

**Association EURATOM – MEdC Romania**

**Simpozion IFA - 2011**

**Date: 21 December 2011**

**Plaza de constructii pentru Reactorul Nuclear**





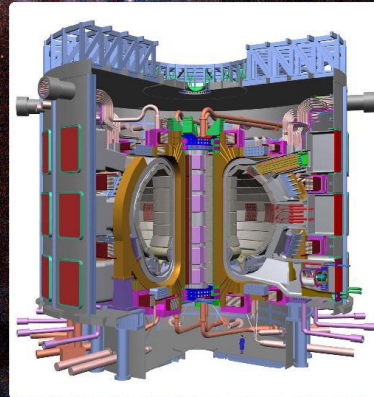
Association EURATOM – MEdC Romania

# 5<sup>th</sup> Association Days Meeting

26 – 27 November 2009, Bucharest, Magurele

## Institutions

- Romanian National Authority for Scientific Research (ANCS)
- Institute of Atomic Physics (IFA)
- National Institute for Laser, Plasma and Radiation Physics (INFLPR)
- National Institute for Cryogenics and Isotope Technologies (ICIT)
- University of Craiova (UCV)
- Technical University of Cluj-Napoca (TUCN)
- Horia Hulubei National Institute for Physics and Nuclear Engineering (IFIN-HH)
- Alexandru Ioan Cuza University, Iasi (UAIC)



**Anniversary edition of the Association Days Meeting:  
Ten years of Romanian participation in EURATOM research  
on controlled thermonuclear fusion**



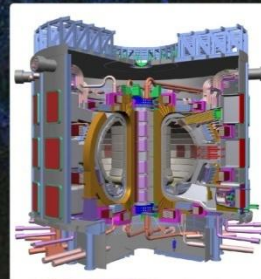
**Association EURATOM – MEdC Romania**

# 6<sup>th</sup> Association Days Meeting

**2<sup>nd</sup> July, 2010, “Alexandru Ioan Cuza” University,  
Iassy, Romania**

## **Institutions**

- Romanian National Authority for Scientific Research (ANCS)
- Institute of Atomic Physics (IFA)
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- Alexandru Ioan Cuza University, Iasi (UAIC)
- National Institute of Materials Physics (INFM)





**Association EURATOM – MEdC Romania**

**7<sup>th</sup> ASSOCIATION DAY MEETING**

**Date: 16 December 2011**

**Place: Institute of Atomic Physics, Magurele**

# ***Overview of the EURATOM-MEdC Association activities during 2011***

- 1. News from the European Commission and EFDA**
- 2. Outline of MEdC Association activity in 2011**
  - Year 2011 in the history of the Associations
  - Structure of the research programme in 2011
  - Management activities

# 1. News from the European Commission and EFDA

- Amendment to the Contract of Association (prolongation of FP7 until 2013). The existing structure (EFDA, EFDA JET, the EURATOM Associations) will be maintained for next 2 years; Francesco Romanelli was nominated as both EFDA and EFDA JET leader
- Intense work and discussions for the organization of the Euratom fusion beyond 2013. Essential change is prepared in view of ITER needs
- Improvement of the Associations collaboration with F4E

