

# S-TEAM News No.9

## Science-Teacher Education Advanced Methods

A phase change in European  
Science Education

December 2008



Hot news!

# 14/15

### Our evaluation is in!

We have passed the threshold (10) and therefore have a good chance of going to Brussels for negotiations. The very positive evaluation is being circulated with this newsletter. Meanwhile we will continue with the additional proposal in the hope of yet more Brussels-based excitement!

Congratulations to everyone for a great job!

So, we need to act now to respond to the outstanding Call.

### New Call

As you may know there is another Call in Framework Programme 7, Science-in-Society with a similar theme to the previous call. I have reproduced the text of this call at the end of the newsletter. It has a deadline of 13 January 2009. We are preparing a back-up proposal.

A meeting of WP team leaders has therefore been called for 9th December in Oslo. We are very sorry for the short notice, forced on us by the delays in hearing about S-TEAM. This meeting will be a forum for discussion of a possible second proposal.

We propose that the new call is radically different to the previous one, not because S-TEAM was flawed but because we need to show that we are a learning organization and can produce alternatives.

Several partners (thank you Ayelet,, Carl, Laura et al) have suggested new ideas for the new proposal. Currently we are calling it INQUEST (Inquiry Now: Quality Enhancement in Science Teaching)

A new draft proposal is being circulated with the following new angles. These are designed to differentiate INQUEST from S-TEAM, and to make it possible to integrate the two proposals when we receive a positive response.

1. Coherence of the work packages: a more linear model, with work packages relating more sequentially to each other
2. In order to effect a sustainable change in science education, we need to be precise about the relationships between stakeholders in each national context.
3. Once these relationships have been made explicit, we need to create partnerships which will both achieve the aims of the project AND benefit the local stakeholders
4. We need to have a structure which is easy to understand, therefore we will suggest that there

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should be one national contact point for each country involved in INQUEST

5. The European value-added (sorry for the jargon) comes from enabling each of the national partners to gain a clearer vision of how their national system works and how it could be improved, in relation to science education.

## What we need you to do

We have revised the existing proposal in order to have a draft for discussion at Oslo on the 9th. This is about to be circulated to everyone on the S-TEAM mailing list, subject to last minute changes as a result of the evaluation.

We want to involve all the existing partners in the new proposal but we also want to present a simpler structure to the evaluators. National Working groups will enable the participation of institutions or others who may not have been formally involved in the original S-TEAM proposal.

At this stage the special interests of each participant are only going to surface in Work Package 4, **Training package and learning object design**. This is a deliberate move to differentiate INQUEST from S-TEAM and does not imply that these special interests (e.g. Argumentation, Scientific literacy, Dialogical teaching etc) are being forgotten.

The National Working Groups will be involved in all work packages in some way, but especially in WPs 2, 3, 5, and 6. A brief outline:

WP2 will create a shared purpose for INQUEST using current evidence and participatory processes aimed at reaching a common understanding of what we are trying to do (not as easy as it looks)

WP3 will analyse the pedagogical fields of all the national partners, i.e. will make explicit the function of, and power relations between, all the significant stakeholders in science education in that country.

WP5 will work out how best to engage teachers and other stakeholders in the national contexts in order to

Bearing in mind that this is a proposal only, and that we do not yet know about the outcome of the S-TEAM application, we would like you to:

1. Think about who might be involved in a national working group (NWG) for your country.
2. Think about whether you would like to lead such a group.
3. Contact the other existing partners in your country (if there are others) and decide who will lead the NWG.
4. Let us know about your participation by 15th December

We are aware that this is a tight timescale and a difficult process but it is a necessary one. No-one will be excluded from participation and we will be open to suggestions as to how best to proceed.

We will repeat the procedure for generating Memoranda of Understanding (the famous MoUs) in relation to the new call, as the previous MoUs only apply to S-TEAM, and in any case are only valid for 6 months after the closing date (24/07/08).

