

Financial / Administrative co-ordinator

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Executive Summary

The present report refers to work progress that took place during
 M34-M36, i.e. March 2005 to May 2005

1- Overview

Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
WP 6: Communication and pedagogical networking <ul style="list-style-type: none"> • Dissemination of results (Task 6.5) 	<p>UDUI</p> <ul style="list-style-type: none"> • Paper on community support enabled by the LOR (see publication list 4.1) • Foreseeing of teachers' workshops (Greece, Sweden or other European sites) <p>UCH</p> <p>Further contacts to the German School in Santiago de Chile, networking with the teachers</p> <p>UNED (Leader in WP6)</p> <ul style="list-style-type: none"> • Implementing the distributed version • Improving the LOR search functionality • Fixing bugs • Upgrading the LOR's data to new distributed versions
WP 7: Open User Scheme <ul style="list-style-type: none"> • Dissemination: Establishing of learning communities Organisation of Workshops (Task 7.4) 	<p>UDUI (Leader)</p> <ul style="list-style-type: none"> • On-going contacts to German schools and discussions with teachers about the sustainability of the COLDEX scenarios • Preparation of a project brochure including a "Teachers' guide" as an elaborated and sophisticated version of the annex of the deliverable D7.2.1 "Learning Material and Guidelines" along with a general project brochure • Embedding of the smart objects part into the astronomy scenario

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
	<p>UCH</p> <p>Further workshops in the German School in Santiago de Chile; third session with the seismology scenario which is currently used with regularly updated data from nine gauging stations, since there are earthquakes in Santiago three to four each day (which are measurable, but not noticeable).</p> <p>Another presentation of the project to teachers who will co-operate in working with the scenario.</p> <p>VXU</p> <ul style="list-style-type: none"> • Working with and at a local school and at the science centre within the biodiversity scenario • Re-installing and updating the LOR • Populating the LOR with learning objects • Preparation and discussion for the OUS workshop in Madrid <p>UNED</p> <ul style="list-style-type: none"> • On-line contextualised help • Displaying different views of metadata • Adding new metadata • Including metadata with a vocabulary option • Documentation and tutorial for users • Interoperability tests with Vaxjö <p>UPM</p> <p>Organisation of the OUS workshop which took place in Cercedilla March/April 2005</p> <p>Task 7.3: Pre-evaluation of the system considering the established user group</p> <ul style="list-style-type: none"> • We have made evaluation tests of all the remote scenarios we have developed <p>Task 7.4 Establishing of learning communities and organisation of Workshops</p> <ul style="list-style-type: none"> • We organised as host the OUS workshop in Cercedilla (Spain) last March 2005 <p>Task 7.1 Carry out activities for the formation of an initial user community in Europe and Latin America</p> <ul style="list-style-type: none"> • We have joined a network of astronomers in Madrid. This network is directed by Jose Cernicharo. Our goal will be to disseminate COLDEX results in order to teleoperate up to 5 telescopes in order to teach astronomy among high schools.

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
	<p>INESC-ID Contacts with schools for their involvement on the on-going development of BeLife and dissemination of the COLDEX project in the associated schools.</p>
<p>WP 8: Evaluation</p> <ul style="list-style-type: none"> • Evaluation with user communities established by WP7 (Task 8.3) 	<p>UDUI Analysis of evaluation results and contribution to the finalising of the D8.3.1 Final Evaluation Report</p> <p>UCH Further contacts with the German School enabled on-going activities like scenario tests with the system dynamics, stochastics, maze and seismology plug-ins of Cool Modes, more tests and scenarios are foreseen.</p> <p>VXU (Leader)</p> <ul style="list-style-type: none"> • Field study at a local school • Conducting evaluation • Implementation of evaluation instruments • Preparation for the presentation of the evaluation activities at the COLDEX final review in Duisburg • Writing the final evaluation report <p>USB Final review preparations and contribution to the teachers' guide (i.e. the overall project brochure).</p> <p>UNED</p> <ul style="list-style-type: none"> • Contributing to the evaluation discussion • Participating in the OUS workshop <p>UPM Task 8.1: Testing of the functionality of the first prototype with pre-defined user</p> <ul style="list-style-type: none"> • We tested the first prototype of the chemistry, robot (arm) and the astronomy scenario and we have contributed to its evaluation. The prototype is ready for being used during the next academic year (2005-2006) in the UPM's <i>Facultad de Informática</i>. All documentation and software developed is available in the URL http://www.ciclope.info/ with GPL and GFDL licenses. <p>Task 8.2 Pre-evaluation of the first prototype with learning material produced by WP7</p> <ul style="list-style-type: none"> • The evaluation of the scenarios chemistry, robot (arm) and astronomy has been done.

