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**THIS ACTION IS FUNDED BY THE EUROPEAN UNION**

**ANNEX 22**

to the Commission Implementing Decision on the financing of the multiannual action plan in favour of Sub-Saharan Africa for 2024-2025

**Action Document for “PanAfGeo+ - Support to Geological Science and Technology”**

**MULTIANNUAL**

This document constitutes the multiannual work programme within the meaning of Article 110(2) of the Financial Regulation, within the meaning of Article 23 of the NDICI-Global Europe Regulation.

**1 SYNOPSIS**

**1.1 Action Summary Table**

<b>1. Title CRIS/OPSYS business reference Basic Act</b>	PanAfGeo+ - Support to Geological Science and Technology OPSYS number: ACT-62321 Financed under the Neighbourhood, Development and International Cooperation Instrument (NDICI-Global Europe)
<b>2. Team Europe Initiative</b>	No
<b>3. Zone benefiting from the Action</b>	The action shall be carried out in Sub-Saharan Africa
<b>4. Programming document</b>	Sub Saharan Africa Multi-annual indicative programme 2021-2027 (Regional MIP)
<b>5. Link with relevant MIP(s) objectives / expected results</b>	The Action contributes to the Priority area 4 on Digital and Science, Technology and Innovation (STI) of the Regional MIP, in particular priority area 4.2, by boosting Africa’s STI capacity for risk-informed, evidence-based and inclusive development in the green transition sectors/areas and to Priority area 5 on Sustainable growth and decent jobs , in particular 5.1 on Regional Economic Integration, Trade and Trade Facilitation. The Action also contributes to the national MIP for Zambia, focal area 2 Green Partnerships for sustainable recovery, growth and decent jobs.  . *Note that this Action also has strong synergies with three other priority areas: 1 – Human Development (education and skills, leadership and entrepreneurship, training and professional development, gender equality); 3 – Green Transition (Climate mitigation and resilience; Sustainable energy; Biodiversity and environment; Water and oceans; responsible sourcing of critical metals);  .
<b>PRIORITY AREAS AND SECTOR INFORMATION</b>	
<b>6. Priority Area(s), sectors</b>	Sub-Saharan Africa Regional MIP: Priority area 4 - Digital and Science, Technology and Innovation

	DAC Sectors: 322 - Mineral Resources & Mining			
<b>7. Sustainable Development Goals (SDGs)</b>	Main SDG: <b>SDG 9. Industry, Innovation and Infrastructure</b> Other significant SDGs (up to 9) and where appropriate, targets: SDG 4. Quality education SDG 5. Gender equality SDG 6. Clean water and sanitation SDG 7. Affordable and clean energy SDG 8. Decent work and economic growth SDG 10. Reducing inequalities SDG 11. Sustainable cities and communities SDG 13 Climate Action SDG 16. Peace, justice, and strong institutions SDG 17. Partnerships for the goals			
<b>8 a) DAC code(s)</b>	11430 - Advanced technical and managerial training (10%) 32210 - Mineral/mining policy and administrative management (70%) 32110 - Industrial policy and administrative management (10%) 41010 - Environmental policy and administrative management (10%)			
<b>8 b) Main Delivery Channel</b>	11000 Donor Government BRGM (French National Survey) and European Geological Surveys			
<b>9. Targets</b>	<input type="checkbox"/> Migration <input checked="" type="checkbox"/> Climate <input checked="" type="checkbox"/> Social inclusion and Human Development <input checked="" type="checkbox"/> Gender <input type="checkbox"/> Biodiversity <input checked="" type="checkbox"/> Education <input checked="" type="checkbox"/> Human Rights, Democracy and Governance			
<b>10. Markers (from DAC form)</b>	<b>General policy objective @</b>	<b>Not targeted</b>	<b>Significant objective</b>	<b>Principal objective</b>
	Participation development/good governance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Aid to environment @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Gender equality and women's and girl's empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with Disabilities @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<b>RIO Convention markers</b>	<b>Not targeted</b>	<b>Significant objective</b>	<b>Principal objective</b>
	Biological diversity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Combat desertification @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change mitigation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Climate change adaptation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

11. Internal markers and Tags:	Policy objectives	Not targeted	Significant objective	Principal objective
	Digitalisation @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	digital connectivity digital governance digital entrepreneurship digital skills/literacy digital services	YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	/
	Connectivity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	digital connectivity energy transport health education and research	YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	/
	Migration @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	Reduction of Inequalities @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Covid-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>BUDGET INFORMATION</b>				
<b>12. Amounts concerned</b>	Budget line(s) (article, item):  14.020120 : EUR 6 000 000 14.020121 : EUR 13 000 000 14.020122 : EUR 13 000 000  Total estimated cost: EUR 32 000 000  Total amount of EU budget contribution EUR 32 000 000 <sup>1</sup>			
<b>MANAGEMENT AND IMPLEMENTATION</b>				
<b>13. Type of financing</b>	<b>Direct management</b> through: - Grants			

<sup>1</sup> EUR 2 000 000 are from the national MIP Zambia and are therefore earmarked for Zambia in addition to the budget allocation foreseen for the country-windows.

## 1.2 Summary of the Action

Africa faces numerous economic, societal and environmental challenges linked to the green transition and the digital transformation, which can be addressed through geosciences partnerships, technologies and skills.

Geoscience deals with knowledge of all aspects of the earth beneath our feet – what it is made of, how it is structured, and the processes operating within it. This includes minerals, heat energy, groundwater, storage space (CO<sub>2</sub> or H<sub>2</sub>), hazards such as landslides or subsidence or flooding. Being a multidisciplinary, cross-thematic science, geoscience has applications to multiple areas of human endeavour and interest – climate change mitigation and adaptation, environmental management (including e.g., desertification, soil health, biodiversity), mineral resource development, water quality and quantity, urban green infrastructure, and more.

Based on the successful geoscientific programmes PanAfGeo1 and 2<sup>2</sup>, and the EU-Africa business platform and networks developed in AfricaMaVal<sup>3</sup>, the Action will aim at contributing to sustainable management of geological resources, addressing climate change adaptation and mitigation, in Africa and promote EU-African partnerships in geosciences in particular raw materials. The action will have three components:

1. Strengthen Africa – EU institutional partnerships on Geosciences at continental, regional and national levels;
2. Make more effective African Geological Surveys and the Organisation of African Geological Surveys in terms of geoscientific information and of national, regional and continental support to policy making and planning processes;
3. Promote EU-Africa economic partnerships on raw materials value chains including gender and human rights sensitive approach.

The action will aim at improving the governance framework of African geoscience continental organisations and African Geological Surveys, as well as develop African Expert Networks in geoscience linking with the academic and private sector to provide support to African geological surveys and relevant national institutions delivering specific knowledge and science-policy outreach. The action will also aim at delivering high-quality training sessions and at providing specific technical assistance to Geological Surveys in geoscience topics. In addition, the action will promote economic partnerships through developing and maintaining B2B platform to generate project proposals on Critical Raw Materials and develop a match-making system to foster sustainable investments.

Activities will be carried out at continental level while a focus will be given to activities at national level through specific country-windows, notably for countries that have signed or are in a process to sign EU-Africa partnerships on sustainable raw material value chains. The action will potentially aim at contributing to the subsequent specific roadmaps that the countries will elaborate to implement these partnerships.

The Action contributes to the Priority area 4 on Digital and STI of the Multi-annual Indicative Programme for Sub-Saharan Africa (SSA) 2021-2027 (Regional MIP) in particular with regard to Specific Objective 2 ‘Enhance the effective use of STI for sustainable development in Africa’. The Action will contribute in particular to increase science capacities in geological surveys and to support the development of effective STI ecosystems promoting private sector involvement. The Action also contributes to Priority area 5 on Sustainable Growth and decent jobs, notably through the promotion of EU-Africa economic partnerships on raw materials value chains.

