

3. GRNET S.A. - DIRECTORATES

3.1 Directorate of Administrative Operations and Financial Management

The Directorate of Administrative Operations and Financial Management is responsible for:

- Administrative, Operational and Secretarial Support for the Company, Management Executives, Staff and Projects.
- Providing Technological Support to the Company, Management Executives and Staff in matters of internal ICT infrastructure.
- The Company's procurement processes.
- Dealing with Human Resources Management (HRM) issues.
- Management accounting and financial monitoring of the Company including the Projects' Financing Management.

The Directorate of Administrative Operations and Financial Management consists of nine (9) Departments:

- Financial Services Department
- Human Resources Department
- IT Support and Facilities Infrastructure Department
- Procurement Department
- Contracts and Payments Department
- Administrative Support Department
- Archives Support Department
- Secretarial Support Department
- Quality Assurance Department

The Departments are described as follows:

3.1.1 Financial Services Department

The Financial Services Department is responsible for the management accounting and financial monitoring of the projects and all other financial resources of the Company. It is responsible for ensuring the Company's sound financial management and supervises all procedures related to budgeting and accounting records of all activities. The Head of the Financial Services Department is the Head of Financial Services (HFS).

3.1.2 Human Resources Department

The Human Resources Department's mission is to organize human resources matters, including putting in place processes for the active sourcing and assessment of new associates, as well as for the promotion of targeted professional development actions.

3.1.3 IT Support and Facilities Infrastructure Department

The Department of IT Support and Facilities Infrastructure takes care of the smooth and seamless operation of services which support the facility management and IT infrastructure / services related to the business operation of the Company. Such services include the procurement of IT systems and consumables, as well as the provision of technical support to the Company's infrastructures, including IT infrastructure, and preventive maintenance.

3.1.4 Procurement Department

The Procurement Department is responsible for running the procurement procedures of the Company, in collaboration with the respective project managers, ensuring compliance with standards and applicable laws and regulations.

3.1.5 Contracts and Payments Department

The Contracts and Payments Department is responsible for maintaining the Registry of all Company contracts. It prepares registration of contracts in the TAXISNET platform. It monitors and executes all payments of the Company via e-banking. It is responsible for communicating with the Company's banking partners, as well as for opening and closing bank accounts. It is also responsible for clearing payments, and the reimbursement of all travelling expenses to Company associates.

3.1.6 Administrative Support Department

The Administrative Support Department takes care of all issues related to the provision of administrative support to the Company, Management Executives, Staff and support all Company activities. It implements all necessary procedures to meet the requirements of DIAVGEIA and KIMDIS systems as currently in force. It operates and supports the Registry of Permanent and Seasonal Partners of the Company, and supports the procedures of public tenders.

3.1.7 Archives Support Department

The Archives Support Department is responsible for all matters with regard to the Company's archives. It takes care of the archiving, keeping, monitoring, maintenance and mapping of all physical records of the Company, in order to support any internal needs and procedures, but also any audits the Company may be subjected to.

3.1.8 Quality Assurance Department

The Quality Assurance Department's mission is to ensure the proper implementation of quality procedures as they arise from the certification of the performance management of the Company and the ISO 9001 standard as

currently in force. It ensures implementation of all required internal audits and inspections and the assessment on to what extent practices followed by the Company Executives and Staff are aligned with those set out in the Quality Management System.

In addition, it is responsible for coordinating the preparation of the annual report and the Company's Projects plan in collaboration with the Directorates' Managers. The department is headed by the Quality Assurance Officer. The latter is responsible for maintaining the certification of the Company according to ISO 9001 standards and any quality standards as applicable.

3.1.9 Secretarial Support Department

The Secretarial Support Department is responsible for organizing, coordinating and meeting secretarial needs for the entire Company, both with regard to horizontal matters as well as specific Projects requirements.

3.2 Directorate of Research and Development

The Research and Development Directorate is responsible for the research, the establishing and utilizing technology know-how in the development of software systems.

The Research and Development Directorate consists of the following seven (7) Departments:

- User Interface Development Department
- Programming Interface Development Department
- Systems Development Department
- Technology Development Department
- Software Management Department
- Artificial Intelligence and Data Analytics Department
- Support and Management Department

The Departments foster the development of technical know-how which they further utilize through the implementation of projects where their members participate, developing methodologies, tools and automation in order to achieve dissemination of best practices, reuse of mature, quality and reliable solutions, compliance with internal and external regulations, and productivity in software systems development.

