



## Newsletter

Dear colleagues,

In issue 55 of our newsletter, a summary for the capitalization of knowledge, not intended for research managers, is rapidly presented as an aid to the development of research laboratories, but as a basic tool for researchers' daily work. On the other hand, after his many trips to Africa and his excellent knowledge of this continent, Prof. Xavier Alphaize gives his vision on the challenges of vocational training for the employment of young Africans.

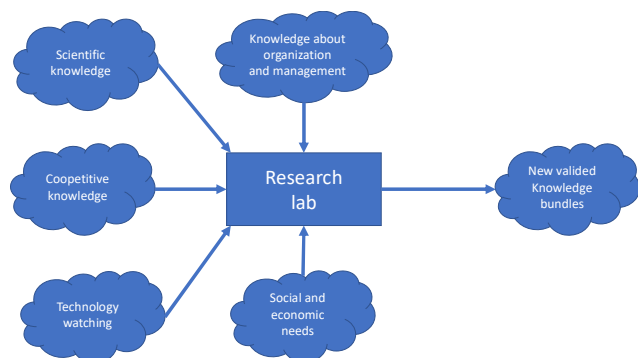
Finally, the main lines of reflection for our strategic meeting last September are presented.

Wishing good reading. ■

Prof. Robert Laurini, Editor of the USF-AWB Newsletter.

### Capitalizing knowledge for researchers

A research structure is a social structure designed to produce and validate new scientific knowledge. The laboratory is the place where this knowledge is developed in a complex process that combines already acquired knowledge, a context of innovation, a network of collaborations, a group of researchers (doctoral students, professors-researchers) etc. Knowing how to identify and capitalize the knowledge mobilized in this process is decisive for the dynamics and performance of a laboratory.



Mobilized Knowledge bundles include the following:

- published scientific knowledge (articles, theses, etc.); several hundred for a young researcher, thousands for a senior researcher;
- successful professional practices specific to researchers, such as scientific writing, experimental protocols, research and validation methodologies, identification of technological barriers, criticism of articles, etc.;
- knowledge of the needs expressed by society (health, spatial planning, food, ecology, ethics, etc.) and companies (technology, industrial processes, automation, etc.);
- organizational, management and financial knowledge, in particular calls for tenders and tendering procedures, including project management techniques;
- knowledge of research teams organized in other laboratories. Researchers maintain «coopettitive» relationships (competition + cooperation) with researchers from other laboratories; accurate mapping of teams working on research issues studied by the laboratory is necessary;
- knowledge derived from technology surveillance, research ethics, seminars and conferences, etc.

For any contact: Pr. Robert Laurini, President of USF-AWB, 20 Rue René, F- 69100 Lyon-Villeurbanne; Email: [Robert.Laurini@usf-awb.org](mailto:Robert.Laurini@usf-awb.org). Web site: <http://www.usf-awb.org>. Non-for-profit association according to French laws, established on January 2, 2010.

This brief review shows the variety and importance of the knowledge mobilized for the production of new scientific knowledge.

The produced knowledge takes different forms according to the epistemology of the research area concerned. Each major discipline has developed its own rules of validation of scientific knowledge consistent with its specialty (demonstrations, empirical tests, experiments, field studies, data analysis, simulations, proof of concepts, etc.).

While research success is often published, failure and drop out must also be documented and accessible to draw the necessary methodological and theoretical lessons.

All this knowledge bundles, and certainly others not mentioned here, are more or less in the «head» of experienced researchers, and usually remain implicit.

Two questions therefore arise:

1 - What are the methods and tools for effectively identifying, structuring and mobilizing this knowledge during the production of scientific knowledge in laboratories?

2 - How can laboratories in developing countries adopt these tools in their local context?

USF-AWB aims to encourage reflection on the capitalization of this knowledge in the specific context of each laboratory.

Contact Prof. Robert Laurini <Robert.Laurini@usf-awb.org> and Prof. Alain Mille <alain.mille@gmail.com>. ■

### **The challenge of vocational training for African youth employment**

The demographic situation in Africa is atypical: it is the world's youngest continent, where the population under 25 years of age is progressively becoming a large majority. These young people come massively to the labor market, they have high expectations, both in rural and urban areas. At this stage they face great difficulties: in these low-income countries underemployment is widespread, marked by the absence of social compensation systems, jobs are underpaid and self-employment (individual enterprise) is widespread. Young people and women are particularly affected and often find it difficult to escape poverty.

The prospects for finding employment are mainly in agriculture, the informal sector (individual enterprises) and the modern wage sector. The integration of young people into the world of work and their prospects for development are closely linked to the quality of the education provided, the vocational training to which they may have access, But also the measures adopted by the Member States to promote measures to improve the economic sectors which remain professional opportunities: agriculture, individual enterprises and the development of a modern economic sector.



Medium-term projections of the demographic evolution of the youth population in sub-Saharan Africa and economic prospects reflect the challenge of youth employment:

- The agricultural sector (family farms) accounts for 62% of jobs,
- Individual firms account for around 22% of jobs. These are individual initiatives in the informal sector which relate, for example, to sales of fruit or vegetables on the street, clothing and hairdressing.
- Wage employment (regular wage) affects only 16% of jobs in Africa.

