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Final Copy of Case Study

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STATUS:
Laureate

Organization:
SIVECO Romania

Organization URL:
www.siveco.ro

Project Name:
Support for the Special Education System through Specialized Educational Portal

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

The project was initiated by the Ministry of Education, Research, Youth and Sports European Funds Project Management Unit in Romania. The project covers the key educational objectives of special needs education in Romania and represents a strategic initiative meant to improve the special education system. The project's main objective is to offer children with special education needs a better understanding of the environment in which they are developing and to prepare them for a role and an active and responsible participation in the society. Implementation of a dedicated portal for children with special needs (http://scolispeciale.edu.ro) creates the premises for all the citizens to partake in the development of the society. Through this project, 14,000 children with special education needs in 140 special schools in Romania were given access to an exciting repository of high-quality, innovative educational resources, encouraging them to search, extract, combine and discover the information they need and transforming education into a personal experience that develops their abilities and skills. This was achieved by providing the AeL eLearning solution containing 1,500 learning objects for the following subjects: Speech and Language Development, Stimulation and Correction, Reading/Writing/Communication, Mathematics, Human and Environmental Studies, Science, Geography and History. The learning objects include multiple forms of media, such as text, graphics, audio, video and animations. Over 3,000 teachers were trained for adopting ICT as a regular tool in the classroom. From SIVECO Romania's point of view, the metrics for success were represented by the successful reach of the project objectives, namely developing and implementing special educational content, providing training for 3,000 teachers (double the number compared to the initial estimate), thus creating a

collaborative development environment for children with special education needs, which were poorly addressed before.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

The integrated solution that SIVECO Romania implemented for the special education system in Romania is based on cutting-edge Microsoft technologies and techniques and proved to be adaptable, flexible and cost-effective. The Microsoft technologies used within the project are: Windows Server 2008, SQL Server 2008, SharePoint Server 2007, Visual Studio 2008, SharePoint Designer 2007, Microsoft Office 2007. Therefore, the special schools benefit from an effective and complete solution that helps improve special needs education in Romania. The portal offers support for creating and managing educational content and for launching the lessons on the local workstations. Every teacher can use or create new lesson plans or lessons based on the learning objects existing in the system. They can import or export SCORM-compatible materials and other files such as Microsoft Word, PowerPoint, Excel, Adobe PDF, images, sounds, animations, clips or web pages. These files can be organized in a tree structure that can be indexed periodically and that allows complex searching by the attributes associated with each learning object. The technical design of the educational content implies both the conformity with the pedagogical specifications and curricula and with the recommendations, standards, norms and the conventions specific for designing the educational digital content (acquired through large psychological research). The portal allows integration of multiple web sites and applications meant to offer beneficiaries access to specific information and collaboration functionalities. The portal allows integration with the Office 2007 suite that is used in schools. The portal uses open standards, including XML, XSL, HTML and CSS. The solution is in accordance with the standards for quality management system ISO 9001. The portal allows web-based content management facilities (MMC) and controlled access to resources. The portal allows further extensions with new functionalities and labs and integration with other systems used for the educational process.

Please list the specific humanitarian benefits the project has yielded so far.

The major social benefit of this project is that children with special educational needs are empowered to find a role within the society, to have more job perspectives and to develop their skills and abilities in order to shape their future. By introducing the computer-based experiments in schools, students with special needs can conduct "real life" situations at their own pace. They can simulate on computer a certain process, changing the parameters, monitoring the results, irrespective of their degree of danger or complexity. The virtual labs provide new learning methods that improve the capacities and competences of children with special needs skills. Moreover, AeL eContent library for special education is an effective resource that allows teachers to attract students and transform the learning experience in a pleasant and safe environment. The digital delivery ensures that teaching time is extended, as there is no need to set up and maintain multiple sets of physical apparatus. The digital content allows children to repeat any lesson whenever necessary in order to understand a certain learning conjuncture. Each lesson helps children with special needs to explore, discover and understand different topics, in accordance with the curricula and their level of study. Students are practically conducted by the application through the lessons and they are given permanent feedback and hints in order to accomplish their tasks. In addition to these, the project contributes effectively at increasing motivation both for teachers and students by increasing the interactivity and attractiveness of the classes, improving the scholar results and increasing the graduation rate and overall improving the general knowledge, by offering access to a wide range of information presented in a customized and interactive manner.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

The project comes as a priority for the Ministry of Education in Romania to align the national special education system with international standards, as one of the main conditions that can lead to a well-educated citizenry. In this respect, the Support for the Special Education System through Specialized Educational Portal project contributes to reaching the key educational objectives of special needs education in Romania, therefore assisting the Ministry in fulfilling its mission to support children to have equal opportunities within the society.