- ***New EFDA research directions:  
Power Plan Physics and Technology***

3 call until now but we have not found the required expertise

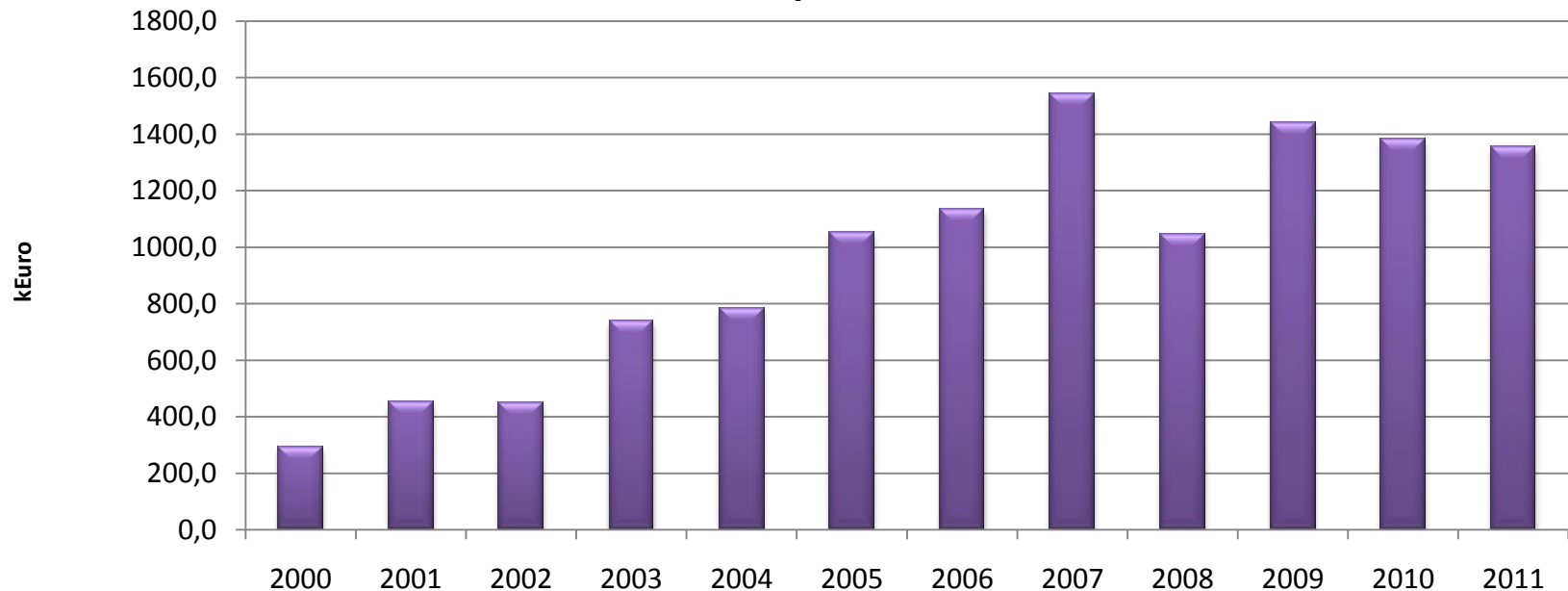
- New ideas in the EFDA work program for the next 2 years: to develop priority topics that extends over several Topical Groups and are ***goal oriented projects*** (not collections of projects proposed by each Associated)

