

**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 GEANT 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  
45 National and European Projects**



**Serves hundreds of thousand of users**

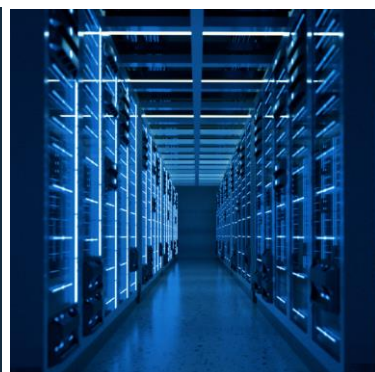


**Operates the optical fiber network 10.000 km**



## **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
- Nx**10 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



# GRNET's Contribution

01

improvement of **citizen's experience in receiving public services** through the implementation of the National Digital Strategy 2020-2025

02

constitution of a more **extroverted Greek Research and Education community**,

03

technology enhancement of the **Health sector**

04

enhancement of the **educational processes**

05

creation of **new models of cooperation** amongst public agencies, research and education communities, citizens and businesses.

# Users

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



grnet@government



grnet@education



grnet@research



grnet@health



grnet@culture



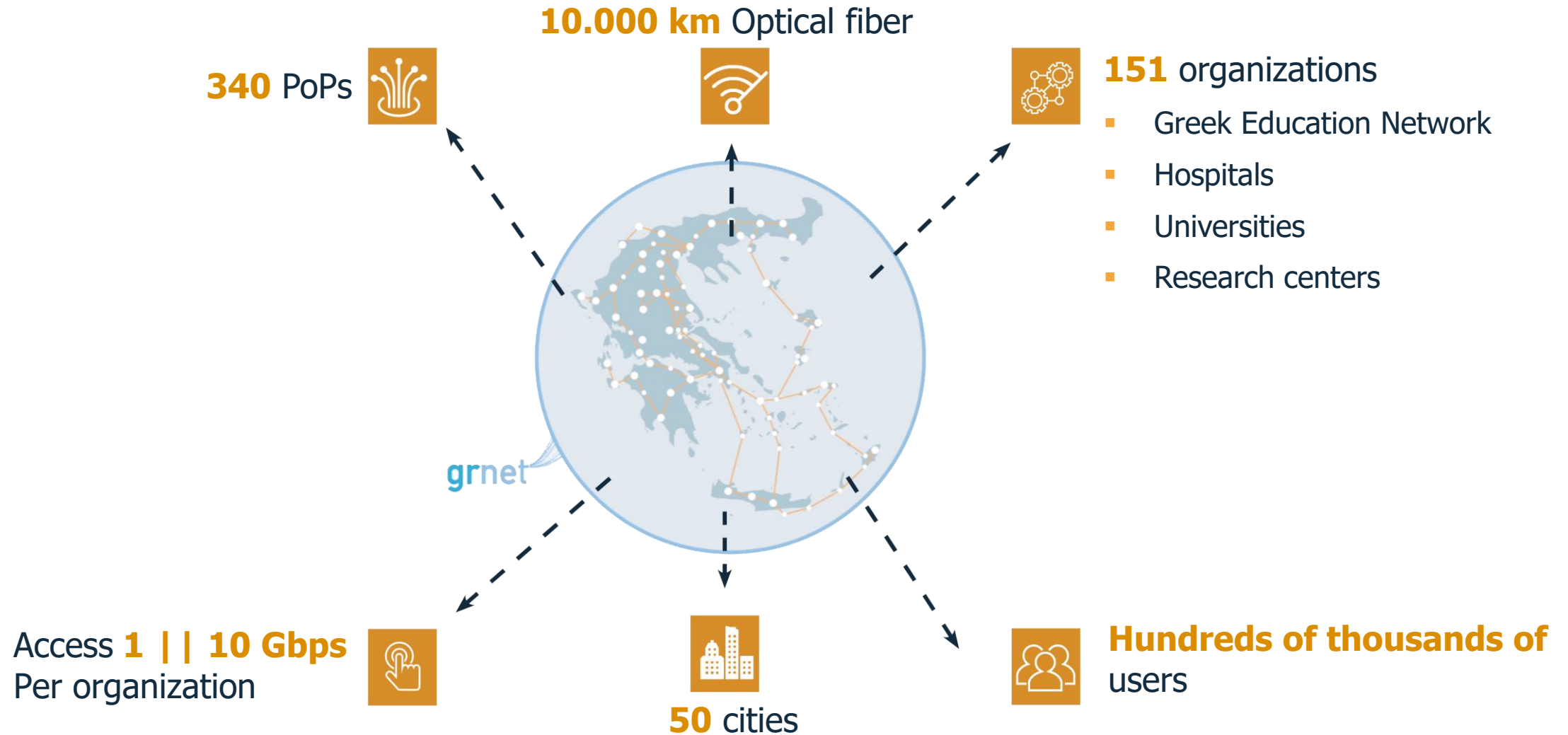
## Organizations and Institutions

- 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

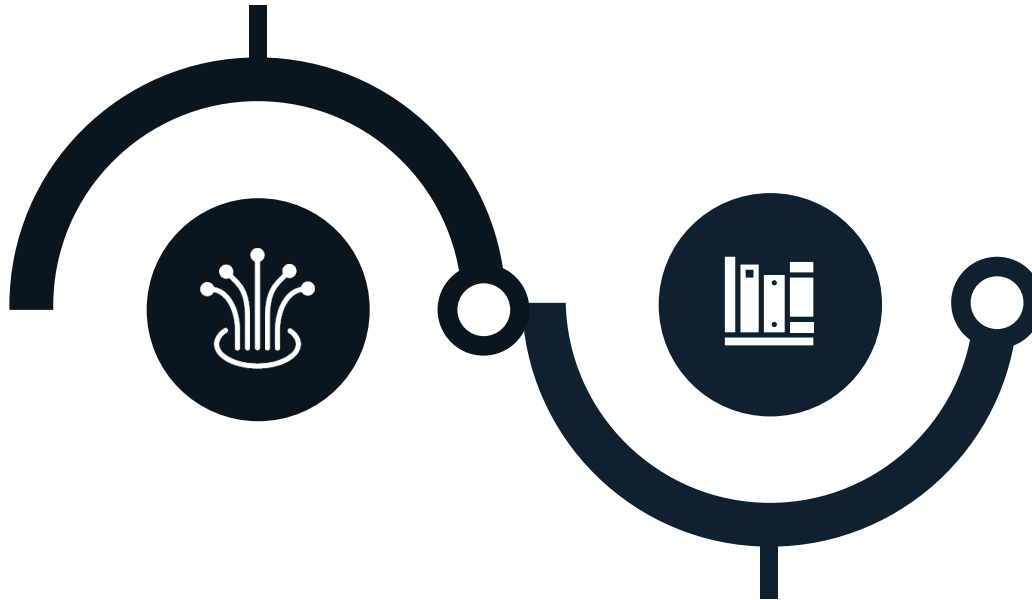