Geoscience is relevant to at least 16 of the 17 SDGs. This Action is directly relevant to the following 13 SDGs: 4. Quality education: geoscience training; 5. Achieve gender equality and empower all women and girls: raising the proportion of higher-trained women in geoscience in Africa and the representation of African women in leadership roles; 6. Clean water and sanitation: groundwater training; 7. Affordable and clean energy: geothermal training, mineral resource training (applicable to Critical Raw Materials for green energy); 8. Decent work and economic growth: training and boosting opportunities for African SMEs; 9. Infrastructure, industry, and innovation: building links between industry, academia and government, training, expert networks; 10. Reduce inequality within and amongst countries: local capacity building in geoscience expertise and building African and EU-African sustainable networks; 11. Sustainable cities and communities: geoscience training in mineral resources, water, geoheritage; 13. Climate action: training – climate mitigation (energy, minerals,

<sup>2</sup> [Home – PanAfGeo - PanAfGeo \(eurogeosurveys.org\)](https://www.eurogeosurveys.org/)

<sup>3</sup> [AfricaMaVal – EU-Africa Partnerships on sustainable Raw Materials Value Chain](#)

water), science for policy links; 14. Conserve and sustainably use the oceans, seas, and marine resources: training – blue economy; 15. Life on land: training – geoheritage, water, mineral resources, geological mapping; 16. Peace, justice, and strong institutions: organisational capacity and governance support for the OAGS and building sustainable synergies and partnerships within Africa and between EU and Africa; 17. Partnerships for the goals: Supporting strategic EU-African partnerships on RM to support SGDs 7, 8, 9, 10, 11, 13.

### 1.3 Zone benefitting from the Action

The Action shall be carried out in Sub-Saharan countries, all included in the list of ODA recipients.

## 2 RATIONALE

### 2.1 Context

Engaging in Critical Raw Materials (CRM) value chains with resource-rich countries is crucial for the EU. The expected spike in CRM demand across the globe and the already very concentrated market structure in some of these materials is a serious challenge to the EU's ambition to achieve the twin green and digital transitions. Decisive action is needed in a context of under-exploitation of resources within the EU, limited recycling capacities and low number of EU industry players in the areas of CRM globally.

According to the African Natural Resources Management and Investment Centre, in the extractives sectors, it is estimated that Africa accounts for about 30% of all global minerals reserves. Minerals account for an average of 70% of total African exports and about 28% of Gross Domestic Product (GDP). Although Africa is particularly rich in mineral raw materials, most of the continent's mineral resources are still widely under-exploited and unclassified and therefore does not sufficiently contribute to the improvement of the overall living conditions of the African population.

Over the years, the scramble for access to the African mineral resources has intensified, mainly due to the rising demand in mineral raw materials from emerging economies, which use these resources for their development and in particular, for the development of clean and green technologies. The EU's industry is heavily high-tech based and depends dramatically on the import of certain minerals and metals, that have been identified in the "List of Critical Raw Materials for the EU".

This comes at a time where partner countries in Africa and elsewhere place increasing emphasis on the need to enhance mining local benefits, move further up along the value chain and embed circularity and sustainability aspects into these.

For many African countries, the mining sector and subsequently mineral trade along all the value chain are an important source of income. It therefore requires solid information and skilled human resources that are able to evaluate mineral endowment allowing for sustainable development in the framework of a clear and established governance. Poor governance including corruption, environmental and social damage, human rights abuses on communities, in particular women's human rights, in the areas of mining operations and other issues of conflict such as labour rights, are issues to be considered. If not properly managed and/or supervised by skilled and well-informed professionals, or without the participation of the communities, mining activities can have strong negative environmental and social impacts.

Detailed and reliable geoscientific data and information are vitally important to the economy of a state as well as to the protection of its natural diversity and population. There continues to be inadequate baseline geological mapping and other geoscientific data coverage of the continent at a relevant scale to support investment interest in mineral exploration activities that are needed for sustainable mineral resource development in Africa. Geological Surveys provide services that can be used by state agencies, consultants, industry, developers and the public as key input for local and regional socio-economic development plans. Areas of support are amongst others energy and mineral resources, environmental protection, natural and anthropogenic geological hazards, land-use planning, agriculture, economic development, earth resources development, climate change, sustainability and tourism.

European Geological Surveys acquired strong skills and expertise in the environmental management of mineral resources that is progressively transferred to African Geological Surveys (i.e. PanAfGeo projects, 2016-2024) in

order to better accompany the development of mining activities across the continent. A closer cooperation between African and European Geological Surveys through their respective organisations, namely EuroGeoSurveys (EGS) and the Organisation of African Geological Surveys (OAGS) would be highly beneficial. These organisms shall also collaborate with all the actors along the raw materials value chain.

Considering the strengthened institutional links between OAGS and EGS and the capacity building of African Geological Surveys enhanced through the PanAfGeo programme, possible synergies between African and European stakeholders, e.g. European and African Geological Surveys, funding agencies and/or private operators are envisaged for the project sustainability. These synergies in a long term should revolve around three main axes: (i) Maintaining and reinforcing the pan-African and intercontinental network, (ii) Enhance on country windows projects to encourage mineral exploration projects, development of mineral manufacturing industry and dedicated investments, (iii) and finally encouraging the maturation of opportunity projects (i.e. investment proposals) by European and African Geological Surveys and private operators.

In addition to support to building the capacity of African geological survey organisations to deliver the baseline geological data and regional geoscience information required to support the industry, investments should be increased to bring added-value along the critical raw material value chain. These potential investments include the complete cycle: mining, mineral processing, reefing and even some end products. Both large, small and artisanal mining activities should be considered including the recycling aspects and the need in green energy.

## 2.2 Problem Analysis

Mineral resources are critical contributors to the national economies of more than half of the African states. The 2022 Mining Contribution Index (MCI) by the International Council of Mining and Metals (ICMM) confirms that many of the world's most mining-dependent countries continue to rely on their natural resources as the primary driver of economic activity. Moreover, it is noteworthy that Climate change and Green growth constitute the main theme of the African Economic Outlook 2023 report published by the African Development Bank. Indeed, following multiple shocks, including the effects of the COVID-19 pandemic, disruptions to global supply chains due to Russia's prolonged invasion of Ukraine and a tightening of global financing conditions, the continent's real GDP growth reduced from 4.8% in 2021 to 3.8% in 2022. The report underscores the urgency to fast-track climate action and green transitions to drive the continent's inclusive and sustainable development. This is clearly a common goal and challenge of Europe and Africa.

Sustainable minerals exploitation, supported by the necessary increased capacity for delivering regional geoscientific data and information, would bring additional benefits to the local and regional economies and societies, including fostered infrastructure investment, strengthening of more socially and environmentally responsible institutional structures and management as well as increased private sector participation.

However, this significant potential for more inclusive and sustainable development resulting from the exploitation of mineral resources in Africa still remains untapped. Although the African Mining Vision states that geological data collected on a regular basis throughout Africa can significantly enhance the mineral perspective of the continent and lead to increased green-fields private sector exploration and mine development investment, there is currently limited availability and access to basic geological information and mineral inventories in Africa. A large percentage of the continent is yet to be sufficiently geologically mapped and explored in a systematic manner and at an appropriate scale, mainly due to the inadequate national capacity to carry out fieldwork activities and store these in digital geoscientific information systems. By providing better data and expertise in Geological Surveys and all along the raw materials value chain, the PanAfGeo+ project can improve the capacity of African countries to negotiate with investors and mining companies, encouraging both better management of the resource and fairer benefit sharing.

In addition, geoscientific information is also useful to other economic sectors, such as infrastructure, disaster risk prevention, land use planning, groundwater resources, geothermal energy, agriculture and tourism linked to geoheritage (e.g. UNESCO Global Geoparks). The challenges posed by climate change need to be integrated into geological survey's activities by promoting links with natural sciences (including biology, climatology, etc.). In situations where local populations do not usually benefit much from the exploitation of geological resources and on the contrary often suffer negative impacts in terms of health or environmental damage, making key geoscientific information available can encourage a real dialogue between the authorities and the affected communities and civil society at large. The analysis and integration of societal and environmental issues must



and academia in Europe and in Africa.

With regard to international institutional stakeholders, UNESCO in particular its Earth Science Section, and other UN bodies such as UNECA and UNDP, are directly associated in the Action Plan for implementing the AMV. The World Bank Group, whose programmes for governance and development of the geoscience and mineral resources sector require strong Geological Surveys in place, and the OECD, which develops numerous initiatives relevant for mining activities in Africa.

Private sector operators of large and small-scale will benefit from facilitated access to quality geoscientific information, improved regulation (more transparency and clarity), improved skills of workers, including women and persons with disabilities, and improved understanding by civil society of the mining cycle.

Overall, local communities should equally benefit not only from enhanced and more sustainably distributed royalties, employment and business opportunities but also from better environment conservation, better living standards, reduced health, and environmental risks. Local communities as well as decentralised public administrations are also expected to benefit from the development of transport and energy infrastructures needed for mining sector.

