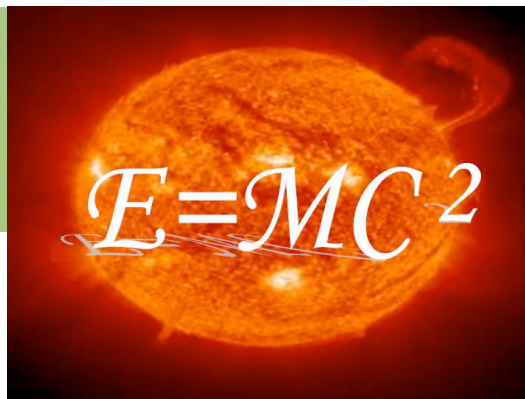


# S-TEAM News No.3



for a specific audience and with a specific theme or subject area. A package will have a defined timeframe (e.g. one day, two weeks, over a semester)

## Science-Teacher Education Advanced Methods

A phase change in  
European Science  
Education

Science  
Technology  
Engineering  
And  
Mathematics (see p.6 for  
Einstein exclusive)

June 25th, 2008

## Draft at last

Another version of the proposal escaped into the outside world this afternoon, still with some unfinished business...however you need to read it anyway. I did and I have already made some changes - thanks to Hilde, Michel and Liselott (so far) for good ideas and suggestions. It's your proposal, so keep mailing....

## Package deal

Some of you will notice that your deliverables have mutated into training packages

This is because the proposal cannot involve the R-word (except for the usual reference to 'further research' which keeps the door open for the next project). We can of course refer to research, and in your comments it would be useful to include any academic or other references which might support particular points.

But what is a training package?

We define a training package, course unit or module as a coherent set of materials, designed

and will have stated learning outcomes related to some form of measurement or accreditation. In the case of S-TEAM training packages, there will be criteria which each package must fulfil to be

accepted as a deliverable, such as:

- \* Must be piloted or reviewed and approved by practising teachers and/or teacher educators (as appropriate).
- \* Must be accessible to its target audience in terms of language and its visual or other forms of presentation.
- \* Must be directly relevant to science and/or mathematics teaching, including the specific methods addressed by the project

Start up conference Thursday 7th  
& Friday 8th May 2009

## References wanted

Current video-based studies in France, Germany, Norway, Switzerland and the USA indicate that teachers make little use of the available repertoire of innovative practices, confirming that curricular initiatives and reforms have had minimal impact on classroom practices.

**If anyone has current references for the kind of studies mentioned above, they would be much appreciated, as this is a crucial point in our argument.**

I'm also happy to get suggestions for other refs that might relate to specific points in the proposal. Some of you of course have included refs in your

WP suggestions and some of these will resurface when I finalise the reference format and list.

## **More about the Work Package restructuring (in case you didn't see the last newsletter)**

Although the proposed level of overall funding looks impressive, it begins to shrink once the multiple requirements of the Call are considered. The overriding priority is for the 'broadest possible coverage' and this means reaching the largest possible number of teachers, schools and teacher education institutions. As you know, we have comfortably exceeded the minimum requirement of ten countries, and we have multiple partners in many of the 15 countries involved. This is absolutely necessary in order to demonstrate that we can 'upscale' the implementation of investigative methods as required by the Call. So you may not be able to fund a full-time Prof.

## **But...**

Of course it also means that some difficult decisions need to be made in allocating resources.

Some of the WPs have a clear need for either administrative time (WP1, WP10) or researcher time (WP2, WP9) throughout the life of the project. This will provide continuity and stability of support for the smaller PoDs. Equally, the 'content' WPs, from 3-8, will need people in the centre of things for a reasonable proportion of the project period, for similar reasons.

As I mentioned in the last newsletter, many of the benefits of participation will be generic. **It is neither allowed in the Call, nor necessary to respond to it, for there to be major new research projects within any of the WPs.**

The major thrust of the project is therefore to gather existing experience, form networks and promote dissemination activities. Some of that will

fall into a grey area which looks like research but isn't.

For example, the first activity which might take place in your own context is a national or regional workshop to find out what the real issues are around science teaching and to alert teachers and others to the existence of the project. This in itself will be both research and dissemination, since teachers are good at talking to each other if given the opportunity. If you listen, you are doing research.

If you find that you have a small PM allocation, think about how you might use that to reach the maximum number of teachers and other stakeholders.

What we mean by 'reach' is:

1. They need to hear about the project and see it as useful and relevant to their teaching and learning.
2. They need to be able to do something, as a result of the project, which they could not do before.
3. They should feel positive about their contact with the project
4. They should be able to report positively about benefits for their pupils or students.

