



HELLENIC REPUBLIC

MINISTRY OF

DEVELOPMENT AND INVESTMENTS

Wednesday, 5 October 2022

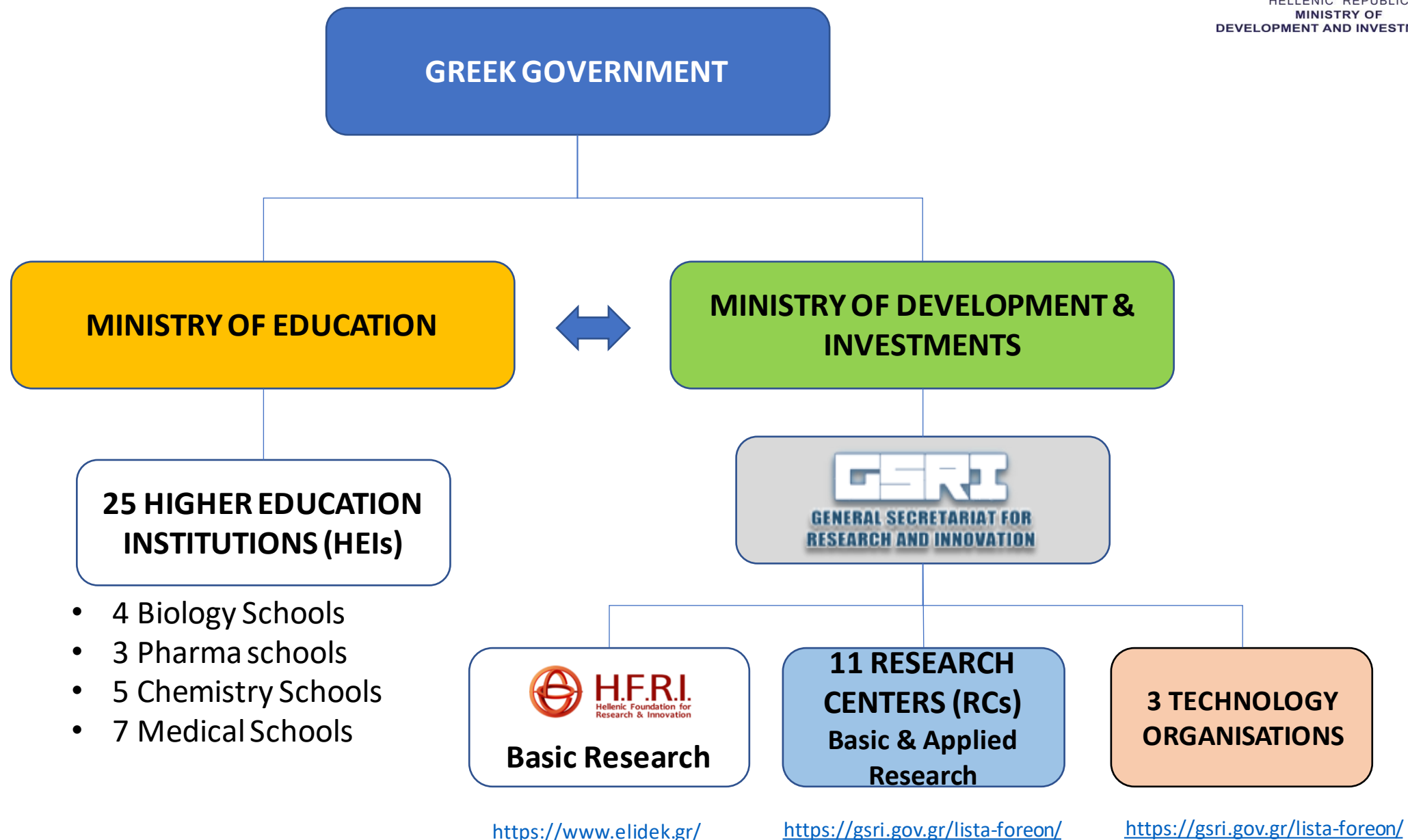
Research and Innovation in BioScience

Dr. Christos Dimas

Deputy Minister of Development and Investments

Research & Innovation





Hellenic Pasteur Institute



- **Infectious, autoimmune & neurodegenerative diseases:** study of the pathogenetic mechanisms & development of diagnostic & therapeutic approaches.
- Development of an **Intelligent System** of Epidemiological Surveillance & Environmental Health Monitoring based on the epidemiology of **wastewater**.
- Development of an advanced humanized mouse model for **multiple sclerosis**: applications for pre-clinical studies & drug testing
- Preclinical study of antigen-specific tolerance induction for the treatment of myasthenia gravis
- Development of innovating Biological Products and Health Services targeting Infectious and Neurodegenerative diseases



B.S.R.C Fleming



"ALEXANDER FLEMING"
Biomedical Sciences Research Center

- Development of novel antibodies that penetrate the blood-brain barrier for targeted immunotherapy of **neurodegenerative diseases**
- Therapeutic Approaches to **Multiple Sclerosis** with TPL2 Kinase Inhibitors
- Discovery of Autotaxin (ATX) inhibitors for the treatment of pulmonary and hepatic fibrosis.
- DNA detection in honey for the identification of pathogenic organisms.
- Reduction of neurodegeneration and improvement of memory by polyphenols in experimental models of **Alzheimer's disease**.



Foundation for Research and Technology (FORTH)



- **Competence Centre** in Medical Precision for Dementia and **Alzheimer's Disease**
- **Flagship Initiative** for National Research Network for **Neurodegenerative Diseases**
- National Network in Medical Precision for Cardiology and for the Prevention of Sudden Youthful Death
- Flagship Initiative for **SARS-CoV-2**
- Medical Precision Unit for **Cancer**



Research Centre “ATHENA”