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
	<p>INESC-ID</p> <ul style="list-style-type: none"> Contribution to the D8.3.1 Evaluation Report. <p>Analysis of BeLife's evaluation results and planning of further development based on these.</p>

1.1 Milestones

<i>Milestone*</i>	<i>Planned date</i>	<i>Actual date</i>	<i>Comments</i>
			all done

1.2 Deliverables

<i>Deliverable Code & Name</i>	<i>Planned delivery date</i>	<i>Actual delivery date</i>	<i>Comments</i>
D1.2.1 – Project presentation (brochure, website, video)	30 Nov 2002 30 Nov 2003 30 Nov 2004	15 Apr 2005	<ul style="list-style-type: none"> Additional materials, revised deliverables etc. within the deliverables and OUS download area <p>relased with subsequent updates</p>
D4.2.1/D5.2.1/D4.3.1/D5.3.1 – System Prototype	31 Jan 2004	07 Apr 2005	
Tutorial LOR (English)	-	24 Mar 2005	additional
D7.3.1 – System Report	30 Nov 2004	29 Mar 2005	draft
TIP – Technology Implementation Plan / Exploitation Plan	28 Feb 2005		online form submitted in May 2005
Evaluation instruments	31 May 2005	07 Apr 2005	part of the evaluation report
D8.3.1 – Evaluation Report	31 May 2005	21 Apr 2005	draft
FR – Final Report	31 May 2005	20 May 2005	
Report on the transfer of the smart planets scenario to a science centre in sweden, embedment into the astronomy scenario of COLDEX and educational ideas for the usage of RFID technology	-	20 Jun 2005	additional; provided online in the deliverables area of the COLDEX website: www.coldex.info > deliverables user: coldeliver pwd: antofagasta
Addenda of the Final Report: Project brochure incl. Teachers' Guide	-		will be submitted in summer 2005

1.3 Deviations from Plan

<i>Causes and Description</i>	<i>Corrective actions</i>

2 - Contractual Arrangements

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3 - Project Meetings (held and foreseen)

<i>Title</i>	<i>Date and Place</i>	<i>Main conclusions</i>
2 nd OUS workshop	31 March – 2 April, Cercedilla, Spain	Second COLDEX-OUS workshop with invited participants, reporting on cooperative OUS activities UPM: Organisation of the OUS workshop which took place in Cercedilla (near Madrid) <ul style="list-style-type: none"> Participants see the attached list
Preparation meeting	14 April, Duisburg, Germany	Preparation of the final review
Final review	15 April, Duisburg, Germany	The project may continue; commitment (18 months support for OUS partners, including guaranteed provision of tools, materials and environments) Participants Reviewer Kathy Kikis – Papadakis, Michel Caillot Project officer Carlos Oliveira UDUI U. Hoppe, M. Oelinger, M. Jansen, A. Wichmann UCH N. Baloian (by video interview) VXU M. Milrad, M. Karlsson USB S. Diehl UNED B. Barros UPM F. M. Sanchez Moreno

<i>Title</i>	<i>Date and Place</i>	<i>Main conclusions</i>
		<p>INESC-ID</p> <p>N. Otero</p> <p>Teachers</p> <p>W. Duensing, G. Einmal, K. Lindwall, M. te Heesen, B.-M. Karlsson (video interview), J. Sjokvist (video interview)</p>
Stage in Växjö		Carlos Celorrio visited the Vaxjö group, working with them on interoperability issues for their scenarios.

