







A Call for publication in the Congolese Review of Sciences and Technology

ISSN (Online): 2959-202X ISSN (Print) 2960-2629 DOI prefix: 10.59228/rcst www.csnrdc.net

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Editorial



Professor Pius MPIANA TSHIMANKINDA NSC President.

Towards the highway of technological innovation

br a long time relegated to the closet, scientific research in the Democratic Republic of Congo (DRC) is beginning to reveal unsuspected treasures in the scientific field. Yesterday, circumstances did not allow it, but today, a new wind is blowing, pushing Congolese scientists out of their isolation. Despite the obstacles that remain, it's vital to keep up the momentum. Indeed, it is thanks to scientific progress that society as a whole will be able to benefit from the "light" spoken of by the philosopher Socrates centuries ago, in the days of Antiquity.

However, in the DRC, this light is beginning to shed light on a number of shadowy areas, thanks to the efforts of the various structures in the scientific world in general, and the Ministry of Scientific Research and Technological Innovation in particular. Step by step, this light is guiding the field of research towards a highway of technological innovation.

But what about this highway? There's no need to look elsewhere when the research pot is gradually filling up within its own house, i.e. the Ministry. This highway of technological innovation is indeed the fruit of Congolese scientific genius. When Socrates' revolutionary ideas are brought to light, we discover that a society must have key concepts of effective learning in order to innovate on a linear path. "Congolese scientific genius" is a highway to the automation of research and the empowerment of the Congolese

researcher. From the solemn to the sensational, the authorities in the Scientific Research and Technological Innovation sector have succeeded in conveying innovative projects onto a new highway that will henceforth shape Congolese scientific genius. The key is to choose the right path, which is to innovate.

Research without innovation is an empty shell, to the detriment of the researcher. Today, the Scientific Genius Conclave is producing results, but these must become finished products fit for consumption. Congolese scientists took advantage of this conclave to recommend that the authorities make the National Research Fund operational, so as to do even better in this sector. This concern will certainly receive a favorable response, as the Scientific Genius event is a new research trend. Some remain convinced that Scientific Genius is the new deal, particularly in the field of scientific innovation.

Congolese scientists are well aware of this, and there is a will to encourage them to make this highway a lasting one. Many innovative projects are still waiting to be realized in Congolese laboratories. It's time to get involved. The freeway is here, the path is marked out, it's an opportunity to make long journeys to succeed in the major challenges that threaten our society. Let's not allow this highway to deteriorate, and let's all show our willingness to innovate. A long journey begins with the first step, as they say.



Félix TSHISEKEDI equips NS with locomotives and wagons to evacuate maize

n June 20, 2024, the President of the Democratic Republic of Congo (DRC), Félix TSHISEKEDI, endowed the National Service (NS) with two locomotives and around a hundred carriages, including a luxury presidential carriage with accessories.

According to NS commander General Major Jean-Pierre KASONGO KABWIK, this multi-dollar investment will facilitate the evacuation of agricultural products, including maize from KANIAMA KASESE.

These trains will also be able to transport fuel between Kasai and Katanga. The equipment includes:

- 02 diesel locomotives;
- 40 open wagons ;
- 40 closed wagons;
- 10 tank wagons;

- 10 containers wagons;
- 01 luxury presidential car with accessories;
- 01 National Service Command car wagon;
- 01 ordinary passenger wagon;
- 01 rolling rail vehicle (RRV).

"With the National Service trains, not only can the material for the Katende dam, for example, be transported to its destination, but other infrastructures can also be built without suffering from landlocked conditions", declared the NS commander.

Starting with zero hectares, the NS is calling for a production of sixteen thousand tonnes of maize for the 2023-2024 season. With this production, the military canteens are regularly supplied without interruption.

It should be noted that some of the country's cities also receive substantial supplies..

Christian MAZONO / NSC and 7sur7.cd/2024

Gonvernment Activity

SPEECH BY PRIME MINISTER Judith SUMINWA TULUKA AT THE CLOSING OF THE WORKSHOP ON THE CONTRIBUTIONS OF THE MINISTRY OF SCIENTIFIC RESEARCH AND TECHNOLOGICAL INNOVATION TO THE MATERIALIZATION OF THE FIVE-YEAR **PROGRAMME**

Honorable President of the National Assemhlv

Honorable President of the Bureau d'Age of the Senate

Honourable Deputies and Senators Members of the Government Ladies and Gentlemen, Distinguished Guests in your respective capacities.

It is a real privilege for me, on this morning of June 24, 2024, to find myself standing before this assembly of Congolese intellectuals, scientists and scholars, at the very beginning of the mandate of Head of Government that His Excellency the President of the Republic has deigned to entrust to me, Head of State, Mr. Félix-Antoine TSHISEKEDI TSHILOMBO, to whom I respectfully reiterate my thanks for the trust he has placed in me, and my most deferential tributes..

It is a privilege, as I was saying, to witness a rebirth: the rebirth of Congolese Scientific Engineering, sixty-four years after the fading away, in our country, of Belgian-Congolese Scientific Engineering, which had lifted the Belgian colony of Africa very high in the world annals of scientific research and technological innovation, and made it recognized in the world as a "model colony" for its methodical administration and its scientific and technological innovations.

It is both a consolation and a source of pride to note the rebirth of the ancestral scientific genius buried in the souls and brains of our *People, our Nation, the Congolese nation.*

Indeed, without the slightest doubt, scientific genius had existed on our continent, the cradle of Humanity, with its unique pyramids in Egypt, the Ishango stick and the fishing techniques of the Wagenia people in the Democratic Republic of Congo in terms of technological achievements, but also the mastery of oceans and seas and the building of empires, some of which date back to prehistoric times. And we cannot fail to mention the construction of a philosophy, "African humanism", which makes man and every man, the citizen, the highest value of all in our societies and communities. Man, the image of God, is a creature, a sacred being for the Bantus.