# e-Infrastructures & Services

## National optical fiber network

GRNET backbone infrastructure  
Connection to GRNET Network



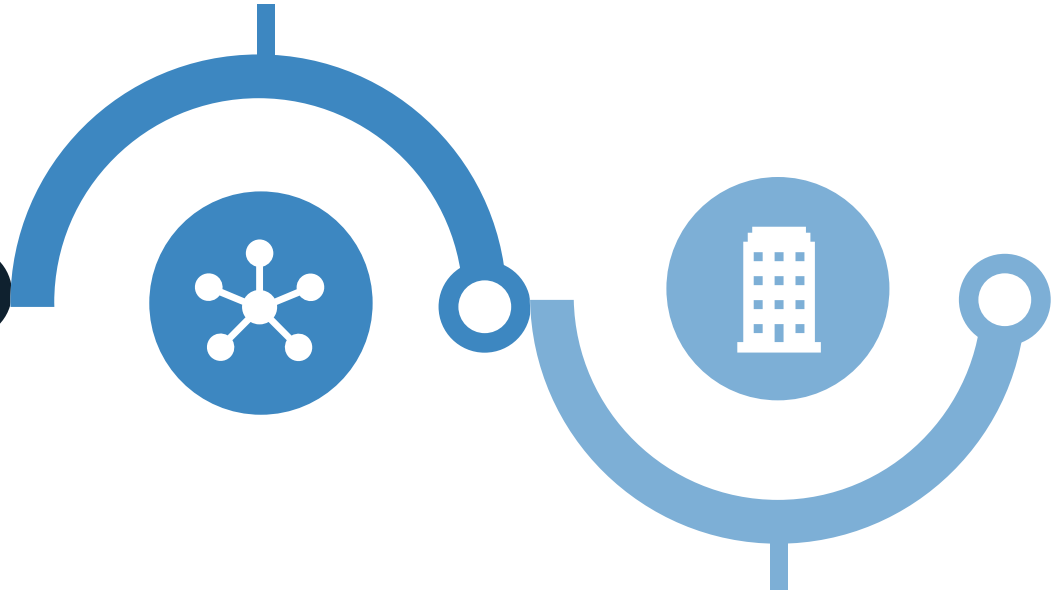
## HPC (High-Performance Computing)

HPC services to the Greek R&E community

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

## GR-IX: National infrastructure

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



## e-Infrastructures GRNET

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

# Computing Infrastructures

- **33.101** ~okeanos cloud users
- **6** data centers in 3 geographic locations
- **2.000** servers
- **11.500** active VMs
- **5.200** datacenter network ports in total
- **10.000** active cloud users
- An optical network of a maximum capacity of **1 Tbps** for the datacenters

Louros River, Arta



Heraklion, Crete



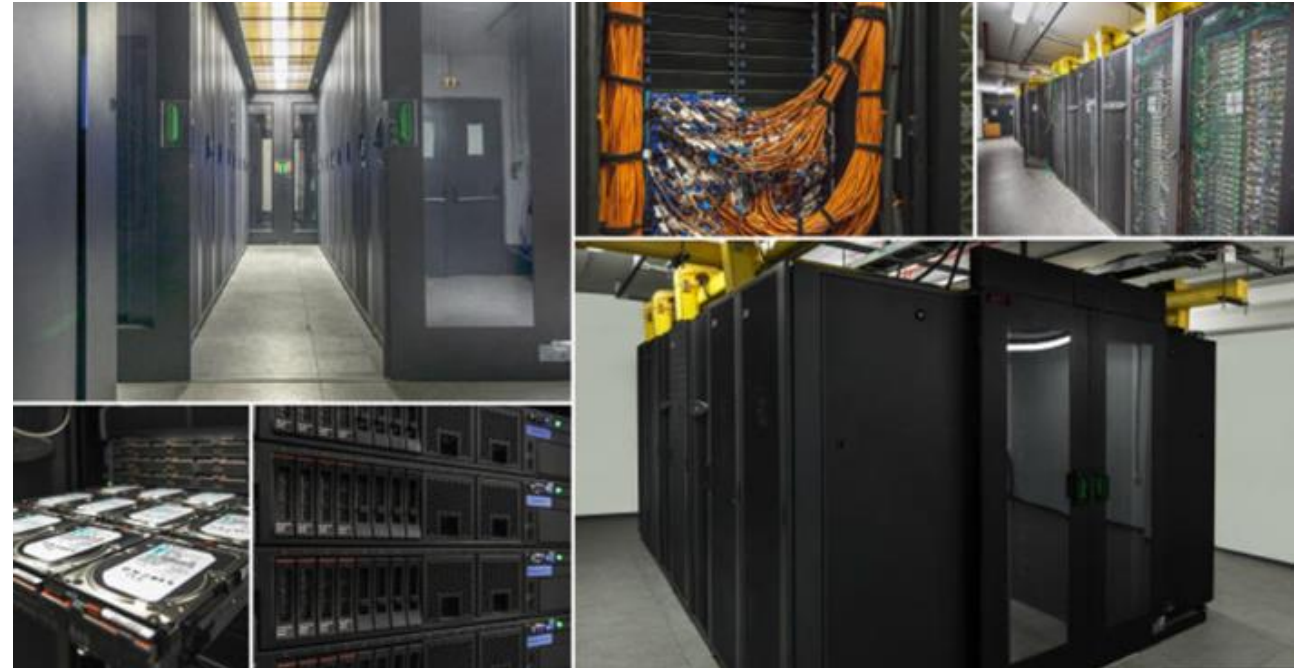
Ministry of Education, Marousi



# National HPC Infrastructure

## ARIS - HPC

- **5** computational islands, **535** compute nodes
- **2 PB** of storage space
- **535 TFlops** HPC Tier - 1 centre
- **1.100** HPC projects
- **58.200** core Years (510 million core Hours) during the last **7** years
- GRNET is a PRACE Training Center