- **Flagship Initiative** "National Network for Precision Medicine on **Oncology**", (Support in Information Systems Management)
- Thermal imaging system for the early diagnosis of subclinical mastitis in dairy sheep
- **COVID-19 Detection Algorithms** Using Voice Signal Analysis
- European Accelerator of Tuberculosis Regime
- Optimizing **drug development** with modelling and simulation methods
- **Speech Therapy Platform** with Virtual Assistant-Plan-V



Biomedical Research Foundation – Academy of Athens



- Greek **Genome Center**: Goal to offer genomic analyses
- Cancer Biology and new diagnostic and therapeutic approaches in Precision Medicine
- Stem cells and **Regenerative Medicine**
- Computational Biology and applications of **Artificial Intelligence** in Medicine
- Public **Cord Blood Bank** – Accredited of proper operation by the worldwide FACT-NETCORD



NCSR “Demokritos”

- Personalized medicine for **lung cancer treatment**: using Big Data-driven approaches for decision support
- Evidence-based co-creation methodology for closing the implementation gap between knowledge and action in health promotion
- SmartHealth | **European Digital Innovation Hub** on Precision Medicine and Innovative E-health Services
- Flexomagnetism: Exploitation of magneto-mechanical phenomena for sensors and biomedical applications
- Integrated structural biology, **drug screening efforts** and drug target functional characterization



National Calls for R&I projects: Research – Create - Innovate

❖ Calls for proposals

❖ ~ 180 projects

❖ Total budget: 131.3 million €



❖ Example of integrated projects

❖ Investigations / Applications for Dementia and Alzheimer's Disease

❖ Collection and analysis of clinical, hematological, biochemical, endocrinological and genetic data from patients

❖ Personal allergy tracer

❖ 3D modelling of human inner body organs for surgical purposes

❖ Smart Platform for Self-management and Support of Patients with Chronic Respiratory Diseases

