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**Promoting critical knowledge, skills and qualifications for
Africa's sustainable development: How to design and
implement an effective response through education and
training systems**

General Synthesis

Executive Summary of General Synthesis

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**Working paper
in progress**

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THE MAJOR CHALLENGE OF THE TRIENNALE: TO IDENTIFY WHICH CRITICAL SKILLS CAN BRING ABOUT ACCELERATED AND SUSTAINABLE DEVELOPMENT IN AFRICA

1. The issue at stake at the Triennale may be summed up in this key question:

Will the 21st century be the century of accelerated and sustainable development in Africa?

2. The development scenarios designed and implemented by African countries, sub-regional organizations and the African Union all seek to give a positive response to this question, but they run up against obstacles and constraints that are not easy to overcome. These may be summarized as follows:

- How can the African economy move away from the struggle for subsistence and the spiral of poverty towards productivity and competitiveness to meet the urgent needs of the present while building the capacity of future generations to live in a world that reconciles economic growth with the pursuit of equity and the conservation of natural resources?
- How can this effort be integrated into a process of sustainable transformation that produces added value not only in economic but also in social and cultural terms, and in particular helps to defuse the “time bomb” of massive youth unemployment?
- More generally, how can Africa be enabled to “run while others walk” while avoiding the same damage others caused when they were running?

3. To answer these questions, the Triennale has chosen to appeal to leaders and public and private stakeholders from all African countries, sub-regional and continental organizations, and the administrators and experts of bilateral and multilateral cooperation bodies and NGOs. It has encouraged them to invest massively in promoting critical knowledge, skills and qualifications at all levels of education and training systems and for the benefit of all people – whether they are in school, working or unemployed. For, in the words of the private sector and civil society stakeholders who met during the process of preparation for the Triennale, **“reform of education and training systems is the driver of sustainable development”**.

1. How can future promise be transformed into sustainable development?

4. The Triennale preparation process has called on all stakeholders involved in efforts to transform African education and training systems: countries, inter-country cooperation

bodies, the private sector, civil society, young people, international cooperation agencies, and partner countries in other continents. Pooling all of this wealth of analysis, experience and convictions has shown that Africa is at a historical crossroads and, if it is to transform this opportunity into future promise, it must take three steps to bring about sustainable development.

Step 1: Take a look back at the past in order to take greater control over future choices

5. This requirement is included in the Charter for African Cultural Renaissance, which speaks of “the need for reconstruction of the historical memory and conscience of Africa” because they point to present and future challenges. This was a central issue in the discussions at the Youth Forum: “We need to know where we come from in order to know where we are going” and “we ask that African culture, history and languages be placed at the heart of the development of education and training ... so that skills are acquired in connection with our specific heritage.”

6. The Triennale must therefore identify ways and means of enabling each individual, as well as all communities, to actively draw support from an examination of the past so as to take greater control of their future and participate successfully in the context of globalization. To accomplish this, it will have to promote the development of critical knowledge, skills and qualifications, emphasizing and valuing the things that constitute Africa’s uniqueness and strength: a young population, unparalleled natural and cultural resources, and a resilient enthusiasm to find ways of developing new forms of economic development, social and occupational inclusion, and cultural values that can benefit all the other continents.

Step 2: Define a common vision of Africa’s future with all the stakeholders concerned

7. Representatives of the private sector and civil society unanimously stated that the vital condition for the accelerated and sustainable development of Africa was the concerted identification of a common ultimate goal for the medium and long terms for each country and for the continent as a whole. Young people declared that only a “joined-up, long-term vision of Africa’s future” would make it possible for them to know “where they come from, where they are today and where they are going,” thus enabling them to play their role to the full.