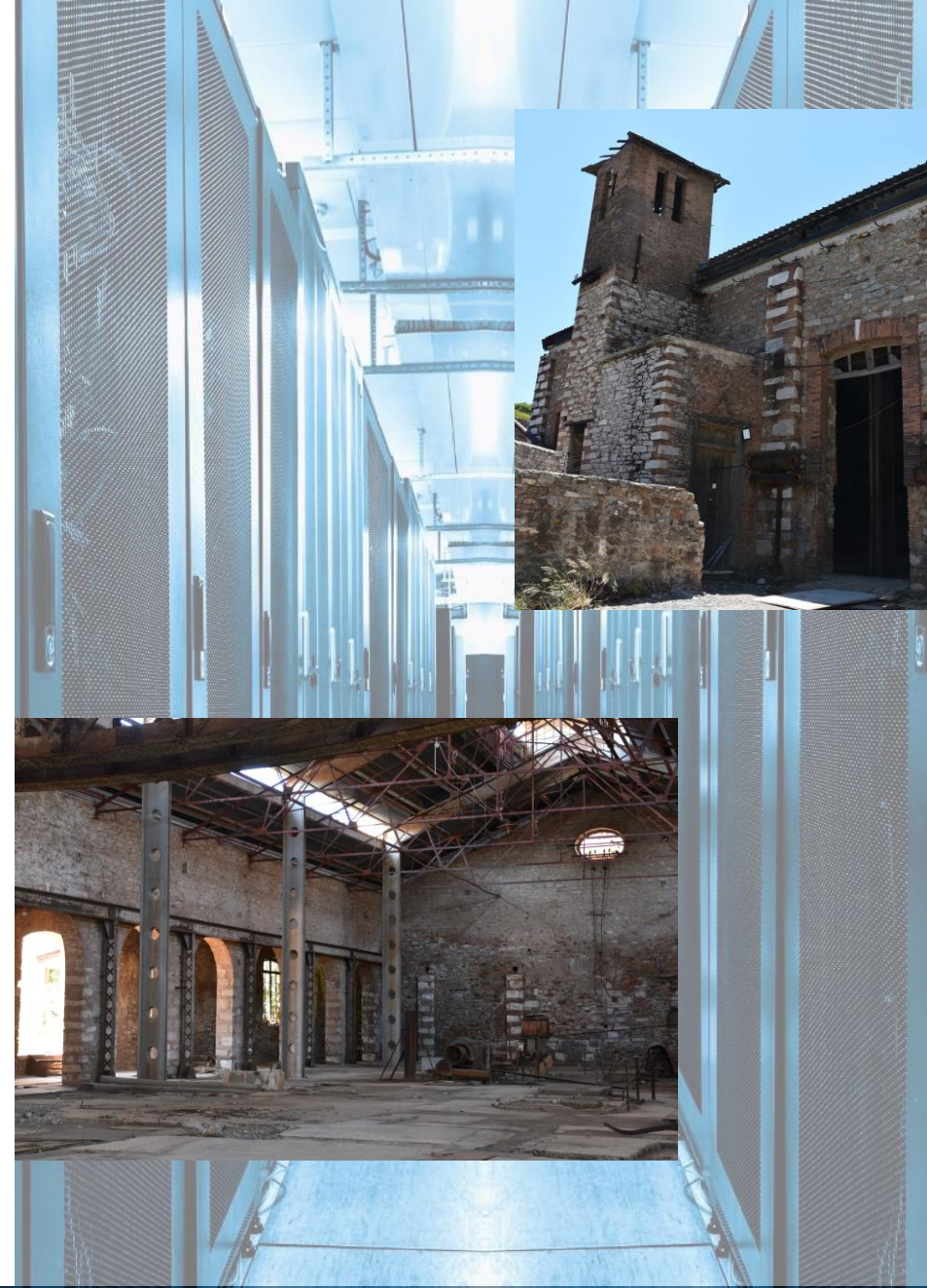




# New National Supercomputer

## DAEDALUS

- **2024** installation at the Lavrion Technological and Cultural Park
- **33M euros** Build Cost (30% EuroHPC, 70% «Greece 2.0»)
- **30** Petaflops power
- Low energy cost of operation (powered by renewable energy sources and cooled by environmental friendly technology)
- Support of scientific research and innovative SMEs/industry with high computational capacity



# GR-IX The Greek Internet Exchange

**GR-IX is an important national infrastructure that aims to help the growth of the Greek Internet as it interconnects all significant Internet players in Greece.**

With four POPs in Athens and Thessaloniki, GR-IX is the only Internet Exchange in Greece, GR-IX customers enjoy:

- Reduced telecommunication costs;
- Improved network connectivity in terms of speed, capacity, stability and resilience;
- Greater proximity to their traffic producers and consumers;
- New business opportunities and enhanced market position.



**CONNECT. PEER. EXPAND.**

POWERED BY **grnet**

# **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](http://hpc.grnet.gr)  
[okeanos.grnet.gr](http://okeanos.grnet.gr)  
[vima.grnet.gr](http://vima.grnet.gr)  
[gr-ix.gr](http://gr-ix.gr)  
[eduroam.gr](http://eduroam.gr)  
[diadosis.grnet.gr](http://diadosis.grnet.gr)  
[harmoni.grnet.gr](http://harmoni.grnet.gr)  
[bdr.gr](http://bdr.gr)  
[zeus.grnet.gr/zeus](http://zeus.grnet.gr/zeus)  
[eury-where.gr](http://eury-where.gr)

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

[epresence.gr](http://epresence.gr)  
[diavlos.grnet.gr](http://diavlos.grnet.gr)  
[academicid.minedu.gov.gr](http://academicid.minedu.gov.gr)  
[fod.grnet.gr](http://fod.grnet.gr)  
[cert.grnet.gr](http://cert.grnet.gr)  
[eudoxus.gr](http://eudoxus.gr)  
[apella.minedu.gov.gr](http://apella.minedu.gov.gr)  
[atlas.grnet.gr](http://atlas.grnet.gr)  
[pyxida.grnet.gr](http://pyxida.grnet.gr)  
[gov.gr](http://gov.gr)

# PROJECTS

---

GRNET coordinates or actively participates in more than 45 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**

---

GRNET facilitates the evolution and proliferation of research and technology, by offering opportunities to all its users to develop their academic and scientific activities.

Our teams of professionals collaborate with key partners, through national, European and international partnerships, adopt and advance state-of-the-art digital technologies, with the aim to support continuous growth and excellence for the benefit of the Greek society.



# 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

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  
Data shared and preserved across borders and disciplines

Collaborative Data  
Infrastructure

# **Advanced e-Infrastructures & Services**

## **for Public Administration**



# 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 for 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



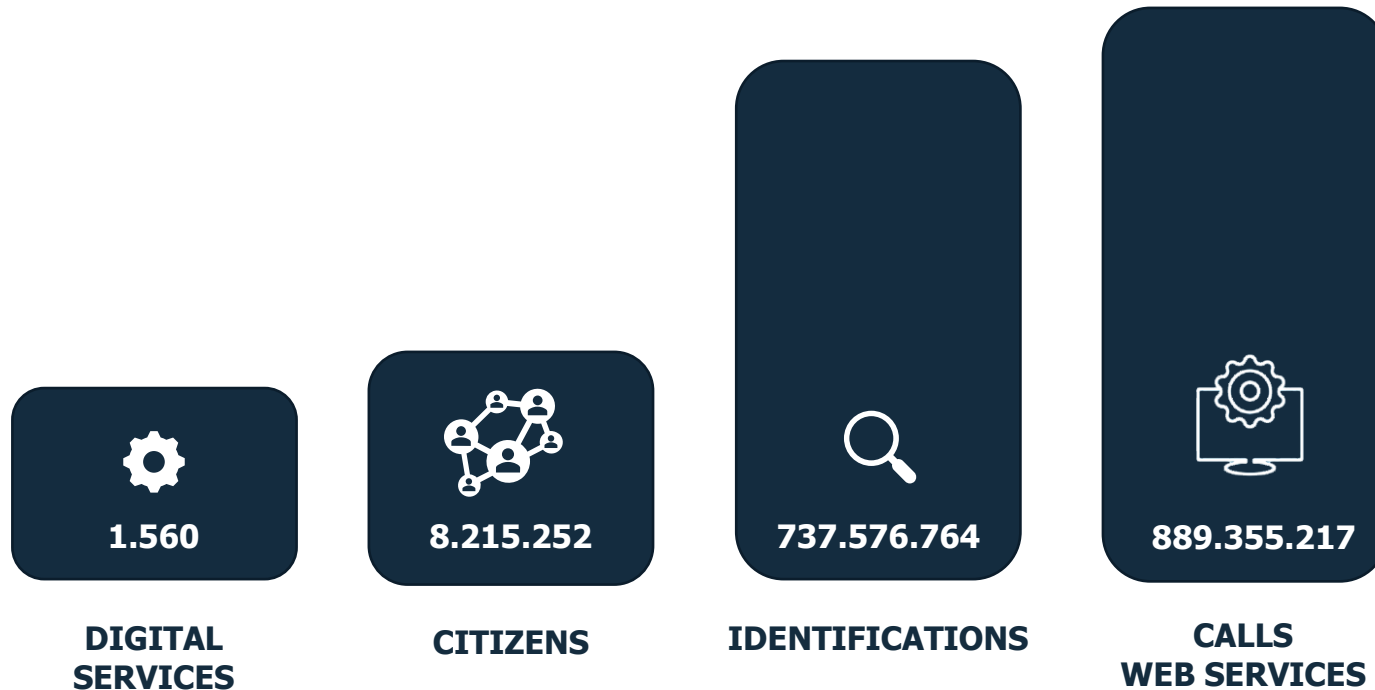
## Artificial Intelligence Strategy

- 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



# Single Digital Portal @gov.gr

Direct service to citizens and businesses  
in their daily transactions with the public  
sector

