

**EARNEST**  
**GN2 Foresight Study**

**Organisational and Governance Study Issues**

**An example: GR Governance and Organisational Structures**

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**Introduction**

The EARNEST study has several strands including a study into the organisational and governance issues associated with European research and education networking. Part of this study involves understanding some of the existing governance and organisational models used in different parts of Europe. This paper provides a brief overview of the governance and organisational structures used in GR for education and research networking.

**Country profile**

**Geography**

Country name: conventional long form: Hellenic Republic, conventional short form: Greece, local short form: Ellas or Ellada, Location: Southern Europe, bordering the Aegean Sea, Ionian Sea, and the Mediterranean Sea, between Albania and Turkey, Geographic coordinates: 39 00 N, 22 00 E, Area: total: 131,940 sq km, land: 130,800 sq km, water: 1,140 sq km, Land boundaries: total: 1,228 km, border countries: AL 282 km, BG 494 km, Turkey 206 km, MK 246 km, Coastline: 13,676 km, Climate: temperate; mild, wet winters; hot, dry summers, Terrain: mostly mountains with ranges extending into the sea as peninsulas or chains of islands, Elevation extremes: lowest point: Mediterranean Sea 0 m, highest point: Mount Olympus 2,917 m, Natural resources: bauxite, lignite, magnesite, petroleum, marble, hydropower potential, Capital: Athens, Major cities: Thessaloniki, Patra, Larisa, Population: 10,668,354 (July 2005 est.), Literacy: 97%.



**Figure 1: Greece – Map**

**Economic situation**

GDP: \$226.4 billion (2004 est.), GDP-real growth rate: 3.7% (2004 est.), GDP-per capita: \$21,300 (2004 est.), GDP-composition by sector: agriculture: 7%, industry: 22%, services: 71% (2004 est), Inflation rate (consumer prices): 2.9% (2004 est), Labor force: 4.4 million (2004 est.), Unemployment rate: 10% (2004 est.), Industries: tourism; food and tobacco processing, textiles; chemicals, metal products; mining, petroleum, Currency: euro (EUR), VAT: 19%.

GR	1999	2000	2001	2002	2003
Electric power consumption (kwh per capita)	3,732.06	3,952.64	4,061.93	4,231.17	...
Exports of goods and services (% of GDP)	22.42	25.59	23.83	20.88	19.84
Fixed line and mobile phone subscribers (per 1,000 people)	895.46	1,097.18	1,280.82	1,336.64	1,356.16
Foreign direct investment, net inflows (BoP, current US\$)	567,300,000	1,083,400,000	1,585,000,000	52,860,670	716,888,800
GDP (current US\$)	120,057,500,000	112,095,100,000	117,247,400,000	133,007,700,000	172,203,200,000
GDP growth (annual %)	3.42	4.45	4.04	3.86	4.28
GNI per capita, Atlas method (current US\$)	11,460	11,280	11,010	11,240	13,230
GNI, Atlas method (current US\$)	124,715,600,000	123,188,700,000	120,697,700,000	123,712,700,000	145,970,100,000
High-technology exports (% of manufactured exports)	9.73	13.35	9.86	11.6	12.18
Imports of goods and services (% of GDP)	30.96	34.14	31.13	27.67	28.01
Industry, value added (% of GDP)	22.3	22.83	23.49	23.21	23.83
Inflation, GDP deflator (annual %)	3.01	3.37	3.51	3.86	3.52
Internet users (per 1,000 people)	70.58	94.65	86.39	134.8	149.99
Literacy rate, adult female (% of females ages 15 and above)	95.58	95.89	96.05	96.22	...
Literacy rate, adult male (% of males ages 15 and above)	98.42	98.49	98.54	98.58	...
Personal computers (per 1,000 people)	60.23	70.99	81.16	81.68	...
Population growth (annual %)	0.44	0.31	0.43	0.37	0.25
Population, total	10,883,000	10,917,000	10,964,000	11,005,000	11,033,000
Roads, paved (% of total roads)	91.8	...	...	...	...
Telephone average cost of local call (US\$ per three minutes)	0.07	0.07	0.08	0.07	0.09
Trade in goods (% of GDP)	34.65	40.35	32.9	31.29	33.02