The Departments are the following:

3.2.1 User Interface Development Department

The User Interface Development Department creates and utilizes know-how for the design and implementation of applications and content for environments (web browsers, handhelds) that have direct interaction with users.

3.2.2 Programming Interface Development Department

The Programming Interface Development Department creates and utilizes know-how for the design and implementation of applications with a structured and documented programming interface.

3.2.3 Systems Development Department

The Systems Development Department develops and utilizes know-how for the design and implementation of information systems, by selecting and compiling technology, software, architecture, as well as extensions, settings and operating procedures, in order to achieve specified technical and operational capabilities.

3.2.4 Technology Development Department

The Technology Development Department focuses on the research, development and production of innovative or specialized technological capabilities, which are not widely available with the tools currently used in the market.

3.2.5 Software Management Department

The Software Management Department creates and disseminates know-how on the software lifecycle management, from the development, documentation, publishing, maintenance and support by a community of users and developers, all the way to its decommissioning.

3.2.6 Department of Artificial Intelligence and Data Analytics

The Department of Artificial Intelligence and Data Analytics is responsible for public and private sector services and partner data utilization for the benefit of public interest. Such utilization will be deployed via the use of innovative technologies such as Artificial Intelligence (Artificial Intelligence-AI), Machine Learning and Data Analytics, while securing full privacy and protection issues. The Department designs and implements solutions for the optimal collection and storage of heterogeneous data (Data Engineering) to be used in the analysis.

3.2.7 Support and Management Department

The Support and Management Department supports the Directorate in its operations and more specifically organization of procedures and administrative management of staff, projects, collaborations with internal and external partners.

3.3 Directorate of Reliability Engineering (GRE)

GRNET's reliability engineering directorate is responsible for designing, implementing, and operating the organization's entire infrastructure in a reliable and secure manner. The infrastructure is dedicated to support (1) the needs of

Greek research and education communities and (2) Government Digital Services. Specifically, the directorate is responsible for:

- The design and implementation of advanced computer and network systems and infrastructures.
- Providing internet connectivity, unified e-infrastructures, advanced services and more, to the Greek educational, academic and research community.
- The supervision of all infrastructures, including the fiber optic network, datacenter networking equipment, IP/Carrier equipment, computing servers, storage units and super-computing nodes.
- Designing cloud computing services and tools.
- Operating the Greek Internet Exchange (GRIX), Greek's neutral and independent Internet Exchange.
- Supervising the local node of the GÉANT network.
- Providing virtual computing and storage infrastructure as a service.
- Providing high performance computing resources to the Greek and international scientific and research communities.

GRE consists of 8 departments:

- Site Reliability Engineering (SRE) Department
- Network Reliability Engineering (NRE) Department
- IT Security Department
- Identity Department
- High Performance Computing Department
- Infrastructures Department
- Helpdesk and Technical Support Department
- Management Department

3.3.1 Network Reliability Engineering (NRE) Department

The NRE department consists of 3 units:

- IP and Carrier Network Design, Development and Operations Unit
- Optical Network Unit
- GR-IX Unit

3.1.1.1 Carrier and IP Network Unit

The carrier and IP Network unit designs, operates and monitors GRNET's Core / IP network based on open standards. The unit is aligned and cooperates with the corresponding Units of the GÉANT pan-European network.

3.3.1.2 Optical Network Unit

The optical network unit is responsible for the operation and monitoring of the fiber optic network, the optical transmission equipment, and the circuit switches equipment of GRNET's network.

3.3.1.3 GR-IX Unit

The GR-IX Unit aims at the reliable and secure operation of the national Internet Exchange infrastructure that facilitates the exchange of internet traffic (IP) by interconnecting the largest providers in Greece including Internet service providers, content providers, cloud service providers and more.

3.3.2 Infrastructures Department

The Infrastructures department is responsible for the installation, operation and maintenance of all electromechanical infrastructures and data centers of the organization.

3.3.3 Site Reliability Engineering (SRE) Department

The Site Reliability Engineering department incorporates aspects of software engineering and applies them to infrastructure and operations problems. Its main goals are to create scalable and highly reliable software systems. Further, it is responsible for the design and implementation of advanced computing infrastructures and for the reliable operation of all GRNET services.