The documents sent to me by the Minister of Scientific Research and Technological Innovation provide tangible and irrefutable proof that an indigenous Genius, 100% Congolese and now autonomous, has re-emerged in the land of our ancestors.

When it comes to the governance of our economy and public finances, we should no longer be dependent on advice and programs from the other side of the Atlantic or the Mediterranean, with no proven results for sixty-four years, when it has become clear that our scientists have initiatives, ideas and inventions capable of meeting the challenge



of digitized public finance management and optimal budget expansion, in terms of both revenue and expenditure. These are innovative Congolese technologies which, once adopted by the financial authorities, would enable them to collect, on behalf of the Congolese State, all the tax, customs, state and participation revenues which today escape the public

treasury.

On another front, we are gradually discovering, thanks to the Congolese scientific genius of our polytechnic faculties, secondary schools and higher technical institutes, the wide availability in our country of innovative technologies relating to energy production in general, and lithium and cobalt batteries in particular. The highly acclaimed initiatives of our young people in the construction of electric cars are astonishing.

Such an exceptional combination of assets, as far as electric vehicles are concerned - a prototype of which I saw at the entrance to this building - convinces us that mechanical, electromechanical and electronic production capacities in various fields are constantly germinating and flourishing in the brains of our youth, and can be materialized by our own Genius.

However, the industrial expansion we so earnestly hope for in our country will be impossible if we don't urgently set up digitized and robotized industrial workshops in all our provinces, in keeping with the universal paradigm that there are no developed countries like industrialized countries.

In this respect, the famous GECAMINES Central Workshops, which are in our Government's sights, as well as the former ONATRA and SNCC Workshops, capable of producing land- and water-going machinery, need to be modernized and brought back into service, along with the

didactic Workshops of our Technical High Schools and Higher Technical Institutes, in this case the ISPT and ISTA Workshops.

In fact, it's in large industrial workshops, whether metallurgical, mechanical, electromechanical or electronic, as well as workshops for the production of all kinds of plastics, that we should be building factories for the valorization of our natural resources, such as:

lpalm and peanut oil, timber, rubber, oil, etc., from the former Equateur province; iron, petroleum and precious wood, etc., from the former province of Orientale; copper, cobalt, manganese, germanium, lithium, etc., from the former Katanga province:

coltan, cassiterite, wolframite, gold, nobium, coffee and tea, pyrethrum, fish products from our lakes, dairy and meat products, etc., from the former province of Kivu;

fish products, bauxite and hydrogen from the province of Kongo Central; and countless other mining and agricultural products from other provinces, namely the former Bandundu and Kasaï provinces.

Ladies and Gentlemen, distinguished guests,

It's really exciting to learn - and we're going to check it out together as we visit the exhibits - that a Congolese scientist, Professor Marie Claire Yandju, has been the first in Africa to develop a bread-making cassava flour that could, in our country and in the countries of our sub-region, replace wheat flour from Europe and elsewhere in bakery, pastry, cookie and pasta production.

This scientist has just confirmed, alongside another renowned scientist in our country, who has designed and built a "rolling robot" that works in our avenues,



Madame Kirongozi to name but one, that "Basi batongaka mpe mboka". Just think, ladies and gentlemen, of the foreign currency savings that this innovation in bread flour will generate for our Central Bank, and of the possible export to the continent of this mass-produced foodstuff, once the National Agency for Standards and Metrology has been created on the initiative of the Ministry of Scientific Research and Technological Innovation.

I learned from the documents I received that two hundred and eighty (280) Congolese inventors and innovators, from inside and outside the country, had presented their scientific research results in August last year at the Conclave du Génie Scientifique Congolais, the very first forum since 1960 to take stock of and evaluate national scientific productivity and the research results obtained by the Congolese scientific intelligentsia.

And I learned that one hundred and eighty results had been validated, the others having been returned for further study or insufficient scientific character.

Of these one hundred and eighty validated scientific results, forty-eight (48) have been presented to the Government for injection into national consumption, with a further seventeen (17) coming from the "master-class" organized in 2019 by the

In the face of this new situation, the re-emergence of state and private scientific research in our country is the real guarantee of our endogenous, autonomous, self-managed, self-controlled and self-sustained development. It is the solid pillar of our economy's long-awaited introversion and diversification.

Ministry of Industry.

It is therefore my duty to seize this opportunity offered by the Ministry of Scientific Research and Technological Innovation, to express my commitment and that of my entire Government to continue the momentum established by my predecessor, Honorary Prime Minister Jean Michel SAMA LUKONDE KYENGE, under the impetus and authority of the Head of State. Together, we must:

amplify budgetary funding for scientific research and technological innovation, as all the world's major industrialized and emerging countries are doing, by ordering the application of the "budget - program" principle for this sector, which would not be subject to cyclical budgetary contingencies and would be placed under the direct management of the sectoral Minister concerned:

ensure that the Ministry of Scientific Research and Technological Innovation gradually becomes the one-stop shop for the evaluation, approval and certification of inventions and technological innovations produced in the country or imported from abroad, so as to effectively protect and give priority to the technological innovations of Congolese Engineering in the programs and actions of the Government and Public Services, in accordance with the instructions of the Head of State at the 110th meeting of the Council of Ministers of the last mandate;

renovate and create didactic and industrial infrastructures, in this case metallurgical, mechanical, electromechanical and electronic workshops, essential to the materialization of technological innovations developed by Congolese Scientific Engineering, and in particular for Congolese youth and women in search of entrepreneurship and self-employment, paving the way for the emergence of a productive middle class:

to support the Ministry of Scientific Research and Technological Innovation's project to create or acquire a digital portal that would optimize the census of Congolese Scientific Genius from inside and outside the country, and give Congolese researchers access to libraries, laboratories and digital workshops in open-source format or through contracts with private libraries that are not accessible to the public.