8. To jointly determine such a vision of the future, ministers and public and private officials from the 19 countries of the Inter-Country Quality Node on Technical and Vocational Skills Development (ICQN/TVSD) and the 9 countries of the Inter-Country Quality Node on Peace Education met in Abidjan and Kinshasa, respectively. The former “jointly identified the best possible responses to the need for skills in an ever-changing world of work” in order to mount a collective plan for inter-country cooperation, the sole means of initiating the virtuous circle of sustainable development. The latter declared that they wished to “work together with governments, cooperation agencies and civil society to promote peace in and by education” and thus to realize the African Union’s vision of “an Africa integrated, prosperous and peaceful; an Africa driven by its own citizens, a dynamic force in the global

arena” (African Union). Step 3: Make education, training and employment central to current and future policies

9. The demographic, economic and cultural wealth of Africa is an undeniable asset for the future, but this will only be tapped “if education and training become the principal drivers of change”. This assertion is more than the expression of a conviction. It is the result of the analyses conducted in ADEA’s preparations for the Triennale. The private sector and civil society think that “human resource management is the core of development”. Young people think that it is important for government to place education, training and employment “at the center of all social, cultural and economic policies”. All the contributors think that capacity building for both young people and adults should be the focus of policy. Capacity building is the necessary condition for Africa to transform the opportunities offered by its natural wealth, the youth of its population and its cultural heritage into effective levers of sustainable development. Massive investment in education and training is the sole means of enabling Africa to accelerate its development and thus to “run while others walk”.

2. How can we design and build effective education and training systems in each country and on the whole of the continent?

10. The Triennale preparation process elicited an unprecedented response from leaders and public and private stakeholders, both in Africa and internationally, and they have participated in devising useful, concrete responses to this question. This was done in accordance with the three sub-themes that had been defined within the overall theme.

Sub-theme 1: Common core skills for responsible and active African citizenship in regard to sustainable development

11. The title of the sub-theme itself highlights the paradigm shift that must be brought about in the field of education. This paradigm shift is described by the different contributors as follows.

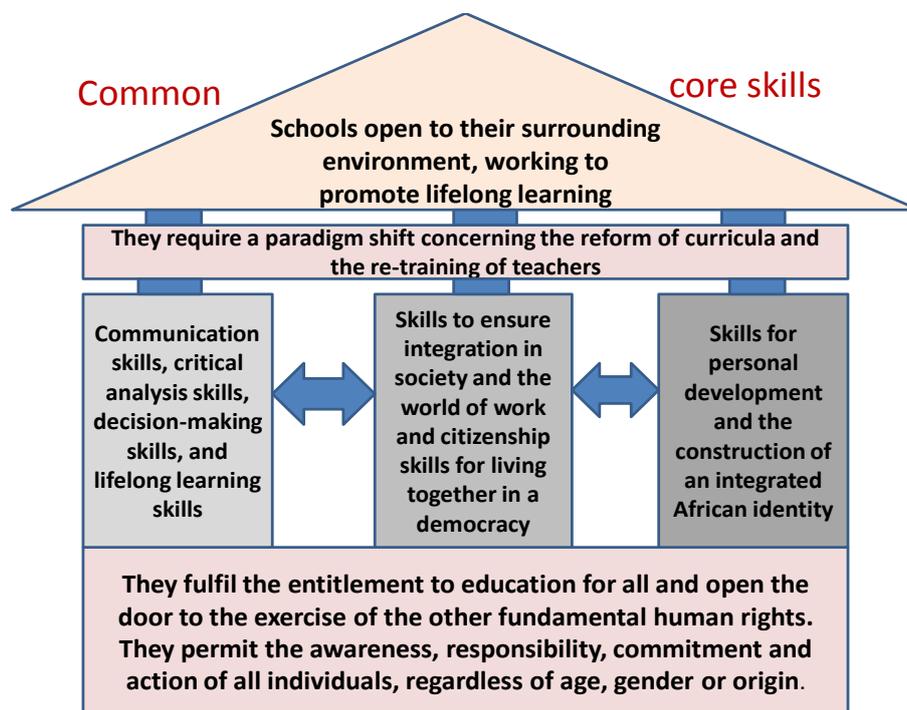
Include basic learning as part of efforts to control the human, social and economic environment

12. The education system must dramatically increase the quality and effectiveness of its results, which are not at present enabling many young school leavers to acquire a lasting grasp of basic knowledge. But in doing so, it cannot just aim to improve reading, writing and numeracy. It must also enable both young people and adults to acquire the learning tools and basic know-how they need to be able to survive, live and work in dignity, improve the quality of their lives, make informed decisions and continue learning (Jomtien Declaration). It follows that the necessary reforms should incorporate cognitive learning within the context of a rapidly changing world, develop an interdisciplinary approach that reflects the problems of society at large and adopt active lifelong learning approaches.

