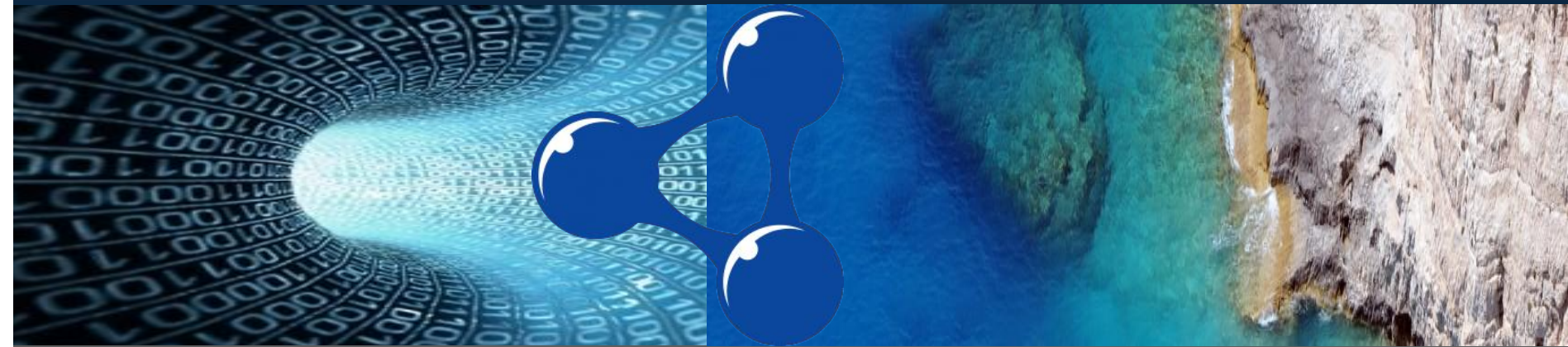




MINISTRY OF EDUCATION & RELIGIOUS AFFAIRS

RIS3 STRATEGY on HEALTH & PHARMA



GENERAL SECRETARIAT FOR RESEARCH & TECHNOLOGY

POLICY PLANNING DIRECTORATE
Meeting with experts 22-10-2014

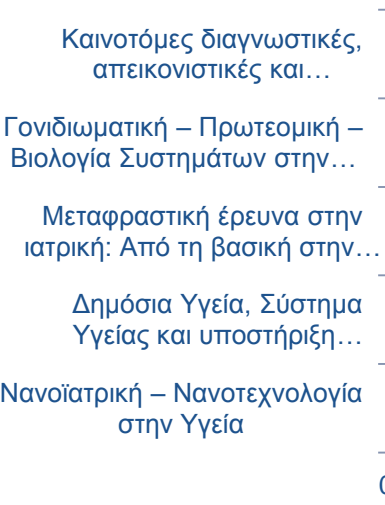
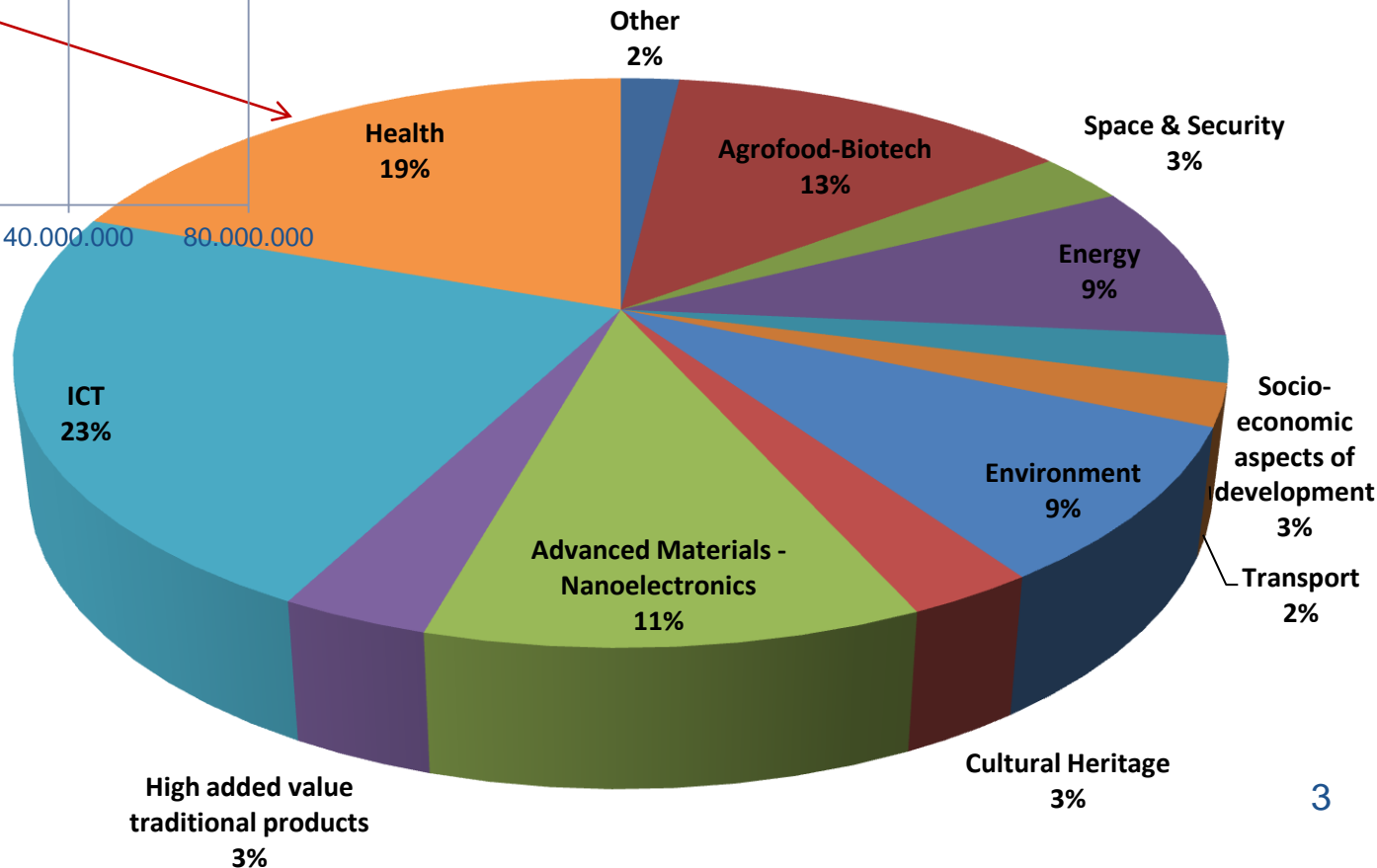
Priority Sectors

- **Health & Pharma** ← 
- Agro-bio-food
- Tourism and experience industry
- Energy
- Transport & Logistics
- Environment & Sustainable development
- Information & communication technologies
- Materials & Construction

Current Program Period (2007-2014)

