



**Eruxelf
Scientific
Computing Plc.**

Company Profile

2008

Eruxelf Scientific Computing Plc
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Background

Eruxelf Scientific Computing PLC. is a registered company established in 2005 in Addis Ababa, Ethiopia. Eruxelf's main aim is performing research and development in various relevant technologies. The main areas of focus include language technologies, geographic information systems, E-learning Systems and large scale software system development and integration.

The company comprises a dedicated team of Professional Computer and IT Engineers with substantial experience in the field. Our in-house staff has provided responsive, high-quality innovative solutions and services to a broad spectrum of clients; businesses, industries, governmental agencies, and research organizations.

Vision

Eruxelf Scientific Computing PLC's vision is to become the leading and pioneer company in Ethiopia that provides relevant software and hardware products in the areas of language technology, GIS applications and large scale software systems applying cutting edge technological tools and through original research and development. There by ensuring the profitability of our company and well being of our personnel and, by these objectives aid the profitability of our customers.

Mission Statement

Eruxelf's mission revolves around providing quality products and services to its customers through the application of scientific and engineering principles. Our core business values are

Quality Products and Services

Eruxelf is committed to providing quality services and products through

- Original research work
- Application of sound scientific and engineering principles
- Providing solutions and services relevant in the local context
- Promoting partnership with customers

Grow and Manage Intellect

- Soliciting and retaining competent staff
- Establish in-depth technical expertise
- Promote research culture
- Create an environment that promotes ideas and visions

Become the Leader in Technology

- Establish and maintain market advantage by employing state of the art technological advances
- Establish the company's own technological base through research

Business Ethics

- Establish and maintain honorable business practice

Methods

We will strive to continually improve the services and products, which we provide to our esteemed clients by agreeing to their priorities for each project at commencement and focusing upon them. Our focus will apply equally to safety, quality, cost and timescale with zero defects.

We undertake to operate at all times in a professional manner and to provide sufficient appropriate resources to succeed. And we will, where possible, identify opportunities, which will reduce cost and timescales thus providing a "Value Added" service to clients.

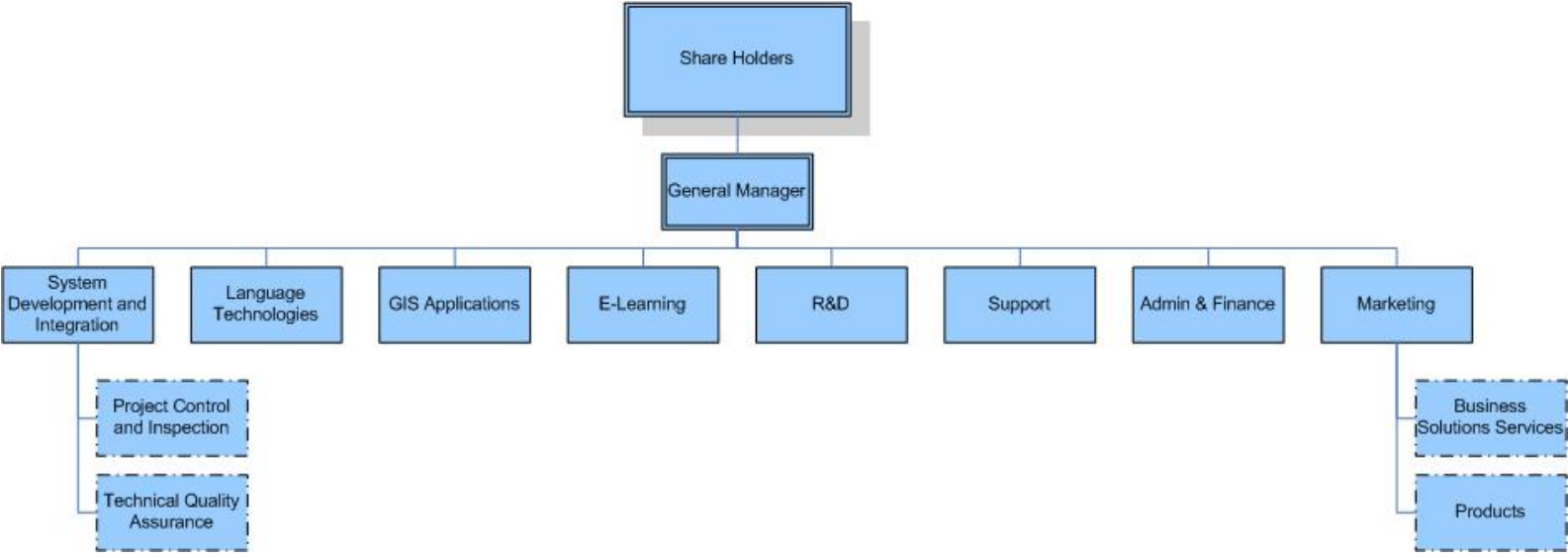
With modern and flexible operational practices we offer an extremely competitive service without compromise, enabling significant financial saving for over all project solutions.