I would like to echo the desire expressed by the Head of State at the Council of Ministers to see scientific research in universities and institutes of higher education jointly coordinated by the Ministries of Higher and University Education and Scientific Research and Technological Innovation.

I am waiting for the Ministers concerned to present me with their joint action plan to achieve this, so that the impetus for scientific research, with a view to our country's scientific and technological emergence, is coordinated by both Ministries.

Mr. Minister of Scientific Research and Technological Innovation,

The opportunity you have just given me, as Head of Government, to reflect on the ways and means of expanding and optimizing scientific research and technological innovation being only the very first, I look forward to seeing you and your colleague from Industry, Small and Medium-sized Enterprises, at the time you have set for the Congolese Scientific Genius Forum to be held in August 2024, to determine other directions that will further strengthen the all-out renaissance of scientific research and technological innovation in our country.

With these last words, and without forgetting to greet the sample of inventors and innovators, members of the Congolese Scientific Genius, present in this room and subjects of pride for our people and our nation, I declare closed the work of the workshop on the contributions of the Ministry of Scientific Research and Technological Innovation to the materialization of our Government's five-year program, and I thank you.



Workshop on the contributions of SRTI: Judith SUMINWA praises the insight of Gilbert KABANDA

n June 24, 2024, Prime Minister Judith SUMINWA TU-LUKA closed the workshop on the contributions of the Ministry of Scientific Research and Technological Innovation to achieving the objectives of the Government of the Democratic Republic of the Congo at the Fleuve Congo Hotel.

Initiated by Minister Dr Gilbert KABAN-DA KURHENGA, the four-day workshop brought together a panel of experts appointed by the head of Scientific Research. They included leading figures from the Congolese scientific world, under the direction of the President of the National Scientific Council, Professor MPIANA, as well as several members of the Minister's cabinet.

In his speech, Gilbert KABANDAKURHEN-GA, Minister of Scientific Research and Technological Innovation, began by thanking the President of the Republic, Félix Antoine TSHISEKEDI, for renewing his confidence in his modest person by reappointing him to head this Ministry within the SUMINWA government.

"When I came to head this Ministry 15

months ago, I found a depressed state scientific research and technological innovation sector... I was delighted to discover a dynamic private sector in applied scientific research and technological innovation. This reinforced my long-held conviction. There are many geniuses among the Congolese people.

So I decided to go beyond the state framework and look for this generally little-known category of citizens in the population. I found them in Kinshasa, in the provinces and even in the Congolese diaspora. The Congolese Scientific Genius Conclave we organized in August 2023 was a historic, unprecedented moment to demonstrate to the Congolese people and the world that the nation had brains capable of science, innovation and invention in various fields. and invention in various fields", said Minister KABANDA.

He also thanked the Head of State, who had followed this conclave of Congolese Scientific Genius from start to finish, and who had seen and felt the various prototypes on display, to the point of instructing the government of the Republic, formerly led by SAMA LUKONDE, to

introduce all these prototypes into the national economy through the budgeting of credits in the 2024 finance law for their industrialization. Minister KABAN-DA also praised the "enthusiasm and commitment to create with him a solid research-industry pairing" within the government to achieve the assigned objectives.

"Our government's action program is structured around six major objectives. My ministry, through this workshop, is pleased to make available to you (Prime Minister) its draft contribution to the realization of the program", added the head of Scientific Research and Technological Innovation.

For his part, the new Minister of Industry and Development of Small and Medium-sized Enterprises, who has agreed to create this solid "research-industry" couple, reassured us that his ministry will soon be equipping the country with incubators that will be spread throughout the national territory. He also announced the future organization of a "master class" in Congolese genius.



Prime Minister Judith SUMIMA presents certificate of participation to one of Congolese Scientific Genius' Innovators

The 11 projects presented to the Prime Minister

Well before the address by Prime Minister Judith SUMINWA, 11 projects by Congolese researchers and innovators were presented to the audience, out of the 48 validated to date, at the end of the conclave of Congolese scientific genius. These included "a digital solution for the

dematerialization of accounting procedures; a pilot plant for the manufacture of bread-making cassava flour; the extraction, purification and valorization of methane gas and carbon from Lake Kivu; Dousa C and Cancure, curative medicines based on Congolese medicinal plants and authorized for marketing in the DRC; Copper and cobalt leaching, unstirred tank leaching, bacterial leaching; the

outdoor call extender network antenna (mobile telephony); rocket troposphere 6, the sixth rocket in the series of the first 5 Congolese rockets to be launched. There's also the station equipped with sensors to identify and quantify soil, water and air pollution in real time; industrial technologies for preserving food products; the Fayar electric car; and the intelligent logette, an electrical device for automatic electricity management in a building with competing power cuts.

"All these projects are awaiting funding for industrialization", revealed the President of the National Scientific Council, Professor Pius MPIANA TSHIMANKINDA. Minister Gilbert KABANDA announced that the second conclave of Congolese Scientific Genius would be held in Kinshasa in August 2024. The activity ended with a tour of all the stands.