NSRF - distribution per thematic priority

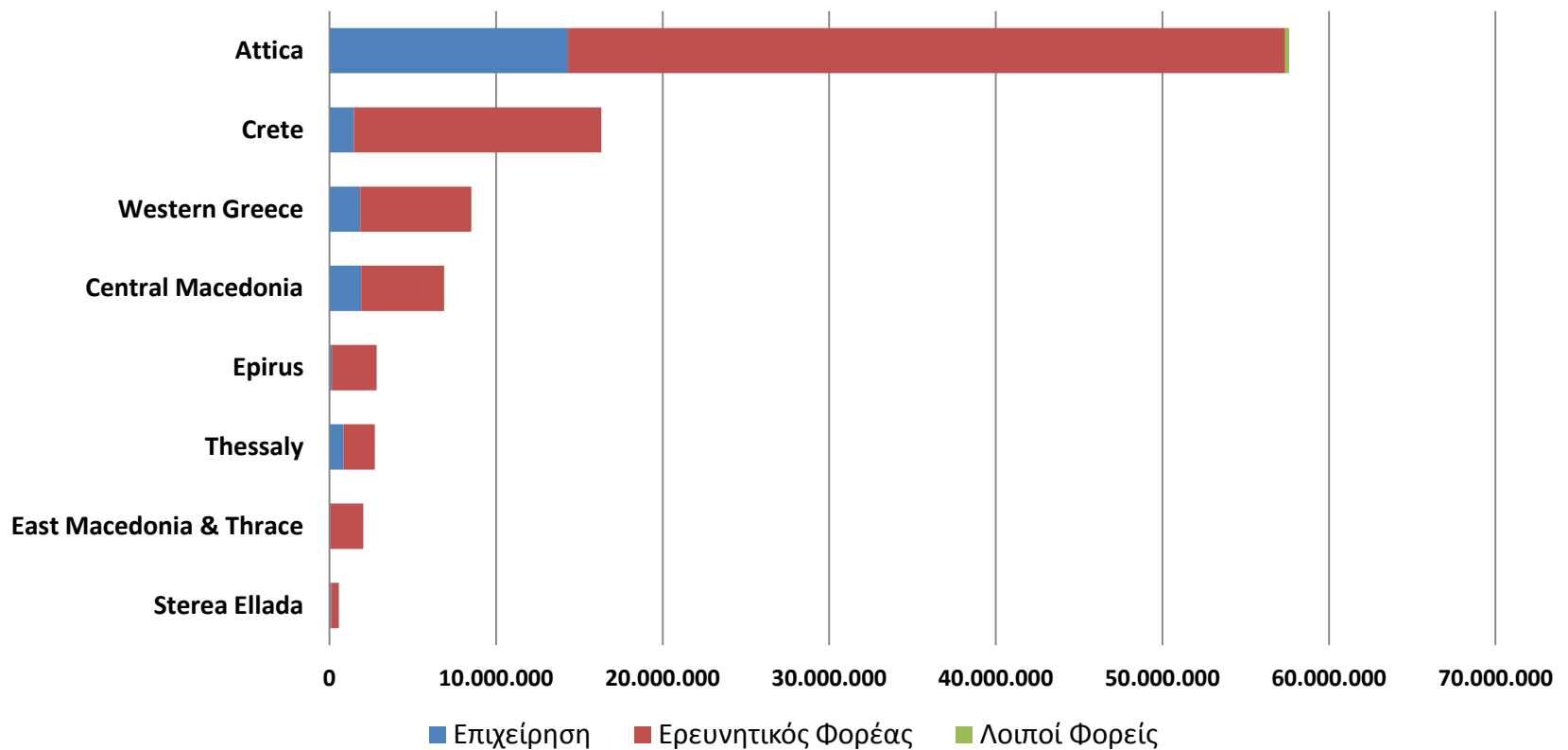
source: GSRT - Ref date 10/10/2014 - Public expenditure