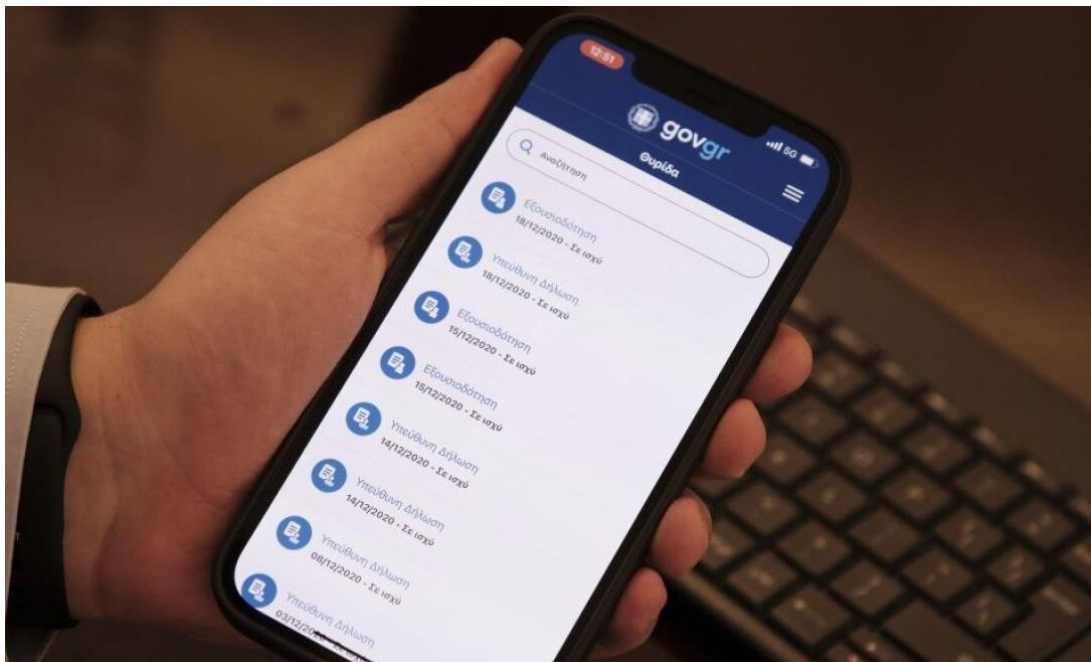


## Indicative Services gov.gr

- Formal Declaration
- Authorization Form
- Digital Signature of Private Contracts
- Naming of Minors (registry)
- EU Digital COVID Certificate
- Covid Free GR mobile app
- COVID-19 self-tests declaration
- Certificates about positive or negative COVID-19 test
- Platform edupass.gov.gr gr for issuing a COVID-19 student card for all public schools and academic entities
- Issuance of citizens' movement official forms during the COVID-19 pandemic
- University admission exams: information about the results by sms
- Digital graduation diplomas for graduates of high schools, lyceums and vocational lyceums

# Single Digital Portal @gov.gr

**Direct service to citizens and businesses  
in their daily transactions with the public  
sector**



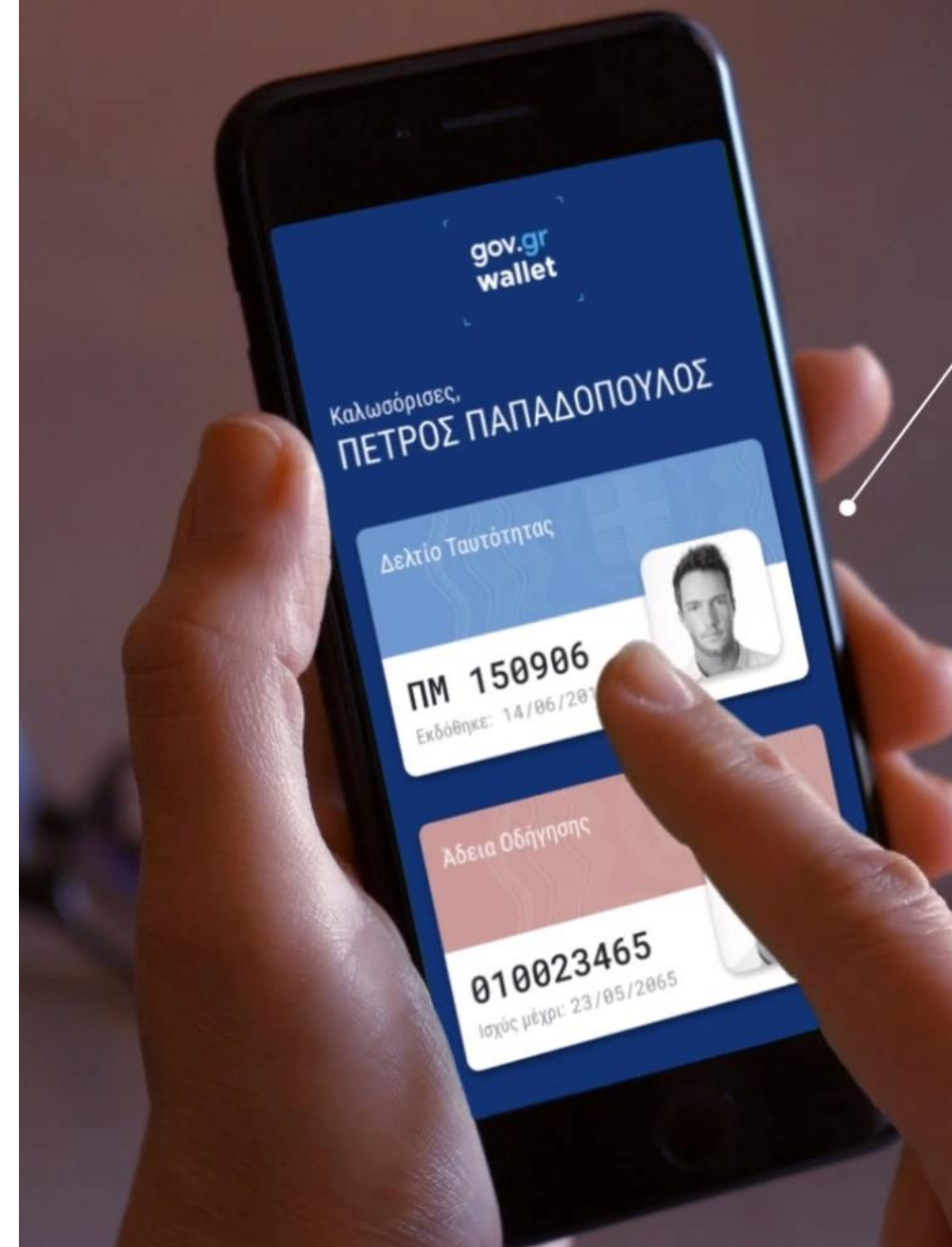
## Indicative Services gov.gr

- Copy of criminal record
- Application for the issuance and control of the validity of e-documents
- Application for issuing and downloading in e-form, of temporary driving license
- “MyAuto” service provides real-time access to all vehicle details and Open Car for finding information about vehicles

# Applications for citizens

## Gov.gr Wallet

- Gov.gr Wallet enables the creation, storage and control of new digital identity cards and digital driver's licenses.
- The new digital identity cards and driver's license are digital documents issued through gov.gr and are fully equivalent to paper documents, for any legal use within Greece.
- Implementation by GRNET, in cooperation with the Ministry of Digital Governance.





# Applications for citizens

## EU Digital COVID Certificate

- The EU Digital COVID Certificate can be used by citizens as a record of proof for vaccination, a diagnostic test result, or recovery from coronavirus.
- In Greece, the certificate will be issued through the gov.gr portal.
- Implementation by GRNET, in cooperation with IDIKA SA – e-Government Center for Social Security Services and the participation of the General Secretariat of Information Systems for Public Administration.