Stakeholders, at a glance:

- Africa continental level:
  - The Organisation of African Geological Surveys (OAGS);
  - The African Mineral Development centre (AMDC);
  - The African Minerals and Geosciences Centre (AMGC, formerly SEAMIC);
  - The African UNESCO Global Geoparks Network (AUGGN);
  - The Association of Women in Mining in Africa (AWIMA);
  - The African Association of Women in Geosciences (AAWG)
  - The African Union Commission (AUC);
  - The African Development Bank (AfDB).
- Africa national level:
  - National Geological Surveys;
  - Relevant Ministries (Mines and Geology, Energy, Tourism, Trade and investment, Economy, etc.);
  - Key African university partners;
  - The Geological Society of Africa (GSaf).
- European level:
  - EuroGeoSurveys (EGS);
  - The European Geological Surveys;
  - Key European university partners;
  - European Institute for Innovation and Technology (EIT).
- International organisations:
  - The United Nations Educational, Scientific and Cultural Organisation (UNESCO);
  - The Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development (IGF);
  - The International Union of Geological Sciences (IUGS);
  - The International Union for Conservation of Nature (IUCN);
  - The International Association for the Conservation of Geological Heritage (ProGEO);
  - The World Bank (WB);
  - The World Wildlife Fund (WWF);
  - The United Nations Economic Commission for Africa (UNECA);
  - The Organisation for Economic Cooperation and Development (OECD).
- European Commission, including the following services: DG INTPA, DG GROW, DG JRC, DG RTD, DG TRADE.

## 3 DESCRIPTION OF THE ACTION

### 3.1 Objectives and Expected Outputs

The Overall Objective of this Action is to contribute to sustainable management of geological resources in Africa, addressing climate change adaptation and mitigation, and promote EU-African partnership in geosciences in particular raw materials.

The Specific Objectives of this action are to:

1. Strengthen Africa – EU institutional partnerships on Geosciences at continental, regional and national levels contributing to the green transition;
2. Make more effective African Geological Surveys and the Organisation of African Geological Surveys in terms of geoscientific information and of national, regional and continental support to policy making and planning processes;
3. Promote EU-Africa economic partnerships on raw materials value chains including gender and human rights sensitive approach.

The Outputs to be delivered by this action contributing to the corresponding Specific Objectives are:

Contributing to Specific Objective 1

- 1.1. Strengthened African geoscience continental organisations and initiatives at institutional (e.g., OAGS governance), technical (e.g., Expert Networks), and academic levels;
- 1.2. Promote geoscientific partnership between European and African geological organisations addressing in particular climate change adaptation and mitigation issues;
- 1.3. Enhanced geoscience policy interface and outreach activities, incorporating a gender sensitive approach.

Contributing to Specific Objective 2

- 2.1 Improved geoscientific and technological knowledge and skills of African Geological Surveys, the Organisation of African Geological Surveys (OAGS), and other relevant institutions;
- 2.2 Improved governance and strengthened mandate of African Geological Surveys.

Contributing to Specific Objective 3

- 3.1 Enhanced human, technical, industrial and commercial networks in order to build a long-term confident partnership with gender and human rights sensitive approach;
- 3.2 Fostered sustainable investments supporting long term economic strategic partnerships.

### 3.2 Indicative Activities

Activities relating to Output 1.1

- Facilitation of and support for development of the governance framework of African geoscience continental organisations (e.g., support in establishing statutes, developing internal rules and internal governance structures, including support for building frameworks that promote diversity, equity, and equality in governance).
- Development of African Expert Networks in the thematic areas of Geoscience Mapping, Mineral Resources, Energy Resources, Water and environmental management of mines, Geohazards and land use, Geoheritage and geoconservation, Marine economy, Artisanal and small-scale mining, Geoscientific information management, and Geoscience communication. African Expert Networks will include participation, as appropriate, from PanAfGeo alumni, African Geological Survey Organisations, OAGS, international institutions, academia, and industry, with support from EGS Expert Groups.
- Where relevant, support to African Expert Networks in the development of appropriate work programmes, and with the support of EGS Expert Groups.
- Facilitation of meetings of African Expert Networks, particularly in association with key African industry and academic events (e.g., Mining Indaba, SIM Conference, Colloquium of African Geology (CAG), UNESCO workshops).

Activities relating to Output 1.2

- Identify national-level institutional and science-policy issues that would benefit from input of the African

Expert Networks, particularly in relation to issues relevant to bilateral MoU and Roadmaps.

- Coordinate African Expert Network workshops and/or bilateral EU/national African workshops to address the identified/selected national-level issues, including bringing together relevant government, industry, and academic stakeholders with gender and human rights sensitive approach.
- Support the African Expert Networks or African Geological Surveys in further contributing to national level activities that can be carried out in relation to MoUs and Roadmaps by, e.g., (a) identifying potential funding sources, (b) providing support in applying for funding, (c) facilitating relevant partnerships, (d) providing technical geoscientific expert support.

#### Activities relating to Output 1.3

- Provide support to African Expert Networks, continental geosciences organisations or national geological surveys, in delivering appropriate science-policy input (e.g., development of policy briefs, responses to public consultations, support in provision of data, expert engagement with policy makers, reports, research), particularly in regard to the identified/selected national-level issues.
- Facilitate 'pairing', or knowledge-brokering opportunities, between African Experts and policy makers, with gender and human rights sensitive approach, particularly in regard to the identified/selected national-level issues (e.g., short-term embedded scientist positions, dedicated sessions or events associated with key African events).
- Deliver science-policy outreach, particularly in relation to issues relevant to bilateral MoU and Roadmaps, but also at EU-Africa continental level, via a collaborative EGS-OAGS approach, focussing on key African events such as Mining Indaba, SIM, PDAC, and CAG, amongst others.

#### Activities relating to Output 2.1:

- Deliver high-quality training sessions to African Geological Surveys. Twinning partnerships in delivering training sessions will be sought with relevant stakeholders such as UNESCO, IUGS, African Geoparks Network, Geological Society of Africa, African Universities, etc.); Training activities will promote and mainstream all cross-cutting topics, specific attention will be paid to supporting environmental objectives, land use planning capacities, restoration of ecosystems, and supporting women's scientists in geoscience sector. The following topics will be addressed:
  - Priority geosciences topics identified by the African Geological Surveys (i.e. geoscientific mapping, mineral resources assessment, artisanal and small-scale mining, environmental management of mines, geoscientific information management);
  - New geoscientific skills (i.e. geoheritage & geoconservation, and geohazards) by organising training sessions;
  - Advanced training sessions through practical cases and fieldwork;
- Provide specific technical assistance to support a selected number of African Geological Surveys and/or national authorities through a transparent and inclusive process based on criteria to be defined such as the existing / potential Partnerships between the EU and the country;
- Encourage the publication of handbooks and/or scientific papers related to the different geoscientific skills based on course materials, case studies and contributions from the trainees.

#### Activities relating to Output 2.2:

- Organise specific workshops dealing with governance in African and European Geological Surveys so as to share experience between the organisations and precise their mandate and scope of intervention;
- Based on discussion carried out in the framework of the workshops, dissemination materials will be elaborated and shared such as good governance guidelines in Geological Surveys Handbook(s) ;
- Provide specific technical assistance to strengthen a selected number of African Geological Surveys governance through a transparent and inclusive process based on criteria to be defined such as the existing / potential Partnerships between the EU and the country.

#### Activities relating to Output 3.1:

- Animate a strong and original network between Africa and Europe involving the civil society, including women's organizations, the industry, the expert groups, the Geological Surveys and other organisation such as Association of Women in Mining in Africa (AWIMA), Minerals African Development institution (MADI), WWF, AMGC, African Development Bank, the OECD or of the World Bank.

- Organise dedicated conferences with the AMDC around the economic development of the African continent based on the added value on the CRM, based on ESG criteria with all African and European stakeholders, to maintain and enlarge the AfricaMaVal network based on the confidence established between the different types of partners.
- Promote network and partnership activities with the AMDC such as:
  - Promote the ESG standards and value addition ambitions for the proposals evaluation in relation with the African Minerals & Energy Resource Classification and Management System – Pan-African Resource reporting Code (AMREC PARC) procedure in the spirit of the African Mining Vision (AMV);
  - Contribute on the Best Available Technics (BAT) developed partly in the AfricaMaVal project in the structuration of proposals based on the ESG at the different scales: large mining activities or Small and artisanal projects mainly on ECRM all along the value chain;
  - Contribute to the animation of a nursery of entrepreneurs, developers, women’s scientists, investors and technicians to contribute to the ideas generation for new and original proposals;
  - Develop the awareness of the African institutions at continental (AU), regional (RECs) and national levels to propose a credible economical alternative through the strong African/European partnership.

