



#### The Greek National Registry of Procedures Iraklis Varlamis

National Infrastructures for Research and Technology (GRNET), Athens, Greece





### A few words about GRNET

GRNET: National Infrastructures for Research and Technology <a href="https://grnet.gr/en/">https://grnet.gr/en/</a>

- Status: state-owned company established in 1998, operating under the auspices of the Greek Ministry of Digital Governance.
- Mission: to offer cutting-edge technologies, solutions, infrastructures and specialized expertise to various fields: Public Administration, Education, Research, Health and 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)

#### **Organizations and Institutions**

- 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





#### r Highlights: e-Infrastructures & Services

- Nationwide Optical Network Ultra High Speed
- Data Centers
- Computational and Storage infrastructure
- High Performance Computing (HPC) infrastructures
- Interconnection Provider GR-IX
- Interface with international Internet / GÉANT
- Backbone network for the School Network
- Fiber optic connections to 31 hospitals, with more to follow- includes wifi access

HPC-ARIS:	hpc.grnet.gr
~okeanos:	okeanos.grnet.gr
ViMa:	vima.grnet.gr
GR-IX:	gr-ix.gr
eduroam:	eduroam.gr
DIADOSIS:	diadosis.grnet.gr
Harmoni:	harmoni.grnet.gr
Blood Donor Registry:	bdr.gr
ZEUS:	zeus.grnet.gr/zeus
Eury-where:	eury-where.gr

- Cloud Computing (~okeanos)
- High Performance Computing
- PITHOS (Storage Service)
- University Books (EUDOXUS)
- Academic Identity Card
- Faculty eVoting-ZEUS
- e:Presence / Teleconference
- Web Casting Live streaming scientific & cultural events
- Hospital Services imaging backup service, eduroam/edugain access to publications

e:Presence: DIAVLOS: Academic IDs: FoD: Security CERT: Eudoxus: APELLA: ATLAS: PYXIDA: Single Digital Gateway for eGovernance

Services

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





## International collaborations



Indicative key e-Infrastructures and international collaborations GRNET is actively part of:

- **GÉANT**: European collaboration on e-infrastructures and services for Research and Education
- **PRACE**: Partnership for Advanced Computing in Europe
- ARIADNE Foundation: Integrating existing archeological data infrastructure across Europe to explore research methodologies
- **COPERNICUS Data Hubs**: Collects, stores and provides access to data from the Sentinel satellites of the Copernicus Earth Observation program
- EGI.eu: Federated e-Infrastructure set up for the provision of advanced computing services for Research and Innovation
- EUDAT CDI: Collaborative Data Infrastructure
- **ETP4HPC**: European Technology Platform for High Performance Computing
- EPIC: European Persistent Identifiers Service
- EURO-IX: The European Internet Exchange Association for strengthen and improve the Internet Exchange Point (IXP) community







## EU Projects related to E-government



## ACROSS: https://across-h2020.eu/

Towards user journeys for the delivery of cross-border services ensuring data sovereignty Funding: HORIZON 2020 – Duration: 01/02/2021 - 31/01/2024

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.



#### **GR-DigiGov-InnoHub:** Innovation Hub for Digital Government Funding: Digital Europe Programme – Duration: 01/09/2022 - 31/08/2024 The project aims for the development of a new generation of Public Services for the Central Administration, the Local Governments, and the productive sectors of the economy, utilizing advanced Digital Technologies



## GovTech4All

Funding: Digital Europe Programme – Duration: 01/11/2023 - 31/10/2025

21 leading GovTech organizations from 14 European countries establish a cohesive GovTech ecosystem and market. We promote innovative approaches like startup challenges and forward-looking procurement, aiming to revolutionize public sector technology.