**EFDA ITER Physics Programme :**  
**(11 problems that have to be solved)**

# *Years 2011*

## *in the hystory of the MEdC Association*

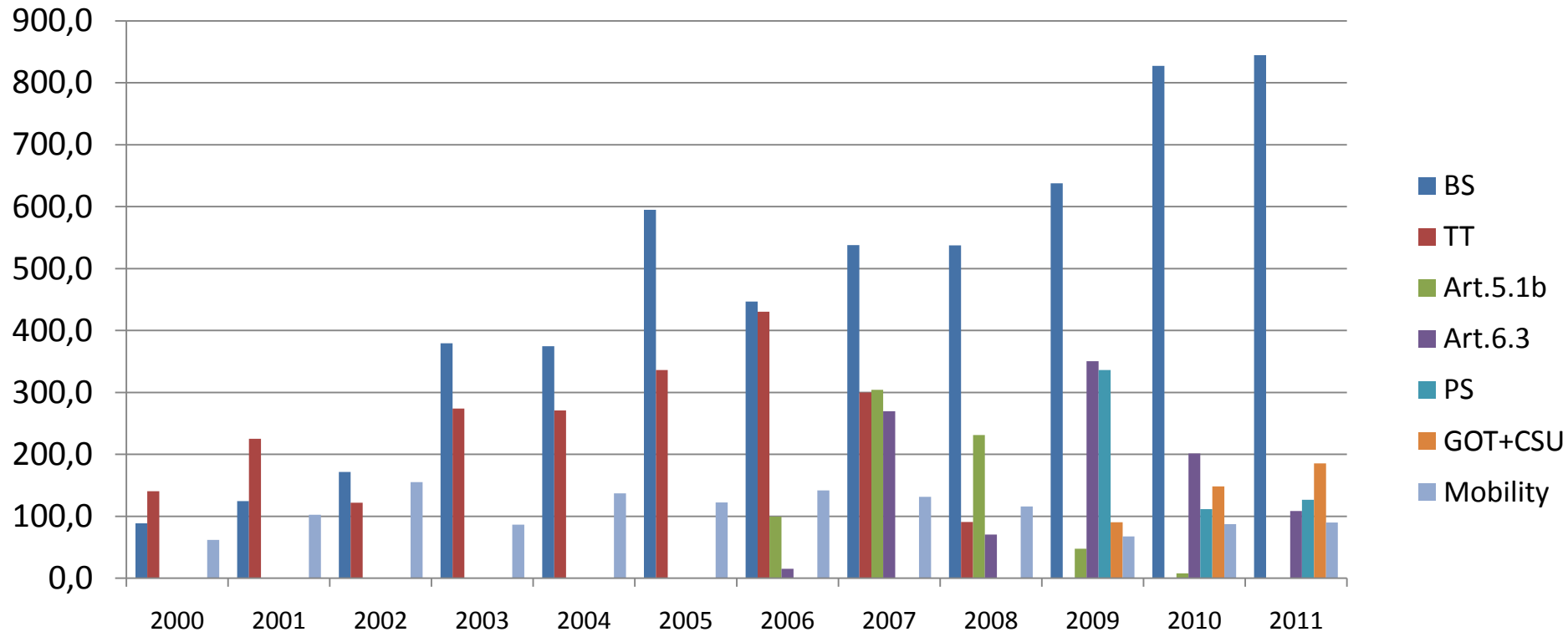
**Association EURATOM - MEdC**  
**Annual Expenditures**



**Rather high budget (in the context of economical crisis).**

The expected development was not continued after 2007. However, it was possible to maintain (after the problems in 2008) the highest level of founding.

