

National Infrastructures for Research and Technology
GRNET S.A.

CORPORATE PRESENTATION



MISSION

National Infrastructures for Research and Technology - GRNET's mission is to offer an integrated environment of cutting-edge technologies, model digital solutions, infrastructures and specialized expertise which contributes to the modernization and digital advancement of the overall citizen experience in the fields of Public Administration, Education, Research, Health and Culture.



ROLE

- Design and development of advanced information systems and e-Infrastructures to achieve Greece's Digital Transformation goals
- Design, development and maintenance of advanced information systems, computing- network infrastructures and cloud services
- National Infrastructure Development: 6 data centers
- Operation of the national high performance computing system (HPC-ARIS)
- Operation of GR-IX: The Greek Internet Exchange
- Operation of the national fiber optic network
- Provision of international cross-connectivity through the GÉANT pan-European network
- Implementation and management of European, International and National Projects
- Artificial intelligence: formulating a national strategy
- Development of citizens digital skills

GRNET AT A GLANCE

Develops advanced information systems and e-Infrastructures to achieve Greece's Digital Transformation goals



Develops and operates the single digital gateway Gov.gr



**Manages a portfolio of 40 advanced Services
55 National and European Projects**



Serves hundreds of thousand of users

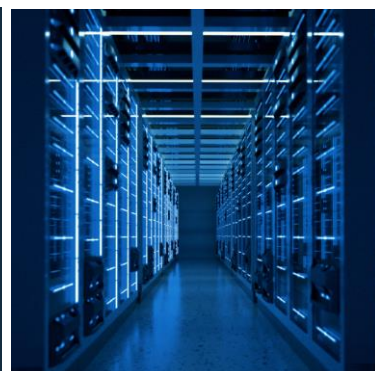


Operates the optical fiber network 10.000 km



Develops and maintains National Infrastructure

- 6 Data Centers
- National Supercomputing Infrastructure
- National HPC Competence Center
- GR-IX Greek Internet Exchange



Develops lessons and initiatives for the digital skills of citizens



Connects International Research and Academic Communities for the dissemination of research and science

GRNET in numbers

- > **150** universities, research centers, hospitals, cultural centers
- > **15.000** schools
- **Nx10 Gbps** dark fiber backbone
- Access **1 || 10 Gbps** per institution
- International connectivity through GÉANT network multiple **10 Gbps**
- **535 TFlops** HPC Tier-1 centre, member of PRACE
- **6** DataCenters (EKT, Ypepth-Marousi, Louros Arta, Heraklio Crete), hosting:
 - **134** racks,
 - **2000+** servers,
 - **11.500** Virtual Machines,
 - **3 PB** disk storage,
 - **5 PB** tape



Users

Serving daily users in the sectors of:
Public Administration, Education, Research, Health, Culture