Promote the acquisition of skills for responsible and active African citizenship

13. This sort of citizenship constitutes the basis for sustainable development. For it to emerge, the beneficiaries of the education system need to acquire three types of basic skills:

- *Communication and lifelong learning skills.* These concern language skills, reading and counting, observation and analytical skills, critical thinking, problem solving and decision making;
- *Skills to ensure integration into society and the world of work.* It is necessary to develop social and civic skills to enable people to live together in a democracy by overcoming discrimination and conflict and promoting a spirit of cooperation and peace. It is also necessary to acquire generic skills to enable people to adopt a positive approach to economic and social development, entailing a sense of initiative and creativity and a positive view of the world of work.
- *Skills for personal development and the construction of an African identity.* These must enable everyone to meet the vital challenges of health, nutrition, social protection and to combat the poverty spiral. They should also take into account the continent’s historical and cultural diversity in order to promote the values of solidarity and peace and thus contribute to the process of African integration and renewal.



Ensuring access to common core skills for people of all ages

14. The preparatory contributions to the Triennale highlight the importance of making every effort to ensure that the common core of skills becomes a common benefit for people of all ages.

- This common core must be developed at an early age because the first six years of life are the most critical period for the development of the child's intelligence and its successful present and future socialization.
- It is vital for young people of school age to acquire basic cognitive skills, more so than has been the case until now. However, it is equally vital to enable them to control their personal lives and acquire generic skills to prepare them for successful integration into social and working life.
- Adults, too many of whom are illiterate or very poorly educated, should be entitled to the recognition and improvement of their level of skills, which have most often been acquired non-formally or informally. The same applies to every individual's entitlement to be an active citizen within the knowledge society. Ensuring that adults, and working adults in particular, can access the minimum set of core skills will also certainly help boost economic and social development.

15. The introduction of the common core of skills in all its dimensions requires a fairly radical paradigm shift in the education system. This change is as much about changing patterns of teaching and learning as the overhaul of curricula, the retraining of teachers and trainers, the redefinition of models of governance and leadership and, ultimately, the restructuring of the relationship between school and its surrounding environment. Schools are destined to become "places that are open to the outside", a space serving all citizens.

Sub-theme 2: Vocational and technical skills for high value-added growth and effective integration into the world of work

16. The 2008 Maputo Biennale strongly emphasized the lack of importance given to skills development in the African continent and the urgent need to invest heavily in raising levels of training and qualifications in order to wage an effective battle against the widescale unemployment and underemployment of young people and the lack of productivity in a largely informal economy. The analysis undertaken to prepare for the Triennale shows that the exclusion of young Africans from the world of work and the under-qualification of the active work force is still a major phenomenon that both affects the capacity to create wealth on the continent and contributes to the increasingly explosive social situation in different countries. In particular, it emphasizes three main priorities.

The need to raise the skills levels of young people and adults in the informal sector

