

Presentation from Waclaw Gudowski KTH  
at

2<sup>nd</sup> Meeting on DM2 ECATS, Brussels, April 20-21, 2005

# Let's learn from astrophysics (a quote from a meeting with DOE, 1999)

“If you, guys, come with a clear list of priorities  
which your community does not question and  
does not challenge you get not only your first 3  
choices, you get your 10 projects!”

Proved experimentally!!!

# Some prerequisites:

- Let's do not talk HOW WE COULD ALTER or change existing experiments/ experimental programs – let's concentrate on HOW TO EXPLORE EXISTING/near term facilities within existing design constraints.
- E.g. for SAD – no new requirements/ideas after a “deadline” (June 30??)

# Proposal for ECATS

- How to turn a misfortune into a success
  - A new chance to rethink our objectives in Eurotrans
  - Gives us a chance to re-consolidate our experimental program and to find a better consensus between all participants
  - Etc. etc.

# There are few options...

- Eurotrans partners share the ECATS duties and money without a major experimental activities
  - Possible, but suicidal option...

# There are few options ...

- We have 3 major existing/near term experiments of relevance for Eurotrans objectives (*in order of producing results*)
  - Yalina
  - RACE
  - SAD
- We have easily identified (or we can do that in one hour) important and attractive deliverables which can be produced by each project
- MOREOVER – as it was stated, there is **a significant (!!!)** potential to get synergy effects between Eurotrans and RACE, and Eurotrans and ISTC funded projects

# Important additional arguments for exploring a synergy with an ISTC path

- Until now there was no funds for “western” collaborators to participate actively (with exceptions of some real idealists...) in ISTC projects, in particular Yalina/SAD projects. We can fix this problem now with ECATS!
- We have a very good working collaborative structure between Yalina/SAD and FZK, CIEMAT, CEA, KTH and SCK – Steering Committee (C. Broeders) and Contact Expert Group (W. Gudowski, L. Tocheny)
- WE HAVE VERY IMPORTANT POLITICAL ARGUMENTS TO GET SUPPORT FOR EUROTRANS-Yalina/SAD collaboration - EC investigates just now transition path from ISTC to more “regular” of collaboration with Russia (in the system of FPs)

**WE DO NOT PUT ALL EGGS  
TO THE SAME BASKET!**

# A vision of ECATS (1)

- We decide to actively collaborate with
  - SAD
  - RACE
  - Yalina

We assign  $x, y, z$  amount of funds for 3 subtasks called “SAD”, “RACE”, “Yalina”, resp.

$$x+y+z=5.5 \text{ M€}$$

# A vision of ECATS (2)

- The coordination of ECATS is offered to **ENEA**
- The subtask **SAD** is assigned to **KTH** in order to realize an ISTC funding path
- The subtask RACE is assigned to **FZK/CEA**
- The **Yalina** subtask is assigned to **SCK**

# A vision of ECATS (3)

- **Subtask SAD** must imply a “significant” funding for practical realisation of some tasks of the project, that is the only way how we can get it done. X must be split to x' (European support incl. manpower for participation in SAD) + x'' (hard- + software allocated for Dubna)
- **Subtask RACE** should be “a zero sum game with USA” i.e. European partner will take a part of the RACE tasks, some funds would go to student/young researchers exchange. We explore all the synergy effects. It means major funding for European partners in ECATS will stay here. Cross links with SAD necessary, i.e. G. Imel joins SAD/Yalina measurements, group involved in RACE may/should do some tasks for SAD.
- **Yalina project** we can most probably fully fund by ISTC also in the future, so “z” funds could be used for an effective collaboration

# A vision of ECATS (4)

- Main partners of subtasks:
  - SAD (KTH, FZK, CIEMAT, CEA, SCK, ENEA(?))
  - RACE (FZK, ENEA, CEA .....KTH(?))
  - Yalina (SCK, FZK, KTH, CIEMAT, CEA, CNRS, ENEA(?))

# Is SAD doable??

- If we decide today/next week to go this way
  - We suggest to ISTC and JINR: 1/3; 1/3; 1/3 option (doable to my knowledge). CEG has to approve this (no problem), we have to convince EC (B. Rhode) and L. Tocheny has to make a REAL job to watch this process in Moscow
  - We can do better:
    - Denis and George “assure” that USA will join SAD funding through DoS. I know the way I do not know the outcome.
    - If successful we can easily get “1/4” funding schedule
- Warning!! There is less and less money going to “nuclear” in the ISTC
- We have to critically review the SAD costs and try to be much more effective. Necessity of BFS experiment is a question, some other things are to be discussed.
- Funding scheme clearly determines the value of x” (partially x’) – remember total costs of ISTC-path – 7.5 M€

# What would be the major deliverables of SAD:

- Important Papers (first suggestions):
  - Full design report with particular attention to all work on coupling of accelerator and SAD-core
  - Safety report and all licensing records
  - Full start-up documentation, with approved (??) procedures
- Experiments and simulations (resulting reports and common endeavors, all raw/processed data accessible to EUROTRANS)
  - Reactivity monitoring methodology (joint experiments with Yalina)
  - All test of detector and auxiliary systems
  - ...
  - ..
  - All necessary experiments on accelerator beam
  - First protons on the target with all necessary supporting experiment (beam line tests etc)

# Action plan

- By June 30 a detailed program is prepared by ECATS coordinator, including:
  - Reasonable commitments for SAD funding
    - Implies a lot of efforts with ISTC, EC, JINR and USA.
  - Agreements with USA on RACE collaboration with detailed deliverables. Student exchange
  - Detailed Yalina program adjusted to Eurotrans objectives

If we do not make this decision in  
the next few days...

- .... KTH is leaving ECATS. No bad feelings, a priority driven choice, and we have again “ANTE BELLUM” status.