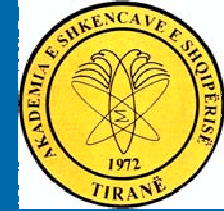




MINISTRY OF EDUCATION AND SCIENCE
ACADEMY OF SCIENCE



***Science, Technology and Innovation Indicators:
Trends and Challenges in South
Eastern Europe***

***Edmond Agolli, MoES
Salvatore Bushati, ASA***

27 – 31 March 2007, Skopje

R&D Management Framework and Network of Institutions

COUNCIL OF MINISTERS

Ministry of Education and Science

Council of Higher Education and Science

Scientific Research Directorate

Academy of Sciences

MoES

Community

RI

RC

RI

Universities

RC

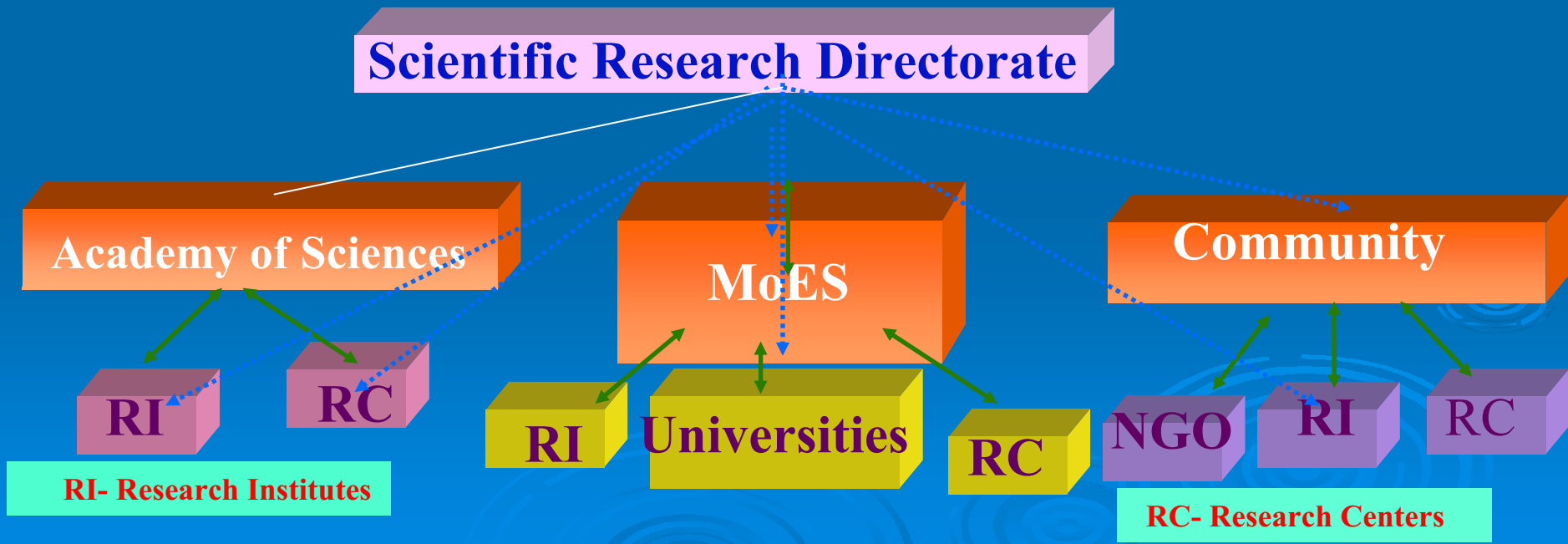
NGO

RI

RC

RI- Research Institutes

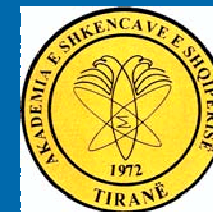
RC- Research Centers





MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



LEGAL FRAMEWORK

Law on Science and Technological Development

- Law on Higher Education

- Governmental Decisions

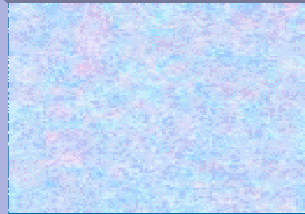
- CHES Decisions

Law of Academy of Science

- Ministerial Regulations

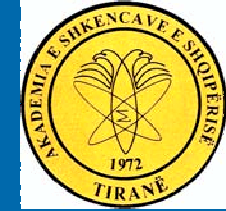
MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE





MINISTRY OF EDUCATION AND SCIENCE



ACADEMY OF SCIENCE

FINANCING

Direct State Budget

National Programs through MOES

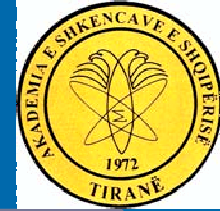
International Programmes and Projects

Others



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



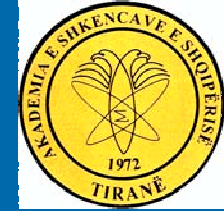
Ministry of Education and Science

- The main governmental body responsible for the R&D activities
- Responsible for the National Programmes including financing
- Main consultant to the Government for the development policy
- Main information point for the community
- Responsible for the bilateral agreements
- Support for different activities and actions



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



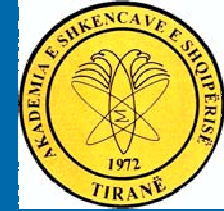
National Programmes on Priority Areas

- Describe the main development objectives
- Prepared by Groups of experts
- Approved by CSPTD
- Implemented through projects (standard procedures)
- MOES is responsible for implementation and financing



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



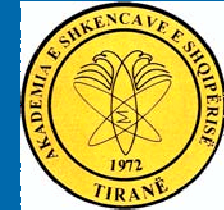
Academy of Science of Albania continues 

- performs studies and research of theoretical and practical character in different domains of albanologic, social, natural and technical sciences
- assists in discovering new domains of studies and research
- provides suggestions and necessary expertise to the higher government institutions in resolving problems considered as important for the country development
- promotes and encourages the active participation of associations, scientific foundations and outer collaborators in scientific activity



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



Academy of Science of Albania

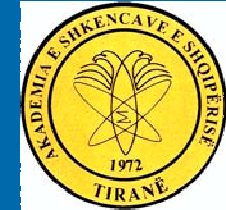
- programs, plans and endorses their activity in maintaining and acquiring scientific awards and prizes.
- disseminations the scientific product to the end users, public and non public , to contribute to the sustainability development of the country
- cooperation in the different programs with the other academies
- provide the Annual Report

ASA is a important institution partner of MoES



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



R&D Management Framework and Network of Institutions

MAIN PROBLEMS

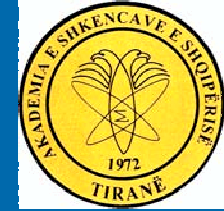
continues →

- CSPTD was unable to play its role, because of its composition
Is replaced by CHES
- Limited competences and insufficient supporting infrastructure
- Very dispersed system with small units
- Inability of RI to adopt their development according to the new reality
- Low R&D activity in Universities
- Lack of standards of quality
- Low collaboration and co-operation between different units



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



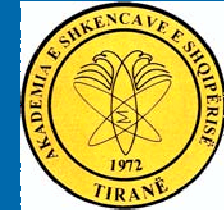
MAIN PROBLEMS

- Brain drain
- Old equipment and lack of the basic infrastructure
- Lack of information on the respective communities in other countries
- Very low international integration
- High and unnecessary number of Universities and Institutes



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



Actions for changing

continues



□ Reorganisation:

- **Less RI, with clear objectives to fit the country development needs**
- **Integration of Higher Education with Research**
- **Adoption of better management framework**