## National Projects related to E-government

**EU**GO

**GOV.GIT:** <u>https://gov.gr/</u> & EUGO: <u>http://eugo.gov.gr/</u> The single digital portal of the Greek public administration (launched in 04/2020) - >1500 digital services for the citizens The Greek portal for cross-border services for EU citizens



#### National Registry of Procedures: <u>mitos.gov.gr</u> Innovation Hub for Digital Government Funding: Public Investments Program & NSRF – Duration: 01/09/2020 - 31/08/2024 The project aims to register all the Public Services and Internal Procedures of Greek Public Administration



## **Citizens Service Centers (CSC):**

Innovation Hub for Digital Government Funding: European Economic Area – Duration: 01/09/2022 - 31/10/2023 The project redesigns the back-office application of Citizens Service Centers and automates many tasks through interoperability





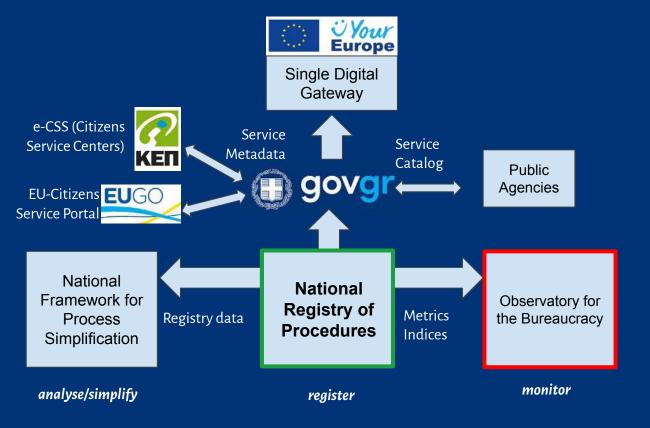
# Establishing a new routine in e-government







#### A holistic approach to Public Services, Procedures and Life Events







### govgr

### Interoperability by design

- Technical interoperability
  - All data must be openly available
  - Data must be accessible through APIs
  - Reuse and share (applications and data)
- Semantic interoperability
  - All systems must use the same metadata standards
- Organizational interoperability
  - Public administrations must align their business processes, responsibilities and expectations







## Let's focus on the National Registry <u>mitos.gov.gr</u>









#### Aim and objectives

- **Single point of truth**: Develop a unique reference point for the physical and digital administrative procedures of the state and the services to citizens
- Objectives:
  - **Recording** and modeling of the existing administrative procedures and public services from the bodies that supervise and implement them.
  - Continuous *updating* of procedures after each change.
  - Creating a basis for the subsequent *simplification of procedures* (elimination or reduction of procedural steps and/or supporting documents).
  - Immediate access, ease of search and *information* for citizens.







#### Requirements

- Compliance to standards
- Openness and interoperability
- Rapid population
- Agility
- Visualization, citizen friendly







### The benefits

- For citizens/businesses:
  - $\circ$  Search for public services or browse by life event, type etc
  - Information on the execution steps, the supporting documents, the points of delivery
  - The ability to provide feedback on descriptions and execution of services
- For public sector bodies:
  - Documentation of procedures, standardization of their execution
  - Identification of malfunctions and suggestions for simplifications
  - Less load for providing information about public services
  - Supervision at all levels: Statistics with quantitative / qualitative indicators, analytics and insight for digitization possibilities



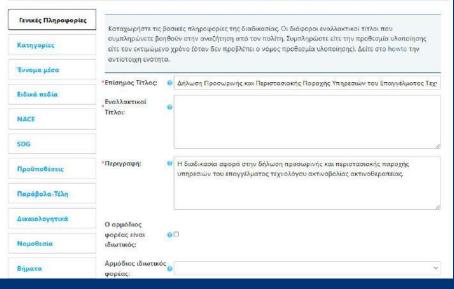




#### MediaWiki

- MediaWiki is the platform used by Wikipedia.
- It is open source, it supports version and update control
- It is written in PHP so any extensions/customizations have to be in PHP
- For supporting the non tech-expert editors we use the Page Forms extension of MediaWiki
- For querying the data within MediaWiki, we use the Semantic MediaWiki extension

Επεξεργασία Διαδικασίας: ΔΔ:Δήλωση Προσωρινής και Περιστασιακής Παροχής Υπηρεσιών του Επαγγέλματος Τεχνολόγου Ακτινοβολίας Ακτινοθεραπείας