Structure of the Organization

Our company is organized in main functional divisions scalable to adapt future expansions and to enhance team spirit. Organized with scalability and flexibility in mind Eruxelf has managed to create a professional team capable of meeting its stated vision and mission.

Currently, Eruxelf is organized in a structure enhancing team spirit and matrix organization in the following setup:

- Language Technologies Division (LTD)
- GIS Applications Division (GAD)
- E-learning Systems Division (ESD)
- System Development and Integration Division (SDID)
- Finance and Administration Division (FAD)
- Marketing Division (MD)
- Support Division (SD)



Description of Divisions

- Language Technologies Division (LTD)
The language technologies division is dedicated to the research and development of software and hardware systems related to the processing of natural languages. Currently, the company is focused on the development of software systems for the Amharic language. The areas of focus under this division include
 - Amharic Spell Checking and Correction
 - Advanced Amharic Searching
 - Advanced Amharic Sorting, Counting and Indexing
 - Automatic Amharic to English Translator
 - Amharic Automatic Speech Recognition
 - Amharic Automatic Speech Synthesizer
 - Amharic Dialog Systems
 - Amharic character recognizers
 - Amharic Speech to Sign Language Translator
 - Amharic Text Corpus Development
 - Amharic Speech Corpus Development
 - Amharic Morphological Analyzer and Expander

- GIS Applications Division (GAD)
The GIS applications division is dedicated to the development of application that integrate spatial and non-spatial data that will enable system users visualize various data using spatial, tabular and graphical methods and undertake various spatial analysis including contouring, interpolation, 3D visualization and more. The division has developed and tested web enabled GIS applications solutions. The area of focus under this division include:
 - Car tracking systems
 - Facility management systems
 - National resource management system
 - Municipality management system

- E-learning Systems Division
The E-learning systems division is dedicated to providing an end-to-end solution in e-learning systems. The division works both in content development as well as customization, integration, deployment of learning management and digital library systems. The content development aspect is concerned with the development and adaptation of courses for e-learning delivery based on the SCORM standard. The courses are developed as conversion projects of existing content into SCORM format upon request of clients as well as independent in house course development which can be made available to clients through various licensing schemes. The unit works on various learning management and digital library systems including Moodle, Greenstone and Dspace.

- **System Development and Integration Division (ESDID)**
The system development and integration division is concerned with the development of software systems as well as integration and customization of diverse systems into an inter-operable system. The division specially focuses in making use of open-source systems as much as possible customized to address the unique need of our customers. The division specifically focuses on the customization of open-source systems to fit the Ethiopian market needs. The customizations include support of local languages, calendars and operational scenarios. Furthermore, the division pays special attention to the integration of diverse open source systems with each other as well as in house built software systems. Currently, the division works on
 - ERP system for tertiary education institutions
 - ERP system for the Hospitality Industry
 - ERP system for the Manufacturing Industry
 - General purpose Point of Sales Systems

Products and Services

Eruxelf, although a young company, has already established a decent reputation in the services and products that it is rendering to a growing list of customers.

Products

Eruxelf Amatets

Eruxelf Amatets is an Amharic speech synthesis software. The first of its kind in Ethiopia, Eruxelf Amatets reads aloud freely written Amharic documents as well as echoing keys and actions pressed on the keyboard in Amharic. Specifically designed for Amharic speaking visually impaired people, Eruxelf Amatets, for the first time in history, allows blind users to create and read Amharic documents independently. Eruxelf Amatets is based on complex mathematical model for speech signals called the Hidden Markov Model and extensively uses signal processing and abstract language modeling techniques. Eruxelf Amatets is based on the open-source Festival Speech Synthesis System.