NSRF - Regional Aspects

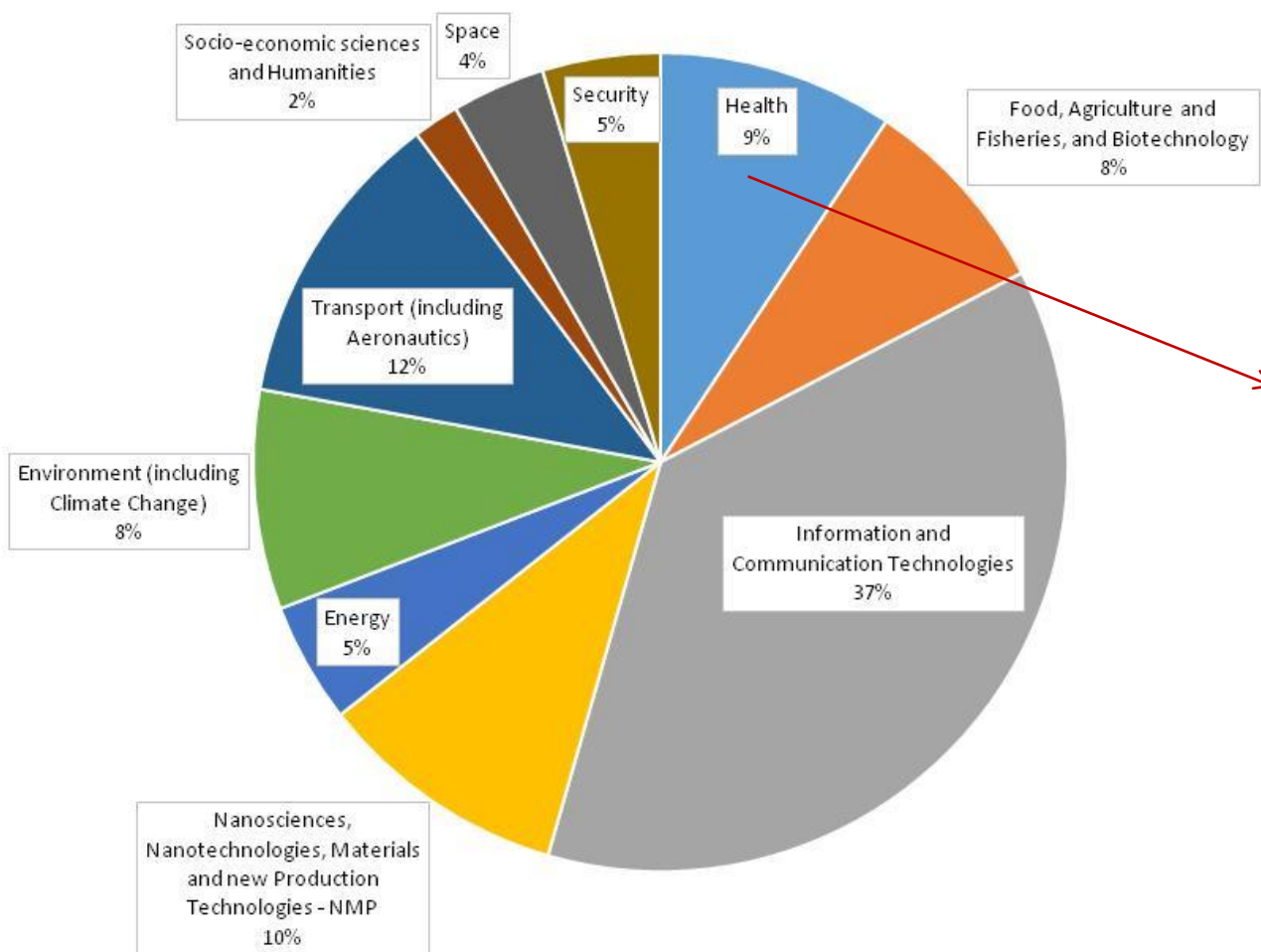
NSRF - Regional distribution of funds in the field of Health