#### Semantic MediaWiki (SMW)

- A MediaWiki extension that allows to make composite semantic queries to the MediaWiki data.
- The results can be fed back to MediaWiki as content
- SMW allows to create new and useful content by composing existing content
- For example, we can see the "procedures carried out by each organisation", or "the registries it maintains"

MINISTRY	OF	EDUCATIO	N AND	RELIGIOUS	<b>AFFAIRS</b>
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General Information	Services owned by the Organisation
Services	Announcement of Commencement of Professional Teaching in Tuition Centres, Foreign Language Centres and Homes
Registries	Declaration of Temporary / Cross-Border Provision of Home Teaching and Teaching in a Tuition Centre or Foreign Language Centre
	Granting a Licence for a College to a Legal Person or to Legal Persons Participating in Associations of Persons
Secretariats	Granting a Licence for a College to a Natural Person or to Natural Persons Participating in Associations of Persons
Sub Organisations	Granting a Licence for a Level 1 Lifelong Learning Centre (KDBM) to a Legal Person or to Legal Persons Participating in Associations of Persons







## The results so far







#### What has been achieved

#### Published 3831

Procedures that any interested person may seek in the Registry based on type or on life events.

#### **Under Publication** 37

Procedures, that are at the final stage of control by the Ministry of Digital Governance

#### **Under Approval** 145

Procedures, that are at the intermediate stage of control and approval by the competent authorities

#### Under Process 556

Procedures, that are at the initial stage of registration by the competent authorities.

Search National Services Registry		
rocedures Categories	Provided to	Based on Type
rable and livestock farming	Citizens	Permits
stice	Businesses	Compensations
lucation	Legal Entities	Certificates
siness activity	Civil Servants	Registrations
oloyment and insurance	Public Bodies	Audits
mily	Foreigners	Benefits
operty and taxation	Other	Complaints
tizens and day-to-day life		Attestations
Ilture, sport and tourism		Pensions
inscription		

Health and welfare







Receive Notifications

Print

Feedback

### And for each procedure

At a Glance	At a glance			
Basic information	Points of service		Digital provision	n points
Application	INDEPENDENT DEPARTMENT OF STANDARD AND National Single Digital Gateway		Digital Gateway – gov.gr	
What you will need	EXPERIMENTAL SCHOOLS, INSTITUT EDUCATIONAL POLICY	TE OF		
Requirements	Number of required documents	Fees		Estimated Time
Related	1 to 2	Provided witho	ut cost	3 months
Dutput				
Steps	Description			1
Other information	The procedure concerns the admiss and upper secondary schools, and t	1		
egislation	standard lower and upper secondar attend or are already attending scho		and the second second second second second	rdians of pupils who are going to
Categories				





#### The main metadata of procedures

- Official title, alternative titles (e.g. user friendly title)
- Description
- Legislative and regulatory framework
- Required evidences
- Conditions that apply
- Registries that are accessed
- Cost of state or other fees
- The execution steps
- Organizations (or its divisions) that carry out the procedure or some of its steps
- Estimated processing time for each step
- Final administrative product and
- Registries that are updated







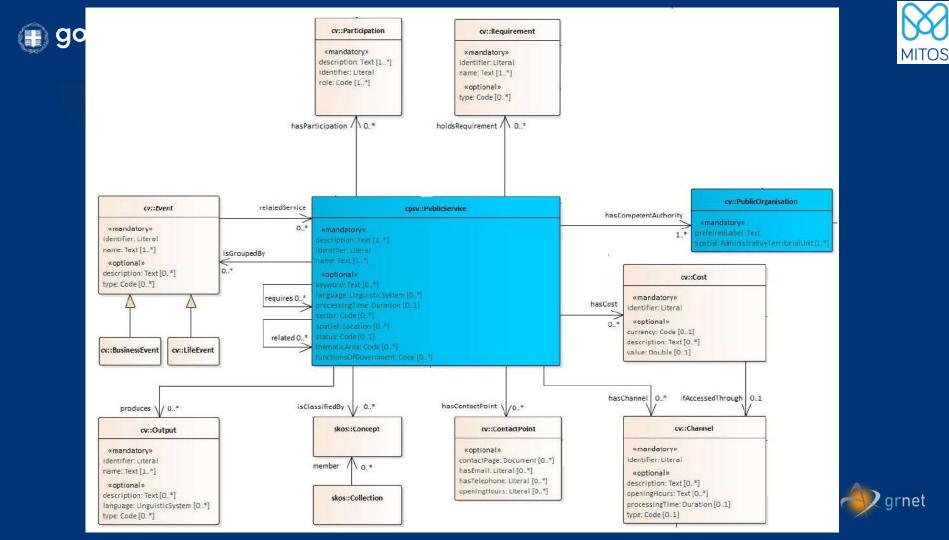
#### • Core Public Service Vocabulary Application Profile (CPSV-AP) v.3.0