Le Quotidien and Christian MAZONO and BELESI Consort/NSC

Activity of the USC

NSC organizes training modules for SSRC/Bandundu researchers

The National Scientific Council (NSC) organized training modules for researchers from the Social Science Research Centers (SSRC/Bandundu) from June 19 to 21, 2024

The training was provided by Mr Georges MABIALA. It included the following modules: Generalities of research, Writing a scientific article, Responsible management of research data, Scientific marketing, Effective presentation of a Powerpoint, Writing projects and mobilizing research funds, Valorization of research results in entrepreneurship. For their part, the researchers expressed their delight at the organization of the

said training course. They praised the initiatives taken by the President of CSN, Professor Pius MPIANA TSHIMANKINDA. They also made a number of recommendations and suggestions. They also raised the need for this type of training to be held regularly, as it was a first for them. On the other hand, the need for research infrastructures (library and laboratory) and access to scientific journals in order to disseminate their research results. At the end of the ceremony, a training certificate was awarded to each participant to mark the end of the researchers' seminar. This capacity building highlights the need for training within our Research

Centers and Institutions, and confirms the relevance of the program developed by the President of the National Scientific Council, Professor Pius MPIANA TSHI-MANKINDA. To ensure full ownership of the training program, the Scientific Advisory Board will have to have the sufficient financings

Christian MAZONO/NSC

Echo of our Institutions of research ¶

June 19 World Sickle Cell Day: Denise NYAKE-RU TSHISEKEDI visits MABANGA Hospital



epediatry while passing by the Internal medicine to fall with the urgencies, the President of Foundation DNT made this round to realize of the effective operation of this hospitable renovated center and equipped after nearly one year to work to rehabilitation and construction.

The First lady who made sickle cell anemia her battle brought a message of support and of comfort to the patients again interned in this hospital for last care

of quality. They expressed their gratitude towards the benefactress Denise NYAKERU TSHISEKEDI.

"We say a large thanks to Madame Denise for this beautiful work which allows us to have care of quality in a very clean environment. May the Lord remember and bless her abundantly»

It is on June 18 where the patients regained the Mabanga center modernized with new services such as: imagery, the scanner, radiology, mammography, the

ECG...

The new center increased its capacity of reception while passing from 56 beds with 120.

This hospital was inaugurated and given under the management of the General manager Doctor on March 9, 2024.

7sur7.cd/2024/

At the time of Innovation

WEARABLES



ITECH: a surveillance app over a universal distance created by innovator Trésor NKIRI

ongolese innovator Trésor NKIRI launched in Kinshasa an application called ITECH of surveillance at a universal distance based on the installation of cameras.

According to him, model ITECH is equipped with an artificial intelligence allowing him an autonomous operation.

The ITECH is distinguished from other technologies by its capacity to control the zone of surveillance at an unlimited distance starting from your portable telephone.

It recalls the need to feel safe is felt by any

human being in general and Congolese in particular, from where importance to prevent the risks and to reassure the safety of your house, your company, church, school, company... and your goods.(ITECH Congo: +243816440669.+243811894800.)

NKIRI Treasure, engineer of training, advises the use of application ITECH to remotely control your structure, house, company or

It is advisable to announce that application ITECH functions in collaboration with the cameras of surveillance, controlled by the

telephone.

Let us specify that Trésor NKIRI is graduate in data bases of the Higher Institute of Data processing, Programing and Analyzes (ISI-PA), in initials.

He is the General Manager of the company I-tch Congo and the Head of section to the Congolese National Radio-Television (RTNC), in the direction of the new technology.

Quotinfo.net/



In a year a history of impact strength and innovation, an entrepreneur was given for the world, the discharges of Bukavu, in the east of the Democratic Republic of Congo. From there, it transforms waste into economic opportunities, while contributing to the environmental protection.

In the heart of the animated street of a district hung on a hill, since which the sight on the lake is superb, of the young boys, wore of gloves and provided with plastic bags, in full rubbish, collects there only plastic waste. Their smiles testify to their will to make the difference. The passersby look them with admiration. Others stop to discuss with them.

Waste, once arrived at the workshop, is sorted, washed, crushed, mounded and transformed into useful products (bunches of flowers, armchairs, racks, baskets, walls, etc.) or decorative (artistic tables). And even with a hangar with Katana, 40 kilometers of Bukavu. Its construction, which required six months of work, consumed more than 18 000 plastic bottles. It was less expensive than a traditional hangar, and is more resistant to the bad weather and the earthquakes that this last, by offering a better thermal comfort. A first with the country.

Work is signed Plastycor, a company of recycling of the plastics, which decided to make crisis an opportunity. The town of two million inhabitants generates nearly 900 tons of domestic waste per day, according to A-Habitat, in 2022, including 40 tons of plastic waste, adds Menemene.

Only 7% of the latter are collected and 1% developed. The remainder is thrown in the streets, the gutters, the lake, creating hearths of insalubrity and contamination which pollute water. Thus, the lake, principal source of food for the city, is exposed to the degradation of its quality. Consequence: it contains, say the experts, of the high levels of suspension, phosphate, nitrate, coliforms fecal and of heavy metals ends up causing hydrous diseases, such as the diarrhea, the cholera, the typhoid one or the dysentery, which are frequent in the city. To add to that, the combustion of waste with open sky which also contributes to the

deterioration of the quality of the air: another problem of urbanization. The pollution which entrained of the respiratory diseases, like asthma, bronchitis or the pneumonia, which are also current in Bukavu.

Less delinquency at the market of Mashinzi

Concerning this situation, Nicole Menemene, a young entrepreneur and founder of Plastycor, took the initiative, in December 2019, to develop plastic waste. This, in their giving one second life through the artisanal activities of the objects of the daily newspaper, contributing to the reduction of environmental pollution, while creating jobs and incomes for the young people of the market of Mashinzi, at the exit of the port of Bukavu, with which it collaborates in the collection of plastic waste.

