National Institute of Electronic Government, Public Institute

Terms of Reference for Hiring a Firm to Conduct a Digital Skills Assessment for Public Administration

Maputo, September 2023

1. BACKGROUND

The National Institute of Electronic Government, a public institute abbreviated as INAGE, IP, created by the Decree No. 61/2017, of November 6th , whose competences, autonomy, budgetary regime, organization and operation were adjusted through Decree No. 35/2022, of 22 July, is a category A public institution, endowed with legal personality, administrative, financial and patrimonial autonomy with the fundamental mission of coordinating and providing e-Government services, fostering greater speed in the provision of public services and promoting initiatives to improve the efficiency and transparency of the Public Administration in its interaction with the citizen.

However, the success of e-Governance in the country requires significant internal capacity, not only within INAGE,IP, but also in all Ministries and public institutions, to support INAGE,IP to acquire, develop and maintain modular and user-centric digital products and services, and that promote the entire digital transformation of government. To this end, the EDGE project will support capacity building on advanced digital skills across government.

To this end, INAGE,IP intends to make use of funds from the EDGE Project, funded by the World Bank, under the management of the Ministry of Science, Technology and Higher Education (MCTES) to recruit a company to carry out an assessment of existing digital skills and to support the design and implementation of a training program in sustainable digital skills for the Government of Mozambique. The evaluation will be carried out in close collaboration with the Ministry of State Administration and Civil Service (MAEFP), which owns the Government's Human Resources Management System and is responsible for Human Resources policies and training, as well as the Ministry of Economy and Finance.

2. OBJECTIVES

a) Conduct a baseline assessment of the digital profiles and skills of civil servants in Mozambique;
b) Design a taxonomy of skills, profiles and associated training plans;
c) Conduct an evaluation of the existing training offer in the various training institutions in the country;

d) Design a strategy and a program for training, retraining and retention of staff in the area of digital transformation in Public Administration;
e) Develop a strategy to implement a sustainable model of advanced digital skills training.

3. SCOPE OF WORK

Within the scope of its activities, the contracted company must ensure the execution of the following activities:

a) Conduct a baseline assessment of the digital profiles and skills of civil servants in Mozambique

- Carry out a mapping of IT personnel throughout Public Administration, specifically in ministries and in the main public institutions at the central level, including the number and profiles of personnel (position, academic level, years of experience, and others). The mapping should be done not only in Maputo City, but also in a province in the central region and a province in the northern region, and for each province a district will be selected to be included in the study. In addition to the data collected in these visits, Delegations of INAGE, PI, will provide additional information based on the work that has been previously carried out over the years. Institutions with representation in the provinces will be included, such as the State Representation Council in the province, the Provincial Government, CEDSIF, BAU, INATRO, among others. Part of the necessary data may be collected from the e-SNGRH under the management of the MAEFP, as well as in interviews with heads of department and other technical staff;

- Conduct interviews with key employees to understand the key challenges and needs related to their mandates and activities, but also to the overall objective of improving service delivery through Digital Transformation and assess the extent to which these challenges are related to a lack of skills (such as leadership for digital transformation) and resources (including profiles that do not currently exist, such as *product owners*, *user researchers*, *service designers*);

- Conduct an online assessment of *front-end, back-end, and full-stack* development skills among software developers in order to perform a gap analysis and develop training plans. The assessment will use a multiple-choice questionnaire, as well as other mechanisms, and

the results should be translated into a total percentage score for each type of competency required.

b) Design a taxonomy of skills and associated profiles and training pathways

- Develop a proposal for a taxonomy of IT competencies and profiles for the Government, focusing on medium and high complexity digital skills, as well as soft skills and management skills. The taxonomy of competences should include:
    - Groups of digital positions and their job descriptions (e.g. equipment/hardware management, institutional content creation, software creation, etc.);
    - List of various profiles in each position group (e.g., IT support technician, business analyst, web designer, cloud architect...), including existing profiles in the Public Administration and profiles that can be created;
    - Classification of key competences and the typical training path required for each profile, including transversal competences and management competences;
    - Leadership training required to create an enabling environment for technical staff to provide services.
- Develop a forecasting model to project the digital skills needed over the next 5 to 10 years to support the digital transformation of government, in different potential scenarios (*insourcing* vs. outsourcing models, increasing the pace of digital transformation of public services...), and using other comparable examples from advanced countries in this regard.

c) Conduct an evaluation of existing training offerings

- ✓ Map and categorize current digital educational offerings and establish a catalogue of all programs provided locally by public and private training centers, as well as by school of public administration, and any other initiatives such as *NGO-run bootcamps* and Ed-Techs;
- ✓ Provide details of any existing mechanisms in place to help these institutions regularly update their curricula and keep up with current trends in technology (e.g., partnerships with international training centers);
- ✓ Evaluate existing curricula and educational programmes in relation to role-based requirements from the roles in the skills taxonomy, assess key gaps in content and

issues preventing the successful execution of such programmes (e.g. internet speed, equipment, availability of trainers, need for more practical work experience for trainees, etc.);

- ✓ Evaluate the existing government certification and evaluation system for these courses and provide recommendations on how it can be improved to maintain the quality of training centers.