- Has been developed by EU's ISA<sup>2</sup> programme for describing cross-border and cross-sectoral services
- A common data model for describing public services
- Defines all the entities of a procedure metadata (except of the steps)
- Core Public Organization Vocabulary (CPOV) v.2.0
  - Another ISA<sup>2</sup> vocabulary for the metadata of Pubic Organizations
- Both standards are maintained by Semantic Interoperability Community (SEMIC EU) <u>https://github.com/SEMICeu/</u>





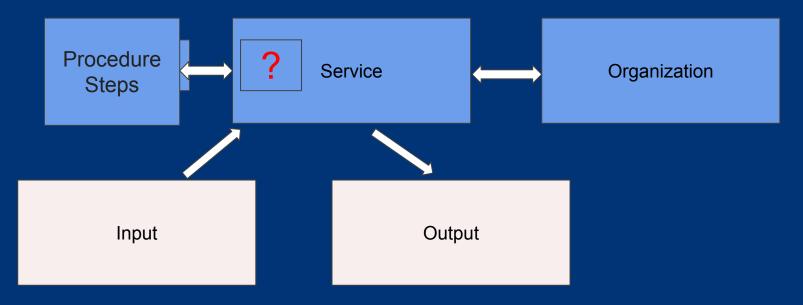








#### At an abstraction level









#### How we describe the procedure steps

#### Using Business Process Model and Notation (BPMN) v.2.0

- BPMN: Graphical notation depicting the steps of a business process
- BPMN can be employed to describe the workflow of a procedure, with all the conditions, alternative actions, actors etc. from start to finish.
  - **Simple and static BPMN** can depict the flow of a service both for citizens and the public administration employees
  - **Executable BPMN** workflows
    - can be fed to BPMN simulation engines with several workload parameters and provide an estimation for the execution cost of a service
    - can be fed to BPMN execution engines and allow the full execution of the service

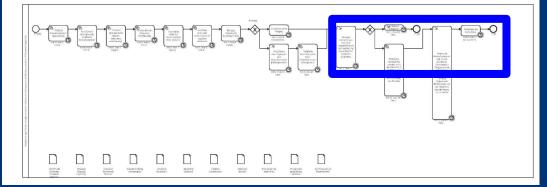




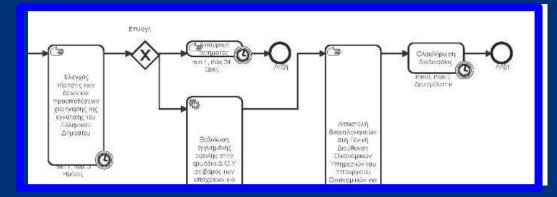
## We replace drawing...

#### with simple forms that describe each step

Βήμα:	0
1	
Αποτελεί βήμα διακλάδωσης:	0 0
Προηγούμενο βήμα διακλάδωσης:	0
Περιγραφή:	0
Υποβολή αίτησης	
Αρμόδιος διεκπεραίωσης:	0
Αρμόδιος Υπάλληλος	~
Συναρμόδιος Φορέας:	0
Απαιτούμενος χρόνος διεκπεραίωσης (min):	0
23	
Απαιτούμενος χρόνος διεκπεραίωσης (max):	0
234	
Απαιτούμενος χρόνος διεκπεραίωσης (μονάδα):	0
Λεπτά 🛩	
Σημειώσεις:	0