Known for its effervescence and its diversity of products, Mashinzi faces a challenge of size: delinquency of these young people. But into each time Plastycor integrates them in its program of collection of waste - which requires a selective work, effective and a rigorous sorting according to their type - Mashinzi knows a notable fall of the incidents of flight. Commercial, principal victims of these misdeeds, breathe then a little better and can be occupied with their activities without the constant fear of the larceny. «When Plastycor employs them, one feels a difference. Less flight, less disorders, and even a certain cleanliness settle *, entrust Mrs. Kabuo, a saleswoman of fries.

However, this idyllic situation is not permanent. As soon as the contracts of the young people arrive in the long term and that they are found without employment, a recrudescence of the flights is observed, plunging the market and its commercial in desolation. «It is sad to see them falling down in the same ones through, deplores Mrs. Mwamini, vegetable saleswoman. she encourages Plastycor to continue her work, because that is beneficial for everyone."

Plastycor collects between three and four thousand bottles per day. The initiative inspires on the way in which the innovation and the entrepreneurship can transform the challenges into opportunities. She recalls to all that each challenge can be overcome with

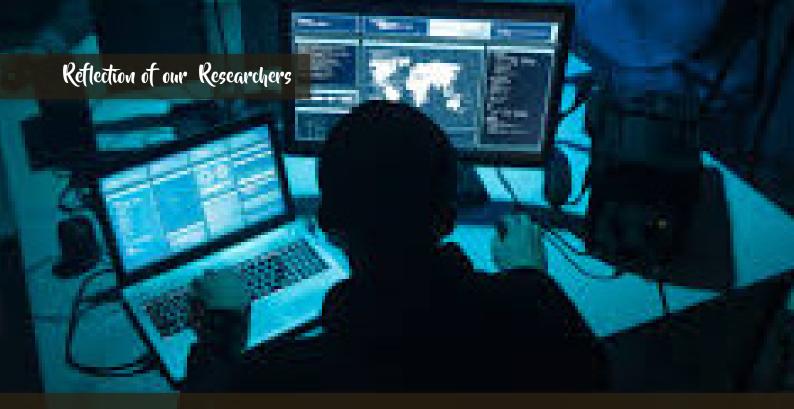
creativity, perseverance and an engagement towards a better future for all. She also shows that the local solutions can have a world impact while inspiring by other communities confronted with similar problems. The plastic waste recycling in Bukavu thus becomes a gainful employment, which makes it possible to create jobs, to reduce pollution, to preserve the natural resources and to contribute to the durable development.

Initiatives which show that 'gold is sometimes in our dustbins, is pleased Menemene. And which deserves to be supported and encouraged. 'But the company born of the discharges of Bukavu turns in artisanal mode. However, the plastic waste recycling requires a technology adapted and powerful to fulfill the requirements of the consumers and industrialists, who ask for recycled products of high quality, sure and durable.

Under the general indifference

For Menemene, the efforts of Plastycor are an eloquent example in the way in which the private initiatives can play a crucial role in the resolution of social problems, while contributing positively to the local economy. 'One could have wished that Plastycor also offer a second chance to these young people, often marginalized and without prospects, she regrets. In their providing a work stable and developing, our company could have contributed to their social rehabilitation and the safety of the market of Mashinzi', whose commercial ones remain however the first supporter of this initiative which brings peace and safety temporarily to them.

all in grands lacs



Cybercrime: understanding and protecting oneself

The cybercrime, it is a term which can seem complex, but actually, it indicates simply the crimes committed on Internet or using a computer. Imagine that your house has doors and windows to protect you from interloper. The same way, your apparatuses connected to Internet need protections to prevent the criminals being introduced and from stealing your information .

The cybercrime gathers several types of illegal activities whose some current examples are inter alia:

- 1. Hacking: It is when somebody is introduced into your computer or your network without your permission. It can steal your personal data, like your photographs, your documents or even of banking information.
- 2. **Phishing:** They are emails or messages via the social networks which seem to come from a reliable source (as your bank), but which tries to mislead you so that you give your personal information or click on a dangerous bond.
- Generally are programs that the cybercriminals install on your apparatus without your assent. They can spy your activities, to steal your information or to even block your computer until you pay a ransom. There are several types of the malevolent software (viruses, Trojan horses, ransomwares, worms) used also with different aims by the cybercriminals.
- 4. **DeepFakes**: These are videos generated or modified by tools of artificial intelligence which can mislead and

harm the reputation of the individuals.

Why the cybercrime is a problem?

With the digitalization of our lives, we use Internet for almost all: to buy clothing, to manage our finances, to remain in liaison with our close relations, and much more still. That means that our information personal and significant circulates on line, which can attract the cybercriminals. If your information falls between bad hands that can have serious consequences: loss of money, flight of identity, or loss of invaluable memories like photos..

How to protect oneself?

Fortunately, there are simple means to protect itself from the cybercrime :

- Using strong passwords: A good password is long and contains a combination of letters, figures and symbols. Avoid the obvious passwords like "123456" or "password".
- Being watchful with the emails and the messages: Never click on bonds or do not open to enclosures coming shippers whom you do not know. Be wary of the messages urgent or alarming which require of you to provide personal information.
- Updating your software: The updates of the software and the operating systems often include significant corrective measures of safety. You ensure that your apparatuses are always up to date...
- Vigilance on the social media: to pay attention to personal information of which we put on line, check your pa-

rameters of confidentiality.

- Using an antivirus: A good software antivirus can detect and eliminate the threats before they do not cause damages.
- 6. Saving your data regularly: Preserve copies of your significant files on an external hard disk or a service of storage on line (for certain people the free version will be enough fully). Thus, even if you are victim of an attack, you will not lose your data.