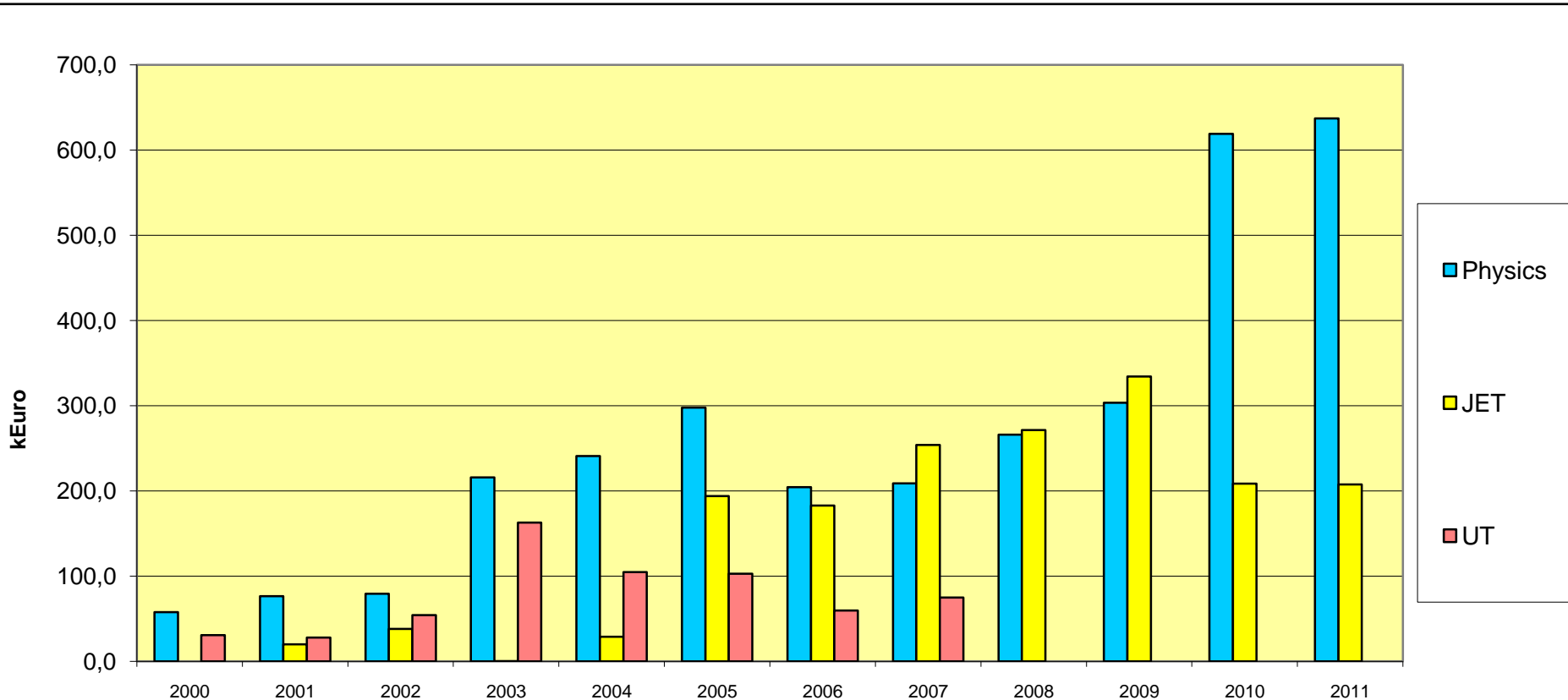
# *Structure of expenditures*



Characteristic of 2010 and 2011:

- concentration on the Baseline, which has sensibly increased
- decrease of the JET S/T Tasks (5.1b contracts are closet at EC level, Orders) and of Priority Support

# *Structure of Baseline expenditures*



After 4 years with very strong effort for JET (half or more of the Baseline)  
the level of JET Notifications is 30% of Physics

***Important: this effort was very successful***

# Main characteristics of MEdC research programme in 2011

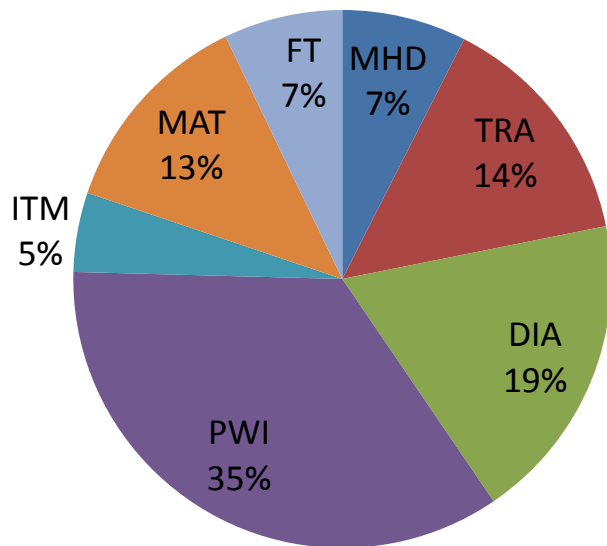
Years 2010 and 2011 were very similar

- Complete alignment with EFDA and EFDA-JET WP
- Each internal contract corresponds to at least one topic in the WP or JW or to a co-operation action
- However, in several cases we propose specific approaches, with contributions that are complementary to those of the other Associations
- Complex programme, which deals with all the main direction of research of the EFDA WP; strongest contribution to PWI
- Participation to JET Upgrade projects
- Fundamental aspects (“academic” research has to complete experiments and numerical simulations in order to accede to the understanding the complex plasma processes)

