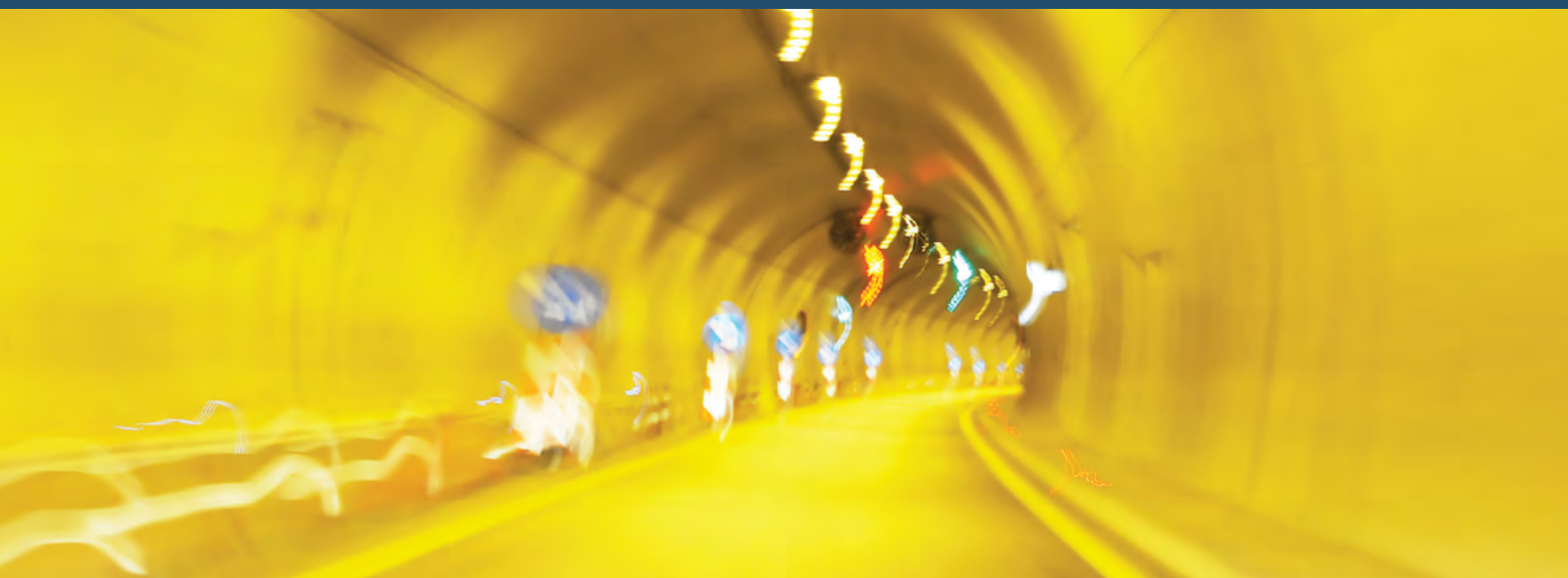


# National Roadmap for Research Infrastructures

2014



HELLENIC REPUBLIC  
Ministry of Education and Religious Affairs  
General Secretariat for Research and Technology



# Annex I - National Roadmap RIs

Social Sciences and Humanities				
No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
1.	<b>CESSRI</b> *	Greek Research Infrastructure for Social Sciences	CESSDA, ESS	Evidence base for RIS3, skills, demographic change
2.	<b>GR-SHARE-ERIC</b> *	Greece in SHARE-ERIC	SHARE	Health & Ageing
3.	<b>APOLLONIS</b> *	Greek Infrastructure for Digital Arts, Humanities and Language Research and Innovation	CLARIN, DARIAH	Culture, Tourism, ICT
e-infrastructures				
No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
4.	<b>HELIX</b> *	National Digital Infrastructures for Research	PRACE	ICT
5.	<b>ELIXIR-GR</b>	Managing and analyzing biological data	ELIXIR	Health, ICT
Energy				
No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
6.	<b>PROMETHEUS</b>	A Research Infrastructure for the Integrated Energy Chain	ECCSEL / EU-SOLARIS	Energy, Environment & Sustainable Development
7.	<b>FUVEP</b>	Centre of Excellence for Future Vehicle Environmental Performance		Energy, Environment & Sustainable Development, Transport
Biological and Medical Sciences				
No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
8.	<b>INFRAFRONTIER-GR / Phenotypos</b> *	The Greek Research Infrastructure for Molecular and Behavioural Phenotyping of biological model organisms for chronic degenerative diseases	INFRAFRONTIER	Health & Pharmaceuticals
9.	<b>INTEGRA-Biomed</b> *	Integrated Greek Infrastructure for Biomedical Research	BBMRI - EATRIS	Health & Pharmaceuticals
10.	<b>Biolmaging-GR</b>	A Greek Research Infrastructure for visualizing and monitoring fundamental biological processes	EURO-Biolmaging	Health & Pharmaceuticals, ICT
11.	<b>INSPIRED</b>	The National RIs on Integrated Structural Biology, Drug Screening Efforts and Drug - target functional characterisation	INSTRUCT	Health & Pharmaceuticals
12.	<b>Openscreen-GR</b>	An Open-Access Research Infrastructure of Chemical Biology and Target-Based Screening Technologies for Human and Animal Health, Agriculture and the Environment	EU OpenSCREEN	Health & Pharmaceuticals
13.	<b>pMED-GR</b>	The Greek Research Infrastructure for Personalised Medicine Towards more accurate and cost-effective health management for the Greek citizen		Health & Pharmaceuticals, Personalised Medicine

\* Research Infrastructures (or part of them) that already have a funding commitment are designated Category I. The remaining RIs of the roadmap are designated Category II.