#### and automatically generate the XML file of the BPMN









### Other building blocks

- Translation (Greek-English):
  - eTranslation API, the (asynchronous) official EU translation service developed under Connecting Europe Facility (CEF)
  - A real-time translation service build using a Transformer from <u>huggingface.co</u>
  - A platform that semi-automates the translation process







#### Other building blocks

#### • Side registries

- **Registry of evidences**: contains metadata for the most widely used evidences, in an attempt to reduce duplicates and inconsistencies
- Registry of service delivery points: contains metadata about the main (physical) locations that offer public services
- Registry of registries: contains metadata (owner, description, contents, format, update frequency, etc) about the registries which are employed or updated by the public services
- Registry of steps: describes steps which are common in several procedures in order to promote reusability and avoid inconsistencies





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## Mitos API - https://api.mitos.gov.gr/info/

- The API allows third party applications to retrieve metadata for the procedures
- The metadata contain everything that is registered through the PageForms
- Documented in Swagger and Redoc
- It has already been used by other platforms (e.g. the EUGO portal), by other services (e.g. the BPMN generator), by collaborating teams (to generate custom dashboards)







## Interoperability

#### https://api.mitos.gov.gr/info/

Γενικές Πληροφορίες

"well-is set "wet, and, we prove the



#### Στο τορίν επίμενο γίνεται ποργορία τα ένα μποσύνολο των ζειτουργών που διατιθένται από το ΑΡΙ του Ελλευτί Μητρώσι διαθιαστών του Ultranet Investory

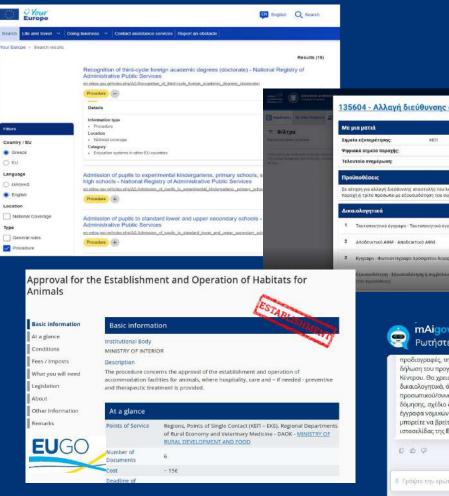
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Παρ	οαδείγματα CURL
Εμφ	άνιση όλων των διαδικασιών

Mitos is the **single point of truth** for CSSs, EUGO, YourEurope, gov.gr as well as for the Document/Case Management Systems of Public Administration





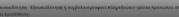
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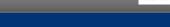
#### 135604 - Αλλαγή διεύθυνσης αποστολής λογαριασμού της ΔΕΗ

Αλλογή διεύθυνσης αποστολής λογοριασμού
27 Σεπτεμβρίου 2023

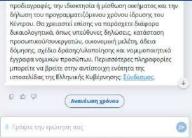
Σε ελιτιστί συ αλαική διεύθυνσης αποστολής του λογοριαμό ύσματμα το Ιαδαστα το πρόσωτα το αναίμα το ανοίο παροχή η τρίτα πρόσωπο με εξουσιοδότηση του συμβαλλέμενου.

- 1 Ταυτοποιητικό έγγραφο Ταυτοποιητικό έγγραφο
- 3 Εγγραφο Φωτασγτίγοσφο προσφατού λογαρισσμού ΔΕΗ





#### mAigov BETA Ρωτήστε τον ψηφιακό βοηθό του gov.gr





## Mitos mobile

mobile.mitos.dev.digigov.grnet.gr

Mitos is near the citizens in their smartphones

Γεγονότα Ζωής Βρείτε τη Διαδυκοσία που αναζητάτ	ΠΡΟΒΟΛΗ ΟΛΟΝ μέσα από το αντίστοιχο γεγονός ζωής.
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net

### Innovation - Research



#### labs.mitos.gov.gr

Αρχική Περιγραφή Συλλογές-Κατηγορίες Κώδικας - Mitos API

Εναρξη

#### **MITOS LABS**

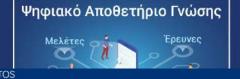
Ψηφιακό Αποθετήριο Γνώσης του Εθνικού Μητρώου Διοικητικών Διαδικασιών -ΕΜΔΔ ΜΙΤΟΣ