4 - Dissemination / Promotional Information

4.1 Conferences and / or Workshops organised / foreseen by the project

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
23 – 26 Jun 2004	ED-MEDIA 2004, Lugano, Switzerland	Presentation at the World Conference on Educational Multimedia, Hypermedia & Telecommunications by Nelson Baloian: "Implementing Teaching Strategies in the Classroom"
23 – 25 Feb 2005	IADIS 2005	International Conferenc. Vélez J, Mayorga J.I, Barros B, Verdejo M.F. "A metamodel for defining and managing web communities". Proceedings of Web Based Communities Conference 2005. http://www.iadis.org/wbc2005/
11 Mar 2005	WIT seminar Technical University Vienna, Austria	Oelinger, M. Presentation of the COLDEX activities at the WIT course of lectures "Modellierung und Metadaten" (Modelling and metadata)
31 Mar – 2 Apr 2005	OUS workshop, Cercedilla, Spain	Second COLDEX-OUS workshop with invited participants, reporting on cooperative OUS activities
May 2005	LSI Doctorate program	Celorrio, C. DEA Report: Estudio y diseño de la Distribución de Repositorios de Aprendizaje para comunidades virtuales
30 May – 4 Jun 2005	CSCL 2005, Taipei, Taiwan	Hoppe, U., Pinkwart, N., Oelinger, M., Zeini, S., Verdejo, F., Barros, B., Mayorga, J. I. "Building bridges within Learning Communities through thematic objects and navigation support"
23 – 27 Aug 2005	EARLI 2005, Nicosia, Cyprus	Wichmann, A. " Exploring the Benefits of Using Metacognitive Strategies within Scientific Inquiry "
6 – 8 Jul 2005	Kaleidoscope Symposium, Oberhausen, Germany	COLDEX as part of the exhibition; "AMAZEing Moon" Maze and Smart Objects as part of the show cases

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
18 – 22 Jul 2005	AI-Ed 2005, Amsterdam, Netherlands	Otero, N.; Vala, A.; Paiva, A.; Milrad, M. "BeLife: a simulation tool to support teaching and learning about photosynthesis and greenhouse management" Jansen, M., Eisen, B., Hoppe, U. "Enriching Classroom Scenarios with Tagged Objects" Mayorga, J.I., Barros, B., Celorrio, C., Verdejo M.F. "An ontology driven portal for a collaborative learning community"
14 – 16 Sep 2005	SINTICE 2005, Granada, Spain	Simposio Nacional de Tecnologías de la Información y las Comunicaciones en la Educación. Celorrio C, Verdejo M F, Barros B. "Una aproximación a la distribución de repositorios de objetos de aprendizaje basada en servicios web". To be published on the Conference proceedings of SINTICE 2005

4.2 Articles Published, Press coverage etc.

<i>Date and Type</i>	<i>Details</i>
Webpage of COLDEX activity in the Xperiment Huset, Växjö, Sweden	"Framtidens skola" (Swedish; "school of future"). http://www.xperiment.se/Coldex_connect.htm

5 - Main results

<i>Description</i>	<i>Details</i>
Software	Upgraded versions of multilingual version of the COLDEX portal (a distributed LOR service able to process and generate metadata from external tools and the portal context, a chat service, social and project manager, a knowledge manager handling the ontology). As well the LOR functionality is available through web services.
Scenarios	The scenarios we have developed Chemistry, Astronomy and Robot (arm) have been used and will be used in the future. UPM is building up a small astronomy observatory that will be fully operative at the end of 2005 and will have free access to anybody via the Internet http://www.ciclope.info/
Pedagogical networking / OUS	Several on-going contacts to schools and teacher educators, and even more, on-going school activities with the Open User Scheme. The second OUS workshop has been very successful, not only for contact issues, but also for the evaluation and improvement suggestions for the LOR and scenarios in the future, when the promised commitment of 18 months support for users continues.
Commitment	18 months more of support, several on-going activities and even planned improvements of the tools will contribute to stabilise the learning community of COLDEX.