Activities relating to Output 3.2:

- Maintain and develop the B2B platform based in Africa to generate proposals on ECRM production in connection with the ERMA system;
- Develop the Match Making system in connection with the ERMA system;
- Organise workshops at different levels to analyse the minerals value chain, including recycling, and identify all possibilities to create a maximum of added value on the African Continent;
- Contribute to the fight against the lack of Energy on the African continent by developing green energy proposals as windmill farms, solar panels or geothermal energy linked to the LEAP RE project;
- Contribute to the development of key infrastructures in the existing and potential mining areas;
- Contribute to the formalisation and implementation of the road maps at national levels in the African “country windows”.

### 3.3 Mainstreaming

The Action is clearly mainstreaming cross-cutting issues: environmental protection, resilience to climate change, disaster risk reduction, sustainable development of geological resources and geoconservation, cross-sectoral integration of networks, governance development gender equality and youth engagement are transversal elements.

#### **Environmental Protection & Climate Change**

An efficient Geological Survey contributes to the development and management of key and sometimes classified natural resources maps and databases. In countries whose economies are based on mineral raw materials exploitation, the function of a Geological Survey is indeed strategic. As a consequence, Geological Surveys are naturally involved in the country natural resources governance process, by providing expert-based information on available resources, which is a precondition for their better governance. Considering the Geological Surveys expertise and potential influence, specific attention will be paid to the management of “blue and green environmental resources”.

#### **Outcomes of the SEA screening**

The Strategic Environmental Assessment (SEA) screening concluded that no further action was required.

#### **Outcomes of the EIA (Environmental Impact Assessment) screening**

The EIA (Environment Impact Assessment) screening classified the action as Category C (no need for further assessment).

#### **Outcome of the CRA (Climate Risk Assessment) screening**

The Climate Risk Assessment (CRA) screening concluded that this action is no or low risk (no need for further assessment)

### **Gender equality and empowerment of women and girls**

As per the OECD Gender DAC codes identified in section 1.1, this action is labelled as G1. That is to say that gender equality is an important and deliberate objective, but not the principal reason for undertaking the project, often explained as gender equality being mainstreamed in the project.

This implies that will be duly considered in the project implementation to the extent that gender disparities will be minimised as much as possible when selecting the trainees, although women professionals might not be available in all disciplines in the Geological Surveys involved in the Action. This active measure will find a strong support from the African Association of Women in Geosciences (AAWG) as well as the Association of Women in Mining in Africa (AWIMA), included among the project's stakeholders.

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**Human Rights** issues will be mostly addressed through the training courses on artisanal and small-scale mining, with reference to two types of negative impacts generated by these mining activities: (i) poor working conditions in such mineral exploitations including child and women labour; and (ii) degraded living environment in the neighbourhood of the operational and abandoned mining sites.

Stakeholders of the mining sector should share regulations practices, their experience and know-how based on the ESG criteria. The inclusion of civil society representatives including women's human right organizations, is essential in order to assess the impacts, both positive and negative, of the mining activities all long the value chain and at all scales especially in the ASSM field.

### **Disability**

As per OECD Disability DAC codes identified in section 1.1, this action is labelled as D1. While disability has not been identified as a significant objective, the Action will promote an inclusive approach towards persons with disabilities in its communication and participatory activities. This intervention will be in line with the Convention on the Rights of Persons with Disabilities (CRPD). The Action will take into consideration persons with disabilities during decision-making processes and training sessions when possible.

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### **Reduction of inequalities**

The Action should also promote a better understanding of Environmental, Social and Governance issues (ESG) that should be shared by all stakeholders as a minimum standard of respectful engagement. The sharing of experiences, know-how and best practices between stakeholders is an essential axis to initiate and promote sustainable actions. The Action aims to strengthen the Geological Surveys' capacities and position to play their advisory role in the governance process. It also promotes the importance of transparency and participation (including civil society groups and private sector among stakeholders and beneficiaries). Reduction of inequalities is addressed through the activities on ASSM (see above).

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### **Conflict sensitivity, peace and resilience**

The Action is designed taking into consideration economic, political and societal risks which might negatively impact the smooth implementation of the action (ex: directing support, providing different levels of intervention continental and per country adopting a tailor-made approach etc.). The action aims at strengthening the resilience of societies and individual rights in SSA through the promotion of sustainable management of geological resources. No major risks for potential negative impacts are considered, as the Action will promote multi stakeholder collaboration and scientific, institutional and economic partnerships. Knowing that the mining sector might be sensitive and attract divergent interests, specific attention will be given to fair partnerships and contribution to science and research-based collaboration to support and inform decision making.

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### **Disaster Risk Reduction**

The Action contributes to sustainable management of natural resources strengthening water resources management related risks (e.g. access to drinking water) and disaster risk management (e.g. landslides, flooding). It also strengthens the capacity of Geological Surveys to compile information on availability and access to raw materials<sup>7</sup> needed in renewable energy technologies. Such sustainable and integrated subsurface management of georesources (energy, water, raw materials) and environmental conditions (natural hazards, anthropogenic impacts) contributes

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<sup>7</sup> Molybdenum, Indium, Nickel, Rare Earths, etc.

to a science-based response to the Paris Agreement, the European Green Deal and to several UN Sustainable Development Goals.

### 3.4 Risks and Lessons Learnt

Category	Risks	Likelihood (H/M/L)	Impact (H/M/L)	Mitigating measures
2, 3, 5	Lack of engagement and coordination of partners and stakeholders, especially in those new to EU-Africa network built through the PanAfGeo-1 and -2, and AfricaMaVal	<b>M</b>	<b>H</b>	Ensure a cooperative joint coordination and implementation of the Action and by fostering of partnerships and a specific support to some partners.
1, 4	Unpredictable business and policy environments	<b>M</b>	<b>L</b>	Establish a close dialogue with authorities in relevant countries and with the EU Delegations.
1	Skills deficiencies in implementation of STI knowledge and advice	<b>M</b>	<b>L</b>	Identify, with the authorities of the countries concerned, technical and human deficiencies in order to deploy a specific training and capacity-building programme but also if needed, adapted IT facilities. A close dialogue with the EU Delegation should be initiated.
3	Limited absorption capacity of the main beneficiaries (available and qualified staff in geological surveys).	<b>H</b>	<b>M</b>	Major risk, but also one of the main issues the programme tackles, by ensuring that training and availability of appropriate IT tools improve capacity of the Geological surveys.  The number of volunteers for each training is about ten times higher than the trainees' maximum number.
3	Staff and management turnover after capacity-building training courses and the possible defection of staff to the private sector.	<b>H</b>	<b>L</b>	It can be mitigated to a certain extent by incentives, e.g. linking improved capacities with career planning and by providing training for trainers. Mobility of trained staff to the private sector would in any case raise the expertise within the mining/geoscientific sector in the country.
1, 2, 3	Lack of maintenance of the	<b>M</b>	<b>H</b>	Define a sustainable business model to maintain a smooth and updated tool and selection process in close collaboration

	B2B platform			with the AMDC.
1, 5	Lack of participants and contributions in the B2B platform	<b>M</b>	<b>M</b>	Promote the potential benefit of Match Making networking platform process for stakeholders the development agencies and also to the ERMA network to boost attractivity, business and services the structuration of pertinent proposals with the AMDC.
1, 5	Limited interest about country windows results	<b>M</b>	<b>M</b>	Promote the results of the country windows projects in the B2B platform, ERMA network, international conferences and dedicated workshops.
2, 3	Selection of the project opportunity list	<b>M</b>	<b>M</b>	Improve the selection process and the opening of possibilities through a wide range of possible business models for all types of proposals.
1, 5	Low ratio of submitted proposals	<b>M</b>	<b>H</b>	Supporting the entrepreneurs concerned with a range of examples of business models for each segment of the value chain and the different levels of maturation with the assistance of all the partners and especially the AMDC.  Promote selected proposals to the ERMA network and the development agencies even at an early stage.
1	Pandemic/epidemic risks, such as corona virus COVID-19.	<b>M</b>	<b>M</b>	To foresee remedy plan ensuring business continuity, e.g. capacity to continue online trainings.
4	Limited participation and engagement of OAGS Members, lack of a formal status for OAGS, as well as a relative lack of representativeness, formal mandate and/or legitimacy.	<b>M</b>	<b>L</b>	Raising the visibility, confidence and importance of the role of OAGS – through a suitable (internal and external) communication strategy, driving OAGS to proper fund-raising and raising its profile as a reliable source of expertise in mining and geological matters in Africa and a forum for networking at the African level. Working in close cooperation with the AUC on this, in order to ensure legitimacy and institutional backing at a pan-African level. Avoid competition with the role of AMDC.
1	Political risks such as an unstable political situation or changes in	<b>M to H</b>	<b>M</b>	Mitigation measures can include appropriate selection criteria for the countries involved in strategic activities and some flexibility to be able to change