source: GSRT - Ref date 10/10/2014 - Public expenditure

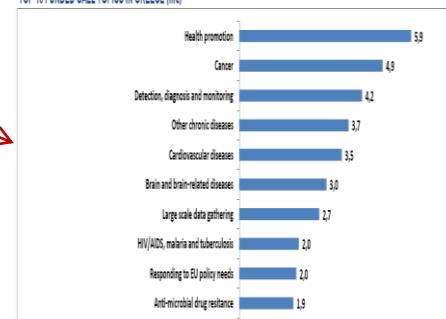


International cooperation aspects - FP7

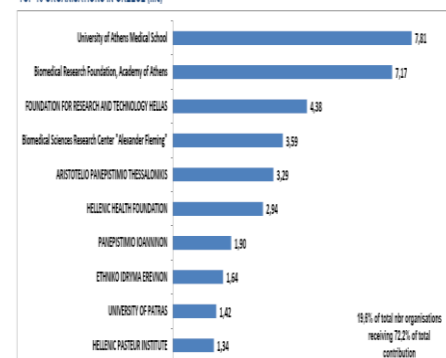
COOPERATION: Κατανομή ελληνικής συμμετοχής



TOP 10 FUNDED CALL TOPICS IN GREECE (m€)



TOP 10 ORGANISATIONS IN GREECE (m€)



Health & Pharma Platform – sources of input

Data relevant to the sector, including:

- World trends
- National economic studies (McKinsey, SEV, IOBE)
- World economic studies
- Position paper guidelines
- Proposals of Sectoral Scientific Councils & National Council for Research & Technology
- NSRF performance
- H2020 policies
- FP7 performance data
- Regional RIS3 preliminary data
- Data on scientific publications

were used in the preparation of a detailed analysis of the sector that was used as a base document for discussion in the platform

ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ
ΕΡΕΥΝΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

ΤΟΜΕΑΣ: ΥΓΕΙΑ & ΦΑΡΜΑΚΕΥΤΙΚΑ

ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΡΕΥΝΑΣ & ΤΕΧΝΟΛΟΓΙΑΣ
ΔΙΕΥΘΥΝΣΗ ΣΧΕΔΙΑΣΜΟΥ & ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΥ
Τμήμα Α' Προγραμματισμού

Δρ. Μ. Κασιώλη, συνεργάτης Planning Group
Δρ. Σ. Κολυβά, Ειδικός
Δρ. Μ. Χριστούλα, ΓΓΕΤ, Διεύθυνση Σχεδιασμού & Προγραμματισμού