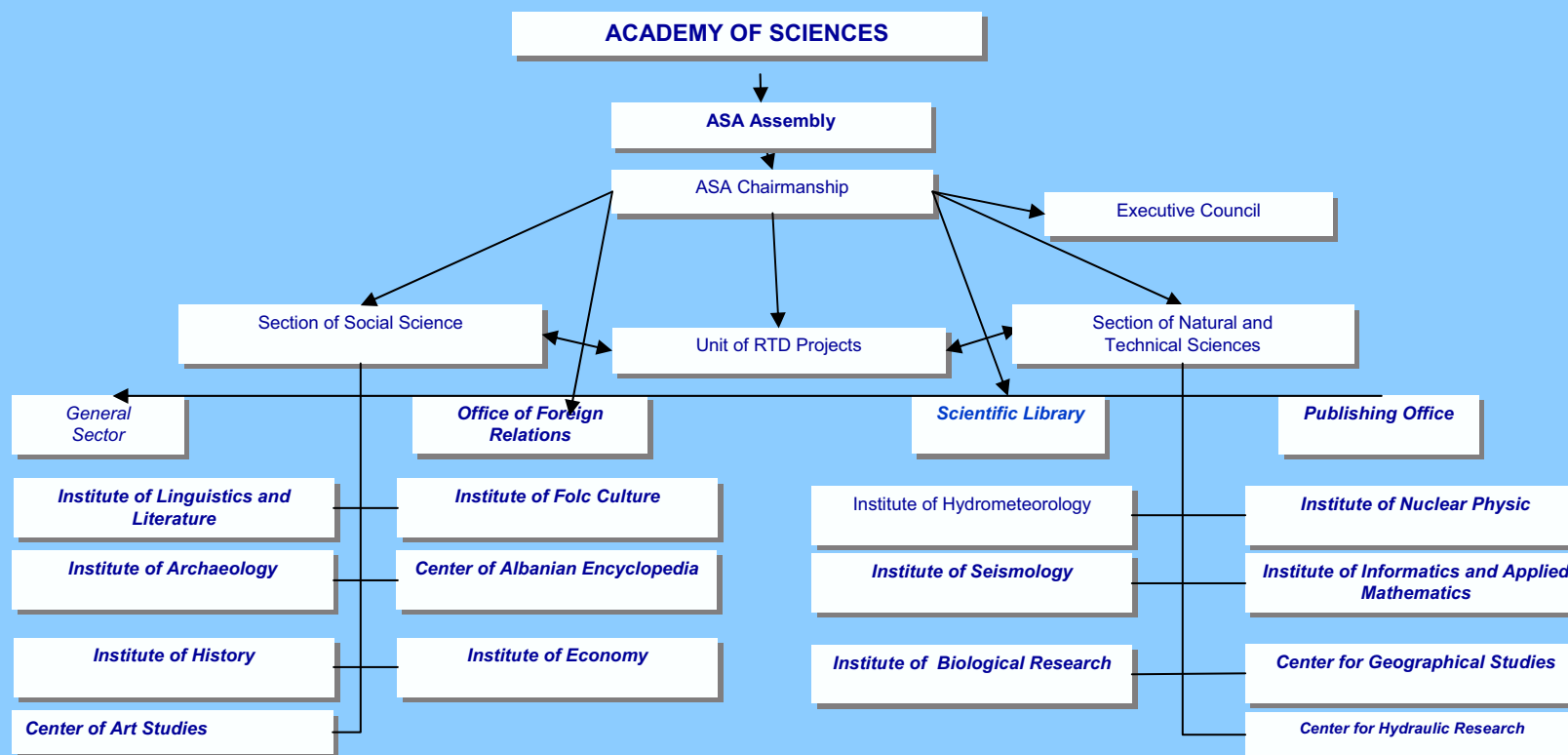
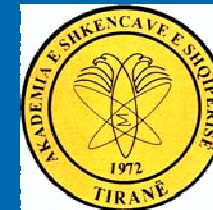
□ Introduction of standards

- **Introduction of Research indicators (OECD)**
- **Well-defined procedures for application for financing**
- **Accreditation of Universities**