	government commitment to reform, transparency or resistance by vested interests in countries where technical assistance will be provided.			countries during the project, organise some of the trainings regionally.
5	Availability and potential mismanagement of data on location of resources.	<b>M</b>	<b>L</b>	Promote transparency in particular where it exists an increased risk of conflicts, environmental hazards, contamination, related to increased mining activities.
1, 5	Risk of overlap with other actions/projects financed by other donors.	<b>L</b>	<b>L</b>	Donor coordination will be an integral part of the Programme Steering Committee. The involvement of key stakeholders active in the sector should allow for better coherence and reduce overlaps while encouraging synergies.
2, 3, 5	Risk of low long term benefits due to e.g. low number of countries, low number or inadequate profiles of individual beneficiaries, low quality of trainers and of topics and lack of continuity of the project.	<b>L</b>	<b>M</b>	Clear criteria for trainee selection, on-going monitoring and evaluation of the results of the training sessions. Regional sessions, training of African trainers and working with OAGS for dissemination of benefits to other countries not benefiting directly from the training. Active cooperation with key partners with local experiences such as AMDC and UNESCO, and with African Universities, will help mitigate this risk.
3	Women are prevented from being included for a multitude of reasons, including cultural customs, prejudicial gender norms, inadequate legal frameworks and protection mechanisms, poor access to education and land ownership rights and practices. The same risk applies to persons with disabilities.	<b>M</b>	<b>M</b>	Organizations and networks of women and persons with disabilities will be among the groups consulted, thus strengthening women's participation in all disciplines in the Geological Surveys involved in the Action.

## Lessons Learnt:

Although the mineral resources sector in Africa has received important support and financing over the past 30 years from international donors such as the EU and the UN, from investment and development banks (including World Bank Group, European Investment Bank, African Development Bank), and from bilateral cooperation actions (e.g. Czech Republic, Denmark, Finland, France, Germany, Japan, Poland, Sweden, the United Kingdom, etc), it is generally agreed that coordination among most of the existing initiatives should be improved in order to avoid duplications and increase the overall positive impact of their objectives and outcomes.

From PanAfGeo (Phase-1 and Phase-2, 2016-2024) experience - an unprecedented geoscientific project carried out in Africa – and AfricaMaVal project (2022-2025), different lessons learnt can be pointed out as follows:

- For each training session, the call for applications generally received twice (and even more) more applications than the number of places available (e.g. regularly ca. 80 to 150 applications for 24 places for the geoscientific mapping training sessions);
- Balance in between English-, French- and Portuguese-speaking training sessions is very much appreciated especially from French- and Portuguese-speaking countries avoiding discrimination by language;
- Support from the African Union to the OAGS is essential and a permanent position must ensure a solid recognition for OAGS;
- Clear interest and commitment of African and European Geological surveys and their staff;
- Phase-1 and -2 clearly contributed to create a geoscientific community at Pan-African and Pan-European scale;
- Actions of PanAfGeo-1 and-2 received clear political support for national and pan-African development of geological knowledge and skills (from the African Union, UNESCO, ministries, etc.);
- A good collaboration and communication are required between OAGS and EGS;
- Willingness of the Geological Surveys to develop their knowledge about mining and environment and willingness to support artisanal and small-scale mining;
- New skills as geoheritage and geohazards are very much appreciated by the African Geological Surveys and some of them are willing to get support in order to launch geoheritage inventory or to prepare application for a UNESCO Global Geopark, and can be seen as “country windows” (case-studies);
- In order to develop the capacity building of the African Geological Surveys laboratories, possibly set training courses dedicated to: General management and organisation of a lab, analysis and lab techniques, impart the know-how of analytical methods, specific controls, implement a quality assurance and control system in a lab, master metrological controls and initiation at the ISO1705 standard;
- Trainees asked for more field work in the training session;
- Willingness to have the opportunity to propose advanced-level training sessions in different skills;
- It will be welcome to open the Action to more collaboration with academia;
- Get the opportunity through the Action to elaborate and publish a monograph entitled ‘Geosciences in Africa’ based on collaboration among the PanAfGeo network and academia.
- It would be interesting to analyse geoscience vocational training courses by target country, in order to adapt geoscience teaching to specific needs at regional, national or even local level, to promote the employability of the younger generation;
- It will be necessary to develop relationships with African Regional Economic communities (RECs) in order to promote the AfricaMaVal criteria for the proposals selection in line with the ESG rules. This must also demonstrate the deepness of the EU-African partnership in the framework of the African Mining Vision with the AMDC;
- Promote the country windows projects to foster operator investments and funding parties to build AfricaMaVal types of proposals;
- Assess and promote selected proposals to the ERMA network and development agencies to stimulate European and worldwide investors;
- Regarding the mining sector issues of the ”country windows”, it will be welcome to assess green energy capacity through a national and cross-border comprehensive analysis of renewable resources capacities including solar energy, wind, tides, ocean water current, hydropower and geothermal energy;
- Regarding the mining sector issues of the “country windows”, it will also be welcome to assess the transport

infrastructure and manufactories network to support the Match Making system at continental, regional and national scales and foster the development of a manufacturing industry in Africa;

- Promote the AMDC as the core African partner of the proposals selection process in relation with African entrepreneurs, investors, developers, NGOs and communities in relation with the European network.

### 3.5 The Intervention Logic

The Action is based on ongoing successful projects financed by the EU through the PANAF programme (PanAfGeo project Phase-1 and -2), Horizon Europe (AfricaMaVal) and intra-ACP programme (EU-ACP Development Minerals Programme). It will also be in complementarity with the foreseen Technical assistance facility to support sustainable CRM value chains.

The Action will be implemented through three components following the three specific objectives identified in section 3; under which activities will be carried out both at continental level and national level through specific country windows<sup>8</sup>. Implementation of activities at national level is based on the country needs in particular to support them in their implementation on the EU-Africa partnerships on sustainable raw materials value chain through their respective roadmaps.

#### ***Component 1: Africa – EU institutional partnerships on Geosciences at continental, regional and national levels***

To improve the governance of natural resources related policy sectors, AGS will carry out institutional analysis and develop strategic development plans with support from EGS (e.g. on how to influence policy-makers and planners to design, implement, and monitor national, regional and continental sector policies). AGS and the OAGS are therefore expected to be stronger and more effective in terms of national, regional and continental support to policy making and planning and will in that sense contribute to a more sustainable management of natural resources.

Operational Expert Groups will also be established to support informed decisions on sustainable management and use of national georesources ensuring the continuation of the technical exchanges beyond the end of the project. To ensure the sustainability of the Action, the OAGS is expected to mobilise the PanAfGeo network through several actions such as the setting up OAGS experts groups based on the model of the EGS ones. Knowledge transfer between European and African experts is key for the sustainability of the Action.

The promotion of the ESG best practices in the mining sector, countries and RECs, will guide institutional players' roadmaps towards favouring both investment and compliance with the social, governance and environmental commitments necessary for societal acceptance in line with the African Mining Vision and the Agenda 2063 objectives.

#### ***Component 2: Effective African Geological Surveys and the Organisation of African Geological Surveys in terms of geoscientific information and of national, regional and continental support to policy making and planning processes***

Training and increased access to geoscientific data are expected to improve the capacity of the African Geological Surveys (AGS) to provide useful and often strategic geoscientific data, knowledge and expertise to their governments in order to contribute to a sustainable management and better governance of natural resources, to improve living conditions of the population and environment sustainability. The Action will also create a space for dialogue between experts and allow for a mutual sustainable learning process by strengthening the role and the capacity of OAGS and the cooperation between African and European Geological surveys, as well as by providing training to trainers.

For each of the clusters working packages, the Action will identify European and African leaders and co-leaders in order to promote ownership in the AGS. Each work package includes the preparation of training programmes and curricula, the delivery of training courses in African countries, and the annual dissemination conference back to back with other major events in Africa. In order to strengthen ownership in the partner countries, cooperation among different groups of stakeholders (experts, geological surveys, associations, ministries) will be encouraged through the Action.