❖ New National call for R&I projects: Research – Innovate 2021 – 2027

❖ Total Budget: 300 million €



Innovation Clusters

❖ 4 Innovation Clusters operating in Biosciences

- ❖ EYCARDIA | AI platform for cardiovascular risk estimation
 - ❖ Initiated by Medical School, UoA
- ❖ HDHC | Hellenic Digital Health Cluster
 - ❖ Initiated by FORTH
- ❖ HBIO | Hellenic Bio Clusters
 - ❖ Initiated by PRAXI Network, FORTH
- ❖ HOPE GENESIS | Telemedicine to Support Pregnant Women in Remote Areas
 - ❖ Hope Genesis



“PYTHeIA” Competence Center

- ❖ PYTHeIA Competence Center is a Private-Public-Partnership (PPP) aspiring to enhance digital transformation in Health sector.
- ❖ Through a holistic approach, PYTHeIA supports and promotes innovative digital solutions by upgrading, reinforcing and accelerating the integration of digital culture at the Health value chain converting it into modern and competitive.

Greek Partners

Larissa

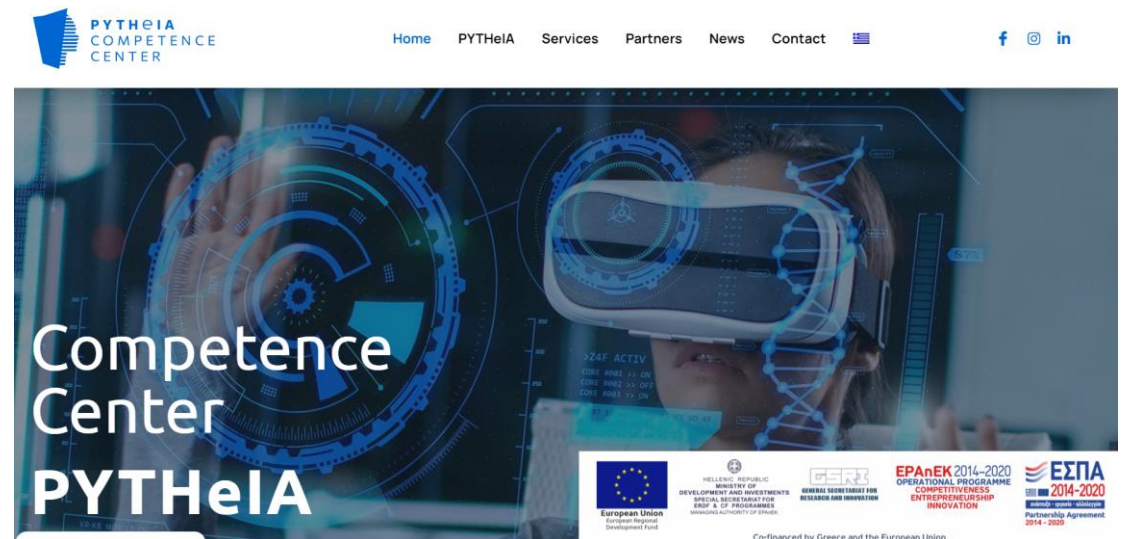
- ⊕ IED
- ⊕ Open Mellon
- ⊕ Spirito
- ⊕ Europroodos
- ⊕ University of Thessaly