Task 3 can be performed concurrently with tasks 1 and 2.

d) Design a strategy and a program for training, retraining and retention of staff in the area of digital transformation in Public Administration

- The scope of the strategy should cover:
  - Improving the quality of staff entering the State (improving the quality of local training, offering attractive conditions, etc.);
  - Digital skills of medium and high complexity, as well as transversal and managerial skills;
  - Upskilling and retraining of civil servants;
  - Options to attract and retain digitally skilled staff, e.g. by improving recruitment methods (e.g. admission tests, training);
  - Options to increase diversity within the state, within the IT team, for example through work experience, public sector internships, scholarships, increasing the provision of training outside Maputo to develop the country as a whole and not just in the capital;
  - Identify additional courses, or improvements to existing courses, that are needed to fill existing digital skills gaps, while considering ways of working in the state (e.g. limited availability, workload, etc.). These can include undergraduate and graduate courses, bootcamps, executive courses, self-paced courses, among others. They can also include in-person and remote training.
  - Evaluate existing regulations regarding scholarships and internships and design a scholarship program for students from disadvantaged backgrounds or diverse geographic regions, providing them with access to training and work experience in the state, for example.

- Propose methodologies to identify how State employees can be selected for the courses, and how they can be encouraged, namely: 1) Be assiduous and complete the course successfully; 2) Apply what they have learned (e.g., selection of participants working on specific deliverables or products with a clear work plan, or opportunities to access new employment profiles within the State through retraining or training). This work will be based on discussions with human resources managers and heads of public institutions, as well as on evaluations of human resources regulation, in order to assess possible provisions.
- Propose a methodology for the assessment and certification of participants in each type of training, including technical training that requires formal examination and those that require only active participation.

e) Develop a strategy to implement a sustainable model of advanced digital skills training

- ✓ In view of the typology of skills, identify several local training providers that can best train in each of these skills, including a breakdown of the benefits/disadvantages of the respective models
- ✓ Explore options for partnerships with *global ed-tech* companies /training centers to support curriculum improvements, create new courses, regularly update curricula in the future, and more broadly support the digital skills upskilling and recycling strategy.
- ✓ Define the potential physical infrastructure requirements, including the face-to-face teaching requirements needed to successfully deliver the training based on the proposed training modules and core training (recent graduates, existing employees). Based on the assessment of requirements, in a participatory and collaborative manner with schools provide approaches to achieve the necessary infrastructure prerequisites.
- ✓ Explore public-private partnership options and partnerships with the private sector to improve the quality of the training provided and consequently improve the quality of the workforce, which would benefit the national economy in general (cost-sharing mechanisms and/or incentive/subsidy programs for companies and/or trainees, student financing modalities, certification and accreditation mechanisms, training contracts, etc.);
- ✓ Develop initial costing and financial analysis of the proposed options;

- ✓ Develop clear institutional and governance arrangements to implement the strategy and implement the programme, including clear responsibilities, timelines and next steps;
- ✓ Define, develop and recommend models for tendering and contracting institutions to provide training and qualification services, aiming to increase the efficiency of the process and ensure high standards of quality of the services provided.

4. WAYS OF WORKING

Consultancy activities will be carried out under the following conditions:

- ✓ The company will report to INAGE, IP;
- ✓ INAGE,IP will provide full support to enable access to information and to interested institutions, in collaboration with other key institutions, such as the Ministry of Finance and the Ministry of State Administration and Civil Service;
- ✓ All reports and presentations must be provided in English and in Portuguese;
- ✓ The costs of the approved activities (workshops, meetings and other events) will be covered by the EDGE project;
- ✓ The company will facilitate all workshops and produce all relevant material;
- ✓ Translation and interpretation costs will be covered by the company.

5. PROJECT APPROACH, RESULTS AND GOVERNANCE

The project will have a Project Manager appointed by INAGE,IP who will be available for weekly, monthly or bimonthly meetings, to take stock of the progress of the work, discuss the blockages/problems encountered, including problems of access to information or resource people, with a view to finding solutions and obtaining the support of INAGE, IP. The data collected will be shared regularly with the government.

Monthly strategic meetings will be held conducted by the Director-General of INAGE,IP or by someone delegated by him. In addition to the Director-General of INAGE, these meetings will include the Deputy Director-General, the Director of the Digital Transformation Division, the Head of the Planning and Cooperation Department, the Project Manager, the contracted company and other stakeholders who are invited by the Director-General of INAGE,IP.

INAGE,IP may appoint a technician to work with the firm at a technical level to enable knowledge transfer and internal capacity building, and this technician should work closely with the Project Manager who in turn will report to the Director General of INAGE,IP or someone delegated by him.