3.3.4 IT Security Department

The IT Security department is responsible for implementing and maintaining organization-wide information security mechanisms, policies, standards, guidelines, and procedures. Also, it provides security awareness education and performs periodical security assessments on the various services and infrastructures of GRNET. The department includes GRNET's "Computer Security Incident Response Team" (CSIRTs).

3.3.5 Identity Department

The Identity department is responsible for the operation of GRNET's authentication and authorization infrastructure (AAI). The infrastructure assists cross-institutional services by providing federated authentication and authorization among participating organizations. Through the Infrastructure, users can access services in a secure and confidential manner, simply by using their institutional accounts.

3.3.6 High-Performance Computing Department

The High-Performance Computing department operates GRNET's high performance computing infrastructure (called ARIS). Through ARIS, GRNET provides high performance computing resources to the Greek and international scientific and research communities

3.3.7 Helpdesk and Technical Support Department

The Helpdesk and Technical Support Department provides technical support and monitors problems encountered by GRNET partners related to the different GRNET infrastructures (e.g. network, cloud and more).

3.3.8 Management Department

The Management department supports the directorate on issues relate to internal processes and procedures. Further, It supports the management of the directorate's staff, projects and collaborations with internal and external partners. Finally, it monitors all infrastructure support and software licenses.

3.4 Directorate of Information Systems and National Projects Management

The Directorate of Information Systems and National Projects Management is responsible for managing the full life cycle of information systems provided by the Company to the academic community, research institutions and other public organizations, from the early stages of design up to the support and maintenance of those information systems. The Directorate contributes to designing and implementing ICT Company's policy. It participates in the drafting and submitting of new projects' and services' financial funding proposals and in the management of national and co-funded projects.

The Directorate of Information Systems and National Projects Management focuses on:

- The design of electronic information systems aimed at supporting the educational and research community and other public organizations.
- The oversight of the implementation, support and operation of such systems.
- The coordination of organizations' and end-users' support teams for the aforementioned services .
- The allocation of directorate's management staff to the administration of information systems and projects.
- The optimization of large information systems' business operation.
- The interoperability of the above mentioned information systems and services along with the respective registries deriving in the context of their operation.
- The introduction of best practices for the administration, management and implementation of the above mentioned systems.
- The oversight of the projects management (National Strategic Reference Framework, Public Investment Programme, etc.) concerning the above mentioned electronic information systems.
- The project management for other Directorates' projects which are funded by the National Strategic Reference Framework (NSRF) and/or the National Public Investment Programme (PIP),

The Directorate of Information Systems and National Project Management is organized in three (3) Departments:

- Information Systems Development and Business Operations Department
- Information Systems Support and Feedback Department
- National Projects Management Department

3.4.1 Information Systems Development and Business Operations Department

The Information Systems Development and Business Operations Department is responsible for designing, coordinating and monitoring the daily business operations of information systems provided by the Company to the academic community, research Institutions and other public organizations. In addition, it is responsible for the supervision of development, operation and support teams, internal or external, of the aforementioned information systems and it oversees the requirement analysis and the preparation of technical specifications. Furthermore, it ensures the optimization of business operations of the large information systems.

3.4.2 Information Systems Support and Feedback Department

The Information Systems Support and Feedback Department supports end users and organizations and operates as the first point of contact for any request deriving from users concerning the developed electronic information systems. It collaborates directly with the Department of Information Systems Development and Business Operations to provide the necessary feedback for the redesign of information systems.

3.4.3 National Projects Management Department

The National Projects Management Department is responsible for the management and administrative monitoring of national projects (NSRF and National PIP) undertaken by the Company. The Department also operates a Project Support Office (PSO) for the support of project managers towards the optimal administration and management of the projects, from the stage of preparation of proposals up to the stage of the final dissemination and delivery.

3.5 European and International Projects Infrastructure Directorate

The European and International Infrastructure Projects Directorate deals with strategic planning, proposal preparation and implementation of European and International Projects. The Directorate analyzes EU and international programmes and funding instruments, and also provides feedback to the European Commission in relation to the programmes and strategic priorities. The Directorate formulates the strategic direction of the Company within the European landscape, constituting the primary interface of the Company with the European Commission and all relevant funding institutions. The directorate provide representatives for the pan-European research infrastructures and corresponding bodies. This Directorate also steers the technical design of pan-European infrastructure services and

coordinates the development and operation in collaboration with development and operation teams.