Moreover, the Action will improve access to knowledge and information of relevant stakeholders, promote synergies among various initiatives and encourage dialogue among relevant partners and stakeholders. Specific attention will be paid to include government departments (e.g. water, land use planning), local authorities, civil

<sup>8</sup> A specific budget for the country-window Zambia is foreseen based on a national EU budget allocation.

society, private sector, EU Delegations, development agencies of EU Member States, and other EU supported or co-financed initiatives or organisations (EITI<sup>9</sup>, ACP-EU Development Minerals Programme, Connex support unit, World Bank, EGPS<sup>10</sup>, OECD, UNEP, EPRM<sup>11</sup>, relevant data bases such as MapX, Delve, Natural Resource Governance).

***Component 3: Africa-EU economic partnerships on raw materials value chains including gender and human rights sensitive approach***

Furthermore, the development and sustainable maintenance of a B2B platform initiated through the AfricaMaVal project and possibly continued by AMDC will consist of a networking process where any actors of the entire CRM value chain can subscribe, highlight their business profile for goods & services offer, and investment strategy. The AfricaMaVal website allows also the sectorial actors to share their best practices, business opportunities, operational data for funding parties. It consists in promoting exchanges between private operators with the public stakeholders and fast-track the private investment and /or institutional funding for the successful development of economic partnerships.

Throughout the three components, cooperation with universities and specialised centres (e.g. on earth observation through the “Africa-EU Space partnership programme”) will be promoted. Complementarities will be sought with the Erasmus+ programme. This is expected to improve the capacity of African countries in raising in particular the environmental and safety standards of mining operations, whether large- or small-scale and artisanal, and negotiating better contracts with mining companies. Making the process more transparent is particularly important in order to improve social conditions and to promote the involvement of EU industries and investors in a sector where competition with other countries is often difficult, as rules are not always clear.

Environmental protection, social inclusion, local economic sustainable development, overall raw materials security, large scale sustainable trade and investment in responsible raw materials production are all foreseen to be positive outcomes resulting from this Action.

Activities stimulate and facilitate the use and demand for geological data and other information between geological services, national and international institutions, including the European Commission, and private sector users and research institutions alike. Establishing efficient links with EU Delegations in partner countries will contribute to foster policy dialogues with relevant authorities and to improve their involvement in sustainable management of natural resources including mineral and raw materials resources.

<sup>9</sup> [Extractive Industries Transparency Initiative | EITI](#)

<sup>10</sup> Extractives Global Programmatic Support <https://www.worldbank.org/en/programs/egps>

<sup>11</sup> European Partnership for Responsible Minerals

### 3.6 Logical Framework Matrix

This indicative logframe constitutes the basis for the monitoring, reporting and evaluation of the intervention. On the basis of this logframe matrix, a more detailed logframe (or several) may be developed at contracting stage. In case baselines and targets are not available for the action, they should be informed for each indicator at signature of the contract(s) linked to this AD, or in the first progress report at the latest. New columns may be added to set intermediary targets (milestones) for the Output and Outcome indicators whenever it is relevant.

- At inception, the first progress report should include the complete logframe (e.g. including baselines/targets).
- Progress reports should provide an updated logframe with current values for each indicator.
- The final report should enclose the logframe with baseline and final values for each indicator.

The indicative logical framework matrix may evolve during the lifetime of the action depending on the different implementation modalities of this action.

The activities, the expected Outputs and related indicators, targets and baselines included in the logframe matrix may be updated during the implementation of the action, no amendment being required to the Financing Decision.

Results	Results chain (a): Main expected results	Indicators (a):	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
<b>Impact</b>	To contribute to sustainable management of geological resources in Africa and promote EU-African partnership in geosciences and in particular raw materials	Resource Governance Index	2024	2029	resourcegovernanceindex.org	<i>Not applicable</i>
<b>Outcome 1</b>	1. Strengthen Africa-EU institutional partnerships on Geosciences at continental, regional and national levels	1.1. Level of participation of African geoscientific organisations in African Expert Networks 1.2. High-level joint OAGS-EGS representation 1.3. High-level geoscience-policy engagement	1.1. # African Expert Networks in 2023 1.2. # formal joint OAGS-EGS representation in 2023 1.3. 2 EGS-AUC Ministerial meetings during 2021-2024	1.1. ≥ 12 African Expert Network meetings by 2029 1.2. Joint OAGS-EGS representation at ≥ 5 key EU-Africa events 1.3. ≥ 2 PanAfGeo+ Ministerial meetings by 2029	1.1. African Union and OAGS reports 1.2. Event participation, OAGS and EGS reports 1.3. Reports/deliverables of the Grant beneficiary	Support of the AUC to the strengthened role of OAGS OAGS focus on its role of facilitating exchange of expertise and knowledge

<b>Outcome 2</b>	2. Make more effective African Geological Surveys and the Organisation of African Geological Surveys in terms of geoscientific information and of national, regional and continental support to policy making and planning processes	2.1. Number of public administration acts processed as a consequence of the Action 2.2. Number of programmes on strategic cooperation launched between African and European Geological Surveys	2.1. 0 in 2024 2.2. 0 in 2024	2.1. 3 in 2029 2.2. 3 in 2029	2.1. Official publications (AU mining policy reports ; official government and public institution sources; national mining reports) 2.2. African Geological Surveys and OAGS activity reports	Political support for pan-African development of geoscientific knowledge and skills Political support at national levels for AGS development Willingness of Geological Surveys to develop their knowledge about mining and environment and willingness to support artisanal and small-scale mining OAGS focus on its role of facilitating exchange of expertise and knowledge
<b>Outcome 3</b>	3. Promote EU-Africa economic partnerships on raw materials value chains including gender and human rights sensitive approach.	2.1. Number of opportunities listed in different African countries for investment in mining sector 2.2. Number of African countries and/or organisms involved in the economic partnerships 2.3. Number of projects along the raw materials value chain supported by the EU as country windows	2.1. 0 in 2024 2.2. 0 in 2024 2.3. 0 in 2024	2.1. 100 in 2029 2.2. 50 in 2029 2.3. 2 in 2029	2.1. Action final narrative report 2.2. Official government and public institution sources 2.3. Mining reports, peer-review papers	Willingness of private operators and funding actors to invest in opportunity projects, considering the results of “country windows” projects Interest of African Geological Surveys in opportunity projects to become an active stakeholder
<b>Output 1 relating to Outcome 1</b>	1.1. Strengthened African geoscience continental organisations and initiatives at institutional (e.g., OAGS governance), technical (e.g., expert networks), and academic levels	1.1.1. Number of supports brought through the Action to African geoscience continental organisations for the development of the governance framework 1.1.2. Number of workshops/conferences/meetings to facilitate meetings of African Expert Networks	1.1.1. 0 in 2024 1.1.2. 0 in 2024 1.1.3. 0 in 2024	1.1.1. $\geq 3$ in 2029 1.1.2. $\geq 10$ in 2029 1.1.3. $\geq 3$ in 2029	1.1.1. African geoscience continental organisations’ reports. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action. 1.1.2. OAGS reports. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action. 1.1.3. Annual and Final reports of the	OAGS able to formally establish Expert-Groups OAGS and academia open to reinforce their cooperation at continental-scale in close cooperation with the Expert-Groups