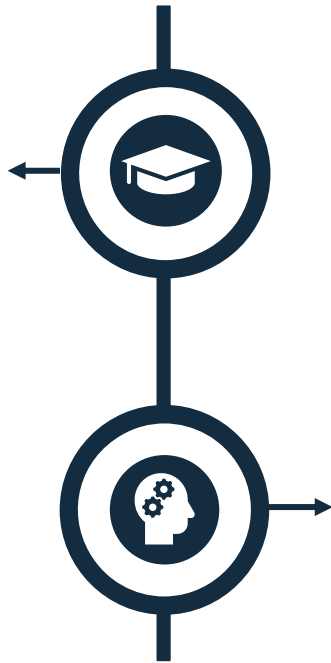


# Development of digital skills

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



# Development of digital skills

The National Academy for Digital Skills

[www.nationaldigitalacademy.gov.gr](http://www.nationaldigitalacademy.gov.gr) gathers

digital educational content for the development of citizens' digital skills and aims to act as the national portal for digital skills in the country.



**Εθνική Ακαδημία  
Ψηφιακών Ικανοτήτων**

## **299 Available Lessons / 38 Providers**

Courses according to the needs, interests and level of knowledge of each citizen through asynchronous education. Use of a self-evaluation tool and suggestions for personalized thematic chapters.

## **“Digital Citizen” Lessons**

Participation in the series of lessons ‘Digital Citizen’, consisting of five courses for the development of basic digital skills. The courses developed are based on the European Digital Competence Framework (DigiComp).

## **Initiatives**

Participation for citizens in awareness-raising, information and empowerment initiatives to cultivate digital culture and develop computational thinking.



# Awareness-raising initiatives

- Women



## Women in Tech

**Women in the Technology Sector: Today and in the Future**

[www.womenintechgreece.gr](http://www.womenintechgreece.gr)

An initiative that aims to raise awareness, inform and encourage women to pursue a career in the field of technology.

- Elderly



## 3η e-λικία

**Empowerment of the Elderly**

[www.3elikia.gr](http://www.3elikia.gr)

An initiative that aims to digitally empower citizens 65+. The program was launched in the municipalities of Florina, Kavala, Athinaion, Ioannina, Korydallos.

# **Advanced e-Infrastructures & Services**

## **for Education, Research, Health & Culture**



# Services in Research and Education

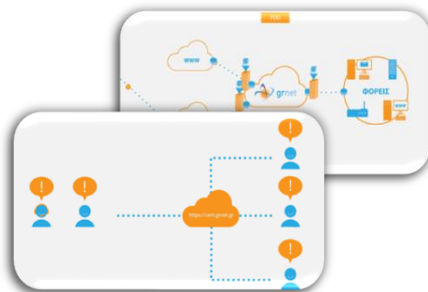
## ZEUS e-Voting



Computing system that ensures the fair conduct of digital private polls carried out remotely.

- **Total number of users:**  
**> 970.000**
- **Total number of polls:**  
**> 9.000**
- **Total number of institutions using ZEUS**  
**1.200**

## Security Services- Firewall on Demand (FoD)



The service enables users to mitigate active attacks aimed at their network equipment

- Computer Emergency Response Team (CERT)

GRNET provides incident response and security services, process, correlate and notify end users

## DELOS AAI



GRNET "Delos" Authentication and Authorization Infrastructure enables cross-institutional services by providing federated authentication and authorization among participating organizations.

## DIGITAL CERTIFICATES



Extra security and authentication of people, sites and data transfers



# Services in Research and Education

## ~okeanos Cloud Computing



Cloud Computing  
computational services.

- **Total number of users:**  
56.505 (~okeanos),  
2.725 (~okeanos  
knossos)
- **Educational Institutions  
for ~okeanos and  
~okeanos knossos: 50**

## National Academic ID



Service for the acquisition and  
management of the national  
academic ID.

- **Total number of users:**  
1.535
- **Active I.D.s: :~772.000**
- **Connected bodies : 60**

## Eudoxus



Electronic book distribution  
service to students.

- **Total number of users:**  
~1.000.000
- **Students per semester:**  
~250.000
- **Connected bodies: 28**
- **#Distributions: >2.1M  
(books) and >50M euro  
per academic year**

## APELLA



"Apella" facilitates the election  
and promotion of the faculty  
members of the Greek Academic  
Institutions.

- **Total number of users:**  
34.281
- **Connected bodies: 93**

# Services in Research, Education and Culture

## ATLAS



Centralized online service that creates a unique internship positions database.

- **Users: ~32.000**
- **Internship Host Organizations: & ~200.000**
- **Connected Organizations: 237**

## Student Housing Allowance



System for submitting and evaluating applications for the granting of the annual student housing allowance.

- **Total applications submitted: 334.903**
- **Total applications approved: 254.309, valued at 276.51M euro.**
- **Annual: ~55k applications, ~42k approved, ~42M euros.**

## e:Presence



Videoconference service for the official meetings of the Greek R&E community

- **Total number of Teleconferences: >380.000**
- **Participants: >149.000**

## ΔΙΑΥΛΟΣ



Live streaming service broadcasted through the GRNET state of the art e-Infrastructure

- **Registered users: 27.850**
- **Page views of the portal on ΔΙΑΥΛΟΣ Service: 3.7M views from 178 countries**
- **Connected bodies: 35**
- **> 2380 livestreams**
- **> 970 livestreamed e:Presence meetings**

# Services and e-Infrastructures in Health



## **Central Electronic Management Services for the National Registry Of Voluntary Blood Donors**

Managing the registry and issuing volunteer donor IDs through modern, credible and friendly procedures for blood donors, donation services and blood centers in the country.



## **Harmoni**

### **High-Performance Archiving and Retrieval of Medical On-line Imaging Data.**

High-Performance Archiving and Retrieval of Medical On-line Imaging Data.



## **eduroam**

### **World-wide roaming access service developed for the international research and education community**

eduroam allows students, researchers and staff from participating institutions to obtain Internet connectivity across campus and when visiting other participating institutions by simply opening their laptop.



## **DIADOSIS**

### **Inter-loan online library**

Electronic system which provides access to all research and medical publication papers via DELOS- Authentication & Authorization Infrastructure service, to all hospital staff



## **Central Staff Directory Service-DELOS for Hospitals**

"Delos" Authentication and Authorization Infrastructure enables cross-institutional services by providing federated authentication and authorization among participating organizations.



The background is a dark blue gradient. In the center, there is a glowing blue wireframe globe. Surrounding the globe are numerous small, bright blue particles and lines, creating a sense of motion and data flow. The overall aesthetic is high-tech and digital.

# **National and European Projects**

# EUROPEAN & INTERNATIONAL PROJECTS



## EuroCC -2

[www.eurocc-project.eu](http://www.eurocc-project.eu)

**Funding:** EUROHPC

**Duration:** 1/1/2023 - 31/12/2025

### National Competence Centers in the framework of EuroHPC

A joint initiative between the EU, European countries and private partners to develop a World Class Supercomputing Ecosystem in Europe, which will be reinforced by a European Network of HPC Expertise.



## EUMaster4HPC: European Master For High Performance Computing

[www/eumaster4hpc.uni.lu/](http://www/eumaster4hpc.uni.lu/)

**Funding:** Horizon 2020 Framework Programme

**Duration:** 01/01/2022 – 31/12/2025

The HPC European Consortium Leading Education Activities (EUMaster4HPC) aims to develop a new and innovative Master's program for the education and training in High Performance Computing (HPC). The master programme aims at catalysing various aspects of the HPC ecosystem and its applications into different scientific and industrial domains.



## GN5-1

[www.geant.org/Projects/](http://www.geant.org/Projects/)

Research and Education Networking – GÉANT

**Χρηματοδότηση:** HORIZON 2020

**Διάρκεια:** 01/01/2023 – 31/12/2024

GN4-3N's mission is to provide faster, more resilient and secure connectivity infrastructure and collaboration services to enable researchers and students' access to applications that support evidence-based and effective collaboration across virtual research teams, worldwide.