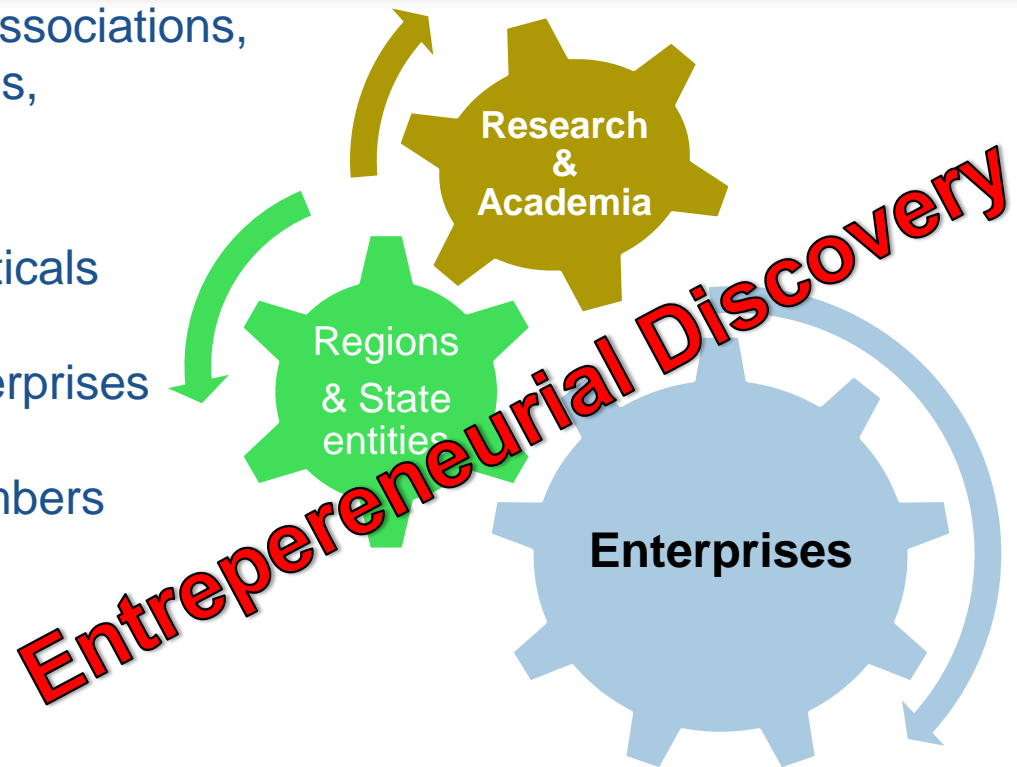
Ιανουάριος 2014

GSRT Health & Pharma Platform - Stakeholders

Variable Geometry: clusters, business associations, businesses, research centers & institutes, researchers (triple helix)

- Hellenic Association of Pharmaceuticals Industry (PEF): 37 members
- Association of Pharmaceutical Enterprises in Greece (SFEE) : 68 members
- Hellenic Biocluster – Hbio : 30 members
- BIONIAN Cluster : 20 members
- Regions : 13 members
- Research Institutes & academia & hospitals : 15 members
- Horizon 2020 National representatives and NCPs : 3 members

- Industrial Boards, State entities (HIB, Ministry of Development, Ministry of Health).



Responses : 45 proposals
80% enterprises,
20% research & academia

GSRT Health & Pharma Platform – Questionnaire (1/2)

<p>Αναγνώριση (στο πλαίσιο της παραγωγικής αλυσίδας του τομέα) ευρύτερων περιοχών που μπορούν να αναβαθμιστούν τεχνολογικά</p>	<p>Εντοπισμός συγκεκριμένων δραστηριοτήτων εντός των ευρύτερων περιοχών που, μέσω της εφαρμογής Έρευνας και Τεχνολογικής Καινοτομίας μπορούν να προκαλέσουν διαρθρωτικές αλλαγές στον τομέα (activity level)</p>	<p>ΤΕΚΜΗΡΙΩΣΤΕ ΤΗΝ ΕΠΙΛΟΓΗ ΤΗΣ ΠΡΟΤΕΡΑΙΟΤΗΤΑΣ</p>				
<p>Αναφέρατε ποσοτικά και ποιοτικά στοιχεία που τεκμηριώνουν τις προτάσεις σας. Αναφέρατε ή επισυνάψτε υποστηρικτικά κείμενα ή εκθέσεις που έχετε υπόψη ή στη διάθεσή σας</p>		<p>ΠΡΟΣΔΟΚΩΜΕΝΗ ΟΙΚΟΝΟΜΙΚΗ ΕΠΙΠΤΩΣΗ</p>	<p>ΥΠΑΡΞΗ ΔΙΕΘΝΟΥΣ ΑΓΟΡΑΣ</p>	<p>ΔΙΑΘΕΣΙΜΟΤΗΤΑ ΣΧΕΤΙΚΟΥ ΕΡΕΥΝΗΤΙΚΟΥ ΔΥΝΑΜΙΚΟΥ</p>	<p>ΔΗΜΙΟΥΡΓΙΑ ΘΕΣΕΩΝ ΕΡΓΑΣΙΑΣ</p>	<p>ΑΛΛΕΣ ΕΠΙΠΤΩΣΕΙΣ (π.χ. Περιβαλλοντικές επιπτώσεις/ Κοινωνικές επιπτώσεις)</p>

