Automated, Transparent Citizen-Centric Public Policy Making based on Trusted Artificial Intelligence

AI4PublicPolicy@CCGRID22

The Cloud as a foundation for AI-based Policy Making - The AI4PublicPolicy experience

Andrea Cristofori (EGI)

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Outline

- The Challenges
- About AI4PublicPolicy
- Pillars
- Open source cloud development concept
  - EGI as a platform
  - Open science concept
- Validation via pilots

The Challenges

- Evidence based policymaking is very resource intensive.
- Limited citizen engagement in the policy making process.
- Difficulties in collecting, study , process and analysing exponentially increasing policy-related datasets
- There is no efficient and straightforward way for defining and deploying reusable policy making techniques that could be repurposed in different scales (i.e. local, regional, national), across different public authorities and other policy making organizations.
- Shortage of policy making experts that understand on-going technological and socio-economic developments.
- AI provides new opportunities for designing and executing complex evaluation-targeted simulations of policy decisions

AI4PublicPolicy factsheet

GFT · egi · INTRASOFT INTERNATIONAL · novoville · UNPARALLEL · iLabs Versatile Innovations

ARTHUR'S LEGAL · POLITÉCNICA · CITY OF ATHENS · COMUNE DI GENOVA · Δήμος Λευκωσίας Nicosia Municipality · LISBOA e·nova AGÊNCIA DE ENERGIA E AMBIENTE DE LISBOA

reportbrain · Ekso SERVIZI E TECNOLOGIE NO-DIG · TECNÈ conoscenze e strategie

START	01/03/2021	**FUNDING SOURCE**	EC Horizon 2020
END	29/02/2024	**PROJECT BUDGET**	EUR 3.999.988,25

AI4PublicPolicy Objectives

01 Specifications of reference models and processes for automated, transparent, citizen centric policy management based on ai technologies

02 Increased automation and efficiency in policy development through ai-based tools for policy modelling, development, simulation and recommendations tools

03 Repurpose, reuse and link ai-based policies and datasets across various domains and data subjects

04 Transparent, interpretable and trusted policy development

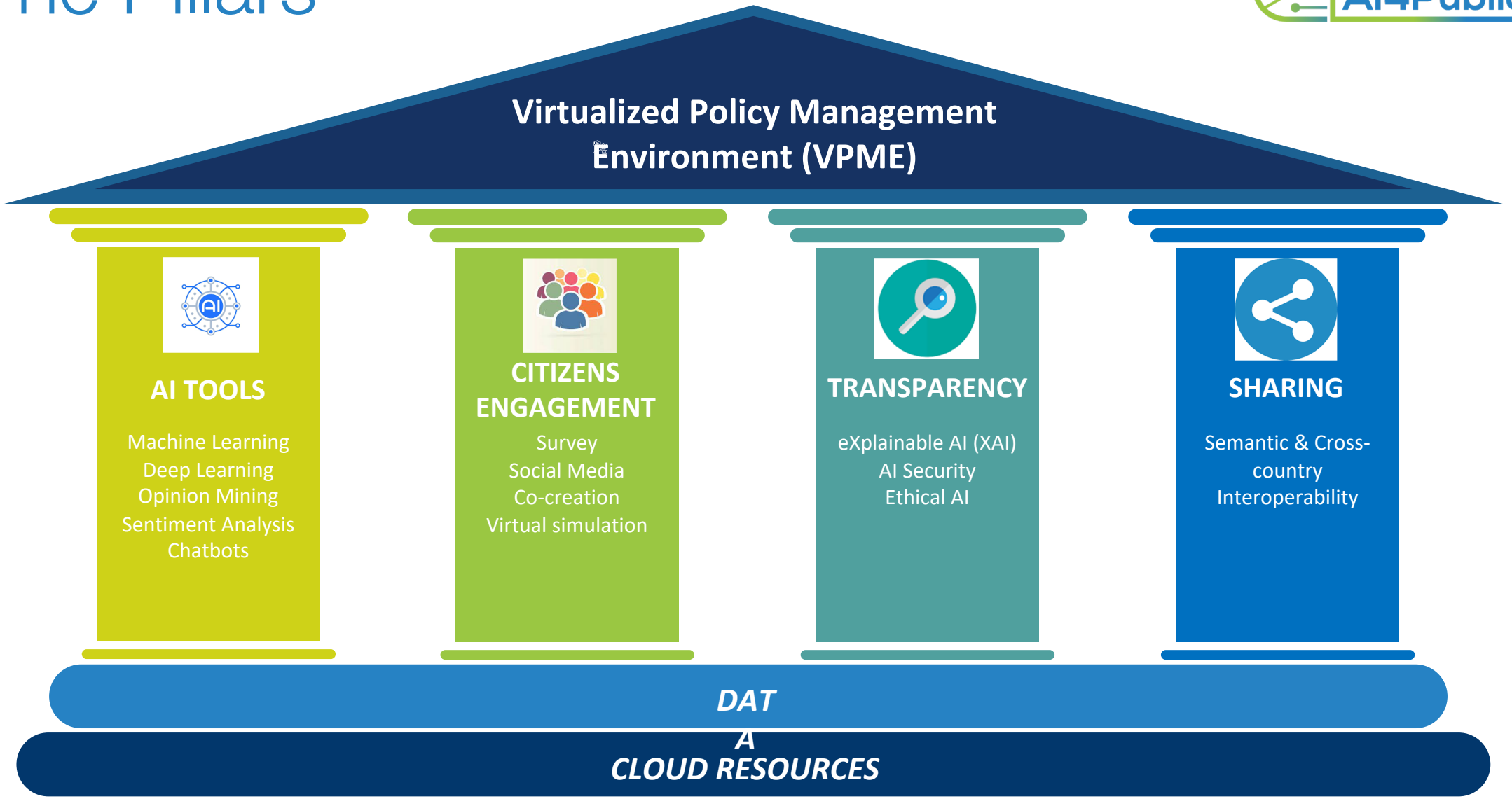
05 Citizen centric and business centric policy developments, evaluation and optimization