		1.1.3. Number of country window workshops or actions facilitated			Grant beneficiary; midterm and final evaluation of the Action.	
<b>Output 2 relating to Outcome 1</b>	1.2. Promote geoscientific partnership between European and African geological organisations	<p>1.2.1. Number of MoU and/or Roadmaps signed between African and European Geological Surveys</p> <p>1.2.2. Number of MoU signed between the OAGS and African/European Universities</p> <p>1.2.3. Number of African Expert Network workshops and/or bilateral EU/national African workshops to address the identified/selected national-level issues</p> <p>1.2.4. Publication of a monograph entitled “<i>Geosciences in Africa</i>” based on European and African Expert-Groups</p>	<p>1.2.1. 0 in 2024</p> <p>1.2.2. 0 in 2024</p> <p>1.2.3. 0 in 2024</p> <p>1.2.4. 0 in 2024</p>	<p>1.2.1. 10 in 2029</p> <p>1.2.2. 5 in 2029</p> <p>1.2.3. 5 in 2029</p> <p>1.2.4. 1 in 2029</p>	<p>1.2.1. Geological Surveys annual reports.</p> <p>1.2.2. OAGS/Universities annual reports</p> <p>1.2.3. OAGS reports. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>1.2.4. The published monograph</p>	<p>European and African geoscience networks interested in establishing MoU/Roadmaps in specific geoscientific thematic</p> <p>Capacity to animate and build an African geoscience network akin to cooperate with European geoscience network</p>
<b>Output 3 relating to Outcome 1</b>	1.3. Enhanced geoscience policy interface and outreach activities, incorporating a gender sensitive approach	<p>1.3.1. Number of science-policy workshops organised through the Action to provide support to African Expert Networks, continental geoscience organisations or Geological Surveys</p> <p>1.3.2. Number of embedded scientist positions or dedicated sessions/events to facilitate ‘pairing’ or knowledge-brokering opportunities between African Experts and policy makers with gender and human rights sensitive approach.</p> <p>1.3.3. Number of public outreach documents produced through the Action and in relation to issues</p>	<p>1.3.1. 0 in 2024</p> <p>1.3.2. 0 in 2024</p> <p>1.3.3. 0 in 2024</p>	<p>1.3.1. 3 in 2029</p> <p>1.3.2. 5 in 2029</p> <p>1.3.3. 5 in 2029</p>	<p>1.3.1. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>1.3.2. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>1.3.3. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p>	<p>Ensure good linkages between policy makers and African geoscientific institutions/networks</p> <p>Suppose OAGS Expert-Groups be ready to support the different actions</p> <p>Suppose AGS are involved in the establishment of MoU and roadmaps</p>

		relevant to bilateral MoU/Roadmaps via a collaborative EGS-OAGS approach				
<b>Output 1 relating to Outcome 2</b>	2.1. Improved geoscientific and technological knowledge and skills of African Geological Surveys, the Organisation of African Geological Surveys (OAGS), and other relevant institutions	<p>2.1.1. Number of work-packages trainings (disaggregated by gender, disability, topics and language group) organised through the Action</p> <p>2.1.2. Number of staff members trained in AGS through the Action (disaggregated by type of institutions, by gender and disability)</p> <p>2.1.3. Number of relevant stakeholders (e.g. UNESCO, AWIMA, Universities, etc.) taking part as trainers to the training sessions</p> <p>2.1.4. Number of handbooks/scientific papers published through the Action dealing with priority geosciences topics</p> <p>2.1.5. Number of national programmes for geohazards prevention and mitigation launched by AGS or relevant authorities</p> <p>2.1.6. Number of submitted UNESCO Global Geopark applications, supported by PanAfGeo experts and trained AGS staff</p>	<p>2.1.1. 0 in 2024</p> <p>2.1.2. 0 in 2024</p> <p>2.1.3. 0 in 2024</p> <p>2.1.4. 0 in 2024</p> <p>2.1.5. 0 in 2024</p> <p>2.1.6. 0 in 2024</p>	<p>2.1.1. 60 in 2029</p> <p>2.1.2. 1500 in 2029</p> <p>2.1.3. 5 in 2029</p> <p>2.1.4. 10 in 2029</p> <p>2.1.5. 1 in 2029</p> <p>2.1.6. 1 in 2029</p>	<p>2.1.1. Training work-packages reports. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>2.1.2. Pre and post training assessments. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>2.1.3. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>2.1.4. Handbooks/scientific papers on the Action website. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>2.1.5. Questionnaires</p> <p>2.1.6. Application documents, UNESCO reports</p>	<p>Trained staff in AGS will contribute to constitute the OAGS Expert-Groups</p> <p>AGS are interested in institutional capacity building and Centres of Excellence</p> <p>Sustained demand on the side of the AGS for the training of their staff and the availability of the key staff for trainings</p> <p>AGS are interested of advanced level trainings following PanAfGeo-1 and -2</p>
<b>Output 2 relating to Outcome 2</b>	2.2. Improved governance and strengthened mandate of African Geological Surveys	2.2.1. Number of specific workshops dealing with governance in African Geological Surveys to share experience and precise their	<p>2.2.1. 0 in 2024</p> <p>2.2.2. 0 in 2024</p> <p>2.2.2. 0 in 2024</p>	<p>2.2.1. 8 in 2029</p> <p>2.2.2. 1 in 2029</p> <p>2.2.2. 3 in 2029</p>	<p>2.2.1. AGS reports to OAGS on post-training activities (e.g. questionnaires)</p> <p>2.2.2. Handbook available on the Action website. Annual and Final</p>	<p>Desire for exchanges between African and European geological surveys to share their experience on</p>

		<p>mandate and scope of intervention</p> <p>2.2.2. Publication of a handbook exposing the good governance guidelines in Geological Surveys</p> <p>2.2.3. Number of African Geological Surveys specifically supported through the Action by technical assistance to strengthen their governance</p>			<p>reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>2.2.3. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p>	<p>governance issues</p> <p>Take into consideration the different geographic specificities and status of the African Geological Surveys</p> <p>Initiate a transparent and inclusive process based on criteria to be defined as existing/potential Partnerships between the EU and an African country</p>
<b>Output 1 relating to Outcome 3</b>	<p>3.1. Enhanced human, technical, industrial and commercial networks in order to build a long-term confident partnership</p>	<p>3.1.1. Number of stakeholders constituting network between Africa and Europe</p> <p>3.1.2. Number of conferences with all African and European stakeholders including RECs representative to maintain and enlarge the AfricaMaVal network</p> <p>3.1.3. Number of reports elaborated through the Action to (i) promote ESG standards and value additions for the proposals evaluation; and (ii) contribute on the Best Available Technics and Proceedings along the CRM value chain</p> <p>3.1.4. Number of workshops organised through the Action to animate a nursery of entrepreneurs, developers, investors and technicians to contribute to the ideas generation for new and original proposals</p> <p>3.1.5. Number of meetings organised through the Action to develop awareness of the African institutions at continental,</p>	<p>3.1.1. 40 in 2025</p> <p>3.1.2. 1 in 2025</p> <p>3.1.3. 0 in 2024</p> <p>3.1.4. 0 in 2025</p> <p>3.1.5. 1 in 2025</p>	<p>3.1.1. 150 in 2029</p> <p>3.1.2. 4 in 2029</p> <p>3.1.3. 2 in 2029</p> <p>3.1.4. 2 in 2029</p> <p>3.1.5. 4 in 2029</p>	<p>3.1.1. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.1.2. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.1.3. Reports available on the Action website in completion of the AfricaMaVal existing reports</p> <p>3.1.4. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.1.5. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action. To be managed at the continental, regional and national levels in conjunction with the initiatives of the partners such as the AMDC, the RECs, the national forum and the international initiatives</p>	<p>Private sector involved to integrate network of the Action in addition to international organisations, PanAfrican, regional and national African participants</p> <p>Develop the network of good and reliable contacts/partners on European and African sides to be proactive during the different workshops/meetings</p> <p>Develop the ESG awareness on both continents and include these criteria in each step of the proposals selection process</p> <p>3.1.4 and 3.1.5 may need to be supported by additional dedicated funds</p>

		regional and national levels to propose a credible alternative through strong African/European partnership				
<b>Output 2 relating to Outcome 3</b>	3.2. Fostered sustainable investments supporting long term economic strategic partnerships	<p>3.2.1. Active and operational B2B platform proposals generation process based in Africa, to generate proposals on CRM production in connection with the ERMA system and development agencies</p> <p>3.2.2. Number of workshops at different levels (PanAfrican, RECs and national scales) to promote opportunities and “country windows” projects, analyse the minerals value chain and identify all possibilities to create a maximum of added value in Africa</p> <p>3.2.3. Number of projects partially supported through the Action and contributing to the fight against the lack of energy in Africa (see 3.2.5 and 3.2.6)</p> <p>3.2.4. Number of projects supported through the Action and contributing to the formalisation and implementation of Roadmaps at national levels in African countries</p> <p>3.2.5. Number of studies in selected countries to assess green energy capacity through a national and cross-border comprehensive analysis of renewable resources capacities including solar energy, wind, tides, ocean water current, hydropower and geothermal</p>	<p>3.2.1. 1 in 2025</p> <p>3.2.2. 1 in 2025</p> <p>3.2.3. 3 in 2025</p> <p>3.2.4. 3 in 2025</p> <p>3.2.5. 1 in 2025</p> <p>3.2.6. 1 in 2025</p>	<p>3.2.1. 1 in 2029</p> <p>3.2.2. 1 in 2029</p> <p>3.2.3. 5 in 2029</p> <p>3.2.4. 10 in 2029</p> <p>3.2.5. 5 in 2029</p> <p>3.2.6. 10 in 2029</p>	<p>3.2.1. Existence of selection process still operational within the AMDC structure</p> <p>3.2.2. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.2.3. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.2.4. Annual and Final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.2.5. Annual and final reports of the Grant beneficiary; midterm and final evaluation of the Action</p> <p>3.2.6. Annual and final reports of the Grant beneficiary; midterm and final evaluation of the Action</p>	<p>Ensure the availability of a reliable partner to maintain and improve the Match making process all along the Action with the target of the AMDC</p> <p>Be able to identify partners and stakeholders for each step along the CRM value chain even recycling through existing African Networks</p> <p>Will be adapted taking into account the EU-African relations in the different countries. To be supported by additional dedicated funds</p> <p>Find good and reliable partners on European and African sides to be proactive and able to conduct the studies</p> <p>3.2.3., 3.2.4, 3.2.5 and 3.2.6 may need to be supported by additional dedicated funds</p>