Συλλογές από Μελέτες - Έρευνες - Στατιστικά - Κώδικα ανοικτά προς τους χρήστες και φορείς της Δημόσιας Δισίκησης



#### Search in any language:

#### search.mitos.gov.gr



Βρες απαντήσεις για τις διαδικασίες του Μίτος

#### Συμπλήρωσε αυτό που αναζητάς

Ανοζήτηση ----

Αναρωτιέμας (Πουν δυσιούνται) (Τι τρουτοθίτει) (Που πόω) (Τι χρουλόμμα) (Που κοιτιζει

Αναγγελία Άσκησης Δραστηριότητας Εκρίσθωσης ΕΙΧ Αυτοκινήτων με Οδηγά

Η δουμκασίο οφορά στην αναγγελία άσειρας δραστηριστήτας εαμίσμωσης επιβατηγών ιδωτικής χρήσης (Ε.1.Χ.) αυτοποιήτων με οδηγο

#### Χαρήγηση / Άνανδωση ασφαλιστικής ικανότητας Μοναχών ή έμμασων μελών των ανασφάλιστων υπερηλίκων

Η διαδικασία απιστέχους του Ν.1296/1982 και όχι επιδοματοίχους του Ν.1296/1982 και όχι επιδοματοίχους του Ν.43877/2016, οι οποίοι αιτούνται παραλίστική καλότητη για το έμμεσα μέλη Τους

#### Ειδικό Σήμα Λειτουργίας σε Αυτακινητοδρόμια

Η διαδικασία αφορά στη Χορίγηση Ειδοκού Τήματος Λειτουργίας Αυτοκικητοδρομίου και αιαυσόκεται σε φτουσ και σε νομικά πρότυπα.

#### Άρση κυκλοφορίας σχημάτων του στενού δημόσιου τομέα

Н бодькозка вород отлуг допу княд най дородіє палонитітых і клятрички итпресный у по біднозіся, то овсіле Ціна такулькучка ападільційна, рауківня коотена; віплякціў най бач кубскічнітах подот уся наподверія нах здіят за підпотат такультутав.

Αναγγελία Λειτουργίας Επιχείρησης Εκυίσθωσης Επιβατηνών Αντοκινήτων Ιδιωτικής Χρήσης ().Χ.)

## Mitos' **data** are **open** for researchers and entrepreneurs







#### Visit statistics

- >850.000 pviews/month
- >30,000 views/day
- >15,000 unique visitors/day
- visitors from around the world

Country	
OUNTRY	₹visits
Greece	(2) 75,2% 98,933
Poland	4.7% 6,190
Croatia	4.4% 5,725
United Kingdom	d.1% 5,446
Germany	1.3% 1,775
France	1,1% 1,476
Russia	196-1,296
• Canada	0.9% 1,195
Sweden	0.8% 990
United States	0.7% 967



← Last week visitors



9.803

3,172

19,442

4,863

Visitor Map

535,998 visit

H Websites

+ Social Networ...



AVG. TIME ON

WEBSITE

1 min 47s

2 min 11s

2 min 32s

1 min 6s

2

1.5





#### **References - Awards**

- MitosLOD shortlisted for Best Case 2024 Award from the Public Sector Tech Watch of Interoperable Europe (<u>link</u>)
- Reference in the Observatory of Public Sector Innovation (OPSI) by OECD (link)
- Reference in the Greek Observatory of Innovation
- Special recognition award on EPSA 2023-2c
   Institute of Public Administration (<u>link</u>)







#### A new project is on the go

Next generation of MITOS

- Advanced analytics: Rich dashboards covering different needs
- Governmental Knowledge: Take full advantage of the knowledge graph of Mitos
- Smart Personalisation: Proactively deliver useful information to the citizens, and chatbot
- Process Automation: Use of LLMs to facilitate data collection and automate selected steps
- Strengthen the community of practice: Provide a common ground for Mitos' editors and administratives and help them design new services.







## Thank you for your attention

Questions? varlamis@admin.grnet.gr Iraklis Varlamis