Eruxelf Amamorph

Eruxelf Amamorph is an Amharic morphological expander software. The program is able to analyze and expand all the possible morphological forms of Amharic words. As the first such program Amamorph makes it possible to implement a large number of useful applications

including spell checkers and correctors, speech synthesizers and speech recognizers.

Eruxelf LinOPT

Although it can be applied for any similar application, Eruxelf linear optimizer is specifically designed for the construction industry. The linear optimizer calculates the optimal cutting schedule for linear construction rods (aluminum frames, reinforcement bars etc). The program identifies the best way to cut rods based on available lengths of original material and required lengths during construction. The program allows builders to quickly calculate the optimal combinations of cuttings and significantly reduces wastage in unusable length rods and the time required to perform hand computations.

Eruxelf POS

Eruxelf POS is a general purpose software based point of sales system that satisfies the new regulation on point of sales systems by the Ethiopian Revenue Authority (Accreditation Pending).

Eruxelf Pay

Eruxelf pay is a payment system is solely designed as an application to make the accepting and effecting of payments electronically. The payment is an independent system that can integrate with other applications to handle as many different modes of payment as possible. These may include: cash, coupons, scratch cards, credit cards, debit cards and direct account transfers from bank accounts.

Services

Eruxelf has rendered consultancy, LAN/WAN design and implementation, network security, system integration including messaging and collaboration systems, remote access services and advanced training in ICT related fields for an increasingly growing list of companies. Our list of services is:

Software Development

- Developing in-house software for consumers and enterprise clients
- Participation in software development and consultancy bids
- Partnership with global companies in supply of software, consultancy and customization
- Supply of authorized software, customization and after sales support service to the

Ethiopian market.

- Develop web application and web site development

Training Services

- Providing training services in computer literacy, computer networks, computer security, software development etc.
- Participating in training bids
- Partnership with global companies that provide training services and certifications
- Preparing training manuals and books to be sold for the Ethiopian consumer

Consultancy in ICT services structuring, policy and management

- Consulting government and non-governmental institutions in ICT services structuring, policy and management
- Participation in such bids
- Partnership with global companies focusing on ICT service structure consultancy pedigree

Supporting and Maintaining Enterprise Networks

- Providing support, regular maintenance, security assurance and similar services for Enterprise networks

Hardware Supply & Installation:

- Provide supply and installation services on the following software and hardware platforms
 - Sun Microsystems Servers, Workstations, Storage & Software
 - IBM Products: - Servers, Desktops, Storage & Software
 - Cisco Routers, Switches, Firewall
 - Data Storage Solutions
 - Network accessories
 - Automatic Teller Machine
 - Lexmark Printers
 - Microsoft Services (software)

System Integration:

- Provide system integration on the following areas:
 - LAN & WAN Network Design and Installation
 - Security Systems Design & Installation
 - ERP Solutions
 - SUN ONE Solutions
 - ATM Integration

Software Supply & Installation

- Provide supply and installation services on
 - Microsoft Windows
 - Oracle
 - ERP Solutions
 - Core Solutions for Insurance
 - Niche solutions for Banks
 - Sage Financial Software (Including Peachtree Complete Accounting)
 - Symantec Antivirus Software
 - SCO Unix
 - Portal Solutions
 - Banking and Insurance System

Major Services

Some of the major services rendered by Eruxelf include:

- A large WAN/LAN networking service for Oromia Information and Public Relations Bureau that is being used to collect and distribute news
- Various training programs on Linux, Unix, Solaris, Windows 2000/2003 server, E-learning packages
- ERP System design and integration project for Saba Spice Extraction Industries
- Accounting system customization and deployment for Lion Insurance Co.
- Complete news and content management system for Capital Ethiopia news agency.
- Specification, installation, testing and training of an electro-spectrogram hardware and software from Gretag-Macbeth for Adei-Abeba garment factory
- Development, Installation and integration of an ERP system for Neuronet Ethiopia PLC
- Development, Installation and Integration of an ERP system for RARA Technologies.

Major Clients

- Oromia Information and Public Relations Bureau
- Ethiopian Fire and Security Co.
- Crown Publishing Co.
- Telda Consulting Co.
- Neuronet PLC.
- Rara Technologies Plc.
- Akakas Logistics Co.
- Adei Abeba Garment Factory
- Safe Consulting Plc.
- Saba Spice Extraction Co.
- International Telecommunication Union
- UNESCO
- DreamWash Laundry Services Plc.