The European and International Projects Infrastructure Directorate consists of three (3) Departments:

- European Project Strategy and Proposals Drafting Department
- Projects Implementation Department
- European and International Projects Management Department (PMO)

3.5.1 European Projects Strategy and Proposals Department

The European Projects Strategy and Proposals Department is responsible for:

- Analyzing all available tools for EU and International funding sources as well as the strategic development priorities.
- Formulating the the strategic direction of the Company within the European environment, in accordance with national and international strategic development priorities.
- Drawing up project proposals for the implementation of the aforementioned priorities, taking into account the feasibility of the projects in terms of international and national priorities with emphasis on alignment with Company's strategic priorities.
- Cultivating trust-based relationships with official European Commission's agencies and other funding/financing institutions in order to better communicate the Company's priorities.
- Proposing representatives for the pan-European infrastructure bodies.

3.5.2 Projects Implementation Department

The Projects Implementation Department is responsible for:

- Implementation of European and International Projects, including administrative and technical management.
- Participation in international consortia for the development of advanced technologies and systems.
- Steering the design, coordinating the development of pan-European services and infrastructures in collaboration with the Research and Development Directorate and managing the operation of such services in collaboration with the Directorate of Reliability Engineering (GRE).
- Collaborating with other Directorates to achieve optimal implementation of the projects and creation of synergies with other projects and services provided by the Company.

3.5.3 European and International Project Management Department

- It supports Project Managers in the process of preparing proposals, signing contracts (or any other agreements, e.g. joint undertaking agreements).
- Supervises and supports the due execution of all steps for the project kickoff (ISO, accounting update, staff team, etc.) in collaboration with the Project Manager and oversees the entire portfolio of projects.
- Monitors resources' allocation and operates as the liaison between the financial services department and the Project Manager.
- Ensures the availability of human resources and infrastructures, in collaboration with the Directorates of Research and Development and the Directorate of Reliability Engineering (GRE), in order to better design and implement projects.
- Supports quality assurance activities (financial audits, compliance with established rules, etc.), based on the needs of each project.

3.6 Directorate for Digital Governance

The Directorate adopts the objectives of the “Digital Transformation Bible”, specializes them and supports their implementation. It also strengthens the basic principles of the Digital Transformation Strategy, such as open standards, open source software, AGILE/SCRUM methodologies corresponding to the principles of the European Interoperability Framework, a European Commission's program for the interoperability of information systems of the public administration of Member States of the European Union.

The Digital Governance Directorate consists of four (4) Departments:

- Department of Strategic Planning and Coordination
- Department of Interoperability
- Department of Applications and Services Analysis
- Department of Networking and Community Building

3.6.1 Department of Strategic Planning and Coordination

The objective of the Department is to support the strategic planning of e-government, as a technical consultant of the Ministry of Digital Governance, as well as the operation of the Directorate itself. In this context, its role is to monitor good practices internationally and developments at European Union level, including the country's obligations, as well as the available tools and their practical use. The Department defines priorities and coordinates actions within the Directorate, on the basis of the above and of the Digital Transformation Bible, in cooperation with the Ministry of Digital Governance.

3.6.2 Department of Interoperability

The Department is involved in supporting interoperability, by developing structural components and infrastructures for reuse by public sector actors. Among other things, it supports the development of data streams between services implemented with open standards and open source software, and the provision of open data through the utilization of application programming interfaces (APIs) provided by the Interoperability Center of the Ministry of Digital Governance. Finally, it supports public administrations in network and computer infrastructures, through the provision of consultancy services, exploiting the know-how of the respective units of GRNET.

3.6.3 Department of Systems Application Analysis

The Department undertakes the analysis of public sector organizations' requirements and proposes solutions through participatory design in cooperation with the stakeholders. Its activities include the participatory design of digital solutions and the development of functional and non-functional specifications. The Department is in charge of monitoring and managing the implementation of proposed solutions.