14.	<b>OMIC-ENGINE</b>	Synthetic Biology: from omics technologies to genomic engineering		Agro-Food, Health
15.	<b>NRI-CADSOL</b>	National Research Infrastructure for Coronary Artery Disease		Health & Pharmaceuticals, Personalised Medicine

### Materials and Analytical Facilities

No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
16.	<b>HELLAS-CH *</b>	The HiPER, ELI and LASERLAB Europe Synergy & IPERION-CH.gr	<b>ELI, HiPER</b>	Materials, Culture
17.	<b>INNOVATION.EL</b>	National Infrastructure in Nanotechnology, Advanced Materials and Micro / Nanoelectronics		Materials, ICT

### Physical Sciences and Engineering

No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
18.	<b>NuSTAR</b>	Nuclear Science, Technology and Applications Research Infrastructure	<b>ESS</b>	Health & Pharmaceuticals, Environment & Sustainable Development, Energy, Materials

### Environmental Sciences

No	Acronym	Title	ESFRI relation	RIS3 & societal relevance
19.	<b>HELPOS</b>	The HELlenic Research infrastructure within the EPOS project	<b>EPOS</b>	Environment & Sustainable Development, Security
20.	<b>HIMIOFoTS *</b>	Hellenic Integrated Marine-Inland waters Observing Forecasting and offshore Technology System	<b>Euro-ARGO, EMSO</b>	Environment & Sustainable Development & Blue Growth
21.	<b>CMBR *</b>	Centre for the study and sustainable exploitation of Marine Biological Resources	<b>EMBRC / Lifewatch</b>	Biodiversity, Environment & Sustainable Development, Blue Growth, Agro-food
22.	<b>PlantUP</b>	Upgrading the Plant Capital		Agro-food, Biodiversity, Health & Pharmaceuticals, Environment & Sustainable Development
23.	<b>Hellenic Research Fleet</b>	Towards an Innovative Hellenic Research Fleet (Hellenic-Fleet)		Environment & Sustainable Development, Blue Growth
24.	<b>PANACEA</b>	PANhellenic infrastructure for Atmospheric Composition and climate change	<b>ICOS</b>	Environment & Sustainable Development & Climate Change
25.	<b>FAROS</b>	Facility for Airborne Research Observation and Sensing	<b>COPAL</b>	Environment & Sustainable Development & Climate Change
26.	<b>INVALOR</b>	Research Infrastructure for Waste Valorization and sustainable management of resources		Environment & Sustainable Development, Waste Management

# The Greek Research Infrastructure for Personalised Medicine (pMedGR)

Following recent technological breakthroughs, such as rapid sequencing of the human genome, the concept of personalised medicine/health has become key in understanding, classifying, preventing and treating human disease. Capitalising on top clinical and basic research teams, the pMedGR infrastructure aims to support research towards patient stratification, biomarker development, tailored healthcare interventions and personalised treatment strategies to help bridge the gap between genomic information and clinical practice. pMedGR is particularly significant for the Greek population and neighbouring countries, which represent a genetic pool that differs from Central and Northern European populations, thus offering unique potential for the development of targeted therapies and diagnostic modalities specifically for this population.

The objectives of the new pMedGR infrastructure are to: (a) support research aiming at the transition from traditional symptom-based healthcare models to omics-based approaches for health and disease; (b) allow the in-depth description of individual phenotypes at a systems level by providing access to cutting-edge technological platforms, clinical data and biological specimens; (c) generate technological ICT solutions that facilitate the processing, integration and modeling of the output of several technological platforms; (d) train the next generation of physicians and bioscientists that will develop and implement personalised medicine; and (e) lead industrial innovation towards novel diagnostic and therapeutic modalities and advanced knowledge for personalised healthcare.

pMedGR will have close contacts with BBMRI-GR, the biobanking RI, in order to align activities in providing access to biological specimens and data. The ICT modules of pMedGR, which will be responsible for data analysis, integration and model building, will cooperate closely with ELIXIR-GR, the data storage infrastructure. Key interactions will be pursued also with INFRAFRONTIER-GR/Phenotypos, the mouse archiving and phenotyping infrastructure, which is expected to provide preclinical platforms and proof-of-principle projects for further clinical development. Lastly, pMedGR will cooperate with BioImaging-GR for the development of advanced imaging platforms with clinical applications for personalised medicine. pMedGR will also liaise with the European counterparts of these and other ESFRIs in order to establish an international network of partners that can provide relevant know-how and expertise.

pMedGR will provide a hub for the implementation, coordination and integration of personalised medicine approaches in the region and as part of a pan-European and global network, thus offering centralised information on patient stratification efforts, susceptibility factors and response to treatments for the regional population. This hub will effectively serve as a single entry point for researchers and industry interested in this area. Furthermore, Greece's strategic geopolitical position together with the region's genetic characteristics render pMedGR an ideal paradigm for personalised approaches that target an extended regional area, including southern Italy, the Balkans & Turkey. Through pMedGR, Greece has the potential to become a South-East European Node for Personalised Medicine, linking Europe to emerging markets such as Asia, Africa and the Middle East.