 grnet@government

 grnet@education

 grnet@research

 grnet@health

 grnet@culture



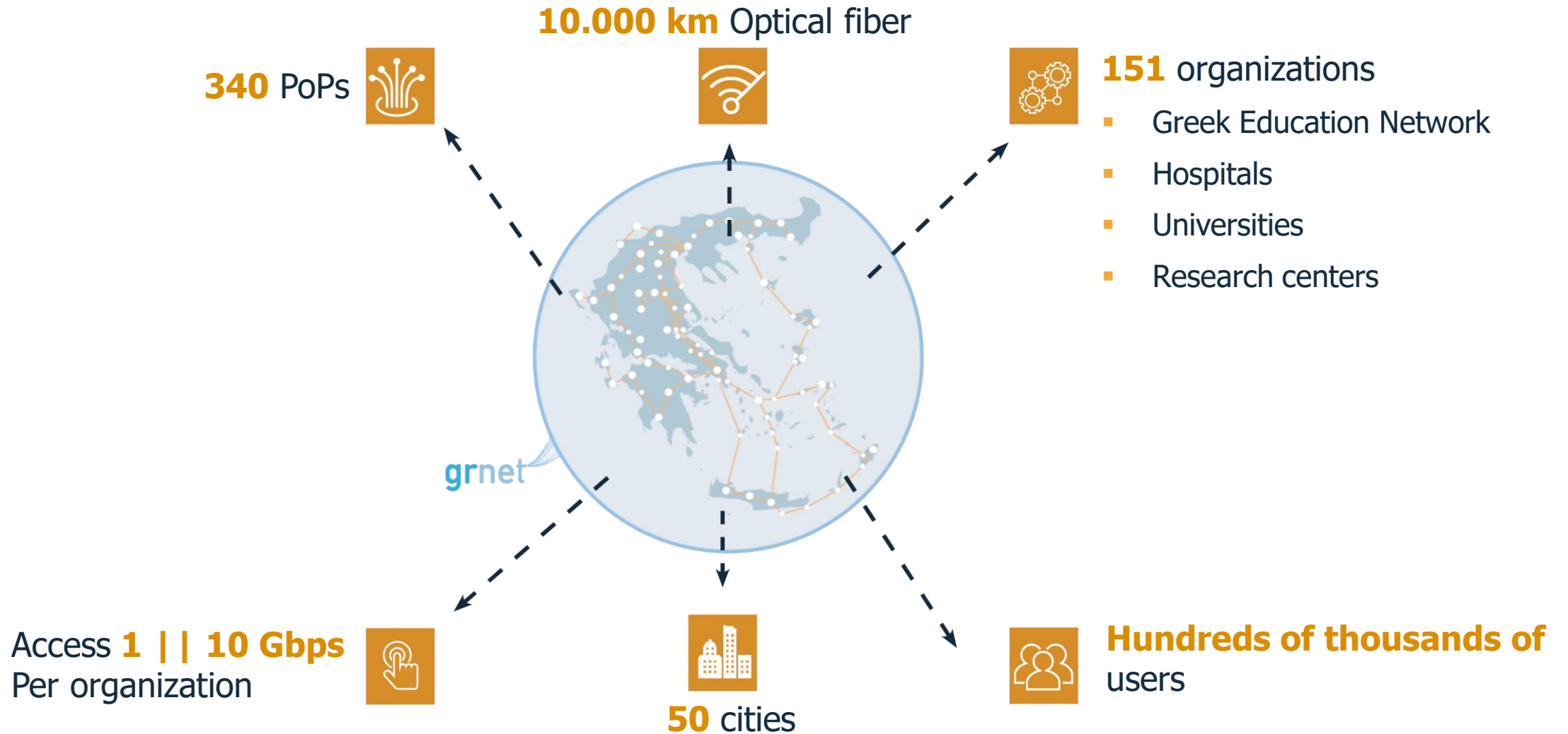
Organizations and Institutions

- Universities
- Research Centers
- Large Research Infrastructures
- Hellenic School Network
- Public Libraries
- Culture Centers
- Content Providers
- Public Administration sector
- Public Health Sector (Hospitals, Blood Donation/Transfusion Services)

Users

- **Academic and Research Community users (Students, Professors, Researchers, Academic and Administration Management, Network Operations Centers (NOC), Technical Staff)**
- **Health Sector users**
- **Hospital: Doctors, Administration, Management, NOC, Technical**
- **Blood Donor Volunteers**
- **Public Administration Officers**
- **Citizens**

Network Connectivity



e-Infrastructures & Services

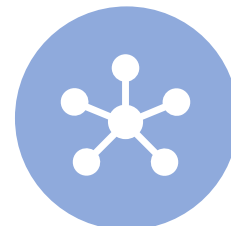
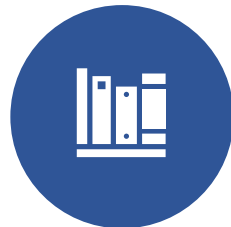
National optical fiber network

GRNET backbone infrastructure
Connection to GRNET Network



GR-IX: National infrastructure

Interconnecting internet companies in Greece:
Providers of Internet services, content, cloud services



HPC (High-Performance Computing)

HPC services to the Greek R&E community

- National Supercomputer Infrastructure HPC - ARIS
- National Competence Center EuroCC@Greece HPC Hub
- Prace Training Center

e-Infrastructures GRNET

Electronic Infrastructures of high reliability
for the Research & Academic community
with advanced and environmentally friendly data
centers

Digital Transformation



Digital Transformation Advisor

- Promotion of the **National Strategy for Digital Transformation** with emphasis on the Greek Public Administration
- Creating the **prerequisites for Research & Development** in the field of Digital Governance
- Design of modern **interoperable information systems** and services
- Development of **tool, methodologies and best practices**