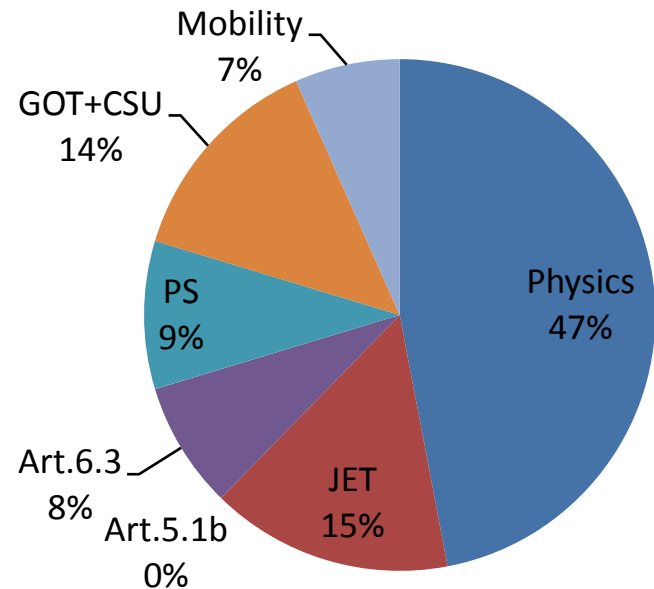
# Structure of the research programme in 2011

- **37 projects**
- participation to EU Topical Groups (T, MHD, M, D), to EU task Force (PWI, ITM) and to Jet-D and JET-FT
- PWI is dominant (as in 2010) although the contribution to ITER like Wall at JET was finished; studies of W coatings.

Structure of research progr.



Structure of expenditures



# Closure of large multi-annual contracts for ITER like Wall at JET

- Manufacturing and testing of W-coated CFC tiles for installation in JET for ITER-like Wall project  
Task Agreement W6-TA-EP2-ILC-05 ; JW6-OEP-MEC-06
  - Production of Beryllium Coatings for Inconel Cladding and Beryllium Tile Markers for the ITER-like Wall Project  
Task Agreement JW6-TA-EP2-ILB-03; JW6-OEP-MEC-09
- Much appreciated contribution of the MEdC Association**
- Closure of the multi-annual contract Gamma Ray Cameras  
Task Agreement: JW6-TA-EP2-GRC-04 (delayed in 2012)

# **MEdC Association is composed in 2011 of groups from:**

- Institute of Atomic Physics – Management Group of the Research Unit
- National Institute of Laser, Plasma and Radiation Physics (NILPRP, INFLPR)
- National Institute of Cryogenic and Isotope Technology (NICIT, ICIT)
- National Institute of Physics and Nuclear Engineering (NIPNE, IFIN-HH)
- National Institute of Physics of Materials (NIPM)
- University of Craiova (UCv)
- University A. I. Cuza from Iassy (UAIC)

## Collaborations

- Association EURATOM – CEA (France)
- Association EURATOM – IPP Garching (Germany)
- Association EURATOM – KIT Juelich (Germany)
- Association EURATOM – Etat Belge (ULB, Bruxelles)
- Association EURATOM – ENEA (Italy)
- Association EURATOM – IPP.CR Prague (Czech Republic)
- Association EURATOM – IPPLM (Poland)
- Association EURATOM – MHEST (Slovenia)
- Association EURATOM – CCFE (United Kingdom)
- Association EURATOM – VR (Sweden)
- Association EURATOM – FOM (Netherlands)
- Association EURATOM – TEKES (Finland)
- Association EURATOM – Hellenic Republic

# The Future Programme 2012

- **We have submitted to the Steering Committee the MEdC WP2011**
  - **It is constructed based on the idea that the “plateau” of the last 3 years is maintained**
  - 37 proposed projects (including 13 entries in EFDA ITER Physics Programme)
  - Aproximately the same budget as in 2009-2011

1. Extension of the FP7 with funding
2. ITER: approved 1.3 billion euro

Contracts of Association: under examination

EFDA:

ITER Physics  
PPPT  
Project Oriented

JET

Third party

ITER scenarios

Yes, we are a team.