MINISTRY OF EDUCATION AND SCIENCE

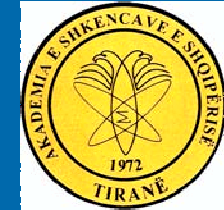
ACADEMY OF SCIENCE





MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



Actions for changing

Infrastructure

- **Local Area Networks for all units** Realized in all universities and ASA,
- **Internet access** Partially realized
- **National academic network** Under development

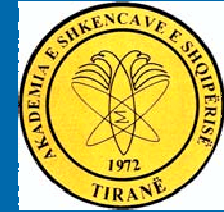
International co-operation

- **Bilateral agreements**
- **Regional actions**
- **Join main european and international programmes**



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE

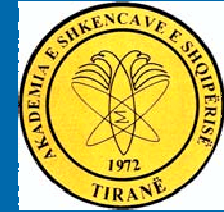


- **During 2007 we will have:**
 - **A new Research System**
 - **New organization of Academy of Science**



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



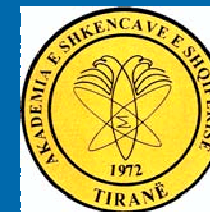
Collecting S&T statistics

- Until now Albania has not used any national classification and in this reality is very difficult to transform the existing indicators on R&D into the internationally accepted *Frascati* classification.
- In this situation the government expenditures on R&D in Albania evaluated as a part of 85% of the expenses by the research institutions.