**Although S-TEAM newsletters are not peer-reviewed, if you want quick publication, this is the place...all contributions considered.**

## **National contact partners (NCP)**

All the methods, techniques, practices and bodies of knowledge, which the project will disseminate, originate in national contexts. They will also need to be disseminated in national contexts once they have emerged into the European space represented by the S-TEAM project. There are therefore two important roles for a national contact point:

1. Feeding information about national policy and practice to WP2.
2. Contacting, and creating networks with, national stakeholders, especially policymakers

As we have multiple partners in some countries, it will be helpful to have one of them as the NCP. We have guessed that the following list reflects the most likely choices. If you are a NCP, this would be a good time to contact any other partners in your country and establish a working relationship if you don't have one already. Of course, if you are the only partner in your country then you are automatically the NCP anyway.

Country	NCP
Cyprus	European University
Czech Republic	University of Southern Bohemia
Denmark	University of Copenhagen
Estonia	University of Tallinn
Finland	University of Helsinki
France	Université Pierre Mendès-France
Germany	IPN, Kiel
Hungary	Hungarian Research Teachers' Association
Israel	Technion-Israel Institute of Technology
Lithuania	Kaunas University of Technology
Norway	NTNU
Spain	University of Santiago de Compostela
Sweden	Mälardalen University
Turkey	Hacettepe University

Country	NCP
United Kingdom-England	University of Bristol
UK -Scotland	University of Stirling

The contact details will be circulated once everyone has agreed this list and decided (if necessary) on a specific person for the task.

### Comments on the draft

Any comments, by page number, should be returned as a Word file with the filename

ST-comments-(your institutional acronym)-0608

Please do NOT send the proposal file back with tracked changes, it takes too long to deal with these.

If you have any further revisions of PoDs which you want to be taken into account, please send these with the following filename:

ST-Pod-(your acronym)-0608

### Work packages and benefits packages repeated

It is important to remember that this project is not just about funding you to produce something as part of a work package. There will also be benefits which all partners will receive, irrespective of their deliverables. You will be sharing the results of the biggest project on science education and teacher education in Europe, and you will be able to use the network to share research and practice, regardless of the specific needs of the project. You will be involved in some significant conferences and workshops, and your name will be on everything we produce. So it isn't just about person-months!

In fact, several suggestions have been made for persons or institutions which might have participated had they found out in time. I see no problem with keeping in touch with these **legitimate peripheral participants for example,**

**inviting them to national workshops, conferences etc and connecting with their own networks.**

## **Credits for Grenoble**

Apologies to Michel - LSE/UPMF provided the liquids and not IUFM. We thank them both anyway. Participants at Grenoble

WE ARE:

Norwegian University of Science and Technology (coordinator) University of Oslo Université Pierre Mendès-France, Centre National de la Recherche Scientifique University of Bristol Kaunas University of Technology University of Southern Bohemia Vilnius Pedagogical University University of Copenhagen University of Leeds Friedrich Schiller University of Jena University of Stirling Leibniz Institute for Science Education at the University of Kiel Universidade de Santiago de Compostela Helsinki University University of Tallinn Technion – Israel Institute of Technology Mälardalen University Hacettepe University Hungarian Research Teachers' Association Abo Akademi University Gazi University Aarhus Universitet European University Université Rennes 2 - Haute Bretagne University of Jyväskylä

## **Special Supplement: Molecular Structure<sup>1</sup> of the project- Who does what and with whom? (Repeated but revised)**

This is the situation based on the current proposal as released into the wild by Hilde last Wednesday. This was produced by the Gang of Five and a Half during the post-meeting in Grenoble on Tuesday, and was compiled on the basis that certain jobs would have to be done and certain partners had specific interests which could easily be linked to WPs.. Due to lack of time, we couldn't discuss individual PoDs, but these have been taken into account since the original matrix was compiled.

We are aware that some of the allocated PM figures do not add up to what you might have expected.

Equally some of the PoDs have been bruced<sup>2</sup>, meaning that if they don't fit the Call they have been made to fit, or worse.

There will be a flurry of emails calling for adjustments, and we will undoubtedly be making some changes once the cost picture emerges from Per Inge's laptop. We will try to make the allocation fair, but it is not possible to keep everyone in the project at the same level of PM-ness. And anyway, do you really want more work?

Remember, most of the benefits from the project will accrue to you anyway, regardless of how big your PM allocation is.

**WP1: NTNU are taking the lead in the management of the project. All Thematic WP leaders are automatically part of the management board and have been allocated one PM each to fulfil this role.**

WP2: Oslo are leading, and all national contact partners have been allocated one PM to fulfil this role. UPCH (Copenhagen - revised acronym) have 3 added pm to do a scientific literacy report.

WP3: IPN are leading and all national contact partners have been allocated one PM to fulfil this role.