National Academy of Digital Skills

- Implementation of the Digital Governance Ministry Strategy for **Digital Competence Development**
- Development of **education and training activities**
- Development of **initiatives for awareness** and information



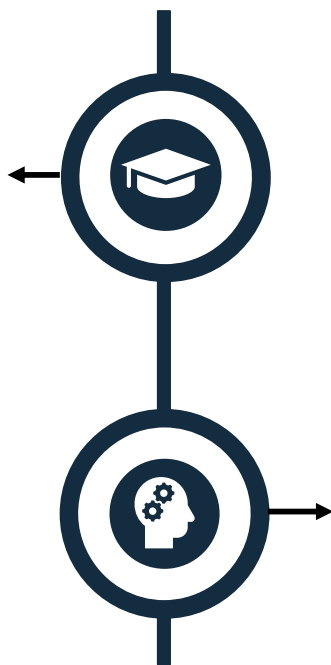
Artificial Intelligence Strategy

- Drafting the **National Strategy on Artificial Intelligence** for the Public and Private Sectors
- Development of “Harmoni for Covid” Artificial Intelligence/Deep Learning System for rapid and reliable diagnosis of coronavirus-COVID 19 using medical imaging

Development of digital skills

GRNET is responsible for the implementation of the Digital Governance Ministry's strategy for the development of citizens' digital skills. The strategy is realized through 2 pillars:

Education and training actions
aimed at developing all levels of digital skills, through the National Academy of Digital Skills



Awareness-raising and information initiatives
aimed at providing opportunities for citizens to participate in training actions according to their needs and interests



SERVICES AND PROJECTS

40 Services

- Network and Connection Services
- Computational and Storage Services
- Data Services
- Identification & Security Services
- Sound, Voice and Visual Services

55 National & European Projects

- Digital Governance
- Infrastructures & Services (Network, Computational, Connection, Storage, Cloud, Digital Content)
- Open Science
- Green Actions

SERVICES

INTERNET



SOUND AND IMAGE



CLOUD COMPUTING



SECURITY



AUTHENTICATION



- **HPC-ARIS:**
- **~okeanos:**
- **ViMa:**
- **GR-IX:**
- **eduroam:**
- **DIADOSIS:**
- **Harmoni:**
- **Blood Donor Registry:**
- **ZEUS:**
- **Eury-where:**

hpc.grnet.gr
okeanos.grnet.gr
vima.grnet.gr
gr-ix.gr
eduroam.gr
diadosis.grnet.gr
harmoni.grnet.gr
bdr.gr
zeus.grnet.gr/zeus
eury-where.gr

- **e:Presence:**
- **DIAVLOS:**
- **Academic IDs:**
- **FoD:**
- **Security CERT:**
- **Eudoxus:**
- **APELLA:**
- **ATLAS:**
- **PYXIDA:**
- **Single Digital Portal**

epresence.gr
diavlos.grnet.gr
academicid.minedu.gov.gr
fod.grnet.gr
cert.grnet.gr
eudoxus.gr
apella.minedu.gov.gr
atlas.grnet.gr
pyxida.grnet.gr
gov.gr

PROJECTS

GRNET coordinates or actively participates in more than 55 currently ongoing National, European and International projects for the development of infrastructures and services

- **Funding from national resources**, NSRF, RFF (Recovery and Resilience Facility) and European Funds
- Developing **partnerships at national and European level**. The extroversion of GRNET ensures user access to international research and educational technological infrastructure and services for the utilization of Information and Communication Technologies, with mutually beneficial synergies.
- **International recognition of GRNET know-how**

INTERNATIONAL COLLABORATIONS



European collaboration on e-infrastructures and services for Research and Education



Federated e-Infrastructure set up for the provision of advanced computing services



European Open Science Cloud



Collects, stores and provides access to data from the Sentinel satellites of the Copernicus Earth Observation program



Partnership for Advanced Computing in Europe



European Technology Platform for High Performance Computing



Integrating existing archeological data infrastructure across Europe to explore research methodologies



European Persistent Identifiers Service



The European Internet Exchange Association for strengthen and improve the Internet Exchange Point (IXP) community



Collaborative Data Infrastructure

National Infrastructures for Research and Technology
GRNET S.A.

CORPORATE PRESENTATION

STAY INFORMED

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