Source: World Development Indicators database

**Table 1: Greece - World Development Indicators database**

### Macro-economic panorama

Greece has a capitalist economy with the public sector accounting for about 40% of GDP and with per capita GDP 70% of the leading euro-zone economies. Tourism provides 15% of GDP. Immigrants make up nearly one-fifth of the work force, mainly in menial jobs. Greece is a major beneficiary of EU aid, equal to about 3.3% of annual GDP. The Greek economy grew by about 4.0% for the past two years, largely because of an investment boom and infrastructure upgrades for the 2004 Athens Olympic Games. Despite strong growth, Greece has failed to meet the EU's Growth and Stability Pact budget deficit criteria of 3% of GDP since 2000; public debt, inflation, and unemployment are also above the eurozone average. Further restructuring of the economy will need to include privatizing of several state enterprises, undertaking pension and other reforms, and minimizing bureaucratic inefficiencies.

## Telecom/IT sector status in GR

### Regulatory environment

Law 2867/2000, which took effect a few days prior to the end of 2000, marked the full liberalisation of the telecommunications sector in Greece. As a Framework Law, L.2867/2000 established the main directions/principles for the regulation of the telecommunications sector within a fully liberalized environment, granting extensive competence to the National Telecommunications and Post Commission (EETT), an administratively and financially independent authority, with the responsibility to control and regulate the telecommunications sector as well as to supervise the telecommunications market. More specifically EETT's responsibilities include Licensing, Numbering /Internet Domain Naming, Interconnection, Unbundled Access to the Local Loop, Leased Lines, Electronic Signatures, Universal Service, Costing /Pricing Control, Monitoring and Analysis of the Telecommunications Market, International Relations /Representation and Protection of Consumer Rights.

### Liberalisation

Greece has a liberalised fixed-line market, as from the start of 2001, although its incumbent fixed-line operator, OTE, remains the only operator of note as new entrants have struggled with its commercial terms for interconnection and access.

**Broadband networks and services:**

It is perhaps surprising that broadband services are just now taking-off in Greece. Lack of cable TV has been also a factor in the slow development of broadband in markets.

**Wireless communications:**

Mobile penetration rates in Greece are very high, higher than most Western European countries, although its market is characterised by high churn rates and low usage

## The Structure of the GR NREN

**Name of the organization:** *Greek Research & Technology Network - GRNET S.A*

**Address:** 56, Mesogion Avenue, Ampelokipi, 11527 Athens

**Legal status of NREN:** GRNET S.A. is a separate legal entity, operating under the auspices of the Ministry of Development. It is supervised by the General Secretariat for Research and Development and it is governed by a *Board of Directors*

**Number of persons working for the NREN:** Full time: 34, Part time: 3, Subcontracting/outsourcing: 20 full time equivalents.

**Budget dedicated directly to NREN activities for 2005 (in MEUR):** 12.000

**Main expenditure categories (2004):** Salaries and general office costs 10%, Equipment (switches, routers etc.) 15%, Transmission capacity (IRUs, leased lines, etc.) 50%, NOC 25%

**Sources of the NREN-related income (2004):** National government / public bodies 85%, EU 15%.

**Number of organizations connected to the NREN**

- Universities: 20/20 Universities and 17/17 Technological Institutes (TEI)
- Institutes of higher/further education: 141/141
- Research Institutes: 19/19
- Schools: 8550/15.187
- Other: Greek Parliament, General Secretariat for Research and Technology, Syzefxis Network, Pedagogical Institute, EDUnet, Ministry of Education and Religious Affairs, Ministry of Economics, Regulatory Authority for Energy, United Nations Thessaloniki Centre, European Centre for the Development of Vocational Training, Greek Institute of Geology & Mineral Exploration.

**Number of end users served by the NREN**

- Universities 265 000
- Research institutes 20 000
- Schools 20 000
- Other 3 000
- Total 688 000

**Overview**

GRNET S.A. was founded by the Presidential Decree 29/1998, is owned by the Ministry of Development and is supervised by the General Secretariat of Research and Technology. Its main objective is the provision of advanced technology Internet services to the Academic and Research community of the country through GRNET, the backbone network that it supports. In addition, it represents Greece in the area of international research networks and undertakes the planning and implementation of technological and development projects, as well as the corresponding management of resources, budgets and project teams. In the future and in accordance to the amendments of N.1514/1985, a Private Law Legal Entity is to be established with the company name "Centre for the Communication and Information Applications Technologies", to which the shares of GRNET will be transferred.