27	Associations
8	years of countdown (2020 ITER will have Q=10)
4	European Agreements (CoA, EFDA, JET-IA, Mobility)
1	common goal; energy from fusion in plasma
0	alternatives

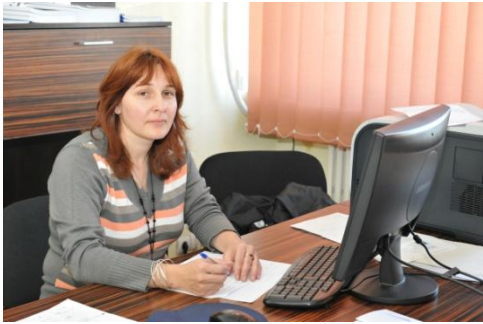
Two years of continuity FP7 + 2.

# Management activities

- change of the Head of Research Unit  
(much appreciated help from Florin, seminars, *Association handbook*, data base)
- Management team:
  - Madalina Vlad, Head of Research Unit (since April 1st)
  - Teddy Craciunescu, Deputy (JET, PPPT)
  - Daniela Nendrean (external contracts, Financial reports to EC and EFDA)
  - Geaorge Stanescu (internal contracts)
  - Alina Ilie, (mobilities, internal contracts)
  - Florin Spineanu, consellor
- Main difficulties
  - delays in



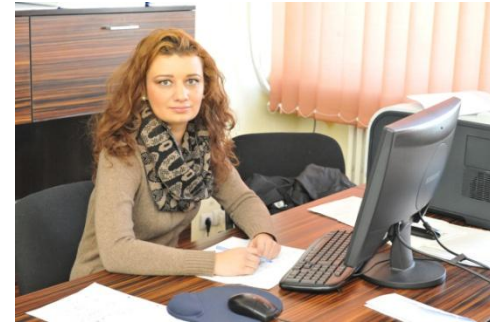
Florin



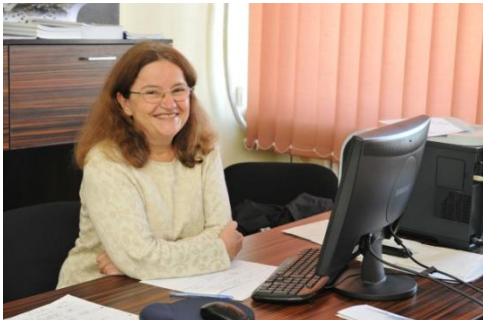
Daniela



George



Alina



Madalina

# Financial audit from the EC, Directorate M

11-15/07/2011, for the years 2008 and 2009

## General objectives:

- *The costs are actual*
- *The salaries on Euratom contracts are not larger than on the national contracts*
- *The overheads concern directly the Euratom contracts*

## Main observations

- Strong fluctuations of the salaries, variation of the hourly rate during the year; salaries are calculated from the contract budget not from time-sheets and hourly rates. Using of time-sheets for each day are strongly recommended
- The overheads are not clearly related to contract actual expenditures and are large or very large in some cases (90-100%)
- The overheads contain salaries for the holyday period, which are not included in the hourly rate through the number of productive hours in a year
- Several particular problems were found (concerning both accounting procedures and compatibility of documents)

# We have to implement the recommendations

- Time-sheets (on weeks as in 2010, or even on days)
  - but this does not solve the problem of salary fluctuations in time and of the differences between persons with the same scientific degree.
  - The limits of salaries cannot be exceeded (475 law)
- Overheads have to be renegotiated with the institutes in the context of the new founding changes in preparation