The cybercrime can seem intimidating, but with some simple precautions, you can largely reduce the risks. To protect your information on line is also significant to lock the door of your house. While remaining vigilant and by adopting good practices, you can sail on Internet in full safety.

BELESI Consort/NSC



The acacia: a large tree with multiple positive impact

exhaust water of the underground, watering stagnant water masses downwards. Its exceptional longevity helps it, thanks to photosynthesis, to absorb the carbon dioxide (CO2), thus contributing to the fight against the climatic reheating, or rather to its attenuation.

In Africa, the acacia is invaluable for its transformation into ecological coal. It also embellishes the urban zones. Its sheets, with the medicinal properties due to the molecules that they contain, reinforce the immune system. Lastly, this tree plays a crucial role in the fight against erosion.

Belonging to the family of Fabacées, the acacia is originating in Americas but was acclimatized perfectly in Europe. Its many species, appreciated so much for their honey than for their wood, decorate our gardens and landscapes. Before planting an acacia, it is significant to consider its scale and its need for space for its roots.

According to varieties', its port can be round, slim or conical. Its foliage, persistent, semi-persistent or null and void according to species', is often composed of sheets bipennées with the small leaflets. Its flowers, gathered in scented bunches, are yellow or white. The fruits, of the lengthened pods, contain seeds.

The acacia, a tree with the multiple facets, offers advantages as well environmental as economic and aesthetic.

Sowing and plantation of the Acacia

Plantation

The acacias are not very demanding as for the nature of the ground. They prefer a well-drained ground however and can even push in poor grounds..

They like a site in full sun, but tolerate also the semi-shade. It is advised to plant the Acacia with the shelter of the winds, because its wood is very breakable. To support the rooting of the tree, it is necessary to plant the Acacia in a hole 2 to 3 times larger than the mound.

It is also recommended to plant the young trees at a distance from approximately 3 to 4 meters from each other to prevent that they do not obstruct the ones the others once mature.

Sowing

To make a success of a seed sowing of Acacia, it is advised to make soak seeds in tepid water during 24 hours before sowing them in a sandy and light substrate. Then to cover them slightly and to maintain a ground wet and a temperature of 20 C.

The germination of seeds of Acacia then takes approximately 8 to 10 days.

Acacia Maintenance

The Acacia is an easy of maintenance and not very demanding plant.

Watering

The regular watering of the Acacia is advised, especially for the periods of dryness.

Size

It is recommended to cut the young trees with the autumn to encourage a healthy and balanced growth. It is then necessary to remove the deadwood or sick, as well as the branches which cross. The size of the Acacia thus makes it possible to preserve a vigorous and harmonious port.

Fertilization

The Acacia can be fertilized with a manure balanced in spring.

Wintering

It is preferable to protect the Acacia with a veil from wintering in the cold areas.

Acacia Multiplication

The multiplication of the acacia is done by reproduction, layering or grafting.

The cuttings must be taken in spring and be deep rooted in a wet ground. The layering implies to fold a branch of the tree and to cover it ground to encourage the rooting. The Clerc's Office is generally used for the acacias cultivated as decorative plants.

Preventing and treating the diseases of the Acacia

The Acacia can be affected by fungic and bacterial diseases, such as the rot of roots and the disease of the scale. From where importance of a well-drained ground, which prevents that water does not stagnate on the level of the roots and does not make them rot.

The Acacia can also be victim of parasites such as the cochineals and the plant louses. In prevention, it is necessary to take care of the good farming hygiene of the tree to avoid the diseases Robinia Pseudoacacia (or Robinier False acacia) is the most widespread species of Acacia in our areas. Nevertheless, the Acacia has many cultivars with the port, the size, flowering and the foliage very varied and the parasites of the Acacia. It is then a question of removing the dead sheets and the vegetable remains around the tree.

Collect and conservation of seeds of the Acacia

The pods of Acacia are collected with maturity when they are dry. From there, the seeds are withdrawn from the pods and are stored in a dry and fresh place until the moment of sowing.

Different varieties of Acacia:

- Pyramidalis;
- The Red Acacia Helmet;
- Umbraculifera;
- Acacacia Frisia;
- Tortuosa.

Jean-Luc BALOGIJE SELENGE (MDRC/BUNIA)



The Vodacom Foundation launches its sickle cell screening campaign

In the occasion of the world day of the fight against the sickle cell anemia, celebrated each 19 June of the year with an aim of sensitizing the public and to mobilize resources for the search and the treatment for this disease, the Vodacom Foundation launched its tracking campaign against this genetic disease of the blood which, mainly, affects the red globules.

As the aforementioned official statement of the Vodacom Foundation brings it back this day, this one also goes, within the framework of its initiatives of social responsibility, to organize activities and campaigns to sensitize the population.

'the Vodacom Foundation, within the framework of its initiatives of social responsibility, working in the fields of education, health and the wellbeing for all, organizes various events and campaigns to educate the communities on the sickle cell anemia, to support the patients and their families, and to promote tracing routines and medical care. These efforts fall under a broader step to improve the

quality of life of the people reached of this disease and to encourage solidarity and the collective action against the sickle cell anemia ", the official statement indicates

To believe this source of it, the Vodacom Foundation organizes, in collaboration with the National Program of Fight Against Sickle cell anemia, the Private clinics University and the Center Cefa Care, of the days of sensitizing in Kinshasa and Lubumbashi with an aim of contributing to the promotion of the prevention and the assumption of responsibility of the sickle cell anemia.