3.6.4 Department of Networking and Community Building

The Department is responsible for identifying the stakeholders, by policy and action area, as well as for identifying the public administration officials who are involved in digital governance and digital transformation initiatives. In cooperation with the Department of Analysis of Applications and Services, contributes to identifying involved parties for specific, proposed digital solutions. It establishes connections with public and private sector IT administrators, citizens, start-ups and members of the academic-research community and organizes training programs for the dissemination of best practices.

3.7 Directorate of Digital Competencies

The Digital Competencies Directorate is responsible for shaping the strategy for the Ministry of Digital Governance (MDG) to invest in the country's human capital by utilizing and reinforcing the Ministry's institutional initiatives, services, networks, technological infrastructures and applications. The Directorate specializes in shaping strategies and implements the actions of the Bible for Digital Transformation in compliance with EU policies as well as with international trends and policies.

The development of digital competencies aims to achieve the following: a) by continuous learning activities citizens can feel safe and active, b) the state may provide digital services which can be effectively be utilized by citizens contributing to digital transformation, c) educational system alignment with the needs of the digital age, d) both employed and unemployed professionals adjusting their professional profiles in alignment with the skills required to address the needs of

the market and the developmental model of the country, e) social cohesion is enhanced through reducing economic, social and educational inequalities.

The achievement of these goals is sought by undertaking educational, advisory and supportive actions and activities through: a) the development of synergies and collaborations with state institutions (ministries, public organizations and bodies operating under the auspices of ministries, municipal authorities), with educational institutions, with professional and social organizations, b) the exploitation of Human and Financial Resources (both at national and European level) and c) the utilization of European and International Capabilities Development Frameworks and Best Practices.

The Digital Competencies Directorate consists of four (4) departments:

- Strategy and Digital Competencies Framework Department
- Educational Programmes' Design and Development Department
- Digital Competencies Infrastructures Development Department
- Networking, Awareness and Excellence Hub Department

3.7.1 Strategy and Digital Competencies Framework Department

The Department aims at connecting the national strategy of the Ministry of Digital Governance (MDG) to invest in human capital, with the development of digital capabilities through an integrated strategy.

Digital Competencies are defined through the creation of a "National Digital Competencies Framework" based on educational levels (basic/ intermediate/ advanced), which form the corresponding digital profile of citizens/employees educator/entrepreneur. Each National Capability Framework takes into account and incorporates policies from the respective European Capability Framework.

The Department is responsible for drafting the respective National Digital Competencies Frameworks, digital capabilities/skills profiles, for designing training programs, identifying key monitoring indicators, and a guide for developing digital capabilities/skills certification framework.

3.7.2 Educational Programmes' Design and Development Department

The goal of the Department is to implement the policies of the MDG for the development of digital capabilities and the connection of the National Digital Competencies Frameworks with the respective educational planning and the implementation of educational actions for the development of basic/ intermediate and advanced digital skills /capabilities.

The department is responsible for designing and deploying educational activities of asynchronous and synchronous education through the development or supply

of the content of educational courses, the implementation, evaluation and monitoring of results.

The "Digital Academy for Citizens" of the MDG is used as a "pilot project", being constantly enriched and developed. A "Registry of providers for educational content" is created and operated for the purpose of enriching educational courses through the exploitation of the "National Alliance for the development of skills and employment". The Department also ensures the quality of the educational material by introducing quality criteria and specifications.

3.7.3 Digital Competencies Infrastructures Development Department

The mission of the Department is to provide technological and technical support for all the educational activities of the Directorate. The Department is responsible for the selection, evaluation and the operation of the appropriate infrastructure via which educational activities, synchronous and asynchronous educational programs and e-learning courses are provided. The department is also responsible for the operation, upgrade, expansion, updating of information systems and applications intended for the implementation of the objectives of the Directorate, for securing the interoperability of education providers and the creation of a mechanism for monitoring relevant key indicators.

3.7.4 Networking, Awareness and Excellence Hub Department

The Department aims at coordinating the actions of educational and technological institutions through the development of synergies and cooperation protocols for the development of digital culture and digital capabilities/skills for leaders, entrepreneurs, employees, citizens through a variety of awareness raising and informative actions.

The responsibilities of the department include the organization of conferences, the creation of cooperation and communication channels, the creation of digital events, editorials, the recording and promotion of innovative initiatives and the set-up of an excellence hub.