The company must present its work plan before starting in order to be approved by the Director General of INAGE,IP and throughout the work it must produce reports, according to the table below, where it will indicate, among other important aspects, the sources of information related to qualitative and quantitative data, and when it comes to estimates.

It should be noted that all final reports, including other work items, must be submitted in Portuguese and interim reports may be submitted in English.

Findings	**Deliverable**	**Deadlines**
Beginning	• Initial report, including detailed methodology and schedule of activities adjusted to conduct the mission	2 weeks after the effectiveness of the contract
a) Baseline assessment of digital profiles and skills	• Report on digital profiles and skills in public administration, including the main gaps in terms of skills and profiles, mapped across all institutions; • Presentation of the main findings of the report to the client (*can be remote*)	2 months after approval of the preliminary report
b) Taxonomy of skills and associated profiles and training pathways	• Draft proposal on taxonomy of competences and profiles • Taxonomy presentation and baseline assessment during a high-level workshop in Mozambique • Proposal to revise the taxonomy of competencies and profiles, taking into account the feedback received	4 months after approval of the preliminary report
c) An assessment of in-country training	• Catalogue of existing courses relevant to digital transformation, evaluation of the quality of the courses and the certification system (production of certificates, their value in state institutions, etc.), recommendations for improvements • Presentation of the main findings of the report to the client (*can be remote*)	4.5 months after approval of the preliminary report

d) Strategy & Training Program	• Develop a strategy and program to train, upskill, retrain, and retain digitally talented staff • Presentation of the main findings of the report to the client (*can be remote*)	6 months after approval of the preliminary report
e) Sustainable training model	• Proposed training model, including the complete training program, options matrix with cost estimates, possible program design structure, measurable KPIs, incentive structures. • Presentation of all reports during a high-level workshop in Mozambique • Strategy and program reviewed and finalized, taking into account *feedback* received, including agreements on the responsibilities of all participants and next steps	7 months after approval of the preliminary report

6. QUALIFICATION AND EXPERIENCE

6.1 FIRM'S QUALIFICATION AND EXPERIENCE

To be considered qualified to perform the services, the Firm must be experienced in performing similar work, as well as be able to demonstrate the ability to deliver all tasks specified in these Terms of Reference and, specifically, demonstrate:

- Expertise and at least 4 proven successful experiences with companies and/or governments in the production of competency frameworks for professionals as well as functions, related demand assessments that support the formation and design of curricula;
- At least 2 successful experiences in conducting digital skills assessments to identify digital skills in detail, and design curriculum requirements for digital skills with strong links to employability;
- At least 3 proven work experiences in the digital enablement space, including working with *ed-tech companies*, in the private sector and Government;
- Strong knowledge of the *ed-tech* landscape for specialized digital skills globally, including companies, digital training models, collaboration mechanisms, performance-based incentives, funding models, certification and accreditation mechanisms, best practices, etc.

6.2 STAFF

Profile	Qualification
Digital Transformation Specialist:	• Master's degree in Information Technology, business management or related field; • 5 years of experience in positions related to digital transformation, preferably in the public sector; • Familiarity with the latest trends in emerging technologies, such as artificial intelligence, machine learning, blockchain and internet of things, and the ability to assess their applicability in Public Administration; • Solid skills in project management, strategic planning and supervision of cross-functional teams; • 3 years of experience in developing digital capacity building and training programs to empower civil servants in the new digital skills required.
IT Architect	• Bachelor's degree in Information Technology, or related fields (Master's degree is an advantage); • Solid experience of 3 years in systems architecture, including the design and integration of comprehensive technological solutions that meet the needs of the Public Administration; • Familiarity of working in cloud environments and scalable infrastructure; • Understanding of software development principles to evaluate and guide the implementation of effective solutions; • Ability to perform data modeling, ensuring efficiency in information storage and retrieval.
Data Analyst	• Bachelor's degree in Information Technologies or related areas (Master's degree is an advantage); • 3 years of experience in using business intelligence and report visualization tools such as Tableau, Power BI or Qlik, to effectively communicate information derived from data; • Ability to translate data into actionable information;

	• 5 years of experience in data analysis to assess needs, identify patterns, and provide relevant insights for strategy.
Education & Training Specialist	• Degree in Education, Education, Pedagogy, Educational Psychology; or related areas (the Master's degree is an advantage); • Excellent verbal and written communication skills; • Experience of at least 10 years in the design and implementation of communication strategies • Strong skills in corporate education, e-learning and teaching methodologies; • Specific experience in the organization of public consultations, preferably in matters of the use of technologies; • Work experience in Mozambique; • Fluent in English, Portuguese and local languages of Mozambique

7 DURATION

The consultancy shall be carried out over a period of 12 months in accordance with the schedule of activities indicated in point 5.