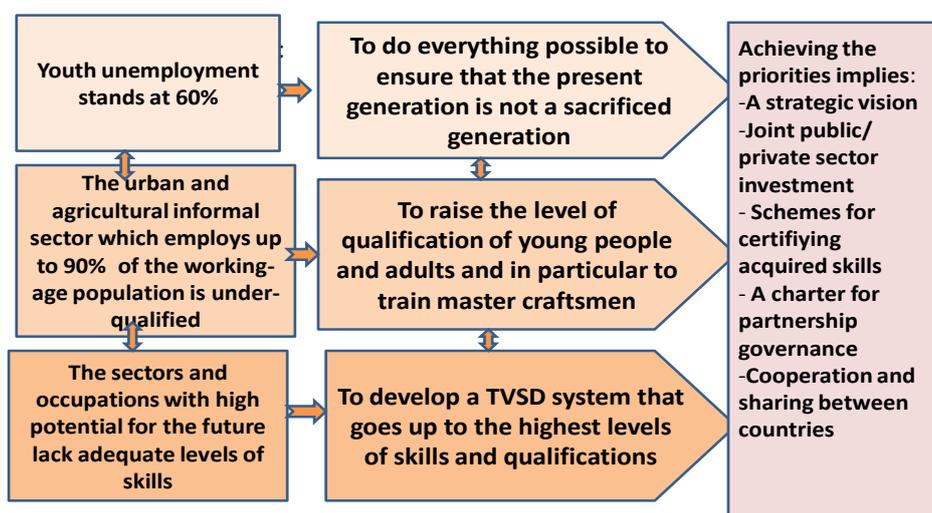
17. The analyses undertaken by various countries and stakeholders stress the need to provide effective responses to the frequently-identified skills shortages and to prioritize efforts to help young people into work. They suggest it is necessary to move away from just "training people first and then getting them into work" to "professional development and integration on the job" and, to support the process, to draw on efforts aimed at reforming and modernizing traditional apprenticeship. They also emphasize the need to raise the skills level of master craftsmen in the informal sector, who train 90% of young people entering the world of work. Finally, they emphasize the need to invest extensively in the agricultural and rural sector, both to improve and transform existing practices and to train the farming community to bring about a "green revolution without which there can be no sustainable

development”. These actions need to be accompanied by the establishment of national qualifications systems to validate increased skills levels, however they have been acquired.

The simultaneous need to develop high-level skills

18. The sub-theme report highlights the emerging need for high-level skills in the economic field. It concludes that it is necessary to train senior technicians with the right skillset to monitor and, if possible, anticipate changes and technological innovations in order to support the transformation of national production systems and promote the essential industrialization of the African economy. The Inter-Country Quality Node on Technical and Vocational Skills Development (ICQN/TVSD) which was set up with the Triennale in mind, has strongly emphasized this point and stressed the importance of developing a TVSD system up to the highest levels of education and training, particularly in key future sectors and occupations.

Priorities for developing technical and vocational skills



The need to develop a strategic approach to partnership and cooperation between countries

19. The report lastly points out that the design and delivery of an effective and appropriate response to the critical skills needs identified for Africa’s sustainable development, assumes the following paradigm shifts:

- Each country needs to adopt and implement a strategic, workable skills development plan in order to support growth that creates jobs and added value and leads to a revitalization of the various sectors of the economy.
- The pursuit of a strategy and operational plan for TVSD can only succeed within the framework of discussions between all public, private and civil society partners. This entails the adoption of a governance charter establishing an effective and transparent partnership between all the stakeholders.
- The analysis of change dynamics currently at work in the field of TVSD highlights the need to move away from purely national cooperation towards the inter-country and

sub-regional levels. This sort of cooperation, which was initiated by the ICQN/TVSD, is the only thing that can lead to an integrated regional policy that is thus a driver of sustainable development.

20. These different priorities require strategic decisions and policies which will have an impact in the medium and long term. However, the Youth Forum wanted to inform the Triennale of the urgency of the measures required and thus “invite all public and private players to invest in formal, non-formal and informal education and training schemes and pathways to the greatest extent possible so that the generation of today facing a great difficulty of insertion does not become a sacrificed generation.”

Sub-theme 3: Scientific and technological skills to build economies and societies in Africa based on knowledge and innovation

21. R&D, knowledge and innovation have become the main factors of production, economic competitiveness and, more generally, development. They are essential for Africa’s successful entry into the process of globalization, which has created close interdependence between countries and continents.