6 - Project Effort

The effort for the reporting period and the cumulative effort to-day is presented as an Excel sheet which is attached to this management report.

Summary

The most important work from March until May 2005 has been done in the workpackages 7 and 8, Open User Scheme and Evaluation, some work has been done in the workpackage 6, Communication and pedagogical network.

Overall assessment of the main milestones achieved, or results delivered

The main milestone within this reporting period is the finalisation of the work in order to enable the commitment of the following 18 months of support for the users. The evaluation results have to be analysed in order to finalise the evaluation report. The addenda of the "FR – Final Report", a project brochure including a Teachers' Guide, has to be published as a dissemination instrument for the target group as well as the overall overview of the project's results and achievements.

Problems encountered and decisions taken

A problem in the project was that the evaluation part and the LOR should have started much earlier. Nevertheless, the activities which took place have been very promising. Therefore the consortium decided to guarantee the support for users for the following 18 months.

Conclusive statement on correspondence between planned project progress (as detailed in the Project Programme) and actual accomplishments

The project has produced state-of-the-art tools and scenarios for the teaching or learning of various aspects of different scientific disciplines. This is reflected in the documentation produced by the project. The actual personnel effort of the partners is on the whole rather higher than it was planned.

Work progress overview

Specific objectives (for the reporting period)

The specific objectives for the last reporting period have been the dissemination of results in the communication and pedagogical networking part, dissemination in the Open User Scheme and also in the evaluation workpackage (including the analysis of activities concerning the evaluation report).

Achievements

List of Deliverables

The detailed deliverables list can be seen above, section 1.2. Some deliverables will be elaborated (esp. the ones which have already been submitted as drafts) and there will be an addenda to the "FR – Final Report". All deliverables are also available within the

project's website: www.coldex.info > deliverables. Some additional material is also available, e.g. e report about implementing the smart planets scenario in Sweden.

Progress by Workpackage / task

In workpackage 6, the closing work was to fix some bugs and difficulties with the LOR, and to maintain and extend the contacts to the users. Here, also the dissemination of the results has taken place. For the Open User Scheme (WP 7), the OUS workshop was the highlight of this reporting period which was successful not only for the participants in Cercedilla, but also because of the OUS network in Europe and Latin America which has been established and seems to go further on for a while. The evaluation (WP 8) has a big outcome with the developed instruments as well as with the conducted activities. The detailed report on the evaluation can be found in the Evaluation Report (D8.3.1).

Deviations if any and corrective action

The deliverable "D7.3.1 System Report" (Open User Scheme) is delayed, but it will be submitted with the remaining deliverables.

Project reviews

Follow-up of recommendations from previous review and / or preparation of inputs to upcoming review

The review took place in April; all in all, COLDEX was assessed positively; the remarks of the reviewers are summarised as follows. COLDEX's response to the recommendations of the 2nd review – especially regarding the recommendation of the evaluation approach – is appreciated.

Two activities were suggested by the panel as a way of favouring the dissemination of the project results among the educational community:

- Preparation of a project brochure, describing the project results including some examples of application illustrating their implementation in concrete learning scenarios (Teachers' Guide) as addenda to the final report.
- The dissemination aimed at practitioners could be also further enhanced by preparing a few workshops with teachers (this could be included in the activities foreseen over the next 18 months)

The preparation of the project brochure has already started; this addenda will be submitted soon. The second activity, teacher and educator workshops, are planned for the summer, e.g. in Sweden.

COLDEX was implemented in compliance with its original objectives and workplan. The project made excellent use of its resources and its outcomes can have a strategic impact in the domain it addresses. Particular attention should be paid to the exploitation of the overall service developed. It is recommended that the consortium seeks funding for conducting socio-pedagogical research into its results.