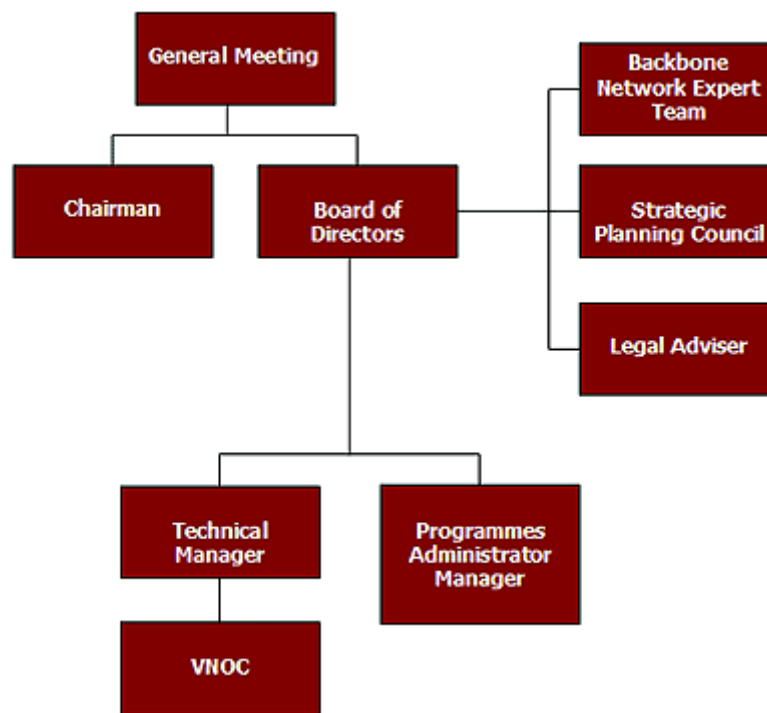


Figure 2: Structure of GR NREN

## Bodies involved in governance

**Board of Directors – Chairman of the Board:** The Board of Directors (BoD) is the supreme administrative body of GRNET S.A. and decides on all issues related to the management and realization of the company's goals, with the exception of those issues for which the General Assembly is exclusively responsible. The BoD charts the company's strategy and development policy and determines main financing resources for GRNET S.A. At the same time it supervises and manages the company's assets. In addition, it sees to the further development and promotion of the company's national and European character. The Board of Directors consists of eight members who serve for a four-year term. The Chairman is a member of the BoD and the company's chief executive officer. He is the chief scientific supervisor of GRNET S.A. operations and oversees and directs all services. He also brings before the BoD issues concerning the company's policy.

**Advisory Board/Consultation Committee:** The Consultation Committee is appointed by the BoD every two years and consists of five members maximum. It provides counsel and consists of acknowledged experts with a strong background in telecommunications and/ or research and technology policy in the country. The opinions of the Consultation Committee are recorded, submitted to the BoD and reported to the General Secretariat for Research and Development.

**The backbone Network Experts:** The backbone network expert team (Technical Team) is appointed by the BoD and includes representatives from universities and research bodies. Its aim is to coordinate actions for the participation of end-users. Representatives of the General Secretariat for Research and Technology, European networks, scientists from Greece and abroad, as well as representatives of Greek companies operating in the field, may participate in the Technical Team. The role of the Technical Team is purely consultative and contributes to the development of strategic modifications and operational restructuring of GRNET S.A. The main objective of the Technical Team is to provide services, excellent to the highest degree, in order to ultimately integrate the views and requests of end-users into the operation of the company.

**Support Staff:** GRNET employs more than twenty permanent employees. A large number of the staff is responsible for Administrative Support and Public Relations. Another team covers Operational, Technical and Scientific Operations. All GRNET officers are highly experienced and qualified in their respective fields, while most of them hold Master's degrees and PhDs.

**Virtual Network Operations Centre (VNOC):** GRNET's technical administration and development is performed by the Virtual Network Operations Centre. To be more precise, the Network technical operations of the Network and the necessary promotion and development pilot projects for the new generation Internet have been assigned to seven individual Network Operations Centres of Universities, Technological Educational Institutes and Research Centres with acknowledged international experience and qualifications. Individual Management Centres are guided and supported by GRNET S.A. technicians.

## Funding Flow and Responsibilities