However, the service sector will not have the capacity to absorb the millions of young people entering the labor market. Up to a quarter of African youth will have wage employment and a small part will have formal employment in modern enterprises. The others will work in agriculture and in individual enterprises.

Factors contributing to access to productive employment:

- Human capital: vocational education and training, skills, family ties and personal factors
- The business environment (on which the individual cannot act): access to land, capital and finance, infrastructure, technology, evolving markets, government policies, Regulations and programs/ projects that influence economic activity.

In a study on learning («Study on quality learning in five West African countries: Benin, Ivory coast, Mali, Niger and Togo» ILO 2020), the International Labor Organization notes that in order to improve the creation of decent jobs for young people and facilitate their access to these jobs in the Sahel subregion, it is necessary to promote cooperation, strengthened regional capacity and knowledge exchange, innovative programs» and refers to the following six key elements for establishing effective vocational training actions: «1) a constructive social dialogue; 2) clearly defined roles and responsibilities; 3) a sound regulatory framework; 4) a fair financing mechanism; 5) a labor market match; and 6) an inclusive system».

For more information, contact Professor Xavier Alphaize, <xavier.alphaize@gmail.com>. ■

### **Summary of the USF-AWB reflection day on September 22, 2022**

USF-AWB organized a day-long debate in the metropolis of Lyon on September 22. It was a question of the meaning of USF's action and the means to strengthen it. This meeting brought together active USF-AWB members as well as people seeking to discover our organization. Africa was also represented. The main points of the debate are then taken up and an assessment is made of the actions under way.

Indeed, today we can question the meaning of USF-AWB's action. What's the use of going to universities in disadvantaged regions when our own country, our world is sinking progressively into total war, and when we face challenges of social crises, famines, lack of water, reduction of living space, Not to mention our green options that don't improve the planet's carbon balance?

Firstly, it must be said that our interventions provide real services to the institutions in which we intervene. They contribute to the economic development of the regions where their universities are located. We are development agents, not emergency humanitarian agents. And if there is a factor of war to come, it is the fact that regions of the world escape global progress, that their economies seem disconnected from the world economy, that its intellectuals seem disconnected from the debates stirring the academic world in most developed regions. This is what USF-AWB contributes. The seal of general interest (which we have been given) is not only a recognition, but also a guarantee of

being able to carry out actions, even when the means disappear. It is not desirable to work at a loss, but to cover a part of our expenses, in the long term with our own donation, is a little new, but apparently developing. Our interlocutors see in this an additional credibility of our organization.



### **Recent or ongoing interventions**

Let us remember that the health crisis has greatly affected our interventions.

#### **Colombia**

The National Autonomous University of Bucaramanga (UNAB) is at a key moment in its career: it opens its first three doctorates in systems engineering, computer science and education sciences. This moment is crucial because the credibility of this rather modern private university is at stake, and we have been able to judge the quality of the teaching staff. Therefore, USF-AWB chose to intervene first in videoconferencing due to the pandemic and then, in September, in presence. We have seen that our first contributions have borne fruit, Training on the technical aspects of the construction of doctorates and doctoral schools soon began to discuss the specific problems facing teachers and managers. We are convinced that UNAB will increase its attractiveness and contribute to the development of local economic activity.

The French embassy in Colombia has been very interested in our intervention and wants us to intervene in other higher education institutions in the same way.

#### **Ecuador (Quito)**

A mission to that country confirmed links with at least two universities. The University of the Americas (UDLA) has met with USF and wants us to make an intervention. The National Polytechnic School (EPN) seeks support for student exchanges. The local SCAC is also willing to help us. An action is planned for early 2023.

### **Cuba**

A zoom meeting provided an opportunity to discuss the framework for the vocational training of computer researchers.

### **Tunisia**

We made an intervention in Sousse in 2022 and we should have more applications by the deadline.

### **Sub-Saharan Africa**

USF-AWB already has a great intervention practice in black Africa. It has intervened in many countries and has begun to undertake projects requiring substantial funding, such as the creation of a digital network throughout the area. The latter project is already mobilizing teams from several African countries. Projects are sometimes financed by French local authorities. We intervene in public or private universities, however, verifying the university quality of the latter. This is particularly the case in Benin.

Most of the interventions consist of sending instructors for a short period. USF is also widely used to assist in hiring professors, but also university officials.

### **Cameroon**

Exchanges were held at three universities. The position is heavily involved in possible USF interventions because universities have a good reputation but lack connections. Communications with this country are difficult.

### **Gabon**

Here we are in the project of expanding a management school. This project would benefit from the will of the Gabonese Minister of Education, who would try to develop private universities to emerge from a kind of administrative paralysis.

### **Vietnam**

USF-AWB is studying how it could intervene in that country where France wishes to continue to play a role.

In conclusion, in the hope that the health crisis will be brought to an end, we hope that further measures will be taken in the years 22 to 23.

Of course, USF-AWB is always looking for academics, especially retirees, characterized by their skills and their time available not only to secure the actions of consultants or courses, but above all to make diagnostics and negotiate the most effective actions.

For further information, contact Professor Jean Ruffier <Jean.ruffier@usf-awb.net>. ■

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