# EUROPEAN & INTERNATIONAL PROJECTS



## HellasQCI - Quantum Communication Infrastructure for Greece

**Funding:** 50% EU, 50% National Funds

**Duration:** 1/1/2023 – 30/6/2025

HellasQCI, part of the European EuroQCI network, will contribute to the safeguarding of sensitive data and infrastructures, such as in government institutions, health structures, banking systems, and many more critical infrastructures. GRNET is the coordinator of the project, in collaboration with 13 partners.



## EUROQCI

<https://digital-strategy.ec.europa.eu/euroqci>

**Funding:** Digital Europe Programme

**Duration:** 1/10/2022 – 31/3/2025

The EuroQCI will safeguard sensitive data and critical infrastructures by integrating quantum-based systems into existing communication infrastructures, providing an additional security layer based on quantum physics. It will reinforce the protection of Europe's governmental institutions, their data centres, hospitals, energy grids, and more, becoming one of the main pillars of the EU's Cybersecurity Strategy for the coming decades.



# EUROPEAN & INTERNATIONAL PROJECTS



**DCoMex**

[www.grnet.gr/dcomex](http://www.grnet.gr/dcomex)

**Funding:** HORIZON 2020

**Duration:** 01/04/2021 – 31/03/2024

**Data Driven Computational Mechanics at EXascale**

DCoMEX aims to provide unprecedented advances to the field of Computational Mechanics by developing novel numerical methods enhanced by Artificial Intelligence, along with a scalable software framework that enables exascale computing.



**SmartAttica AtHeNAI**

[www.smartattica.eu/](http://www.smartattica.eu/)

**Funding:** Digital Europe Programme, 2021 – 2027

**Duration:** 1/1/2023 - 31/12/2025

SmartAttica AtHeNAI aims to accelerate the transition to the digital transformation of businesses and public administration through artificial intelligence (AI) technologies.



**iMAGINE**

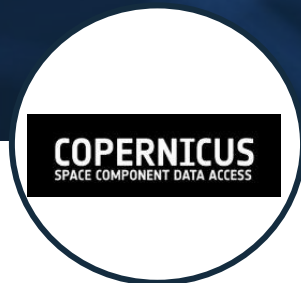
[www.imagine-h2020.eu](http://www.imagine-h2020.eu)

**Funding:** HORIZON - INFRA

**Duration:** 01/9/2022 - 31/8/2025

iMagine aims to improve the interoperability and analysis of imaging data from different scientific fields as well as the wider use of AI-based image analysis services.

# EUROPEAN & INTERNATIONAL PROJECTS



## Copernicus Space Component Data Access Bridge

**Funding:** European Space Agency (ESA)

**Duration:** 01/02/2021 – 30/09/2023

The project concerns the access of international organizations and users across the globe to the European programme Copernicus data. It aims to provide (a) the continuity of the different data access services currently running in ESA Copernicus operations framework, and (b) expansion of access services.



## C-SCALE

[www.c-scale.eu](http://www.c-scale.eu)

**Funding:** HORIZON 2020

**Duration:** 01/01/2021 – 30/06/2023

### Copernicus - eoSC AnaLytics Engine

The C-SCALE project aims to federate European EO infrastructure services, such as the Copernicus DIAS and others. The federation shall capitalise on the European Open Science Cloud's (EOSC) capacity and capabilities to support Copernicus research and operations with large and easily accessible European computing environments.

# EUROPEAN & INTERNATIONAL PROJECTS



## **NI4OS-Europe** [www.ni4os.eu](http://www.ni4os.eu)

**Funding:** HORIZON 2020  
**Duration:** 01/09/2019 - 28/02/2023

### **National Initiatives for Open Science in Europe**

Support the development and inclusion of the national Open Science Cloud initiatives in 15 Member States and Associated Countries in the EOSC governance.



## **DICE** [www.dice-eosc.eu/](http://www.dice-eosc.eu/)

**Funding:** HORIZON 2020  
**Duration:** 01/01/2021 - 30/06/2023

### **Data Infrastructure Capacity for EOSC**

DICE aims to enable a European storage and data management infrastructure for EOSC, providing generic services and building blocks to store, find, access and process data in a consistent and persistent way.



## **EGI-ACE** [www.egi.eu/projects/egi-ace/](http://www.egi.eu/projects/egi-ace/)

**Funding:** HORIZON 2020  
**Duration:** 01/01/2021 - 30/06/2023

### **Advanced Computing for EOSC**

The project aims to implement the European Open Science Cloud (EOSC) Compute Platform and contribute to the EOSC Data Commons by delivering integrated computing platforms, data spaces and tools as an integrated solution that is aligned with major European cloud federation projects and HPC initiatives.



# EUROPEAN & INTERNATIONAL PROJECTS



## OpenAIRE Nexus

[www.openaire.eu](http://www.openaire.eu)

**Funding:** HORIZON 2020  
**Duration:** 01/01/2021 - 30/06/2023

### Scholarly Communication Services for EOSC users

The project will provide European advanced communication services, as a means of implementing open science initiatives.



## EOSC Future

[www.eoscfuture.eu](http://www.eoscfuture.eu)

**Funding:** HORIZON 2020  
**Duration:** 01/04/2021 - 30/06/2023

EOSC Future aims to promote EOSC portal and unlock the potential of European research via a vision of Open Science for Society. EOSC Future will interconnect and integrate digital infrastructures, Open Science national initiatives and research communities to EOSC, aiming to further enhance the EOSC Portal, EOSC-Core and EOSC Exchange.



## FAIRCORE4EOSC

<https://faircore4eosc.eu/>

**Funding:** HORIZON Europe Framework Programme  
**Duration:** 1/6/2022 - 31/5/2025

The FAIRCORE4EOSC project focuses on the development and realisation of core components for the European Open Science Cloud (EOSC). Supporting a FAIR EOSC and addressing gaps identified in the Strategic Research and Innovation Agenda (SRIA). Leveraging existing technologies and services, the project will develop nine new EOSC-Core components aimed to improve the discoverability and interoperability of an increased amount of research outputs.

# EUROPEAN & INTERNATIONAL PROJECTS



## CRAFT-OA

<https://www.craft-oa.eu/>

**Funding:** Horizon

**Duration:** 1/1/2023 - 31/12/2025

CRAFT-OA (Creating a Robust Accessible Federated Technology for Open Access) aims to make the Open Access landscape more resilient by centralising expertise, collaboration and a joint visibility/indexing layer.



## Blue-Cloud 2026

<https://blue-cloud.org/>

**Funding:** HORIZON - INFRA

**Duration:** 1/1/2023 - 30/6/2026

Blue-Cloud project aims to provide a virtual environment with open and seamless access to services for storage, management, analysis and re-use of research data, across borders and disciplines, and the blue research communities by developing a collaborative web-based environment providing simplified access to an unprecedented wealth of multi-disciplinary datasets from observations, analytical services, and computing facilities essential for blue science.



## GraspOS

<https://www.graspos.eu/>

**Funding:** HORIZON

**Duration:** 1/1/2023 - 31/12/2025

GraspOS project aims to develop, assess and operate an open and trusted federated infrastructure for next generation research metrics and indicators, offering data, tools, services and guidance.

# EUROPEAN & INTERNATIONAL PROJECTS



## Skills4EOSC

[www.grnet.gr/en/skills4eosc/](http://www.grnet.gr/en/skills4eosc/)

**Funding:** Horizon Europe Programme, European Research Executive Agency

**Duration:** 01/09/2022 - 31/08/2025

The Skills4EOSC project aims to create a pan-European network of Competence Centers (CC) in order to accelerate the upskilling of European researchers and harmonise the training of new professionals for managing scientific data.



