



## **POSITION LETTER ON NUCLEAR SCIENCE IN SOUTH-EASTERN EUROPE**

**WE, THE UNDERSIGNED**, members of the *South-East European Nuclear Physics Network (SEENet)*, established in the EC FP6, seriously concerned about the current condition of the nuclear research establishment in our region,

having diagnosed a series of dysfunctions and worrying trends in the manner the society manages nuclear science that is supposed to serve the continentally-shared goals of a sustainable development through knowledge;

taking a pragmatic stand in the endeavor towards a better tuning of what nuclear science can offer to what society seeks;

trusting the capability of all factors - governance, academia, the business realm and others - of reinstating the nuclear research institution to the position it deserves on the agendas of action for the 21<sup>st</sup> century;

**A. *Call your attention*** to the following shared, outstanding problems that confront the nuclear science establishment in South-East Europe:

- Decaying infrastructures in major nuclear physics institutions, as a result of a rapid reduction of state funding, in conjunction with a slower than expected takeoff of private research sector.
- A chronic deficit in state-of-the art instrumentation.
- Limited training and mobility programs - to adapt the workforce to the patterns and priorities of Western Europe research and development.
- Human resources - experiencing a biological decay and societal depreciation much faster than the rate of replenishment with young forces, that in turn show an unprecedented reluctance to choose a scientific career;
- A flat, non-optimized EC program structure - addressing the scientific potential of South-Eastern Europe in only superficial manners;
- A continuing brain drain - a standing trend for many decades now, not diminished by the reforms and transitions taking place for more than a decade in the region;
- The interest in innovation and overall improvement in the industrial sector and services - depressed, and constrained by the obsession of mere survival, of the 'bare necessities'.

**B. *Submit that***, while true solutions capable of profound improvements may require a longer lead time, *gradual steps can, and should be adopted* as a result of convergence of interests and willpower on behalf of the decision factors in both the public and the private sectors, on:

- Sorting out, on comprehensive cost-benefit criteria, the existing South-East-European inventory of science's critical infrastructures, and *upgrading the resulting viable core* to a level compatible with the European standards and expectations.
- Contemplating, designing and implementing as soon as feasible, *a regional large scale research infrastructure and management framework*, that may function as a profitable co-operator and advanced science service provider to the centers of excellence worldwide.
- Supporting and providing guidance to regional network activities that address *the optimization of the generation and management of research-oriented human resources* - these being traditionally recognized as an asset of excellence of Central and South-Eastern Europe in the international market of science workforce. Factors such as the aging of senior personnel, science education, workforce re-training, employment and others should be carefully addressed.
- Promoting the notion of *a positive discrimination of the South-Eastern European research teams in EU projects and funding allocations*, for an appropriate length of recovery time (e.g., five to ten years).
- Creating and maintaining a positive political pressure at EU level, to persuade South-Eastern European governments to *reconsider science budgets in terms of GDP fractions and scrupulously observe their commitments* in this regard.
- Designing *incentives for business entrepreneurs* to (i) contribute to national/regional science budgets, and (ii) invest more in innovation and in basic research and advanced education.

**C. Inform those sharing our concern** that SEENet will proceed to the following actions:

- The design and implementation of *communication schemes*, providing for a permanent and effective interaction with European and national science-policy centers.
- The preparation of an action plan for joint activities conducive to a gradual integration and joint use of infrastructures in view of the forthcoming *EC Framework Programme 7*.
- Finalizing a *Framework Agreement of Collaboration* between the SEENet participant institutions, which will also be open to third parties.

At a time of many and complex challenges, when the integration of all resources of knowledge is more imperative than ever, we trust that our position statements will be properly noted and expect your support in these matters.

Respectfully,

Prof. Chavdar Stoyanov, INRNE, Bulgarian Academy of Sciences, Sofia, Bulgaria

Prof. Borislav Slavov, University of Sofia, Sofia, Bulgaria

Dr. Zoran Basrak, Rudjer Boskovic Institute, Zagreb, Croatia

Prof. Dario Vretenar, University of Zagreb, Zagreb, Croatia

Dr. Sotirios Harissopulos, Inst. of Nuclear Physics, NCSR "Demokritos", Athens, Greece

Prof. Roza Vlastou, National Technical University of Athens, Athens, Greece

Prof. George Lalazisis, Aristotle University of Thessaloniki, Thessaloniki, Greece

Prof. Nicolae Victor Zamfir, NIPNE, Bucharest, Romania

Prof. Gheorghe Cata-Danil, University Politehnica, Bucharest, Romania

Prof. Alexandru Jipa, University of Bucharest, Bucharest, Romania

Prof. Nebojsa Neskovic, VINCA Institute, Belgrade, Serbia and Montenegro

Prof. Miroslav Veskovic, University of Novi Sad, Novi Sad, Serbia and Montenegro

Prof. M. Nizamettin Erduran, Istanbul University, Istanbul, Turkey