In Kinshasa, the activity will be made with the university private clinics and the national Program of fight against the sickle cell anemia with an aim of sensitizing the students in the universities, in particular the UNIKIN, Bel Campus and ISTM by organizing meetings of tracking from the 26 to June 28, 2024.

As for Lubumbashi, an activity will be organized with the Center of Training and Medical Support (Cefa-mokole) to sensitize the population on Sickle cell anemia and to provide medical products to 500 patients.

7sur7.cd/2024



African elephants call each other and respond to individual names

A

frican elephants are called from one another and answer individual names, which few wild animals do, the review Nature Ecology and Evolution reveals according to its new research published 2024.

The names belong to the serious rumblings that the elephants can hear on long distances in savanna. The scientists think that animals having complex social structures and family groups which separate then often join together are more likely to use individual names.

If you deal with large family, you must be able to say: "Hé, Virginia, come here!" ",explain Stuart Pimm, ecologist at the Duke university, which did not take part in the study.

It is extremely rare that the wild animals are called by single names. The human ones have names, of course, and the dogs of company come when one calls them by their name. The babies' dolphins invent their own names, called signature whistles, and the parrots can also use names.

Each one of these species carrying names also has the capacity to learn how to pronounce new single sounds throughout its life, a rare talent that also have the elephants.

Just like the human ones, the elephants use names

For the study, the biologists used machine learning to detect the use of names in a sound library of vocalizations

of elephants of savanna recorded in the national reserve of Samburu and the national park of Amboseli, in Kenya.

The researchers followed the elephants in the jeep to observe which called them and which seemed to answer them. For example, if a mother called an elephant calf or if a matriarch called a vagrant who joined then the family group

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RIHS (Research Institute in Health Science)

Objective: To improve the state of health of the population through research in the following fields: pharmaceutical, medical, anthropological, psychological or socio-cultural.

Address: 9, Av. Lukusa C/Gombe; E-mail: dnyembo@gmail.com; Tel: 0824580211

ATSRC (Applied and Technologic Sciences Research Center)

Objectif: Mettre au point des matériaux, des appareils, des méthodes ou procédés Objective: To develop materials, equipment, methods or processes with a view to finding solutions to the population's urgent problems in various fields: housing, rural development and the modernization of the society.

Address: 106, Blvd du 30 Juin, C/Gombe; E-mail: Jeannoel.mputu@gmail.com; Tel: 0821138261

RCHS (Research Center in Human Sciences)

Objective: To ensure the human development of the Congolese people through the study of its social, economic and political dimensions with a view to identifying the factors that have a positive or negative influence on its development.

Address: :33, Av. comité urbain C/Gombe; E-mail: mingashang@yahoo.fr; Tel: 0819377821

RCMT (Research Center in Mathematics Teaching)

Objective: To carry out research in the field of mathematics teaching with a view to improving quality.

Address: 84, Av. des Ambassadeurs C/ Gombe; E-mail: mabelamatendorostin@gmail. com; Tel: 0815031877

GRC (Geophysical Research Center)

Objective: To provide the country with a national geophysical observation network, for the global study of the internal behavior of the earth in the DRC. Address: 44, Av. de la démocratie, C/ Gombe(within GMRC); E-mail:tondozi@gmail.

AIPS (African Institute of Prospective Studies)

Objective: To carry out forward-looking studies in order to propose solutions to crises and problems linked to the evolution of African societies.

Address: Av. Cardinal Malula, C/ Lemba; E-mail: mgrtarcibangu@yahoo.fr; Tel:

0996658741

MDRC (Multidisciplinary Development Research Center/Matadi)

Objective: To carry out operational research in central Congo in the field of applied

linguistics of African cultures and applied sciences Address :Hôtel de la porte Matadi; É-mail: Mwanzanicolas5@gmail.com; Tel:0815037949

NCPIR (National Committee for the Protection of ionizing Radiation)

Objective: - Regulatory authority for protection against the dangers of ionizing radiation in the DRC management of radioactive sources of radioactive materials such as

Address: 4675, Av. Colonel Ebeya, Immeuble Quitus 2ème niveau; Email: Flory1963@ gmail.com; Tel: 0816684665 .

AEC (French Atomic Energy Commission)

Objective: To carry out, promote and coordinate scientific and technical research in various fields of science and industry, concerning the use of atomic energy and space

Address: UNIKIN building; E-mail: Steve.muanza.kamunga@gmail.com; Tel: 0808643248

CGI (Congo Geographic Institute)

Objective: Production of the base map of the DRC at a scale of 1/50,000 and its derivatives. Address: 106, Blvd du 30 Juin, C/Gombe; E-mail: Fidele.balibuno@unikin.ac.cd; Tel: 0974449240

GMRC (Geologic and Mining Research Center)

Objective: To carry out studies and analyses to improve knowledge of the soil and subsoil of the national territory.

Address: 44, Av. de la démocratie, C/ Gombe; E-mail: rolandkakule@gmail.com; Tel: 0851506161

NIASR (National Institute for Agronomic Study and Re-

Objective: To promote the development of agriculture in the Congo. To maintain varieties, multi-local trials, and its farmers, management and conservation of germplasm. Set up a program to monitor and evaluate research activities.

To disseminate new varieties. Give the emerging technical department its reason for being, with a view to producing basic and pre-basic seed. Resume publication of the agricultural magazine to disseminate research results.

Address: 13, Av. des Cliniques, BP :2037 KINSHASA , C/Gombe; E-mail: domikankonde@yahoo.fr; Tel: 0818248620

RCALC (Research Center into African Language and Culture)

Objective: To coordinate and carry out all research projects concerning African languages and cultures.