## eSSIF-Lab

[www.essif-lab.eu](http://www.essif-lab.eu)

**Funding:** H2020/ICT

**Duration:** 01/11/2019 - 30/10/2022

### **Working for development, integration and adoption of Self-Sovereign Identities (SSI) technologies**

Aims at advancing the broad uptake of Self-Sovereign Identities (SSI) as a next generation, open and trusted digital identity solution for faster and safer electronic transactions via the Internet and in real life.



## Synthesis+

[www.synthesys.info](http://www.synthesys.info)

**Funding:** HORIZON 2020

**Duration:** 01/02/2019 - 31/01/2023

### **Synthesis of systematic resources**

SYNTHESYS aims to produce an accessible, shared, high quality approach to the management, preservation and access integrated European resource to leading European natural history collections for research users in the natural sciences.

# EUROPEAN & INTERNATIONAL PROJECTS



## ACROSS

[www.across-h2020.eu](http://www.across-h2020.eu)

**Funding:** HORIZON 2020

**Duration:** 01/02/2021 - 31/01/2024

### **Towards user journeys for the delivery of cross-border services ensuring data sovereignty**

The project focuses on the mobility of citizens between EU Member States and aims to support them in aligning and fulfilling their obligations under the Single Digital Gateway Regulation.

The logo for the ELEDGER project, featuring the word "ELEDGER" in blue and black capital letters, all contained within a white circle.

## ELEDGER

[www.grnet.gr/en/eledger/](http://www.grnet.gr/en/eledger/)

**Funding:** Innovation and Networks Executive Agency (INEA), EU

**Duration:** 01/04/2021 – 31/03/2023

### **Hellenic Distributed Ledger Technology Infrastructure**

The project aims at establishing a solid pillar for the development and spreading of the European Blockchain Partnership (EBP) initiative in Greece and supporting the participation and contribution of Greek stakeholders to the European Blockchain Service Infrastructure (EBSI).



## ICT-AGRI-FOOD

[www.ictagrifood.eu](http://www.ictagrifood.eu)

**Funding:** H2020/ERA-NET

**Duration:** 10/01/2019 - 30/09/2024

Supporting the development and implementation of new technologies for a competitive, sustainable and environmentally friendly agriculture.



# EUROPEAN & INTERNATIONAL PROJECTS



## interTwin

<https://www.intertwin.eu/>

**Co-designing and prototyping an interdisciplinary Digital Twin Engine.**

**Funding:** HORIZON-INFRA

**Duration:** 01/09/2022 - 31/8/2025

interTwin is an EU-funded project with the goal to co-design and implement the prototype of an interdisciplinary Digital Twin Engine – an open source platform based on open standards that offers the capability to integrate with application-specific Digital Twins.

Its functional specifications and implementation are based on a co-designed interoperability framework and conceptual model of a DT for research – the DTE blueprint architecture.

## SUBMERSE

## SUBMERSE

<https://www.fccn.pt/submerse/>

**Funding:** HORIZON

**Duration:** 22/12/2022 - 22/12/2025

The SUBMERSE project is characterized as a consortium of European and global partners, supported by the European Union's Horizon Europe program, which launched in early May the "SUBMarine cablEs for ReSearch and Exploration" (SUBMERSE) program, aiming to make available to the scientific community, civil society and industry, data from continuous observations on several submarine fiber optic cables, using a standardized technological configuration on a continental scale.

## e-Safety & e-Creativity

## e-Safety & e-Creativity

**e-Safety & e-Creativity Network for Teachers, Parents/Guardian & Professionals**

**Funding:** ERASMUS+

**Duration:** 31/12/2022 - 30/12/2025

eSafety-eCreativity Network for Teachers, Parents & Guardians project includes the design and implementation of a holistic learning network, to support Digital Readiness with the aim of strengthening the safety, responsibility and confidence of children, young people and adults in relation to new digital technologies.

# EUROPEAN & INTERNATIONAL PROJECTS



## DC4EU

<https://www.dc4eu.eu/>

### DIGITAL CREDENTIALS FOR EUROPE

**Funding:** Digital Europe

**Duration:** 30/12/2022 – 30/12/2024

DC4EU aims to contribute in creating a hybrid paradigm where citizens will own and directly share their data through explicit consent, supporting and enhancing free movement of citizens with various entitlement documents in the social-security domain and student/staff mobility for both identity and records.

## TRACE4EU

**Funding:** Digital Europe

**Duration:** 30/12/2022 – 30/12/2024

TRACE4EU aims to create an umbrella architecture based on existing EBSI services. The architecture builds the basis for the implementation of traceability application scenarios. The Pilot will be aligned with the EU Digital Wallet and related qualified trust services. TRACE4EU promotes recommendations for developing the EBSI ecosystem through engagement with pan-European stakeholders and has the potential to significantly influence traditional industries, assisting them in becoming more efficient, productive, competitive, and resilient.



## POTENTIAL

<https://www.digital-identity-wallet.eu/>

**POTENTIAL builds and realizes applications for testing the European Digital Identity Wallet launched by the European Commission.**

**Funding:** Digital Europe

**Duration :** 30/12/2022 – 30/12/2024

POTENTIAL aims to shape and realize scenarios for testing the European Digital Identity Wallet being launched by the European Commission. POTENTIAL launches six use cases in the fields of banking, mobility, health, and administration to pilot the usage of the European Digital Identity Wallet, offering several benefits.

# EUROPEAN & INTERNATIONAL PROJECTS



## EBSI-NE

<https://ec.europa.eu/EBSI/Home>

**Funding:** Digital Europe

**Duration:** 30/12/2022 – 30/12/2024

EBSI-NE aims to support the development and adoption of the European Blockchain Service Network (EBSI), within the framework of the European Commission's call "Accelerating Best Use of Technologies".



## EBSI-VECTOR

<https://ec.europa.eu/EBSI/VECTOR>

**Funding:** Digital Europe

**Duration:** 30/12/2022 – 30/12/2024

EBSI's Verifiable Credentials Framework is a full framework for expressing, exchanging, and verifying information, using a new information format (W3C Verifiable Credentials), digital wallets, and the blockchain to establish trust.



## EWC

<https://eudiwalletconsortium.org/>

## EU Digital Wallet Consortium (EWC)

**Funding:** Digital Europe

**Duration:** 30/12/2022 – 30/12/2024

The EU Digital Wallet Consortium (EWC) is a joint effort to successfully leverage the benefits of the proposed EU digital identity in the form of Digital Travel Credentials across the Member States. The EWC intends to build on the Reference Wallet Application to enable a use case focused on Digital Travel Credentials.

# NATIONAL PROJECTS



## National Blood Donation System

**Electronic Services for the National Blood Donation System**

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020

**Duration:** 1/9/2019 - 31/12/2023

With the project "Upgrading the information system and organization of the National Blood Donation System" the overall management of blood and its derivatives will be upgraded.



## National Blood Donation System

**Supply of blood donation information system software based on the use of internet technologies**

**Funding:** «REFORMATION of PUBLIC SECTOR» 2014-2020

**Duration:** 03/06/2019 - 31/10/2023

The implementation of the project aims is to substantially upgrade the organization and computerization of the National Blood Donation System.



## MACHAON

**[www.grnet.gr/en/mahaon/](http://www.grnet.gr/en/mahaon/)**

**Funding:** NSRF 2014-2020

**Duration:** 01/07/2020 - 30/06/2023

**Provision of advanced network-computing services to hospital units in a cloud computing environment**

Machaon aims to support clinical work, strengthen the research work of medical staff and improve the competitiveness of the health sector through the upgrade of the technological infrastructure in 129 public hospitals and health structures in the country.