Africa must catch up

22. Faced with urgent and vital imperatives such as the management of natural resources and biodiversity, food security, the fight against poverty and pandemic disease and epidemics, and increased economic competitiveness, Africa must develop its skills in science, technology and innovation in order to enhance its assets and engage in a process of accelerated and sustainable development. Failing this, Africa will be condemned to a continued role as a supplier of raw materials and to continue pursuing strategies designed to ensure subsistence or at best to enable it to imitate and catch-up, which will just make it lag further behind and get poorer.

23. To do so, the continent must considerably increase the number of its research centers, of which there are 50 times fewer than in Europe, and the number of students, of whom there are 10 times fewer than those going on to higher education in developed countries.

It is urgent to invest in science, technology and innovation (STI)

24. The research shows that the education system as a whole fails to train young people in scientific and technical culture, from the earliest levels of education up to university. One reason for this is that few countries are developing a strategic framework to build an infrastructure capable of producing knowledge, technology transfer and innovation. A sectoral approach is needed, to ensure that promising activities become the drivers of national and, more broadly, continental development.

25. The Consolidated Science and Technology Plan of Action (AU / NEPAD, 2005) has always insisted on the key role of strengthening and using science and technology as key factors in socio-economic change and sustainable development. Research on the continent shows that such efforts should be targeted primarily at the agricultural sector to help with food security, the fight against poverty and, more generally, the achievement of the Millennium Development Goals, followed by the fight against pandemics and epidemics (HIV-AIDS, malaria, etc.), the preservation of the environment, the fight against drought and

desertification, natural resource management and biodiversity, and increased economic competitiveness in Africa and internationally.

STI development requires some major changes in direction

First major change in direction: found scientific development upon endogenous African knowledge

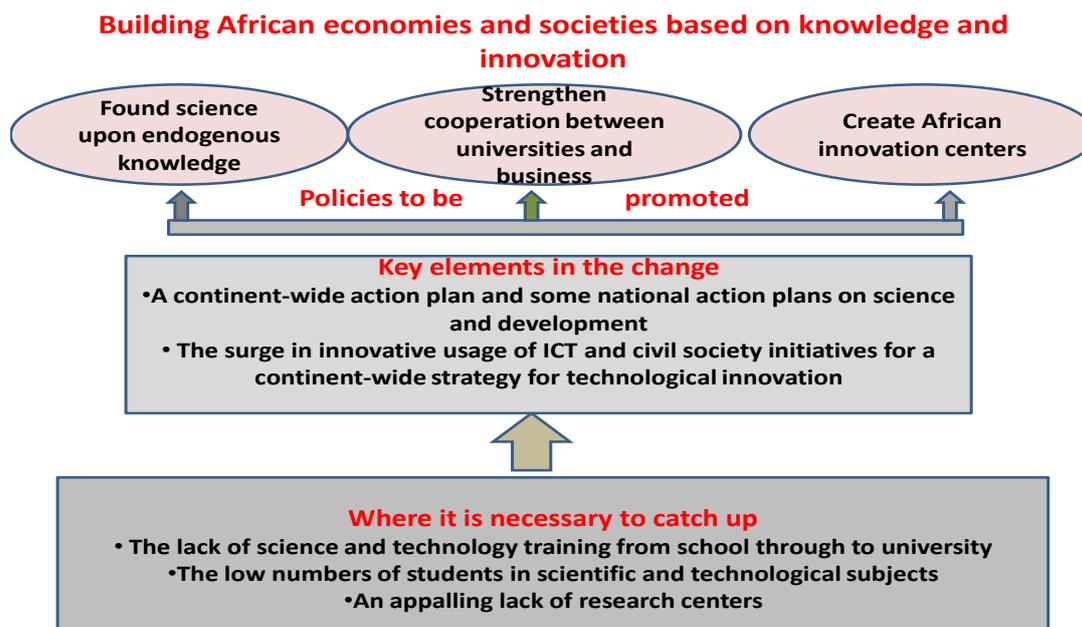
The recognition of endogenous heritage can help people take ownership of sustainable development. Targeting research on this heritage will make it easier to know, understand and take into consideration the needs of local communities and their approach to development problems. This will facilitate the emergence of more relevant and effective scientific approaches within the African context and the emergence of open and vibrant African cultures that are capable of taking modern science and technology on board and disseminating *them widely in society*.

