PRVI KONGRES HRVATSKIH ZNANSTVENIKA IZ DOMOVINE I INOZEMSTVA

Zagreb – Vukovar, 15 – 19 November 2004

1ST CONGRESS OF CROATIAN SCIENTISTS FROM THE HOMELAND AND ABROAD

CONCLUSIONS

BIO-TECHNICAL SCIENCE

1. Scientists from the Homeland presented their own achievements in agriculture and forestry technology and the production of medicine while participants from abroad presented their experiences in medical and environmental technology and the development of production in these fields.
2. Participants from the Homeland and abroad support the development of bio-technology as a vital precondition:
    a. To revitalise agriculture, food production and to render abandoned agricultural land ready for production;
    b. For the rational management of forests and to preserve natural forests which render; Croatia as a forerunner in excellence compared to other European countries;
    c. For the production of biological molecules used to produce medicine;
    d. To advance mariculture and reasonable management of the sea;
    e. To preserve and revitalise the environment.
3. Croatia possesses good conditions to develop the *production of "healthy" (organic)* food that can be a highly valued product adding a new aspect to Croatia's tourist offer and as a form of export.
4. As a maritime country, Croatia excels with its favourable conditions to produce *seafood*, keeping in mind:
    a. The development of mariculutre while preserving the environment and the biodiversity with the application of exceptional technology and the latest methods of production which is largely based on genetic research;
    b. The preservation and protection of good quality autochthonous Adriatic breeds using the strictest genetic control measures (selection) of organisms during production, monitoring

interactions between natural populations and those produced with supervision of the effects of genetic engineering;

c. The development of bio-technical methods to product food for fish that satisfies the food needs of organisms and is degradable with the least amount of damage to the environment;

d. The development of methods to measure the toxic level of shellfish which is one of the most significant problems of contemporary mariculture.

5. It is necessary to promote multi-disciplinary research directed towards the further development of sustainable agricultural productivity in keeping with good agricultural practise (EU CAP & the Agenda 2000). That productivity must be based on:

   a. The demands of producers and consumers for high quality products;

   b. Environment protection standards implemented through agro-environmental programmes;

   c. Increased employment and an improved standard of living, particularly in rural and protected areas.

6. The development of *industrial bio-technology* (recyclable fuel and raw materials) should be given the highest priority.

7. Participants stress the *great potential in forestry* due to the unique large areas of natural forests that are managed on the principle of achieving sustainable development and biodiversity.

8. Participants support the intention of Croatian forestry scientist to utilise their experiences in *artificially raising forests in natural forest systems* and to offer these to the international community.

9. It is vital that Croatia once again establishes a rational system of managing forests and to *minimise the effects of politics on managing* forest land.

10. Foundations exist in Croatia for *biotechnical production for health* (PLIVA, Institute of Immunology), environment protection (biologically degradable polymers) etc. The development of these activities can support the development of other production branches.

11. It is necessary to develop *contract research organisations* that will secure significant resources for the domestic bio-technical industry (e.g. PLIVA) that are currently consumed abroad, to be kept in the country. Services offered by newly founded contract research organisations can be offered to the foreign market.

12. With appropriate taxes and other alleviations, it is necessary to increase private venture capital investments into newly founded bio-technical companies. The State needs to continue to increase resources invested for this purpose.

13. *Education of excellence* of young professional in domestic and foreign science milieus is a *conditio sine qua non* for the development of modern bio-technology as a means of adding value to traditional bio-technical disciplines.

14. Training in the area of *protecting patents* is vital to formulating patents and commercialising bio-technical discoveries.

15. It is important to *continually educate the public* about the meaning and significance of bio-technology. It is vital that the public understands the process from discovery to the production of bio-technical products, requires a significant period (up to 15 years) and that products are quickly outdated. It is vital to use scientific facts to remove any misunderstanding in the public about genetically modified organisms.

16. It is vital to found a *co-ordinating body* that will accelerate the defining of strategic interests and capabilities of Croatia, recommend priority projects, connect academic communities and industry and optimally utilise available resources. Professional and scientific societies are the best possible focal points for support for these activities.

17. It is vital to set up a body that will motivate development and the implementation of standards such us current Good Laboratory Practises and to issue relevant attest certificates. A consortium of professional societies is the best focal point for support for these activities.

It is necessary to continually research and advance the education of experts in bio-sciences and to motivate the industry to employ highly qualified experts.