# NATIONAL PROJECTS



## HEPHAESTUS

[www.grnet.gr/en//hephaestus/](http://www.grnet.gr/en//hephaestus/)

**Funding:** NSRF 2014-2020, Operational Program - Competitiveness, Entrepreneurship and Innovation  
**Duration:** 01/10/2017 – 31/10/2023

The Hephaestus project provides all Greek academic and research institutions with advanced network e-Infrastructures & Services.



## ELIXIR-GR

[www.grnet.gr/en/elixir-gr/](http://www.grnet.gr/en/elixir-gr/)

**Funding:** NSRF 2014-2020  
**Duration:** 01/01/2017 - 30/6/2023

ELIXIR-GR enhances the potential of the Greek bioinformatics community to offer open, easily accessible and state -of- the- art services to the Greek and the international academic community and other stakeholders, such as industry and the health sector.



## HELIX

[www.grnet.gr/en/helix/](http://www.grnet.gr/en/helix/)

**Funding:** NSRF 2014-2020  
**Duration:** 01/01/2017 - 31/07/2023

### National e-Infrastructures for Research

The project aims at expanding / upgrading and making available for use by the national research infrastructures the NNCRI (National Network and Computational Research Infrastructure), OpenAIRE-D and HELNET, as listed under the consolidated title National Digital Infrastructures for Research (HELIX) in the National Roadmap for Research Infrastructures.

# NATIONAL PROJECTS



## Upgrade of National HPC System "ARIS"

**Funding:** Operational Program "Attica 2014-2020" and the Priority Axis "Dissemination and Development of Innovative Products and Services of SMEs using ICT"

**Duration:** 01/01/2022 - 31/12/2023

GRNET's existing HPC system will be upgraded with additional high performance computing equipment at the existing Data Center. ARIS HPC will continue to support the scientific applications which have special requirements regarding the speed of executing calculations, the storage space and memory capacity in various scientific fields of the Greek scientific community.



## DAEDALUS

**[www.grnet.gr/en/daedalus/](http://www.grnet.gr/en/daedalus/)**

**Funding:** Joint Undertaking/ EU / Recovery And Resilience Facility (RRF) Greece 2.0 – NextGenerationEU

**Duration:** 01/06/2022 - 31/12/2029

DAEDALUS will serve a wide range of Greek and European users of the scientific and academic community, the industry and public sector. Anticipated to boost the development of new applications in a wide range of research fields such as Computational Chemistry, Physics, Biology, Biomedicine, Meteorology, Artificial Intelligence.

# NATIONAL PROJECTS

Leasing fiber  
optic  
infrastructure  
IRU

## Leasing fiber optic infrastructure

**Funding:** Recovery And Resilience Facility (RRF)  
Greece 2.0 – NextGenerationEU  
**Duration:** 17/05/2021- 16/05/2025

The Project "Granting GRNET for the purpose of leasing fiber optic infrastructure" involves a new lease and the upgrade of the existing network infrastructure so that entities connected to the GRNET network, continue to be provided with relevant services.

Upgrade of the  
software and  
cloud computing  
services - Cloud

## Cloud Upgrade

**Funding:** Recovery And Resilience Facility (RRF)  
Greece 2.0 – NextGenerationEU  
**Duration:** 01/06/2022 - 31/12/2025

Expansion of GRNET's existing cloud computing infrastructure and services in order to offer advanced services to members of the research and academic community it serves.



# NATIONAL PROJECTS



## EVIA SAMOS PASS

**Funding:** Public Investments Program

**Duration:** 08/06/2022 -31/12/2022

**Digital debit cards in order to support Tourism in North Evia and Samos areas.**

North Evia-Samos Pass is a project that supports domestic tourism in Samos and North Evia, areas affected by natural disasters. The total budget of the project to support these regions amounted to over 6M euros.



## WHITE AREAS

**[www.grnet.gr/en//white-areas/](http://www.grnet.gr/en//white-areas/)**

**Funding:** Public Investments Program

**Duration:** 01/01/2021 - 31/12/2023

**National Access to TV stations of national coverage for permanent residents of areas without TV coverage**

The aim of the project is to provide television coverage to households even in the most remote continental and island regions of the country, which have specific geomorphological characteristics.



## TRANSPORTATION EQUIVALENT

**Funding:** Public Investments Program of Secretariat General for the Aegean and Island Policy of the Ministry of Maritime Affairs, Islands and Fisheries

**Duration:** 1/1/2022 - 31/12/2024

**Further operations for Development of the Information System for the Implementation of the Transportation Equivalent**

# NATIONAL PROJECTS



**EUGO**

<https://grnet.gr/eu-go/>

**Point of Single Contact for European citizens  
and businesses**

**Funding:** YourEurope

**Duration:** 01/12/2021 - 31/12/2025

The portal "EUGO" is the central point of contact for the flexible, friendly service of Greek and European citizens and businesses wishing to do business in Greece. It provides, easily and quickly, complete information on the regulatory framework, procedures, costs and applications that must be submitted to the competent bodies for establishing a business in Greece or for the provision of services cross-border.



**MITOS**

<https://mitos.gov.gr/>

**National Registry of Administrative Public  
Services**

**Funding:** European Regional Development Fund

**Duration:** 01/03/2020 - 31/12/2023

The project concerns the upgrading and expansion of the functions of the National Register of Administrative Public Services, in order to strengthen and expand its existing functionality. MITOS is the central information system in which the administrative procedures of the State are recorded, standardized and updated. The aim is that MITOS will be the single point of reference for all procedures regarding the Public Administration.

# NATIONAL PROJECTS



## National Disability Benefits Portal

**Funding:** Recovery And Resilience Facility (RRF)  
Greece 2.0 – NextGenerationEU  
**Duration:** 01/09/2022- 31/12/2025

Development of an information system by GRNET which shall become the central service and information hub for people with disabilities.



## Extension of the EUDOXOS electronic service

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020  
**Duration:** 18/11/2021- 31/12/2023

Expansion and upgrade of EUDOXOS service that will improve the process of distributing academic textbooks to students of all Universities and Academic bodies in Greece.



## Extension of the APELLA electronic service

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020  
**Duration:** 01/06/2021-31/12/2023

Expansion and upgrade of APELLA service with the aim to support staff selection procedures in entities such as research centers and technological bodies following procedures similar to those followed by Universities, in order to cover their needs.



# NATIONAL PROJECTS



## Extension of the ATLAS electronic service

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020  
**Duration:** 18/11/2021- 31/12/2023

Upgrade of the "ATLAS" service in order to strengthen access to employment and student's first working experience through internships in companies or bodies of the public/wider public sector and/or other bodies.



## Expansion of the electronic service for the granting of housing benefit

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020  
**Duration:** 15/12/2021- 31/12/2023

Expansion of the existing electronic service for the granting of housing allowance to students in order to improve the process of submitting an application, evaluating an application and granting the housing allowance, reducing bureaucracy and enhancing transparency.



## Extension of the electronic service for obtaining Academic Identity Card

**Funding:** «REFORMATION of PUBLIC SECTOR»  
2014-2020  
**Duration:** 05/08/2021- 31/12/2023

Expansion of the existing electronic service for the Academic Identity Card acquisition in order to make it more user-friendly for the members of the academic and research community, facilitating their daily activities.

**National Infrastructures for Research and Technology**  
**GRNET S.A.**

**CORPORATE PRESENTATION**

**STAY INFORMED**

[www.grnet.gr](http://www.grnet.gr)

**FOLLOW US**

 **grnet.gr**

 **grnet\_gr**

 **grnet sa**

 **grnet edyte**

 **grnet.gr**