

Superconductivity Multimedia Educational Tool, phase 2 (SUPERCOMET 2)

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Outcomes & products

| Product | Current status |
|-----------------------------|--|
| Teacher seminar | Translated & tried out one-day version. Will update and expand into 4 half-day modules (+ online course). |
| Computer application | http://www.mintra.no/supercomet Translated & tried out 6 modules. Developing 4 new modules. Animations, text, photos, videos, FAQ, glossary, tip box |
| Teacher guide | Printed “SUPERCOMET Teacher Guide” (EN, IT, NO, SI) ISBN: 82-8130-045-0 Translated & tried out in most partner countries. Will be rewritten and updated in coming months. |
| Classroom posters | Not written yet, will be based on modules. |
| Intranet | http://intranet.simplicatus.no In use by partners. |
| Extranet | http://www.supercomet.no New version not translated yet. |
| Online community | http://www.physible.no Implemented, not used much yet. |

All of the above materials are being developed in the following 13 languages:

BG, CZ, DE, EN, ES, FR, IT, LV, NL, NO, PL, PT, RO

Exceptions: Intranet only EN, Online Course only RO (+EN), Teacher Guide also SI.



Background of the project – 1

GIREP Workshop in Udine, IT, 2003:

“There is a need for teachers to improve their approach to teaching physics so that recent and relevant scientific knowledge is taught to students in a highly motivating way. Abstract physics must give way to physics in context for most, whilst at the same time preparing others for higher education in physics which may be of an abstract approach. Tools and methods must be offered to students rather than answers to questions that have not been asked.”

Background of the project – 2

Based on previous SUPERCOMET Project

- "Crisis in Physics teaching" – Physics on Stage, 2000

Challenges

- The initiative, ambitions and partnership exceed the budgets of a single Leonardo da Vinci pilot project
- Managing a partnership in 15 countries
- 35% of the proposed staff budget was cut

New/noticeable

- We are developing a complete concept for blended learning, integrating a Teacher Seminar with the electronic and hands-on materials needed for active, "minds-on" learning.



Beneficiaries

Target groups

- Upper Secondary School Physics Teachers
- Teacher Trainers

End users

- Upper Secondary School Physics Teachers
- The pupils of those teachers

Stakeholders

- Upper Secondary Schools
- Teacher Training institutions
- Education authorities

Potential stakeholders

- Superconductivity industry companies



Transferability

Potential use in other sectors / other target groups

- Could be expanded to cover all science teaching
 - Physics, Chemistry, Biology, Earth Science, Mathematics, IT
- Could be used in adult literacy programmes
- Could possibly be used as model for on-the job training

Potential use in other countries

- The project has dissemination contacts in European countries not already participating in the project
- The project has invited leading Teacher Trainers in Physics from the USA to evaluate the project results
- Our Spanish and Italian partners have contacts in Latin America who are interested in the Spanish version



Ideas for further development of the project theme – 1

Topics for future follow-up projects

- Develop and test kits with materials for the hands-on experiments described in the Computer Application animations, Teacher Seminar and Teacher Guide
- Set up a database of computer models for physical phenomena described in the computer animations (rather than developing new ones in parallel with what already exists)
- Establish communities of teachers using the materials and sharing their ideas and materials through blogs and a Learning Object database in our Online Community
- Translate/adapt to remaining European countries.



Ideas for further development of the project theme – 2

Topics for future follow-up projects (from this conference)

- Develop a framework for testing and evaluating new learning materials (learning objects) by collecting the questionnaires and surveys carried out by all Leonardo da Vinci pilot projects – for dissemination through all National Agencies as a tool for future LdV projects
- Develop and try out podcasting and m-learning materials based on the project results. Pedagogical use of MMS, GPRS and 3G technology to make learning materials available to pupils to augment the blended learning approach from other existing and future projects.