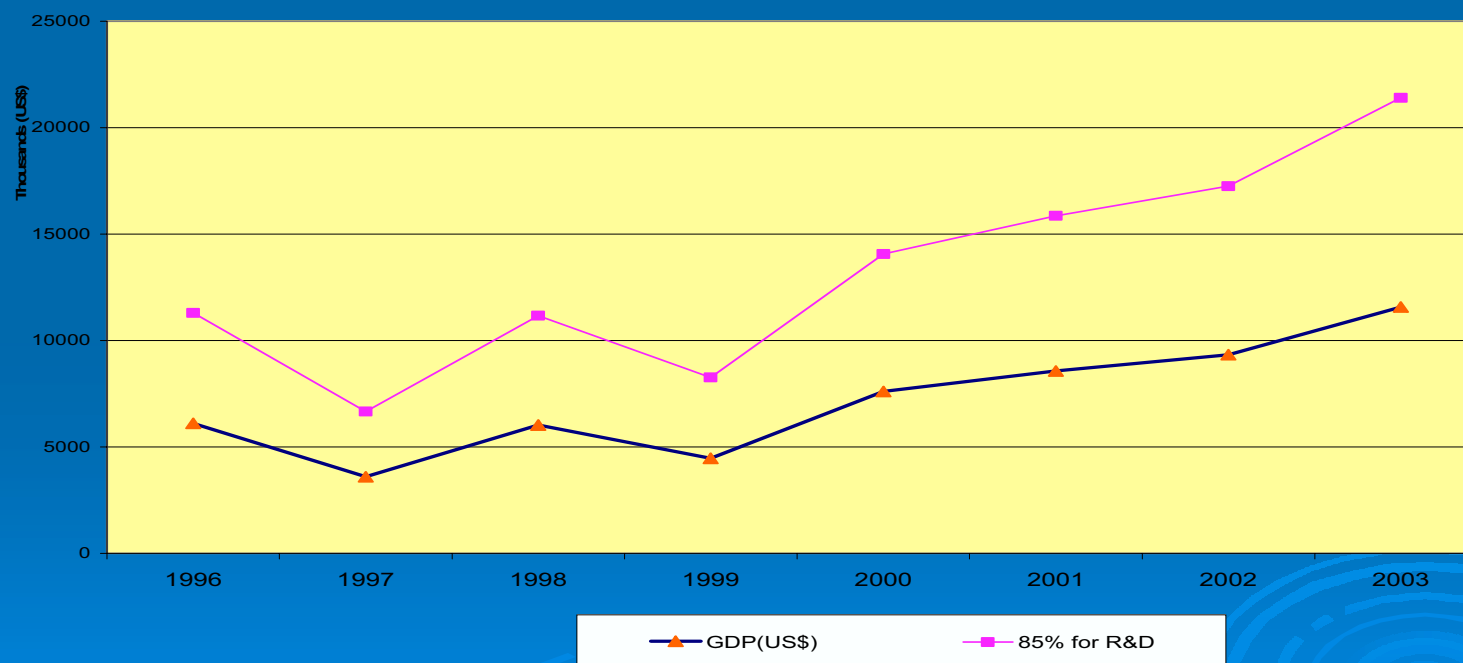


MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



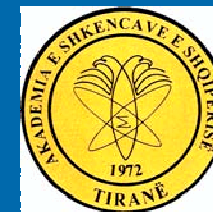
Government Expenditure on R&D





MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE

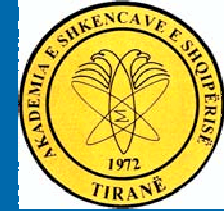


Government expenditure on R&D/GDP	1996	1997	1998	1999	2000	2001	2002	2003
as % on GDP	0.17	0.14	0.19	0.11	0.17	0.18	0.18	0.18



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE



Human resources

Research and Development personnel

- by scientific field
- by sector

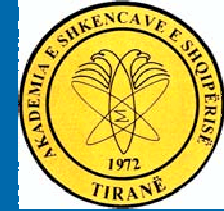
Number of Researchers

- Number of Professors
- Number of Doctors
- Number of young researchers



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE

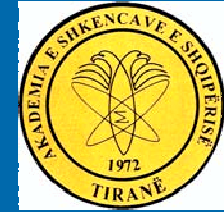


- Official statistics for human resources in science and technology in Albania for R&D employees and researchers do not equate to Full Time Equivalents (FTE) as defined in the OECD's *Frascati* manual.
- The only one national statistical institution (INSTAT) in Albania
has not provided the statistics for the R&D.



MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE

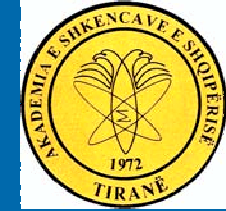


❑ So, in conclusion, why data on R&D are not currently being collected, are:

- Infrastructure is missed
- Indicators on S&T are not relation to OECD, Frascati Manual
- Survey instruments such as questionnaires, manuals, etc., are missed
- Methodologies for collection of data and analysis are missed
- Funds are missed
- Qualified people is missed
- Etc.



MINISTRY OF EDUCATION AND SCIENCE



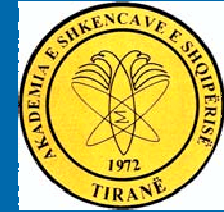
ACADEMY OF SCIENCE

➤ Finally:

- ❑ How we have to do to initiate collecting of R&D data in the near future and possible approaches.
- To create a new infrastructure (new sector, agency, etc.),
- To use the currently international indicators on S&T,
- Use of international survey instruments such as UNESCO questionnaires, Frascati manual, etc. in collaboration with UIS (or other institutions),
- Use of new Methodologies for collection of data and analysis in collaboration with UIS (or other institutions),
- To train people,
- To find funds from UNESCO, EC, etc., through joint projects in collaboration with countries that are present,



MINISTRY OF EDUCATION AND SCIENCE
ACADEMY OF SCIENCE

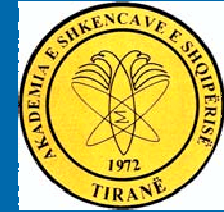


THANK YOU FOR YOUR ATTENTION
HOPPING IN YOUR COLLABORATION



MINISTRY OF EDUCATION AND SCIENCE

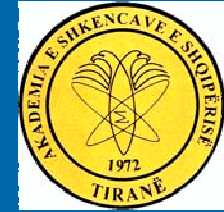
ACADEMY OF SCIENCE





MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE





MINISTRY OF EDUCATION AND SCIENCE

ACADEMY OF SCIENCE