Finally, we thank you for your patience and would like to say that we hope to go forward with two fantastic proposals! Good luck!

## Text of the new call

Activity 5.2.2. Young people and science  
Indicative budget amount for calls for proposals: EUR 9.50 million, available for topics SiS-2009-2.2.3.1 Supporting and coordinating actions on innovation in the classroom: Dissemination and use of inquiry based teaching methods on a large scale in Europe, and SiS2009-2.2.3.2 International dimension of research on science education.

Area 5.2.2.1 Supporting formal and informal science education in schools as well as

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through science centres and museums and other relevant means. Proposals sought under the 2008 work programme.

#### Area 5.2.2.2 Reinforcing links between science education and science careers

Proposals sought under the 2008 work programme.

Area 5.2.2.3 Research and coordination actions on new methods in science education  
SiS-2009-2.2.3.1 Supporting and coordinating actions on innovation in the classroom:  
Dissemination and use of inquiry based teaching methods on a large scale in Europe  
Description of topic: Falling interest in key science topics and mathematics has been linked to the way they are taught from the earliest age. Therefore, greater emphasis needs to be placed on the development of more effective forms of pedagogy; on the development of analytical skills; and, on techniques for stimulating intrinsic motivation for learning science, taking into account various pre-conditions and cultural differences. This topic will support actions to promote the more widespread use of problem and inquiry-based science teaching techniques in primary and/or secondary schools as well as actions to bridge the gap between the science education research community, science teachers and local actors in order to facilitate the uptake of inquiry-based science teaching. The actions are intended to complement school science curricula and must include teacher training activities and promote teachers' networks. In addition, the consortia must be open to the participation of entities seeking to gain experience in problem- and inquiry-based science education techniques. Actions in this area must contribute towards the following: securing basic knowledge, developing a task culture, learning from mistakes, cumulative learning, autonomous learning, experiencing subject boundaries and interdisciplinary approaches and promoting student cooperation. Proposals must also demonstrate that the chosen teaching and education methods are equally appropriate to girls and boys and that they contribute to reducing gender stereotypes. The actions

aimed at here shall already have proven their efficiency and efficacy. The aim is therefore not only to promote the uptake of proven inquiry-based methods at the local, regional and national level but also to encourage a better sharing of experience among practitioners across Europe. In consequence proposals must provide a convincing plan for the regular dissemination of progress and know-how to special interest groups (e.g. parents' associations, teachers' networks, curricula developers, and policy-makers). Furthermore, projects are expected to have the broadest coverage of EU Member States and Associated countries - in order to generate a European impact (see under 'Funding Scheme' below, as well as the Call fiche). In addition to this during contract negotiation links will be established between funded projects and a central information provider (see next section) to ensure the widest possible adaptation (eg linguistic) and dissemination of best practice, methods and tools. Such two-way transfer of know-how will be made on an open access non-commercial basis. Projects selected for funding must agree to these conditions. The actions must include an element of independent evaluation. A central information provider will be set up in 2008 or 2009 to centralise and disseminate best practices in science education. Projects selected for funding will contribute content to this central information provider (on a non commercial basis). The grant agreements signed will not support activities that increase fragmentation such as competing web portals.  
Funding Scheme: Coordination and Support Actions (Supporting Action). Please note: for the purposes of this topic, the minimum participation condition for the Coordination and Support Action (Supporting Action) is at least 10 independent legal entities, established in at least 10 different Member States or Associated countries. Each proposed activity will have a minimum overall budget of EUR 2 000 000 and a minimum duration of 36 months. These are eligibility criteria. See also the Call Fiche.  
Expected Impact: To bring about a change in the way that science is taught in schools through European collaborative activities that use techniques that have been successfully

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piloted, adapting and applying them on a European scale. The long-term impact looked for is a significant increase in the numbers of young people in Europe taking up scientific careers and a generally increased knowledge in science in the younger generations.

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