GSRT Health & Pharma Platform – Questionnaire (2/2)

Δραστηριότητες που μέσω της εφαρμογής της Έρευνας και Τεχνολογικής Καινοτομίας μπορούν να προκαλέσουν διαρθρωτικές αλλαγές στον τομέα (activity level)	ΠΡΟΤΕΙΝΟΜΕΝΕΣ ΔΡΑΣΕΙΣ ΠΟΥ ΘΑ ΠΡΕΠΕΙ ΝΑ ΑΝΑΛΑΒΕΙ Ο ΙΔΙΩΤΙΚΟΣ ΤΟΜΕΑΣ (ανά «δραστηριότητα»)		ΠΡΟΤΕΙΝΟΜΕΝΕΣ ΔΡΑΣΕΙΣ/ΕΡΓΑΛΕΙΑ ΠΑΡΕΜΒΑΣΗΣ ΑΠΟ ΤΟ ΚΡΑΤΟΣ (ανά «δραστηριότητα»)			
	Συνεργασία με άλλες επιχειρήσεις	ΑΛΛΟ	Προτεινόμενες Δράσεις Ανθρώπινου Δυναμικού	Προτεινόμενες Δράσεις Υποδομών	Προτεινόμενες Δράσεις ΑΛΛΟ	ΘΕΣΜΙΚΕΣ / ΔΙΟΙΚΗΤΙΚΕΣ ΠΑΡΕΜΒΑΣΕΙΣ
(αντιγραφή από στήλη 2 Πίνακα 1)						

GSRT Health & Pharma Platform – SWOT (1/2)

Strengths

- Small number of generics (inc. drug delivery) companies with strong export orientation
- Some highly export oriented companies, very competitive in niche markets (trials, diagnostics, drug delivery, drug repositioning)
- Strong medical services industry and significant public sector
- There are strong related and supporting industries ICT, microelectronics (dynamic growth), tourism
- Significant internationally competitive research capacity
- Strong academia-medical industry links although on a personal base
- Rich flora and biodiversity, favourable climatic conditions

Weaknesses

- Despite its dynamism the industry is still small and fragmented
- Large pharmaceutical companies hesitate to enter new markets by exploring opportunities offered by open innovation strategies
- Lack of experienced human resources in regulatory issues, IP, financial management.
- Shortage of level C- Chief executives
- The significant personal linkages failed to transformed to strategic Industry – academia collaborations

GSRT Health & Pharma Platform – SWOT (2/2)

Opportunities

- Present state of re-organization of the international health & pharma sectors
- Increased pressure for products differentiation and reduction of cost is a boost to generics companies
- Emerging nutraceuticals, cosmeceuticals, herbal medicinal products, food supplements and functional food markets
- Significant freely accessible big data repositories providing exciting prospects to groups thinking out of the box
- Changing demographics increase demand for new differentiated products and services

Threats

- Increasing cost pressures on the healthcare systems internationally
- Competitors that are equally good and cheaper
- Multinationals entering the generics sector
- Large IT multinationals are entering the healthcare sector
- Emergence of non – surgery, non chemistry treatments
- Small companies are bought by multi-nationals before any of the benefits reach the Greek ecosystem

Emerging Priorities – Activities for RD&I

Key Challenges	Specific Objectives	R&D&I Activities
<ul style="list-style-type: none"> Boost the competitiveness of the enterprises of the whole value-chain (bio-pharma, meditech, healthcare) Develop new knowledge in emerging sectors expected to transform the field Invest on human resources & internationalization of the R&D&I system 	<p>Development of high added value products and treatments</p> <p>Development of innovative, high –IT content products and services for the health & bio-pharma sectors</p>	<p>New drug delivery options improved formulations & drug combinations</p> <p>Drug retargeting</p> <p>Biomarkers, diagnostics</p> <p>Targeted activities at the first stages of development of new drugs</p> <p>Development of animal models for human diseases</p> <p>Biosensors, mobile health applications</p> <p>Bio-imaging, bioinformatics & big data analytics</p> <p>Personalised medicine and treatments</p> <p>Development of highly differentiated, innovative products and services for specific groups of the population</p>