06 High performance integrated ai-based policy management based VPME's integration with eosc/egi cloud & hpc resources

07 Validation and evaluation in real-life use cases addressing different policy-related domains

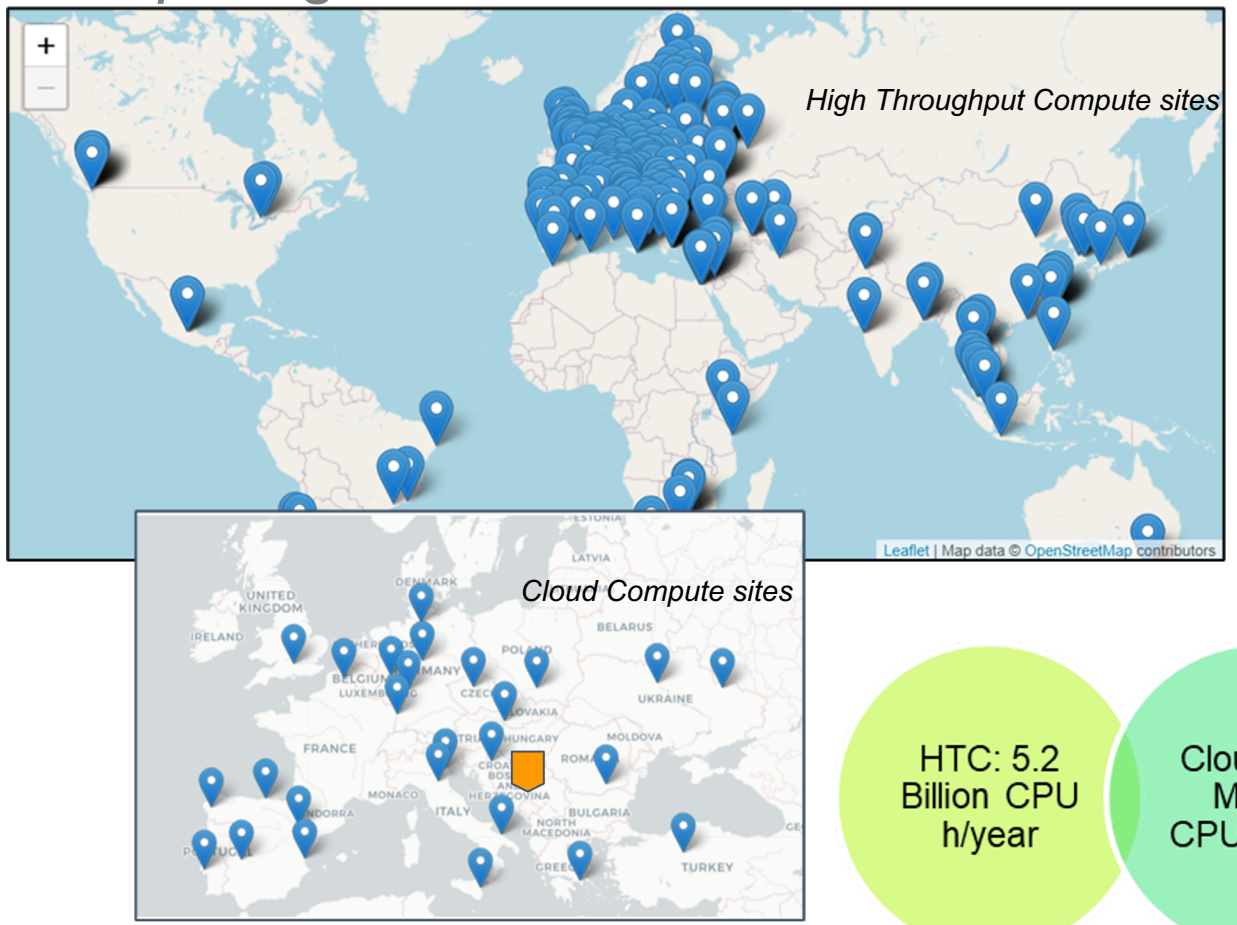
08 Pan-european market platform supported by novel business models for ai-based policy making