Second major change in direction: strengthen education in science and technology

It is necessary to both considerably develop science and technology teaching and promote scientific literacy, which means understanding and encouraging the interaction of science with other fields of social, economic, political and cultural life. Such a culture will shed light on ideas and decision-making, especially regarding the need for sustainable development. Education through science must thus begin at an early age through formal, non-formal and informal channels and take root in the social culture.

Third major change in direction: use information and communication technology as factors in development

The recent surge in the use of ICT on the African continent (innovative uses of mobile phone and internet) shows that these technologies can function as catalysts for change. This is demonstrated in the policies implemented by many countries to promote widespread use of ICT and, through them, to stimulate economic and social change. Also in evidence are the initiatives taken by civil society (Africa 2.0 and Coders4Africa), which bring together economic and social actors and opinion leaders to create a common development strategy based on technological innovation.



26. It will only be possible to succeed in building African economies and societies based on knowledge and innovation by creating close partnerships of cooperation between the worlds of research and business. The process is underway, but it needs to be strengthened and clarified both at country level and at sub-regional and continental level. Criteria defining what the AU called centers of excellence should be developed in particular. They must become both models of public/private cooperation and fundamental and applied research to ensure Africa becomes a specialized center for the production of scientific knowledge and innovation in a world that has become a global village.

3. Criteria for an overhaul of education and training systems for sustainable development

27. The analyses and guidelines set out in the framework of the three sub-themes identify a number of criteria for assessing the overhaul of education and training systems, which is in fact already underway.

Criterion 1: Draw up an “African guide” to schooling

To promote policies and systems that are capable of providing critical skills for Africa’s sustainable development, it will first be necessary to rebuild them in order to drop the “colonial guide” to schooling and align them with African culture and identity.

Criterion 2: Make every effort to tailor education and training to demand

The replacement of supply-led education and training policies and systems with a demand-led approach is the only way to avoid the paradox of a system that produces thousands of graduates every year while there is an acute shortage of the skills actually required by the labor market.

Criterion 3: Learn to take action

The shift away from a teacher-led approach towards a learning-based one will ensure that

both youngsters and adults become the actors and agents of change in their lives, their environment and the social and economic circumstances of their country.

Criterion 4: learning to learn, from oneself and from others

Learning to learn, to motivate oneself to learn and to develop tools and approaches for self-directed learning and learning from others really does ensure that those who do so benefit from the process and momentum of lifelong learning.

Criterion 5: Building knowledge and skills outside the institution

Contextualizing knowledge and skills means going outside the walls of the institution and building an appropriate, effective approach to solving economic, social, scientific and technical problems in coordination with, and with the support of the people concerned.

Criterion 6: Assess learners' ability to act and cope

True educational reform shifts the focus of the educational act on to learners, who must be evaluated not in terms of their knowledge, but on their ability to use effectively and creatively what they have learned in order to cope successfully in a difficult context.