Athens

- ⊕ Hygeia

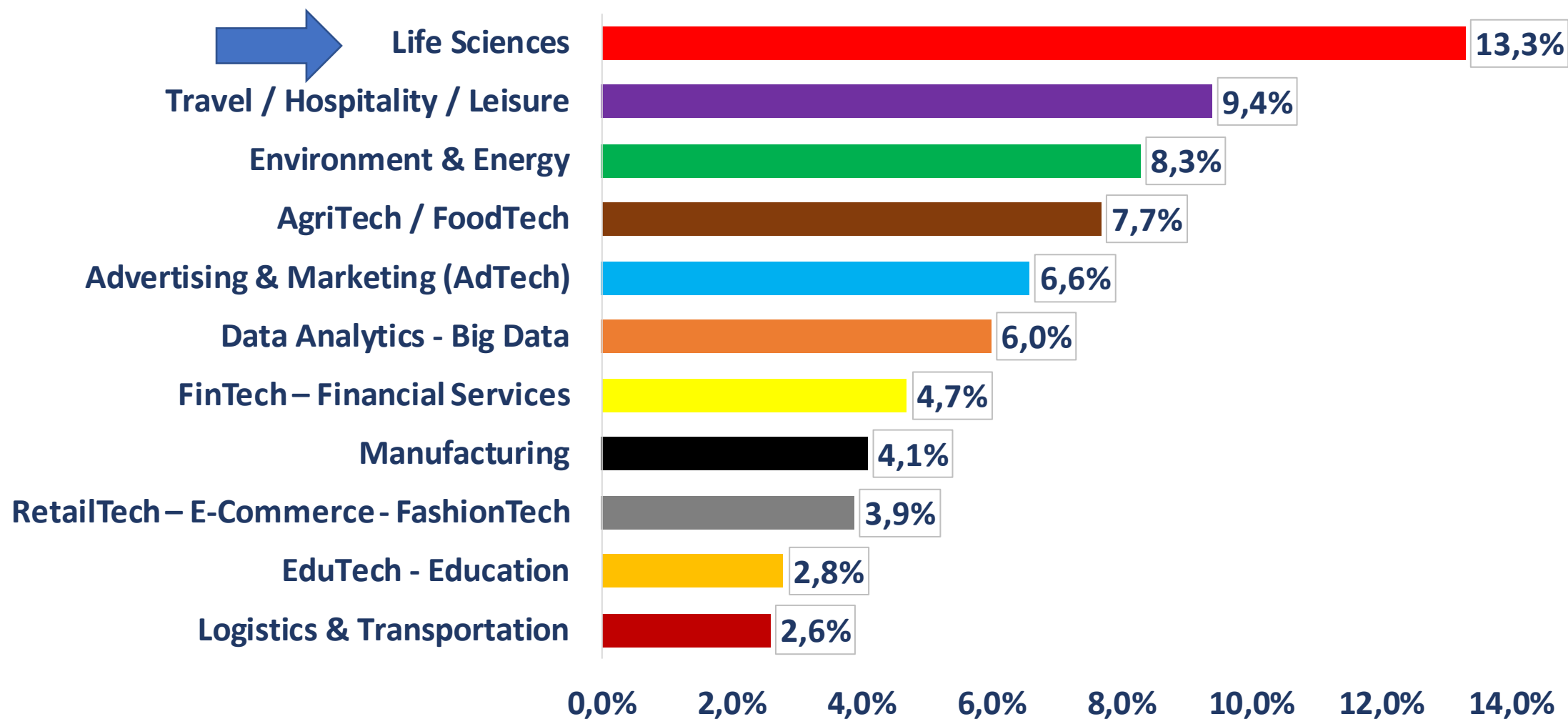
Thessaloniki

- ⊕ Euricon
- Corfu**
- ⊕ Ionion University
- Rhodes**
- ⊕ Aegean University

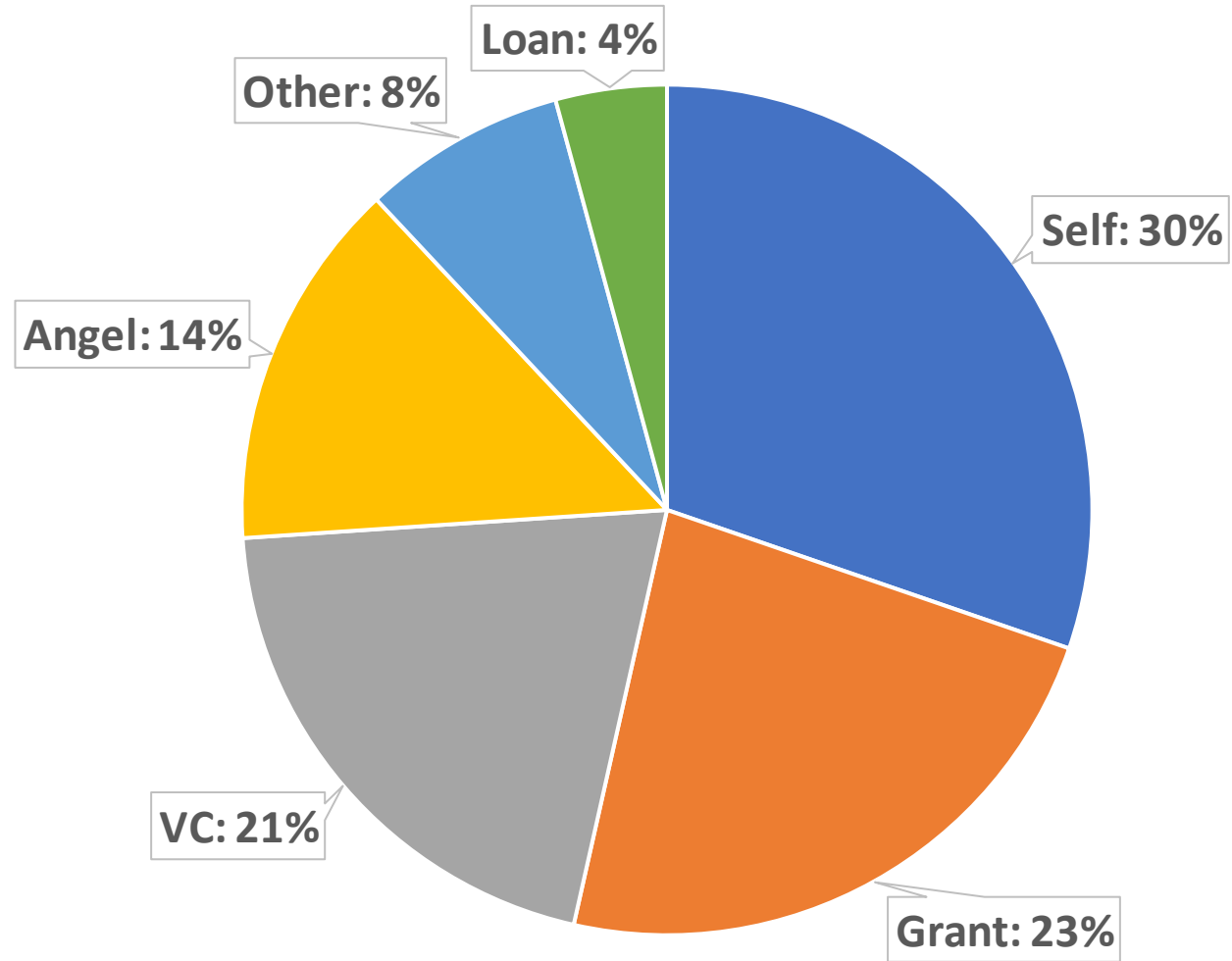




"Elevate Greece" Startup ecosystem statistics



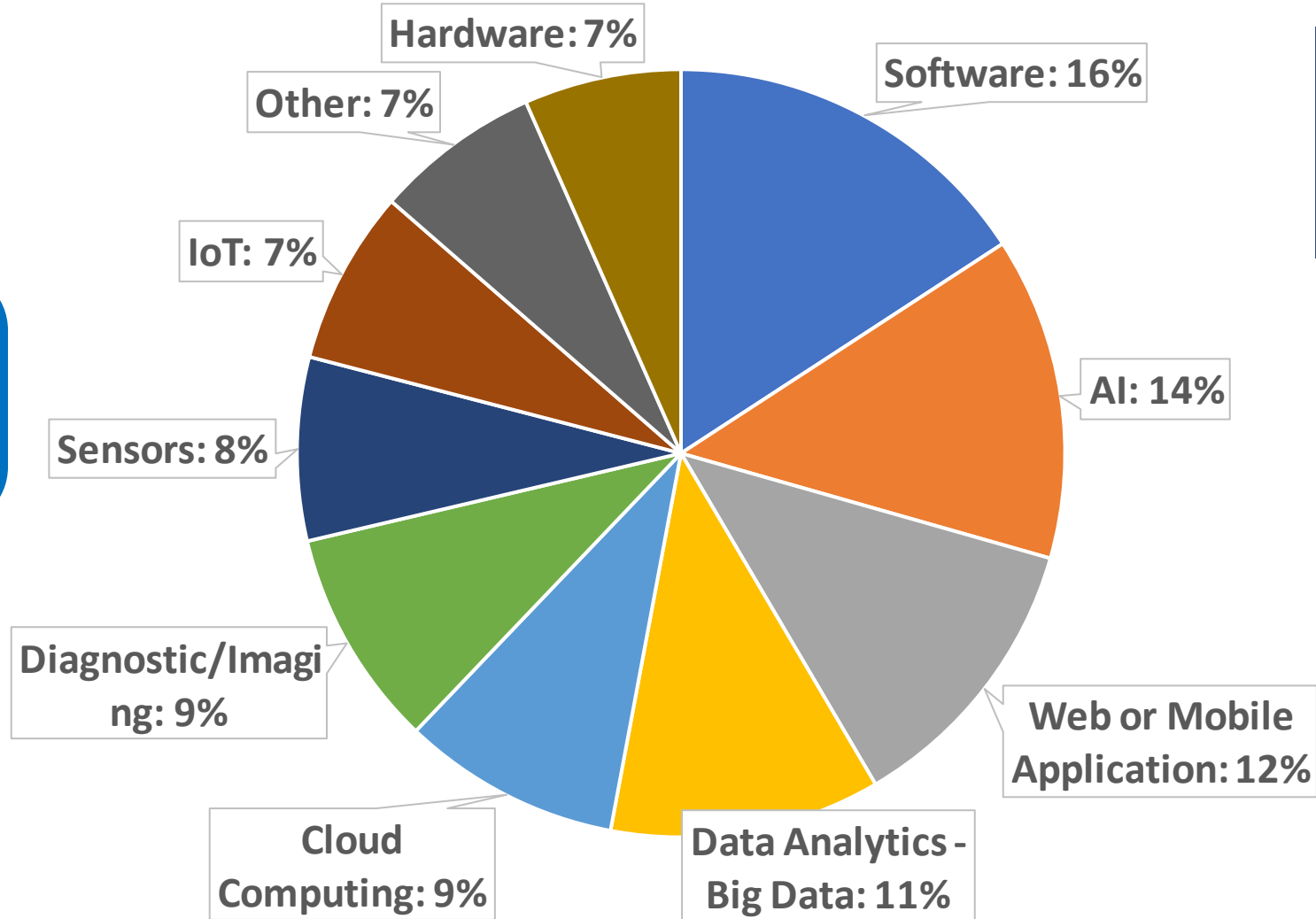
Life Sciences: Preferred Funding Sources



Preferred Funding Source:
Self Funding



Life Sciences: Preferred Used Technology



**Preferred
Used Technology:
Software**



Tax Incentives for R&D



► Increase of super-deduction tax rates for companies investing in R&D, from 130% to 200% (date of application: 1/9/2020)

► Simplification of procedures & acceleration of the process

Greece among the most attractive Countries for R&D



■ New legal framework for Spin-Off companies

Exploitation of the knowledge that is being produced in Research Centres

Clarification of the framework for the guarantee of Intellectual Property

Definition of duties and rights for the participation of for all parties involved
(Researchers, Spin-Off company, Research Organisation Management Committee)

“Innovation District” in Attica

An industrial district property of 17,893 m²

Provision for space use: 40,000 m²

R&D departments, Startups, Spin-Off, Research Centres & Higher Educational Institutions

Construction and Operation through PPP
(No cost for state budget)

Reference point for Innovation in SE Europe

2,500 jobs

100M. Euros

Dr. Christos Dimas
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ThessINTEC in Thessaloniki

Collocation & Collaboration of research teams with industrial and business partners from Greece and abroad

R&D Centres

Jobs Creation

Reference point for Innovation in Balkan and SE Europe

760 acres



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Thank you!



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