Exploitation and dissemination did not successfully reach its natural target audience – those being science teachers across Europe. Therefore, exploitation will take place in on-going activities like it is described in the TIP and Exploitation Plan.

The work produced in COLDEX clearly shows that there was technical and subject matter competence and expertise, the pedagogical research component seems to lag behind.

Project reviews

Follow-up of recommendations from previous review and / or preparation of inputs to upcoming review

In the previous review the project officer as well as the reviewers suggested to compose a project brochure which includes a "Teachers' Guide" with examples and best-practice activities of the COLDEX scenarios. We are currently working on it. The suggestions of the previous reviews had been considered until the last review.

Work planned for the next reporting period

This is the last period of the COLDEX project. Nevertheless, the COLDEX scenarios will be used further on. The consortium announced a commitment for 18 months more; in this period of time the LOR will be supported as well as the OUS area of the COLDEX website with the scenario how-tos and the provided software.

Project Management

Referring to the review report, the management techniques applied were appropriate for the nature and size of the project. Resources were well allocated and managed and the scales (work done and deliverables) were well respected. The project reflected on its results and processes followed in project related events (meetings, workshops). The project intends to liaise with related European and national activities in the forthcoming 18 months. There is no evidence to suggest that the envisioned collaboration with FP6 projects and national activities will not prove fruitful.

Contractual issues

As mentioned in the last reporting period, a reinforcement of the budget is foreseen. The specific procedure for this has been started following this approach:

- Consult all partners if they need to make adjustments
- Transfers must not exceed 20% of the budget of the concerned partners
- Preparation of a table showing the current situation (budget contractually agreed) and the budget distribution needed to have after implementing all changes
- Submission of a formal request accompanying the final cost statement annexing the described table

The actual budget transfer(s) will be reported in the cost statements 6.

Co-operation within the consortium, including project meetings

Along with the second Open User Scheme workshop in Cercedilla, Spain, the project partners met to discuss about the status quo of on-going work. The third review took place in Duisburg in April. During this review it was planned that some material should be purchased in line with the commitment of supporting COLDEX scenarios and DEXTs for 18 months from the end of the project on.

Contribution to clustering, concertation and standardisation

Web Services, a standard technology, have again been elaborated; the connection to the LOR can now be taken on from other applications to extend the range of learning

objects and thus enable the further enlargement not only of the user community, but also of the variety of scientific learning material and objects.

Furthermore, the evaluation instruments which have been developed, will be usable for heterogeneous scenarios. The methodology developed for the translation of the questionnaires, for example, can be implemented and used in other evaluation activities, not only in COLDEX.

The project brochure will be a dissemination instrument for the natural target group, e.g. teachers. The KALEIDOSCOPE symposium is one of the future events where teachers are invited to participate in a showcase of COLDEX scenarios and discuss with the involved persons.

Participation in workshops and / or conferences, publications, etc.

As it can be seen from the publication list 4.1 and the published articles 4.2 (of this and of the previous reports), the COLDEX project has been very fruitful for both, the scientific community as well as the broad public and interested schools.

Effort breakdown

Although the start of the school activities and the usage of the LOR – which includes a rather late evaluation process – was delayed, the final phase of the project turned out to be very motivating and successful for users and researchers. The support of connecting learning communities via a common memory has been demonstrated clearly. Now it is time to observe the evolution of the "connecting device" LOR.

Regarding project exploitation potential, the commitment of supporting users for 18 months more is one of the means to provide longer term activities initiated by COLDEX. Furthermore, we consider a new project which will embed COLDEX tools and scenarios along with developments of other European projects, e.g. SEED. Thus, we can continue the activities and exploit our achievements. Bundled in the LOR, the learning objects of the planned project will enrich the initial set of LOs.

All in all, COLDEX has been innovative in the field of pedagogical approach and evaluation.