Emerging Priorities for R&D&I

Strategic Objective	Specific Objective	R&D &I Activities
Enhance existing value chains Boost the competitiveness of other sectors – through synergies	Development of medical tourism Enhancing synergies with the agro-bio-food, tourism and materials sector	Development of innovative e-health services R&D for bio-diversity and development of new food and personal care products (cosmeceuticals, functional foods, nutraceuticals) nanomaterials

Research Infrastructures : RIs within RIS3

- “linking” excellence to socio-economic challenges
- “enabling” innovation

INNOVATION PLATFORMS

Agro-biofood

Ris for Biodiversity (High added value natural products, plant / forest health & preservation
Marine ecosystems)

ENV

RIs for Earthquake monitoring & protection, Marine Research & water Resources, Climate Change, Waste Management

Health-Pharma

Key infrastructures for Biosciences, Translational Research / Personalised medicine, New molecules, drug retargeting
E-infrastructures for Biomedical Science

ICT

National Infrastructure for eScience

e-infra for Life Sciences

Tourism

RIs for Digital Humanities

RIs for Marine ecosystems

RIs related to cultural heritage preservation

Energy

Ris for

Sustainable and Renewable Energy

Future vehicle and fuel technologies

Transport/Logistics

RIs for Marine Observing and Forecasting, Marine Structures

Materials

RIs for Nanotechnologies & nanostructures
RIs for Laser research, technology & applications

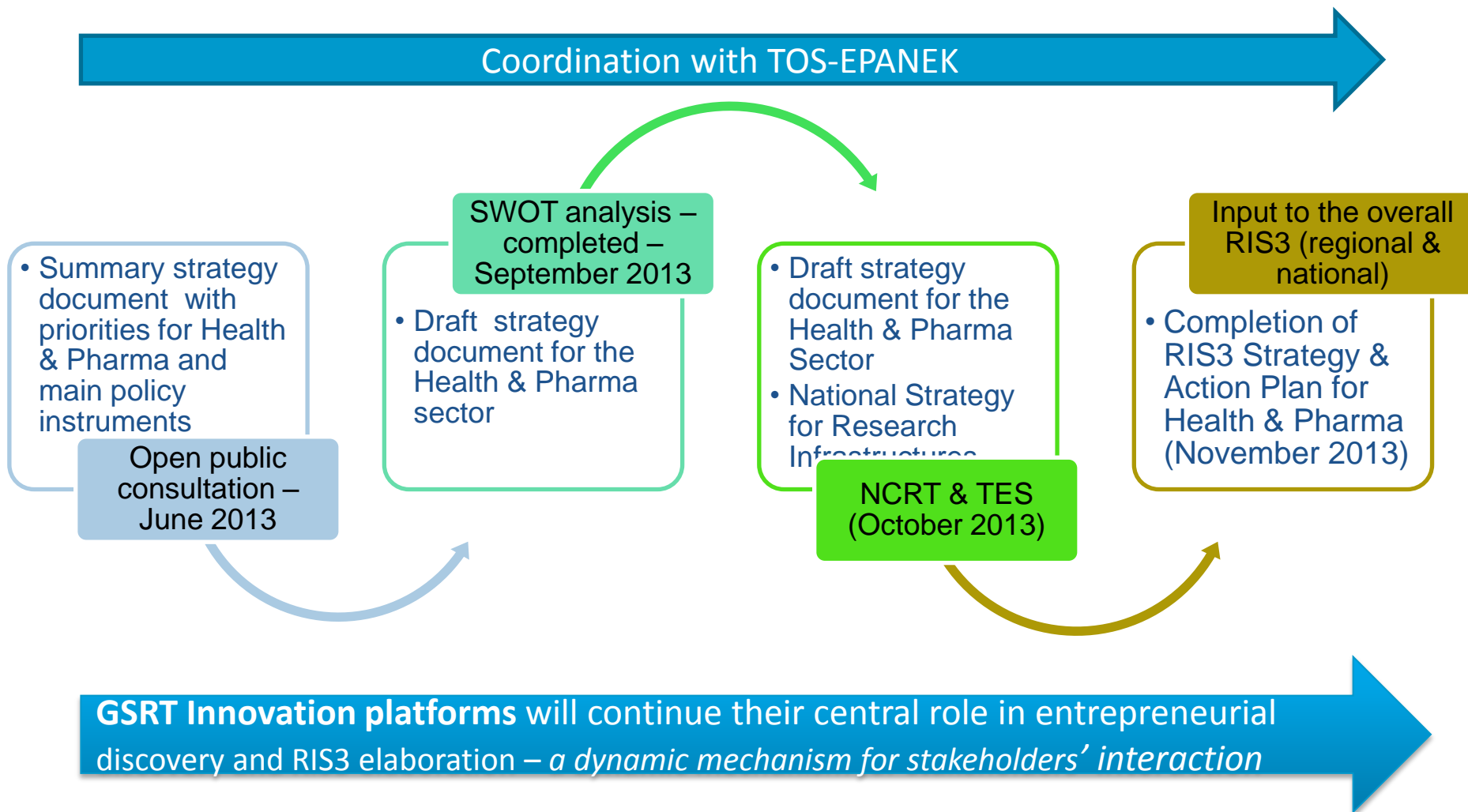
Regional / National Complementarity according to the mapping of Regions proposals

