **The model, which was developed by the ESRP, with the technical support of FCT staff**, proved to be positive because it allowed the identification of drawbacks, which could still be corrected in the forthcoming years, 2020 and 2021. **This type of procedure is not usual in scientific project management in Portugal.**

Taking into account the **diversity of the scientific areas** and the **considerable geographic distribution of the projects**, involving multiple institutions\(^1\), the results of the first year of activities were promising, particularly in the mobilization of human resources, through scholarships, for local African institutions both at academic, technical and social levels. This can be shown by the number of registered MSc and PhD students enrolled through the projects in fully accredited programs in the Portuguese partner institutions. Once completed the degrees it is expected that this link will allow for a **better settlement of nationals in African institutions and fight the brain drain**. At the end of the first year the **number of scientific articles published in peer review journals was still scarce** but this is another challenge that

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\(^1\)Not just academic but also hospitals, national reference laboratories and directorates, museums and local networks of citizens, from all the Portuguese Speaking African States, some from other African States and also from Portugal (universities, polytechnics and research institutions), sometimes with international links to European and US scientific institutions.
needs to be addressed in order to contribute to the raising impact of the scientific performance of African institutions in partnerships, in this case, with Portuguese institutions. The other challenge that needs to be addressed in the next two years relates to the scarcity of actions performed to have an impact in the quality of life of African people because the social components were not fully addressed in the first year.

Based on the progress reports, the following additional requirements were asked to the coordinators and that should be included in the progress reports of 2020:

(i) an index signaling the main activities performed, including links to the website of the project;

(ii) an executive summary not exceeding 500 words;

(iii) in specific cases, where the activities of the projects had to be postponed because of the COVID-19 pandemic, a succinct but clear explanation was asked to be included, together with the presentation of alternatives which may have allowed the accomplishment of some of the initial tasks and objectives;

(iv) the inclusion of statements/testimonies from no more than three senior African partners or other individuals directly related to the project, stating its relevance for scientific, technological and social development, including the local improvement of the quality of life.

According to this ongoing experience, we consider that the role of the ESRP proved to be extremely useful by continuous monitoring and evaluating of the project with a personalized follow-up, and in defining the ground rules for the ESRP evaluation model report, which was well accepted and correctly applied in the first year. This follow-up model was implemented for the first time by FCT despite its wide experience in international activities and partnerships. The ESRP wishes to acknowledge the very professional and dedicated support of the staff of the Department of International Relations of FCT, who made the work of the ESRP
possible. This proactive role played by ESRP allowed for the resolution of small drawbacks before they could turn into serious problems affecting the final success of the projects.

Due to the fact that most of the evaluation process occurred during the initial stages of the confinement period due to the COVID-19 pandemic, it is key to emphasize the importance of the videoconferences between members of the ESRP and six project coordinators with “problematic” progress reports, which allowed to reduce that number to two and with considerable assurance of finding, even in these cases, viable solutions. In the next two years, the same methodology will be applied using the data from the first progress report as a baseline.

4. Challenges and lessons learned

The major internal challenge is to assist the project members to accomplish their objectives reaching results, which will improve the quality of life of the African people. The local capacity building is essential to achieve impact and sustainability. It is hoped that by the end of the projects the local institutions will be able to master the implemented innovations.

Furthermore, it will be important to share the results of the projects within the AKDN members, particularly in East Africa. The scientific results should also be shared with the academics of the Aga Khan University to develop networks related not just to the health area but also to other relevant subjects, such as education and training.

The major external challenge is to relate the contribution of this initiative to the overall African development in line, for example, with the vision of the African Evidence Network (AEN), based at the University of Johannesburg, to “reduce poverty and inequality in our region by increasing the production and application of research evidence that is both useful and used”. AEN has a very limited number of members from the Portuguese Speaking States in Africa, except for Mozambique. However,
these members are much less than AEN members from Kenya, Tanzania and Uganda, where AKDN and AKU are well established. It will be a challenge to create a network, within AEN, or without AEN, involving project members from the Knowledge for Development Initiative coming from our projects together with AKDN and AKU members, in order to promote multidisciplinary research to improve the quality of life of the African people.

In summary, this programme from the Initiative Knowledge for Development needs to be looked at as an embryonic breakthrough to reinforce and reestablish links between scientific African and Portuguese institutions and to settle the basis of a network of projects covering multiple scientific areas including health, biology, exact and technological and social sciences. This network needs to define its role in improving the quality of life of the African people.