WP4: UPMF are leading, with the probable participation of, CNRS, CYCO, HRTA, NTNU, UHB, UnivStir,

WP5: UnivStir are leading on the ITE/new teacher package, with NTNU, KUT, VPU, UCPH, UHB

WP6: CYCO are leading this package on professional development with USB, NTNU, HRTA, MDH, UnivLeeds, JYU, HU, GU

WP7: USC are leading for the purposes of the application, with UnivBris (can that really be the acronym?) in joint leadership for internal purposes. With UIO, USB, KUT, IIT

WP8 is the old WP6, led by UPCH, with HUT, NTNU, CNRS,, IIT, UnivStir, HU

WP9 is led by FSU (Jena) as before, with NCPs

WP10 is provisionally led by me, since I did a course on Fellini once, and also I once spent a week editing a workshop manual. But I'm easy...with TLU and national partners.

As I write this I keep noticing anomalies, so I'm going to leave it there for now.

An interesting report for you on Science achievement and literacy in Scotland, stuffed with indicators:

<http://www.scotland.gov.uk/Resource/Doc/1038/0061218.pdf>

## Comments and proposed changes as before

Remember, the more PMs you have, the more responsibility you have as well, probably increasing as the square of your PM figure. Don't say I didn't warn you....

1. WP1 seems uncontroversial
2. WP2 - is one PM per NCP enough?
3. WP3 - seems OK so far
4. WP4 - do we need to rebalance UOS/CYCO/NTNU in relation to UPMF?
5. WP5(new) - this now forms the Initial Teacher Education package resulting from the splitting of WP5 (old version). The split was necessary to reduce the size of WP5 (old) and to make the overall WP structure more logical). Also we have included 6PM for HRTA to produce a parents advisory booklet, since this would result from teacher collaboration - this provides a home for this and better balance between WPs.

6. WP6 - the other half of 5, professional development.
7. WP7 - Not finalised
8. WP8 - the old WP6, not changed much
9. WP9 - as before
10. WP10 - as before but with more stress on dissemination, and the more far-fetched items removed

## WPTopic: Talking...

WP1 Project management, evaluation and archiving Talking to the partners...

2 Innovative methods and teacher education policy Talking about policy

3 SINUS cross-national dissemination and development Talking about SINUS

4 Teacher collaboration and innovative methods in science Teachers talking to teachers

5 Innovative methods in initial teacher education for science: Talking to student teachers

6 Inquiry-based methods and professional development Talking to serving teachers

7 Argumentation in teacher education for science Pupils talking science

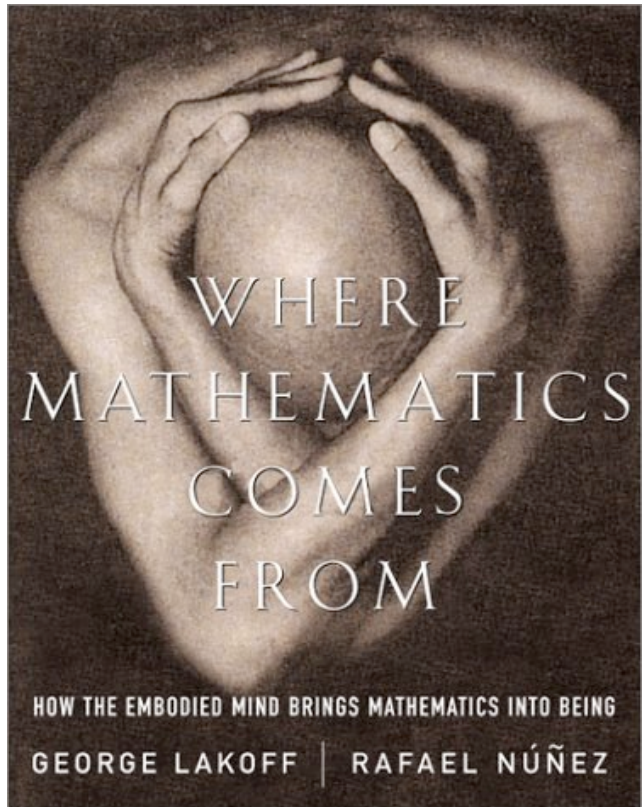
8 Scientific literacies Talking science in the world

9 Indicators, instruments and measurement for innovative methods in science education Talking numbers

10 Media and dissemination: increasing the impact of innovations in science education Talking to everyone about new methods in science education



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Leader WP10	Peter Gray



Einstein.

Ask

## Uri arrives!

Congratulations to Dr Ayelet Baram-Tsabari, and a good omen for the future, I think.

There is a connection between the two images, but you should read the book to find out.

Final thought - is mathematics a science?