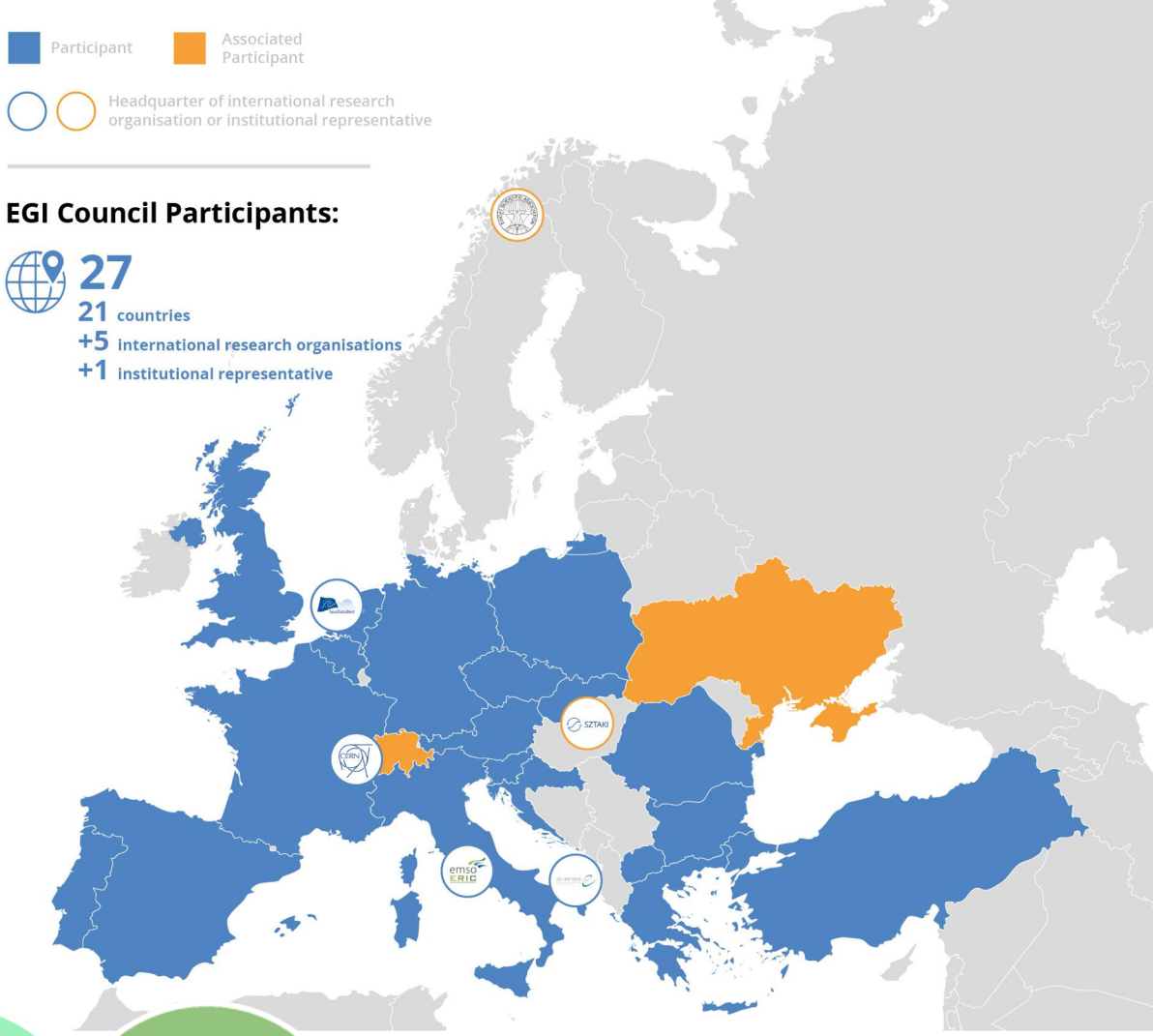
The Pillars


Virtualized Policy Management Environment (VPME)
AI TOOLS
Machine Learning
Deep Learning
Opinion Mining
Sentiment Analysis
Chatbots
CITIZENS ENGAGEMENT
Survey
Social Media
Co-creation
Virtual simulation
TRANSPARENCY
eXplainable AI (XAI)
AI Security
Ethical AI
SHARING
Semantic & Cross-country Interoperability
DATA
CLOUD RESOURCES

Empowered by EGI

European e-infrastructure for scientific computing since 2010





HTC: 5.2 Billion CPU h/year

Cloud: 43 Million CPU h/year

Over 75,000 users

EGI Service Catalogue

Computing

Scalable compute + storage capacity

Cloud Compute

Run virtual machines on demand with complete control over computing resources

Cloud Container Compute

Run Docker containers in a lightweight virtualised environment

High-Throughput Compute

Execute thousands of computational tasks to analyse large datasets

Workload Manager

Manage computing workloads in an efficient way

Security & Identity

Check-in

Login with your own credentials

Seamless login for users from diverse types of institutes

Applications

Notebooks

Create interactive documents with live code, visualisations and text

Interactive user environment to process and visualize data

Storage and Data

Online Storage

Store, share and access your files and their metadata on a global scale

Data Transfer

Transfer large sets of data from one place to another

DataHub

Access key scientific datasets in a scalable way

Federation and on-demand access to distributed datasets

Training

FitSM Training

Learn how to manage IT services with a pragmatic and lightweight standard

ISO 27001 Training

Learn how to manage and secure information assets

Training Infrastructure

Dedicated computing and storage for training and education

Open source solutions for AI in policymaking

AI4PublicPolicy

COMUNE DI GENOVA

Δήμος Λευκωσίας
Nicosia Municipality

LISBOA e·nova
AGÊNCIA DE ENERGIA E AMBIENTE DE LISBOA