Address: 53 C, Av. Makiso, blvd du 30 juin, Kisangani/Tshopo. Tel: 0851934320

AFRC (Agro-Food Research Centre/Lubumbashi)

Objective: To identify processes for processing and preserving basic local agricultural products. To improve the quality of imported or locally produced foodstuffs by applying approved standards

Help the technological development of the existing agro-industry by providing them with technical assistance wherever possible.

Address: 1, Av. Président ILEO, Q/CRAA, C/Lubumbashi; E-mail: Julesnkulu@gmail.com; Tel: 0997131002

SSRC (Social Science Research Center / Bandunduville)

Objective: to carry out practical scientific research into major socio-economic and cul-

To promote sustainable aquatic development.

Address: 29, Av. de la mission, Q/Salongo, C/Basoko. BANDUNDUVILLE, BP. 223; E-mail:akuzituka@gmail.com; Tel: 0815898971

FERC (Forest Ecology Research Center / Mabali)

Objective: Scientific research on plants, aquatic species and animal species. Address: D.S/MBANDAKA D.S/MBANDAKA/PROVINCE OF ECUADOR; E-mail: bosomboependi2@gmail.com; Tel: 0825241704

NDRC (Nutritional Diseases Research Center/Gemena)

Objective: Research into diseases linked to malnutrition, such as related diseases by isolating certain molecules, such as SYZYSIUM GUINESIE to combat amoebic yeasts and diarrhea in South Ubangi.

Address: Mobutu n° 220/A. GEMENA/ SOUTH UBANGI PROVINCE; E-mail: cherusangi@ vahoo.fr: 0992416091

NSRC (Natural Sciences Research Center /Lwiro)

Objective: To carry out, promote and coordinate research in the fields of science, technology and industry throughout the DRC.

Address: LWIRO LWIRO, TERRITORY OF KABARE/SUD KIVU; E-mail: robert.kasisi@umontreal.com; Tel: 0996806699.

MDRC (Multidisciplinary Development Research Center /Bunia)

Objective: To carry out operational research in the north-east of the DRC in the fields of applied linguistics, African cultures and applied sciences. Study of nature, fauna, flora and protection of endangered species.

Address:BUNIA/ITURI; E-mail: Kermwathomas@gmail.com; Tel: 0997717070

HRC (Hydrobiology Research Center in Uvira)

Objective: To program, coordinate and monitor research activities in hydrobiology, limnology and hydrology.

hydrobiology, limnology and fisheries in all ecosystems.

Address: 115, AV. du Congo, Q/Kimanga, C/Kalundu, UVIRA / SUD KIVU; E-mail: bida-kamuhoza@gmail.com; Tel: 0997716307.

CoE/CBRNEC (Chemical, Biological, Radiological and Nuclear Excellence Center)

Objective: To contribute to the mitigation of chemical, biological, radiological

Address: 106, Blvd du 30 Juin, C/Gombe; E-mail: Odette.kabena@gmail.com; Tel: 0816904370.

GVO (Goma Volcanological Observatory)

Objective: Prevention of volcanic risks by monitoring volcanoes and Lake Kivu. Kivu; Management of natural risks; scientific research.

Address:142, Avenue Du Rond Point ; Quartier Les Volcans ; Commune de Goma ; Ville Goma; North-Kivu; E-mail: mavotulu@gmail.com; Tel: 0998584734

WERC (Water and Environment Research Center)

Objective: To serve as a training and research center focusing on water and environmental management.

To propose solutions to problems that could arise around water. Create a national network of Congolese scientists and researchers to analyze and disseminate information on the impact of climate change in the DRC. Promote education and the right to the environment

Address: 44, Comité Urbain C/ GOMBE; E-mail: ngelipatience@gmail.com; Tel: 0818105625

RCSARP (Research Center for the Selection and Adaptation of Ruminants and Pigs)

Objective: To carry out studies and research in the field of ruminant and pig breeding

Address: 45, Av. Lumumba, Q/de la gare, LUPUTA/ KASAI-ORIENTAL; E-mail: tshamalagabriel@gmail.com; Tel: 0851817370

NCRS (National Center for Remote Sensing)

Obiective: Research in remote sensing.

Address: PLACE ROYAL IMMEUBLE PLACE ROYAL IMMEUBLE KASAI; E-mail: davidngin-Jh@amail.com·Tel·0815103502

NCROS (National Center for Research in Oral Science)

Objective: To carry out studies and research in the field of oral health. Address: 13, 10ème Rue, Industriel Quarter, C/Limete; E-mail: Cnrsbd.rdc.@gmail.com; Tel: 0822244152; 0811835159; 0840922982

CAS(Congolese Academy of Sciences)

Objective: Promotion and dissemination of science, technology, arts and letters. Support for inventive initiatives.

. Address: Sciences Faculty/ UNIKIN local 28; E-mail: jjmuyembet@gmail.com; Tel:

MIPRC (Matadi Interdisciplinary Pedagogical Research Center)

Objective:--Information science

Address: The buildings of the Matadi Higher Pedagogical Institute; Tel: 0896501462



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Printed on 06 August 2024

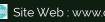
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In accordance with article 24 of Ordinance-Law n°82-040 of 5 November 1982 on the organization of scientific and technical research, the National Scientific Council is responsible for:

- to deliberate on the guidelines and priorities of the scientific and technological research plans and programs to be carried out in the country;
- to deliberate on the allocation of resources from the State budget to scientific and technological
- activities; supervising the financial management of research centers and institutes
- approving the budgets of the Research Institutes and Centers and submitting them to the Minister for Scientific Research for approval
- approving the organic regulations of the Research Institutes and Centers;
- . proposing to the Minister for Scientific Research the appointment and promotion of scientific and administrative personnel.

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