Criterion 7: Re-train teachers to rebuild the system

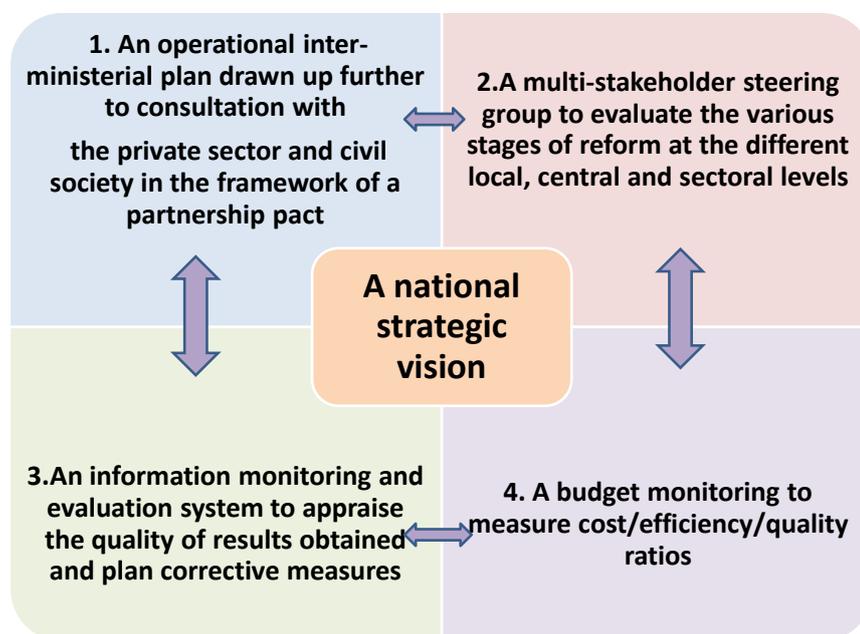
The overhaul can only be achieved through a change of culture and the professional development of teachers, who are the pre-requisites for successful reforms.

4. The pre-requisites for successful reforms

28. The success of the reforms to be implemented requires the fulfillment of several pre-requisites, which can be summarized as follows.

- **First pre-requisite: create a suitable environment for the development of critical skills.** This sort of environment requires a parallel effort to alleviate poverty and misery, which are the largest causes of exclusion after physical and mental disability;
- **Second pre-requisite: create an environment that is conducive to quality learning.** This concerns the quality of leadership in institutions, the skill and motivation of teachers and trainers, the availability and adequacy of infrastructure, equipment and other teaching/learning/training aids;
- **Third pre-requisite: foster a community environment that reinforces the relevance of learning.** This entails promoting comparisons between endogenous knowledge and practices on the one hand, and learning at school on the other hand, to ensure that learning takes account of local sustainable development issues and to assess how the skills thus developed help in solving problems facing the local community.
- **Fourth pre-requisite: develop research capabilities to help establish the foundations of a knowledge and skills-based society.** Only major investment in research can provide the information and data that public and private decision-makers need in order to design and develop effective and relevant systems.

- **Fifth and final pre-requisite: develop institutional capabilities and technical resources.** These capabilities and their functional relationships are summarized in the diagram below.



5. The crucial contribution of intra-African and international cooperation

29. The Triennale preparation process highlighted how existing experiences of working and consultation at both intra-African and international cooperation level were vital pre-requisites for the success of reforms.

Strengthen regional cooperation and integration processes

30. These processes entail the exchange of experiences and knowledge sharing through inter-country quality nodes, or ICQNs (on Technical and Vocational Skills Development - or TVSD - and Peace Education, for example), the evaluation of learning programs (PASEC and SACMEQ) and the initiatives of regional organizations (SADC, ECOWAS, WAEMU) and/or the regional offices of international organizations (UNESCO-BREDA, ILO). They all initiate the sharing of experiences and gradually progress towards integration practices and the sharing of strategic visions, concepts, tools and resources.

31. Such practices are essential for the design and development of effective education and training systems and schemes because they can build on countries' best achievements in order to accelerate reforms and above all make them as responsive as possible with respect to economic and social demand.

Reposition North-South and South-South cooperation

32. Traditional cooperation with bilateral agencies from the North and international organizations has been enhanced with higher levels of investment from emerging

economies, especially China, India and Brazil. Faced with the challenges of policies, scope and funding of necessary reforms, a question arises regarding the way external assistance is placed in order to draw the utmost benefit.

33. It is important to learn the lessons of the past and strategically reposition external assistance with regard to the new challenges posed by the reforms. Such assistance should primarily encourage national expertise to directly meet the challenges and build local skills through action. To the same end, it should also support learning between countries facing similar challenges, as demonstrated by ADEA's ICQN's, for example.