CITY OF ATHENS

ΔΑΕΜ

Open for Innovation
KNIME

Check-in – single sign on across services and providers

AppDB – distribution of applications & services to the clouds

DataHub – replication of scientific data to national clouds

- CMD (Cloud Middleware Distribution)
- Operational oversight with OLAs and SLAs with the projects

FitSM Standards for lightweight IT service management

Next steps - AI4PublicPolicy pilots

Athens, Greece

Citizen-centric management & optimisation of city resources

Use Cases:

- Maintenance Policies Optimization
- Predictive Citizen-Centric Transport/Parking Policies Development
- Economic/Revenue Policies Modelling.

Genoa, Italy

Citizens & businesses services optimisation

Use Cases:

- Evaluation and benchmarking alternative service handling workflows
- Optimizing the allocation of resources
- Citizens' requests and policies visualizations

Nicosia, Cyprus

Policies for holistic mobility & accessibility

Use Cases:

- Optimal urban mobility policies for citizens
- Optimal urban mobility policies for the municipality
- Accessible urban mobility policies

Lisbon, Portugal

Energy management & optimisation policies

Use Cases:

- Energy performance analysis
- Budget planning for energy usage and buildings renovation

Burgas, Bulgaria

Data-driven water infrastructure planning & maintenance policies

Use Cases:

- Data-Driven Maintenance Costs and Sustainability Analysis for Water Pipes
- Condition-based Monitoring and LCA for Maintenance and Repair policies

Contact us

Andrea Cristofori EGI.eu

andrea.cristofori@egi.eu

Alessandro Amicone GFT Italia

alessandro.amicone@gft.com

AI4PublicPolicy Online presence

https://ai4publicpolicy.eu

http://linkedin.com/company/ai4publicpolicy

https://twitter.com/ai4publicpolicy

EGI Online presence

https://www.egi.eu/

https://www.linkedin.com/company/egi-foundation

https://twitter.com/EGI_eInfra

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