

## Exploitation of R&D results / Provision of Advanced, Specialized Services to Industry and Society

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The Institute also focuses on the commercial exploitation of research products. As detailed in section 2, a substantial part of the total income of INRASTES comes from the provision of specialized, advanced R&D services to public and private entities mainly within the country but also internationally. The mere level of the INRASTES service provision (more than 50% of the total service provision of the whole Centre) through significant collaboration with the Greek industry in areas like solar thermal collector characterization, food and feed control for dioxins and dioxin-like pollutants, safety and risk assessment and management methods, medical applications using cytogenetic methodologies in combination with molecular DNA-probes for bio-monitoring purposes, air quality monitoring, analysis and assessment, advanced nanostructured material characterization, etc indicates the inclination of the Institute's personnel towards exploitation of the research results.

Specifically, the INRASTES Laboratories offering specialized scientific services include:

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[Dioxin Analysis](#)

[Environmental Radioactivity Laboratory](#)

[Environmental Research Laboratory](#) [Health Physics, Radiobiology and Cytogenetics Laboratory](#)

[Immunodiagnosics](#)

[Molecular Diagnostics and Cytogenetics](#)

[Nuclear Research Reactor Laboratory](#)□

[Radiopharmaceuticals](#)

[Radioactive Materials Management Laboratory](#)□

[Radioisotopes Distribution](#)

[Solar and Other Energy Systems Laboratory](#)

[Systems Reliability and Industrial Safety Laboratory](#)

[Thermohydraulic Analysis and Multiphase Flows Laboratory](#)

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The accumulation of experience and know-how through among others, the close contact with European and National industry, creates improved prospects for a dynamic exploitation of the research results. Indeed, the annual turnover of these Specialized Laboratories from the provision of services only, exceeds 1.0 M€ and relates to contracts with both private and public entities. As indicated in the following diagram, these Laboratories and their R&D services fall under the thematic priorities of the National smart specialization strategic plan

(Energy / Environment declared by green color and Health / Pharmaceuticals declared by red color). It becomes then evident that INRASTES is for instance the sole Research Institute in the country that may carry out in parallel Energy / Environmental studies as well as studies for the relevant impacts on human health.

### Joint Ventures

An important target for the future is the attainment of integrated / holistic approaches in the services offered (e.g. in energy / environmental applications) and the establishment of a growth strategy based on the effective protection / exploitation of IPRs and the promotion of an innovation culture in accordance with the respective central plans of NCSR Demokritos. Over the last decade, the research staff of INRASTES has managed to set up a significant number of contracts with Greek and European Industry in sectors like Radio-pharmaceuticals, Energy, Chemical Processing as well as to file for a number of patents certain of which have attracted the interest of investors (e.g. radio-pharmaceuticals) and have been internationally acknowledged (e.g. optical immuno-sensors). A detailed list of patents is provided in Annex VI.

### Patents

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Moreover, two spin-off companies have been established by INRASTES researchers (on Genetic Testing and Development & Production of Radiopharmaceuticals) which over the period 2004 – 2012 have created more than ten full time job positions and have participated as founding members to the Hellenic Biocluster, the first cluster of enterprises in the Bio-sector in Greece ([www.hbio.gr](http://www.hbio.gr)) with significant business synergies and accomplishments. It is this kind of activities that form the basis and indicate the framework for the results exploitation / service provision perspectives of the Institute in the coming five year period.

### Spin-off Companies

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