Encourage multinational enterprises to be a driving force for sustainable development

34. An increasing number of multinational companies are present on the continent. Some 800 of them set up in Africa in 2007 and invested \$ 12 billion. These companies can be drivers of sustainable development if they go beyond the exploitation and export of natural resources and contribute to the creation of locally-added value, technological innovations and skilled jobs, including in growth occupations and sectors at sub-regional, national and local levels. Such a change of role means agreeing to relocate production units and investing in order to transform them into competitiveness clusters that can help Africa integrate global production processes. The work done in preparation for the Triennale shows that new investors are willing to take on three functions:

- to be a stakeholder in ongoing education and training reforms;
- to help identify critical skills shortages;
- to help produce critical skills.

6. In conclusion: some steps to move forward

35. The prospects opened by the theme of the Triennale point to three possible areas of work that can be summarized as follows:

First area: place education and training at the heart of policy and development strategies

36. Education and training are not for the benefit of themselves but must be used as drivers of sustainable development to accelerate growth and ensure sustainability.

37. The key points of the reforms required to make this happen may be summarized as follows.

Sub-theme 1

- Redevelop and mobilize all formal, non-formal and informal education and training schemes and measures to enable them to give access to everyone, young people and adults, to the common core of skills.
- Redefine, with all public, private and civil society partners, the goals of

education by detailing them in skills profiles, curricular programs and courses for re-training teachers.

- Include African culture, history and languages within these goals, so that young people acquire skills related to their particular heritage.
- Promote the new learning culture necessitated by opting for lifelong skills and learning: learning to learn, business skills, innovation skills and project management, for example, and, ultimately, to go on learning throughout life.

Sub-theme 2

- Place the employment issue at the center of all economic, educational, social and cultural policies and involve all public and private partners in developing these policies to put an end to the explosive unemployment situation among young people and promote the acquisition of skills to do a job or occupation.
- Raise the skills levels of young people and adults and, in particular, master craftsmen in the rural and urban informal sector who train the vast majority of young people entering the world of work.
- Design and develop, in growth occupations and sectors, high-level skills development measures to train the technicians, senior technicians and executives whose innovative companies need it most.

Sub-theme 3

- Break with formal academic approaches by focusing, in training and research, on the development issues faced by local communities, regions, countries, the economy, the world of work and the continent in a globalized world.
- Establish strategic partnerships with the private sector and local authorities and communities to be attentive to their requests, interact with them and have them participate in the development, implementation and evaluation of programs, including through joint projects.
- Consider the requests from local communities and their endogenous approach to development problems in order to facilitate the emergence of open and vibrant African cultures that are capable of taking on board modern science and technology and disseminating them widely in society.
- Translate the results of research into innovative technologies and practices, that are useful and usable in the development of the economy's businesses, the rational use of natural resources, environmental protection and well-being of society.

Second area: promote a strategic national and continental skills development framework

38. The Triennale preparation process as a whole has strongly highlighted the importance of developing, at national level and for the entire continent, a strategic skills development framework. This framework must:

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- be prepared with all of a given country's stakeholders, including the private sector, civil society and youth representatives;
- lead, wherever possible, to the sharing of experiences, if not a dialogue with other countries in the sub-region or region;
- lead to the adoption of a charter of contractual values establishing its legitimacy and effectiveness, and be put in a national, sub-regional and/or continental policy document that determines the priority sectors in need of critical skills;
- forge a process of inter-country cooperation and lead to the pooling of methodologies and design, implementation, monitoring and evaluation tools.

Third and final area: adopt a continental pact to promote sustainable development

39. Each country faces its own sustainable development issues, but interdependence due to global sharing of wealth and the interconnection of decisions in an increasingly globalized system of governance means that no African country can decide to pursue economic development successfully on its own in a way that is both ecologically and socially sound, and effective in fighting poverty.

40. The goal set at the Triennale, which is to integrate and share more and more policies and means of education and training to promote sustainable development, thus requires that each country and more widely the continent as a whole agree on common regulatory instruments that can ensure effectiveness and relevance.

41. Education and training systems will only achieve their objectives if their reforms are integral to a future continental pact that will offer, for years to come, a sustainable development model that transcends selfish national approaches and ensures the successful integration of Africa into a global vision of the general interest.