Region	Activities / priorities	Proposed level for intervention
Attica (hosting most enterprises and research entities)	Medical Tourism, diagnostic products & services, generics	Regional (networking, clustering, training) National (R&D for enterprises & research entities)
Western Greece	Infrastructure for Health (TO 9 & TO10)	Regional
Epirus	Medical Tourism & Wellness Enhance R&D capacities – infrastructure – cooperation enterprises & research /clusters	Regional / National
Stereia Ellada	Wellness tourism	Regional
Eastern Macedonia & Thrace	Key Enabling Technologies in the Pharma sector Incentives for re-location of new production sites in the region	National & Regional

Proposed funding instruments by the Platform and linked to SWOT

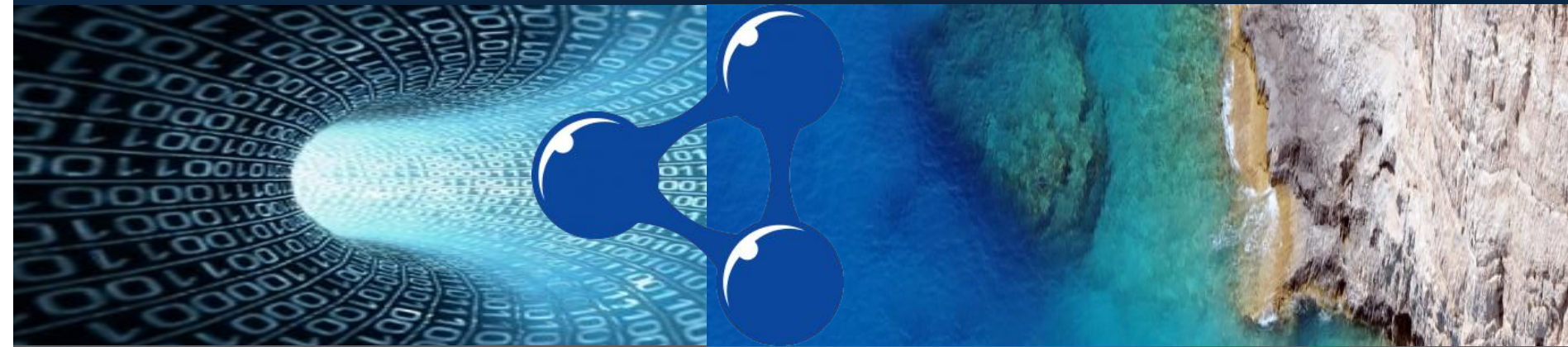
- Flagship projects for the Pharma industry
- Clusters
- Cooperation between enterprises & Research entities on the initiative of the enterprise
- Pre-competitive Procurement Actions
- Actions for proof of concept & support for start – ups
- Training & scholarships for scientists in enterprises
- Training & consulting on specific issues (patenting, licensing)
- Research Infrastructures (addressing needs of R&I ecosystem and enterprises)
- Support for curiosity driven research on emerging fields expected to transform the sector / subsector

Review of the process and next steps





Thank you for your attention



Looking forward to your feedback

General Secretariat for Research and Technology

Maria Christoula PhD