		<p>energy (with references to data and results of LEAP-RE project).</p> <p>3.2.6. Number of studies in selected countries to assess the transport infrastructure and network to support the proposals selection process at continental, regional and national scales, and foster the development of a manufacturing industry in Africa.</p>				
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## 4 IMPLEMENTATION ARRANGEMENTS

### 4.1 Financing Agreement

In order to implement this action, it is not envisaged to conclude a financing agreement with the partner country /territory.

### 4.2 Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements implemented, is 72 months from the date of adoption by the Commission of this Financing Decision.

Extensions of the implementation period may be agreed by the Commission's responsible authorising officer by amending this Financing Decision and the relevant contracts and agreements.

### 4.3 Implementation of the Budget Support Component

Not applicable

### 4.4 Implementation Modalities

The Commission will ensure that the EU rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures<sup>12</sup>.

#### 4.4.1 Direct Management (Grants)

##### **Grants: (direct management)**

##### **(a) Purpose of the grant(s)**

The grant(s) will carry out the activities related to the three Specific Objectives.

##### **(b) Type of applicants targeted**

Geological Surveys or network of Geological Surveys.

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The part of the action under the budgetary envelope reserved for grants may, partially or totally and including where an entity is designated for receiving a grant without a call for proposals, be implemented in indirect management with an entity, which will be selected by the Commission's services using the following criteria: i) experienced in managing EU funded support programmes; ii) experienced in interventions in line with the sustainable management of geological resources; iii) experienced in operations in Africa with specific attention to geosciences-activities.

### 4.5. Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation).

<sup>12</sup> [www.sanctionsmap.eu](http://www.sanctionsmap.eu) Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.

#### 4.6. Indicative Budget

<b>Indicative Budget components</b>	<b>EU contribution (amount in EUR)</b>
<b>Implementation modalities</b> – cf. section 4.4	
Grants (direct management) – cf. section 4.4.1	32 000 000 <sup>13</sup>
<b>Grants</b> – total envelope under section 4.4.1	32 000 000
<b>Evaluation</b> – cf. section 5.2 <b>Audit</b> – cf. section 5.3	<i>May be covered by another Decision</i>
<b>Contingencies</b>	N.A.
<b>Total</b>	32 000 000

#### 4.7 Organisational Set-up and Responsibilities

The programme governance will include provisionally the following bodies: General Assembly, Management Committee and Advisory Board.

The General Assembly will assume the ultimate decision making and conciliation body for the beneficiary consortium and is composed of all PanAfGeo partners.

The project will be steered by a Management Committee composed by the European Commission services, and the lead member(s) of the consortium and relevant African and European partners.

The advisory board will include European and African Geological Surveys, geoscientific experts and relevant partners as appropriate (e.g. OECD, World Bank, International Resource Panel, UNEP, UNDP, EITI and EU MSs development agencies active in Africa in the area of raw materials).

Additional aspects of programme governance will be assessed and defined at a later stage: level of representation; formal channels of communication; and additional criteria for selection of ad-hoc observers (e.g. youth, women, UN, private sector, other initiatives, etc.).

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action and may sign or enter into joint declarations or statements, for the purpose of enhancing the visibility of the EU and its contribution to this action and ensuring effective coordination.

## 5 PERFORMANCE MEASUREMENT

### 5.1 Monitoring and Reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (Outputs and direct Outcomes) as measured by corresponding indicators, using as reference the logframe matrix (for project modality) and the partner's strategy, policy or reform action plan list (for budget support).

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

<sup>13</sup> EUR 2 000 000 are from the MIP Zambia and are therefore earmarked for Zambia in addition to the budget allocation foreseen for the country-windows.

Roles and responsibilities for data collection, analysis and monitoring: with regard to the nature of the Action, data collection, performance monitoring and reporting will be carried out at the level of each contract. Specific modalities for each of them (indicators, targets and assumptions) will be defined in the respective contracts/agreements and during the inception phases, in a way that will provide inputs for the performance monitoring of the Action globally.

All monitoring and reporting shall assess how the action is considering the principle of gender equality, human rights-based approach and rights of persons with disabilities including inclusion and diversity. Indicators shall be disaggregated at least by sex and age, and disability if possible.

## 5.2 Evaluation

Having regard to the nature of the action, evaluation(s) may be carried out for this action or its components by external consultants.

In case a mid-term evaluation is envisaged: It will be carried out for problem solving and learning purposes, in particular with respect to share lessons learnt and orientate the remaining activities.

In case a final or ex-post evaluation is envisaged: It will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the fact that this action includes specific aspects that can be highlighted such as targeted country windows.

Where an evaluation is planned and is to be contracted by the Commission: The Commission shall inform the implementing partner at least two months in advance of the dates envisaged for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities. In addition, all evaluations shall assess to what extent the action is taking into account the human rights-based approach as well as how it contributes to gender equality and women's empowerment and disability inclusion. Expertise on human rights, disability and gender equality will be ensured in the evaluation teams.

The evaluation reports may be shared with the partners and other key stakeholders following the best practice of evaluation dissemination. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, apply the necessary adjustments.

The financing of the evaluation may be covered by another measure constituting a Financing Decision.

## 5.3 Audit and Verifications

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

# 6 STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

The 2021-2027 programming cycle will adopt a new approach to pooling, programming and deploying strategic communication and public diplomacy resources.

In line with the 2022 [“Communicating and Raising EU Visibility: Guidance for External Actions”](#), it will remain a contractual obligation for all entities implementing EU-funded external actions to inform the relevant audiences of the Union's support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. This obligation will continue to apply equally, regardless of whether the actions concerned are implemented by the Commission, partner countries, service providers, grant beneficiaries or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU member states.

However, action documents for specific sector programmes are in principle no longer required to include a provision for communication and visibility actions promoting the programmes concerned. These resources will instead be consolidated in Cooperation Facilities established by support measure action documents, allowing Delegations to plan and execute multiannual strategic communication and public diplomacy actions with sufficient critical mass to be effective on a national scale.

## Appendix 1 REPORTING IN OPSYS

A Primary Intervention (project/programme) is a coherent set of activities and results structured in a logical framework aiming at delivering development change or progress. Identifying the level of the primary intervention will allow for:

Articulating Actions or Contracts according to an expected chain of results and therefore allowing them to ensure efficient monitoring and reporting of performance;

Differentiating these Actions or Contracts from those that do not produce direct reportable development results, defined as support entities (i.e. audits, evaluations);

Having a complete and exhaustive mapping of all results-bearing Actions and Contracts.

Primary Interventions are identified during the design of each action by the responsible service (Delegation or Headquarters operational Unit).

The level of the Primary Intervention chosen can be modified (directly in OPSYS) and the modification does not constitute an amendment of the action document.

The intervention level for the present Action identifies as (tick one of the 4 following options);

<b>Action level (i.e. Budget Support, blending)</b>		
<input checked="" type="checkbox"/>	Single action	Present action: all contracts in the present action
<b>Group of actions level (i.e. top-up cases, different phases of a single programme)</b>		
<input type="checkbox"/>	Group of actions	Actions reference (CRIS#/OPSYS#):
<b>Contract level</b>		
<input type="checkbox"/>	Single Contract 1	
<input type="checkbox"/>	Single Contract 2	
	(...)	
<b>Group of contracts level (i.e. series of programme estimates, cases in which an Action includes for example four contracts and two of them, a technical assistance contract and a contribution agreement, aim at the same objectives and complement each other)</b>		
<input type="checkbox"/>	Group of contracts 1	